REPORT TO CONGRESS

Economic Analysis of Country of Origin Labeling (COOL)

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Contents

Summary 1
Modeling Approaches 3
Equilibrium Displacement Model Approach 3
Other Approaches 4
Assumed Regulatory Costs 5
Results 8
Estimated Impacts on Consumers 8
Estimated Impacts on Producers, Processors, and Retailers 9
Estimated Impacts of the 2009 Rule 9
Estimated Impacts of the 2013 Rule 12
Conclusions 14
Citations 16
Appendix A ..... A
Appendix B ..... B
Appendix C C

Economic Analysis of Country of Origin Labeling

The Agricultural Act of 2014 (2014 Farm Bill) directed the U.S. Department of Agriculture (USDA) to conduct an economic analysis of mandatory country of origin labeling (COOL). Specifically, the 2014 Farm Bill included the following provision:

> **SEC. 12104. COUNTRY OF ORIGIN LABELING.**
> (a) ECONOMIC ANALYSIS.—
> (1) IN GENERAL.—Not later than 180 days after the date of the enactment of this Act, the Secretary of Agriculture, acting through the Office of the Chief Economist, shall conduct an economic analysis of the final rule entitled ‘‘Mandatory Country of Origin Labeling of Beef, Pork, Lamb, Chicken, Goat Meat, Wild and Farm-raised Fish and Shellfish, Perishable Agricultural Commodities, Peanuts, Pecans, Ginseng and Macadamia Nuts’’ published by the Department of Agriculture on May 24, 2013 (78 Fed. Reg. 31367) that makes certain amendments to parts 60 and 65 of title 7, Code of Federal Regulations.
> (2) CONTENTS.—The economic analysis described in subsection (a) shall include, with respect to the labeling of beef, pork, and chicken, an analysis of the impact on consumers, producers, and packers in the United States of—
> (A) the implementation of subtitle D of the Agricultural Marketing Act of 1946 (7 U.S.C. 1638 et seq.); and
> (B) the final rule referred to in subsection (a).

In fulfilment of this directive, USDA submits this report to the House Committee on Agriculture and the Senate Committee on Agriculture, Nutrition, and Forestry.

Summary

The 2014 Farm Bill directed USDA’s Office of the Chief Economist (OCE) to conduct an economic analysis of its 2009 and 2013 country of origin labeling (COOL) rules. To help meet that directive, OCE contracted with a group of qualified agricultural economists with expertise in livestock marketing issues to conduct a study on the economic impacts of COOL on consumers, producers, and packers in the United States. The study team consisted of Drs. Glynn Tonsor and Ted Schroeder at Kansas State University, and Dr. Joe Parcell at the University of Missouri. Their study considered both the 2009 and 2013 USDA final labeling rules on the U.S. beef, pork, and poultry markets, as required by the 2014 Farm Bill directive.

Most of the material in this report draws directly from the Tonsor, Schroeder, and Parcell study (Appendix A) and the regulatory impact analyses conducted for the 2009 (Appendix B) and 2013 (Appendix C) rulemakings on COOL. The findings of the Tonsor, Schroeder, and Parcell study are broadly consistent with USDA’s prior regulatory impact analyses that were developed

as part of the promulgation of regulations to implement the COOL statutory requirements. Namely, the economic benefits of implementing the COOL regulations would be insufficient to offset the costs of the requirements whether analyzing the impacts through economic models of beef, pork, and poultry industries or of the U.S. economy as a whole.

In terms of consumers, USDA's regulatory impact analyses concluded that while there is evidence of consumer interest in COOL information, measurable economic benefits from mandatory COOL would be small. USDA's regulatory impact analyses also found little evidence that consumers would be likely to increase their purchases of food items bearing U.S.-origin labels. Similarly, the Tonsor, Schroeder, and Parcell study concluded, after a review of consumer labeling theory and available academic research, that there was little to no evidence of a measurable increase in consumer demand for beef or pork as a result of COOL requirements. While the economic benefits of COOL may not translate into measurable increases in market-level consumer demand, USDA's regulatory impact analyses and numerous comments received on the regulatory proposals indicate substantial interest in COOL. A consumer's right to know benefits those consumers who desire COOL information.

In terms of producers, packers, and retailers, USDA's regulatory impact analysis for the 2009 COOL rule estimated incremental implementation costs of $1.3 billion for beef, $300 million for pork, $183 million for chicken, and $2.6 billion for all covered commodities (beef, pork, chicken, lamb, goat, fish, fruits, vegetables, ginseng, peanuts, pecans, and macadamia nuts). To estimate longer run economic impacts from the rule, USDA analyzed how the estimated cost shifts would affect the overall U.S. economy after a 10-year period of adjustment. USDA's economic modeling estimated that these cost shifts would result in an estimated $212 million reduction in consumers' purchasing power in the 10th year following implementation of the 2009 COOL regulation.

In estimating first-year economic impacts of the 2009 COOL rule, Tonsor, Schroeder, and Parcell developed an economic model of the beef, pork, and poultry industries. The study estimated that implementation of the 2009 COOL regulation resulted in economic welfare losses in the first year of $405 million in the U.S. beef industry, but short-term gains of $105 million in the pork industry and $635 million in the poultry industry. To estimate longer run economic impacts from the rule, the researchers analyzed how the estimated cost shifts would affect the beef, pork, and poultry industries over a 10-year period of adjustment. Over a cumulative 10-year period, the Tonsor, Schroeder, and Parcell analysis found that the 2009 COOL requirements resulted in economic welfare losses totaling a discounted net present value of $8.07 billion for the U.S. beef industry and $1.31 billion for the pork industry. Model results indicated that the U.S. poultry industry, however, would see an increase in economic welfare of an estimated $753 million. Chief among differences with respect to USDA's regulatory impact analysis is the use of a modeling approach focusing solely on the beef, pork, and poultry industries rather than the U.S. economy as a whole, and the summation of discounted economic welfare impacts for each of the first 10 years of implementation.

USDA estimates of adjustment costs for the 2013 amendments for labeling of muscle cuts of beef and pork ranged from $53 million to $192 million, with the expectation that the adjustment costs would decline over time. The incremental impacts of the 2013 amendments to the COOL regulations were estimated in the Tonsor, Schroeder, and Parcell study to result in additional discounted economic welfare losses, over the first 10 years, of $494 million for the beef industry and $403 million for the pork industry, but an estimated economic welfare gain of $67 million for the poultry industry.

Modeling Approaches

COOL is an example of a process attribute where a segment of consumers express a stated desire to know where food originates. Absent additional information, however, COOL conveys no science-based difference in production processes or product attributes. Existing research has not revealed that consumer demand for country of origin information is sufficient to lead to measurable increases in demand for labeled beef and pork in the marketplace. However, including COOL requirements causes the industry to incur costs. Those costs come from maintaining and providing information on where animals were born, raised and slaughtered. Since implementation of the 2013 amendments, muscle cuts of meat derived from those animals may not be commingled when offered for sale at retail establishments subject to COOL—that information must be maintained and transmitted along the supply chain for retail labeling. While the information provided to consumers is increased, the steps required to provide the information add costs to raising and slaughtering animals and to selling meat. Any increases in costs translate into losses for both consumers and producers relative to the situation without such requirements.

Equilibrium Displacement Model Approach

To estimate empirically the changes in the economic welfare of consumers and producers resulting from implementation of COOL, the principal investigators developed a series of partial equilibrium displacement models (EDMs) that provide aggregate economic estimates of impacts on consumers, producers, and processors from each of the 2009 and 2013 COOL rules for the beef, pork, and poultry categories. The EDMs are multiple-sector, three-species structural supply and demand models of the beef, pork, and poultry sectors. Although the analysis focuses on impacts on the beef and pork sectors, the poultry sector is included primarily to account for substitution effects between beef, pork, and poultry at differing relative prices. The model represents four levels in the beef production and marketing chain, three levels in the pork chain, and two levels in the poultry chain. The number of supply chain levels differs across species due to difference in the organization and level of integration in these livestock, meat, and poultry marketing chains.

Although the focus of the EDM is on ascertaining impacts of COOL on U.S. producers and consumers, the model takes international trade in livestock and meat into account. Imports and

exports of meat at the wholesale level are modeled explicitly. In terms of imported livestock, imports and exports are accounted for implicitly in the supply of animals that ultimately are slaughtered to make up the domestic meat supply. Finally, the aggregate impacts of COOL are derived as weighted average effects reflecting the mix of domestic and imported animals.

The effects of COOL are estimated in the EDM by imposing supply and demand "shocks" on the model and then examining how the quantities and prices of interest change in the model. Quantities and prices are endogenous variables, meaning that values for these variables are determined within the EDM. Other components of the model are estimated or derived from sources outside the EDM and are thus exogenous variables. Exogenous components of the model include demand and supply shifters, demand and supply elasticities, and quantity transmission elasticities. The demand and supply shifters capture the externally generated marginal impacts of COOL. The demand and supply elasticities reflect how quantities change in relation to changes in prices, and the quantity transmission elasticities link the vertical segments within the respective supply chains for each species.

EDM approaches have been used in the industry for modeling changing structural restrictions on livestock and meat sectors and are well known in the economic literature (e.g., Balagtas and Kim, 2007; Brester, Marsh, and Atwood, 2004; Lemieux and Wohlgenant, 1989; Lusk and Anderson, 2004; Pendell *et al*., 2010; Schroeder and Tonsor, 2011; Wohlgenant, 1993) .

Other Approaches

There are other modeling approaches that can be used to model regulations on the livestock and meat sectors. For example, the USDA approaches (Appendices B and C) use an economic cost accounting approach to develop estimates of initial costs to the livestock sector for COOL requirements. That approach essentially determines the cost for each component of the livestock sector (producer, processor, and retailer) and simply adds up the costs based on a baseline level of production and consumption. That method is appropriate for initial costs but does not consider how prices or quantities may react to those costs.

For longer run costs, USDA utilizes a Computable General Equilibrium (CGE) modeling approach. Similar to the EDM approach, prices and quantities for affected sectors are allowed to adjust to the higher costs of production. Typically, prices would be expected to go up in response to higher costs, while quantities sold would be expected to decline as consumer demand responds to those higher prices. However, the CGE approach allows other sectors to respond to the changes in the livestock and meat sectors, unlike the EDM approach. For example, retailers that incur higher labor costs as a result of increased labeling requirements would be paying higher wages to their employees. Those employees would then spend those wages on other goods and services in the economy, perhaps even on meat products. As such, the CGE approach provides estimates for a longer run time frame to a new regulation such as COOL. Those economic impacts would typically be smaller than those developed from partial equilibrium approach (PE) such as the EDM models, which consider a fraction of the economy.

In neither the EDMs developed by Tonsor, Schroeder, and Parcell, nor the approaches used by USDA have the exemptions for the labeling requirements been modeled explicitly. For example, one might expect that if labeling requirements were greater for meat derived from certain livestock supplies, those supplies would be used in the marketing chain for restaurants or small grocery stores, where the labeling requirements are not applied. Similarly, in neither the work of Tonsor, Schroeder, and Parcell, nor USDA's regulatory impact analyses have improvements in livestock production or processing technologies been incorporated into the economic models. Over time, one would expect producers, processors, and retailers to adapt to and adjust to the costs associated with any particular regulation. For example, it would be expected that the labeling costs associated with the COOL regulation would be higher initially and dissipate over time. Similarly, processors would be expected to adjust to the non-commingling requirement for livestock of mixed origin, and the cost of that requirement would fall over time. By not including those factors, the cost accounting method, as well as the PE and CGE methods described above, will overestimate costs.

Assumed Regulatory Costs

Aspects of the EDM approach are similar to the procedures used in the COOL rulemakings but differ in other regards. The analysis underpinning the regulatory impact analysis for the 2009 COOL rulemaking synthesized available studies to develop first-year implementation costs for COOL, similar to the development of the exogenous supply shifters used in the EDM. These values are presented in Table 1. There are differences in the values used in the regulatory impact analysis and the current study, but most of the incremental costs are within a reasonable range of each other. One notable exception is for cattle producers, where the regulatory impact analysis applied a cost of $9.00 per head versus a cumulative cost of no more than $1.00 per head for the EDM study. Additionally, the EDM analysis developed COOL implementation costs using cost estimates in which the supply chain for beef and pork of strictly U.S. origin would incur lower costs relative to the supply chain for products of mixed origin. In Table 1, the lower end of the range of costs shown in the third column represents costs for U.S. origin only, and the upper end of the range represents costs for mixed countries of origin. Finally, while the 2009 regulatory impact analysis assumed zero implementation costs for chicken at the farm supply level, small implementation costs were assumed at the intermediary and retailer levels. In contrast, the EDM approach did not impose COOL implementation costs for poultry at any level of the supply chain.

Table 1—Comparison of Implementation Costs for the 2009 COOL Rule

	2009 Regulatory Impact Analysis	Tonsor, Schroeder, and Parcell
	BEEF	
Producer	$9.00/head	Feeder cattle: $0.25/head Slaughter cattle: $0.25-$0.75/head
Intermediary	$0.015/lb. carcass weight	$0.25-$14.00/head
Retailer	$0.07/lb. retail weight	$0.031-$0.159/lb.
	PORK	
Producer	$1.00/head	$0.05-$0.375/head
Intermediary	$0.015/lb. carcass weight	$0.05-$5.50/head
Retailer	$0.04/lb. retail weight	$0.000075-$0.053/lb.
	CHICKEN	
Producer	$0	N/A
Intermediary	$0.005/lb.	$0
Retailer	$0.0025/lb.	$0

Sources: *Federal Register* 74 (Appendix B); Tonsor, Schroeder, and Parcell (Appendix A).

Although the incremental cost estimates shown in Table 1 comprise critical components of the economic analysis, there are limitations to the types of static cost shifts assumed in both USDA's regulatory impact analysis and the EDM analysis. The cost estimates are derived from economic cost accounting approaches that depend on industry estimates of costs at a given point in time. In the case of USDA's regulatory impact analysis, cost estimates necessarily were based on information available prior to implementation of the COOL final rule. In the case of the EDM analysis, the source for the cost estimates (Informa Economics, Inc.) was based on information available shortly following implementation of the 2009 COOL final rule. Importantly, costs during initial implementation of a regulation are expected to be higher than ongoing costs following a period of adjustment by industry participants. For instance, initial costs may involve purchase of new equipment, reprogramming of computer software, development and implementation of new processes and procedures, and so on. Over time, such costs are expected to diminish.

The incremental costs are applied in the EDM as shocks to the demand and supply functions. In the same vein, the regulatory impact analysis used estimated incremental costs to derive supply shocks that were applied to a computable general equilibrium (CGE) model to estimate the overall effects of COOL implementation on the U.S. economy (74 FR 2690; Krissoff *et al.*). A significant difference between the two modeling approaches is that the EDM represents a slice of the economy, while the CGE model attempts to represent all sectors of the economy. Thus, while both the EDM and CGE approaches enable economic shocks to be traced throughout the production, marketing, and consumption chain, the EDM approach necessarily limits economic adjustments to the specific sectors included in the model, while the CGE approach enables economic adjustments to trace through all sectors of the economy. Thus, an increase in, for

example, labor cost may result in essentially an unrecoverable loss in an EDM, while some of that increase in labor cost in a particular subsector in a CGE model may be partially recovered in other sectors of the economy.

As detailed in Table 2, to implement either the EDM or CGE model, the incremental per-head and per-pound shifts in costs to comply with COOL are translated into percentage increases in operating costs at different levels of the supply chain. In both modeling approaches, the cost shifts are implemented as one-time permanent changes that remain fixed over time. The models are static in that there are no technological adjustments to the requirements of the regulation. While such simplifying assumptions are necessary for tractability, industry participants undoubtedly improve processes as they learn over time how to adjust to regulatory requirements in the most cost-efficient manner.

Table 2—Comparison of Percentage Increases in Costs for the 2009 COOL Rule

	2009 Regulatory Impact Analysis	Tonsor, Schroeder, and Parcell
	BEEF	
Farm Supply	Domestic & Imported: 1.30%	Feeder cattle: 0.033% Slaughter cattle: 0.023%
Processing	Domestic: 2.10% Imported: 2.10%	Wholesale: 0.374% Imported Wholesale: 1.175%
Retail	Domestic & Imported: 2.20%	1.741%
	PORK	
Farm Supply	Domestic & Imported: 1.30%	0.061%
Processing	Domestic: 1.00% Imported: 1.00%	Wholesale: 0.500% Imported Wholesale: 4.23%
Retail	Domestic & Imported: 0.40%	0.697%
	CHICKEN	
Farm Supply	Domestic: 0.00% Imported: 1.00%	N/A
Processing	Domestic & Imported: 1.10%	0.000%
Retail	Domestic & Imported: 0.40%	0.000%

Sources: *Federal Register* 74 (Appendix B); Tonsor, Schroeder, and Parcell (Appendix A).

USDA's 2009 regulatory impact analysis applied the same percentage cost increases for both domestic and imported supplies at three stages of the beef and pork supply chains—farm supply, processing, and retail. For chicken, equal cost increases were applied at the processor and retail levels. At the farm supply level, a 1.00-percent increase was applied to imported chicken compared to no cost increase for domestic farm supply. For beef and pork, the EDM analysis explicitly accounted for imports only at the wholesale level but did take imports into account implicitly in deriving the estimated supply shifts at the farm supply level and retail levels. As noted above, the EDM analysis assumed higher COOL implementation costs for imported livestock, and wholesale and retail beef and pork compared to domestic product. To account for

assumed differences in implementation costs for U.S. origin versus mixed origin, blended average supply shifts were derived at the farm supply and retail levels. Finally, the EDM analysis assumed zero costs for COOL implementation for poultry.

Results

COOL is a labeling requirement that applies to retailers and their immediate suppliers. However, to enable retailers to provide verifiable COOL information to their customers, information must flow down the entire production and marketing chain from farmers and ranchers to packers and processors to wholesalers and retailers. Thus, livestock producers face costs for implementing COOL even though cattle and hogs are not COOL covered commodities.

The out-of-pocket costs that each entity in the supply chain must incur to implement COOL paint only part of the picture in terms of costs to the industry. Because of the interaction of supply and demand relationships at different levels in the supply chain, some of the marginal costs incurred by an individual producer, packer, or retailer may be passed up and down in the form of higher and lower prices for livestock and meat at different levels of the supply chain. In addition, the quantities of livestock and meat traded adjust to the higher costs of production imposed by the COOL regulatory requirements. One way to measure the overall impact of these changes is to estimate changes in producer surplus. In this context, the "producer" is used as an economic term of art that encompasses all agents or entities in the supply chain—livestock farmers and ranchers, packers, processors, wholesalers, and retailers. Producer surplus is an economic measure of the net gain that producers receive for producing and selling a good. It is the difference between the actual amounts that producers receive for selling a good versus the lowest amounts that they would be willing to accept for selling the good. As such, producer surplus is a measure of the economic welfare or benefit that producers collectively receive for selling a good in the marketplace.

Estimated Impacts on Consumers

To assess the need to incorporate potential consumer demand impacts of COOL in the EDM framework, Tonsor, Schroeder, and Parcell assessed the academic literature on origin labeling of food products generally and on COOL implementation for meat products specifically. The review resulted in a conclusion similar to that made by USDA in the COOL regulatory impact analyses. Namely, while there is evidence indicating consumer interest in COOL information, the evidence does not support a conclusion that COOL significantly increases consumer demand even though consumers desiring such information benefit from its provision. Thus, the EDM assumes no shifts outward in the consumer demand relationships as a result of COOL. That is, the EDM assumes that COOL information does not change the quantity that consumers would demand for a given price. However, changes in costs implemented in the EDM are reflected in changes in the quantities demanded at new equilibrium prices along the unchanged demand curve. This modeling assumption is similar to the assumption used in USDA's regulatory impact

analysis using the CGE model, which also assumed no demand-related "shocks" from COOL implementation.

Similar to producer surplus changes, economic welfare impacts on consumers can be measured by estimates of changes in consumer surplus. Consumer surplus is the difference between the amounts consumers would be willing to pay for a good versus the prices they actually pay. Thus, consumer surplus is a measure of the economic welfare or benefit that consumers collectively receive for buying goods below the maximum amounts they would be willing to pay. Consumer surplus is only defined for a single-commodity case. The three-species EDM has three commodities in it. Consequently, the authors developed single-species EDMs for beef and for pork. Consumer surplus losses for the 2009 COOL rule were estimated to total $5.98 billion in the beef industry and $1.98 billion in the pork industry over the 10 years at a 5 percent rate of discount. For the 2013 COOL amendments, consumer surplus losses were estimated to total $378 million for beef and $428 million for pork. Consumer surplus losses were found to be larger in the first five years and lessening in the longer run (years six to 10). The consumer surplus reductions result from higher retail prices and lower volumes of beef and pork due to the costs incurred by producers to implement COOL.

Estimated Impacts on Producers, Processors, and Retailers

The estimated industry losses associated with the 2009 and 2013 COOL regulations are consistent with conclusions predicted from food product labeling theory, from simulated applications of labeling theory, and from validation of labeling theory through the observation of labeling applications. That is, the increased costs of producing, processing, and marketing food products to comply with COOL without a commensurate measurable increase in consumer demand results in economic losses to producers, packers, retailers, and consumers and leads to a smaller overall industry with higher consumer prices and less product available.

Estimated Impacts of the 2009 Rule

In its regulatory impact analysis for the 2009 final rule (Appendix B), USDA estimated first-year implementation costs by multiplying the estimated per-unit implementation costs as shown in Table 1 by the estimated quantity affected at each level of the production and marketing chain. USDA estimated first-year costs of $305 million for beef producers, $373 million for beef intermediaries (packers, processors, and wholesalers), and $574 million for retailers of beef. For the pork sector, first-year costs were estimated to be $105 million for producers, $101 million for intermediaries, and $93 million for retailers. Total first-year implementation costs were estimated at $1.3 billion for beef, $300 million for pork, and $2.6 billion for all covered commodities (beef, pork, lamb, goat, chicken, fish, fresh and frozen fruits and vegetables, ginseng, peanuts, pecans, and macadamia nuts).

Looking at the longer term, consistent with the 2009 regulatory impact analysis, the EDM approach results in higher wholesale and retail beef and pork prices and lower wholesale and retail quantities 10 years following COOL implementation (Table 3). Similarly, quantities are

lower for cattle and hog production under both modeling approaches. However, the two approaches have different results for price changes at the farm level, with higher cattle and hog prices under the CGE model but lower cattle and hog prices under the EDM. This difference likely is attributable to differences in the magnitude of the estimated COOL implementation costs used in the two approaches. As shown in Table 2, the 2009 regulatory impact analysis derived larger cost increases at the producer level compared to the estimates used for the EDM. As a result, producer prices adjusted to higher costs of production under the CGE model while comparatively larger wholesale and retail cost increases were pushed back onto producers in the form of lower livestock prices under the EDM approach.

Table 3—Comparison of Percentage Changes in Production and Prices after 10 Years of Implementation of the 2009 COOL Rule [Percent change from base year]

Commodity	2009 Computable General Equilibrium Results		Sector	2015 Equilibrium Displacement Model Results	
	Price	Quantity		Price	Quantity
Cattle	0.52	−0.94	Feeder	−0.02	−0.08
			Slaughter	−0.03	−0.21
Beef	0.99	−1.09	Wholesale	0.10	−0.33
			Retail	0.34	−0.38
Hogs	0.26	−0.46	Slaughter	−0.11	−0.25
Pork	0.68	−0.81	Wholesale	0.23	−0.36
			Retail	0.22	−0.15

Sources: *Federal Register* 74 (Appendix B); Tonsor, Schroeder, and Parcell (Appendix A).

The broader question, then, is how do the price and quantity adjustments affect overall producer and consumer welfare? Under the CGE model, the overall effect of COOL implementation after a 10-year period of adjustment was estimated to be a reduction in consumers' purchasing power of $211.9 million. This number includes COOL-related adjustments not only for beef, pork, and chicken, but also fruit, vegetable, and fish covered commodities. This amount represents the cost to the U.S. economy after all transfers and adjustments in consumption and production patterns across all sectors of the economy have occurred. The estimated changes in prices and production resulted in an estimated reduction of $94 million in revenue for beef producers. Revenues for production and sale of beef were estimated to decrease by $112 million. Revenues for hog production were estimated to decrease by $21 million, and revenues for the production and sale of pork were estimated to decline by $79 million.

By design, the EDM enables changes in producer surplus to be estimated at each stage along the beef, pork, and poultry supply chains. Recall that producer surplus measures the difference between the amount that producers receive for selling a commodity and the amount at which they would be willing to sell a commodity. As such, producer surplus is a measure of economic

welfare. All else held the same, an increase in producer surplus represents a net gain in economic welfare for producers while a decrease represents a net loss in economic welfare for producers.

Table 4 displays changes in producer surplus for the beef, pork, and poultry industries as estimated through the EDM as a result of implementation of the 2009 COOL rule. All values in the table are normalized to 2014 U.S. dollars. In year 1, feeder cattle, slaughter cattle, and wholesale beef all experience losses in producer welfare. Retailers of beef, however, experience an increase in producer surplus in year 1, which turns negative by year 2. By year 10, producer surplus losses diminish for feeder and slaughter cattle and wholesale beef, but continue to grow for retail beef. Summing up net present values for all producers over years 1 through 10 at a discount rate of five percent shows that all segments of the beef industry experience net losses in producer surplus. With a cumulative loss of nearly $6 billion, retailers experience the majority of the $8 billion decline in producer surplus during the first 10 years of COOL implementation.

Table 4—Estimated Producer Surplus Changes for the 2009 COOL Rule
[Million dollars, 2014 USD]

	Year 1	Year 10
BEEF		
Feeder cattle	−112.64	−16.42
Slaughter cattle	−360.89	−25.34
Wholesale	−241.79	−123.96
Retail	309.89	−1,262.91
Subtotal	−405.43	−1,428.63
PORK		
Slaughter hogs	−126.16	−27.76
Wholesale	0.10	−47.99
Retail	231.53	−233.98
Subtotal	105.48	−309.73
POULTRY		
Wholesale	292.97	2.47
Retail	342.19	0.25
Subtotal	635.16	2.71
TOTAL	335.21	−1,735.65

Source: Tonsor, Schroeder, and Parcell (Appendix A).

For the pork industry, producer surplus for slaughter hogs declines in all years but diminishes over time. Conversely, both wholesale and retail pork initially experience a gain in producer surplus in year 1, but the change in producer surplus for these segments turns negative in subsequent years. Cumulative losses in producer surplus for the pork industry total $1.3 billion over years 1 through 10, with most of the loss at retail.

Contrary to the beef and pork industries, the poultry industry experiences net increases in producer surplus that diminish over time. This result is not surprising, given that the poultry industry was assumed to have no COOL implementation costs. Thus, the industry benefits by way of substitution for poultry with higher costs for beef and pork. Cumulatively, the gains in poultry industry producer surplus total almost $0.8 billion over the first 10 years of COOL implementation.

For the beef, pork, and poultry industries combined, the EDM estimates an overall net gain in producer surplus in the first year following COOL. The initial gains for the pork and poultry industries outweigh the year 1 loss in producer surplus for the beef industry. By year 2, however, the total change in producer surplus turns negative for the beef, pork, and poultry industries combined. The losses continue to grow in subsequent years and reach $1.7 billion in year 10. Cumulatively, the estimated losses in producer surplus total $8.6 billion over years 1 through 10.

Estimated Impacts of the 2013 Rule

On May 24, 2013, USDA published in the *Federal Register* amendments to the 2009 COOL rule (Appendix C). The 2013 COOL rule changed the labeling provisions for muscle cut covered commodities to provide consumers with more specific information. The final rule also made a technical change to clarify the definition of a retailer subject to the COOL regulations. The 2013 rule sought to improve the overall operation of the program and bring the COOL requirements into compliance with U.S. international trade obligations. The 2013 rule requires that origin designations for muscle cut covered commodities derived from animals slaughtered in the United States specify the country in which each of the production steps of birth, raising, and slaughter took place for the animal from which the meat is derived. The rule also eliminates the allowance for commingling of muscle cut covered commodities of different origins, which was permissible under the 2009 COOL rule. The changes provide consumers with more specific information about the origin of muscle cut covered commodities.

In its regulatory impact analysis, USDA developed estimates of initial implementation costs for the required changes in retail labeling of origin for all muscle cut covered commodities, including beef, pork, and chicken. The initial labeling costs were estimated to range between $17.0 million to $47.3 million with a midpoint of $32.8 million. The loss of commingling flexibility, which affected the beef and pork industries, was estimated to range from $21.1 million to $84.5 million with a $52.8 million midpoint for the beef industry and from $15.0 million to $60.3 million with a $37.7 million midpoint for the pork industry. Total estimated implementation costs for label changes and the elimination of commingling flexibility were estimated to range from $53.1 million to $192.1 million with a midpoint of $123.3 million.

As with the 2009 COOL rule, the EDM analysis generated estimates of changes in producer surplus resulting from the changes to muscle cut labeling under the 2013 rule. The implementation costs are derived from the regulatory impact analysis for the 2013 rule, but are

applied to relevant proportions of the respective segments of the supply chain affected by the COOL amendments. The supply shifts shown in Table 5 are incremental shifts in assuming that the 2009 COOL rule is already in place. The supply shifts for both beef and pork are smaller than the shifts derived for initial implementation of the 2009 rule. As with the EDM analysis for the 2009 rule, there is no change in the supply function for poultry.

Table 5—EDM Implementation Costs and Supply Shifts for the 2013 COOL Rule

	2013 COOL Implementation Cost	2013 COOL Supply Shift
BEEF		
Feeder cattle	$0	0%
Slaughter cattle	$0	0%
Wholesale beef	$7.16/head	0.044%
Imported wholesale beef	$7.16/head	0.056%
Retail	$0.05/lb.	0.098%
PORK		
Slaughter hogs	$0	0%
Wholesale pork	$1.79/head	0.126%
Imported wholesale pork	$1.79/head	0.130%
Retail	$0.045/lb.	0.157%
POULTRY		
Wholesale	$0	0%
Retail	$0	0%

Source: Tonsor, Schroeder, and Parcell (Appendix A).

With a few exceptions, the direction of the estimated changes in producer surplus resulting from the 2013 COOL amendments (Table 6) parallels the direction of the estimated changes for the 2009 rule. Likewise, initial gains in producer surplus for beef and pork at retail turn negative after year 1 for beef and year 2 for pork, with losses becoming larger over time. Over all industries and levels of the supply chain, the sizes of the estimated changes in producer surplus are considerably smaller compared to the estimates for the 2009 rule. This result is not surprising, given that the 2013 rule amended the existing 2009 COOL rule and therefore resulted in lower incremental costs of compliance.

Over the first 10 years of implementation, producer surplus in the beef industry was estimated to fall by a cumulative $494 million at a 5-percent rate of discount. As with the EDM findings for the 2009 rule, most of the reduction in producer surplus fell on retailers at a total of $297 million. For the pork industry, the 10-year cumulative present value of changes in producer surplus resulted in an estimated loss of $403 million. Again, retailers shouldered most of the loss with a cumulative reduction of $191 million in producer surplus. Under the assumption of no additional implementation costs for poultry, producer surplus in the poultry industry increases, with a cumulative net present value of $66 million over 10 years.

Table 6—Estimated Producer Surplus Changes for the 2013 COOL Rule
[Million dollars, 2014 USD]

	Year 1	Year 10
BEEF		
Feeder cattle	−12.31	−0.74
Slaughter cattle	−35.83	−1.55
Wholesale	−11.92	−16.58
Retail	42.58	−72.63
Subtotal	−17.48	−91.50
PORK		
Slaughter hogs	−37.56	−6.38
Wholesale	−7.50	−14.96
Retail	37.56	−56.73
Subtotal	−7.50	−78.07
POULTRY		
Wholesale	26.61	0.22
Retail	28.66	0.02
Subtotal	55.27	0.24
TOTAL	30.28	−169.34

Source: Tonsor, Schroeder, and Parcell (Appendix A).

For the beef, pork, and poultry industries combined, there is an initial bump up in producer surplus in year 1 of $30 million, as increased producer surplus in poultry more than offsets net declines in the beef and pork industries. However, the net change in producer surplus turns negative by year 2, and the declines in total producer surplus continue to grow, reaching −$169 million in year 10. For all three industries combined, the cumulative present value of the change in producer surplus totals −$832 million over the first decade.

Conclusions

This economic analysis of the 2009 COOL final rule and the 2013 amendments to that rule is consistent with prior economic research and with USDA's regulatory impact analyses conducted as part of those rulemakings. First, although consumers desiring COOL information benefit from its provision, there is insufficient evidence to conclude that such benefits translate into measurable increases in consumer demand for beef, pork, or chicken. Due to increases in the costs of production resulting from COOL implementation, however, the results of economic models indicate that consumers over the longer run face higher beef and pork prices and therefore purchase less beef and pork. While estimates indicate unchanged retail poultry prices over the longer run, retail quantities are estimated to increase slightly due to consumer substitution from beef and pork. Consumer surplus, a measure of economic welfare, declines for beef and pork over the longer run due to the costs of COOL regulatory implementation.

Second, economic modeling indicates that producer surplus over the longer run declines for beef and pork producers, packers, processors, and retailers due to the costs of COOL implementation. While prices are estimated to increase for both retail and wholesale beef and pork over the longer run due to increased costs for COOL implementation, quantities decline by proportionally greater amounts, leading to net reductions in producer surplus. For feeder and slaughter cattle and slaughter hogs, both prices and quantities are estimated to decline as a result of COOL implementation. Over the long run, however, the estimated reductions in beef producer surplus at the retail level exceed the cumulative reductions in producer surplus at the wholesale beef and slaughter and feeder cattle levels. Without a commensurate demand increase, higher costs attributable to COOL implementation result in decreased producer surplus at each level of the production and marketing chain. The greater the assumed implementation cost at a given level of the chain, the greater the decline in estimated producer surplus at that level over the long run.

Third, as with all economic research, there are limitations to any single study. In the case of the EDM analysis, the models depend on external estimates of COOL implementation costs and supply and demand relationships. Although the analysis drew from the best available sources of data, any errors in measurement could result in inaccurate results. Small percentage changes in the assumed regulatory costs or in the elasticities of supply, demand, and quantity transmission could lead to substantially different results. Unlike econometric analysis, there are no measures of variability or significance by which to evaluate the outcomes of the EDM analysis. However, the body of evidence including the EDM analysis and USDA's previous regulatory impact analyses point to broadly similar conclusions. Namely, the benefits to COOL do not result in measurable increases in demand that are sufficient to offset losses to producers stemming from costs to implement the rule. To model the economic impacts of a regulation such as COOL, simplifying assumptions must be made. One of the assumptions made in the EDM analysis was that the same assumed cost increases would persist over the duration of the 10-year periods examined in the study. However, implementation costs at each level of the production and marketing chain are likely to diminish over time as producers, processors, and retailers adjust to the requirements and find more efficient ways to reduce the ongoing costs of implementation.

Finally, estimates of changes in consumer and producer surplus provide a monetary measure of changes in economic welfare resulting from implementation of the 2009 and 2013 COOL rules. While these measures provide a foundation for assessing the benefits and costs of the rules, there may be other non-monetary benefits and costs that should be taken into consideration in assessing the impacts of the rules.

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Appendix A

Tonsor, Schroeder, and Parcell Study

Economic Impacts of 2009 and 2013 U.S. Country-of-Origin Labeling Rules on U.S. Beef and Pork Markets

Project No. AG-3142-P-14-0054 R0

January 26, 2015

Prepared by Glynn Tonsor, Ted Schroeder, and Joe Parcell

Forward

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About the Principal Investigators

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Table of Contents

Executive Summary vi

Chapter 1: Background and History 1
1.1 Summary of the 2009 and 2013 COOL Legislation 1
1.1.1 Labeling Requirements 3
1.1.2 Overview of Recordkeeping and Verification.....5
1.1.3 Scope of Required Complying Firms 6
1.1.4 Firm Exemptions.....6
1.1.5 Scope of Covered Products.....7
1.1.6 Product Exemptions.....7
1.2 Compliance 8
1.2.1 Cattle and Hog Producers 12
1.2.2 Live Cattle and Hog Importers 12
1.2.2.1 Prior to Slaughter.....12
1.2.2.2 For Slaughter 13
1.2.3 Packers 13
1.2.4 Beef and Pork Importers.....13
1.2.5 Further Processing 14
1.2.6 Retailers 14

Chapter 2: Food Labeling Conceptual Considerations 16
2.1 Theory of Food Product Labeling 16
2.2 General Role of Food Labeling 16
2.3 Incentives and Impairments for Labeling 18
2.4 Origin Labeling Market Level Demand and Supply Impacts 20
2.5 Mandatory vs Voluntary Labeling 23

Chapter 3: Cost and Benefit Estimates Regarding the 2009 and 2013 Rules 27
3.1 Regulatory Impact Analyses 27
3.1.1 2009 Rule 27
3.1.2 2013 Rule 27
3.2 Public Comments on Proposed Rules 28
3.2.1 Initial Rule Comments 28
3.2.2 2013 Rule 29
3.3 Private and Public Estimates 29
3.4 Academic Estimates of Economic Impacts.....33
3.5 Academic Estimates of Benefits 33

Chapter 4: Equilibrium Displacement Model (EDM) Theoretical Framework and Calibration 35
4.1 Three-Sector, Multiple Species Model 35
4.2 One-Sector, One Species Models.....41
4.3 Incremental Impact of 2013 Rule.....42
4.4 Incorporating 2009 MCOOL Implementation Costs 47
4.5 Incorporating 2013 MCOOL Implementation Costs 53

Chapter 5: Economic Impact Estimates of the 2009 Rule 57

Chapter 6: Incremental Economic Impact Estimates of the 2013 Rule.....65

Chapter 7: Demand Impact Analyses of the 2009 Rule 72

Chapter 8: Incremental Demand Impact Analyses of the 2013 Rule 77

Chapter 9: Study Limitations 80

Chapter 10: References 81

Appendix 87

Executive Summary

Purpose

Mandatory country-of-origin labeling (MCOOL) of selected food commodities in the United States was amended in the 2008 *Farm Bill* and implemented through the 2009 *Final Rule on Country of Origin Labeling*. Among other products, certain retail beef and pork products were covered under the act. The 2009 *Final Rule* was later amended, and the amended rule is referred to as the 2013 Final *Rule*. The *Agricultural Act of* 2014 called for an economic assessment of mandatory country of origin labeling rules in the United States. In particular, an economic analysis was to "include, with respect to labeling of beef, pork, and chicken, an analysis of the economic impact on consumers, producers, and packers in the United States" of the origin labeling rules. The purpose of the current study is to conduct an economic analysis of the 2009 and 2013 country of origin labeling rules focused on the beef and pork industries.

Labeling

Consumer labeling theory and applications reveal mandatory food product labeling is best suited for conveying to consumers factors related to human health and well-being, such as nutrition labels, food safety instructions, ingredients listing, and health warnings. Mandated labeling has merit where broader social goals may exist that are not fully recognized by private production and consumption decisions. In contrast, voluntary labels that follow regulated guidelines are better suited for relating particular process attributes to consumers. Process attributes are demanded by a segment of consumers that want to know processes used to produce food they consume when no broader social goal is served. Country of origin labeling is an example of a process attribute where a segment of consumers express a stated desire to know where food originates. On its own, however, country of origin labeling conveys no scientific based difference in the production process or product attribute benefits. The industry losses estimated in this study associated with the 2009 and 2013 MCOOL rules are consistent with conclusions predicted from food product labeling theory, from simulated applications of labeling theory, and from validation of labeling theory through the observation of labeling applications. That is, a mandated labeling policy that increases costs of producing, processing, and marketing food products without an associated increase in consumer demand, results in economic losses to producers, packers, retailers, and consumers and leads to a smaller overall industry with higher consumer prices and less product available.

Procedure

The project required synthesizing several existing sets of information to develop empirical models. Existing literature and public information was collected and reviewed. This information was used as input into a series of partial equilibrium displacement models that provide aggregate economic estimates of impacts on consumers, producers, and processors from each of the 2009 and 2013 MCOOL rules for the beef and pork meat categories. The models were specified using metrics from a combination of peer reviewed journal publications, government reports, industry reports, and interviews with industry representatives. Each industry was analyzed for the ten-year period immediately following implementation of MCOOL for each of the 2009 and 2013 rules. Thus, results are the net-present value of projected economic impacts from the implementation of MCOOL.

Summary of Findings

Changes in prices and quantities caused by the 2009 and 2013 MCOOL rules were consistent with economic expectations of how markets respond to increased production and marketing costs associated with the enacted policies. Both the U.S. beef and pork industries have contracted in response to both the 2009 and the 2013 MCOOL rules. The base case situation of the 2009 MCOOL rule being implemented without any corresponding consumer demand benefits being realized harmed the U.S. beef and pork industries by $8.07 billion and $1.31 billion, respectively, with the largest share of this impact realized at retail and wholesale levels. These losses are in 2014 dollars.

Based on a review of academic research, we found no evidence that consumer demand for beef or pork has increased because of MCOOL. Thus, our economic analysis finds no measureable benefits to consumers as a result of the MCOOL rules. The most desirable way to offset producer, packer, and retailer MCOOL compliance costs is if an increase in consumer demand was realized as a result of MCOOL. Because food consumed away from home and processed foods are exempt, a small portion of beef and pork products are covered by MCOOL(approximately 16% of pork and 33-42% of beef). The only way to recapture costs associated with producer, packer, and retailer rule compliance is for consumer demand to increase on MCOOL associated products.

To estimate the demand increase necessary to cover costs of compliance, we ran scenarios to determine how much of an increase in consumer demand would be needed to offset MCOOL-induced industry costs. Assuming no associated reductions in demand for exempt beef and pork products (that is, that consumers would not increase demand for origin-labeled beef and pork by reducing demand for unlabeled exempt product), at least 6.8% and 5.6% increases in the demand for MCOOL covered beef and pork products, respectively, would be needed for the beef and pork industries to be as well off as prior to the 2009 rule. If consumer demand for origin-labeled beef and pork were to increase by substituting away from exempt product, the demand increases needed to offset costs would be larger.

The incremental impacts of the 2013 MCOOL rule, given the 2009 rule already in place, suggest without any corresponding consumer demand benefits the beef and pork industries experience economic welfare losses of an additional $494 million and $403 million, respectively. These losses are in 2014 dollar. Assuming no associated reductions in demand for exempt beef and pork products, at least 0.4% and 1.6% additional increases in consumer demand for MCOOL covered beef and pork products beyond the increases needed to offset 2009 rule costs, respectively, would be needed for the beef and pork industries to be as well off as prior to the 2013 rule.

Implications

This report demonstrates substantial economic damage to producers, packers, retailers, and consumers from implementation of MCOOL in 2009 and losses which further increased with modifications contained in the 2013 rule. There is no evidence of offsetting benefits associated with consumer demand increases from MCOOL implementation. On the contrary, consumers lost because they now face higher retail beef and pork prices and reduced supply because of the 2009 and 2013 MCOOL rules.

Chapter 1: Background and History

1.1 Summary of the 2009 and 2013 COOL Legislation

After several years of debating the issue and making revisions, the U.S. published its final mandatory country of origin labeling (MCOOL) rule for all covered agricultural commodities on January 15, 2009, and it became effective on March 16, 2009 (Federal Register, 2013). Previously, USDA had implemented mandatory labeling for fish and shellfish (Agricultural Marketing Service, 2009[c]). MCOOL legislation required that retailers inform consumers about the origin country of all covered agricultural commodities sold in their stores (Federal Register, 2008). Several legislative actions prompted MCOOL by amending the Agricultural Marketing Act of 1946: the Farm Security and Rural Investment Act of 2002; the 2002 Supplemental Appropriations Act; and the Food, Conservation and Energy Act of 2008 (Federal Register, 2013).

Following the U.S. adoption of MCOOL for all covered commodities, the World Trade Organization found the law violated the Technical Barriers to Trade agreement, which ensures that countries treat imported products no less favorably than domestic products. To address this concern and to provide more specific information to consumers, the U.S. revised the 2009 rule and implemented changes in May 2013. The updated COOL mandate primarily altered three labeling provisions; section 1.1.1 further describes those changes. The U.S. beef and pork industries were allowed six months to adopt the new standards. Users could continue using old labels, not required to explicitly list born, raised, and processed on old labels, until they exhausted their supply.

Although the MCOOL legislation first applied labeling mandates to all covered agricultural commodities, imported products have a history of requiring origin labels. Exhibit 1.1 presents a historical timeline of U.S. country of origin labeling laws and MCOOL. The Tariff Act of 1930 required that most imported goods carry a label that indicates their origin to the ultimate purchaser (The National Agricultural Law Center). The U.S. passed the act to protect and differentiate domestic products (U.S. Department of State). According to the law, an ultimate purchaser is “the last U.S. person who will receive the product in the form in which it was imported” (Agricultural Marketing Service, 2004, p. 1). For a retail-ready product, consumers are ultimate purchasers. Thus, imported products available to them must display an origin label. For imported goods that U.S. processors or manufacturers will “substantially transform,” consumer products derived from imports would not need an import label because final consumers are not the imported good’s ultimate purchaser. Instead, the processor or manufacturer acts as the ultimate purchaser (Becker, 2001). The 1930 act makes several exceptions. Products that cannot be marked, those for which the marking would be “economically prohibitive,” and those on the “J List” are exempt. The J List includes many minimally processed agricultural commodities such as vegetables, fruits and live or dead animals (The National Agricultural Law Center).

Exhibit 1.1 – Historical Timeline of U.S. Country of Origin Labeling Laws and MCOOL

Year	Action	Summary
1930	Tariff Act of 1930	Imported products must be labeled for the ultimate purchaser, or the last person who receives the imported product in its imported form. Significantly processed imports do not need to comply. Other exceptions are items that cannot be labeled; items that would be "economically prohibitive;" and "J List" items, including many agricultural commodities.
2002	Farm Security and Rural Investment Act of 2002 and 2002 Supplemental Appropriations Act	Two of the three legislative activities that triggered amending the Agricultural Marketing Act of 1946 and permitted USDA to mandate country of origin labeling.
10/30/2003	Proposed Rule – Mandatory Country of Origin Labeling for Beef, Lamb, Pork, Fish and Shellfish, Perishable Agricultural Commodities, and Peanuts	USDA introduced the mandatory COOL concept and provisions.
10/5/2004	Interim Final Rule – Mandatory Country of Origin Labeling of Fish and Shellfish	Before applying MCOOL to all covered commodities, USDA applied origin country and method of production labeling requirements to fish and shellfish.
2008	Food, Conservation and Energy Act of 2008	2008 farm bill is the third of three legislative actions that triggered amending the Agricultural Marketing Act of 1946 and moving forward with mandatory country of origin labeling.
8/1/2008	Interim Final Rule – Mandatory Country of Origin Labeling of Meat, Perishable Agricultural Commodities, Nuts, and Ginseng	USDA shares revised country of origin labeling provisions for all covered commodities but fish and shellfish.
1/15/2009	Final rule – Mandatory Country of Origin Labeling of Beef, Pork, Lamb, Chicken, Goat Meat, Wild and Farm-Raised Fish and Shellfish, Perishable Agricultural Commodities, Peanuts, Pecans, Ginseng and Macadamia Nuts	Final rule makes origin country labeling effective for all remaining covered commodities that require labeling.
2012	World Trade Organization case	World Trade Organization panel concludes that U.S. MCOOL violates an accord that states countries should treat imported and domestic goods similarly.
3/12/2013	Proposed Rule to Amend Labeling Provisions Under Country of Origin Labeling	USDA releases proposed rule for muscle cut commodities that alters mandatory origin country labeling requirements to provide more specific label information.
5/24/2013	Final rule for MCOOL on all covered commodities	Rule outlines the final updates to MCOOL that clarifies retailer definition, eliminates commingling flexibility, and requires production step origin country designations on muscle cut commodities.

1.1.1 Labeling Requirements

The 2013 rule primarily changed three MCOOL provisions. Exhibit 1.2 presents a summary of the 2009 and the 2013 rules with the three changed provisions highlighted. One change was to amend muscle cut labeling requirements. Rather than broadly define a good as a "product of" a country or provide just the country name as an origin claim – both were acceptable given the 2009 rule's requirements – the updated rule clarified that labels displayed on covered commodities, including beef, veal and pork muscle cuts, must list the country where the animal yielding the muscle cut was born, raised and slaughtered (Federal Register 2013; Agricultural Marketing Service and Food Marketing Institute 2009). Exhibit 1.3 provides a comparison of labeling between the 2009 and 2013 rules. Imported beef and pork muscle cuts still must declare an animal origin country to U.S. Customs and Border Protection when the product enters the U.S. Imported muscle cuts maintain their imported origin declaration until they are sold at retail (Federal Register, 2013).

Exhibit 1.2 – 2009 and 2013 MCOOL Rule Provision Summaries

	2009 Rule	2013 Rule
Covered commodities	Beef, veal, and pork muscle cuts and ground beef and ground pork	Beef, veal, and pork muscle cuts and ground beef and ground pork
Exempt products	Processed items that have altered the covered commodity's character or combined covered commodity with other ingredients. Products not intended for retail sale.	Processed items that have altered the covered commodity's character or combined covered commodity with other ingredients. Products not intended for retail sale.
Muscle cut label content	List all origin countries. For example, "Product of the U.S." or "Product of Canada and the U.S."	List origin countries by production step. For example, "Born, Raised and Slaughtered in the U.S."
Ground meat label content	List all origin countries that may reasonably have been a source for meat present in the final product.	List all origin countries that may reasonably have been a source for meat present in the final product.
Commingling flexibility	Commingling is acceptable for muscle cuts sourced from different origins.	Commingling muscle cuts from different origins is not acceptable. Segregation is required.
Imported product label content	State the imported country origin. For example, "Product of Australia."	State the imported country origin. For example, "Product of Australia."
Entities required to comply	Retailers licensed by the Perishable Agricultural Commodities Act	Retailers eligible for a license by the Perishable Agricultural Commodities Act

Entity that initiates an origin claim	Slaughtering facility	Slaughtering facility
Entities exempt from complying	Foodservice firms and other value chain stakeholders not selling into retail channels.	Foodservice firms and other value chain stakeholders not selling into retail channels.
Types of acceptable origin designations	Stamp, market, band, twist tie, pin tag, placard, sign, label, sticker, checkbox	Stamp, market, band, twist tie, pin tag, placard, sign, label, sticker, checkbox

Exhibit 1.3 – Labeling Examples Comparing 2009 and 2013 MCOOL Rules*

Product	2009 Rule	2013 Rule
Imported product	"Product of Canada"	"Product of Canada"
Muscle cut – U.S. origin	"Product of the U.S."	"Born, Raised and Slaughtered in the U.S."
Muscle cut – foreign birth country, U.S.-raised and – slaughtered	"Product of the U.S. and Canada"	"Born in Canada, Raised and Slaughtered in the U.S."
Muscle cut – foreign origin, immediately slaughtered in U.S.**	"Product of Canada and U.S."	"Born and Raised in Canada, Slaughtered in the U.S."
Ground beef or pork***	"Product of U.S., Canada and New Zealand"	"Product of U.S., Canada and New Zealand"

*The country Canada is used here for example purposes only. The label would be the same for any country the meat was exported into the U.S. from.
** Valid label for products processed with 14 days.
*** List countries that have supplied raw materials processed at the facility within the past 60 days.

The second major change in the 2013 rule involved whether value chain sectors could commingle products being of multiple origins. The 2009 regulation permitted commingling. Packers could mark products with the same origin label if they guaranteed "that they process animals of the declared mix of origins every particular day" (Federal Register, 2013, p 12). For a packing facility that processed animals from both the U.S. and Canada each day, an acceptable label given the 2009 rule would have been "Product of the U.S. and Canada" (Federal Register, 2013, p 12). The 2013 law removed the flexibility for firms to commingle products. Now, slaughtering facilities and retailers may not commingle muscle cut covered commodities that originate from different countries (Federal Register, 2013).

Third, the 2013 rule clarified the definition of a retailer. The 2009 rule's guidance materials indicated that "retail establishments that are licensed under the Perishable Agricultural Commodities Act (PACA) are required to provide COOL information to consumers" (Agricultural Marketing Service, 2009[b], p 1). Such guidance was confusing because it was unclear if it referred to all retailers, or only those that had received licenses, had to adhere to the origin labeling mandate.

Based on PACA rules, retailers must obtain a license if their calendar year perishable commodities purchase invoices exceed $230,000 (Federal Register, 2008). Products that contribute to the $230,000 in perishable commodity purchases are fresh and frozen fruit and vegetables (Agricultural Marketing Service, 2013[b]). To clarify the confusion regarding whether a given retailer must comply with MCOOL, the 2013 rule explains that "all retailers that meet the PACA definition of a retailer, whether or not they actually have a PACA license, are also covered by COOL" (Federal Register, 2013, p 2)

Both the 2009 and 2013 MCOOL rules provided the beef and pork industries with some flexibility in selecting labels that convey necessary origin information. Suppliers may share origin country by marking products individually, stating origin information on a master shipping container or disclosing the origin information in documentation that "accompanies the product through retail sale" (Agricultural Marketing Service, 2009[c], p 6) At the retail level, options for communicating origin information include signs, placards, labels, stickers, stamps, bands, twist ties, and pin tags (Federal Register 2013; Agricultural Marketing Service 2009[c]). Checkboxes marked to indicate origin location are another option (Federal Register, 2008). Products and packages do not necessarily need to be individually labeled with origin information. Instead, clearly, visibly, legibly, and conspicuously shared origin designations on product displays, holding units or bins also satisfy the labeling mandate (Agricultural Marketing Service, 2009[c]). Origin information may be displayed in typed, printed or handwritten form (Agricultural Marketing Service, 2013[a]). Based on a March 2009 survey of 56 stores located in seven different states, meat suppliers and retailers tend to use package labels more than store signs or combine package labels and store signs to inform consumers about a product's country of origin (Agricultural Marketing Service and Food Marketing Institute, 2009).

1.1.2 Overview of Recordkeeping and Verification

The COOL mandate did not force the beef and pork industries to adopt a specific identification system (Agricultural Marketing Service, 2013[a]). Rather, USDA provided suppliers and retailers with flexibility in designing and implementing recordkeeping systems that work best for their given circumstances. For example, stakeholders may maintain electronic or hard copy records, depending on their preferences (Agricultural Marketing Service and Food Marketing Institute, 2009). Additionally, retailers may choose whether to house records at individual store locations or a more centralized corporate headquarters location (Federal Register, 2008).

Country of origin monitoring and recordkeeping begins at the producer level. For beef and pork products, producers who have first-hand knowledge about a given animal, its origin history, and its transaction may submit affidavits as documentation that would initiate an origin claim at later value chain stages (Agricultural Marketing Service, 2009[c]). Animal health records may also be used to confirm origin (Agricultural Marketing Service, 2009[b]).

Other stakeholders must implement recordkeeping systems that preserve an animal's origin throughout the value chain. "Records maintained in the normal course of business that verify country of origin" are appropriate documentation (Farmers' Legal Action Group, Inc., 2009, p 2). Slaughtering facilities must maintain records that support the origin claim being made for

product linked to a given transaction for an entire year. All other value chain stakeholders that participate in supplying covered commodities to retailers including producers, distributors, handlers, packers, and processors must also retain documentation for one year after making a transaction. Their records must note the covered commodity's "immediate previous source" and "immediate subsequent source" (Electronic Code of Federal Regulation, 2014).

At the retail level, the extent of a retailer's recordkeeping will depend on whether the retailer stocks pre-labeled products or products that have not been pre-labeled. Pre-labeled products are those that provide both origin country and supplier information on the label itself. When retailers stock pre-labeled products, they are required to keep origin records until they sell the product, and they must maintain the corresponding supplier verification records for one year. For products that have not been pre-labeled, retailers must maintain records that clearly connect a beef or pork product to its respective origin and supplier information for one year after the sale. As an example, a purchase order or lot number would provide a clear link between the given product and its origin (Agricultural Marketing Service and Food Marketing Institute, 2009).

Based on the 2009 rule, USDA may request the following as possible origin verification sources: producer affidavits, purchase and receiving records, animal health records, National Animal Identification System (NAIS) records, production and harvest records, bills of lading, or invoices (Agricultural Marketing Service, 2009[b]).

The 2013 rule does not require value chain stakeholders to maintain any additional recordkeeping, and industry stakeholders do not need to adopt any new sharing processes that direct origin information throughout the value chain (Federal Register, 2013). The 2013 rule also allowed for a producer to sign an evergreen affidavit of source verification, i.e., a single one time affidavit of origin is sufficient until a producer sources animals from another country.

1.1.3 Scope of Required Complying Firms

Ultimately, retailers bear responsibility for providing country of origin information to consumers. The 2013 rule clarified that any entity that purchases more than $230,000 in fresh and frozen fruits and vegetables, regardless of whether the entity has a PACA license, must comply with MCOOL (Federal Register, 2013). Such entities include grocery stores and supermarkets (Agricultural Marketing Service, 2013[a])

Although retailers maintain responsibility for directly providing accurate origin information with consumers, all value chain stakeholders must participate in sharing and tracking origin information to ensure labels provide complete, accurate origin information. Slaughtering facilities may initiate origin claims (American Meat Institute, 2014). For more information about supplier and retail compliance, see section 1.2.

1.1.4 Firm Exemptions

Retailers who are ineligible for a PACA license are not required to comply with MCOOL. USDA provided butcher shops as an example. Typically, a butcher shop would not annually

purchase $230,000 of fresh and frozen fruits and vegetables, which are the "perishable commodities" outlined by PACA. Thus, the shop would not be responsible for labeling covered commodities by origin. Fish markets, meat markets, and convenience stores may also purchase too little produce each year to qualify for a PACA license and, thus, may be recognized as a firm exempt from the MCOOL rule (Federal Register, 2008).

Foodservice operators are also exempt from labeling covered commodities. Specifically, MCOOL rules do not apply to entities such as cafeterias, restaurants, lunch rooms, food stands, saloons, taverns, bars, lounges, salad bars, and delicatessens (Agricultural Marketing Service, 2009[c]).

Several food supply and service sectors are exempt from the MCOOL rule. For example, suppliers that distribute covered commodities through foodservice channels and export firms do not need to conform to the MCOOL regulations (Federal Register, 2003). Depending on the intended import country, however, exporters may need to adhere to an importer's country of origin labeling requirements. For example, Colombian imported meat products must list the origin country in Spanish on consumer packaging, and Korea requires that meat import cartons be labeled with the origin country (Food Safety and Inspection Service, 2014).

1.1.5 Scope of Covered Products

The U.S. MCOOL rule names several beef and pork products as covered commodities that must display an origin designation at a retail sale location. Beef, veal, and pork muscle cuts and ground beef and ground pork require such labels. Other products subject to MCOOL are lamb, chicken, and goat muscle cuts; ground lamb, chicken, and goat; perishable agricultural commodities (e.g., potatoes, tomatoes, lettuce, etc.); wild and farm-raised fish and shellfish; macadamia nuts; pecans; ginseng; and peanuts (Federal Register, 2013).

Muscle cut labels must include origin information for countries where a given animal was born, raised, and slaughtered. USDA specifically outlined scenarios requiring different labels. For example, muscle cuts from a steer born and raised abroad and imported for further feeding in the U.S. had to have been labeled as being born and raised abroad. In addition, beef and pork muscle cut labels for products derived from animals born and raised in the U.S., further raised in another country, and moved back to the U.S. for raising and slaughtering must claim all countries involved at each step (Federal Register, 2013). Additionally, for animals imported into the U.S. and immediately slaughtered, a label must share origin information formatted similarly to this example: "Born and Raised in Canada, Slaughtered in the U.S." (American Meat Institute, 2014).

For ground beef and ground pork, product labels must claim all origin countries that "reasonably" may have supplied animals for the particular ground product (Electronic Code of Federal Regulations, 2014). The "reasonable" standard requires processors to identify "all the countries of origin in the plant's inventory for the last 60 days" (American Meat Institute, 2014).

1.1.6 Product Exemptions

Beef and pork products that have undergone processing do not require origin labels. To be considered a processed item, products must meet at least one of two conditions. First, processed products may undergo specific processing that yields changes in a covered commodity's character. Specifically, products that have been cooked, cured, smoked, and restructured would not require origin labeling. Those processing methods render a particular product as a processed item (Agricultural Marketing Service, 2009[c]). Activities that do not change a product's character include chopping, cutting, dicing, slicing, and trimming. Ham, bacon, and corned beef brisket are exempt processed beef and pork products because their processing methods changed a covered commodity's character (Agricultural Marketing Service and Food Marketing Institute, 2009).

Second, processed products may combine two or more covered commodities into a single product (Agricultural Marketing Service, 2009[a]). Because sausage, teriyaki-flavored pork loin, and barbecue beef combine meat with other ingredients, they are considered processed items exempt from MCOOL rule compliance (Agricultural Marketing Service and Food Marketing Institute, 2009).

Other products that do not require origin labeling include meat balls, meatloaf, fabricated steak, corned beef, breaded veal cutlets, flank steak with portabella stuffing, sausage, teriyaki-flavored pork loin, hot dogs, and lunch meat (Federal Register 2008; American Meat Institute 2014; Agricultural Marketing Service, 2009[a]). "Beef patties" also are exempt. Although the "beef patties" designation is often used interchangeably with "ground beef," patties usually contain extenders, binders, and other ingredients that cause them to contain less than 100 percent beef. As such, they do not require labels (Agricultural Marketing Service and Food Marketing Institute, 2009).

1.2 Compliance

USDA relies on retailers and suppliers making a good faith effort to observe MCOOL rules, and it evaluates compliance based on whether value chain stakeholders "take sound, reasonable measures to provide accurate country of origin" (Agricultural Marketing Service, 2013[a], p 3). Exhibits 1.4 and 1.5 summarize the beef and pork value chain, respectively, along with COOL compliance role. To monitor MCOOL compliance, USDA conducts periodic value chain evaluations, or alternatively, it may coordinate with state agencies that conduct reviews in their respective jurisdictions. Although USDA may cooperate with state entities to conduct reviews, only USDA can enforce violations discovered during the compliance testing process (Agricultural Marketing Service, 2013[a]).

At the retail level, USDA submits licensed retailers for reviews. To evaluate suppliers, which are classified as any party "that prepares, stores, handles, or distributes a covered commodity for retail sale," USDA conducts traceback audits. The agency identifies possible suppliers for further evaluation during retail-level reviews (Agricultural Marketing Service, 2013[a]).

Suppliers and retailers found to be out-of-compliance must develop and execute corrective action and preventative strategies that address the violation. The particular retailer or supplier in

violation must supply these plans in writing to USDA within 30 days (Agricultural Marketing Service, 2013[a]).

A willful violation occurs when a retailer or supplier has failed to make a good faith effort and does not act to resolve violations despite the USDA alerting the entity about the violation. USDA has the authority to impose a $1,000 fine per willful violation. Three circumstances would cause a willful violation. First, corrective actions or preventative measures that fail to effectively resolve the problem or an entity does not implement a planned remedy. Second, an entity does not provide a written response regarding the planned corrective and preventative actions that would address the non-compliance issue(s). Third, USDA receives other findings or results that challenge whether an entity has attempted a good faith effort to comply with MCOOL (Agricultural Marketing Service, 2013[a]).

During 2012, the most recent year with data available, 3,694 retail facilities – about 10 percent of all U.S. retail facilities that must comply with MCOOL – were subject to COOL retail reviews. Of the reviews conducted, 82 percent had non-compliance findings. One-half had between one and nine non-compliance findings. Nearly one-fifth had 10 to 24 non-compliance findings, and 12 percent had more than 25 non-compliance findings. The most common finding was that origin country information was not being provided. During the 536 supplier audits conducted during 2012, officials identified 21 non-compliant findings (Agricultural Marketing Service, 2012)

Exhibit 1.4 – Beef Value Chain

Sector	COOL Compliance Role
Producer	Suppliers to retail channels must provide affidavit or other approved origin verification documentation from an individual who has first-hand knowledge about animal origin and can link origin information and animals to a specific transaction. May be an evergreen affidavit.
Backgrounder/feedlot	Must segregate animals and maintain origin country identification for animals that will sell in retail channels. Maintain records from immediate previous and immediate subsequent value chain sectors to prove origin country for one year.
Slaughterhouse/packing facility	Initiate an origin country claim for product destined for retail sale. For beef and veal muscle cuts, identify origin country by production step on product labels, master shipping container labels or other documentation. For ground beef, labels must list all origin countries that have supplied raw materials to the given facility within the past 60 days. Maintain records from immediate previous and immediate subsequent value chain sectors to prove origin country for one year.
Wholesaler	Maintain product segregation to preserve origin country information. Origin country communication may be shared on product labels, master shipping labels or other documentation. Keep records from immediate previous and immediate subsequent value chain sectors to prove origin country for one year.
Retailer	Identified as any retail establishment that would qualify for a PACA license, retailers are required to present origin country information to consumers via legible, conspicuous, clear, visible designation on product, display or holding bin. Maintain pre-labeled product origin records until sale and supplier records for one year. Records for non-pre-labeled products must connect product to origin and supplier information for one year.
Consumer	Access specific production location and origin information from retail establishments required to comply.

Exhibit 1.5 – Pork Value Chain

Sector	COOL Compliance Role
Producer (farrow to feeder)	Suppliers to retail channels must provide affidavit or other approved origin verification documentation from an individual who has first-hand knowledge about animal origin and can link origin information and animals to a specific transaction. May be an evergreen affidavit.
Producer (feeder to finish)	Must segregate animals and maintain origin country identification for animals that will sell in retail channels. Maintain records from immediate previous and immediate subsequent value chain sectors to prove origin country for one year.
Slaughterhouse/packing facility	Initiate an origin country claim for product destined for retail sale. For pork muscle cuts, identify origin country by production step on product labels, master shipping container labels or other documentation. For ground pork, labels must list all origin countries that have supplied raw materials to the given facility within the past 60 days. Maintain records from immediate previous and immediate subsequent value chain sectors to prove origin country for one year.
Wholesaler	Maintain product segregation to preserve origin country information. Origin country communication may be shared on product labels, master shipping labels or other documentation. Keep records from immediate previous and immediate subsequent value chain sectors to prove origin country for one year.
Retailer	Identified as any retail establishment that would qualify for a PACA license, retailers are required to present origin country information to consumers via legible, conspicuous, clear, visible designation on product, display or holding bin. Maintain pre-labeled product origin records until sale and supplier records for one year. Records for non-pre-labeled products must connect product to origin and supplier information for one year.
Consumer	Access specific production location and origin information from retail establishments required to comply.

1.2.1 Cattle and Hog Producers

MCOOL compliance testing involves evaluating suppliers, including those that make covered commodity sales directly or indirectly to retailers. The scope of supplier traceback audits extends from retailers backward through the supply chain "to the initiator of country of origin," which is the slaughtering facility (Agricultural Marketing Service, 2013[a]). Producers may indirectly participate in sales to retailers, and for a packer or other supplier to retain compliance, it must confirm origin country from its suppliers. Thus, producers may receive inquiries to verify origin of animals that are directly marketing through a retail distribution channel.

Cattle and hog producers may rely on affidavits to verify animal origin for meat products marketed by retailers, and slaughter facilities may reference such affidavits when they make origin claims. To form an affidavit, someone with first-hand knowledge about an animal's origin must validate the country where the animal was born and raised. An affidavit should clearly distinguish animals involved in a specific transaction and match these animals to their origin (Federal Register, 2008). Other acceptable origin verification records include animal health records and import or customs documents (Farmer's Legal Action Group, Inc., 2009).

Producers who serve non-retail markets are exempt. For example, producer who sell covered commodities into a foodservice distribution channel are not required to comply with MCOOL. Producers who directly sell products that they have produced to consumers are also exempt. Such direct marketing includes sales at farmers markets and farm stands and through community-supported agriculture subscriptions (Farmer's Legal Action Group, Inc., 2009).

Per the 2013 rule, producer evergreen affidavits are allowed. The term "evergreen" refers to a situation where a person signifies compliance and that compliance is binding until the producer changes origin of the animals. Thus, the producer does not have to certify origin each time animals are delivered. An evergreen affidavit of animal origin will significantly reduce the reoccurring costs for many producers.

1.2.2 Live Cattle and Hog Importers

1.2.2.1 Prior to Slaughter

The USDA recognizes that Canada and Mexico are relatively common origin points for imported cattle and hogs. The U.S. imports feeder and slaughter cattle and hogs from Canada, and feeder cattle from Mexico (Federal Register, 2013). Section 1.1.5 shares details about appropriate labels for imported cattle eventually sold as covered retail commodities.

An importer who sells animals into the U.S. retail channel must provide documentation that identifies the location where a given animal was born and raised. Otherwise, a slaughtering facility that processes that animal would not have the information needed to identify origin. As long as import and customs documents provide packers with the information that they need to initiate origin claims, then suppliers are MCOOL compliant.

1.2.2.2 For Slaughter

The MCOOL provisions from 2013 require that products from animals imported into the U.S. and immediately slaughtered bear a label that indicates origins where the animal had been born and raised, and list the U.S. as a slaughter location. For example, a label may read "Born and Raised in Canada, Slaughtered in the U.S.".

To comply with MCOOL rules, importers must provide adequate production location information and documentation because slaughtering facilities must initiate origin country claims. Similar to the earlier import scenario, a U.S. firm selling into the retail market would likely stipulate that the foreign supplier provide import and customs documents that present origin information. USDA recognizes these forms as adequate documentation to allow slaughtering facilities to later initiate an origin claim.

1.2.3 Packers

Packers that supply covered commodities to retailers must share country of origin information with downstream value chain stakeholders. To convey the necessary origin information, packers may use product labels, master shipping container labels, or other documentation that specifically identifies a product with its origin verification (Agricultural Marketing Service, 2009[c]). Additionally, suppliers must maintain records that substantiate transactions between them, their immediate supplier, and immediate purchaser for one year after they execute a transaction (Electronic Code of Federal Regulations, 2014).

For suppliers, USDA periodically conducts traceback audits to determine whether suppliers that serve retail distribution channels comply with the MCOOL regulations and initiate origin country claims. USDA may request an audit with any party "that prepares, stores, handles, or distributes a covered commodity for retail sale" (Agricultural Marketing Service, 2013[a], p 2).

USDA compliance guidelines list several non-compliance finding categories that may be relevant for packers. Those include failing to: 1) maintain origin claim verification documentation for one year after a transaction, 2) name the immediate previous source, 3) identify origin country information with the immediate subsequent recipient, 4) submit requested records within five business days, and 5)convey the correct country of origin (Agricultural Marketing Service, 2013[a]).

1.2.4 Beef and Pork Importers

For foreign exporters to access the U.S. market, exporters must conduct meat inspections that satisfy U.S. inspection standards. Foreign facilities that ship meat to the U.S. must receive USDA certification, which ensures that the facility maintains U.S. sanitary conditions and rules. The U.S. re-inspects meat imports as products enter the country (Food Marketing Institute and American Meat Institute, 2008).

Imported products destined for direct consumer sales must declare origin country on labels. Examples include labels on Danish ham and Italian salami that would read "Product of Denmark" and "Product of Italy," respectively.

Beef and pork suppliers who export to the U.S. could possibly receive two types of import-specific, non-compliance findings from USDA. First, importers could be found non-compliant if their records do not clearly track the imported item from the U.S. entry point to the immediate subsequent recipient. Second, an import supplier may receive a non-compliant finding if records do not correctly identify a country of origin (Agricultural Marketing Service, 2013[a]).

1.2.5 Further Processing

The MCOOL legislation only applies to unprocessed beef, veal, and pork muscle cuts and ground beef and ground pork (Federal Register, 2013). Processed foods – defined as covered commodities altered using cooking, curing, smoking, and restructuring or those combined with other ingredients – are exempt (Agricultural Marketing Service, 2009[a]). Through further processing, companies add value to beef and pork. For example, they may cook beef or manufacture sausage. Such processed goods are exempt from MCOOL.

In assessing United States consumption, the October 20, 2014 WTO ruling document stated that 84% of all pork and between 58% and 67% of all beef consumed is MCOOL exempt (WTO, 2014). This is extremely important in the assessment of the economic impacts of the MCOOL legislation. Because food consumed away from home and processed foods are exempt, the portion of beef and pork products that are covered are small (16% of pork and 33-42% of beef). The only way to recapture costs associated with producer, packer, and retailer rule compliance is for demand to increase on MCOOL associated consumer demand products. The fact that only 16% of pork and 33-42% of beef are required to be origin labeled means that large demand increases in these small portions of overall products produced are needed to offset MCOOL costs.[1] We address this issue empirically in later chapters.

1.2.6 Retailers

USDA requires that retailers make a "good faith effort" to provide accurate origin information to consumers. To evaluate whether retailers abide by MCOOL guidelines, USDA periodically selects retailers that have received licenses through the Perishable Agricultural Commodities Act to be subject to a retail review. During the review, officials assess whether covered commodities bear country of origin labeling, and they determine whether those origin claims are correct. The reviewers also evaluate a retailer's recordkeeping protocol and evaluate COOL procedures to ensure that retailers maintain documentation provided by the immediate previous suppliers and provides accurate origin claims with consumers (Agricultural Marketing Service, 2013[a]).

[1] The scaling up factors here imply a six factor increase (100%/16%) over the aggregate estimated demand change for pork and nearly a three factor increase (100%/42% to 100%/33%) over the aggregated estimated demand change for beef.

Retail reviews may yield several types of non-compliance findings. The following list highlights a few of these:

- origin country is not displayed legibly or conspicuously;
- a regional description or the phrase “locally grown” has been substituted for an origin country designation;
- muscle cut production step origin information is not provided; and
- a lack of origin country information, supplier information, and origin information verification [10].

Chapter 2: Food Labeling Conceptual Considerations

2.1 Theory of Food Product Labeling

Food product labeling is of interest to consumers, food supply chain participants, and policy makers. Labeling regulations determine what can, what cannot, and what is required to be contained on food product labels. Because food label content can impact food producers and manufacturers, modifications to food labeling regulations are often highly scrutinized. Food product labeling and monitoring is costly and label design, content and administration can have major influences on food prices, product offerings and availability, food product innovation, and domestic and international food trade. Furthermore, food product labeling regulations affect consumers by communicating information, conveying facts, and influencing perceptions. As such, food product labeling regulation must carefully consider associated costs, benefits, and tradeoffs.

This chapter provides a general discussion of the role of food labeling. In addition, the implications of food labeling, discussions of geographic labels, and market failures are evaluated. We also assess whether origin labeling of pork and beef products in the United States represents a market failure meriting legislative action.

2.2 General Role of Food Labeling

Food product labeling is motivated by a broad set of incentives. Exhibit 2.1 presents a list of specific types of voluntary and mandatory food labels common in the United States and provides a brief summary of the motivation for each labeling scheme. Product package attributes provide consumers with information about product pricing. Product freshness and quality information can be used by consumers to discern expected product quality. Nutrition and health information labels are intended to inform consumers about a product's health implications, provide ingredient information to help consumers select foods that fit their lifestyle, avoid potential allergens, and pursue specific nutrients. Process information relates to production and manufacturing practices that provide segments of consumers with information that relate to specific social preferences. To justify labeling costs, mandatory labels must either directly impact consumption or generate a positive externality. An example of a positive externality in labeling is the cigarette package label "SURGEON GENERAL'S WARNING: Smoking Causes Lung Cancer, Heart Disease, Emphysema, and May Complicate Pregnancy." This label's positive externality is the social goal of reducing medical costs and extending life expectancy.

Exhibit 2.1. Example Food Product Labels

Label Types	Reasons for Labels
Product Package Attributes	
Product Price	Provide consumer package price and size information
Weight or Volume	To avoid deception
Freshness Attributes	
Best if Used By Date	Freshness & storability of product
Use-By-Date	Quality of product usage
Sell By Date	Safety of product usage
Nutritional Information	
Nutrition labels	Provide nutrient content to consumer
Health Information	
Health labels	Highlight to consumer health (positive or negative) attributes of foods
Ingredients lists	
Food Safety	
Safe Handling Guidelines	Provide consumers with food
Pasteurized label	safety information of product
Federal Inspection labels	
Quality Information	
Product Guarantees	Provide consumer product quality information
Process Information	
Origin labels	Provide information consumers may
Eco-labels	relate to social preferences
Fair Trade labels	or use as cues for other attributes
GMO labels	
Organic	
Natural	

Food product labels are used to:

1. Provide consumers with information that enables them to make purchase decisions.
2. Enable food manufacturers to develop and promote food products.
3. Provide local, state, or federal authorities opportunities to pursue societal goals such as improving human health outcomes and reduce health care costs.
4. Attain desired food quality or safety standards.
5. Ensure fair competition, reduce fraud, and develop credence attributes.

Food product labeling ultimately is driven by incentives to provide market information that facilitates market efficiency. Food product attributes broadly fall into *search*, *experience*, or *credence* categories (Caswell and Mojduszka, 1996). *Search* attributes are those consumers can discern before they purchase a product. This might include product color, size, shape, and price. *Experience* attributes are those consumers learn after the purchase of a product such as tenderness or flavor. *Credence* attributes are those consumers cannot determine even after consuming a product such as whether a product was produced using Genetically Modified Organisms or Country of Origin (Darby and Karni, 1973).

Product labels that have integrity and are trusted by shoppers are intended to translate *experience* and *credence* attributes into *search* attributes. As such, well-labeled products allow consumers to search for desirable product attributes. Labels may reduce consumer dissatisfaction with food products and ultimately increase demand for products that possess desired attributes. This improves market efficiency by sending consumer preference signals to food manufactures and producers. "The intent of labeling policy is to improve the information environment in order to improve the functioning of markets for the quality attributes themselves" (Caswell, 1998, p 152). In general, search attributes will be preferred by consumers to the extent the information contained on labels is more valuable than the costs of labeling a given product. However, whether product labels are mandated or left for voluntary development and adoption by food manufacturers is a complex issue.

An important issue that is often ignored by advocates of more intensive mandatory food labeling is that the marginal value of additional labeling declines as the amount of labeling increases. Labeling details can quickly become over-burdensome to the point that they are ignored by consumers. "…strategies for reducing information asymmetry through the provision of vast amounts of information to consumers have limited chance of success…Hence, it risks not being attended to and processed by consumers" (Verbeke, 2005, p 361). Consumers do not spend a lot of time reading labels. Consequently, adding more information to food product labels may not provide enough added public benefits to justify additional government and private sector costs.

2.3 Incentives and Impairments for Labeling

Because food product labels have various roles, implied and perceived implications of food product labels can vary substantially across firms and consumers. Policy makers are tasked with determining societal benefits by considering issues of credence, accuracy, food safety, food security, and costs. Private and public incentives for food product labeling may not fully align and understanding these incentives is crucial to designing and evaluating food product labeling legislation.

Voluntary Labeling

Private firms develop voluntary food product labeling strategies to maximize expected profit. If the marginal revenue associated with a product label exceeds the marginal costs associated with producing and manufacturing labeled food products, the private sector will pursue a labeling strategy. This incentive is straightforward: if the costs needed to ensure the accuracy and value of labeling are incurred and consumer demand increases are reflected through price premiums and/or increased sales needed to offset those costs occur, then the private sector will voluntarily adopt the labeling practice. If market premiums and/or increased demand do not exceed costs, private industry will not voluntarily adopt the labeling process. Observed private firm food product labeling activity provides direct evidence that premiums or market share are sufficient to offset additional labeling costs. Conversely, absence of such labeling is a signal the private sector does not believe financial benefits of labeling currently out-weigh costs.

Voluntary food product labeling provides incentives for firms to invest in new product development to meet consumer preferences. As such, voluntary food product labeling can serve as a catalyst to encourage food product innovation. For example, USDA's certification for grass fed marketing standards provides opportunity for firms to certify production protocols and market products derived from animals that are differentiated by this production standard. In contrast, food product labeling regulations can deter new product innovation. For example, mandatory GMO ingredient labeling clearly would have much different impacts on product innovation than voluntary labeling. Thus, mandatory labeling can reduce consumer food product choices and discourage product innovation (Carter and Gruére, 2003).

Mandatory Labeling

Private incentives for food product labeling may, in certain circumstances, be insufficient to encourage label development and adoption. However, there may be social value associated with mandatory labeling. For example, the social benefits of reducing cigarette smoking by requiring adverse health consequence labeling on cigarettes or health and accident warning labels on alcoholic beverages, motivate such warning labels. Mandatory safe handling instruction labels on meat and poultry was enacted in 1993 to educate consumers on proper meat handling. These are examples of mandatory labeling schemes considered to have greater public value than associated public costs.[2]

Another example of mandated food product labeling is the 1990 Nutrition Labeling and Education Act (NLEA) of 1990 which mandated nutrition labeling on food products. This Act was considered a major shift in federal food labeling in the United States as it was the first major food labeling legislation with a target encouraging healthier eating.

> "It is commonly believed that the congressional intent of the NLEA legislation had three aims: first, to promote consumer nutritional education by reducing the vocabulary confusion in the marketplace by issuing descriptor regulations for terms such as "less," "more," "light," "reduced," and similar approved vocabulary; second, to enable consumers to make more healthful food choices by providing uniform nutritional information on all food packages and allowing approved health and nutrition claims when appropriate; and third, to provide incentive to the food industry (through competitive pressures stemming from the comparable nutrition facts panel and accessing approved health claims) to create innovative and healthier new products for consumers (Petruccelli 1996)" (Ghani and Childs, 1999 p 149).

Among other things, the NLEA mandated the format for, content of, and nature of health and nutrition labeling as well as serving size information. Noteworthy is that this sweeping legislation is currently proposed for further refinement and update by the Food and Drug Administration. The NLEA is an example of labeling legislation where social benefits of standardized labeling appeared to exceed private benefits of adopting the label given the federal government's goal of using labeling as one means to advance human health and nutrition education (Mojduszka and Caswell, 2000).

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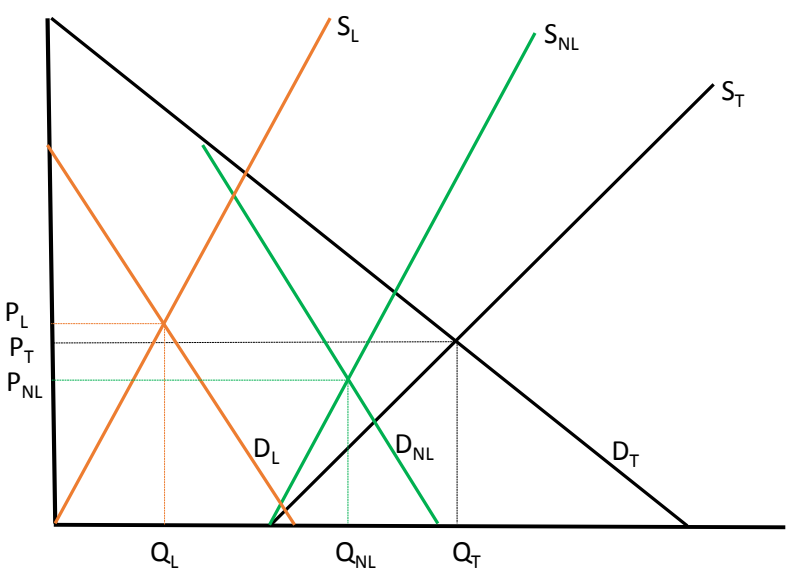
[2] Public value and public cost here refer to all current financial costs and values and to all positive and negative externalities. An example of a future financial value is health expenses forgone a decade from now because of consumer awareness today of the potential negative health consequences from smoking. An example of a positive externality is that incidence of second hand smoke illness declines as a result of smoker awareness of the dangers from smoking.

2.4 Origin Labeling Market Level Demand and Supply Impacts

To understand how origin labeling affects supply, demand, and market prices, we contrast direct market impacts of voluntary versus mandatory origin labeling holding all else constant. The market equilibrium for voluntary origin labeling of meat is depicted in Exhibit 2.2. Assume some consumers prefer origin labeling and are willing to pay a premium for product labeled as such. Also, assume the remaining consumers care more about product price than origin label and will purchase the less expensive of the two. Because certifying and labeling origin involves costs for supplying firms, the supply of origin labeled product (S_L) is smaller, or shifted to the left, relative to the supply of non-labeled product (S_{NL}). Total industry beef supply of labeled plus non-labeled product is $S_T = S_L + S_{NL}$ and aggregate combined demand is $D_T = D_L + D_{NL}$. Total industry quantity produced and consumed is $Q_T = Q_L + Q_{NL}$.

Firms that can most efficiently supply origin labeled products will do so and the rest of the firms will supply unlabeled products. Origin-labeled product is a perfect substitute to non-labeled product for consumers who do not care about origin. In such a setting, consumers who prefer origin labeling will pay the costs of labeling with a price of P_L and those consumers who do not care about origin labeling will not be forced to pay for it and will opt for non-labeled product at price P_{NL}. These market attributes would result in origin-labeled product price (P_L) being greater than the non-labeled price (P_{NL}). If no consumers were willing to pay for the costs of origin labeling by even the most efficient firms (i.e., implying D_L is too small to entice suppliers to provide origin labeling services), then non-labeled product demand and supply would equal aggregate market demand and supply (i.e., $D_T = D_{NL}$ and $S_T = S_{NL}$) and no origin-labeled products would be produced.

Exhibit 2.2. Industry Supply and Demand under Voluntary Origin Labeling



Next, consider the impacts of mandatory origin labeling. Exhibit 2.3 illustrates the result of mandatory origin labeling assuming that there is no s demand for origin labeling. That is, assume mandatory labeling to be purely a regulatory decision with no consumers willing to pay more for origin-labeled compared to non-labeled products.

In this scenario, there is only one market -- that for labeled product. Labeling costs of supplying origin certification, sorting, and labeling product shifts the aggregate industry supply curve back from S_T under voluntary labeling to S_L'. Because there is no change in consumer demand assumed here, demand remains unchanged. The result is a smaller overall industry. That is, Q_L' with mandatory labeling is smaller than Q_T, the total quantity under voluntary labeling reflecting the increased industry costs of complying with the origin labeling regulation. Furthermore, the mandatory labeling price P_L' is greater than the voluntary labeled price P_T.

Exhibit 2.3. Industry Supply and Demand Switching from Voluntary to Mandatory Origin Labeling with No Change in Consumer Demand

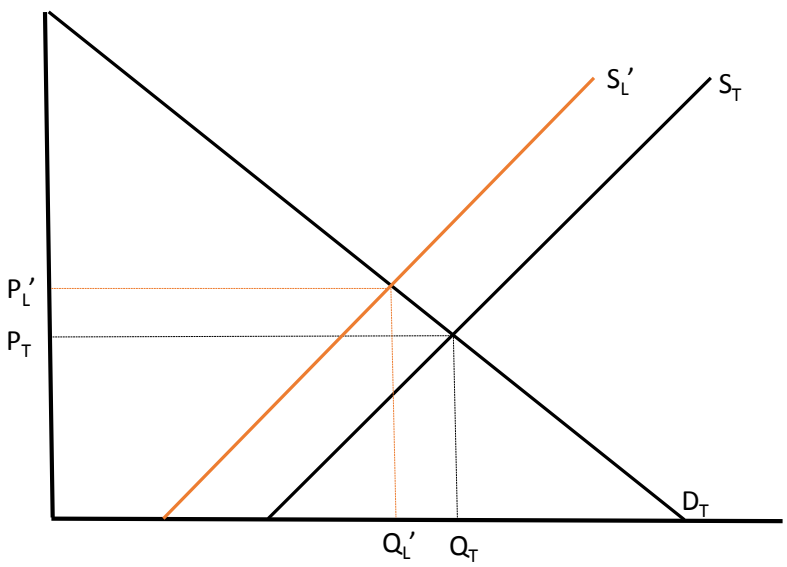
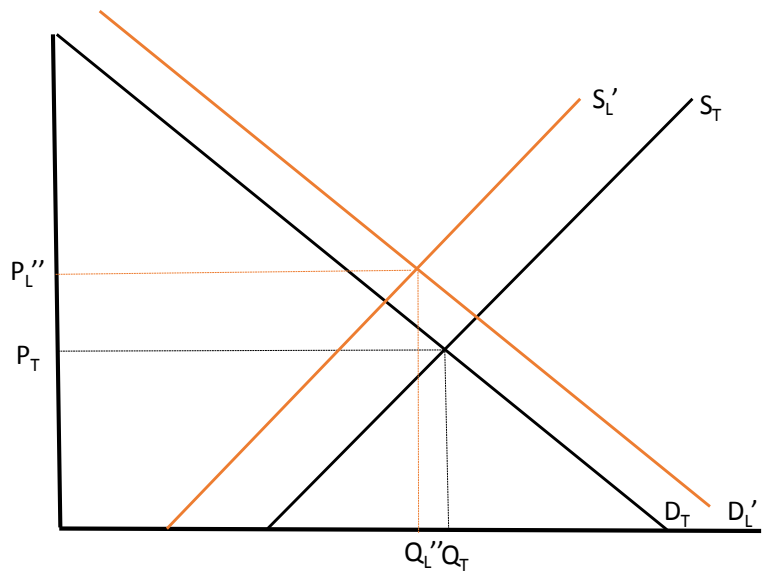


Exhibit 2.3 assumes there are no consumers that demand origin labeling following the mandated labeling policy. Although research indicates that mandatory origin labeling has not increased aggregate consumer demand (Taylor and Tonsor, 2013), some consumers may prefer origin labeled product. If so, the aggregate market demand curve in Exhibit 2.3 could shift outward from D_T to D_L' as shown in Exhibit 2.4. The increase in demand reflects the demand by those consumers who wanted origin labeled product enough to be willing to pay more for the product. Theoretically, the new demand curve in Exhibit 2.4 could shift to the right by more than

illustrated resulting in both a larger industry and a higher product price. However, this sizable demand increase is unlikely because, if this were the case, voluntary origin labeling would have already been adopted by industry suppliers as the benefits of adoption would have exceeded the costs. So, any demand increase that might take place after mandated origin labeling must not be sufficient to pay for all of the added costs of labeling. Compared to Exhibit 2.3, the resulting quantity consumed in Exhibit 2.4, Q_L'', is greater than Q_L' (mandatory labeling with no demand increase) but still less than Q_T, implying a smaller industry than under voluntary origin labeling, but not as small as depicted in Exhibit 2.3. However, market prices under mandatory labeling with a demand increase is higher than if demand were unchanged.

Exhibit 2.4. Industry Supply and Demand Switching from Voluntary to Mandatory Origin Labeling Assuming an Increase in Consumer Demand



2.5 Mandatory vs Voluntary Labeling

Food labeling legislation must consider: 1) allowances for voluntary labeling strategies, 2) prohibitions on label information, and 3) the type of information that merits being mandatory. Ultimately, judgment must be used to determine which of these three alternative labeling rules might best apply to any particular food labeling situation. However, guidelines used to weigh alternative labeling legislation must assess the benefits and costs associated with the decision. For private labeling, firms incur all compliance costs of third-party verification. In contrast, mandated labeling may have merit if private and public benefits exceed private and social costs including government enforcement and compliance expenditures.

Mandated labeling is subject to a more stringent test relative to voluntary labeling. Labeling rules ideally ensure claims are true and not misleading. That said, regulating a product label claim is important because left unregulated, the claim can become meaningless.

The use of the term "natural" is a good example of an unregulated food product label that has been used to indicate that a product has no added color, artificial flavors, or synthetic substances (FDA, 2014). The word "natural" has been widely used as a food label, but because of its generality and limited regulation, the label has been criticized as being of little value -- if not misleading (Ferdman, 2014). As such, regulating terms used in food labeling and providing certification protocols serve the role of ensuring meaningful information is communicated to consumers.

Mandated labeling may be appropriate when private market voluntary labeling fails to provide adequate information. Specifically, mandatory labeling often occurs when voluntary labeling has failed to provide the socially optimal amount of information. Golan et al. (2001) suggest that mandatory food labeling is most likely to arise when either 1) the market is not supplying sufficient information to allow consumers to make desired choices, or 2) there is an externality present so that individual consumption decisions are affecting social welfare differently than they are affecting an individual consumer's welfare. Mandatory nutrition labels, for example, were likely necessary to provide consistent and reliable nutrition information (Mojduszka and Caswell, 2000) and such labels were intended to reduce the negative externality discussed by Golan et al. (2001). The externality associated with nutrition labeling was that uninformed consumers would select healthier diets if provided with nutrition labeling, thereby reducing social costs of human illnesses.

An additional argument used to justify mandatory labeling is the concept of a consumer's *right to know*. This argument has been most prominent in labeling of process information (table 1). Eco-labels, GMO labels, and origin labeling are examples where a consumer's *right to know* has been particularly referenced as the rationale to federally mandate labeling policies (e.g., Streiffer and Rubel, 2004). An important dimension to note here is that food labeling is costly. Not only do government regulatory and enforcement costs exist, but costs accrue to the entire food supply and manufacturing chain of conforming to labeling requirements (Capps, 1992; Caswell and Padberg, 1992). Over time, these added costs accrue to tax payers in the form of higher taxes, to consumers in the form of higher food prices, and to producers and manufacturers in the form of higher costs and ultimately smaller industries. A net benefit to society occurs when the cost is exceeded by a consumer demand increase, internalizes positive externalities, or a combination of both. However, economic evaluation of externalities ultimately drives policy decisions on whether to mandate these types of labels or allow them to be voluntary. That is, whether consumer demand increases or not following mandated labeling does not justify mandated labeling as long as private voluntary labeling is an option.

Consider the case of alcoholic beverage labeling that state consumption can cause birth defects, ill health consequences, and impairs operation of equipment. This label does not increase consumer demand. In fact, it is likely to reduce demand for alcoholic beverages. However, the positive social externalities (e.g., saving lives, lowering the incidence of accidents, and lowering public health care costs) are perceived to exceed the foregone private benefits. This is an

example where mandated labeling may be justified by social benefits even at the expense of industry and consumers who purchase alcohol. The eco-label EnergyGuide required on many U.S. appliances is another example where mandated labeling is one policy option, among many, used to help accomplish a socially desirable outcome of reducing environmental harm by promoting more energy efficient household products.

An important problem with the *right to know* argument arises when social benefits of mandated labeling are insufficient to cover societal costs. Consider GMO labeling. Voluntary GMO labeling enables firms to produce and manufacture food products that do not contain GMO ingredients if they choose to do so. Some firms have adopted this product claim to attract consumers who specifically want to know about this process. Those consumers who want to purchase products produced without GMO's can do so and those consumers who do not care about this attribute, do not specifically search out non-GMO products.

Voluntary GMO labeling practice maintains consumer choice and right to know for those consumers that want to know and provides opportunity for private firms that can profitably supply non-GMO products to do so. Under voluntary labeling, consumers who do not want to pay the higher price for GMO labeling are not forced to do so which makes them better off. Mandated GMO labeling forces these consumers to pay for an attribute that they do not value and removes a competitive advantage from firms voluntarily supplying non-GMO products. Further, mandated GMO labeling could create unjustified stigmas among consumers that would result in private firm losses. Carter and Gruére (2003) argue that in the European Union, mandatory labeling of GMO food has actually reduced consumer choice because it acts as a market barrier to the extent that GMO produced products are no longer available to consumers. This is not considered an appropriate role of government labeling because voluntary labeling provides those consumers wanting to know with a choice. In the absence of a clearly defined negative or positive externality, there is no labeling market failure.

Similar arguments apply to country of origin labeling as GMO labeling. As Kuchler reports in Golan et al., 2001 (p 169):

> "USDA's Food Safety and Inspection Service (FSIS) is responsible for labels on meat products. FSIS labeling policy allows fresh muscle cuts of beef and lamb to be identified as "U.S. beef" or "U.S. lamb" so long as the statement is truthful. USDA's Agricultural Marketing Service (AMS) offers a voluntary program to officially certify that livestock, meat, and meat products originate from the United States and are eligible to be labeled as "U.S. beef." The voluntary program certifies that livestock and meat products have been produced from livestock born, raised, slaughtered, and processed in the United States. In effect, USDA has offered to overcome the major stumbling block for labels: verification and certification. To certify U.S. origin, AMS audits production and processing records. FSIS noted that when its report was written, there were no participants in the program (FSIS, 2000)."

The absence of country of origin labeling does not necessarily constitute a market failure. Rather, supply-chain institutions could certainly implement U.S. origin labeling schemes. The fact that,

at most, a small quantity of meat was source identified indicates that insufficient private value is perceived to be present relative to the added costs to supply such labeled products. Although some producers have marketed products as “locally grown” in local communities, these programs have not used AMS origin labeling certification procedures. Furthermore, mandating country of origin labeling contradicts a long standing position the federal government has used to guide meat labeling decisions. If the U.S. born and raised product is not different from other meat obtained from livestock born or raised in another country and inspected for import into the U.S. (Canada for example), then labeling the products by country of origin may actually be confusing, misleading, and even deceptive as it suggests there is a material difference between such meat products. This is precisely the reason why the FDA does not require GMO labeling as long as it does not significantly alter the properties of food (e.g., introduces an allergen), but allows voluntary GMO labeling (Roe and Teisl, 2007).

Under a best case scenario, there may be social value attributable to origin labeling if such labels lead to increased demand for U.S. meat. To date, no evidence exists suggesting that mandated country of origin labeling in U.S. retail meat markets has increased consumer demand (Taylor and Tonsor, 2013). As such, no private value of mandatory country of origin labeling has been identified in the United States retail sector. Furthermore, even if origin labeling did increase demand for meat, this would not justify mandated origin labeling as voluntary label has always been an available option. However, demand increases would offset some of the costs associated with compliance.

Mandatory food product labeling has normally been best suited for items related to human health and well-being, such as nutrition labels, food safety instructions, ingredients listing, and health warnings where broader social goals may exist that are not fully recognized by private production and consumption decisions. In contrast, voluntary labels that follow regulated guidelines and may include third-party certifications are better suited for particular quality, safety enhancement, and process attributes (Caswell, 1998). Such voluntary labeling enables producers and food manufacturers to meet consumer demands for special product credence attributes where sufficient consumer demand is present to economically justify supplying the product and associated certification.

Chapter 3: Cost and Benefit Estimates Regarding the 2009 and 2013 Rules

3.1 Regulatory Impact Analyses

3.1.1 2009 Rule

In the final MCOOL rule published on January 15, 2009, USDA produced a regulatory impact analysis that assessed the rule's projected costs and benefits. The agency did not specifically quantify benefits. Instead, the analysis specified that monetary benefits would likely be small, and consumers interested in using origin country information to influence their purchase decisions would benefit most from the rule's implementation (Federal Register, 2009).

Within the cost analysis, USDA projected overall commodity costs incurred in the first year and costs that would occur 10 years after the rule became effective. The first-year incremental costs, including those incurred by producers, processors, wholesalers, and retailers, were estimated to be $2.6 billion. By value chain sector, USDA also projected costs per firm: $370 for producers; $48,219 for the handlers, importers, processors, and wholesalers that act as intermediaries; and $254,685 for retailers. In the 10th year, the U.S. economy would sustain $211.9 million in costs attributed to higher food prices and lower production output (Federal Register, 2009).

3.1.2 2013 Rule

When USDA proposed the MCOOL modifications enacted in 2013, it suggested that the industry, especially retailers and intermediaries like packers and processors, may incur greater costs to meet the new requirements. The agency estimated that 2,846 intermediaries and 4,335 retailers would be affected. USDA presented estimated costs for total commingling losses, labeling change expenses, and an adjusted total. USDA estimated that 5 percent to 20 percent of packers commingle product from U.S. and foreign-origin livestock. To segregate products from different animals that have different origins, USDA projected packers and processors that commingle would incur an extra $7.16 per head for cattle and $1.76 per hog. At the retail level, these costs would total $0.05 per pound for beef and $0.045 per pound for pork. USDA estimated that total commingling costs for the beef and pork industries would range from $21.1 million to $84.5 million and $15 million to $60.3 million, respectively. The midpoints were $52.8 million for beef and $37.7 million for pork (Federal Register, 2013).

USDA projects costs incurred for altering labels to reflect the newly required production step origin information would range from $17 million to $47.3 million; the midpoint was $32.8 million. After considering both commingling losses and updated labeling costs, USDA estimated adjusted total costs to range from $53.1 million to $192.1 million, and the midpoint was $123.3 million. USDA projected that true costs would trend toward the lower point and revised the range from $53.1 million to $137.8 million (Federal Register, 2013).

USDA did not quantify potential benefits resulting from the revised MCOOL rule. However, based on comments obtained during the comment period, USDA noted that some U.S. consumers will benefit from muscle cut origin country labeling. Combined, the provisions to share production step origin information and replace commingling labels provided more specific information that consumers can use to make decisions. Although these benefits may generate some value, USDA recognizes that value created by the revised rule likely will be less than any benefits created by the 2009 MCOOL rule's implementation (Federal Register, 2013).

3.2 Public Comments on Proposed Rule

3.2.1 Initial Rule Comments

Several times during the MCOOL rule development process, USDA opened its proposed and final rules for public comment. Comments and interest varied each time. Entities that offered comments included consumers, retailers, foreign governments, producers, wholesalers, manufacturers, distributors, Congressional representation, and trade associations (Federal Register, 2009).

Between 2003 and 2009, USDA provided five different comment periods. The agency extended some periods, and each extension requested comments on different rule drafts. Most comments were consumer-driven thoughts that encouraged mandatory labeling. An October 5, 2004 open comment period, comments were sought regarding the interim final rule for fish and shellfish labeling, and a November 27, 2006 open comment period sought comments tailored to fish and shellfish rules. In the comments, most people did not focus their comments on costs and benefits. Of those who did, some noted that they did not believe seafood demand would increase because of origin labeling. Other commenters argued that implementation costs would not be as large as USDA had projected. An August 1, 2008 open comment period addressed the interim rule for all covered commodities but fish and shellfish (Federal Register, 2009).

USDA summarized several themes, related to costs and benefits, that commenters raised. Some shared concerns that meat producers and packers would absorb significant implementation costs, yet consumers may not pay more for origin-labeled products. Ultimately, pressure on these intermediaries, especially small-scale processors, may affect their livelihood. To comply, another commenter expressed concern that livestock producers may incur $9 per head costs because other value chain stakeholders operate on margins (Federal Register, 2009).

The benefits-related discussion included one commenter's frustration that USDA has not adequately articulated benefits and consumer interest in MCOOL rules. Specifically, the commenter shared a 2007 survey finding from Consumer Reports that indicated that 92 percent of consumers support origin country labeling. However, other commenters indicated that only a small group would benefit from MCOOL (Federal Register, 2009).

3.2.2 2013 Rule

During 2013 MCOOL comment period, USDA received 453 positive comments and 476 negative comments. Supporting commenters noted that the updated labels would provide more information. Other commenters indicated that "consumer confidence benefits can accrue just as a result of having the information available, even if the consumers do not read the labels' information." Others noted that buyers may discern differences among products sourced from different countries, and they will demand more and pay more for products that fit their desires. Some commenters were not convinced about "quantifiable benefits for consumers" (Federal Register, 2013).

Other individuals who shared opposing comments noted their concern about costs and MCOOL's effect on trade. From a cost perspective, comments addressed higher implementation costs than USDA projected, elevated processor segregation costs, and substantial costs for retailers. Possible "trade retaliation" was another concern shared during the comment period (Federal Register, 2013).

The American Meat Institute commented that altering the mandatory COOL provisions would with "virtual certainty" cause "several meat packing establishments" to "ultimately close because of the costs they will be forced to incur in order to implement the proposal's requirements" (American Meat Institute, 2014).

3.3 Private and Public Estimates

Many entities have attempted to measure the costs and benefits associated with MCOOL for covered commodities. Depending on the assumptions made, costs and benefits projections vary. Additionally, as the industry gathers more information about mandatory labeling and experiences rule implementation, entities revise their estimates.

Several different studies indicated that mandatory COOL imposes $200 million to $6.4 billion of additional costs for the beef value chain and $20 million to $1 billion for the pork value chain annually. Sparks Companies, since rebranded as Informa Economics, predicted mandatory COOL labeling costs in the beef and pork industries in 2003 and estimated the distribution of total costs by value chain sector. Exhibit 3.1 presents the estimated annual costs that Sparks Companies estimated. The projections suggested that compliance costs would total $1.653 billion for the beef industry and $713 million for the pork industry. Within the beef industry, these cost estimates project that the retail sector would bear the greatest share – nearly one-half – of the industry's total costs. Within the pork industry, these projections indicate that wholesalers would absorb nearly one-half of the industry's total costs (Brester, Marsh, and Atwood, 2004a).

Exhibit 3.1 – COOL Cost Implications by Value Chain Sector, 2003 (Informa Economics, 2003)

Sector	Annual Costs (millions)
Beef	
Cow-calf (feeder cattle)	$198
Feedlot (fed cattle)	$150
Packer (wholesale)	$500
Retail	$805
Total	*$1,653*
Pork	
Hog finishing	$100
Wholesale	$350
Retail	$263
Total	*$713*

In 2009, Informa Economics updated their economic impact estimates in which industry costs were divided into two categories: value chain stakeholders that only supply and sell products of U.S. origin and value chain stakeholders that supply and sell products with mixed origins. Exhibit 3.2 lists the cost assumptions per animal for complying with COOL in 2003, estimated by Sparks Companies, and 2009, estimated by Informa Economics. The 2009 estimates differentiate between costs incurred in systems that exclusively source and sell U.S.-origin beef and systems that accommodate mixed origins. Costs for U.S.-origin systems in 2009 were much lower than the 2003 estimates and 2009 costs for mixed origin systems. Estimated cow-calf producer, feedlot and backgrounder, and packer and processor costs per animal declined significantly between the 2003 and 2009 U.S.-origin estimates because the MCOOL rule eased origin verification responsibility of stakeholders positioned early in the value chain. In mixed origin systems, costs for retail sector increased from the 2003 estimates (Informa Economics, Inc., 2010).

Exhibit 3.2 – Beef COOL Cost Implications by Value Chain Sector per Animal (Informa Economics, 2003 and 2010)

Sector	2003	U.S.-Only Origin, 2009	Mixed Origin, 2009
Cow-calf producer	$4.88	$0.25	Not applicable
Feedlot/backgrounder	$3.75 - $5.75	$0.25	$0.50 - $1.00
Packer/processor	$15.00 - $18.00	$0.25	$10.00 - $18.00
Retail distribution and retail store	$23.00	$0.75	$35.00 - $40.00
Total	**$46.63 - $51.63**	**$1.50**	**$45.50 - $59.00**

After applying costs per animal in Exhibit 3.2, Exhibit 3.3 presents total COOL cost implications for the beef industry. As noted in the table, total costs incurred by the supply chain are concentrated among stakeholders that choose to source and supply animals and product from mixed origins. Despite whether the segment exclusively involves U.S. or mixed origins, retailers absorb the most costs based on these estimates. Total beef supply chain costs were estimated to be $1.058 billion and $1.264 billion (Informa Economics, Inc., 2010).

Exhibit 3.3 – COOL Cost Implications for Beef Industry by Value Chain Sector, 2009 (Informa Economics, 2010)

Sector	U.S.-Only Segment Cost		Mixed Origin Animals and Product Cost	
	Millions	Variables	Millions	Variables
Cow-calf producer	$8.9	35.6 million head calf crop	Not applicable	
Feedlot, backgrounder	$6.3	25.2 million head sold	$0.6 - $1.3	1.27 million head sold
Packer processor	$4.1	16.5 million head steer/heifer	$100 - $180	10 million head steer/heifer
	$1.7	6.6 million head cows/bulls at $0.25/head	$0.2	0.2 million head cows/bulls at $1/head
Retail distribution and retail store	$62.0	2 billion pounds sold at $0.031/pound from 8.3 million cattle	$875 - $1,000	5.9 billion pounds sold at $0.1585
Subtotal	**$83.0**		**$975.8 - $1,181.5**	
Supply chain total				**$1,058.8 - $1,264.5 million**

Exhibit 3.4 presents COOL cost estimates per animal for the pork industry. U.S. origin costs per animal were much lower than the initial estimates made in 2003. Within a mixed origin system, the estimated costs per animal were within the range projected during 2003; however, the mixed origin system costs trended toward the upper end of the range (Informa Economics, Inc., 2010).

Exhibit 3.4 – COOL Cost Implications for Pork Industry by Animal per Animal (Informa Economics, 2003 and 2010)

Sector	2003	U.S.-Only Origin, 2009	Mixed Origin, 2009
Integrated hog production and packer/processor system (U.S. only)	$0.5	Minimal $0 - $0.10	Not applicable
Large scale closed production system, non-integrated (U.S. only)	$0.75	Minimal $0 - $0.10	Not applicable
Small independent non-integrated production system (U.S. only)	$1.50	Minimal $0 - $0.10	$0.25 - $0.50
Non-integrated packer/processor	$2.00 - $6.00	Minimal $0 - $0.10	$5.00 - $6.00
Sows and boars	$2.00	Minimal	Not applicable
Retail distribution and retail store	$2.75 (7.5 cents/lb.)	$0.25 (0.007 cents/lb.)	$1.65 - $2.00 (4.5 – 6 cents/lb.)
Total	**$3.25 - $10.25**	**$0.25 - $0.35**	**$6.90 - $8.50**

Given the per animal costs estimated in Exhibit 3.4, Exhibit 3.5 presents total pork industry costs and the supply variables used to generate the estimates. Similar to the beef industry estimates, substantial costs are linked to the mixed origin industry segment. Retailers would also absorb the

greatest share of total costs. These estimates suggest the total pork supply chain would incur between $167.5 million and $228 million of additional costs (Informa Economics, Inc., 2010).

Exhibit 3.5 – COOL Cost Implications for Pork Industry by Production System and Sector, 2009 (Informa Economics, 2010)

Sector	U.S.-Only Origin Segment	Mixed Origin Segment	Estimation Variables
	Millions		
Integrated hog production and packer/processor system (U.S. only)	$0 - $3.6	Not applicable	36 million hogs per year
Large scale closed production system, non-integrated (U.S. only)	$0 - $4.3	Not applicable	43 million head per year
Small independent non-integrated production system (U.S. only)	$0 - $2.0	$2.5 - $5.0	20 million head per year (U.S. origin); 10 million head per year (mixed origin)
Non-integrated packer/processor	$0 - $6.1	$60 - $72	61 million head per year (U.S. origin); 12 million head per year (mixed origin)
Sows and boars	Minimal	Not applicable	
Retail distribution and retail store	$15.0	$90.0 - $120.0	2 billion pounds sold at 0.0075 cents per pound from 54.5 million hogs (U.S. origin); 2 billion pounds sold at 4.5 cents to 6 cents per pound from 4.5 million hogs (mixed origin)
Total	**$15.0 - $31.0**	**$152.5 - $197.0**	
Supply chain total			**$167.5 - $228.0 million**

The American Meat Institute estimated MCOOL compliance costs would total $1.005 billion for the beef industry. By sector, it projected $246 million for cattle producers, who would need to implement animal identification practices and maintain animal tracking records; $182 million for packers and processors, which needed to invest in capital resources to segregate product and develop tracking protocols; and $375.12 million at the retail level for additional segregation, labeling investments, and corresponding recordkeeping costs (Hanselka, 2004).

3.4 Academic Estimates of Economic Impacts

After the 2002 Farm Bill increased the prospects of MCOOL being implemented, several academic studies were published that investigated the net economic impact of MCOOL on various segments of the U.S. meat and livestock industry. Brester, Marsh, and Atwood (2004b) and Lusk and Anderson (2004) used equilibrium displacement models to explore these impacts and how they would be distributed across market levels. These studies were conducted prior to MCOOL's final rules. Both studies identified the increases in aggregate beef and pork demand that would be necessary to offset increased compliance costs (estimates varied from 2% to 5%). We discuss these estimates further in Chapter 7.

3.5 Academic Estimates of Benefits

The issue of origin labeling on food products has a long history in the literature. While provision of a full literature review is beyond the scope of this project, interested readers are directed to the summaries and individual studies by Deselnicu et al. (2013) and Newman et al. (2014). An overview of consumer information and labeling of food products provided by Lusk (2013) also includes important issues specific to COOL.

In a broader assessment of food issues, Lusk and Briggeman (2009) found origin labeling to be relatively unimportant to U.S. consumers. This work was extended by Lister et al. (forthcoming) to focus on four specific livestock-meat products. Similar to Lusk and Briggeman (2009), Lister et al. found consumers value origin information for ground beef, beef steak, chicken breast, and milk much less than product safety, freshness, and price.

Much of the consumer preference research has indicated U.S. consumers may be willing to pay a premium for U.S.-origin beef and pork products over products from other countries. However, as noted by Newman et al. (2014) "actual purchase behavior is the least research dependent measure concerning the impact of COOL on consumers" (p 5). Specific to our study, what has largely been missing from the literature is an assessment of demand response specific to the unique details associated with the implementation of MCOOL.

Research conducted at Kansas State University and Oklahoma State University assessed consumer response to implementation of MCOOL in 2009 leading to a fact sheet (Tonsor et al., 2012) with key findings subsequently distributed by Taylor and Tonsor (2013) and Tonsor, Schroeder, and Lusk (2013). In the only known *ex post* evaluation of actual meat consumption patterns, Taylor and Tonsor (2013) investigated if beef and pork demand were impacted by MCOOL. Using grocery store, scanner data from February 2007 to March 2011 the authors failed to find evidence that MCOOL changed demand for either beef or pork. These findings are similar to those from Kuchler, Krissoff, and Harvey (2010) in a related assessment of how MCOOL has not significantly increased shrimp demand.

Using nationally representative online surveys, Tonsor, Schroeder, and Lusk (2013) found less than one-quarter of respondents "were aware of MCOOL." This is consistent with assertions that the general public does not use origin information when making beef and

pork purchases. Tonsor, Schroeder, and Lusk (2013) also found U.S. consumers value meat products carrying 'Product of North America' labels approximately the same as they value those with 'Product of United States' labels.

A November 2014 survey coordinated at Oklahoma State University provides the only known academic research on consumer awareness and response of details specific to the 2013 MCOOL rule (FooDS, 2014). Twenty-two percent of respondents were aware that grocery stores are required by law to label fresh meat products with the country where the animal was born. Twenty-eight percent of respondents were aware that grocery stores are required by law to label fresh meat products with the country where the animal was raised. Twenty-four percent of respondents were aware that grocery stores are required by law to label fresh meat products with the country where the animal was slaughtered. The 2013 rule requires all covered commodities to have each of these origin designations. The largest share of respondents indicated they did not know about these requirements, consistent with findings of Tonsor, Schroeder, and Lusk (2013).

To assess if stated consumer willingness-to-pay (WTP) varies across products with labels changed by the 2013 MCOOL rule, FooDS (2014) respondents were randomly assigned to one of four treatments that differed in presented labeled products. One fourth of participants were asked: "What is the most you would be willing to pay for a 12oz boneless rib eye beef steak that was labelled as: *Born, Raised, and Slaughtered in the U.S.*?" Other respondents answered similar questions except the labels were changed to: *Born in Canada, Raised and Slaughtered in U.S.; Born and Raised in Canada, Slaughtered in the U.S.;* or *Product of Canada and the U.S.* Point estimates of WTP were highest on *Born, Raised, and Slaughtered in the U.S.* consistent with past stated preference research. What is most important is assessing if WTP values across labels are statistically different. Results show consumers do not statistically distinguish between beef from animals born in Canada (then raised and processed in the U.S.) and beef from cattle born and raised in Canada (then processed in the U.S.). Respondents did not place different values on labeled Ribeyes complying with the 2013 MCOOL rule than Ribeyes labels that comply with the 2009 rule as *Product of Canada and the U.S.*

Chapter 4. Equilibrium Displacement Model (EDM) Theoretical Framework and Calibration

The preceding chapter provides a summary of the direct economic impacts of MCOOL as available from existing, external sources. These direct impacts are commonly calculated as expected changes in net returns (on a $/head, $/lb, or on $/hundred weight basis) experienced by stakeholders spanning the livestock and meat industry's supply chain. Accordingly, direct economic impacts are often characterized and interpreted as the impact to a single operation.

Direct economic impacts, however, do not measure the overall market impact of implementing MCOOL. This is because implementation of MCOOL impacts all producers, retailers and industry segments in-between, ultimately affecting market level supply and demand and influencing market prices and quantities. As a result, direct economic impacts are greater than the impact on producers, processors, retailers, and consumers. In particular, direct impact assessments in previous chapters identify costs beef and pork suppliers face to comply with MCOOL requirements. When multiple adjustments are introduced into vertically-related marketing chains, the net impacts on quantities and prices at each market level can be especially challenging to identify. Ultimately, changes in quantities and prices drive the economic impacts on individual sectors of the supply chain. This section of the report uses the direct impact information from earlier chapters to estimate overall industry-wide market effects of MCOOL.

A well-accepted and widely used approach in the agricultural economics literature is to estimate market effects of policy changes and/or technology adoption by developing and applying an equilibrium displacement model (e.g., Balagtas and Kim, 2007; Brester, Marsh, and Atwood, 2004b; Lemieux and Wohlgenant, 1989; Lusk and Anderson, 2004; Pendell et al., 2010; Schroeder and Tonsor, 2011; Wohlgenant, 1993). Accordingly equilibrium displacement models (EDMs) were developed to identify aggregate economic impacts of policies. An EDM model is applied to the pork sector and beef sector to analyze economic impacts of MCOOL.

The particular impacts quantified by EDMS are changes in prices and quantities of livestock and meat products at various stages of the supply chain. Given the estimated price and quantity changes, adjustments in producer and consumer surplus measures are derived as estimates of economic welfare impacts. The remainder of this chapter outlines the overriding concept of the EDM and discusses assumptions and data underlying the model.

4.1 Three-Sector, Multiple Species Model

We begin by discussing an extensive EDM used in the current analysis. We develop a structural supply and demand model of the vertically linked U.S. livestock and meat marketing chain. This marketing chain is composed of four sectors in the beef industry: 1) retail (consumer), 2) wholesale (processor/packer), 3) slaughter (cattle feeding in feedlots), and 4) farm (feeder cattle from cow-calf producers); three sectors in the hog and pork chain: 1) retail pork (consumer), 2) wholesale pork (processor/packer), and 3) slaughter hogs (producer); and two sectors in the poultry chain: 1) retail poultry (consumer) and 2) wholesale poultry (processor/producer). The

number of supply chain levels is different across species because of differences in the integration of the livestock and meat marketing chain. This approach also directly captures interactions between retail meat substitution effects for beef, pork, and poultry. Incorporating consumer substitution opportunities for identifying how the poultry industry is, for example, affect by changes in the beef and pork industry following MCOOL implementation.

International trade is incorporated both implicitly and explicitly in the model. First, imports and exports of meat are explicitly accounted for at the wholesale level following existing EDM applications (e.g. Pendell et al., 2010, 2013; Schroeder and Tonsor, 2011). This allows us to utilize well-established modeling techniques using published elasticity estimates. Second, the model is built for the aggregate U.S. industry and, hence, reflects total volumes of livestock and meat transacted at each industry segment or market level. For instance, the sum of domestically born livestock and livestock imported for eventual slaughter is reflected in aggregate commercial slaughter volumes within the model.[3] Third, given the mixed role and prevalence of imports and exports at each industry level of the three species, the supply shocks (discussed in-depth below) are weighted averages reflecting the varied prevalence of foreign-born and domestic-born animals. This approach is used to capture key effects introduced by MCOOL in a manner consistent with the underlying EDM's approach to identifying aggregate, market-level impacts on prices and quantities. Furthermore, this approach allows for the use of the most robust set of available cost estimates of MCOOL compliance.

The resulting multi-species structural EDM, is a series of relationships which map out aggregate demand and supply conditions. The EDM contains endogenous variables (quantities and prices), exogenous shifters (demand and supply shifters), exogenous demand and supply elasticities, and exogenous quantity transmission elasticities. The exogenous shifters reflect direct impacts outlined in previous chapters. The EDM quantifies changes in endogenous variables (quantities and prices) which are of core interest to the aggregate economic impact assessment. The exogenous quantity transmission elasticities link the vertical segments within the supply chain of a particular species. These transmission elasticities are used to quantify how value and costs are allocated throughout the supply chain as a result of implementation costs that occur at each level.

As in all economic models, a number of additional assumptions underlie the EDM used in this analysis. Some key assumptions of the EDM include:

- all supply and demand curve shifts are parallel to the initial curves;
- all marketing levels operate in ways consistent with perfect competition;
- prices reflect a composite of import and export prices;
- retail beef, pork, and poultry demand as a group is weakly separable from other foods and non-food products;
- modeling only relatively small shocks to supply and demand.

[3] A further detailed EDM matching specifics of all combinations of livestock and meat sourcing from varied born, raised, and slaughter origins would ideally fit an analysis of MCOOL. This further detailed approach is not feasible within the scope of this project given the lack of necessary inputs such as supply and demand elasticities specific to each combination of origin-specific transactions of livestock or meat. Accordingly, the more aggregated approach is applied here following well-established examples in the literature.

The modeling strategy closely follows the work of Schroeder and Tonsor (2011), Brester, Marsh, and Atwood (2004b), and Pendell et al. (2010). The structural model (omitting error terms for convenience) is given by the following series of general demand and supply equations of this multi-species model:

Beef Marketing Chain:

(1) Retail beef primary demand: $Q_B^r = f_1(P_B^r, P_K^r, P_Y^r, Z_B^r)$

(2) Retail beef derived supply: $Q_B^r = f_2(P_B^r, Q_B^w, W_B^r)$

(3) Wholesale beef derived demand: $Q_B^w = f_3(P_B^w, Q_B^r, Z_B^w)$

(4) Wholesale beef derived supply: $Q_B^w = f_4(P_B^w, Q_B^s, Q_{Bi}^w, Q_{Be}^w, W_B^w)$

(5) Imported wholesale beef derived demand: $Q_{Bi}^w = f_5(P_{Bi}^w, Q_B^w, Z_{Bi}^w)$

(6) Imported wholesale beef derived supply: $Q_{Bi}^w = f_6(P_{Bi}^w, W_{Bi}^w)$

(7) Exported wholesale beef derived demand: $Q_{Be}^w = f_7(P_B^w, Z_{Be}^w)$

(8) Slaughter cattle derived demand: $Q_B^s = f_8(P_B^s, Q_B^w, Z_B^s)$

(9) Slaughter cattle derived supply: $Q_B^s = f_9(P_B^s, Q_B^f, W_B^s)$

(10) Farm (feeder cattle) derived demand: $Q_B^f = f_{10}(P_B^f, Q_B^s, Z_B^f)$

(11) Farm (feeder cattle) primary supply: $Q_B^f = f_{11}(P_B^f, W_B^f)$

Pork Marketing Chain:

(12) Retail pork primary demand: $Q_K^r = f_{12}(P_B^r, P_K^r, P_Y^r, Z_K^r)$

(13) Retail pork derived supply: $Q_K^r = f_{13}(P_K^r, Q_K^w, W_K^r)$

(14) Wholesale pork derived demand: $Q_K^w = f_{14}(P_K^w, Q_K^r, Z_K^w)$

(15) Wholesale pork derived supply: $Q_K^w = f_{15}(P_K^w, Q_K^s, Q_{Ki}^w, Q_{Ke}^w, W_B^w)$

(16) Imported wholesale pork derived demand: $Q_{Ki}^w = f_{16}(P_{Ki}^w, Q_K^w, Z_{Ki}^w)$

(17) Imported wholesale pork derived supply: $Q_{Ki}^w = f_{17}(P_{Ki}^w, W_{Ki}^w)$

(18) Exported wholesale pork derived demand: $Q_{Ke}^w = f_{18}(P_K^w, Z_{Ke}^w)$

(19) Slaughter hog derived demand: $Q_K^s = f_{19}(P_K^s, Q_K^w, Z_K^s)$

(20) Slaughter hog primary supply: $Q_K^s = f_{20}(P_K^s, W_K^s)$

Poultry Marketing Chain:

(21) Retail poultry primary demand: $Q_Y^r = f_{21}(P_B^r, P_K^r, P_Y^r, Z_Y^r)$

(22) Retail poultry derived supply: $Q_Y^r = f_{22}(P_Y^r, Q_Y^w, Q_{Ye}^r, W_Y^r)$

(23) Wholesale poultry derived demand: $Q_Y^w = f_{23}(P_Y^w, Q_Y^r, Z_Y^w)$

(24) Wholesale poultry primary supply: $Q_Y^w = f_{24}(P_Y^w, W_Y^w)$

(25) Exported wholesale poultry derived demand: $Q_{Ye}^w = f_{25}(P_Y^w, Z_{Ye}^w)$

Superscripts *r*, *w*, *s*, and *f* denote the retail (grocery store plus food service), wholesale, slaughter, and farm market levels, respectively; subscripts *B*, *K*, and *Y* denote beef, pork, and poultry,

respectively; *P* is price; *Q* is quantity; and *Z* and *W* denote demand and supply shifters, respectively. Throughout this report 'retail' refers to grocery store plus food service and is an aggregate measure of how meat products reach consumers. Later in the report we distinguish between grocery store and food service volumes in clarifying impacts of MCOOL given one channel (food service) is exempt while the other (grocery stores) is covered by MCOOL law, but not all products sold through grocery stores are covered. Consistent with existing international trade, the model captures imports (subscript *i*) and exports (subscript *e*) of beef, pork, and poultry. Equations (1) - (25) omit superscripts for *demand* and *supply* as market clearing conditions are imposed requiring demand and supply to equal.

Consistent with Wohlgenant (1993) we incorporate variable input proportions by allowing production quantities to vary across the market levels in the marketing chain. Totally differentiating equations (1) - (25), including variable input proportions, and placing all the endogenous variables on the left-hand side of each equation and isolating exogenous effects to the right-hand side of each equation results in the following EDM:

Beef Marketing Chain:

(1') Retail beef primary demand: $EQ_B^r - \eta_B^r EP_B^r - \eta_{BK}^r EP_K^r - \eta_{BY}^r EP_Y^r = EZ_B^r$

(2') Retail beef derived supply: $EQ_B^r - \varepsilon_B^r EP_B^r - \gamma_B^{wr} EQ_B^w = EW_B^r$

(3') Wholesale beef derived demand: $EQ_B^w - \eta_B^w EP_B^w - \tau_B^{rw} EQ_B^r = EZ_B^w$

(4') Wholesale beef derived supply[4]:

$$EQ_B^w - \varepsilon_B^w EP_B^w - \gamma_B^{sw}(Q_B^s / Q_B^w) EQ_B^s - (Q_{Bi}^w / Q_B^w) EQ_{Bi}^w + (Q_{Be}^w / Q_B^w) EQ_{Be}^w = EW_B^w$$

(5') Imported wholesale beef derived demand:

$$EQ_{Bi}^w - \eta_{Bi}^w EP_{Bi}^w - \tau_B^{rw} EQ_B^w = (Q_{Bi}^w / Q_B^w) EZ_{Be}^w + EZ_{Bi}^w$$

(6') Imported wholesale beef derived supply: $EQ_{Bi}^w - \varepsilon_{Bi}^w EP_{Bi}^w = EW_{Bi}^w$

(7') Exported wholesale beef derived demand: $EQ_{Be}^w - \eta_{Be}^w EP_B^w = EZ_{Be}^w$

(8') Slaughter cattle derived demand: $EQ_B^s - \eta_B^s EP_B^s - \tau_B^{ws} EQ_B^w = (Q_{Be}^w / Q_B^w) EZ_{Be}^w + EZ_B^s$

(9') Slaughter cattle derived supply: $EQ_B^s - \varepsilon_B^s EP_B^s - \gamma_B^{fs} EQ_B^f = EW_B^s$

(10') Farm (feeder cattle) derived demand: $EQ_B^f - \eta_B^f EP_B^f - \tau_B^{sf} EQ_B^s = EZ_B^f$

(11') Farm (feeder cattle) primary supply: $EQ_B^f - \varepsilon_B^f EP_B^f = EW_B^f$

Pork Marketing Chain:

(12') Retail pork primary demand: $EQ_K^r - \eta_{KB}^r EP_B^r - \eta_K^r EP_K^r - \eta_{KY}^r EP_Y^r = EZ_K^r$

(13') Retail pork derived supply: $EQ_K^r - \varepsilon_K^r EP_K^r - \gamma_K^{wr} EQ_K^w = EW_K^r$

(14') Wholesale pork derived demand: $EQ_K^w - \eta_K^w EP_K^w - \tau_K^{rw} EQ_K^r = EZ_K^w$

(15') Wholesale pork derived supply:

$$EQ_K^w - \varepsilon_K^w EP_K^w - \gamma_K^{sw}(Q_K^s / Q_K^w) EQ_K^s - (Q_{Ki}^w / Q_K^w) EQ_{Ki}^w + (Q_{Ke}^w / Q_K^w) EQ_{Ke}^w = EW_K^w$$

[4] The explicit consideration of exports and imports at the wholesale level leads to wholesale meat derived supplies capturing the net effect of trade on available wholesale meat supplies (Pendell et al., 2010).

(16') Imported wholesale pork derived demand:

$$EQ_{Ki}^{w} - \eta_{Ki}^{w} EP_{Ki}^{w} - \tau_{K}^{rw} EQ_{K}^{w} = (Q_{Ki}^{w} / Q_{K}^{w}) EZ_{Ke}^{w} + EZ_{Ki}^{w}$$

(17') Imported wholesale pork derived supply: $EQ_{Ki}^{w} - \varepsilon_{Ki}^{w} EP_{Ki}^{w} = EW_{Ki}^{w}$

(18') Exported wholesale pork derived demand: $EQ_{Ke}^{w} - \eta_{Ke}^{w} EP_{K}^{w} = EZ_{Ke}^{w}$

(19') Slaughter hog derived demand: $EQ_{K}^{s} - \eta_{K}^{s} EP_{K}^{s} - \tau_{K}^{ws} EQ_{K}^{w} = (Q_{Ke}^{w} / Q_{K}^{w}) EZ_{Ke}^{w} + EZ_{K}^{s}$

(20') Slaughter hog primary supply: $EQ_{K}^{s} - \varepsilon_{K}^{s} EP_{K}^{s} = EW_{K}^{s}$

Poultry Marketing Chain:

(21') Retail poultry primary demand: $EQ_{Y}^{r} - \eta_{YB}^{r} EP_{B}^{r} - \eta_{YK}^{r} EP_{K}^{r} - \eta_{Y}^{r} EP_{Y}^{r} = EZ_{Y}^{r}$

(22') Retail poultry derived supply: $EQ_{Y}^{r} - \varepsilon_{Y}^{r} EP_{Y}^{r} - \gamma_{Y}^{wr} EQ_{Y}^{w} = EW_{Y}^{r}$

(23') Wholesale poultry derived demand: $EQ_{Y}^{w} - \eta_{Y}^{w} EP_{Y}^{w} - \tau_{Y}^{rw} EQ_{Y}^{r} = EZ_{Y}^{w}$

(24') Wholesale poultry primary supply: $EQ_{Y}^{w} - \varepsilon_{Y}^{w} EP_{Y}^{w} + (Q_{Ye}^{w} / Q_{Y}^{w}) EQ_{Ye}^{w} = EW_{Y}^{w}$

(25') Exported wholesale poultry derived demand: $EQ_{Ye}^{w} - \eta_{Ye}^{w} EP_{Y}^{w} = EZ_{Ye}^{w}$

where *E* represents a relative change operator (i.e., $EQ = d \ln Q = dQ / Q$); η_{a}^{m} is the own-price elasticity of meat/species *a (a=B,K,* or *Y)* demand at market level *m (i.e., where m refers to r =* retail, *w* = wholesale (processor/packer), *s* = slaughter (feeding), and *f* = feeder (farm level)*)*; η_{ab}^{m} is the cross-price elasticity of demand for meat *a* with respect to retail prices of meat *b (b=B,K,* or *Y*); ε_{a}^{m} is the own-price elasticity of meat/species *a* supply at market level *m*; τ^{lm} is the percentage change in quantity demanded at market level *m* given a 1% change in quantity demanded at market level *l (i.e., where l refers to r* = retail, *w* = wholesale (processor/packer), *s* = slaughter (feeding), and *f* = feeder (farm level)*)*; γ^{lm} is the percentage change in quantity supplied at market level *m* given a 1% change in quantity supplied at market level *l*. In this specification, market levels are linked by downstream quantity variables among the demand equations and upstream quantity variables among the supply equations (Wohlgenant, 1993).

Balagtas and Kim (2007) note this model can be expressed in matrix form as $\mathbf{RY} = \mathbf{Z}$ where **R** is a matrix of model parameters (i.e., elasticities), **Y** is a column vector of endogenous changes in prices and quantities relative to an initial equilibrium, and **Z** is a column vector of percentage cost changes associated with implementing MCOOL. The model defines proportional changes in equilibrium prices and quantities for each evaluated market level and species in response to exogenous changes corresponding to MCOOL introduction. These proportional changes are identified as:

(26) $\mathbf{Y} = \mathbf{R}^{-1}\mathbf{Z}$.

Solutions to equation (26) require elasticity estimates for the matrix of parameters (***R***). Identifying these estimates by econometrically estimating structural supply and demand equations for the 25 equation EDM is problematic. As in most EDM applications, direct estimation of supply and demand elasticities is prohibited by the large number of equations and by identification problems associated with jointly estimating supply and demand relationships (Brester, Marsh, and Atwood, 2004b). However, given MCOOL results in relatively small

aggregate market shifts (in proportional terms), we follow standard EDM procedures and utilize supply and demand elasticity estimates reported in the previously published peer-reviewed literature.

Given changes in prices and quantities identified by the EDM, we use producer surplus to quantify the net economic impact of MCOOL on producers at different stages of the U.S. meat and livestock supply chain. Producer surplus quantifies the difference between what producers are willing to sell meat or livestock for and what they actually receive from the market. Note, producer surplus measures are aggregate measures that quantify impacts for an entire sector and do not suggest that every producer or operation is affected by the same amounts. Balagtas and Kim (2007) note that when analyzing long-run effects, producer surplus is the difference between total revenue and total variable cost because fixed costs do not exist in the long-run. Accordingly, the long-run surplus measures obtained from our EDM, can be interpreted as impacts on profit. However, in short-run analyses (i.e., first year following MCOOL introduction) producer surplus differs from profit as firms do incur fixed costs. In summary, producer profitability should not be assumed to equal producer surplus measures as making such an assumption inappropriately assumes producers operate without fixed costs.

Changes in U.S. producer surplus created by introduction of MCOOL can be calculated in terms of changes in prices and quantities identified by the EDM as:

$$(27) \quad \Delta PS_a^m = P_a^m Q_a^m (EP_a^m + EW_a^m)(1 + 0.5EQ_a^m)$$

where producer surplus is denoted by *PS* (Lusk and Anderson, 2004). The superscript *m* represents the market level as indicated following equation (25') and subscript *a* represents the industry/species evaluated as indicated following equation (25'). Change in total producer surplus is the sum of the change in producer surplus from each market level for a species,

$$(28) \quad \Delta PS_a = \sum_m \Delta PS_a^m .$$

To capture the dynamic nature of the livestock and meat complex adjustments to the adoption of MCOOL, we simulated our model annually for ten consecutive years. Consistent with past research, we assumed the marketplace requires ten years to fully adjust from short-run to long-run relationships. Our assumption is also consistent with the duration USDA assumed in their estimates of MCOOL's impacts (Federal Register, 2009).

To estimate the impact of MCOOL being implemented in 2009, ten years of market effects were simulated by linearly adjusting all elasticities between short-run (year 1) and long-run (year 10) using supply and demand elasticity estimates employed by Schroeder and Tonsor (2011). The supply, demand, and quantity transmission elasticities are summarized in Exhibits 4.1 and 4.2. Similarly, base price and quantity values are necessary inputs. The market price and quantity values are summarized in Exhibit 4.3 and each reflects annual average values for calendar year 2008 as reported by the Livestock Marketing Information Center (LMIC). As noted earlier, these inputs reflect total volumes of livestock and meat transacted at each market level consistent with the aggregate industry focus of the EDM. Values for 2008 were utilized to establish base market

conditions for the EDM prior to MCOOL implementation in March of 2009. Utilizing base value of 2008 and simulating impacts of the next 10 years provides the necessary estimates of changes in market prices, quantities, and producer surplus to meet our tasks of examining MCOOL being implemented in 2009 assuming no subsequent changes to MCOOL rules. An analysis specific to the 2013 rule is discussed further below and conducted separately.

In addition to producer surplus, we are interested in economic welfare impacts on U.S. consumers. Accordingly we seek estimates of consumer surplus changes. While it is tempting to follow an approach similar to equation (27) to estimate consumer surplus changes, past research has shown such computations to be inappropriate when multiple-industries are considered such as the case in our three sector, multiple-species model (Alston, 1991; Alston, Norton, and Pardey, 1995). The primary reason for errors in computation is a documented occurrence of "double-counting" of consumer welfare changes given that the multi-sector model already accounts endogenously for retail-level adjustments or switching of products by consumers. Given the double counting concern, we follow Lusk and Anderson (2004) to proceed with estimating one-sector models separately for the beef and pork industries to derive estimates of consumer surplus impacts.

4.2 One-Sector, One Species Models

Base case EDMs specific to the beef and pork industries are individually constructed in a manner that omits retail-level substitution between meats. Specifically, equations 1' to 11' from the three-sector model presented above are condensed (removing the impact of the pork and poultry sectors) to form a single-sector model of the beef industry. This model specification enables us to derive consumer surplus estimates from implementing MCOOL in the beef industry. Similarly, equations 12' to 20' from the three-sector model are likewise condensed (removing the impact of the beef and poultry sectors) to form a single-sector model of the pork industry. This pork model is the basis for deriving consumer surplus estimates from MCOOL being implemented in the pork industry.

In EDM applications with only one industry, and hence only one retail product, consumer surplus (*CS*) impacts can be derived as:

$$(29) \quad \Delta CS_a = -P_a^r Q_a^r (EP_a^r - EZ_a^r)(1 + 0.5EQ_a^r)$$

Consumer surplus identifies the difference between what consumers are willing to pay for a product (meat in our application) and the amount they actually pay. As with producer surplus, equation (29) is an aggregate estimate and does not suggest that every consumer is affected equally.

Ultimately, our estimates of changes in prices, quantities, and producer surplus are derived from our three-sector, three species EDM while consumer surplus estimates come from separate single-sector EDMs built solely for the beef and pork industries. Our computations of welfare impacts follow from Lusk and Anderson (2004) and Wohlgenant (1993) and is conceptually consistent with derivation of economic surplus measures in such market events Alston (1991). When cross-price retail demand elasticities are small, the "error" of this simple adding-up is

small in percentage terms. Nonetheless, to be thorough we proceed by utilizing both single-market and multi-market EDMs consistent with past research suggestions.[5]

4.3 Incremental Impact of 2013 Rule

Several aspects of MCOOL were changed in 2013, so our EDM assessment must be re-initialized and separated from the analysis of impacts following the initial 2009 MCOOL rules. Simply adding the 2013 rule as an additional "shock" to the base EDM starting in 2008 would not enable us to measure the incremental impact of the 2013 rule. Specifically, by 2013 the simulation model based in 2008 would be in a period of intermediate adjustments as the entire industry is modeled to adjust from short-run (year 1) to long-run (year 10) conditions. Accordingly, to quantify the incremental impacts of the 2013 rule, separate from those originating from the original 2009 MCOOL implementation, baseline prices and quantities for the EDM were obtained for calendar year 2012 (Exhibit 4.4). Given these initial market conditions of 2012, we repeated the process of modeling how the 2013 final rule impacted meat and livestock markets over 10 years into the future.

A key impact of this approach is that estimated impacts from the 2009 rule and the 2013 rule are derived from EDMs based in separate years (e.g. 2008 and 2012). This must be accounted for in any subsequent efforts to consider the joint impacts of the 2009 and 2013 rules. Values from the two separate analyses of the 2009 and 2013 rules need to be deflated to a common base year when aggregating MCOOL impacts. Thus, we present producer and consumer surplus estimates individually for the 2009 and 2013 rules as 2014 values in later chapters.

[5] Past applications have found similar producer surplus estimates using single-market and multi-market EDMs consistent with our approach (Lusk and Anderson, 2004; Wohlgenant, 1993)

Exhibit 4.1. Supply and Demand Elasticity Definitions and Estimates

Definition	Short-Run Estimate	Long-Run Estimate
Own-price elasticity of demand for retail beef	-0.86	-1.17
Own-price elasticity of supply for retail beef	0.36	4.62
Own-price elasticity of demand for wholesale beef	-0.58	-0.94
Own-price elasticity of supply for wholesale beef	0.28	3.43
Own-price elasticity of demand for wholesale beef imports	-0.58	-0.94
Own-price elasticity of supply for wholesale beef imports	1.83	10.00
Own-price elasticity of demand for wholesale beef exports	-0.42	-3.00
Own-price elasticity of demand for slaughter cattle	-0.40	-0.53
Own-price elasticity of supply for slaughter cattle	0.26	3.24
Own-price elasticity of demand for feeder cattle	-0.14	-0.75
Own-price elasticity of supply for feeder cattle	0.22	2.82
Cross-price elasticity of demand for retail beef with respect to the price of retail pork	0.10	0.10
Cross-price elasticity of demand for retail beef with respect to the price of retail poultry	0.05	0.05
Own-price elasticity of demand for retail pork	-0.69	-1.00
Own-price elasticity of supply for retail pork	0.73	3.87
Own-price elasticity of demand for wholesale pork	-0.71	-1.00
Own-price elasticity of supply for wholesale pork	0.44	1.94
Own-price elasticity of demand for wholesale pork imports	-0.71	-1.00
Own-price elasticity of supply for wholesale pork imports	1.41	10.00
Own-price elasticity of demand for wholesale pork exports	-0.89	-1.00
Own-price elasticity of demand for slaughter hogs	-0.51	-1.00
Own-price elasticity of supply for slaughter hogs	0.41	1.80
Cross-price elasticity of demand for retail pork with respect to the price of retail beef	0.18	0.18
Cross-price elasticity of demand for retail pork with respect to the price of retail poultry	0.02	0.02
Own-price elasticity of demand for retail poultry	-0.29	-1.00
Own-price elasticity of supply for retail poultry	0.18	13.10
Own-price elasticity of demand for wholesale poultry	-0.22	-1.00
Own-price elasticity of supply for wholesale poultry	0.14	14.00
Own-price elasticity of demand for wholesale poultry exports	-0.31	-1.00
Cross-price elasticity of demand for retail poultry with respect to the price of retail beef	0.18	0.18
Cross-price elasticity of demand for retail poultry with respect to the price of retail pork	0.04	0.04

Notes: All supply and demand elasticity estimates correspond to those used by Schroeder and Tonsor (2011). Short-run and long-run refer to years 1 and 10, respectively. For years between years 1 and 10, elasticity transition from the short- to the long-run following a linear trend.

Exhibit 4.2. Quantity Transmission Elasticity Definitions and Estimates

Definition	Estimate
Percentage change in retail beef supply given a 1% change in wholesale beef supply	0.701
Percentage change in wholesale beef supply given a 1% change in slaughter cattle supply	0.818
Percentage change in slaughter cattle supply given a 1% change in feeder cattle supply	0.919
Percentage change in wholesale beef demand given a 1% change in retail beef demand	0.626
Percentage change in slaughter cattle demand given a 1% change in wholesale beef demand	0.682
Percentage change in feeder cattle demand given a 1% change in slaughter cattle demand	0.455
Percentage change in retail pork supply given a 1% change in wholesale pork supply	0.824
Percentage change in wholesale pork supply given a 1% change in slaughter hogs supply	0.966
Percentage change in wholesale pork demand given a 1% change in retail pork demand	0.828
Percentage change in slaughter hogs demand given a 1% change in wholesale pork demand	0.999
Percentage change in retail poultry supply given a 1% change in wholesale poultry supply	0.764
Percentage change in wholesale poultry demand given a 1% change in retail poultry demand	1.272

Notes: All quantity transmission elasticity estimates were derived from structural models corrected for first-order autocorrelation as applied by Blasi et al. (2009) using annual data from 1981-2013.

Exhibit 4.3. Price and Quantity Definitions and Estimates, 2008

Definition	Estimate
Quantity of retail beef, billion pounds (retail weight)	19.025
Quantity of wholesale beef, billion pounds (carcass weight)	26.561
Quantity of beef obtained from slaughter cattle, billion pounds (live weight)	43.882
Quantity of wholesale beef imports, billion pounds (carcass weight)	2.538
Quantity of wholesale beef exports, billion pounds (carcass weight)	1.996
Quantity of beef obtained from feeder cattle, billion pounds (live weight)	28.175
Price of retail (Choice) beef, cents per pound	432.584
Price of wholesale (Choice) beef, cents per pound	152.740
Price of wholesale beef imports, cents per pound	162.894
Price of slaughter cattle, $/cwt (live weight)	92.780
Price of feeder cattle, $/cwt	104.990
Quantity of retail pork, billion pounds (retail weight)	15.070
Quantity of wholesale pork, billion pounds (carcass weight)	23.347
Quantity of pork obtained from slaughter hogs, billion pounds (live weight)	31.200
Quantity of wholesale pork imports, billion pounds (carcass weight)	0.832
Quantity of wholesale pork exports, billion pounds (carcass weight)	4.651
Price of retail pork cents per pound	293.650
Price of wholesale pork, cents per pound	69.111
Price of wholesale pork imports, cents per pound	43.451
Price of slaughter hogs, $/cwt (live weight)	48.512
Quantity of retail poultry, billion pounds (retail weight)	25.841
Quantity of wholesale poultry, billion pounds (carcass weight)	47.699
Quantity of wholesale poultry exports, billion pounds (carcass weight)	6.961
Price of retail poultry, cents per pound	174.643
Price of wholesale poultry, cents per pound	79.683

Notes: All quantity and price values reflect 2008 annual averages as obtained from the Livestock Marketing Information Center.

Exhibit 4.4. Price and Quantity Definitions and Estimates, 2012

Definition	Estimate
Quantity of retail beef, billion pounds (retail weight)	18.158
Quantity of wholesale beef, billion pounds (carcass weight)	25.913
Quantity of beef obtained from slaughter cattle, billion pounds (live weight)	42.811
Quantity of wholesale beef imports, billion pounds (carcass weight)	2.219
Quantity of wholesale beef exports, billion pounds (carcass weight)	2.454
Quantity of beef obtained from feeder cattle, billion pounds (live weight)	27.488
Price of retail (Choice) beef, cents per pound	502.283
Price of wholesale (Choice) beef, cents per pound	190.250
Price of wholesale beef imports, cents per pound	202.897
Price of slaughter cattle, $/cwt (live weight)	122.860
Price of feeder cattle, $/cwt	148.810
Quantity of retail pork, billion pounds (retail weight)	14.517
Quantity of wholesale pork, billion pounds (carcass weight)	23.253
Quantity of pork obtained from slaughter hogs, billion pounds (live weight)	31.075
Quantity of wholesale pork imports, billion pounds (carcass weight)	0.802
Quantity of wholesale pork exports, billion pounds (carcass weight)	5.383
Price of retail pork cents per pound	346.666
Price of wholesale pork, cents per pound	84.550
Price of wholesale pork imports, cents per pound	53.158
Price of slaughter hogs, $/cwt (live weight)	62.625
Quantity of retail poultry, billion pounds (retail weight)	25.871
Quantity of wholesale poultry, billion pounds (carcass weight)	47.753
Quantity of wholesale poultry exports, billion pounds (carcass weight)	7.281
Price of retail poultry, cents per pound	189.250
Price of wholesale poultry, cents per pound	93.643

Notes: All quantity and price values reflect 2012 annual averages as obtained from the Livestock Marketing Information Center.

4.4. Incorporating 2009 MCOOL Implementation Costs

To operationalize the EDMs we calculate impacts of MCOOL on net returns at each market level of the meat-livestock supply chain described above. Our main approach to examining impacts of the 2009 rule relies on the updated cost impacts provided by Informa (2010) as presented and discussed in Chapter 3. We rely on the cost impacts from Informa (2010) for two main reasons: 1) the Informa estimates are the most complete and extensive set of cost estimates available; and 2) the Informa estimates are the only source we are aware of that provide cost estimates separately by market level which is needed to operationalize our EDMs.

The incremental net return impacts to retailers, processors, wholesale beef importers, feedlots, and cow-calf operations were used as exogenous shocks that decrease supply at each market level in the EDM. The effects of MCOOL were introduced into the model by shocking EW_B^r, EW_B^w, EW_{Bi}^w, EW_B^s, and EW_B^f in equations 2', 4', 6', 9', and 11'. Similar net return impacts were introduced for retailers, processors, wholesale pork importers, and producers in the pork-swine industry by shocking EW_K^r, EW_K^w, EW_{Ki}^w, and EW_K^s in equations 13', 15', 17', and 20'.

Production cost increases of MCOOL can be considered exogenous shocks which shift respective supply functions to the left. That is, for a given output price, decreases in the supply of slaughter hogs, wholesale pork, and retail pork (and similar for the beef industry) result from higher costs of production at these market levels following implementation of the MCOOL rule. These adjustments in supply functions in turn alter prices and quantities exchanged as the marketplace adjusts to a new equilibrium. Consistent with Chapter 3, we initially assume no direct demand impacts (e.g. $EZ_B^r = 0$ and $EZ_K^r = 0$) of MCOOL introduction and address changes in demand in separate sensitivity assessments outlined in Chapter 7.

The specific values utilized for live animal market segments (cow-calf, feedlot, beef processing, slaughter hog, and pork processing) were proportions of the net returns per head divided by the average total value of an animal at each production stage. Similarly, the portion of net return relative to retail beef price was used to identify EW_B^r and EW_P^r. These values are presented in Exhibit 4.5. To provide additional context, details are discussed individually in the following bulleted list:

- *Retail beef, supply shift*:
    - The retail beef price was $4.33/lb in 2008 (Exhibit 4.3). Informa (2010) estimates a $0.031/lb impact for U.S. origin beef products and $0.159/lb (mid-point of $0.148-$0.169/lb reported range) for Mixed Origin beef products. Informa (2010) estimates that 74.68% of retail grocery store operations have responded to MCOOL by investing in the capability to handle multiple labels and maintaining flexibility in beef sourcing. Coupling this with an estimate that 46.54% (Meat Solutions, 2014) of total beef sales occur through retail grocery channels (the balance is largely food service outlets) leads us to estimate 34.76% of total beef pounds may incur the higher $0.159/lb cost impact of MCOOL implementation.

- This results in an EDM shock calculated as $EW_B^r = 1.741\%$ [$0.075/$4.33] where $0.075=$0.031*0.652+$0.159*0.348.

- *Wholesale beef, supply shift*:

  - The value in 2008 of domestic slaughter cattle was $1,192 (1,285 lb steer per LMIC; $92.78/cwt per Exhibit 4.3). Informa (2010) estimates a $0.25/hd impact for beef processors sourcing only U.S. origin fed cattle and $14.00/hd (mid-point of $10.00-$18.00/hd reported range) for Mixed Origin sourcing. Informa estimates that 30.63% of fed cattle slaughtered in the U.S. may incur the Mixed Origin label. As with the retail beef supply shift, the 30.63% reflects the industry maintaining some sourcing flexibility. That is, using a lower value such as the exact volume of foreign born animals that were processed domestically would understate impacts in implicitly assuming no cost for lost sourcing flexibility.
  - This results in an EDM shock calculated as $EW_B^w = 0.374\%$ [0.3063*($14.00/$1,192)+0.6937*($0.25/$1,192)].

- *Imported wholesale beef, supply shift*:

  - Given international trade is accounted for explicitly in the form of wholesale beef imports, the Informa (2010) estimate of $14/hd for Mixed Origin fed cattle sourcing is also utilized to identify the supply shift realized at this market level.
  - This results in an EDM shock calculated as $EW_{Bi}^w = 1.175\%$ [$14.00/$1,192].

- *Slaughter cattle, supply shift*:

  - Informa (2010) estimates a $0.25/hd impact for feedlots sourcing U.S. origin only feeder cattle and $0.75/hd (mid-point of $0.50-$1.00/hd reported range) for Mixed Origin sourcing. This is coupled with an estimate that 4.80% of fed cattle sold by U.S. feedlots are born in either Canada or Mexico (Informa, 2010).
  - This results in an EDM shock of $EW_B^s = 0.023\%$ [0.0480*($0.75/$1,192)+0.9520*($0.25/$1,192)].

- *Feeder cattle, supply shift*:

  - The value in 2008 of domestic feeder cattle was $747 (711 lb steer per LMIC; $104.99/cwt per Exhibit 4.3). Informa (2010) estimates a $0.25/hd impact for all cow-calf producers which reflects the typical producer providing affidavits conveying origin details when selling their calf crop.
  - This results in an EDM shock of $EW_B^f = 0.033\%$ [$0.25/$747].

- *Retail pork, supply shift*:
  - The retail pork price was $2.94/lb in 2008 (Exhibit 4.3). Informa (2010) estimates a $0.000075/lb impact for U.S. origin only and $0.053/lb (mid-point of $0.045-$0.06/lb

reported range) for Mixed Origin retail pork products. Informa (2010) also estimates 50% of retail grocery operations have responded to MCOOL by investing in multiple labels and maintaining flexibility in pork sourcing. Coupling this with an estimate that 77.8% (ERS, 2005) of total pork consumption occurs at home and hence corresponds with pork sales through retail grocery channels leads to an estimated 38.90% of total pork pounds incurring the higher cost impact of MCOOL implementation.

  - This results in an EDM shock calculated as $EW_K^r = 0.697\%$ [$0.021/$2.94] where [$0.021=$0.000075*0.611+$0.053*0.389].

- *Wholesale pork, supply shift*:

  - The value in 2008 of domestic slaughter hogs was $130 (268 lb barrow per LMIC; $48.51/cwt per Exhibit 4.3). The Informa (2010) report provides a detailed set of cost impacts that vary for hog packers who source market hogs not only from fully integrated and non-integrated systems but also from mixed origin and U.S. only sources. Packers sourcing solely U.S. hogs are suggested to have MCOOL costs of $0.05/hd while those sourcing from mixed origins incur costs of $5.50/hd (mid-point of $5.00-$6.00/hd reported range). We utilized Informa's estimate that 11.01% (12 million from non-integrated packers with mixed origin sources and 109 million commercial slaughter) of hogs processed in the U.S. were derived from mixed origin sources to derive a cost shock for the pork processing sector.
  - This results in identify $EW_K^w = 0.500\%$ [0.110*($5.50/$130)+0.890*($0.05/$130)].

- *Imported wholesale pork, supply shift*:

  - As with beef, international trade is accounted for explicitly in the form of wholesale pork imports. The Informa (2010) estimate of $5.50/hd for Mixed Origin sourcing is also utilized to identify the supply shift realized at this market level.
  - This results in an EDM shock calculated as $EW_{Ki}^w = 4.23\%$ [$5.50/$130].

- *Slaughter hogs, supply shift*:

  - Informa (2010) estimates a $0.05/hd (mid-point of $0-$0.10/hd reported range) impact for hog producers not importing foreign born weaned pigs, feeder pigs, or market hogs. Informa (2010) also estimates $0.3750/hd (mid-point of $0.25-$0.50/hd reported range) for Mixed Origin sourcing producers. Using an estimate that 9.17% (10 million head from independent producers with mixed origin sources (Informa (2010) and 109 million commercial slaughter) of market hogs raised in the U.S. coming from mixed origin operations.
  - This results in an EDM shock calculated as $EW_K^s = 0.061\%$ [0.092*($0.375/$130)+0.908*($0.05/$130)].

Given the closely related work of Brester, Marsh, and Atwood (2004b) it is instructive to compare exogenous shocks between our assessment and their *ex ante* evaluation. Based on 2002

average prices and quantities, and the authors' expectations at that point in time regarding MCOOL implementation requirements and resulting costs, Brester, Marsh, and Atwood (2004b) assumed the percentage increases in costs relative to total value are presented in Exhibit 4.6.

Some of the estimates used by Brester, Marsh, and Atwood (2004b) are substantially larger than those used in our study. These differences reflect the fact meat and livestock total values were larger in 2008 than 2002 and estimates of implementation costs on $/hd and $/lb bases have reduced notably for most industry segments as more information about final requirements for compliance and actual industry practice adjustments has materialized. However, the percentage increases in costs (relative to total value) applied in our study are substantially larger than those used by Brester, Marsh, and Atwood (2004b) at the retail beef level and slightly higher at the retail pork level. This is because Informa (2010) increased their estimates of retailer costs of compliance relative to their earlier estimates used by Brester, Marsh, and Atwood (2004b). A much larger share of implementation costs, especially for the beef industry, appears to have occurred at the retail level than expected prior to MCOOL becoming law in 2009. The economic impacts of are presented in Chapter 5.

Exhibit 4.5. Exogenous Marketing Chain Supply Shifters Corresponding to 2009 MCOOL Implementation, Base Case.

Cost increases associated with producing:		*Cost increases associated with producing:*		*Cost increases associated with producing:*	
Retail beef	1.741%	Retail pork	0.697%	Retail poultry	0.000%
Wholesale beef	0.374%	Wholesale pork	0.500%	Wholesale poultry	0.000%
Wholesale beef imports	1.175%	Wholesale pork imports	4.230%		
Slaughter cattle	0.023%	Slaughter hogs	0.061%		
Feeder cattle	0.033%				

Exhibit 4.6. Comparison of Exogenous Marketing Chain Supply Shifters.

Cost increases associated with producing:	*Current Study, 2009 MCOOL Implementation*	*Brester, Marsh, and Atwood (2004b)*
Retail beef	1.741%	1.240%
Wholesale beef	0.374%	1.710%
Wholesale beef imports	1.175%	*NA*
Slaughter cattle	0.023%	0.500%
Feeder cattle	0.033%	0.960%
Retail pork	0.697%	0.660%
Wholesale pork	0.500%	3.410%
Wholesale pork imports	4.230%	*NA*
Slaughter hogs	0.061%	1.080%

4.5 Incorporating 2013 MCOOL Implementation Costs

To identify exogenous shocks initiated by incremental changes following the 2013 rule, the process described in the subsection above was repeated with focus solely on impacts triggered by the 2013 rule given the 2009 rule was already in place. The single available source of cost impacts from the 2013 rule are provided by USDA (Federal Register, 2013). As summarized earlier in Chapter 3, USDA suggested that the impacts from the 2013 rule would mainly present cost increases for retailers and packers/processors. This reflects the changes in label details (e.g. moving to born, raised, and slaughtered specificity) and commingling allowances on muscle cuts being the key changes introduced in the 2013 rule.

The USDA suggested cost increases of $7.16/head for cattle and $1.76/head for hogs at the processor level and $0.05/lb for beef and $0.045/lb for pork at the retail level. These higher costs are charged against the portion of product that is from commingled sources and from the portion of slaughter impacted by the rule. USDA provided a mid-point estimate that 12.5% of both beef and pork products (and corresponding animals) follow from commingled sourcing. Moreover, USDA noted that 78.4% of commercial cattle slaughter is impacted (steers and heifers) as the balance of slaughter (cows and bulls) were not impacted by the 2013 rule given corresponding products largely go into grinding and further processing (and are exempt from MCOOL). Similarly, USDA noted that 97% of commercial hog slaughter was impacted as this is barrow and gilt volumes.

Given this information, as in the analysis of 2009 rule impacts, we calculated impacts on net returns at each market level experiencing higher costs from the 2013 rule being implemented. These net return impacts were divided by the average total value of an animal at each production stage in 2012. These values are presented in Exhibit 4.7. To provide additional context, details are discussed individually in this bulleted list:

- *Retail beef, supply shift*:
    - The retail beef price was $5.08/lb in 2012 (Exhibit 4.4). The USDA estimate of $0.05/lb impact was used along with the 12.5% commingling estimate which resulted in 78.4% of slaughtered animals being affected.
    - This results in an EDM shock calculated as $EW_B^r = 0.098\%$ [$0.005/$5.08] where $0.005=$0.05*0.125*0.784.

- *Wholesale beef, supply shift*:
    - The value in 2012 of domestic slaughter cattle was $1,604 (1,305 lb steer per LMIC; $122.86/cwt per Exhibit 4.4). The USDA estimate of $7.16/head was used along with 12.5% commingling and 78.4% of slaughtered animals being impacted.
    - This results in an EDM shock calculated as $EW_B^w = 0.044\%$ [$0.702/$1,604] where $0.702=$7.16*0.125*0.784.

- *Imported wholesale beef, supply shift*:

- Given international beef trade is accounted for explicitly in the form of wholesale beef imports, the USDA cost increases for processors were also used to identify cost increases at this market level. Here the commingling estimate was used but an adjustment for cull cow and bull slaughter was not needed.
- This results in an EDM shock calculated as $EW_{Bi}^{w} = 0.056\%$ [$0.90/$1,604] where $0.90=$7.16*0.125.

- *Slaughter cattle, supply shift*:

  - We follow USDA's assumption of no additional costs occurring at the slaughter cattle level ($EW_{B}^{s} = 0\%$).

- *Feeder cattle, supply shift*:

  - We follow USDA's assumption of no additional costs occurring at the feeder cattle level ($EW_{B}^{f} = 0\%$).[6]

- *Retail pork, supply shift*:
  - The retail pork price was $3.47/lb in 2012 (Exhibit 4.4). The USDA estimate of $0.045/lb was used along with 12.5% commingling and 97% of slaughtered animals being affected.
  - This results in an EDM shock calculated as $EW_{K}^{r} = 0.157\%$ [$0.0055/$3.47] where $0.0055=$0.045*0.125*0.97.

- *Wholesale pork, supply shift*:

  - The value in 2012 of domestic slaughter hogs was $172 (275 lb barrow per LMIC; $62.63/cwt per Exhibit 4.4). The USDA estimate of $1.79/head was used along with 12.5% commingling and observation of 97% of slaughtered animals being impacted.
  - This results in an EDM shock calculated as $EW_{K}^{w} = 0.126\%$ [$0.217/$172] where $0.217=$1.79*0.125*0.97.

- *Imported wholesale pork, supply shift*:

  - As with beef, international trade is accounted for explicitly in the form of wholesale pork imports. Similarly, the commingling assumption was used but an adjustment for cull sow and boar slaughter was not needed.
  - This results in an EDM shock calculated as $EW_{Ki}^{w} = 0.130\%$ [$0.224/$172] where $0.224=$1.79*0.125.

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[6] Following from the 2013 rule, producers were allowed to sign evergreen affidavits. An evergreen affidavit is an affidavit allowing the producer to sign one time and guarantee the origin of animals until something changes. This saves time and costs for both producers and feeder cattle buyers; we treat this cost savings as negligible in the overall compliance costs of MCOOL.

- *Slaughter hogs, supply shift*:
    - We follow USDA's assumption of no additional costs occurring at the slaughter hog level ($EW_K^s = 0\%$).

Using these supply shifts as exogenous shifts in equilibrium displacement models, we present results of our analysis of the 2013 rule in Chapter 6.

Exhibit 4.7. Exogenous Marketing Chain Supply Shifters Corresponding to 2013 MCOOL Rule Implementation, Base Case.

Cost increases associated with producing:		*Cost increases associated with producing:*		*Cost increases associated with producing:*	
Retail beef	0.098%	Retail pork	0.157%	Retail poultry	0.000%
Wholesale beef	0.044%	Wholesale pork	0.126%	Wholesale poultry	0.000%
Wholesale beef imports	0.056%	Wholesale pork imports	0.130%		
Slaughter cattle	0.000%	Slaughter hogs	0.000%		
Feeder cattle	0.000%				

Chapter 5. Economic Impact Estimates of the 2009 Rule

When MCOOL was implemented in 2009, there were multiple important exogenous impacts that are the initial shocks in the EDM. Specifically, to comply with MCOOL, production costs at each market level of the beef and pork industries increase. This leads to an inward shift in the supply of feeder cattle, slaughter cattle, wholesale beef, retail beef, slaughter hogs, wholesale pork, and retail pork. These initial exogenous shocks are the impetus for numerous other endogenous shifts that follow in the EDM. To establish base economic impacts, we first estimate the three-sector EDM incorporating these exogenous cost increases without consideration of any demand increases. The potential impact of demand increases is subsequently isolated and discussed directly in scenario analyses in Chapter 7.

Exhibit 5.1 presents a summary of the percentage changes in livestock and meat prices and quantities resulting from MCOOL implementation in 2009, relative to prices and quantities that would have occurred in the absence of MCOOL. These changes are relative to base values of 2008 and are identified using the three-sector, three-species EDM presented in Chapter 4.

The results of the costs shocks on prices and quantities are intuitive and consistent with the preceding discussion of MCOOL introducing supply shocks throughout the beef and pork industries. Increased costs in the pork industry shift the supply of slaughter hogs, wholesale pork, and retail pork to the left. These decreases in supply cause reductions in quantities supplied at the retail, wholesale, and slaughter market levels for each year. Moreover, these adjustments result in decreases in derived supply at subsequent levels in the hog and pork marketing chain. In a competitive market, the impacts of these multiple adjustments are determined by the size of cost increases and the relative magnitudes of elasticities at each market level. Similar adjustments follow in the beef industry as increased costs at all four market levels lead to lower production at the retail, wholesale, slaughter, and feeder levels for all years. The impacts on prices and quantities are generally larger in years one through five than years six through ten because the meat industry adjusts to MCOOL and associated changing market conditions.

Prices for retail beef increase in all ten years while wholesale beef prices initially decrease in year one but subsequently increase. This change in directional impacts at the wholesale level reflects the relative inability of the marketing chain to immediately respond to shocks introduced by MCOOL. This is driven by the inelastic short-run supply presented in Exhibit 4.1 and quantity transmission elasticities presented in Exhibit 4.2. Slaughter cattle and feeder cattle prices decline in each year. Retail pork and wholesale pork prices increase in each year while prices for slaughter hogs decline every year.

Recall we have assumed exported wholesale meat prices equal domestic wholesale meat prices. Increases in wholesale beef prices (except year one) and pork prices (Exhibit 5.1) result in estimated decreases in exported wholesale beef and pork quantities for all ten years (except a small increase in year one for beef). The effect on imports is also captured in our model at the wholesale meat level. Imported wholesale beef and pork quantities decline in each year, which is consistent with their prices increasing for all ten years.

Exhibit 5.2 represents producer surplus estimates identified by the three-sector EDM for each of the ten years. Changes are calculated over the ten year period in response to increases in costs. The producer surplus estimates were initially calculated based on 2008 values given the EDM is based upon the pre-MCOOL period of 2008. [7] Exhibit 5.2., however, presents the results in 2014 values to enable comparisons of the 2009 rule with the incremental effects of the 2013 rule.[8]

Welfare impacts experienced at the wholesale beef, slaughter cattle, feeder cattle, and slaughter hog levels are negative in all ten years. Beef and pork retailers and pork packers initially benefit but by year three also experience economic welfare losses as the entire industry transitions in response to implementation costs.[9] This results in cumulative net present value (using a 5% discount rate) producer surpluses for all segments of the beef and pork industries over a ten year period.[10] The beef industry losses total $8.07 billion with nearly three-fourths being incurred at the retail level ($5.98 billion). The remaining losses are distributed at the wholesale ($882.83 million), feedlot ($859.67 million), and cow-calf ($346.61 million) levels. The entire pork industry losses total $1.31 billion distributed across sectors as $647.04 million at the retail level, $191.88 million at the wholesale level, and $471.13 million at the producer level. Finding the retail beef and pork levels incur the largest economic loss is consistent with the implementation costs that Informa (2010) outlined being greater at retail.

The entire poultry industry gains producer surplus as both prices and quantities increase at the retail and wholesale level in each year (Exhibit 5.1.). This is driven by consumer response to higher beef and pork prices because the demand for poultry increases and the poultry industry is exempt from MCOOL costs. The poultry industry is estimated to gain a total of $753.15 million of producer surplus.

While the poultry industry benefits, the large losses in the beef and pork industry lead to total meat industry welfare losses in each year. The entire meat industry losses total $8.63 billion of producer surplus over the ten-year period.

Exhibit 5.3 presents consumer surplus estimates obtained using separate single-sector EDMs constructed specifically for the beef and pork industries. Short run (e.g. years one to five) are larger than long run (i.e., years six to ten) effects. Consumers experience welfare losses in every year which primarily reflects higher beef and pork production costs that generate higher retail prices. Consumer surplus losses total $5.98 billion in the beef industry and $1.79 billion in the pork industry.

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[7] Corresponding 2008 nominal producer surplus values are presented in the Appendix.
[8] Specifically, using year-to-date 2014 Consumer Price Index values from the US Department of Labor, Bureau of Labor Statistics an inflation adjustment of 1.101 was used.
[9] The retail level experiencing benefits initially may be surprising but is the result of the EDM including nine non-zero supply shocks and their being three instances (year 1 for beef, years 1 and 2 for pork) where retail prices increases exceed retail level supply shocks. Brester, Marsh, and Atwood (2004) had a similar finding.
[10] The 5% discount rate is consistent with similar recent EDM applications (e.g. Tonsor and Schroeder, forthcoming).

Exhibit 5.1. Percentage Change in Endogenous Variables of the Three-Sector Equilibrium Displacement Model Associated with 2009 MCOOL Rule

Endogenous Variables	Year 1	Year 2	Year 3	Year 4	Year 5
Retail beef quantity	-1.64%	-1.17%	-0.89%	-0.72%	-0.62%
Retail beef price	2.09%	1.40%	1.03%	0.80%	0.66%
Retail pork price	1.17%	0.81%	0.62%	0.49%	0.41%
Retail poultry price	0.69%	0.03%	0.01%	0.00%	0.00%
Wholesale beef quantity	-0.93%	-0.85%	-0.70%	-0.59%	-0.51%
Wholesale beef price	-0.17%	0.19%	0.22%	0.20%	0.17%
Slaughter cattle quantity	-0.32%	-0.40%	-0.37%	-0.33%	-0.30%
Imported wholesale beef quantity	-0.72%	-0.65%	-0.55%	-0.48%	-0.42%
Exported wholesale beef quantity	0.07%	-0.14%	-0.22%	-0.25%	-0.27%
Imported wholesale beef price	0.25%	0.19%	0.17%	0.15%	0.14%
Slaughter cattle price	-0.78%	-0.43%	-0.25%	-0.16%	-0.11%
Feeder cattle quantity	-0.10%	-0.14%	-0.13%	-0.12%	-0.11%
Feeder cattle price	-0.31%	-0.21%	-0.13%	-0.08%	-0.06%
Retail pork quantity	-0.42%	-0.34%	-0.28%	-0.25%	-0.22%
Wholesale pork quantity	-0.70%	-0.62%	-0.56%	-0.51%	-0.47%
Wholesale pork price	0.50%	0.47%	0.42%	0.38%	0.35%
Slaughter hogs quantity	-0.35%	-0.34%	-0.33%	-0.32%	-0.30%
Imported wholesale pork quantity	-1.80%	-1.40%	-1.18%	-1.03%	-0.92%
Exported wholesale pork quantity	-0.45%	-0.42%	-0.39%	-0.36%	-0.33%
Imported wholesale pork price	1.72%	1.20%	0.92%	0.75%	0.63%
Slaughter hogs price	-0.70%	-0.50%	-0.37%	-0.29%	-0.23%
Retail poultry quantity	0.22%	0.27%	0.21%	0.16%	0.13%
Wholesale poultry quantity	0.13%	0.30%	0.23%	0.19%	0.16%
Wholesale poultry price	0.70%	0.17%	0.07%	0.04%	0.02%
Exported wholesale poultry quantity	-0.22%	-0.07%	-0.03%	-0.02%	-0.02%

Notes: Percentage changes are relative to a base case of MCOOL not being implemented in 2009.

Exhibit 5.1. Percentage Change in Endogenous Variables of the Three-Sector Equilibrium Displacement Model Associated with 2009 MCOOL Rule (continued)

Endogenous Variables	Year 6	Year 7	Year 8	Year 9	Year 10
Retail beef quantity	-0.54%	-0.48%	-0.44%	-0.41%	-0.38%
Retail beef price	0.56%	0.48%	0.43%	0.38%	0.34%
Retail pork price	0.35%	0.30%	0.27%	0.24%	0.22%
Retail poultry price	0.00%	0.00%	0.00%	0.00%	0.00%
Wholesale beef quantity	-0.45%	-0.41%	-0.38%	-0.35%	-0.33%
Wholesale beef price	0.15%	0.13%	0.12%	0.11%	0.10%
Slaughter cattle quantity	-0.27%	-0.25%	-0.23%	-0.22%	-0.21%
Imported wholesale beef quantity	-0.38%	-0.35%	-0.33%	-0.31%	-0.29%
Exported wholesale beef quantity	-0.28%	-0.28%	-0.29%	-0.29%	-0.29%
Imported wholesale beef price	0.12%	0.11%	0.10%	0.10%	0.09%
Slaughter cattle price	-0.08%	-0.06%	-0.05%	-0.04%	-0.03%
Feeder cattle quantity	-0.10%	-0.10%	-0.09%	-0.09%	-0.08%
Feeder cattle price	-0.04%	-0.03%	-0.03%	-0.02%	-0.02%
Retail pork quantity	-0.20%	-0.18%	-0.17%	-0.16%	-0.15%
Wholesale pork quantity	-0.44%	-0.41%	-0.39%	-0.37%	-0.36%
Wholesale pork price	0.32%	0.29%	0.27%	0.25%	0.23%
Slaughter hogs quantity	-0.29%	-0.28%	-0.27%	-0.26%	-0.25%
Imported wholesale pork quantity	-0.84%	-0.78%	-0.73%	-0.69%	-0.65%
Exported wholesale pork quantity	-0.30%	-0.28%	-0.26%	-0.24%	-0.23%
Imported wholesale pork price	0.55%	0.48%	0.43%	0.39%	0.36%
Slaughter hogs price	-0.19%	-0.16%	-0.14%	-0.12%	-0.11%
Retail poultry quantity	0.11%	0.10%	0.09%	0.08%	0.07%
Wholesale poultry quantity	0.13%	0.12%	0.10%	0.09%	0.08%
Wholesale poultry price	0.02%	0.01%	0.01%	0.01%	0.01%
Exported wholesale poultry quantity	-0.01%	-0.01%	-0.01%	-0.01%	-0.01%

Notes: Percentage changes are relative to a base case of MCOOL not being implemented in 2009.

Exhibit 5.2. Producer Surplus Changes from 2009 MCOOL Implementation ($ millions, 2014 USD)

	Year 1	Year 2	Year 3	Year 4	Year 5
Beef Producer Surplus					
Retail level	309.89	-305.97	-644.17	-846.04	-977.57
Wholesale level	-241.79	-81.22	-69.65	-79.44	-90.66
Slaughter cattle level	-360.89	-201.07	-120.13	-80.61	-59.11
Feeder cattle level	-112.64	-79.24	-52.30	-37.81	-29.62
Total Beef Industry Producer Surplus	-405.43	-667.50	-886.25	-1,043.90	-1,156.97
Pork Producer Surplus					
Retail level	231.53	56.11	-39.69	-99.70	-140.50
Wholesale level	0.10	-5.75	-13.31	-20.57	-26.99
Slaughter hog level	-126.16	-93.15	-72.45	-58.73	-49.19
Total Pork Industry Producer Surplus	105.48	-42.79	-125.45	-179.00	-216.68
Poultry Producer Surplus					
Retail level	342.19	14.67	4.42	2.08	1.20
Wholesale level	292.97	71.46	29.75	16.25	10.22
Total Poultry Industry Producer Surplus	635.16	86.13	34.17	18.32	11.42
Total Meat Industry Producer Surplus	335.21	-624.17	-977.53	-1,204.57	-1,362.23

Notes: The values are relative to a base case of MCOOL not being implemented in 2009.
Producer surplus is calculated relative to 2008 prices and quantities for livestock and meat.
The nominal 2008 effects were then adjusted to 2014 values.

Exhibit 5.2. Producer Surplus Changes from 2009 MCOOL Implementation ($ millions, 2014 USD) (continued)

	Year 6	Year 7	Year 8	Year 9	Year 10	Cumulative Present Value
Beef Producer Surplus						
Retail level	-1,069.46	-1,137.09	-1,188.89	-1,229.79	-1,262.91	-5,979.74
Wholesale level	-100.27	-108.09	-114.44	-119.64	-123.96	-882.83
Slaughter cattle level	-46.25	-37.97	-32.33	-28.31	-25.34	-859.67
Feeder cattle level	-24.63	-21.38	-19.17	-17.58	-16.42	-346.61
Total Beef Industry Producer Surplus	-1,240.61	-1,304.54	-1,354.82	-1,395.33	-1,428.63	-8,068.84
Pork Producer Surplus						
Retail level	-169.89	-191.98	-209.14	-222.83	-233.98	-647.04
Wholesale level	-32.53	-37.29	-41.38	-44.91	-47.99	-191.88
Slaughter hog level	-42.32	-37.19	-33.27	-30.21	-27.76	-471.13
Total Pork Industry Producer Surplus	-244.74	-266.46	-283.79	-297.95	-309.73	-1,310.05
Poultry Producer Surplus						
Retail level	0.78	0.55	0.40	0.31	0.25	347.26
Wholesale level	7.01	5.11	3.89	3.06	2.47	405.89
Total Poultry Industry Producer Surplus	7.79	5.66	4.29	3.37	2.71	753.15
Total Meat Industry Producer Surplus	-1,477.55	-1,565.34	-1,634.33	-1,689.92	-1,735.65	-8,625.75

Notes: The values are relative to a base case of MCOOL not being implemented in 2009.
Producer surplus is calculated relative to 2008 prices and quantities for livestock and meat.
The nominal 2008 effects were then adjusted to 2014 values.

Exhibit 5.3. Consumer Surplus Changes from 2009 MCOOL Implementation ($ millions, 2014 USD)

	Year 1	Year 2	Year 3	Year 4	Year 5
Consumer Surplus					
Retail Beef	-1,770.65	-1,227.11	-907.42	-713.98	-587.03
Retail Pork	-477.67	-353.31	-276.47	-225.24	-189.10

Notes: The values are relative to a base case of MCOOL not being implemented in 2009 and are derived from separate, single-sector EDMs. Consumer surplus is calculated relative to 2008 prices and quantities for meat. The nominal 2008 effects were then adjusted to 2014 values.

Exhibit 5.3. Consumer Surplus Changes from 2009 MCOOL Implementation ($ millions, 2014 USD) (continued)

	Year 6	Year 7	Year 8	Year 9	Year 10	Cumulative Present Value
Consumer Surplus						
Retail Beef	-497.92	-432.11	-381.58	-341.59	-309.17	-5,977.48
Retail Pork	-162.45	-142.09	-126.10	-113.23	-102.67	-1,791.25

Notes: The values are relative to a base case of MCOOL not being implemented in 2009 and are derived from separate, single-sector EDMs. Consumer surplus is calculated relative to 2008 prices and quantities for meat. The nominal 2008 effects were then adjusted to 2014 values.

Chapter 6. Incremental Economic Impact Estimates of the 2013 Rule

The previous Chapter outlined results of EDMs built examining impacts of MCOOL being introduced in 2009. This Chapter repeats the process with an alternative focus on the incremental impacts of the 2013 rule being imposed, given the 2009 rule was already in place. There were multiple important exogenous impacts from the 2013 rule that are the initial shocks in the EDM. To establish base economic impacts, we first estimate the three-sector EDM incorporating exogenous cost increases (outlined in Chapter 4) without consideration of any demand increases. The potential impact of demand increases is subsequently isolated and discussed directly in scenario analyses in Chapter 8.

Exhibit 6.1 presents a summary of the percentage changes in livestock and meat prices and quantities resulting from MCOOL implementation in 2013, relative to a comparison base of the 2013 rule not being implemented but importantly reflecting the 2009 rule being in place. These changes are relative to base values of 2012 and are identified using the three-sector, three-species EDM presented in Chapter 4.

The market impacts of the price and quantity adjustments are intuitive and consistent with the preceding discussion of MCOOL cost increases throughout the beef and pork industries. Increased costs shift supply to the left. These decreases in supply cause reductions in quantities produced at the retail, wholesale, and live animal market levels for each year in both the beef-cattle and pork-hog supply chains. These adjustments further result in decreases in derived supply at lower levels in both marketing chains.

The impacts on prices and quantities are generally larger in years one to five than years six to ten as the meat industry adjusts to 2013 MCOOL regulations and associated changing market conditions. Moreover, Exhibit 5.1 indicates that the additional negative impacts of the 2013 rule were relatively small given that the 2009 rule was operational. This is consistent with the 2013 incremental costs being small relative to the initial compliance costs associated with the 2009 rule (Exhibits 4.5 and 4.7).

Prices for retail and wholesale beef increase in all ten years. Conversely, slaughter cattle and feeder cattle prices decline in each year. Retail pork and wholesale pork prices increase in each year while prices for slaughter hogs decline every year.

To assess the impacts of MCOOL on international meat trade, we continue to assume that exported wholesale meat prices equal domestic wholesale meat prices. Accordingly, increases in wholesale beef prices and pork prices result in decreases in exported wholesale beef and pork quantities for all ten years. Imported wholesale beef and pork quantities decline in each year because their prices increase for all ten years.

Exhibit 6.2 represents producer surplus estimates identified by the three-sector EDM for each of the ten years. Producer surplus estimates are calculated across the ten year period. These

estimates were initially denominated in n 2012 values. [11] Exhibit 6.2, however, presented the results in 2014 values to enable comparisons with impacts of the 2009 rule.[12]

Producer surplus impacts were negative at the wholesale beef, slaughter cattle, feeder cattle, and slaughter hog levels all ten years. Beef and pork retailers and pork packers initially benefit, but by year three, also experience economic welfare losses. This results in cumulative net present value (using a 5% discount rate) producer surplus declines for all segments of the beef and pork industries over a ten year period. The beef industry loses a total of $494.44 million with about 60% incurred at the retail level ($297.21 million). The remaining losses are distributed at the wholesale ($90.05 million), feedlot ($76.68 million), and cow-calf ($30.50 million) levels. The entire pork industry loses a total of $403.33 million distributed as $190.69 million at the retail level, $79.93 million at the wholesale level, and $132.72 million at the producer level.

The entire poultry industry gains producer surplus as both prices and quantities increase at the retail and wholesale level in each year (Exhibit 6.1.). This is driven by consumer responses to higher beef and pork prices manifest as increased demand for poultry. The poultry industry is estimated to gain a total of $65.67 million.

While the poultry industry benefits, the large losses in the beef and pork industry lead to total meat industry welfare losses. The entire meat industry loses a total $832.10 million over the ten-year period. The aggregate producer surplus impacts are substantially smaller for the 2013 rule compared to the 2009 rule because the additional costs of the 2013 rule are much smaller than the initial costs of the 2009 rule.

Exhibit 6.3 presents consumer surplus estimates obtained from separate single-sector EDMs built specific to the beef and pork industries. Short run (i.e., years one to five) are larger than long run (i.e., years six to ten) effects. Consumers experience welfare losses in every year which reflects higher beef and pork production costs and resulting higher retail prices. Consumer losses total $377.84 million from increased costs in the beef industry and $427.85 million from increased costs in in the pork industry.

[11] Corresponding 2012 nominal producer surplus values are presented in the Appendix.
[12] Specifically, using year-to-date 2014 Consumer Price Index values from the US Department of Labor, Bureau of Labor Statistics an inflation adjustment of 1.032 was used.

Exhibit 6.1. Percentage Change in Endogenous Variables of the Three-Sector Equilibrium Displacement Model Associated with 2013 MCOOL Rule

Endogenous Variables	Year 1	Year 2	Year 3	Year 4	Year 5
Retail beef quantity	-0.10%	-0.06%	-0.05%	-0.04%	-0.03%
Retail beef price	0.14%	0.09%	0.06%	0.05%	0.04%
Retail pork price	0.23%	0.17%	0.13%	0.11%	0.09%
Retail poultry price	0.06%	0.00%	0.00%	0.00%	0.00%
Wholesale beef quantity	-0.07%	-0.06%	-0.05%	-0.04%	-0.03%
Wholesale beef price	0.02%	0.03%	0.03%	0.02%	0.02%
Slaughter cattle quantity	-0.02%	-0.03%	-0.03%	-0.02%	-0.02%
Imported wholesale beef quantity	-0.05%	-0.04%	-0.03%	-0.03%	-0.03%
Exported wholesale beef quantity	-0.01%	-0.02%	-0.03%	-0.03%	-0.03%
Imported wholesale beef price	0.00%	0.01%	0.01%	0.01%	0.01%
Slaughter cattle price	-0.07%	-0.03%	-0.02%	-0.01%	-0.01%
Feeder cattle quantity	-0.01%	-0.01%	-0.01%	-0.01%	-0.01%
Feeder cattle price	-0.03%	-0.02%	-0.01%	-0.01%	-0.01%
Retail pork quantity	-0.13%	-0.10%	-0.09%	-0.08%	-0.07%
Wholesale pork quantity	-0.17%	-0.16%	-0.14%	-0.13%	-0.12%
Wholesale pork price	0.09%	0.09%	0.09%	0.08%	0.08%
Slaughter hogs quantity	-0.08%	-0.08%	-0.08%	-0.07%	-0.07%
Imported wholesale pork quantity	-0.14%	-0.13%	-0.12%	-0.11%	-0.10%
Exported wholesale pork quantity	-0.08%	-0.08%	-0.08%	-0.08%	-0.07%
Imported wholesale pork price	-0.01%	0.00%	0.00%	0.00%	0.01%
Slaughter hogs price	-0.19%	-0.14%	-0.10%	-0.08%	-0.07%
Retail poultry quantity	0.02%	0.02%	0.02%	0.01%	0.01%
Wholesale poultry quantity	0.01%	0.02%	0.02%	0.02%	0.01%
Wholesale poultry price	0.06%	0.01%	0.01%	0.00%	0.00%
Exported wholesale poultry quantity	-0.02%	-0.01%	0.00%	0.00%	0.00%

Notes: Percentage changes are relative to a base case of the 2013 MCOOL rule not being implemented.

Exhibit 6.1. Percentage Change in Endogenous Variables of the Three-Sector Equilibrium Displacement Model Associated with 2013 MCOOL Rule (continued)

Endogenous Variables	Year 6	Year 7	Year 8	Year 9	Year 10
Retail beef quantity	-0.03%	-0.02%	-0.02%	-0.02%	-0.02%
Retail beef price	0.03%	0.03%	0.03%	0.02%	0.02%
Retail pork price	0.08%	0.07%	0.06%	0.05%	0.05%
Retail poultry price	0.00%	0.00%	0.00%	0.00%	0.00%
Wholesale beef quantity	-0.03%	-0.03%	-0.03%	-0.02%	-0.02%
Wholesale beef price	0.02%	0.02%	0.01%	0.01%	0.01%
Slaughter cattle quantity	-0.02%	-0.02%	-0.02%	-0.01%	-0.01%
Imported wholesale beef quantity	-0.02%	-0.02%	-0.02%	-0.02%	-0.02%
Exported wholesale beef quantity	-0.03%	-0.03%	-0.03%	-0.03%	-0.03%
Imported wholesale beef price	0.01%	0.00%	0.00%	0.00%	0.00%
Slaughter cattle price	-0.01%	0.00%	0.00%	0.00%	0.00%
Feeder cattle quantity	-0.01%	-0.01%	-0.01%	-0.01%	0.00%
Feeder cattle price	0.00%	0.00%	0.00%	0.00%	0.00%
Retail pork quantity	-0.06%	-0.05%	-0.05%	-0.05%	-0.04%
Wholesale pork quantity	-0.11%	-0.10%	-0.10%	-0.09%	-0.09%
Wholesale pork price	0.07%	0.06%	0.06%	0.06%	0.05%
Slaughter hogs quantity	-0.07%	-0.06%	-0.06%	-0.06%	-0.06%
Imported wholesale pork quantity	-0.10%	-0.09%	-0.09%	-0.08%	-0.08%
Exported wholesale pork quantity	-0.07%	-0.06%	-0.06%	-0.06%	-0.05%
Imported wholesale pork price	0.01%	0.01%	0.01%	0.01%	0.01%
Slaughter hogs price	-0.06%	-0.05%	-0.04%	-0.04%	-0.03%
Retail poultry quantity	0.01%	0.01%	0.01%	0.01%	0.01%
Wholesale poultry quantity	0.01%	0.01%	0.01%	0.01%	0.01%
Wholesale poultry price	0.00%	0.00%	0.00%	0.00%	0.00%
Exported wholesale poultry quantity	0.00%	0.00%	0.00%	0.00%	0.00%

Notes: Percentage changes are relative to a base case of the 2013 MCOOL rule not being implemented.

Exhibit 6.2. Producer Surplus Changes from 2013 MCOOL Rule Implementation ($ millions, 2014 USD)

	Year 1	Year 2	Year 3	Year 4	Year 5
Beef Producer Surplus					
Retail level	42.58	-5.93	-30.73	-44.92	-53.91
Wholesale level	-11.92	-4.93	-7.16	-9.71	-11.70
Slaughter cattle level	-35.83	-18.18	-10.30	-6.60	-4.63
Feeder cattle level	-12.31	-7.56	-4.55	-3.00	-2.15
Total Beef Industry Producer Surplus	-17.48	-36.60	-52.74	-64.24	-72.38
Pork Producer Surplus					
Retail level	37.56	5.20	-14.05	-26.72	-35.59
Wholesale level	-7.50	-6.83	-7.65	-8.89	-10.16
Slaughter hog level	-37.56	-27.60	-21.08	-16.66	-13.55
Total Pork Industry Producer Surplus	-7.50	-29.23	-42.79	-52.27	-59.31
Poultry Producer Surplus					
Retail level	28.66	1.21	0.36	0.17	0.10
Wholesale level	26.61	6.39	2.64	1.44	0.90
Total Poultry Industry Producer Surplus	55.27	7.59	3.00	1.61	1.00
Total Meat Industry Producer Surplus	30.28	-58.24	-92.52	-114.90	-130.69

Notes: The values are relative to a base case of the 2013 MCOOL rule not being implemented. Producer surplus is calculated relative to 2012 prices and quantities for livestock and meat. The nominal 2012 effects were then adjusted to 2014 values.

Exhibit 6.2. Producer Surplus Changes from 2013 MCOOL Rule Implementation ($ millions, 2014 USD) (continued)

	Year 6	Year 7	Year 8	Year 9	Year 10	Cumulative Present Value
Beef Producer Surplus						
Retail level	-60.05	-64.51	-67.88	-70.51	-72.63	-297.21
Wholesale level	-13.21	-14.36	-15.27	-15.99	-16.58	-90.05
Slaughter cattle level	-3.46	-2.70	-2.19	-1.82	-1.55	-76.68
Feeder cattle level	-1.62	-1.28	-1.04	-0.87	-0.74	-30.50
Total Beef Industry Producer Surplus	-78.34	-82.85	-86.38	-89.20	-91.50	-494.44
Pork Producer Surplus						
Retail level	-42.12	-47.10	-51.01	-54.15	-56.73	-190.69
Wholesale level	-11.35	-12.43	-13.38	-14.22	-14.96	-79.93
Slaughter hog level	-11.28	-9.57	-8.26	-7.22	-6.38	-132.72
Total Pork Industry Producer Surplus	-64.75	-69.10	-72.64	-75.59	-78.07	-403.33
Poultry Producer Surplus						
Retail level	0.06	0.04	0.03	0.02	0.02	29.05
Wholesale level	0.62	0.45	0.34	0.27	0.22	36.62
Total Poultry Industry Producer Surplus	0.68	0.49	0.37	0.29	0.24	65.67
Total Meat Industry Producer Surplus	-142.41	-151.46	-158.64	-164.49	-169.34	-832.10

Notes: The values are relative to a base case of the 2013 MCOOL rule not being implemented.
Producer surplus is calculated relative to 2012 prices and quantities for livestock and meat.
The nominal 2012 effects were then adjusted to 2014 values.

Exhibit 6.3. Consumer Surplus Changes from 2013 MCOOL Rule Implementation ($ millions, 2014 USD)

	Year 1	Year 2	Year 3	Year 4	Year 5
Consumer Surplus					
Retail Beef	-116.02	-78.50	-57.03	-44.35	-36.18
Retail Pork	-112.53	-84.05	-66.14	-54.08	-45.52

Notes: The values are relative to a base case of the 2013 MCOOL rule not being implemented and are derived from separate, single-sector EDMs. Consumer surplus is calculated relative to 2012 prices and quantities for meat.
The nominal 2012 effects were then adjusted to 2014 values.

Exhibit 6.3 (continued). Consumer Surplus Changes from 2013 MCOOL Rule Implementation ($ millions, 2014 USD)

	Year 6	Year 7	Year 8	Year 9	Year 10	Cumulative Present Value
Consumer Surplus						
Retail Beef	-30.51	-26.36	-23.20	-20.71	-18.71	-377.84
Retail Pork	-39.17	-34.31	-30.48	-27.39	-24.85	-427.85

Notes: The values are relative to a base case of the 2013 MCOOL rule not being implemented and are derived from separate, single-sector EDMs. Consumer surplus is calculated relative to 2012 prices and quantities for meat.
The nominal 2012 effects were then adjusted to 2014 values.

Chapter 7. Demand Impact Analyses of the 2009 Rule

While the preceding chapters outlined results of cost increases, it is possible that MCOOL could result in increased demand for U.S. beef and pork products. If so, increased demand could offset the losses noted in the previous chapters. This section highlights the changes in cumulative net present value corresponding to MCOOL implementation in 2009 using various assumptions regarding aggregate beef and pork demand responses.

New policies, regulations, and production technologies regularly face a number of challenges and uncertainties when they are introduced in the livestock and meat marketing chain. Mandatory labeling of meat products faces some of these common challenges (Tonsor and Wolf, 2011; Lusk and Anderson, 2004). In addition to the production cost impacts of main focus so far, it is important to directly address possible adjustments in consumer demand following MCOOL in the U.S. The base case EDMs assumed no changes in domestic retail demand of beef, pork, and poultry.

MCOOL would presumably not directly increase demand for products that are exempt and thus not labeled by origin. This point was made in the concluding remarks of Brester, Marsh, and Anderson (2004) before additional details were known about how much product would be covered versus exempt. Note the most recent estimates offered by WTO (2014) suggest 33.3% to 42.3% of total beef is covered by MCOOL (57.7% to 66.7% is exempt).

To provide context on the net impact of the *potential* outcome of both production cost and demand increases for *covered* products, additional scenarios are considered. Exhibit 7.1 presents scenarios 2-6 associated with various permanent changes to demand for beef products covered by MCOOL following implementation of the 2009 rule that were identified as critical thresholds of demand change. The base case (scenario 1, Exhibit 5.2) reflects no change in demand for any beef products. Scenarios 2-6 estimate the effects on the meat industry given various potential demand increases for covered beef products. In each scenario, the level of a permanent increase in demand for covered beef products needed to result in producer surplus not changing for a particular industry segment was identified. This approach follows recent work of Tonsor and Schroeder (forthcoming) to provide additional insight on the demand increases needed to alter the direction of economic welfare impacts for individual market segments.

Consider the case of the beef industry collectively being indifferent to MCOOL implementation (scenario 2). Exhibit 7.1 shows that to realize this, the beef products covered by MCOOL would have to experience permanent demand increases of 6.76% to 8.59% (using lower and upper-bound estimates from WTO). [13] Importantly, in this situation the retail and wholesale beef levels experience economic welfare loss that combined is offset by welfare gains at the slaughter cattle and feeder cattle production level.[14] Given the diverse impacts across market segments, scenarios

[13] Demand increases were identified to the nearest 0.01%.

[14] The appendix contains details on the producer surplus impacts for each market segment under each scenario.

3-6 are included to illustrate the covered beef product demand increase needed to make each individual segment indifferent to MCOOL.

Demand increases of covered beef products would need to increase by at least 5.32% for feeder cattle producers to be indifferent to MCOOL, and up to 10.81% for the wholesale beef level to be indifferent. Larger demand increases are needed at the wholesale level because of the larger MCOOL costs that occur at this level. Given the retail level is the segment with higher implementation costs (Exhibit 4.5), it may initially be surprising that a smaller demand increase is needed at this level than the wholesale level. This outcome reflects the retail level being a direct beneficiary of higher retail beef prices while the wholesale level benefits from partially diluted (recall variable quantity transmission elasticities in Chapter 4) attribution of these higher prices.

Exhibit 7.2 presents similar estimates for pork demand increases that are needed to offset 2009 MCOOL implementation costs. The estimates offered by WTO (2014) suggest 15.9% to 16.5% of total pork is covered (83.5% to 84.1% is exempt). Scenario 7 suggests a permanent 5.58% to 5.79% (using lower and upper-bound estimates from WTO) increase in demand for covered pork products would be needed for the entire pork industry to collectively be indifferent to MCOOL from a producer surplus perspective. Under this situation, the retail level benefits while the wholesale pork and slaughter hog levels do not. Across scenarios 8-10 focused on the producer surplus of individual pork industry levels, demand increases of covered pork products would need to increase by at least 4.91% (for retailer indifference) and up to 7.04% (for wholesale pork level indifference).

Additional Context on Demand Increase Scenarios

It is further critical to note these demand increases presented in Exhibits 7.1 and 7.2 would have to be new demand that was not simply consumer substitution away from beef or pork products that were exempt. That is, if MCOOL simply causes consumer to substitute away from exempt beef products to origin-labeled beef products, the beef and pork demand increases would need to be (likely much) larger than reported here. Furthermore, our estimates do not account for products that are voluntarily origin labeled or branded. Thus, our increase in demand estimates for covered products are on the low side of magnitudes needed to avoid reductions in producer surplus impacts.

To illustrate the magnitude of these demand increases, note that since 1990 there has only been one year (2004) where aggregate beef demand has experienced a year-over-year increase exceeding 5% (Tonsor, 2014). Similarly since 1990 there has only been one year (1998) where aggregate pork demand has experienced a year-over-year increase exceeding 5% (Tonsor, 2014).

In addition, note that the portion of production that is exempt from MCOOL has been trending upwards as the relative importance of food service has been increasing (Technomic, 2013). Moreover, there are growing examples of private and public efforts supportive of the “buy locally produced” movement which is itself a voluntary source of origin labeling. The main implication of this is that over time, the demand increase needed for MCOOL to not reduce

economic welfare of industry stakeholders has to be realized on a shrinking component of the total industry.

Exhibit 7.1. Various Scenarios of Covered Beef Product Demand Increases from 2009 MCOOL Rule Implementation

Scenario Name:	*Aggregated Beef Industry Indifference*	*Retail Beef level Indifference*	*Wholesale Beef level Indifference*	*Slaughter Cattle level Indifference*	*Feeder Cattle level Indifference*
Scenario Number:	*2*	*3*	*4*	*5*	*6*
Increase in Demand of MCOOL Covered Products (33.30% of Total Beef is Covered)	*8.59%*	*8.77%*	*10.81%*	*6.91%*	*6.76%*
Increase in Demand of MCOOL Covered Products (42.30% of Total Beef is Covered)	*6.76%*	*6.90%*	*8.51%*	*5.44%*	*5.32%*

Exhibit 7.2. Various Scenarios of Covered Pork Product Demand Increases from 2009 MCOOL Rule Implementation

Scenario Name:	*Aggregated Pork Industry Indifference*	*Retail Pork level Indifference*	*Wholesale Pork level Indifference*	*Slaughter Hog level Indifference*
Scenario Number:	*7*	*8*	*9*	*10*
Increase in Demand of MCOOL Covered Products (15.90% of Total Pork is Covered)	*5.79%*	*5.09%*	*7.04%*	*6.60%*
Increase in Demand of MCOOL Covered Products (16.50% of Total Pork is Covered)	*5.58%*	*4.91%*	*6.79%*	*6.36%*

Chapter 8. Incremental Demand Impact Analyses of the 2013 Rule

While Chapter 7 outlines the demand increases needed given enactment of the 2009 MCOOL rule, this Chapter presents similar information specific to the 2013 rule being implemented given that the 2009 rule was already in place.

Exhibit 8.1 shows that beef products covered by MCOOL would have to experience permanent demand increases of 0.38% to 0.48% (using lower and upper-bound estimates from WTO) for the beef industry collectively to be indifferent to the 2013 rule being added, given the 2009 rule was in place (scenario 2). Across scenarios 3-6 focused on the producer surplus of individual beef industry levels, demand increases of covered beef products would need to increase by at least 0.33% (for retailer indifference) and up to 0.96% (for wholesale beef level indifference).

Similarly Exhibit 8.2 shows that pork products covered by MCOOL would have to experience a permanent demand increase of 1.58% to 1.64% (using lower and upper-bound estimates from WTO) for the pork industry to be collectively indifferent to the 2013 rule (scenario 7). Across scenarios 8-10 focused on the producer surplus of individual pork industry levels, demand increases of covered pork products would need to increase by at least 1.39% (for retailer indifference) and up to 2.64% (for wholesale pork level indifference).

Exhibit 8.1. Various Scenarios of Covered Beef Product Demand Increases from 2013 MCOOL Rule Implementation

Scenario Name:	*Aggregated Beef Industry Indifference*	*Retail Beef level Indifference*	*Wholesale Beef level Indifference*	*Slaughter Cattle level Indifference*	*Feeder Cattle level Indifference*
Scenario Number:	*2*	*3*	*4*	*5*	*6*
Increase in Demand of MCOOL Covered Products (33.30% of Total Beef is Covered)	*0.48%*	*0.42%*	*0.96%*	*0.51%*	*0.48%*
Increase in Demand of MCOOL Covered Products (42.30% of Total Beef is Covered)	*0.38%*	*0.33%*	*0.76%*	*0.40%*	*0.38%*

Exhibit 8.2. Various Scenarios of Covered Pork Product Demand Increases from 2013 MCOOL Rule Implementation

Scenario Name:	*Aggregated Pork Industry Indifference*	*Retail Pork level Indifference*	*Wholesale Pork level Indifference*	*Slaughter Hog level Indifference*
Scenario Number:	*7*	*8*	*9*	*10*
Increase in Demand of MCOOL Covered Products (15.90% of Total Pork is Covered)	*1.64%*	*1.45%*	*2.64%*	*1.57%*
Increase in Demand of MCOOL Covered Products (16.50% of Total Pork is Covered)	*1.58%*	*1.39%*	*2.55%*	*1.52%*

Chapter 9. Study Limitations

A study of this magnitude is subject to several limitations. First, the study relies upon estimates of MCOOL compliance costs for industry sectors that were developed by external sources. We verified the 2009 cost estimates through several industry sources who understand the costs incurred by firms to comply with MCOOL regulations, but we did not have time or resources to complete a thorough audit or re-estimation of itemized costs of compliance. The estimates we used are those that have been widely accepted and used by industry affiliates and are the most reliable estimates available. We were able to use both prior information and information through industry sources to interpolate the incremental cost increases associated with the 2013 rule.

Our study purposely explores national aggregate economic impacts of MCOOL regulations. We recognize individual companies, and different regions of the U.S. have been impacted differently by MCOOL rules. Our objective was to estimate aggregate economic impacts across producers, packers, retailers, and consumers, associated with activities industry participants had to perform in order to comply with the new laws. As such, more detailed breakdowns of regional or particular industry segment impacts were beyond the scope of this study.

Consumer and producer surplus estimates are the main source of our economic impact assessment of MCOOL, but are subject to critique. The estimates we derived assume money is the measure of impact that matters most to producers, packers, retailers, and consumers. Nonmonetary impacts are ignored in our economic framework. The models we use assume perfect competition and well-functioning competitive markets, which has often been debated in these industries. We assume demand and supply elasticities are known and follow a simple linear trend from short- to long-run over time. As such, we provide point estimates of economic impacts. We do not know the standard deviations surrounding our estimates. Despite these limitations, the methods to measure economic impacts that we have used here are among the most widely used and accepted for such policy analyses.

Several important costs of MCOOL have been ignored in our study. We did not estimate impacts on the general local or national economy that include multiplier effects estimated through Social Accounting Matrix estimates. We have also ignored continuing industry costs associated with lobbying, litigation, and World Trade Organization dispute rulings and appeals. Furthermore, potential future costs associated with possible trade retaliation have not been assessed here. Collectively, these costs could easily be much larger than the costs we have estimated and reported in this study.

We have not found a credible set of published studies that find and quantify net economic benefits of MCOOL to consumers for the U.S. as a whole. The few peer-reviewed published studies that do exist find no change in consumer demand associated with MCOOL products. Without compelling research to counter these conclusions, we assume economic benefits do not exist or are so small that voluntary source verification could easily meet consumer demand.

Chapter 10. References

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Appendix

This appendix includes a series of exhibits that correspond to intermediate steps of the analysis.

Exhibits A5.2 and A5.3 presents estimates, in nominal 2008 levels, of changes in producer and consumer surplus following 2009 MCOOL implementation. These values reflect the initial effects identified from the EDM built using 2008 values. In the main text, Exhibits 5.2 and 5.3 presents these effects in 2014 values.

Exhibits A6.2 and A6.3 presents estimates, in nominal 2012 levels, changes in producer and consumer surplus following implementation of the 2013 MCOOL rule. These values reflect the initial effects identified from the EDM built using 2012 values. In the main text, Exhibits 6.2 and 6.3 presents these effects in 2014 values.

Exhibit A7.1 present cumulative net present value estimates, labeled as scenarios 1-6, for various permanent changes to aggregate beef demand following implementation of the 2009 MCOOL rule that were explored. These values reflect the initial aggregate beef demand increases (including both covered and exempt products) which were identified directly from the base EDM. In the main text, Exhibit 7.1 presents information on the increase in demand for MCOOL covered beef products that would be required to generate this increase in aggregate demand for all beef products. Exhibit A7.2 similarly presents parallel information regarding pork demand increases.

Exhibit A8.1 present cumulative net present value estimates, labeled as scenarios 1-6, for various permanent changes to aggregate beef demand following implementation of the 2013 MCOOL rule that were explored. These values reflect the initial aggregate beef demand increases (including both covered and exempt products) which were identified directly from the base EDM. In the main text, Exhibit 8.1 presents information on the increase in demand for MCOOL covered beef products that would be required to generate this increase in aggregate demand for all beef products. Exhibit A8.2 similarly presents parallel information regarding pork demand increases.

Exhibit A5.2. Producer Surplus Changes from 2009 MCOOL Implementation ($ millions, 2008 USD)

	Year 1	Year 2	Year 3	Year 4	Year 5
Beef Producer Surplus					
Retail level	281.54	-277.98	-585.23	-768.62	-888.12
Wholesale level	-219.67	-73.79	-63.27	-72.17	-82.37
Slaughter cattle level	-327.87	-182.67	-109.14	-73.23	-53.70
Feeder cattle level	-102.33	-71.99	-47.52	-34.35	-26.91
Total Beef Industry Producer Surplus	-368.33	-606.42	-805.15	-948.38	-1,051.10
Pork Producer Surplus					
Retail level	210.35	50.97	-36.06	-90.57	-127.64
Wholesale level	0.09	-5.22	-12.09	-18.69	-24.52
Slaughter hog level	-114.61	-84.63	-65.82	-53.36	-44.69
Total Pork Industry Producer Surplus	95.82	-38.88	-113.97	-162.62	-196.86
Poultry Producer Surplus					
Retail level	310.88	13.32	4.01	1.89	1.09
Wholesale level	266.16	64.92	27.03	14.76	9.28
Total Poultry Industry Producer Surplus	577.05	78.25	31.04	16.65	10.37
Total Meat Industry Producer Surplus	304.54	-567.06	-888.09	-1,094.35	-1,237.59

Notes: The values are relative to a base case of MCOOL not being implemented in 2009. Producer surplus is calculated relative to 2008 prices and quantities for livestock and meat.

Exhibit A5.2. Producer Surplus Changes from 2009 MCOOL Implementation ($ millions, 2008 USD) (continued)

	Year 6	Year 7	Year 8	Year 9	Year 10	Cumulative Present Value
Beef Producer Surplus						
Retail level	-971.61	-1,033.05	-1,080.10	-1,117.27	-1,147.35	-5,432.59
Wholesale level	-91.09	-98.20	-103.97	-108.70	-112.62	-802.05
Slaughter cattle level	-42.02	-34.50	-29.37	-25.72	-23.02	-781.01
Feeder cattle level	-22.37	-19.43	-17.41	-15.98	-14.92	-314.89
Total Beef Industry Producer Surplus	-1,127.09	-1,185.17	-1,230.86	-1,267.66	-1,297.91	-7,330.53
Pork Producer Surplus						
Retail level	-154.34	-174.41	-190.00	-202.44	-212.57	-587.83
Wholesale level	-29.56	-33.88	-37.59	-40.80	-43.60	-174.33
Slaughter hog level	-38.44	-33.79	-30.23	-27.45	-25.22	-428.02
Total Pork Industry Producer Surplus	-222.34	-242.08	-257.82	-270.69	-281.39	-1,190.18
Poultry Producer Surplus						
Retail level	0.71	0.50	0.37	0.28	0.22	315.48
Wholesale level	6.37	4.64	3.53	2.78	2.24	368.75
Total Poultry Industry Producer Surplus	7.08	5.14	3.90	3.06	2.46	684.23
Total Meat Industry Producer Surplus	-1,342.35	-1,422.11	-1,484.78	-1,535.29	-1,576.84	-7,836.48

Notes: The values are relative to a base case of MCOOL not being implemented in 2009.
Producer surplus is calculated relative to 2008 prices and quantities for livestock and meat.

Exhibit A5.3. Consumer Surplus Changes from 2009 MCOOL Implementation ($ millions, 2008 USD)

	Year 1	Year 2	Year 3	Year 4	Year 5
Consumer Surplus					
Retail Beef	-1,608.63	-1,114.83	-824.39	-648.65	-533.31
Retail Pork	-433.96	-320.98	-251.17	-204.63	-171.80

Notes: The values are relative to a base case of MCOOL not being implemented in 2009 and are derived from separate, single-sector EDMs. Consumer surplus is calculated relative to 2008 prices and quantities for meat.

Exhibit A5.3. Consumer Surplus Changes from 2009 MCOOL Implementation ($ millions, 2008 USD) (continued)

	Year 6	Year 7	Year 8	Year 9	Year 10	Cumulative Present Value
Consumer Surplus						
Retail Beef	-452.36	-392.57	-346.67	-310.34	-280.88	-5,430.53
Retail Pork	-147.59	-129.09	-114.56	-102.87	-93.28	-1,627.35

Notes: The values are relative to a base case of MCOOL not being implemented in 2009 and are derived from separate, single-sector EDMs. Consumer surplus is calculated relative to 2008 prices and quantities for meat.

Exhibit A6.2. Producer Surplus Changes from 2013 MCOOL Rule Implementation ($ millions, 2012 USD)

	Year 1	Year 2	Year 3	Year 4	Year 5
Beef Producer Surplus					
Retail level	41.25	-5.75	-29.77	-43.52	-52.22
Wholesale level	-11.55	-4.78	-6.94	-9.41	-11.33
Slaughter cattle level	-34.71	-17.62	-9.97	-6.40	-4.49
Feeder cattle level	-11.93	-7.32	-4.40	-2.91	-2.08
Total Beef Industry Producer Surplus	-16.94	-35.46	-51.09	-62.23	-70.12
Pork Producer Surplus					
Retail level	36.39	5.04	-13.62	-25.88	-34.48
Wholesale level	-7.26	-6.62	-7.41	-8.61	-9.85
Slaughter hog level	-36.39	-26.74	-20.42	-16.14	-13.13
Total Pork Industry Producer Surplus	-7.27	-28.32	-41.45	-50.64	-57.46
Poultry Producer Surplus					
Retail level	27.76	1.17	0.35	0.16	0.09
Wholesale level	25.78	6.19	2.56	1.39	0.87
Total Poultry Industry Producer Surplus	53.54	7.36	2.91	1.56	0.97
Total Meat Industry Producer Surplus	29.34	-56.42	-89.63	-111.31	-126.61

Notes: The values are relative to a base case of the 2013 MCOOL rule not being implemented. Producer surplus is calculated relative to 2012 prices and quantities for livestock and meat.

Exhibit A6.2. Producer Surplus Changes from 2013 MCOOL Rule Implementation ($ millions, 2012 USD) (continued)

	Year 6	Year 7	Year 8	Year 9	Year 10	Cumulative Present Value
Beef Producer Surplus						
Retail level	-58.18	-62.50	-65.76	-68.31	-70.36	-287.94
Wholesale level	-12.79	-13.91	-14.79	-15.49	-16.07	-87.24
Slaughter cattle level	-3.35	-2.62	-2.12	-1.76	-1.50	-74.29
Feeder cattle level	-1.57	-1.24	-1.01	-0.84	-0.72	-29.55
Total Beef Industry Producer Surplus	-75.90	-80.27	-83.68	-86.41	-88.65	-479.01
Pork Producer Surplus						
Retail level	-40.81	-45.63	-49.42	-52.46	-54.96	-184.74
Wholesale level	-11.00	-12.04	-12.96	-13.77	-14.49	-77.44
Slaughter hog level	-10.93	-9.27	-8.00	-6.99	-6.19	-128.58
Total Pork Industry Producer Surplus	-62.73	-66.94	-70.37	-73.23	-75.64	-390.75
Poultry Producer Surplus						
Retail level	0.06	0.04	0.03	0.02	0.02	28.14
Wholesale level	0.60	0.43	0.33	0.26	0.21	35.48
Total Poultry Industry Producer Surplus	0.66	0.48	0.36	0.28	0.23	63.62
Total Meat Industry Producer Surplus	-137.97	-146.73	-153.69	-159.36	-164.06	-806.14

Notes: The values are relative to a base case of the 2013 MCOOL rule not being implemented. Producer surplus is calculated relative to 2012 prices and quantities for livestock and meat.

Exhibit A6.3. Consumer Surplus Changes from 2013 MCOOL Rule Implementation ($ millions, 2012 USD)

	Year 1	Year 2	Year 3	Year 4	Year 5
Consumer Surplus					
Retail Beef	-112.40	-76.05	-55.25	-42.97	-35.05
Retail Pork	-109.02	-81.43	-64.08	-52.40	-44.10

Notes: The values are relative to a base case of the 2013 MCOOL rule not being implemented and are derived from separate, single-sector EDMs. Consumer surplus is calculated relative to 2012 prices and quantities for meat.

Exhibit A6.3 (continued). Consumer Surplus Changes from 2013 MCOOL Rule Implementation ($ millions, 2012 USD)

	Year 6	Year 7	Year 8	Year 9	Year 10	Cumulative Present Value
Consumer Surplus						
Retail Beef	-29.56	-25.54	-22.48	-20.07	-18.12	-366.05
Retail Pork	-37.95	-33.24	-29.52	-26.53	-24.07	-414.50

Notes: The values are relative to a base case of the 2013 MCOOL rule not being implemented and are derived from separate, single-sector EDMs. Consumer surplus is calculated relative to 2012 prices and quantities for meat.

Exhibit A7.1. Cumulative Net Present Value of Producer Surplus Changes ($ millions, 2008 USD), Various Scenarios of Aggregate Beef Demand Increase from 2009 MCOOL Rule Implementation

Scenario Name:	*Base Case*	*Base Case with 2.86% Increase in Retail Domestic Demand of Beef*	*Base Case with 2.92% Increase in Retail Domestic Demand of Beef*	*Base Case with 3.60% Increase in Retail Domestic Demand of Beef*	*Base Case with 2.30% Increase in Retail Domestic Demand of Beef*	*Base Case with 2.25% Increase in Retail Domestic Demand of Beef*
Scenario Number:	*1*	*2*	*3*	*4*	*5*	*6*
Beef Producer Surplus						
Retail level	-5,432.59	-94.18	18.82	1,302.38	-1,146.86	-1,240.67
Wholesale level	-802.05	-162.72	-149.25	3.59	-288.34	-299.54
Slaughter cattle level	-781.01	194.41	214.94	447.77	2.95	-14.13
Feeder cattle level	-314.89	86.81	95.25	190.90	8.09	1.06
Total Beef Industry Producer Surplus	-7,330.53	24.33	179.76	1,944.64	-1,424.15	-1,553.29
Pork Producer Surplus						
Retail level	-587.83	-427.25	-423.88	-385.65	-458.72	-461.53
Wholesale level	-174.33	-141.59	-140.90	-133.11	-148.00	-148.58
Slaughter hog level	-428.02	-359.46	-358.02	-341.71	-372.89	-374.09
Total Pork Industry Producer Surplus	-1,190.18	-928.30	-922.80	-860.47	-979.61	-984.19
Poultry Producer Surplus						
Retail level	315.48	615.79	622.09	693.59	556.94	551.68
Wholesale level	368.75	707.76	714.87	795.55	641.34	635.41
Total Poultry Industry Producer Surplus	684.23	1,323.54	1,336.97	1,489.15	1,198.28	1,187.09
Total Meat Industry Producer Surplus	-7,836.48	419.57	593.93	2,573.31	-1,205.49	-1,350.38

Exhibit A7.2. Cumulative Net Present Value of Producer Surplus Changes ($ millions, 2008 USD), Various Scenarios of Aggregate Pork Demand Increase from 2009 MCOOL Rule Implementation

Scenario Name:	*Base Case*	*Base Case with 0.92% Increase in Retail Domestic Demand of Pork*	*Base Case with 0.81% Increase in Retail Domestic Demand of Pork*	*Base Case with 1.12% Increase in Retail Domestic Demand of Pork*	*Base Case with 1.05% Increase in Retail Domestic Demand of Pork*
Scenario Number:	*1*	*7*	*8*	*9*	*10*
Beef Producer Surplus					
Retail level	-5,432.59	-5,379.80	-5,386.11	-5,368.32	-5,372.34
Wholesale level	-802.05	-795.44	-796.23	-794.01	-794.51
Slaughter cattle level	-781.01	-773.73	-774.60	-772.15	-772.70
Feeder cattle level	-314.89	-312.04	-312.38	-311.42	-311.63
Total Beef Industry Producer Surplus	-7,330.53	-7,261.01	-7,269.32	-7,245.89	-7,251.18
Pork Producer Surplus					
Retail level	-587.83	85.55	4.78	232.58	181.09
Wholesale level	-174.33	-29.93	-47.23	1.55	-9.47
Slaughter hog level	-428.02	-50.88	-96.04	31.25	2.50
Total Pork Industry Producer Surplus	-1,190.18	4.73	-138.49	265.39	174.12
Poultry Producer Surplus					
Retail level	315.48	333.64	331.47	337.59	336.21
Wholesale level	368.75	389.34	386.88	393.82	392.26
Total Poultry Industry Producer Surplus	684.23	722.99	718.36	731.42	728.47
Total Meat Industry Producer Surplus	-7,836.48	-6,533.29	-6,689.46	-6,249.09	-6,348.60

Exhibit A8.1. Cumulative Net Present Value of Producer Surplus Changes ($ millions, 2012 USD), Various Scenarios of Aggregate Beef Demand Increase from 2013 MCOOL Rule Implementation

Scenario Name:	*Base Case*	*Base Case with 0.16% Increase in Retail Domestic Demand of Beef*	*Base Case with 0.14% Increase in Retail Domestic Demand of Beef*	*Base Case with 0.32% Increase in Retail Domestic Demand of Beef*	*Base Case with 0.17% Increase in Retail Domestic Demand of Beef*	*Base Case with 0.16% Increase in Retail Domestic Demand of Beef*
Scenario Number:	*1*	*2*	*3*	*4*	*5*	*6*
Beef Producer Surplus						
Retail level	-287.94	45.70	3.98	379.67	66.56	45.70
Wholesale level	-87.24	-43.45	-48.92	0.36	-40.71	-43.45
Slaughter cattle level	-74.29	-3.73	-12.55	66.85	0.68	-3.73
Feeder cattle level	-29.55	1.54	-2.34	32.64	3.49	1.54
Total Beef Industry Producer Surplus	-479.01	0.06	-59.84	479.51	30.02	0.06
Pork Producer Surplus						
Retail level	-184.74	-174.59	-175.86	-164.45	-173.96	-174.59
Wholesale level	-77.44	-75.25	-75.52	-73.07	-75.11	-75.25
Slaughter hog level	-128.58	-123.59	-124.21	-118.60	-123.28	-123.59
Total Pork Industry Producer Surplus	-390.75	-373.43	-375.60	-356.11	-372.35	-373.43
Poultry Producer Surplus						
Retail level	28.14	46.25	43.98	64.36	47.38	46.25
Wholesale level	35.48	57.68	54.90	79.88	59.07	57.68
Total Poultry Industry Producer Surplus	63.62	103.92	98.89	144.23	106.44	103.92
Total Meat Industry Producer Surplus	-806.14	-269.44	-336.55	267.63	-235.89	-269.44

Exhibit A8.2. Cumulative Net Present Value of Producer Surplus Changes ($ millions, 2012 USD), Various Scenarios of Aggregate Pork Demand Increase from 2013 MCOOL Rule Implementation

Scenario Name:	*Base Case*	*Base Case with 0.26% Increase in Retail Domestic Demand of Pork*	*Base Case with 0.23% Increase in Retail Domestic Demand of Pork*	*Base Case with 0.42% Increase in Retail Domestic Demand of Pork*	*Base Case with 0.25% Increase in Retail Domestic Demand of Pork*
Scenario Number:	*1*	*7*	*8*	*9*	*10*
Beef Producer Surplus					
Retail level	-287.94	-271.34	-273.26	-261.13	-271.98
Wholesale level	-87.24	-84.98	-85.24	-83.58	-85.06
Slaughter cattle level	-74.29	-71.63	-71.94	-69.99	-71.73
Feeder cattle level	-29.55	-28.43	-28.56	-27.75	-28.48
Total Beef Industry Producer Surplus	-479.01	-456.38	-458.99	-442.45	-457.25
Pork Producer Surplus					
Retail level	-184.74	30.83	5.94	163.71	22.53
Wholesale level	-77.44	-28.57	-34.21	1.53	-30.45
Slaughter hog level	-128.58	9.47	-6.46	94.49	4.16
Total Pork Industry Producer Surplus	-390.75	11.73	-34.74	259.73	-3.76
Poultry Producer Surplus					
Retail level	28.14	33.64	33.43	37.02	33.43
Wholesale level	35.48	42.25	41.99	46.42	41.99
Total Poultry Industry Producer Surplus	63.62	75.89	75.42	83.44	75.42
Total Meat Industry Producer Surplus	-806.14	-368.76	-385.59	-99.28	-385.59

Appendix B

2009 COOL Final Rule

DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service

7 CFR Parts 60 and 65

[Docket No. AMS–LS–07–0081]

RIN 0581–AC26

Mandatory Country of Origin Labeling of Beef, Pork, Lamb, Chicken, Goat Meat, Wild and Farm-Raised Fish and Shellfish, Perishable Agricultural Commodities, Peanuts, Pecans, Ginseng, and Macadamia Nuts

AGENCY: Agricultural Marketing Service, USDA.

ACTION: Final rule.

SUMMARY: The Farm Security and Rural Investment Act of 2002 (2002 Farm Bill), the 2002 Supplemental Appropriations Act (2002 Appropriations), and the Food, Conservation and Energy Act of 2008 (2008 Farm Bill) amended the Agricultural Marketing Act of 1946 (Act) to require retailers to notify their customers of the country of origin of covered commodities. Covered commodities include muscle cuts of beef (including veal), lamb, chicken, goat, and pork; ground beef, ground lamb, ground chicken, ground goat, and ground pork; wild and farm-raised fish and shellfish; perishable agricultural commodities; macadamia nuts; pecans; ginseng; and peanuts. The implementation of mandatory country of origin labeling (COOL) for all covered commodities, except wild and farm-raised fish and shellfish, was delayed until September 30, 2008.

The 2008 Farm Bill contained a number of provisions that amended the COOL provisions in the Act. These changes included the addition of chicken, goat, macadamia nuts, pecans, and ginseng as covered commodities, the addition of provisions for labeling products of multiple origins, as well as a number of other changes. However, the implementation date of September 30, 2008, was not changed by the 2008 Farm Bill. Therefore, in order to meet the September 30, 2008, implementation date and to provide the newly affected industries the opportunity to provide comments prior to issuing a final rule, on August 1, 2008, the Department published an interim final rule with a request for comments for all of the covered commodities other than wild and farm-raised fish and shellfish. The Agency is issuing this final rule for all covered commodities. This final rule contains definitions, the requirements for consumer notification and product marking, and the recordkeeping responsibilities of both retailers and suppliers for covered commodities.

DATES: This final rule is effective March 16, 2009.

FOR FURTHER INFORMATION CONTACT: Erin Morris, Associate Deputy Administrator, Poultry Programs, AMS, USDA, by telephone on 202–720–5131, or via e-mail at: *erin.morris@usda.gov.*

SUPPLEMENTARY INFORMATION: The information that follows has been divided into three sections. The first section provides background information about this final rule. The second section provides a discussion of the rule's requirements, including a summary of changes from the October 5, 2004, interim final rule for fish and shellfish and the August 1, 2008, interim final rule for the remaining covered commodities as well as a summary of the comments received in response to the relevant prior requests for comments associated with this rulemaking and the Agency's responses to these comments. The prior requests for comments include: The interim final rule for fish and shellfish published in the October 5, 2004, **Federal Register** (69 FR 59708); the reopening of the comment period (for costs and benefits) for the interim final rule that was published in the November 27, 2006, **Federal Register** (71 FR 68431); the reopening of the comment period for all aspects of the interim final rule that was published in the June 20, 2007, **Federal Register** (72 FR 33851); and the interim final rule for the remaining covered commodities that was published in the August 1, 2008, **Federal Register** (73 FR 45106). The last section provides for the required impact analyses including the Regulatory Flexibility Act, the Paperwork Reduction Act, Civil Rights Analysis, and the relevant Executive Orders.

I. Background

Prior Documents in This Proceeding

This final rule is issued pursuant to the 2002 Farm Bill, the 2002 Appropriations, and the 2008 Farm Bill, which amended the Act to require retailers to notify their customers of the origin of covered commodities. In addition, the FY 2004 Consolidated Appropriations Act (Pub. L. 108–199) delayed the implementation of mandatory COOL for all covered commodities except wild and farm-raised fish and shellfish until September 30, 2006. The Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act of 2006 (Pub. L. 109–97) delayed the applicability of mandatory COOL for all covered commodities except wild and farm-raised fish and shellfish until September 30, 2008.

On October 11, 2002, AMS published Guidelines for the Interim Voluntary Country of Origin Labeling of Beef, Lamb, Pork, Fish, Perishable Agricultural Commodities, and Peanuts (67 FR 63367) providing interested parties with 180 days to comment on the utility of the voluntary guidelines.

On November 21, 2002, AMS published a notice requesting emergency approval of a new information collection (67 FR 70205) providing interested parties with a 60-day period to comment on AMS' burden estimates associated with the recordkeeping requirements as required by the Paperwork Reduction Act of 1995 (PRA). On January 22, 2003, AMS published a notice extending this comment period (68 FR 3006) an additional 30 days.

On October 30, 2003, AMS published the proposed rule for the mandatory COOL program (68 FR 61944) with a 60-day comment period. On December 22, 2003, AMS published a notice extending the comment period (68 FR 71039) an additional 60 days. On June 20, 2007, AMS reopened the comment period for the proposed rule for all covered commodities (72 FR 33917).

On October 5, 2004, AMS published the interim final rule for fish and shellfish (69 FR 59708) with a 90-day comment period. On December 28, 2004, AMS published a notice extending the comment period (69 FR 77609) an additional 60 days. On November 27, 2006, the comment period was reopened on the costs and benefits aspects of the interim final rule (71 FR 68431). On June 20, 2007, the comment period was reopened for all aspects of the interim final rule (72 FR 33851).

On August 1, 2008, AMS published an interim final rule for covered commodities other than fish and shellfish (73 FR 45106) with a 60-day comment period.

II. Summary of Changes From the Interim Final Rules

Definitions

In the regulatory text for fish and shellfish (7 CFR part 60), a definition for ''commingled covered commodities'' has been added for clarity and to conform to the regulatory text for the other covered commodities.

In the regulatory text for the remaining covered commodities (7 CFR part 65), the definition of ''ground beef'' has been modified in response to

comments. Under this final rule, the term ''ground beef'' has the meaning given that term in 9 CFR § 319.15(a), i.e., chopped fresh and/or frozen beef with or without seasoning and without the addition of beef fat as such, and containing no more than 30 percent fat, and containing no added water, phosphates, binders, or extenders, and also includes products defined by the term ''hamburger'' in 9 CFR 319.15(b). A full explanation of this change is discussed in the Comments and Responses section.

In 7 CFR part 65, the definition of ''lamb'' has been modified in response to comments to include mutton. Under this final rule, the term ''lamb'' means meat produced from sheep.

In 7 CFR part 65, the definition of ''NAIS-compliant system'' has been deleted in response to comments received as it is no longer needed.

A definition of ''pre-labeled'' has been added to both 7 CFR part 60 and 7 CFR part 65 for clarity in response to comments received. Under this final rule, the term ''pre-labeled'' means a covered commodity that has the commodity's country of origin, and, as applicable, method of production information, and the name and place of business of the manufacturer, packer, or distributor on the covered commodity itself, on the package in which it is sold to the consumer, or on the master shipping container. The place of business information must include at a minimum the city and state or other acceptable locale designation.

In 7 CFR part 65, the definition of ''produced'' has been modified for clarity in response to comments. Under this final rule, the term ''produced'' in the case of perishable agricultural commodities, peanuts, ginseng, pecans, and macadamia nuts means harvested.

Country of Origin Notification

Labeling Covered Commodities of United States Origin

The August 1, 2008, interim final rule contained an express provision allowing U.S. origin covered commodities to be further processed or handled in a foreign country and retain their U.S. origin. The Agency received numerous comments requesting further clarification of this provision as well as comments requesting that it be deleted. Accordingly, under this final rule, this provision has been deleted. To the extent that it is allowed under existing Customs and Border Protection (CBP) and Food Safety and Inspection Service (FSIS) regulations, U.S. origin covered commodities may still be eligible to bear a U.S. origin declaration if they are processed in another country such that a substantial transformation (as determined by CBP) does not occur. In addition, to the extent that additional information about the production steps that occurred in the U.S. is permitted under existing Federal regulations (e.g., CBP, FSIS), nothing in this final rule precludes such information from being included. A full explanation of this change is discussed in the Comments and Responses section.

Country of Origin Notification for Muscle Cuts

Under the August 1, 2008, interim final rule, if an animal was born, raised, and/or slaughtered in the United States and was not imported for immediate slaughter as defined in § 65.180, the origin of the resulting meat products derived from that animal could have been designated as Product of the United States, Country X, and/or (as applicable) Country Y, where Country X and Country Y represent the actual or possible countries of foreign origin.

During the comment period, the Agency received extensive feedback from livestock producers, members of Congress, and other interested parties expressing concern about the provision in the interim final rule that allowed U.S. origin product to be labeled with a mixed origin label. It was never the intent of the Agency for the majority of product eligible to bear a U.S. origin declaration to bear a multiple origin designation. The Agency made additional modifications for clarity.

Under this final rule, for muscle cut covered commodities derived from animals that were born in Country X or (as applicable) Country Y, raised and slaughtered in the United States, and were not derived from animals imported for immediate slaughter as defined in § 65.180, the origin may be designated as Product of the U.S., Country X, and (as applicable) Country Y.

For muscle cut covered commodities derived from animals born, raised, and slaughtered in the U.S. that are commingled during a production day with muscle cut covered commodities derived from animals that were raised and slaughtered in the United States, and were not derived from animals imported for immediate slaughter as defined in § 65.180, the origin may be designated, for example, as Product of the United States, Country X, and (as applicable) Country Y.

For muscle cut covered commodities derived from animals that are born in Country X or Country Y, raised and slaughtered in the United States, that are commingled during a production day with muscle cut covered commodities that are derived from animals that are imported into the United States for immediate slaughter as defined in § 65.180, the origin may be designated as Product of the United States, Country X, and (as applicable) Country Y.

In all of the cases above, the countries of origin may be listed in any order. In addition, if animals are raised in another country and the United States, provided the animals are not imported for immediate slaughter as defined in § 65.180, the raising that occurs in the United States takes precedence over the minimal raising that occurred in the animal's country of birth.

A full explanation of these changes is discussed in the Comments and Responses section.

Markings

Under the October 5, 2004, interim final rule for fish and shellfish and the August 1, 2008, interim final rule for the remaining covered commodities, only those abbreviations approved for use under CBP rules, regulations, and policies were acceptable. The 2008 Farm Bill and the August 1, 2008, interim final rule expressly authorized the use of State, regional, or locality label designations in lieu of country of origin for perishable agricultural commodities, peanuts, pecans, ginseng, and macadamia nuts. In response to comments received, under this final rule, abbreviations may be used for state, regional, or locality label designations for these commodities whether domestically harvested or imported using official United States Postal Service abbreviations or other abbreviations approved by CBP. A full explanation of this change is discussed in the Comments and Responses section.

Recordkeeping

The 2008 Farm Bill made changes to the recordkeeping provisions of the Act. Specifically, the 2008 Farm Bill states that records maintained in the course of the normal conduct of the business of such person, including animal health papers, import or customs documents, or producer affidavits, may serve as such verification. Under the 2008 Farm Bill, the Secretary is prohibited from requiring the maintenance of additional records other than those maintained in the normal conduct of business. In addition to the changes made as a result of the 2008 Farm Bill, other changes were made in the August 1, 2008, interim final rule to reduce the recordkeeping burden. Further changes are being made in this final rule in response to comments received.

For retailers, this rule requires records and other documentary evidence relied upon at the point of sale by the retailer to establish a covered commodity's country(ies) of origin and method of production (wild and/or farm-raised), as applicable, to be either maintained at the retail facility or at another location for as long as the product is on hand and provided to any duly authorized representative of USDA, upon request, within 5 business days of the request. For pre-labeled products, the label itself is sufficient information on which the retailer may rely to establish the product's origin and method of production, as applicable, and no additional records documenting origin and method of production information are necessary. Under the August 1, 2008, interim final rule, retailers were required to maintain these records for a period of 1 year.

Under this final rule, upon request by USDA representatives, suppliers and retailers shall make available to USDA representatives, records maintained in the normal course of business that verify an origin and method of production (wild and/or farm-raised) claim, as applicable. Such records shall be provided within 5 business days of the request and may be kept in any location.

Under this final rule, producer affidavits shall also be considered acceptable records that suppliers may utilize to initiate origin claims for all covered commodities, provided it is made by someone having first-hand knowledge of the origin of the covered commodity and identifies the covered commodity unique to the transaction.

Responsibilities of Retailers and Suppliers

With regard to the ''safe harbor'' language that was contained in the October 30, 2003, proposed rule and the October 5, 2004, interim final rule, which allowed retailers and suppliers to rely on the information provided unless they could have been reasonably expected to have knowledge otherwise, based on comments received, similar ''safe harbor'' language has been included in this final rule. A complete discussion is contained in the Comments and Responses section of this final rule.

With regard to the recordkeeping provision concerning livestock that are part of a NAIS-compliant system, in response to comments received, the Agency has clarified that packers who slaughter animals that are tagged with an 840 Animal Identification Number device without the presence of any additional accompanying marking indicating the origin as being a country other than the U.S. (i.e., ''CAN'' or ''M'') may use that information as a basis for a U.S. origin claim. In addition, packers that slaughter animals that are part of another country's recognized official system (e.g. Canadian official system, Mexico official system) may also rely on the presence of an official ear tag or other approved device on which to base their origin claims.

Highlights of This Final Rule

Covered Commodities

As defined in the statute, the term ''covered commodity'' includes: Muscle cuts of beef, lamb, pork, chicken, and goat; ground beef, ground lamb, ground pork, ground chicken, and ground goat; wild and farm-raised fish and shellfish; perishable agricultural commodities (fresh and frozen fruits and vegetables); peanuts; pecans; ginseng; and macadamia nuts.

Exemption for Food Service Establishments

Under the statute and therefore this final rule, food service establishments are exempt from COOL labeling requirements. Food service establishments are restaurants, cafeterias, lunch rooms, food stands, saloons, taverns, bars, lounges, or other similar facilities operated as an enterprise engaged in the business of selling food to the public. Similar food service facilities include salad bars, delicatessens, meal preparation stations in which the retailer sets out ingredients for different meals and consumers assemble the ingredients into meals to take home, and other food enterprises located within retail establishments that provide ready-to-eat foods that are consumed either on or outside of the retailer's premises.

Exclusion for Ingredient in a Processed Food Item

Items are excluded from labeling under this regulation when a covered commodity is an ingredient in a processed food item. Under this final rule, a ''processed food item'' is defined as: A retail item derived from a covered commodity that has undergone specific processing resulting in a change in the character of the covered commodity, or that has been combined with at least one other covered commodity or other substantive food component (e.g., chocolate, breading, tomato sauce), except that the addition of a component (such as water, salt, or sugar) that enhances or represents a further step in the preparation of the product for consumption, would not in itself result in a processed food item. Specific processing that results in a change in the character of the covered commodity includes cooking (e.g., frying, broiling, grilling, boiling, steaming, baking, roasting), curing (e.g., salt curing, sugar curing, drying), smoking (cold or hot), and restructuring (e.g., emulsifying and extruding).

With regard to determining what is considered an ''other covered commodity'' with respect to fruits and vegetables, the Agency will generally rely on U.S. Grade Standards for fruits and vegetables to make the distinction of whether or not the retail item is a combination of ''other covered commodities''. For example, different colored sweet peppers combined in a package will require country of origin notification because there is one U.S. Grade Standard for sweet peppers, regardless of the color. As another example, there are separate U.S. Grade Standards for iceberg lettuce and romaine lettuce. Therefore, this type of salad mix will not be required to be labeled with country of origin information. While the Agency previously used this example in the preamble of the August 1, 2008, interim final rule and concluded that such a salad mix would be subject to COOL, the Agency now believes the use of U.S. Grade Standards in determining when a perishable retail item is considered a processed food item provides a bright line to the industry and is an easy and straightforward approach as regulated entities are already familiar with U.S. Grade Standards.

There are limited exceptions to this policy. One exception occurs when there are different grade standards for the same commodity based on the region of production. For example, although there are separate grade standards for oranges from Florida, Texas, and California/Arizona, combining oranges from these different regions would not be considered combining ''other covered commodities'' and therefore, a container with oranges from Texas and Florida is required to be labeled with country of origin information.

As examples of processing steps that are considered to further prepare product for consumption, meat products that have been needle-tenderized or chemically tenderized using papain or other similar additive are not considered processed food items. Likewise, meat products that have been injected with sodium phosphate or other similar solution are also not considered processed food items as the solution has not changed the character of the covered commodity. In contrast, meat products that have been marinated with a particular flavor such as lemon-

pepper, Cajun, etc. have been changed in character and thus are considered processed food items.

While the definition of a processed food item does exclude a number of products from labeling under the COOL program, many imported items are still required to be marked with country of origin information under the Tariff Act of 1930 (19 U.S.C. 1304) (Tariff Act). For example, while a bag of frozen peas and carrots is considered a processed food item under this final rule, if the peas and carrots are of foreign origin, the Tariff Act requires that the country of origin information be marked on the bag. Likewise, while roasted peanuts, pecans, and macadamia nuts are also considered processed food items under this final rule, under the Tariff Act, if the nuts are of foreign origin, the country of origin information must be indicated to the ultimate purchaser. This also holds true for a variety of fish and shellfish items. For example, salmon imported from Chile that is smoked in the United States as well as shrimp imported from Thailand that is cooked in the United States are also required to be labeled with country of origin information under the Tariff Act. In addition, items such as marinated lamb loins that are imported in consumer-ready packages would also be required to be labeled with country of origin information as both CBP and FSIS regulations require meat that is imported in consumer-ready packages to be labeled with origin information on the package.

Examples of items excluded from country of origin labeling include teriyaki flavored pork loin, meatloaf, roasted peanuts, breaded chicken tenders, breaded fish sticks, flank steak with portabella stuffing, steakhouse sirloin kabobs with vegetables, cooked and smoked meats, blue cheese angus burgers, cured hams, bacon, corned beef briskets, prosciutto rolled in mozzarella cheese, a salad that contains iceberg and romaine lettuce, a fruit cup that contains cantaloupe, watermelon, and honeydew, mixed vegetables, and a salad mix that contains lettuce and carrots and/or salad dressing.

Labeling Covered Commodities of United States Origin

The law prescribes specific criteria that must be met for a covered commodity to bear a ''United States country of origin'' declaration. Therefore, covered commodities may be labeled as having a United States origin if the following specific requirements are met:

(a) Beef, pork, lamb, chicken, and goat—covered commodities must be derived from animals exclusively born, raised, and slaughtered in the United States; from animals born and raised in Alaska or Hawaii and transported for a period of time not more than 60 days through Canada to the United States and slaughtered in the United States; or from animals present in the United States on or before July 15, 2008, and once present in the United States, remained continuously in the United States.

(b) Perishable agricultural commodities, peanuts, pecans, ginseng, and macadamia nuts—covered commodities must be from products exclusively produced in the United States.

(c) Farm-raised fish and shellfish—covered commodities must be derived exclusively from fish or shellfish hatched, raised, harvested, and processed in the United States, and that has not undergone a substantial transformation (as established by CBP) outside of the United States.

(d) Wild fish and shellfish—covered commodities must be derived exclusively from fish or shellfish either harvested in the waters of the United States or by a U.S. flagged vessel and processed in the United States or aboard a U.S. flagged vessel, and that has not undergone a substantial transformation (as established by CBP) outside of the United States.

Labeling Country of Origin for Imported Products

Under this final rule, a fish or shellfish imported covered commodity shall retain its origin as declared to CBP at the time the product enters the United States, through retail sale, provided it has not undergone a substantial transformation (as established by CBP) in the United States. Similarly, for the other covered commodities, an imported covered commodity for which origin has already been established as defined by the Act (e.g., born, raised, slaughtered or harvested) and for which no production steps have occurred in the United States shall retain its origin as declared to CBP at the time the product enters the United States, through retail sale.

Covered commodities imported in consumer-ready packages are currently required to bear a country of origin declaration on each individual package under the Tariff Act. This final rule does not change these requirements.

Labeling Fish and Shellfish Imported Products That Have Been Substantially Transformed in the United States

Under this final rule, in the case of wild fish and shellfish, if a covered commodity was imported from country X and substantially transformed (as established by CBP) in the United States or aboard a U.S. flagged vessel, the product shall be labeled at retail as ''From [country X], processed in the United States.'' Alternatively, the product may be labeled as ''Product of country X and the United States''. The covered commodity must also be labeled to indicate that it was derived from wild fish or shellfish.

In the case of farm-raised fish, if a covered commodity was imported from country X at any stage of production and substantially transformed (as established by CBP) in the United States, the product shall be labeled at retail as ''From [country X], processed in the United States.'' Alternatively, the product may be labeled as ''Product of country X and the United States''. The covered commodity shall also be labeled to indicate that it was derived from farm-raised fish or shellfish.

Labeling Muscle Cut Covered Commodities of Multiple Countries of Origin (That Includes the United States)

Under this final rule, for muscle cut covered commodities derived from animals that were born in Country X or (as applicable) Country Y, raised and slaughtered in the United States, and were not derived from animals imported for immediate slaughter as defined in § 65.180, the origin may be designated, for example, as Product of the U.S., County X, and (as applicable) Country Y. The countries of origin may be listed in any order.

For muscle cut covered commodities derived from animals born, raised, and slaughtered in the U.S. that are commingled during a production day with muscle cut covered commodities derived from animals that were raised and slaughtered in the United States, and were not derived from animals imported for immediate slaughter as defined in § 65.180, the origin may be designated as, for example, Product of the United States, Country X, and (as applicable) Country Y. The countries of origin may be listed in any order.

If an animal was imported into the United States for immediate slaughter as defined in § 65.180, the origin of the resulting meat products derived from that animal shall be designated as Product of Country X and the United States.

For muscle cut covered commodities derived from animals that are born in Country X or Country Y, raised and slaughtered in the United States, that are commingled during a production day with muscle cut covered commodities that are derived from animals that are imported into the

United States for immediate slaughter as defined in § 65.180, the origin may be designated as Product of the United States, Country X, and (as applicable) Country Y. The countries of origin may be listed in any order.

In all cases above, the origin declaration may include more specific information related to production steps provided records to substantiate the claims are maintained and the claim is consistent with other applicable Federal legal requirements. In addition, if animals are raised in another country and the United States, provided the animals are not imported for immediate slaughter as defined in § 65.180, the raising that occurs in the United States takes precedence over the minimal raising that occurred in the animal's country of birth.

With regard to the commingling of meat of different origin categories, the Agency has received comments requesting that the Agency provide additional clarification on how commingled meat products can be labeled. Under this final rule, it is permissible to commingle meat derived from animals imported for immediate slaughter with meat derived from mixed origin animals and label it as Product of U.S., Canada. It is also permissible to commingle meat derived from animals imported for immediate slaughter with meat of mixed origin and label it as category C (product imported for immediate slaughter, i.e., Product of Canada, U.S.). Further, the declaration for meat derived from mixed origin animals may list the countries of origin in any order (e.g., Product of U.S., Canada or Product of Canada, U.S.).

Labeling Commingled Covered Commodities

In this final rule, a commingled covered commodity is defined as a single type of covered commodity (e.g., frozen peas, shrimp), presented for retail sale in a consumer package, that has been prepared from raw material sources having different origins. Further, a commingled covered commodity does not include meat products. If the retail product contains two different types of covered commodities (e.g., peas and carrots), it is considered a processed food item and is not subject to mandatory COOL.

In the case of perishable agricultural commodities, wild and farm-raised fish and shellfish, peanuts, pecans, ginseng, and macadamia nuts, for imported covered commodities that have not subsequently been substantially transformed in the United States that are commingled with commodities having different origins, the declaration shall indicate the countries of origin for all covered commodities in accordance with CBP marking regulations (19 CFR part 134). For example, a bag of frozen peas that were sourced from France and India is currently required under CBP regulations to be marked with that origin information on the package.

In the case of wild and farm-raised fish and shellfish covered commodities, when the retail product contains imported covered commodities that have subsequently undergone substantial transformation in the United States are commingled with other imported covered commodities that have subsequently undergone substantial transformation in the United States (either prior to or following substantial transformation in the United States) and/or U.S. origin covered commodities, the declaration shall indicate the countries of origin contained therein or that may be contained therein.

Defining Country of Origin for Ground Meat Products

The law states that the origin declaration for ground beef, ground pork, ground lamb, ground goat, and ground chicken covered commodities shall list the countries of origin contained therein or shall list the reasonably possible countries of origin. Therefore, under this final rule, when a raw material from a specific origin is not in a processor's inventory for more than 60 days, the country shall no longer be included as a possible country of origin. This does not mean that labels must change every 60 days. Labels containing the applicable countries (e.g., Country x, y, z) may extend beyond a given 60-day period depending on how long raw materials from those countries are actually in inventory. If a country of origin is utilized as a raw material source in the production of ground beef, it must be listed on the label. The 60-day in inventory allowance speaks only to when countries may no longer be listed. The 60-day inventory allowance is an allowance for the Agency' enforcement purposes for when the Agency would deem ground meat products as no longer accurately labeled. In the event of a supplier audit by USDA, records kept in the normal course of business should provide the information necessary to verify the origin claim.

Remotely Purchased Products

For sales of a covered commodity in which the customer purchases a covered commodity prior to having an opportunity to observe the final package (e.g., Internet sales, home delivery sales, etc.) the retailer may provide the country of origin and method of production information (wild and/or farm-raised), as applicable, either on the sales vehicle or at the time the product is delivered to the consumer.

Markings

Under this final rule, the country of origin declaration and method of production (wild and/or farm-raised) designation, as applicable, may be provided to consumers by means of a label, placard, sign, stamp, band, twist tie, pin tag, or other clear and visible sign on the covered commodity or on the package, display, holding unit, or bin containing the commodity at the final point of sale to consumers. The country of origin declaration and method of production (wild and/or farm-raised) designation may be combined or made separately.

With respect to the production designation, various forms of the production designation are acceptable, including ''wild caught,'' ''wild,'' ''farm-raised,'' ''farmed,'' or a combination of these terms for products that contain both wild and farm-raised fish or shellfish provided it can be readily understood by the consumer and is in conformance with other Federal labeling laws. Designations such as ''ocean caught,'' ''caught at sea'', ''line caught,'' ''cultivated,'' or ''cultured'' do not meet the requirements of this regulation. Alternatively, the method of production (wild and/or farm-raised) designation may also be in the form of a check box.

In general, country abbreviations are not acceptable. Only those abbreviations approved for use under CBP rules, regulations, and policies, such as ''U.K.'' for ''The United Kingdom of Great Britain and Northern Ireland'', ''Luxemb'' for Luxembourg, and ''U.S.'' or ''USA'' for the ''United States of America'' are acceptable. The Agency is aware of a few additional abbreviations allowed by CBP such as ''Holland'' for The Netherlands and has posted this information on the COOL Web site.

The declaration of the country of origin of a product may be in the form of a statement such as ''Product of USA,'' ''Produce of the USA'', or ''Harvested in Mexico''; may only contain the name of the country such as ''USA'' or ''Mexico''; or may be in the form of a check box provided it is in conformance with CBP marking regulations and other Federal labeling laws (i.e., FDA, FSIS). For example, CBP marking regulations (19 CFR part 134) specifically require the use of the words ''product of'' in certain circumstances. The adjectival form of the name of a country may be used as proper

notification of the country of origin of imported commodities provided the adjectival form of the name does not appear with other words so as to refer to a kind or species of product. Symbols or flags alone may not be used to denote country of origin. The labeling requirements under this rule do not supersede any existing Federal legal requirements, unless otherwise specified, and any country of origin or method of production (wild and/or farm-raised) designation, as applicable, must not obscure or intervene with other labeling information required by existing regulatory requirements.

For domestic and imported perishable agricultural commodities, macadamia nuts, peanuts, pecans, and ginseng, State, regional, or locality label designations are acceptable in lieu of country of origin labeling. Such designations must be nationally distinct. For example, Rio Grande Valley would not be an acceptable designation because consumer would not know whether the country of origin was the U.S. or Mexico. Abbreviations may be used for state, regional, or locality label designations for these commodities whether domestically harvested or imported using official United States Postal Service abbreviations or other abbreviations approved by CBP.

With regard to the use of established State marketing programs such as ''California Grown'', ''Go TEXAN'', ''Jersey Fresh'', etc., these programs may be used for COOL notification purposes provided they meet the requirements to bear a U.S. origin declaration as specified in this final rule.

In order to provide the industry with as much flexibility as possible, this rule does not contain specific requirements as to the exact placement or size of the country of origin or method of production (wild and/or farm-raised) declaration. However, such declarations must be legible and conspicuous, and allow consumers to find the country(ies) of origin and method of production, as applicable, easily and read them without strain when making their purchases, and provided that existing Federal labeling requirements must be followed. For example, the country of origin declaration may be located on the information panel of a package of frozen produce as consumers are familiar with such location for displaying nutritional and other required information. Likewise, in the case of store overwrap and other similar type products, which is the type of packaging used for fresh meat and poultry products, the information panel would also be an acceptable location for the origin declaration and method of production (wild and/or farm-raised) designation, as applicable, as this is a location that is currently utilized for providing other Federally-mandated labeling information (i.e., safe handling instructions, nutrition facts, and ingredients statement). However, to the extent practicable, the Agency encourages retailers and suppliers to place this information on the front of these types of packages, also known as the principal display panel, so it will be readily apparent to consumers.

With respect to the use of signage for bulk displays for meat covered commodities, the Agency has observed that a vast majority of retailers are utilizing one sign for either the entire meat case or for an entire commodity type (i.e., chicken) to provide the country of origin notification. While the statute and this regulation provide flexibility in how country of origin information can be provided, the Agency believes that the use of such signage could potentially be false or misleading to consumers. For example, frequently display cases also contain noncovered meat commodities for which no origin information has been provided to the retailer. Thus a sign that states, ''all of our beef products are of U.S. origin'' may not be completely accurate and may be in violation of other Federal laws, regulations, and policies that have truth in labeling provisions such as the Federal Meat Inspection Act, the Federal Trade Commission's ''Made in the USA'' policies, and the Federal Food, Drug, and Cosmetic Act. The Agency encourages retailers to review signage that they have used in the implementation of the fish and shellfish program for alternative acceptable methods of providing COOL information.

With regard to the provision in both the interim final rule for fish and shellfish and the interim final rule for the remaining covered commodities concerning bulk containers that allows the bulk container to contain a covered commodity from more than one country of origin, under this final rule, it remains permissible provided all possible origins are listed. For example, if a retailer puts apples from the U.S. and New Zealand in a bulk bin, the sign for the bin should list both the U.S. and New Zealand. If the retailer has apples in the store from New Zealand, but has not added these apples to the bulk bin, it would not be permissible to have New Zealand on the sign. Likewise in the case of fish, if a retailer has salmon from both the U.S. and Chile in the back of the store, but has only put out for display salmon from Chile, the country of origin designation should only list Chile. It would not be permissible to list both the U.S. and Chile at that time because it is not possible that the display contains salmon of U.S. origin.

Recordkeeping Requirements and Responsibilities

The law states that the Secretary may conduct an audit of any person that prepares, stores, handles, or distributes a covered commodity for retail sale to verify compliance. As such, records maintained in the normal course of business that verify origin and method of production (wild and/or farm-raised) declarations, as applicable, are necessary in order to provide retailers with credible information on which to base origin and method of production declarations.

Under this final rule, any person engaged in the business of supplying a covered commodity to a retailer, whether directly or indirectly (i.e., growers, distributors, handlers, packers, and processors, etc.), must make available information to the subsequent purchaser about the country(ies) of origin and method of production, as applicable, of the covered commodity. This information may be provided either on the product itself, on the master shipping container, or in a document that accompanies the product through retail sale provided it identifies the product and its country(ies) of origin and method of production, as applicable.

Any person engaged in the business of supplying a covered commodity to a retailer, whether directly or indirectly, must maintain records to establish and identify the immediate previous source (if applicable) and immediate subsequent recipient of a covered commodity for a period of 1 year from the date of the transaction.

In addition, the supplier of a covered commodity that is responsible for initiating a country of origin and, as applicable, method of production declaration, must possess records that are necessary to substantiate that claim for a period of 1 year from the date of the transaction. In an effort to reduce the recordkeeping burden associated with COOL, for that purpose, packers that slaughter animals that are tagged with an 840 Animal Identification Number device without the presence of any additional accompanying marking indicating the origin as being a country other than the U.S. (i.e., ''CAN'' or ''M'') may use that information as a basis for a U.S. origin claim. In addition, packers that slaughter animals that are part of another country's recognized official system (e.g., Canadian official system,

Mexico official system) may also rely on the presence of an official ear tag or other approved device on which to base their origin claims. Producer affidavits shall also be considered acceptable records that suppliers may utilize to initiate origin claims, provided it is made by someone having first-hand knowledge of the origin of the covered commodity and identifies the covered commodity unique to the transaction.

Under this final rule, any intermediary supplier handling a covered commodity that is found to be designated incorrectly as to the country of origin and/or method of production, as applicable, shall not be held liable for a violation of the Act by reason of the conduct of another if the intermediary supplier relied on the designation provided by the initiating supplier or other intermediary supplier, unless the intermediary supplier willfully disregarded information establishing that the country of origin and/or method of production, as applicable, was false.

For an imported covered commodity, the importer of record as determined by CBP, must ensure that records: Provide clear product tracking from the United States port of entry to the immediate subsequent recipient and accurately reflect the country(ies) of origin of the item as identified in relevant CBP entry documents and information systems; and maintain such records for a period of 1 year from the date of the transaction.

Under this final rule, retailers also have responsibilities. In providing the country of origin notification for a covered commodity, retailers are to convey the origin and, as applicable, method of production information provided by their suppliers. Only if the retailer physically commingles a covered commodity of different origins and/or methods of production, as applicable, in preparation for retail sale, whether in a consumer-ready package or in a bulk display (and not discretely packaged) (i.e., full service meat case), can the retailer initiate a multiple country of origin designation that reflects the actual countries of origin and methods of production, as applicable, for the resulting covered commodity.

Records and other documentary evidence relied upon at the point of sale by the retailer to establish a covered commodity's country(ies) of origin and method of production, as applicable, must either be maintained at the retail facility or at another location for as long as the product is on hand and provided to any duly authorized representatives of USDA within 5 business days of the request. For pre-labeled products, the label itself is sufficient information on which the retailer may rely to establish the product's origin and method of production, as applicable, and no additional records documenting origin and method of production information are necessary. A pre-labeled covered commodity is a covered commodity that has the commodity's country of origin and method of production, as applicable, and the name and place of business of the manufacturer, packer, or distributor on the covered commodity itself, on the package in which it is sold to the consumer, or on the master shipping container. The place of business information must include at a minimum the city and state or other acceptable locale designation.

Additionally, records that identify the covered commodity, the retail supplier, and for products that are not pre-labeled, the country of origin and method of production information, as applicable, must be maintained for a period of 1 year from the date the origin declaration is made at retail.

Under this final rule, any retailer handling a covered commodity that is found to be designated incorrectly as to the country of origin and/or method of production, as applicable, shall not be held liable for a violation of the Act by reason of the conduct of another if the retailer relied on the designation provided by the supplier, unless the retailer willfully disregarded information establishing that the declaration of country of origin and/or method of production, as applicable, was false.

Enforcement

The law encourages the Secretary to enter into partnerships with States to the extent practicable to assist in the administration of this program. As such, USDA has entered into partnerships with States that have enforcement infrastructure to conduct retail compliance reviews.

Routine compliance reviews may be conducted at retail establishments and associated administrative offices, and at supplier establishments subject to these regulations. USDA will coordinate the scheduling and determine the procedures for compliance reviews. Only USDA will be able to initiate enforcement actions against a person found to be in violation of the law. USDA may also conduct investigations of complaints made by any person alleging violations of these regulations when the Secretary determines that reasonable grounds for such investigation exist.

Retailers and suppliers, upon being notified of the commencement of a compliance review, must make all records or other documentary evidence material to this review available to USDA representatives within 5 business days of receiving a request and provide any necessary facilities for such inspections.

The law contains enforcement provisions for both retailers and suppliers that include civil penalties of up to $1,000 for each violation. For retailers and persons engaged in the business of supplying a covered commodity to a retailer (suppliers), the law states that if the Secretary determines that a retailer or supplier is in violation of the Act, the Secretary must notify the retailer or supplier of the determination and provide the retailer or supplier with a 30-day period during which the retailer or supplier may take necessary steps to comply. If upon completion of the 30-day period the Secretary determines the retailer or supplier has (1) not made a good faith effort to comply and (2) continues to willfully violate the Act, after providing notice and an opportunity for a hearing, the retailer or supplier may be fined not more than $1,000 for each violation.

In addition to the enforcement provisions contained in the Act, statements regarding a product's origin and method of production, as applicable, must also comply with other existing Federal statutes. For example, the Federal Food, Drug, and Cosmetic Act prohibits labeling that is false or misleading. In addition, for perishable agricultural commodities, mislabeling country of origin is also in violation of PACA misbranding provisions. Thus, inaccurate country of origin labeling of covered commodities may lead to additional penalties under these statutes as well.

With regard to the voluntary use of 840 tags on which to base origin claims, 9 CFR 71.22 prohibits the removal of official identification devices except at the time of slaughter. The importation of animals and animal health are regulated by the Animal and Plant Health Inspection Service (APHIS). This regulation does not alter any APHIS requirements.

Comments and Responses

On October 30, 2003, AMS published the proposed rule for the mandatory COOL program (68 FR 61944) with a 60-day comment period. On December 22, 2003, AMS published a notice extending the comment period (68 FR 71039) an additional 60 days. AMS received over 5,600 timely comments from consumers, retailers, foreign governments, producers, wholesalers, manufacturers, distributors, members of

Congress, trade associations and other interested parties. The majority of the comments received were from consumers expressing support for the requirement to label the method of production of fish and shellfish as either wild and/or farm-raised. Numerous other comments related to the definition of a processed food item, the recordkeeping requirements for both retailers and suppliers, and the enforcement of the program. In addition, over 100 late comments were received that generally reflected the substance of the timely comments received.

On June 20, 2007, AMS reopened the comment period for the proposed rule for all covered commodities (72 FR 33917). AMS received over 721 comments from consumers, retailers, foreign governments, producers, wholesalers, manufacturers, distributors, members of Congress, trade associations and other interested parties.

On October 5, 2004, AMS published the interim final rule for fish and shellfish (69 FR 59708) with a 90-day comment period. On December 28, 2004, AMS published a notice extending the comment period (69 FR 77609) an additional 60 days. AMS received approximately 800 comments on the interim final rule, the majority of which were form letters from consumers expressing their support for country of origin labeling and requesting that the definition of a processed food item be narrowed to require labeling of canned, breaded, and cooked products.

On November 27, 2006, the comment period was reopened on the cost and benefit aspects of the interim final rule (71 FR 68431). AMS received over 192 comments from consumers, retailers, foreign governments, producers, wholesalers, manufacturers, distributors, members of Congress, trade associations and other interested parties. The majority of the comments received were from consumers expressing support for the requirement to label fish and shellfish with the country of origin and method of production as either wild and/or farm-raised, and to extend mandatory COOL to the remaining covered commodities. Most of the comments did not address the specific question of the rule's costs and benefits. A limited number of the comments did relate to the costs and benefits of the documentation and recordkeeping requirements of the law. Some commenters noted no increased sales or demand for seafood as a result of COOL. Several commenters provided evidence regarding the costs of compliance with the interim final rule covering fish and shellfish. Other commenters cited academic and Government Accountability Office studies to argue that USDA overestimated the costs to implement systems to meet COOL requirements, and that the true costs to industry will be much lower than those projected by the economic impact analysis contained in the interim final rule for fish and shellfish. On August 1, 2008, AMS published an interim final rule with a 60-day comment period for the covered commodities other than fish and shellfish. The Agency received 275 comments representing the opinions of 11,798 consumers, retailers, foreign governments, producers, wholesalers, manufacturers, distributors, members of Congress, trade associations and other interested parties. The majority of comments received were on the definition of a processed food item, labeling muscle cuts of multiple countries of origin, and the recordkeeping provisions for both retailers and suppliers.

When the proposed rule was published on October 30, 2003, the regulatory provisions were all proposed to be contained in a new part 60 of Title 7 of the Code of Federal Regulations. Under the August 1, 2008, interim final rule, the regulatory provisions for the covered commodities other than fish and shellfish appeared at 7 CFR part 65. For the ease of the reader, the discussion of the comments has been broken down by issue. To the extent that a comment or issue pertains only to fish and shellfish covered commodities, it is noted in the explanation.

Definitions

Covered Commodity

Summary of Comments: Several commenters requested that the Agency add products to the list of commodities covered by COOL. One commenter suggested that almonds should be included in mandatory COOL and another commenter requested that fresh chestnuts be added. A final commenter suggested that meat commodities derived from beefalo be included as covered commodities. Another commenter asked that the Agency better clarify what is a ''muscle cut.''

Agency Response: The statute specifically defines the commodities covered by the mandatory COOL program. As such, the Agency does not have the authority to include additional classes of covered commodities. Accordingly, recommendations regarding covering additional classes of commodities cannot be adopted. With regard to clarifying what the Agency defined to be a muscle cut of beef, pork, lamb, chicken, or goat, the Agency has provided information on its Web site and in written form pertaining to specific items and will continue to do so as questions arise. In general, the Agency views those cuts of meat (with or without bone) derived from a carcass (e.g., beef steaks, pork chops, chicken breasts, etc.) to be covered items. However, cuts of meat that are removed during the conversion of an animal to a carcass (e.g., variety meats such as pork hearts, beef tongues, etc.) are not viewed to be muscle cuts nor are items sold as bones practically free of meat (e.g., lamb neck bones, beef femur bones, etc.) or fat practically free of meat (e.g., pork clear plate, chicken skin, etc.) removed from a carcass.

Ground Beef

Summary of Comments: One commenter noted that fabricated steak is not specifically listed as a covered commodity in the law and expressed their belief that AMS could proactively cover a closely related commodity rather than limit COOL to only statutorily listed commodities. The commenter urged the Agency to broaden rather than narrow its scope of covered commodities to include fabricated steak in the definition of ground beef.

Another commenter noted the rule exempts ground beef, hamburger and beef patties that have been seasoned (unless that seasoning is salt or sugar), but does not exempt ground beef, hamburger and beef patties that have not been seasoned. The commenter requested that the definition for ground beef be reconsidered and clarified so that ground beef, hamburger and beef patties where salt or sugar is added are recognized as a processed food item and therefore exempt under this rule.

Several commenters did not agree that the Agency's expansion of the definition of ground beef to include hamburger and beef patties was justified. The commenters pointed out that the covered product specified by the 2008 Farm Bill is ''ground beef,'' which has its own regulatory standard of identity separate from hamburger and beef patties. One commenter also noted that the interim final rule's definitions of ''ground lamb'' and other ground meats do not similarly specify that patties made from such ground meats are covered items and suggested that this disparity appears to ''favor'' non-beef patties with possible exemption from the rule, to the disadvantage of beef patties. Another commenter stated that had Congress intended a more expansive range of processed food products to be subject to COOL, it would have specifically included them,

particularly where all other processed foods are categorically exempt from COOL requirements. The commenter urged the Agency to follow the intent of Congress and promulgate a rule that encompasses products captured in the regulatory standard of identity for ''ground beef'' and not extend the scope to items meeting other definitions.

Agency Response: The Agency does not agree that commodities covered by the statute can be construed to cover fabricated steaks. Fabricated steaks are produced to appear like a whole muscle cut of meat but are in fact constructed from many different cuts of meat. Therefore, they are clearly not a ''muscle cut'' and, because the product is not ground nor is it sold as ground, it is not ground beef either.

The Agency agrees that a regulatory standard of identity for the term ''ground beef'' exists, but does not agree that it was the intent of Congress to limit the mandatory COOL program to only those products marketed under that standard of identity. Further, the Agency believes it is not reasonable that consumers would understand why beef that is ground and marketed as ''ground beef'' would require labeling and beef that is ground and marketed as ''hamburger'' would not. The regulatory standard of identities for ''ground beef'' and ''hamburger'' are virtually identical with the minor exception of ''added fat'' being allowed in beef that is ground and marketed as ''hamburger''. Both are often marketed in bulk form or in patty form and can sit side by side in the fresh or frozen meat case with only the name capable of distinguishing them apart. Therefore, ground beef and hamburger sold in bulk or patty form are covered commodities under this final rule.

However, in its analysis of the issue and the points raised by the commenters, the Agency does concur with several of the commenters that beef that is ground and marketed as ''imitation ground beef'', ''imitation hamburger'', and ''beef patty mix'' should be exempt in this final rule. Products marketed under these standards of identities typically contain a number of binders and extenders that are not covered commodities and are not assumed by the consumer to be interchangeable with beef that is ground and marketed as ''ground beef'' or ''hamburger''. Because the Agency does not view such variety meat items as beef heart meat and tongue meat (which are not allowed in ''ground beef'' or ''hamburger'') as covered commodities, requiring such products as ''beef patty mix'' to carry COOL information would also require the beef processing industry to identify the country of origin for such beef variety meat items in the event they would be used as extenders in commodities like ''beef patty mix'', which does allow their inclusion. The Agency believes that the costs associated with this segregation and identification of beef variety meats would be overly burdensome and that these items were not intended to be included as covered commodities under the statute. Accordingly, these recommendations are adopted in part.

Farm-Raised

Summary of Comments: Some commenters expressed concerns regarding the definition of farm-raised in the fish and shellfish interim final rule. The commenters recommended that the Agency exempt molluscan shellfish from the COOL requirements.

Agency Response: As the statute defines the term covered commodity to expressly include shellfish, the Agency does not have the authority to provide an exemption for molluscan shellfish. In addition, in the Agency's experience in three years of enforcement of the COOL program for fish and shellfish, it has found good compliance with the labeling of this commodity. Accordingly, this recommendation is not adopted in this final rule.

Lamb

Summary of Comments: Several commenters requested that the regulation be revised to clarify the definition of lamb includes mutton. One of these commenters stated that because there are no common terminology differences describing the meat from different age groups of species such as cattle, swine, goat or chicken, the Agency was in error to exclude mutton in the definition of lamb in the interim final rule. The commenter further stated while specific definitional differences between lamb and mutton exist for other regulatory purposes, it is appropriate to cover meat from all ages of sheep in the rule as is done for the other livestock species.

Agency Response: The Agency agrees that it is appropriate to include mutton under the definition of lamb as no distinctions describing meat from the different age groups of other livestock species were made. Accordingly, this recommendation has been adopted in this final rule.

NAIS-Compliant System

Summary of Comments: Two commenters recommended that the Agency eliminate the definition of a ''NAIS-compliant system'' and replace it with the existing regulatory definition of ''Official identification device or method'' that is contained in 9 CFR § 93.400. The commenters contend that this modification is necessary so as to not mislead the public into believing that they must comply with all of the requirements of USDA's NAIS (e.g., premises registration) in addition to maintaining current compliance with existing official identification systems. The commenters stated this change would be consistent with USDA's assurance that the NAIS ''does not alter any regulation in the Code of Federal Regulations or any regulations that exist at the State level.''

Agency Response: The Agency continues to believe that voluntary use of the National Animal Identification System is an acceptable and easy option packers may utilize to obtain origin information on livestock. However, the Agency believes that the definition of NAIS-compliant should be deleted as it is not necessary. However, with regard to the commenter's suggestion to replace this definition with the definition of ''Official identification device or method'', because they may be applied to imported animals, other identification devices or methods alone cannot be used to establish the U.S.-origin of livestock. Producers' management records will need to be used in conjunction with these other identification devices and methods to establish U.S. origin. Additional discussion on the NAIS provision is included later in the Comments and Responses section.

Processed Food Item

Summary of Comments: Numerous commenters suggested that the Agency should narrow its definition of a processed food item so that more food items sold at retail are covered commodities subject to COOL requirements. The commenters recommended that roasting, curing, smoking and other steps that make raw commodities more suitable for consumer use should not be the criteria for categorizing these commodities under the statutory exemption of an ingredient in a processed food item and therefore exempt from labeling. Many commenters stated that USDA's overly expansive definition of a processed food item, which comes from the 2004 interim final rule for fish and shellfish, should not be used for the other covered commodities. The commenters stated that although the definition was possibly appropriate for fish and shellfish, it resulted in a much more substantial percentage of meat and nut covered commodities sold at retail being exempt. The commenters urged USDA to develop different definitions of a

processed food item for each specific category of covered commodity so that as many items as possible would be covered by the mandatory COOL program.

One commenter noted that relying on a change in character for the definition of processed food is fine as long as the Agency makes it clear that the change in character is such that a consumer would not use the items in the same manner as they would the original commodity. Thus, as spelled out in the 2003 proposed rule, not all forms of cooking (e.g., frying, broiling, grilling, boiling, steaming, baking, roasting), as well as canning would constitute a change in character. This commenter added that for muscle cuts of beef, lamb, pork, chicken and goat, chilling, freezing, cooking, seasoning or breading should not render those products as being processed food items as defined in the interim final rule and therefore exempt from mandatory COOL. The commenter expressed their support for the alternative proposal in the 2003 proposed rule in which a covered commodity that is further processed (i.e., cured, restructured, etc.) should not be excluded unless the covered commodity is mixed with other commodities such as a pizza or TV dinner. The commenter noted that by exempting restructured and cured products from COOL, the rule excludes bacon, hams and corned beef briskets from labeling. The commenter further stated that Congress clearly stated that pork was included in COOL, but exempting bacon and hams would exclude a significant portion of the pork market. This commenter also recommended that orange juice be included as a covered commodity since orange juice represents a major component of orange consumption in the U.S. Finally, the commenter noted that in a series of decisions, CBP determined that roasting of pistachios, pecan nuts and coffee beans did not constitute substantial transformation.

Several commenters urged AMS to revise the provision in the processed food item definition that states that combining different covered commodities renders those products being exempt from mandatory COOL. The commenters recommended that if covered commodities are combined, yet are still recognizable, they should be required to be labeled. The commenters suggested that broadly exempting all mixed vegetables as a processed food item is an excessive exclusion because most consumers would expect to have frozen mixed vegetables labeled.

Several commenters agreed with the Agency's definition of a processed food item. The commenters noted that the processed food definition that the Agency adopted in the interim final rule for fish and shellfish is simple, straightforward and provides a bright line test retailers and others can use to understand which covered commodities are subject to mandatory COOL and which are not.

One commenter recommended that the Agency designate that items with distinct varietal names within a generic category of products be deemed different products and excluded when two or more are combined. Several commenters recommended that any fresh-cut produce item, even those not combined with another substantive food item or other covered commodity, be included in the definition of a processed food item. By taking a raw agricultural commodity, washing it, then cutting it, the commenters contend that a company does change the product from a raw agricultural commodity to a ready-to-eat food item—similar to the way cooking changes a raw meat product to a ready-to-eat food, and that cutting fruit for a value-added package alters the commodity at retail.

One commenter noted that the interim rule provides that ''the addition of a component (such as water, salt, or sugar) that enhances or represents a further step in the preparation of the product for consumption would not in itself result in a processed food item.'' The commenter stated that as water, salt and sugar are used only as examples, it is apparent that the Agency assumes other ingredients, too, may merely enhance or further prepare the product for consumption such that they would be insufficient to render a product a processed food item.

Several commenters expressed that they were unclear when water, salt or sugar can be added to a product and still be covered and questioned why a marinated steak is exempt even though ''marinated'' is not defined. These commenters urged the Agency to clarify what is meant by enhancement steps that do not result in a processed food item. Some of these commenters further urged that the clarification encompass a much broader scope of flavorings, seasonings, etc., beyond water, salt or sugar.

One commenter expressed support for the fact that the addition of a component (such as water, salt, or sugar) does not represent a processing step that changes the character of a covered commodity. The commenter recommended that USDA also expressly state that the addition of water-based or other types of flavoring—such as a solution containing water, sodium phosphate, salt, and natural flavoring purportedly injected into meat muscle-cut commodities by some retailers—does not represent a processing step that changes the character or identity of a covered commodity. Another commenter agreed with the provision in the 2003 proposed rule in which oil, salt and other flavorings were considered non-substantive ingredients. In addition, the commenter also expressed support for the position laid out in the 2003 proposed rule that ''needle-tenderized steaks; fully-cooked entrees containing beef pot roast with gravy; seasoned, vacuum-packaged pork loins; and water-enhanced case ready steaks, chops, and roasts * * * would not be considered processed food items''.

One commenter discussed products made up of a variety of fresh pork and beef muscle cuts that have been injected with a patented solution which, beyond simple water, salt, or sugar, also includes sodium phosphates, potassium lactate and sodium diacetate. The commenter stated that these products should be considered to be ''covered commodities'' and, therefore, subject to mandatory COOL requirements on the grounds that these products have not undergone a change in character and that because consumers cannot ascertain any difference between such enhanced products and those covered commodities that do not contain such additional ingredients, such an exemption would only confuse consumers.

Several commenters asked that the list of examples of processed food items be expanded. One commenter strongly supported inclusion of the following examples for the types of meat and other covered commodities that should be exempt as a processed food item as defined under the definition and recommended to be included in the final rule: flank steak with portabella stuffing, steakhouse sirloin kabobs with vegetables, meatloaf, meatballs with penne pasta, pot roast with roasted vegetables, cooked and smoked meats, blue cheese angus burgers, cured hams, bacon, sugar cured bacon, dry cured meats, corned beef briskets, marinated pork loin, marinated pork chops, marinated London broil, prosciutto rolled in mozzarella cheese, fruit salad, cooked and canned fruits and vegetables, orange juice, fresh apple sauce, peanut butter, candy coated peanuts, peanut brittle, etc.

Agency Response: The Agency believes that the two-part definition of a processed food item defined in the final rule is an appropriate interpretation of the intent of Congress excluding covered commodities that are

an ingredient in a processed food item and provides a bright line differentiating the steps that do and do not result in a commodity being covered by mandatory COOL.

Furthermore, the Agency does not agree that such processing steps as cutting or enhancing render a covered commodity a processed food item. The definition of a processed food item uses examples of the addition of components ''such as water, salt, or sugar''; however, such further preparation steps would also be meant to include other examples of enhancements that do not fundamentally alter the character of the product. For example, dextrose is a sugar, phosphate is a salt, and beef stock and yeast are flavor ''enhancers''. In addition, the Agency believes that enhancement with enzymatic tenderizers, such as ficin and bromelain, do not by themselves change the character of the covered commodity and therefore do not result in a processed food item.

The Agency does agree that specific examples of products that are and are not covered can help the trade and consumers understand which products are covered by mandatory COOL. Therefore, the Agency will work to provide interpretive documents on its Web site and in print materials developed that will provide as many examples as necessary.

Produced

Summary of Comments: One commenter noted that the interim final rule defines the term ''produced'' in the case of a perishable agricultural commodity, peanuts, ginseng, pecans, and macadamia nuts as grown. The commenter recommended that since some plants may be transplanted across national borders, the Agency should define the term produced as harvested.

Agency Response: The Agency agrees with the commenter that the term ''harvested'' more accurately defines the term ''produced'' in the case of a perishable agricultural commodity, peanuts, ginseng, pecans, and macadamia nuts and has adopted this change in this final rule.

Country of Origin Notification

Exemption for Food Service Establishments

Summary of Comments: Several commenters disagreed with the exemption for food service establishments from the COOL requirements. These commenters contend that since items sold in these types of establishments represent a major segment of the food industry, these establishments should not be exempt from labeling.

Agency Response: The statute contains an express exemption for food service establishments. Therefore, this exemption is retained in this final rule.

Method of Production

Summary of Comments: Two commenters focused on details for the designation of method of production for fish and shellfish (wild-caught or farm-raised). One commenter sought a more thorough definition and suggested the inclusion of the following additional information: for wild fish, the method of harvest (i.e., long-line, gillnet, trawl, purse seine, line and hook); and for farm-raised fish (1) whether it is a genetically engineered, and (2) the feed conversion ratio (quantity of fish feed required for producing the end-commodity). Another commenter expressed concern about fraudulent labeling of method of production for fish and shellfish. The commenter noted that there may be an economic incentive to mislabel farm-raised fish as wild caught fish, and the commenter provided evidence from a small sample they had investigated in November and December 2005 during the off-season for wild-caught salmon. They purchased 17 salmon products labeled as wild-caught, tested them for the presence of a synthetic coloring agent fed to farmed salmon to turn their flesh pink-orange and found that 7 of the 17 salmon products labeled as wild-caught were determined through this analysis to be actually farm-raised. The commenter noted that supermarkets were more likely to label wild-caught salmon correctly than fish markets.

Agency Response: The statute only provides the Agency with the authority to require that fish and shellfish carry notification for country of origin and that the covered commodity distinguish between wild fish and farm-raised fish. Therefore, the additional labeling information cannot be required. With regards to the mislabeling of method of production identified by the commenter, in addition to conducting retail surveillance enforcement activities, the Agency also conducts supplier audits that are intended to prevent such mislabeling.

Labeling Covered Commodities of United States Origin

Summary of Comments: Two commenters requested that the Agency revisit the regulatory requirements for labeling products as U.S. origin when they have been further processed or handled in a foreign country. One commenter recommended that USDA delete entirely § 65.300(d)(2), and include language instead that expressly prohibits the retention of a United States origin label for any commodity that undergoes additional processing or handling in a foreign country. Another commenter asked that the Agency clarify what it means by the terms ''handled'' and ''processed'' in the context of this provision. The commenter asked USDA to clarify if it intends to include meat products in this section of the interim final rule, and noted that the statute indicates that meat product processed in another country would need to list that particular country on the label. They pointed out that the interim final rule appears to have no discussion or rationale explaining why a U.S. product processed in another country would be eligible to maintain a U.S. origin label.

Another commenter requested that a fourth option for labeling imported products be considered in the final rule. This commenter pointed out that there are no provisions for labeling product that is caught or harvested in the U.S. and substantially transformed in another country. For example, wild fish that is caught in the U.S. and then subsequently filleted in ''Country X'' must be marked as a product of ''Country X'' with no allowable reference to the original U.S. source. The commenter suggested an alternative would be to label covered commodities harvested in the U.S. but substantially transformed in another country as ''Harvested in U.S., processed in Country X.'' The commenter concluded that such a label would provide complete information for the consumer while maintaining the original U.S. source of the product.

Agency Response: With regards to the origin determination of United States country of origin products that are exported to a foreign country for processing prior to reimportation back into the United States, the Agency has deleted the express provision in the final rule as the Agency believes that the provision may have caused confusion. However, to the extent that existing regulations, including those of CBP and FSIS allow for products that have been minimally processed in a foreign country to reenter the United States as Product of the U.S., nothing in this final rule precludes this practice. In addition, to the extent that additional information about the production steps that occurred in the U.S. is permitted under existing Federal regulations (e.g., CBP, FSIS), nothing in this final rule precludes such information from being included.

Labeling Imported Products That Have Not Undergone Substantial Transformation in the United States

Summary of Comments: Four commenters offered suggestions relating to labeling imported products that have not undergone substantial transformation in the United States. One commenter contended that COOL was illogical, unworkable and misleading. Another commenter elaborated on the labeling for transshipped fish and shellfish. The commenter pointed out that many fish and shellfish products are imported into the U.S. from countries that are not necessarily the country where the fish or shellfish were harvested. The commenter recommended that the final rule for fish and shellfish require labeling to identify the location where the seafood was harvested or raised. Another commenter noted that frozen products of ''foreign origin,'' as determined by tariff laws, already are subject to country of origin labeling under a comprehensive set of regulations administered by CBP.

Agency Response: With regard to the origin of imported covered commodities, the Agency follows existing regulations, including those of CBP, regarding the origin of such products and requires that such origin be retained for retail labeling.

Labeling Muscle Cut Covered Commodities of Multiple Countries of Origin That Include the United States

Summary of Comments: Numerous commenters stated that commodities derived from animals born, raised, and slaughtered in the U.S. should be labeled as ''Product of the U.S.'' and not be diluted or commingled with a multiple country of origin label such as, ''Product of the U.S., Canada, and Mexico''. These commenters stated that the provision allowing this in the interim final rule directly contradicts the statute and diminished consumer choice and producer benefits that could have resulted from this program.

These commenters stated that the statute established four major categories for meat labeling to enable consumers to have the right to know specifically where their food originates. Other commenters stated that the regulation does not contain specific provisions allowing packers to label meat from livestock exclusively born, raised, and processed in the U.S. as mixed origin and that packers doing so were acting in violation of the regulation. Several members of Congress also commented that it was not the intent of Congress that all U.S. products or such product from large segments of the industry be combined with the multiple countries of origin category nor was it provided for by the statute. The members of Congress stated that the purpose of COOL is to clearly identify the origin of meat products, providing consumers the most precise information available.

One commenter stated that while processors claim that segregating U.S. meat from foreign meat would be burdensome, processors already easily segregate meat by grade (e.g. USDA. Choice vs. USDA. Prime) and by source (e.g., USDA Certified Organic vs. nonorganic) and that segregating the origin of U.S. and foreign meat is no more complicated or burdensome.

In contrast, several other commenters expressed support for a more flexible approach to labeling notifications for meat products sourced from multiple countries of origin. One commenter indicated that retailers desperately need the flexibility to commingle product in the display, especially in a full-service display case. The commenter stated that disallowing the commingling of meat from multiple origins including the U.S. is a logistical nightmare for retailers. Another commenter stated that the interim final rule affords critically important flexibility to retailers and the entities that provide covered commodities to retailers with respect to the labeling of covered commodities derived from animals of U.S. origin, as well as animals with multiple countries of origin. Another commenter urged the Agency to apply flexibility consistently for all sectors of the chain including retailers.

Several commenters stated their belief that Congress intended to provide flexibility between categories A and B afforded in the rule based on the permissive language of the statute for those two categories, which is supported by the absence of that very flexibility in subsections 282(a)(2)(C) and (D). The commenters noted that in subsections 282(a)(2)(C) and (D) of the statute, Congress used the word ''shall'' with respect to types of covered commodities identified in those categories, imported for immediate slaughter and foreign country of origin, and arguably limited the Agency's discretion to interpret how those categories of product should be labeled.

Another commenter recommended the same flexibility given to processors to label meat from animals of U.S. origin with a mixed origin label should be given to the labeling of meat from animals imported directly for slaughter. The commenter recommended that the final rule give processors the flexibility to make use of the order of countries mandated under this category (Product of Country X and the U.S.) when processing a production run including animals of U.S., mixed origin, or imported for immediate slaughter.

Another commenter noted that little attention seems to have been paid to the amount of exported meat this rule is putting at risk, which is now sold to Mexico, compared to the small amount of cattle born in Mexico and exported to the United States. Another commenter added that producers on the border States rely on Mexican cattle imports. The commenter warned that by establishing these categories, the value of finished Mexican cattle will be discounted at the packing plant because they will have to be sorted on the line in the plant, which costs the packer money. Another commenter stated that COOL has effectively cut off U.S-Mexican cattle trade and that because of COOL the packers have advised producers that they will not buy Mexican cattle.

One commenter indicated that the multiple country label prescribed in the rule for product derived from U.S.-raised pigs, regardless of their birth country, provides packers, processors and retailers with flexibility in labeling pork products. The commenter further stated that this labeling flexibility, in turn, gives flexibility to U.S. pork producers handling those pigs, which will reduce costs associated with label changes, product segregation, and duplicate stock keeping units at all levels of the pork marketing system.

Several commenters noted that the ''Product of the U.S.'' label allows for the labeling of pork products exclusively from pigs born, raised and slaughtered in the U.S. These commenters stated it will be effectively used for pork products offered to buyers who find value in that label. The commenters fully support the approach taken in the interim final rule. The commenters also expressed that including U.S.-raised pigs in the mixed origin labeling category also meets the ''common sense'' test as well as the economic reality of today's U.S. pork industry since more than 95 percent of the total end weight of a Canadian-born weaned pig is actually produced in the U.S. using U.S. feed, labor and buildings.

A final commenter wrote that the Agency should harmonize the final rule with the NAFTA Marking Rule. This commenter specifically encouraged the Agency to adopt a final rule that uses the tariff-shift method to determine the country of origin of covered commodities that are produced in the United States using ingredients or raw

materials imported from Canada or Mexico.

Agency Response: The Agency recognizes that the multitude of different production practices and possible sales transactions can influence the value determinations made throughout the supply chain resulting in instances of commingling of animals or covered commodities, which will have an impact when mixing occurs. However, the Agency feels it is necessary to ensure information accurately reflects the origin of any group, lot, box, or package in accordance with the intent of the statute while recognizing that regulated entities must still be allowed to operate in a manner that does not disrupt the normal conduct of business more than is necessary. Thus, allowing the marketplace to establish the demand of categories within the bounds of the regulations will provide the needed flexibility while maintaining the structure needed to enforce these clearly defined categories. If an initiator of the claim chooses to mix commodities of different origins within the parameters of a production day, or if the retailer mixes product from different categories willingly, the resulting classification must reflect the broadest possible terms of inclusion and be labeled appropriately. The initiator may elect to segregate and specifically classify each different category within a production day or mix different sources and provide a mixed label as long as accurate records are kept. Likewise, if a retailer wants to mix product from multiple categories, it can only be done in multi-product packages and then only when product from the different categories is represented in each package in order to correctly label the product. With regard to producer benefits, while some U.S. producers may hope to receive benefits from the COOL program for products of U.S. origin, the purpose of the COOL program is to provide consumers with origin information.

With regard to the commenter's recommendation that the same flexibility given to processors to label meat from animals of U.S. origin with a mixed origin label should be given to the labeling of meat from animals imported directly for slaughter, this final rule allows muscle cut covered commodities derived from animals that are born in Country X or Country Y, raised and slaughtered in the United States, that are commingled during a production day with muscle cut covered commodities that are derived from animals that are imported into the United States for immediate slaughter as defined in § 65.180, the origin may be designated as Product of the United States, Country X, and (as applicable) Country Y.

With regard to using the tariff-shift method to determine the country of origin of covered commodities that are produced in the United States using ingredients or raw materials imported from Canada or Mexico, the Act specifically defines the criteria for covered commodities to be labeled with a U.S. origin declaration. Accordingly, this recommendation is not adopted.

Labeling Commingled Covered Commodities

Summary of Comments: Several commenters expressed concerns about the notification requirements for commingled covered commodities. One produce supplier was concerned about their liability in the event ready-to-eat produce they supplied was commingled with other product from multiple vendors at retail stores. Another commenter voiced opposition to an alphabetical listing on a product sourced and commingled from multiple countries of origin. The commenter expressed support for the provision in the voluntary COOL guidelines published in 2002 (67 FR 63367) that would have required country of origin for each raw material source of the mixed or blended retail item by order of predominance by weight.

Another commenter expressed support for the current provision. The commenter noted that the current interim final rule states that for these products, the country of origin must be designated in accordance with CBP marking regulations, promulgated pursuant to the Tariff Act. To the extent that this will prevent a conflict between the two laws, this commenter supports the Agency's recent approach.

One commenter asked for clarification about the use of the word ''or,'' the phrase ''and/or,'' commas, slashes or spaces to separate the country names in a label listing multiple countries of origin for commingled commodities. The commenter pointed out that a comma would be equivalent to ''and,'' which might not be appropriate for labeling a single produce item that could not physically have been produced in two countries.

Agency Response: As noted in both the interim final rule for fish and shellfish and the interim final rule for the other covered commodities, the Agency determined that requiring origin notification either by alphabetical listings or by listing the countries of origin by order of predominance by weight was overly burdensome to the regulated industries.

As commingling of the same type of products at retail containing different origin is permissible under this final rule, the Agency cannot prohibit the commingling of like products from multiple vendors at retail. The COOL program is not a food safety program. Commingling like products is a commercially viable practice that has been historically utilized by retailers and any decision to continue this practice has to be determined by the retailer.

The Agency does not agree that the statute allows for the use of terms and phrases such as ''or, may contain, and/or'' that only convey a list of possible origins. The intent of the statute is to require retailers to provide specific origin information to consumers. In addition, such disjunctive labeling schemes are not allowed under CBP regulations except under special circumstances.

For commingled covered commodities, each country must be listed. The Agency does not agree that the regulations should mandate how this list of countries be punctuated with commas, slashes or spaces. The Agency believes that it is best left to individual businesses to decide how to convey the information in a way that is neither confusing nor misleading.

Labeling Ground Meat Covered Commodities

Summary of Comments: Several commenters expressed the opinion that the provision in the interim final rule that states, ''when a raw material from a specific origin is not in a processor's inventory for more than 60 days, the country shall no longer be included as a possible country of origin'' is too long. The commenters stated that in practical terms, this provision appears to allow a processor to have 60 days to correct the label of a product to delete specific country(s), even though that country's product may no longer exist in its inventory. The commenters provided the example that a processor on day one could have product from the U.S. and Canada, and then on day 7 run out of product from the U.S., and yet could continue using the ''Product of U.S. and Canada'' label for another 53 days. Commenters feared this provision could be easily abused by meat processors. Several commenters requested that the Agency reconfirm the appropriateness of this time-frame and explain the rationale and justification for this duration. Another commenter urged AMS to clarify this issue for the public record because in the opinion of the

commenter, the wording in this section of the rule is confusing and potentially misleading.

Another commenter pointed out this provision was intended to reflect the sourcing processes of commercial grinders and not to require them to change their labels simply because the market had changed and source product was more expensive from one country than another. As the statutory language that is interpreted here is directed to retailers, this commenter understood this provision to apply to retailers as well, and respectfully requested that the Agency confirm the applicable standard in the final regulation.

One commenter was concerned about the impact that mandatory country of origin labeling will have on imported beef, particularly ground beef at retail. The commenter stated that mandatory origin labeling will add significantly to meat production costs at a time of rapidly increasing food costs, and consumers will have to bear the additional expense resulting from the labeling regime. The commenter was concerned, therefore, that retailers will be induced to simplify their labeling obligations by excluding imported and certain domestic beef from ground beef in order to minimize the resulting increase in the costs that will be associated with compliance.

Agency Response: As already stated, the intent of the authorizing statute was for consumers to have available to them for the purposes of making purchasing decisions accurate information pertaining to the country of origin of certain covered commodities sold at retailers as defined. That said, the Agency believes this program should be implemented in as least burdensome a manner possible while still achieving this objective.

In developing the interim final rule, the Agency spent considerable time analyzing the current production systems of the ground meat supply chain and retail industry so that this program could be implemented in a manner that was least burdensome as possible while still providing consumers with accurate information to base their purchasing decisions on. It also must be stressed that if a country of origin is utilized as a raw material source in the production of ground beef, it must be listed on the label. The 60-day in inventory allowance speaks only to when countries may no longer be listed. The 60-day inventory allowance is an allowance for the Agency' enforcement purposes for when the Agency would deem ground meat products as no longer accurately labeled.

The Agency arrived at the 60-day allowance during its analysis of the ground meat industry. In this analysis, the Agency determined that in the ground beef industry a common practice is to purchase lean beef trimmings from foreign countries and mix those with domestic beef trimmings before grinding into a final product. Often those imported beef trimmings are not purchased with any particular regard to the foreign country, but the cost of the trimmings due to currency exchange rates or availability due to production output capacity of that foreign market at any particular time. Because of that, over a period of time, the imported beef trimmings being utilized in the manufacture of ground beef can and does change between various foreign countries.

As large scale beef grinders can have in inventory at any one time, several days worth of beef trimmings (materials to be processed into ground beef) from several different countries and have orders from yet other foreign markets, or from domestic importers, trimmings from several foreign countries that will fulfill several weeks worth of ground beef production, the Agency determined that it was reasonable to allow the industry to utilize labels representing that mix of countries that were commonly coming through their inventory during what was determined to be a 60-day product inventory and on order supply. To require beef grinders to completely change their production system into grinding beef based on specific batches was determined to be overly burdensome and not conducive to normal business practices, which the Agency believes was not the intent of the statute. Further, because beef grinders often purchase their labeling material in bulk, if a given foreign market that a beef grinder is sourcing from is no longer capable of supplying product, the interim final rule allowed that grinder a period of time to obtain new labels with that given country of origin removed from the label.

With regard to the commenters' concerns with the potential of ''abuse'' of this allowance by processors, the Agency does not believe widespread abuses of this provision will occur and will address any issues with this provision during routine compliance reviews. As such and for all the reasons stated above, the Agency continues to believe that the 60-day inventory allowance is appropriate and was retained in this final rule.

With regard to if this 60-day inventory allowance is made for retailers or for suppliers of covered commodities, the Agency has made no distinction in this final rule and, as such, the same requirements would apply. Other concerns raised, including the impact of this regulation on the utilization of imported meat and consumer food costs are addressed in the economic impact analysis contained in this action.

Remotely Purchased Products

Summary of Comments: Two commenters expressed the opinion that the provision on remotely purchased products is too weak because it allows country of origin information to be disclosed either on the sales vehicle or at the time the product is delivered to the consumer. The commenters stated that for origin information to be of use to consumers, it must be disclosed at the time that purchasing decisions are made. The commenters recommended that the country of origin or the possible country(ies) of origin could be listed on the sales vehicle (i.e. Internet site, home delivery catalog, etc.) as part of the information describing the covered commodity for sale. Another commenter encouraged the Agency to maintain the provision for remotely purchased products with the additional flexibility of permitting the declaration either on the sales vehicle or on the product at the time of delivery.

Agency Response: The Agency believes that the provision contained in the interim final rules, which allows the information to be provided either on the sales vehicle or on the product itself, provides flexibility to suppliers and also provides useful information to consumers. If a consumer desires to purchase a covered commodity of a certain origin, they can so specify to the retailer.

Marking

General

Summary of Comments: Several commenters addressed the question of preponderance of stickering and sticker efficacy. The commenters recommended that the Agency define ''majority'' as it applies to bulk display stickering for perishable agricultural commodities. The commenters noted that the Agency has recognized that when fresh produce is stickered with origin information, every product may not bear a sticker for a variety of reasons, and that a majority of the product should have stickers. Two commenters recommended that the Agency define ''majority'' as it applies to bulk display stickering for perishable agricultural commodities as ''50% plus one'' so that the industry has a specific understanding for compliance. Another commenter agreed with this definition, citing that the FDA found 50% product

labeling sufficient even in a case of human health. The commenter argued that such a standard would therefore be more than sufficient for adequate disclosure of country of origin. Another commenter recommended that the Agency not require more than a majority of produce items in any given bin to carry a PLU sticker. The commenter added that price look up (PLU) stickers, which include information on the supplier that initiates the country of origin claim, should not only satisfy a retailer's obligation to inform consumers of the country of origin of the item, it should satisfy the retailer's country of origin recordkeeping obligation as well.

Another commenter expressed concern that the lack of a specific minimum labeling requirement could ultimately require suppliers to have multiple containers and packaging inventories available. The commenter stated that a producer supplying fruit for bulk sale that is not currently stickering fruit may now be required by retailers to sticker individual pieces of fruit because the rule only ''encourages'' retailers to use placards or other methods. The commenter recommended that the rule establish a specific minimum standard to ensure greater consistency in compliance.

As it pertains to fish and shellfish, another commenter suggested that the Agency allow the use of statements such as ''wild and/or farm-raised'' or ''may contain'' in addition to allowing the use of ''check box'' labeling options to minimize the cost of labeling while still providing the required information for the consumer.

Agency Response: As stated in the preamble of the August 1, 2008, interim final rule, the Agency understands that stickering efficacy is not 100%. Further, the Agency believes that under normal conditions of purchase, consumers would likely be able to discern the country of origin if the majority of items were labeled regardless if additional placards or other signage was present. Accordingly, the Agency does not believe it is necessary to modify the language with respect to this provision. The Agency will address the issue of preponderance of stickering in its compliance and enforcement procedures, as applicable, to ensure uniform guidance is provided to compliance and enforcement personnel.

With regard to this use of ''may contain'' and ''and/or'' statements, as previously stated, the Agency does not agree that the statute allows for the use of terms and phrases such as ''or, may contain, and/or'' that only convey a list of possible origins. Rather the Agency believes that the intent of the statute is to require retailers to provide specific origin information to consumers. In addition, such disjunctive labeling schemes are not allowed under CBP regulations except under special circumstances.

Signage Over Bulk Display Cases

Summary of Comments: Several commenters expressed concern that the language authorizing a list of ''all possible origins'' on a bulk container (such as a meat display case that may contain commodities from different origins) would inadvertently allow a retailer to hang a sign over the entire meat display case that stated that the entire display contains products from the U.S. and one or more countries, even if the display case contains only commodities from the U.S. The commenters contend that nothing in the law expressly permits such labels on displays, holding units, or bins to merely provide information regarding ''all possible origins'' of the commodities contained therein and recommended that the Agency add language to require that if a meat display case contains commodities from more than one country, the commodities must be physically separated according to their origins within the meat display case and a separate origin declaration must be associated with each section.

Another commenter stated that they understood that the Agency is concerned that a sign such as ''All beef is Product of the US'' might be interpreted by consumers to encompass beef products that are not covered by the statute because they are processed. In order to provide clarity, the commenter urged the Agency to provide ''safe harbor'' standards for language and placement in order to ensure that retailers are properly meeting their obligations.

One commenter noted that retailers have the discretion to use signs, placards or other communications to convey origin information. Another commenter noted that the interim final rule allows for a bulk container at retail level that contains commingled products to be labeled with the country or countries of origin. However, the commenter also pointed out that the rule is silent on whether the individual pieces contained in bins must also be labeled, which would be difficult for certain species (e.g., broccoli, lettuce). This commenter requested confirmation that, for commingled produce sold in bins or trays, individual pieces of produce do not need to be labeled provided their origins are displayed on appropriate signage by the retailer.

Agency Response: With regard to the provision in both interim final rules concerning bulk containers that allows the bulk container to contain a covered commodity from more than one country of origin, as previously stated, under this final rule it remains permissible provided that the notification representing a container, display case, bin or other form of presentation includes all possible country designations available for purchase.

With respect to the use of signage for bulk displays for meat covered commodities, as previously discussed, the Agency has observed that a vast majority of retailers are utilizing one sign for either the entire meat case or for an entire commodity type (i.e., chicken) to provide the country of origin notification. While the statute and this regulation provide flexibility in how the country of origin information can be provided, the Agency believes that the use of such signage could be false or misleading to consumers. The Agency encourages retailers to review signage that they have used in the implementation of the fish and shellfish program for alternative methods of providing COOL information.

With regard to comment concerning the labeling of individual pieces of produce, the rule provides flexibility in how the country of origin information may be conveyed. Thus, this final rule does not contain a requirement that individual pieces of product must be labeled with country of origin information. However, retailers may request that suppliers use specific methods of conveying origin information through contractual arrangements with their suppliers.

Abbreviations

Summary of Comments: Several commenters requested additional guidance on acceptable abbreviations, and they provided a variety of recommendations to the Agency about specifying approved abbreviations. These commenters all favored the use of country abbreviations when marking country of origin declarations. One commenter requested that a select group of countries be permitted for abbreviation to include New Zealand, Guatemala, South Africa, Argentina and Australia. Another commenter said that abbreviations would serve a useful purpose on product labels and recommended that a list of reasonable abbreviations be developed that could be used by processors and retailers (e.g., CAN for Canada).

Other commenters appreciated the Agency's recognition of the need to abbreviate the names of some countries

using abbreviations from CBP. The commenters recommended that the language in section (e) be reworded to remove the first sentence (''In general, abbreviations are not acceptable.''). The commenters reasoned that the available space on product labels (e.g., price look-up [PLU] sticker) or bills of lading is scarce. The commenters further stated that it is important for the industry to be able to convey origin information on both of those vehicles for several reasons. Information on the product itself (through a PLU sticker, rubber band, twist tie, tag, etc.) is particularly important because it informs the consumer at point of purchase and moves with the product to the home. When industry can include the information on a bill of lading, it allows companies to use existing records as the statute requires. The commenters suggested that the Agency remove the requirement that a key to abbreviations be included with documents (each time or even once), because the industry is well aware of the abbreviations used and their meanings.

Several commenters suggested that the Agency rely on the ISO 3166 country codes maintained by the International Standardization Organization. One commenter disagreed with the Agency's determination that such abbreviations may not be readily understood by the majority of consumers. One commenter added that in addition to the ISO country codes, CBP recognizes country codes as do other federal agencies such as the Bureau of the Census. The commenter pointed out that the United Nations also recognizes both the two letter and three letter ISO country codes. Another commenter requested that a list of 3-digit country abbreviations be developed and allowed to identify the countries of origin. The commenter noted that these 3-digit codes would not be confused with 2-digit codes used in the U.S. to identify individual States.

One commenter indicated that in the event the Agency retains its current prohibition on abbreviations for consumer information, the Agency must be clear that origin information in records and paperwork can be maintained with any acceptable abbreviations. The commenter added that they strongly support the ability to utilize labeling of a U.S. State, region or locality in which a product is produced to meet label standards as product of United States. In addition, the commenter stated that they support the ability to use State abbreviations, which is standard practice in many current State labeling programs and is readily accepted identification by consumers. One commenter described a customer who had a requirement to list the State name in addition to the U.S. This commenter asked if it would be permissible to abbreviate State names when more than one needs to be listed (e.g., WA, CA, AZ). The commenter suggested putting the State abbreviations in brackets after USA (e.g., USA (CA, AZ)).

Agency Response: As previously stated, the Agency believes that the limited application of abbreviations that unmistakably indicate the country of origin is appropriate. CBP has a long history of administering the Tariff Act and has issued a number of policy rulings with respect to the use of abbreviations. Because many of the covered commodities subject to the COOL regulation are also subject to country of origin marking under the Tariff Act, it would be inconsistent with CBP regulations to allow for the use of additional country abbreviations under the COOL program. With regard to the use of ISO codes that many commenters made reference to, CBP does allow for the use of such codes for statistical and other purposes with respect to e-commerce; however, CBP does not allow for the use of ISO codes for marking purposes. The Agency has obtained a more complete list of abbreviations from CBP and has posted this information to the COOL Web site.

With regard to State labeling for perishable agricultural commodities, peanuts, pecans, macadamia nuts, and ginseng, the Agency does believe that the majority of consumers are familiar with the standard State abbreviations used by the U.S. Postal Service and because the purpose of the COOL program is to provide consumers with origin information, it is reasonable to allow such abbreviations. Allowing this flexibility will address industry's concerns about the limited space on PLU stickers, twist ties, rubber bands and other package labels typically used for produce. Under this final rule, abbreviations may be used for state, regional, or locality label designations for perishable agricultural commodities, peanuts, pecans, macadamia nuts, and ginseng covered commodities whether domestically harvested or imported using official United States Postal Service abbreviations or other abbreviations approved by CBP. With regard to the use of abbreviations by suppliers or retailers in conveying origin information in records or documentary systems, there are no restrictions on the use of abbreviations as long as the information can be understood by the recipient. Accordingly, these recommendations are adopted in part.

State, Regional, and Locality Labeling

Summary of Comments: Several commenters raised issues related to the provision for state, regional, and locality labeling of covered commodities. Three commenters requested that state, regional, and locality labeling be acceptable for covered meat commodities. One commenter sought confirmation that the provisions on State markings in the interim final rule apply also to States, regional and local labels of importing countries. This commenter understood that identification by region and locality is acceptable provided it is nationally distinct, but requested that this provision be clarified in the final rule.

Another commenter noted that USDA is silent on the use of locality labeling, and requested that the final rule recognize that locality labeling is likewise permitted by the statute. The commenter stated that many retailers source products locally and choose to provide this information to consumers because it is meaningful to these customers.

Agency Response: With regard to the commenters' recommendation to allow State, regional, and locality labeling for meat covered commodities, the statute contains an express provision for this type of labeling for perishable agricultural commodities, peanuts, pecans, macadamia nuts, and ginseng. As such, the Agency does not have the authority to extend this provision to any other covered commodities. With regard to the commenter's request that the Agency clarify that this provision applies to imported perishable agricultural commodities, nuts, and ginseng and that locality labeling is also permitted, clarifying language has been added to section 65.400(f). Accordingly, these recommendations have been adopted in part.

Supplier Responsibilities

Summary of Comments: Several commenters expressed concerns with the Agency's assertion in the interim final rule that ''the supplier of a covered commodity that is responsible for initiating a country of origin claim * * * must possess or have legal access to records that are necessary to substantiate that claim.'' The commenters maintained that the Agency's jurisdiction stops with the initiator of the origin claim of a covered commodity, which in the case of meat products is the slaughter facility. The commenters further stated that the COOL law authorizes only the Secretary

of Agriculture to conduct an audit for verification purposes, not the packer, and that furthermore, the Secretary may not require a person that prepares, stores, handles, or distributes a covered commodity to maintain a record of the country of origin of a covered commodity other than those maintained in the course of the normal conduct of the business of such person. The commenters argued that the 2008 Farm Bill language states that producer affidavits are sufficient in making a country of origin claim; therefore, packers or processors should not be given legal access to producers' records. The commenters recommended that the Agency eliminate language referencing ''legal access'' from the final regulation as they contend it is not authorized by the law.

Two commenters suggested that the Agency should require the original suppliers of covered products to substantiate the chain of custody and the accuracy of country of origin information. One commenter expressed the opinion that it is unreasonable that the liability ultimately is placed on the meat processor to provide country of origin information when they are relying on the word of livestock producers, who may or may not be providing accurate information.

Another commenter pointed out the importance of maintaining origin information by all segments of the industry to verify origin claims and to ensure the integrity of the labeling program. This commenter also stated that it is important that producers not be asked for unreasonable information that goes beyond what would be considered acceptable or the lack of which is a pretext for penalties against a producer or producers. The commenter recommended that the Agency provide a safe harbor of reasonable or acceptable information that can be asked of a producer to help avoid the possibility of unreasonable requests for information that would be considered unfair or an effort to single out a particular producer.

One commenter suggested removing the provision in the rule regarding supply chain traceability in the recordkeeping requirement. The commenter stated that the purpose of COOL is to inform consumers about the origin of the covered commodities and that the added recordkeeping requirement of traceability is not necessary and is an added regulatory burden.

One commenter noted that while producers are not directly affected by the COOL law, Section 282(3) of the statute expressly requires that ''anyone engaged in the business of supplying a covered commodity provide country of origin information.'' The commenter further stated that in the case of animals imported from Canada, this necessarily implicates Canadian producers who must present health papers to APHIS at the border. The commenter suggested further clarification is needed about the manner in which that origin will be tracked and conveyed to AMS should proof of origin be required further down the supply chain.

One commenter noted that Agency representatives have repeatedly advised the industry of the need for significantly more extensive records than are currently maintained in order to verify COOL. The commenter strongly urged the Agency to clarify in the final rule that the statutory prohibition of any new record requirement is recognized and accepted. This commenter also encouraged the Agency to provide a definitive declaration that suppliers may convey COOL information to retailers through any method of their choosing in order to comply with the regulation. The commenter stated that in current trade practice, some have been confused as to whether supplier labeling of COOL on the actual produce item is required, or whether multiple documents such as invoices or bills of lading must contain COOL information. The commenter suggested that USDA should make clear that COOL information may be provided to the retailer in any form. The commenter further suggested that relationships in the marketplace—not the statute—will determine in what form that communication will take place, including whether individual product eventually is labeled by a supplier.

One commenter stated that the most practical approach to meeting the COOL requirements for most covered commodities is for those producers to print the country of origin on all retail packaging for case and consumer ready, and on all case end labels for all products destined to be store processed or packaged by the retailer. The commenter suggested that producers will not need to continuously transmit country of origin information to the retailer on an order by order basis. Instead, package and case labeling in conjunction with the USDA establishment number (used to identify producer) and the lot or batch number (used to identify the specific lot of live animals from which products are derived) will already be on pre-packaged labels and case end codes. The commenter further stated that retailers already retain invoices to meet other reporting requirements, which identify the producers of the product, and can be used to satisfy the COOL recordkeeping obligation. The commenter also stated that there will be no required change in business processes for retailers but producers will be required to add accurate origin information to the retail packaging and/or case end labels.

One commenter identified a business process flow they hoped could be simplified with the intervention of the Agency. In import situations where a consolidated shipment could have multiple origins covered by one Bill of Lading (for example, a combined load of Navel Oranges from Australia and South Africa, and Clementines and Lemons from Chile) the commenter currently notes each line item on the documentation, which is an added step in the paperwork process. The commenter requested that the Agency provide suggestions in the rule about alternative means to comply with COOL on Bills of Lading, invoices, or packing slips.

One commenter suggested that the Agency consider a longer period, such as 10 business days, to provide records upon request to any duly authorized representatives of USDA for COOL compliance purposes. Two commenters referenced the statutory prohibition against the Agency requiring records that are not maintained in the normal conduct of business. These commenters noted that such records are deemed sufficient to satisfy the Bioterrorism Act's mandate to be able to identify immediate previous source and immediate subsequent recipient of foods. The commenters recommended that the Agency likewise accept multiple sourcing records for purposes of the mandatory country of origin labeling requirement for intermediary suppliers to identify their immediate previous source and immediate subsequent recipient.

Agency Response: It is correct to say that the Agency's authority to audit ends at the slaughter facility as the slaughter facility is the first handler of the covered commodity and the Agency has deleted the requirement that suppliers have legal access to records from this final rule. However, as initiators of origin claims, packers must have records to substantiate those claims. With regard to records maintained in the course of the normal conduct of the business of such person and producer affidavits, the final rule states that producer affidavits shall be considered acceptable records that suppliers may utilize to initiate origin claims, provided it is made by someone having first-hand knowledge of the origin of the covered commodity and identifies the covered commodity

unique to the transaction. With regard to the commenter's assertion that producers not be asked for unreasonable information that goes beyond what would be considered acceptable, the Agency has provided examples of records kept in the normal course of business that may be used to substantiate origin claims. As previously stated, packers can utilize producer affidavits to obtain origin information. This final rule has been drafted to minimize the recordkeeping burden as much as possible while still providing the Agency with the information necessary to verify origin claims.

With regard to how suppliers may provide origin information to retailers, this final rule states that the information can be provided on the product itself, on the master shipping container, or in a document that accompanies the product through retail sale. It is up to the supplier and their retailer customers to decide which method is most appropriate. The Agency agrees that bills of lading, invoices, and packing slips may be used to provide origin information. Ultimately, retailers must ensure that covered commodities displayed for retail sale have country of origin designations.

With regard to the recommendation to allow a 10 day period to supply documentation to USDA officials, the Agency believes that the 5 business days provided in the August 1, 2008, interim final rule provides suppliers and retailers reasonable and appropriate time to provide records to USDA upon request. With regard to the commenters' reference to the statutory prohibition against the Agency requiring records that are not maintained in the normal conduct of business and that such records are deemed sufficient to satisfy the Bioterrorism Act's mandate to be able to identify immediate previous source and immediate subsequent recipient of foods, records maintained in the normal conduct of business can be used to satisfy the COOL recordkeeping requirements. However, the Agency recognizes that suppliers and retailers may need to make modifications to their existing records in order to provide the necessary information to be able to substantiate COOL claims as provided for in the statute.

Visual Inspection

Summary of Comments: Several commenters expressed support for the Agency policy to accept visual inspection as a means to verify the origin of livestock during the period between July 15, 2008 and July 15, 2009. Specifically, the majority of commenters supported the Agency's decision to authorize sellers of cattle to conduct a visual inspection of their livestock for the presence or absence of foreign marks of origin, and that such visual inspection constitutes firsthand knowledge of the origin of their livestock for use as a basis for verifying origin and to support an affidavit of origin. They noted that visual inspection for verification of origin is particularly important to the trade during the period between July 15, 2008, and whenever the final regulation is published. The commenters stated that producers now have livestock without all of the origin documentation that may be necessary and that it would be very difficult, and in some cases impossible, to recreate the paper trail on many of these animals. Other commenters noted that the visual inspection of animals for import markings is a highly reliable, cost effective method of verification of origin and will significantly reduce compliance costs for livestock producers. The commenters recommend that visual inspection be made a permanent method on which to base origin claims.

Agency Response: The Agency initially allowed for a transition period for the period July 16, 2008, through July 15, 2009, during which producers may issue affidavits based upon a visual inspection at or near the time of sale that identifies the origin of livestock for a specific transaction. Affidavits based on visual inspection may only be issued by the producer or owner prior to, and including, the sale of the livestock for slaughter. The Agency agrees with the commenters that affidavits based on visual inspection reduce the burden on producers. Accordingly, the Agency is making the ability to utilize visual inspection as the basis for forming an affidavit permanent.

Producer Affidavits

Summary of Comments: Numerous commenters expressed support for the ''Universal Country of Origin Affidavit/Declaration'' that was developed by consensus across the livestock and chicken industry to serve as verification from producers to slaughter facilities for the country of origin of livestock. Several commenters requested that these agreed-upon documents be incorporated in the final rule. Several commenters also argued that producers should not be asked for unreasonable information. They urged AMS to consider a standardized producer affidavit that would accompany an animal from its first sale throughout the chain of custody.

Several commenters expressed support for the Agency's decision to allow composite affidavits where a producer can put together lots of cattle for sale and have one new affidavit for that lot based on the affidavits received for each animal, or lot of animals, that was combined in the new lot. The commenters also expressed support for the ability for producers to file an ''evergreen'' or ''continuous'' affidavit with the buyers of their livestock saying that, until otherwise noticed or revoked, all the cattle they will deliver to that buyer will be of a specific origin.

One commenter disagreed that a producer affidavit in conjunction with animal ID records can be deleted after 1 year when a majority of breeding stock lives beyond 5 years and 95% of cattle in the U.S. on July 15, 2008 were not close to slaughter age. The commenter was of the opinion that documentation and retention of affidavits needs to last longer if the Agency has to audit and trace back meats.

Agency Response: The Agency believes the Universal Country of Origin Affidavit/Declaration that was developed by consensus across the livestock and chicken industry will assist the industry in implementing the rule in as least burdensome manner as possible. While the statute and this final rule allow for the use of producer affidavits, because the statute does not provide the Agency with authority to regulate producers, the Agency cannot mandate the use of such affidavits.

The Agency recognizes that animal production cycles vary greatly and depending upon which records are used for origin verification, retention of documents should be commensurate with the claim being affirmed through an affidavit or other means of declaration. However, the Agency only has the authority to require record retention for covered commodities. As the initiator of origin claims for meat, packers may specify the length of time records need to be maintained by entities outside the packer's system.

National Animal Identification System (NAIS)

Summary of Comments: Commenters had mixed opinions about relying on NAIS as a safe-harbor for COOL compliance. Numerous commenters supported the provision in the interim final rule stating that voluntary participation in NAIS program will comply with COOL verification requirements. The commenters that support the use of NAIS stated that official USDA 840-tags can serve as a

universal passport for an animal during its lifetime indicating the animal is of U.S. origin, no matter how many times ownership of the animal changes during its lifetime. Commenters strongly encouraged the Agency to utilize Radio Frequency Identification (RFID) tags in NAIS to allow verification of country of origin at the speed of commerce and stated that official NAIS USDA 840–RFID tags for livestock represent the simplest way for producers to assist in the marketing of their animals to ensure compliance with COOL.

One commenter recommended that NAIS should be made mandatory. Two commenters suggested that the Agency could alleviate the record keeping burden by simply requiring all foreign cattle to bear a permanent mark that defines their origin. They suggested that this will not only aid commerce by reducing paperwork, but it will also enhance compliance.

Three commenters expressed support for reliance on other existing animal identification systems. One commenter noted that USDA/APHIS currently operates the National Scrapie Eradication Program (NSEP), which includes a regulated animal identification program. By regulation, feeder and slaughter sheep that are imported from Canada must carry official permanent identification. The commenter urged AMS to help processors and others recognize the relatively straight-forward nature of proving animal origin in the sheep industry. Two commenters pointed out that livestock producers who participate in ''Age and Source Verified'' programs administered by USDA should also be in compliance with COOL for both origin and verification claims.

Another commenter stated that identification of animal origin by ear tag is a cause for concern. This commenter noted that USDA has not provided guidance about what records will suffice for imported animals, stating only that for animals that are part of an official identification system, such as the Canadian cattle identification system, ear tags will suffice for proving origin at the slaughterhouse. The commenter was concerned with having requirements imposed because of a specific animal health concern, such as Canadian ear tags on cattle, ensnared in separate regulations for an entirely different and unrelated purpose. The commenter stated that this could restrict Canada's abilities to adapt its national cattle identification system to changing environments or technologies in the future.

A final commenter warned that the acceptance of an ear tattoo does not meet the needs of modern industry practices. Due to issues associated with the speed of commerce, recordkeeping, accuracy and overall effectiveness of the program, the commenter stated that the Agency should only allow a hot iron brand on all live foreign cattle.

Agency Response: The Agency believes that voluntary use of the National Animal Identification System is an easy option packers may utilize to obtain origin information on livestock. The Agency has also made modifications to this provision for clarity. The Animal Identification Number (AIN) is defined in the Code of Federal Regulations as ''A numbering system for the official identification of individual animals in the United States providing a nationally unique identification number for each animal. The AIN contains 15 digits, with the first 3 being the country code (840 for the United States), the alpha characters USA, or the numeric code assigned to the manufacturer of the identification device by the International Committee on Animal Recording. The AIN beginning with the 840 prefix may be used only on animals born in the United States.'' As stated in the interim final rule published on September 18, 2008, (73 FR 54059), the AIN version starting with 840 is prohibited for use on animals born outside the United States. Therefore, under this final rule, packers that slaughter animals that are tagged with an 840 Animal Identification Number device without the presence of any additional accompanying marking (i.e., ''CAN'' or ''M'') may use that information as a basis for a U.S. origin claim. Packers that slaughter animals that are part of another country's recognized official system (e.g. Canadian official system, Mexico official system) may also rely on the presence of an official ear tag or other approved device on which to base their origin claims. With regard to the commenter's concern regarding having requirements imposed because of a specific animal health concern, such as Canadian ear tags on cattle, in separate regulations for an entirely different and unrelated purpose, this regulation does not impact regulations pertaining to animal health or importation. In addition, use of official ear tags as the basis of origin claims is just one option that can be utilized to obtain origin information.

The other comments received relevant to making NAIS mandatory and allowing only hot iron brands on live foreign cattle are outside of the scope of this rulemaking. Accordingly, these recommendations have been adopted in part.

Retailer Responsibilities

Summary of Comments: Numerous commenters addressed issues relating to the retailer recordkeeping provisions of COOL. One commenter stated that the Agency has offered simple, effective rules for recordkeeping by retailers. One commenter recommended that in § 65.500(c)(1), the Agency put the last sentence of the paragraph first (''For pre-labeled products, the label itself is sufficient evidence on which the retailer may rely to establish the product's origin.''). The commenter also requested that the Agency state specifically that retailers need not maintain any new or additional records documenting origin for those products that are pre-labeled on the product itself or on the box/container when the box/container is visible to consumers, such as when it is used as part of a retail display.

One commenter suggested sample and common technological standards such as the portable document format (PDF) or use of a common and interoperable database file system such as Microsoft Excel to enable both industry and the Agency to adopt a common computing platform. Another commenter suggested that the Agency should refer to the two different types of documents required to be maintained by retailers as Verification Records and Supplier records. The commenter suggested that the Agency should clarify in the final regulation that the information to satisfy both requirements may be on the same or different documents, provided all of the requirements are met. Several commenters encouraged the Agency to permit retailers to rely on the records that are currently maintained for Bioterrorism Act purposes.

One commenter strongly supported the specific recognition that retailers may rely upon pre-labeled products as ''sufficient evidence'' of the country of origin. The commenter stated that this is an important safe harbor for the produce and retail industries as an increasing share of fresh produce now arrives at retail stores pre-labeled with the country of origin. The commenter expressed concern that the IFR and the Agency's Q&A documents are not written in a way that conveys this information accurately, which is creating significant confusion throughout the produce distribution chain. The commenter recommended that the Agency clearly define pre-labeled products to include all produce items that bear a COOL declaration, regardless of any other information that may or may not be affixed directly to the produce item. In turn, the Agency must then specify that additional

recordkeeping at retail is not required for pre-labeled products as the vendor who supplied the pre-labeled produce has the responsibility to verify the claim. One commenter recommended that the Agency only require retailers to maintain the country of origin for covered products in the retail store for as long as the product is on hand.

Agency Response: With regard to pre-labeled covered commodities, the Agency has added a definition of pre-labeled in this final rule. In addition, the Agency has clarified that for pre-labeled products, the label itself is sufficient information on which the retailer may rely to establish the product's origin and no additional records documenting origin information are necessary. However, the Agency does not agree with the commenter's recommendation to change the order of the sentences with respect to the provision on pre-labeled products.

With regard to the recommendation that the Agency adopt a common computing platform, the Agency does not have the authority to mandate a specific system. In addition, the Agency believes that retailers and suppliers should have the flexibility to choose whatever system works best in their particular operation. Accordingly, this recommendation is not adopted.

With regard to the suggestion that the Agency should refer to the two different types of documents required to be maintained by retailers as Verification Records and Supplier records and that the Agency should clarify in the final regulation that the information to satisfy both requirements may be on the same or different documents provided all of the requirements are met, the Agency has added language to the preamble to indicate that the supplier and origin information needed to satisfy the COOL recordkeeping requirements can be in the same document or different documents. However, the Agency does not believe that any changes to how the required documents are referenced are necessary. Accordingly, these recommendations have been adopted in part.

The Agency recognizes that several commenters encouraged the Agency to permit retailers to rely on the records that are currently maintained for Bioterrorism Act purposes. To the extent that these records contain the necessary information to meet the COOL recordkeeping requirements, the Agency agrees that records currently maintained to meet the requirements under the Bioterrorism Act can also be used to comply with the COOL recordkeeping requirements.

With regard to the recommendation that the Agency only require retailers to maintain the country of origin for covered products in the retail store for as long as the product is on hand, under this final rule, records and other documentary evidence relied upon at the point of sale to establish a covered commodity's country(ies) of origin must be either maintained at the retail facility for as long as the product is on hand or provided to any duly authorized representative of USDA in accordance with § 65.500(a)(2). For pre-labeled products, the label itself is sufficient information on which the retailer may rely to establish the product's origin and no additional records documenting origin information are necessary. Accordingly, this recommendation has been adopted in part.

Enforcement

Liability Shield

Summary of Comments: Several commenters discussed the concept of a ''liability shield'' found in the interim final rule for fish and shellfish, but deleted from the interim final rule for the remaining covered commodities. The commenters noted that the Agency had previously contemplated a ''shield'' from liability for entities subject to the law on the theory that they should be permitted to reasonably rely on information provided by their suppliers. The commenters recommended that the Agency add a clarification to the final rule that will assure retailers that they will not be penalized when a retailers' non-compliance results from the conduct of others. The commenters further stated that the interim final rule holds suppliers responsible for providing retailers with country-of-origin information and that because the statutory liability standard only penalizes retailers for ''willful'' violations, it follows that a retailer should not be held responsible for its supplier's failure to provide COOL information or its supplier's provision of inaccurate information. The commenters recognized that the Agency deleted the safe harbor language from the interim final rule for remaining covered commodities because that language created a negligence standard of liability instead of the willfulness standard specified in the 2008 Farm Bill. These commenters agreed that a willfulness standard is required by statute. However, they also stated that an explicit safe harbor should be restored to the rule, in addition to the willfulness standard the statute requires. Thus, paralleling the language that had been used in the safe harbor provision for the fish and shellfish interim rule, a safe harbor provision one commenter suggested new regulatory language, ''No retailer shall be held liable for a violation of the Act by reason of the conduct of another unless the retailer acted willfully in the same regard''. Another commenter strongly urged the Agency to reinstate the liability shield in the final rule, but given the change in the liability standard as a result of the 2008 Farm Bill, recommended alternative language.

Agency Response: As noted by the commenters, the Agency deleted the liability shield language from the interim final rule for the remaining covered commodities because that language created a negligence standard of liability instead of the willfulness standard specified in the 2008 Farm Bill. Because of the willfulness standard contained in the 2008 Farm Bill, the Agency does not agree that the liability shield is necessary. However, to the extent that the liability shield language provides the industry with assurances that they will not be held liable for the conduct of others, the Agency believes that the liability shield is useful. Therefore, the Agency has included the liability shield provision in this final rule and has modified the language to reflect the willfulness standard contained in the 2008 Farm Bill. Accordingly, this recommendation has been adopted.

Assurances Against Meat Recalls for COOL Violations

Summary of Comments: Several commenters expressed concerns about how FSIS or other federal agency may use a country of origin labeling failure as a reason to recall pork and other meat products. These commenters noted that the law does not amend any food safety law and that it is not a food safety program. The commenters further stated since it is a marketing program, failure to properly label the origin of products in the retail meat case should not force a product recall. Many producers reported to be confused and fearful that this law will be used to assert product liability claims. These commenters requested clarification regarding the scope of the COOL law to eliminate this confusion. They asked that USDA clarify that any violation of COOL will not trigger a recall of meat products.

Agency Response: As noted by the commenter, the intent of the law and this rule is to provide consumers with additional information on which to base their purchasing decisions. COOL is a retail labeling program and as such does not provide a basis for addressing food safety. Food products, both imported

and domestic, must meet the food safety standards of the FDA and FSIS and are subject to any recall requirements imposed by those agencies. The Agency does note that FSIS did publish an interim final rule (73 FR 50701) on labeling to address concerns with compliance of their voluntary labeling approval authority and requirements of the COOL program. In addition, FSIS provided guidance that inspection program personnel are not to take any action to enforce the FSIS interim final rule until further notice and that during the next six months, FSIS will defer to the AMS program of outreach and education to ensure that there is compliance.

Timeframe for Implementation

Summary of Comments: Numerous commenters provided suggestions about the Agency's informed compliance period during which the Department will provide education and outreach to aid industry in understanding the requirements of the COOL program.

Three commenters expressed appreciation for the 6-month phase-in period articulated in the rule and stated that the Agency must be prepared to provide producers, suppliers, retailers, and consumers with assistance to understand the regulations through guidance documents, seminars, and other resources that are readily available to the public during this period of informed compliance. One commenter pointed out that it will be critical for the AMS to work with officials with FSIS to ensure that there is common understanding between the two USDA agencies regarding questions that meat processing plant operators and federal meat inspectors may have. One commenter urged the Agency to withhold publishing a final rule until after the conclusion of the 6-month period in order to maximize the lessons learned under the interim final rule. Another commenter encouraged the Agency to provide as much time as possible to acclimate both retailers and those involved within the supply chain to the new requirements of the regulations prior to any enforcement.

Several commenters expressed support that the requirements of the interim final rule do not apply to covered commodities produced or packaged before September 30, 2008. However, these commenters noted that many firms in the industry procure packaging materials for a year's worth (or more) of production. The commenters recommended that given the short amount of time between the release of the Interim Final Rule and the effective date, companies subject to the rule be given a year from the effective date to use up existing packaging inventories, provided those packaging inventories were acquired prior to the effective date of the rule. One of these commenters expressed concern that a 6-month grace period will prove insufficient to implement a verifiable records system. This commenter stated that an 18-month implementation period will allow current nut products in the marketplace to rotate out and allow those in the field sufficient time to comply with all aspects of COOL. Another commenter was concerned about ensuring a reasonable phase-in period for the rule so that suppliers could use existing inventory to the greatest extent possible. This commenter supported a one-year phase-in as opposed to 6 months because the shipping season for table grapes and tree fruit generally runs from May through October. Therefore, a 6-month phase in from October through March would be of little benefit for this food sector. Another commenter noted that retailers, processors, and producers have expressed their willingness to make a good faith effort to comply with COOL; however, it is not clear that the 6-month industry education and phase-in period is sufficient. They strongly encouraged USDA to extend this period to 12 months in order that issues like recordkeeping and auditing the supply chain can be fully understood.

Agency Response: In response to the commenters' request that the Agency not publish the final rule until after the six month period of education and outreach, the Agency is moving forward in an expeditious manner of publishing the final rule in order to provide retailers and suppliers as well as all other interested parties with the requirements for a permanent program. The Agency will allow sufficient time for the regulated industries to adapt to the changes in this final rule and will continue to provide for a period of education and outreach. The Agency believes that the six month period provided for in the interim final rule is adequate time for retailers and suppliers to adapt to the COOL program requirements. In addition, the Agency will continue to ensure that retailers and suppliers are educated on the Agency's compliance and enforcement procedures so that the regulated industries have clear expectations as to how the Agency will enforce this rule. With regard to using up existing packaging inventories, this final rule does not require that covered commodities are individually labeled with COOL information. Retailers can use placards and other signage to convey origin information.

Miscellaneous

WTO/NAFTA Trade Agreements

Summary of Comments: Several commenters expressed concern that COOL may violate U.S. trade commitments under the World Trade Organization and the North American Free Trade Agreement, and that provisions of the COOL regulation ignore the reality of an integrated North American meat and livestock industry. Two foreign governments expressed that the amendments passed with the 2008 Farm Bill are still cause for concern, and that as they have consistently expressed in the past, COOL requirements should be consistent with the United States' international trade obligations. One commenter pointed out that the Codex General Standard for the Labeling of Prepackaged Food was considered adequate in the U.S. system for a number of years and will continue to remain the standard for retailers outside of the U.S. The commenter further stated that it remains the most practical, and also the most adaptable, to evolving commercial practice and growing international trade; and yet it is not the standard adopted in the COOL regulations.

One commenter stated that the COOL statute and regulation will likely result in discrimination against imported product, contrary to U.S. obligations under the WTO Agreement on Technical Barriers to Trade. The commenter indicated that despite changes in the law and the IFR that have made it less onerous for regulated firms to comply with the requirements of the regulation, COOL will still discriminate against imported cattle and beef. This commenter warned that the industry practice of importing cattle for feeding and/or slaughter will be discouraged by the increased complexity associated with the identification, segregation, and labeling requirements mandated for the resulting products to be sold at retail. This commenter suggested that the simplest solution would be to allow processors and retailers to label ground product with ''May contain U.S. and imported meat'' with the option to list the specific countries if the producer or its customers so desired. Another commenter acknowledged that the IFR makes some concessions to earlier complaints by trading partners with concerns regarding the compatibility of COOL with the WTO obligations of the United States.

Agency Response: With respect to the commenters' concern regarding

international trade obligations, the Agency has considered these obligations throughout the rulemaking process and concludes that this regulation is consistent with U.S. international trade obligations. Further, as described more fully in the Summary of Changes section of this rule, the Agency has made a number of modifications in this final rule that provide additional labeling flexibilities. In addition, the Agency has worked closely with USDA's Foreign Agricultural Service to educate U.S. trading partners on the requirements of COOL and to assist them in complying with the regulation.

In regards to a commenter's statement that when a food undergoes processing in a second country that changes its nature, the country in which the processing is performed shall be considered to be the country of origin for the purposes of labeling, existing CBP rules and regulations with respect to determining origin of imported products apply to the extent that it is permissible under the statute. However, it is not permitted under the statute to consider imported products that are substantially transformed in the U.S. to be of U.S. origin as they do not meet the definition of U.S. origin provided in the Act.

With regard to the comment to allow a label to state ''May contain U.S. and imported meats,'' the Agency does not believe this type of labeling meets the intent of the statute. Accordingly, this recommendation is not adopted.

COOL as a Food Safety Program

Summary of Comments: Commenters expressed differing opinions regarding whether or not COOL serves as a food safety program. Several commenters expressed the opinion that COOL is a retail labeling program that does not provide a basis for addressing food safety. The commenters argued that the U.S. has a safe food safety system; that all meat sold at retail, whether grown domestically or imported, must be inspected and declared safe for human consumption; and that country of origin labeling is solely a marketing tool. One commenter found it particularly problematic that mandatory COOL has been portrayed by some advocates as contributing to efforts to make America's food safe, yet there is no provision in the COOL statute or the interim final rule that prescribes food safety or inspection standards. Another noted that the food production, supply and retailing industry needs to help consumers understand that geography cannot become shorthand for food safety. Several commenters noted that Congressional intent is clear that COOL is not intended to be a traceability law, but merely to provide country of origin information to consumers. These commenters urged the Agency to implement COOL in a way that is true to its goal to inform consumers about where produce comes from, not create a new regulatory infrastructure. Other commenters noted their support for the provision of accurate information to consumers as required by the law and agreed with the Agency's statement in the preamble that this law is not a food safety law.

Two commenters wrote that COOL can serve as a risk management measure. One commenter suggested that developing countries, which may not have as stringent food safety regulations and/or have not implemented/enforced those regulations as rigorously as the U.S., may export hazardous food products. Another commenter referred to a GAO study that reported three elements of food-safety systems that were critical to respond to outbreaks of food borne illness: Traceback procedures that allow industry and government officials to quickly track food products to origin to minimize harm to consumers and the impact on business; cooperative arrangements between veterinarians and public health officials to document the names of suppliers and customers as well as the dates of delivery; and authority to recall a product from the market. The commenter noted that such food-safety systems depend on a verifiable chain of custody for food products that the COOL program can help institute. The commenter further stated that the COOL law provides for traceback provisions and for cooperative partnerships with states.

Agency Response: As previously stated, the COOL program is neither a food safety or traceability program, but rather a consumer information program. Food products, both imported and domestic, must meet the food safety standards of the FDA and FSIS. Food safety and traceability are not the stated intent of the rule and the COOL program does not replace any other established regulatory programs that related to food safety or traceability.

USDA COOL Labeling Surveys

Summary of Comments: Two commenters requested that USDA conduct nationwide retail surveys to gather information regarding country of origin labeling. One commenter requested that the Agency conduct a ''nationwide retail meat labeling survey'' within the year to discern the amount of product, the kind of product and the locations where exclusively U.S. labeled meat is being sold. The second commenter suggested that the Agency insert additional data entry points in the retail survey instrument used for existing retail reviews. The commenter encouraged the Agency to gather information relative to the availability and price of meat items by origin at the retail stores under review. Furthermore, the commenter requested this information be reported to the House Committee on Agriculture and the House Committee on Appropriations 60 and 90 days after the labeling law takes effect.

Agency Response: The Agency is currently reviewing possible methods to collect data relative to the availability and price of meat items by origin at the retail stores under review. The Agency will work with members of Congress to provide any information collected to the appropriate Congressional committees.

Existing State Programs

Summary of Comments: One commenter agreed that the Agency had properly concluded that the COOL law preempts conflicting federal and state laws. This commenter stated it is imperative that companies subject to the federal statute be subject to one uniform set of regulatory requirements. One commenter agreed that it is preferable for producers to have one law to govern compliance, but suggested it is also important that the maximum amount of product information be provided to consumers as intended by the COOL legislation. In the event of conflict, this commenter preferred that the Agency err on the side of more information to the consumer rather than less, and asked the Agency to allow the States maximum flexibility to enforce their own laws, if doing so will provide the most information to the consumer.

Agency Response: This rule has been reviewed under Executive Order 13132, Federalism. This Order directs agencies to construe, in regulations and otherwise, a Federal statute to preempt State law only where the statute contains an express preemption provision or there is some other clear evidence to conclude that the Congress intended preemption of State law, or where the exercise of State authority conflicts with the exercise of Federal authority under the Federal statute. This rule is required by the 2002 Farm Bill, as amended by the 2008 Farm Bill. While this statute does not contain an express preemption provision, it is clear from the language in the statute that Congress intended preemption of State law. The law assigns enforcement responsibilities to the Secretary and encourages the Secretary to enter into

partnerships with States with enforcement infrastructure to assist in the administration of the program.

Impacts on Livestock Producers and Meat Packers

Summary of Comments: Several commenters felt that a large portion of the implementation costs will be shouldered by the meat production and packing industry because there is little evidence that consumers are willing to pay more for products bearing country of origin information and that these additional costs will not be successfully passed through the supply chain. These commenters concluded that the costs of COOL implementation and compliance will be highly detrimental to the livelihood of numerous small meat processors. One meat packer observed that COOL will require the company to incur additional costs due to the recordkeeping and labeling requirements. Due to the nature of the business, the company relies on livestock producers to provide and verify origin information, yet as the originator of covered commodities derived from those animals, the burden of proof is on the company in the event the source information is ever questioned. Because there is no universal animal identification system in place to provide meat processors with proper background information, meat processors do not have readily available information with which to accurately label covered products. One commenter noted that COOL costs to livestock producers will be $9 per head. This commenter was concerned that cattle owners will end up paying all costs as other sectors of the supply chain work on margin. This commenter urged USDA to consider costs when implementing this law since extra costs would be detrimental to consumers and producers.

Numerous state and national pork producer organizations submitted comments contending that the majority of program costs would be driven by two factors: Disruption of product flow through packers caused by differentiated labels and record-keeping burdens for producers and packers.

One commenter stated that since the true costs of COOL are as yet vague, and the burden of who is going to pay for the cost of additional recordkeeping requirements and labeling is unknown, the recordkeeping and documentation requirements should be designed so American producers do not end up paying for COOL.

Agency Response: The Agency believes that firms and establishments throughout the supply chain for affected commodities will incur costs associated with the implementation of COOL. This includes producers, intermediaries, and retailers. Increased costs are likely to be absorbed by all firms and establishments throughout the supply chain and some costs may be passed on to consumers.

As previously stated, the Agency believes that voluntary use of the National Animal Identification System is a straightforward option packers may utilize to obtain origin information on livestock. In addition, following the implementation of the August 1, 2008, interim final rule, a coalition of representatives from throughout the livestock and meat industries established a universal affidavit to convey country of origin information. This rule provides flexibility in how the required country of origin information is conveyed along the supply chain, thus enabling firms to implement the requirements with the least possible disruption to cost-efficient production methods and trade flows.

Costs on Affected North American Industries

Summary of Comments: One commenter expressed concern that COOL will impose unnecessary costs on affected North American industries. The commenter stated that the substantial volume of two-way trade between Canada and the United States has been a testament to the integrated and cooperative nature of many of our industries and that trade with Canada supports more than 7.1 million jobs in the United States. The commenter further stated that trade is also vital in the agricultural sector where Canada is the largest single-country export market for the United States with more than US$15 billion in sales last year.

Agency Response: As discussed more fully in the Regulatory Impact Analysis, the results of the Computable General Equilibrium (CGE) model suggest that overall impacts on trade in livestock and meats will be relatively small. The rule allows considerable flexibility, thus enabling firms to implement the requirements with the least possible disruption to cost-efficient production methods and trade flows.

Marketing Exclusion of Imported and Certain Domestically Produced Meat

Summary of Comments: One commenter expressed concern about the impact that mandatory COOL will have on imported beef, particularly ground beef at retail. The commenter stated that mandatory origin labeling will add significantly to meat production costs at a time of rapidly increasing food costs, and consumers will have to bear the additional expense resulting from the labeling regime. This commenter was therefore concerned that retailers will be induced to simplify their labeling obligations by excluding imported and certain domestic beef from ground beef in order to minimize the resulting increase in the costs that will be associated with compliance. Another commenter reported that over the last several years, the total number of Mexican cattle crossing into the U.S. has ranged from 820,000 head to 1,200,000 per year, and that those numbers per year represent less than a two-week kill volume on a national basis. The commenter concluded that the loss to both the Mexican rancher and the U.S. producer will be considerable. Another commenter indicated that there is no question that while a vast majority of fresh beef in the retail sector is U.S. beef, it remains a huge question as to the benefit of identifying U.S. beef and adding costs to the producers and to consumers.

One commenter provided a more detailed assessment of potential costs associated with this legislation and its regulations. The commenter noted their belief that COOL is already causing economic losses and threatening the survival of the hog industry in Manitoba, Canada. The commenter pointed out that hog producers in Manitoba have developed an integrated supply chain with family hog farms in the mid-West U.S. by supplying over four million weanlings per year, and over one million finished pigs to packing plants in this area. Finally, the commenter stated that if the changes wrought in the marketplace by this legislation continue, Manitoba producers will lose about $200 million in finished hog sales to U.S. packers. This commenter reported that it is currently preparing an assessment of the immediate financial impact on its members and provided some examples of recent economic setbacks to producers.

Agency Response: The Agency believes that there may be some adjustment costs as industry adapts to the requirements of the rule. Over the longer run, however, the Agency believes that uncertainty will lessen and firms will continue to seek sources of livestock and meat products consistent with efficient production and marketing operations. It is believed that the major cost drivers for the rule occur when livestock or other covered commodities are transferred from one firm to another, when livestock or other covered commodities are commingled in the production or marketing process, and

when products are assembled and then redistributed to retail stores. In part, some requirements of the rule will be accomplished by firms using essentially the same processes and practices as are currently used, but with information on country of origin added to the processes. This adaptation generally would require relatively small marginal costs for recordkeeping and identification systems. In other cases, however, firms may need to revamp current operating processes to implement the rule. For example, a processing or packing plant may need to sort incoming products by country of origin and, if applicable, method of production in addition to weight, grade, color, or other quality factors. This may require adjustments to plant operations, line processing, product handling, and storage. Ultimately, it is anticipated that a mix of solutions will be implemented by industry participants to effectively meet the requirements of the rule.

Quantifying Benefits of COOL

Summary of Comments: One commenter expressed disappointment that the Department continues to deny any benefits or consumer desire for COOL. This commenter stated that since the COOL debate began, the number of consumers and organizations supporting the mandatory program has only expanded. The commenter further stated that numerous surveys and polls have indicated that consumers overwhelmingly support COOL and are willing to pay a premium for U.S.-origin labeled products and cited a June 2007 Consumer Reports poll, which found 92 percent of consumers think food should be labeled with country of origin information. Several other commenters noted that all consumers will pay to secure these labeling benefits demanded by a small minority.

Agency Response: As stated in the Regulatory Impact Analysis, the Agency concludes after reviewing many studies and comments, the economic benefits from COOL will be small and will accrue mainly to those consumers who desire country of origin information. Several analysts concluded that the main benefit is the welfare effect resulting from removing informational distortions associated with not knowing the origin of products. Numerous comments received during the rulemaking process indicate that there clearly is interest by some consumers in the country of origin of food. The mandatory COOL program may provide additional benefits to these consumers. However, commenters provided no additional substantive evidence to alter the Agency's conclusion that the measurable economic benefits of mandatory COOL will be small. Additional information and studies cited by commenters were of the same type identified in the IRIA—namely, consumer surveys and willingness-to-pay studies, including the most recent studies reviewed for this analysis. The Agency does not believe that these types of studies provide a sufficient basis to estimate the quantitative benefits, if any, of COOL.

Improvements That Reduce COOL Costs

Summary of Comments: One commenter noted that USDA has made the definition of a ''processed food item'' consistent with the definition used in the interim final rule for fish and shellfish, thereby reducing the number of affected establishments significantly. The commenter further noted that the estimated first-year implementation cost per producer operation is an average of $258, significantly lower than previously stated. This commenter regarded the implementation cost estimate as generally accurate. Another commenter noted that the use of producer affidavits and reliance on visual inspection should satisfactorily reduce costs of program compliance since import brands are highly visible. Another commenter pointed out that Congressional intent regarding the level of burden this law should impose on industry is clear. In the 2008 Farm Bill, Congress included provisions that expressly restrict USDA's ability to impact current business practices under the mandatory country of origin labeling law.

A final commenter added comments related to USDA's administration of the program. This commenter believes the final rule should make it clear that it is essential that all costs to administer this program must be supported by USDA's appropriated budget, and should not be paid by an assessment of user fees or divert USDA staff time and commitment from other AMS programs for which user fees are required.

Agency Response: The Agency is implementing COOL in the most cost-effective way available while still meeting Congressional mandates. The Agency currently receives appropriated funds for the administration of the mandatory COOL program for fish and shellfish. As the budget for fiscal year 2009 has not yet been passed, it is unknown at this time whether the COOL program will received additional appropriated funds to administer the program for all covered commodities.

COOL as an Economic Barrier to Entry

Summary of Comments: One commenter predicted that COOL will provide an economic barrier to entry for smaller companies that may wish to enter the food supply industry. This commenter noted that consumers who wish to avoid products that do not declare the country of origin are already free to do so. As a result, this commenter predicted that COOL will cost all consumers, but particularly those consumers who do not demand country of origin information.

Agency Response: The Agency agrees that COOL will benefit those consumers who are seeking and using country-of-origin information in their purchasing decisions. However, the costs will be absorbed by all consumers shopping at covered retailers. The Agency disagrees that COOL will provide a barrier to entry for smaller companies that may wish to enter the food supply industry. These companies may decide to supply products to retailers or food service companies not covered by COOL. There is little evidence to support conclusions that complying with COOL is more costly for small firms as opposed to larger firms. Indeed, the likelihood is that smaller-scale operations would have more flexibility in implementation of COOL requirements compared to larger operations.

Executive Order 12866—Final Regulatory Impact Analysis

USDA has examined the economic impact of this final rule as required by Executive Order 12866. USDA has determined that this regulatory action is economically significant, as it is likely to result in a rule that would have an annual effect on the economy of $100 million or more in any one year. This rule has been reviewed by the Office of Management and Budget (OMB). Executive Order 12866 and OMB Circular A–4 requires that a regulatory impact analysis be performed on all economically significant regulatory actions.

This final rule defines covered commodities as muscle cuts of beef, lamb, goat, pork, and chicken; ground beef, ground lamb, ground pork, ground goat, and ground chicken; wild and farm-raised fish and shellfish; perishable agricultural commodities; ginseng; peanuts; macadamia nuts; and pecans. Thus, this regulatory impact assessment addresses the economic impacts of all covered commodities as defined by law.

This regulatory impact assessment reflects revisions to the Interim Regulatory Impact Assessment (IRIA)

(73 FR 45106). Revisions to the IRIA were made as a result of changes to the rule relative to the August 1, 2008, interim final rule, and the interim final rule for wild and farm-raised fish and shellfish published October 5, 2004, **Federal Register** (69 FR 89708).

The Comments and Responses section includes the comments received and provides the Agency's responses to the comments. When substantially unchanged, results of the IRIA are summarized herein, and revisions are described in detail. Interested readers are referred to the text of the IRIA for a more comprehensive discussion of the assumptions, data, methods, and results.

Summary of the Economic Analysis

The estimated economic benefits associated with this final rule are likely to be small. The estimated first-year incremental costs for growers, producers, processors, wholesalers, and retailers are $2.6 billion. The estimated cost to the United States economy in higher food prices and reduced food production in the tenth year after implementation of the rule is $211.9 million.

Note that this analysis does not quantify certain costs of the rule such as the cost of the rule after the first year, or the cost of any supply disruptions or any other ''lead-time'' issues. Except for the recordkeeping requirements, there is insufficient information to distinguish between first year start up and maintenance costs versus ongoing maintenance costs for this final rule. Maintenance costs beyond the first year are expected to be lower than the combined start up and maintenance costs required in the first year.

While USDA recognizes that there appears to be consumer interest in knowing the origin of food based on the comments received, USDA finds little evidence that private firms are unable to provide consumers with country of origin labeling (COOL) consistent with this regulation, if consumers are willing to pay a price premium for it. USDA also finds little evidence that consumers are likely to increase their purchase of food items bearing the United States origin label as a result of this rulemaking. Current evidence does not suggest that United States producers will receive sufficiently higher prices for United States-labeled products to cover the labeling, recordkeeping, and other related costs. The lack of widespread participation in voluntary programs for labeling products of United States origin provides evidence that consumers do not have strong enough preferences for products of United States origin to support price premiums sufficient to recoup the costs of labeling.

Statement of Need

Justification for this final rule remains unchanged from the IRIA. This rule is the direct result of statutory obligations to implement the COOL provisions of the 2002 and 2008 Farm Bills. There are no alternatives to federal regulatory intervention for implementing this statutory directive.

The COOL provisions of the Act changed federal labeling requirements for muscle cuts of beef, pork, lamb, goat, and chicken; ground beef, ground pork, ground lamb, ground goat, and ground chicken; wild and farm-raised fish and shellfish; perishable agricultural commodities; ginseng; peanuts; macadamia nuts; and pecans (hereafter, covered commodities).

As described in the IRIA, the conclusion remains that there does not appear to be a compelling market failure argument regarding the provision of country of origin information. Comments received on the IRIA and previous requests for comments elicited no evidence of significant barriers to the provision of this information other than private costs to firms and low expected returns. Thus, from the point of view of society, such evidence suggests that market mechanisms would ensure that the optimal level of country of origin information would be provided.

Alternative Approaches

The IRIA noted that many aspects of the mandatory COOL provisions contained in the Act are prescriptive and provide little regulatory discretion for this rulemaking. As stated previously, this final rule provides flexibility in implementation to the extent allowed by the statute. Some commenters suggested that USDA explore more opportunities for less costly regulatory alternatives. Specific suggestions focused on methods for identifying country of origin, recordkeeping requirements, and the scope of products required to be labeled.

A number of comments on the IRIA and previous requests for comment suggested that USDA adopt a ''presumption of United States origin'' standard for identifying commodities of United States origin. Under this standard, only imported livestock and covered commodities would be required to be identified and tracked according to their respective countries of origin. Any livestock or covered commodity not so identified would then be considered by presumption to be of United States origin. As stated in this final rule, the Agency is allowing for producers to issue affidavits based upon a visual inspection at or near the time of sale that identifies the origin of livestock for a specific transaction. Affidavits based on visual inspection may only be issued by the producer or owner prior to, and including, the sale of the livestock for slaughter (i.e., meat packers are not permitted to use visual inspection for origin verification).

A number of commenters suggested that USDA reduce the recordkeeping burden for the rule. For retailers, this rule requires records and other documentary evidence relied upon at the point of sale by the retailer to establish a covered commodity's country(ies) of origin and method of production (wild and/or farm-raised), as applicable, to be either maintained at the retail facility or at another location for as long as the product is on hand and provided to any duly authorized representative of USDA, upon request, within 5 business days of the request. For pre-labeled products, the label itself is sufficient information on which the retailer may rely to establish the product's origin and method of production, as applicable, and no additional records documenting origin and method of production information are necessary. Under the August 1, 2008, interim final rule, retailers were required to maintain these records for a period of 1 year.

These changes in recordkeeping requirements should lessen the number of changes that entities in the distribution chain need to make to their recordkeeping systems and should lessen the amount of data entry that is required.

As noted in the IRIA, the law stated that COOL applies to the retail sale of covered commodities other than fish and shellfish beginning September 30, 2008. The implementation date for fish and shellfish covered commodities was September 30, 2004.

III. Analysis of Benefits and Costs

As in the IRIA, the baseline for this analysis is the present state of the affected industries absent mandatory COOL. USDA recognizes that most affected firms have already begun to implement changes in their operations to accommodate the law and the requirements of the August 1, 2008, interim final rule. Therefore, we will also discuss changes in the final rule analysis due to regulatory changes between the IFR and final rule.

Because the Act contains an effective date of September 30, 2004, for wild and farm-raised fish and shellfish and September 30, 2008, for all other covered commodities, the economic

impacts of the rule will be staggered by four years. The analysis herein of benefits and costs of the rule abstracts away from the staggered dates of implementation and treats all commodities as having the same effective date of implementation. Since a two-pronged approach was used to estimate the costs of this rule, direct fish and shellfish costs have been updated using more recent data and included to estimate the overall impacts of this rule on the United States economy even though labeling of fish and shellfish was implemented in 2004. The results of the analysis are not significantly affected by this simplifying assumption.

Benefits: The expected benefits from implementation of this rule are difficult to quantify. The Agency's conclusion remains unchanged, which is that the economic benefits will be small and will accrue mainly to those consumers who desire country of origin information. Several analysts conclude that the main benefit is the welfare effect resulting from removing informational distortions associated with not knowing the origin of products (Ref. 1). Numerous comments received on previous COOL rulemaking actions indicate that there clearly is interest by some consumers in the country of origin of food. The mandatory COOL program may provide additional benefits to these consumers. However, commenters provided no additional substantive evidence to alter the Agency's conclusion that the measurable economic benefits of mandatory COOL will be small. Additional information and studies cited by commenters were of the same type identified in the IRIA—namely, consumer surveys and willingness-to-pay studies, including the most recent studies reviewed for this analysis (Ref. 2; Ref. 3). The Agency does not believe that these types of studies provide a sufficient basis to estimate the quantitative benefits, if any, of COOL.

There are several limitations with the willingness-to-pay contingent valuation studies that call into question the appropriateness of using this approach to make determinations about the benefits to consumers of this rule. First, respondents in such studies may overstate their willingness to pay for a product. This typically happens because survey participants are not constrained by their normal household budgets when they are deciding which product or product feature they most value. Second, in most of these willingness-to-pay studies, consumers are not faced with the actual or full choices they would face at retail outlets, such as all of the labeling options allowed under this final rule. In practice, this may distort valuations obtained from such studies, leading to both over and underestimation. Finally, the results reported from these studies do not take into account changes in consumers' preferences for a particular product or product attribute over time.

As was the case in the interim final rule for fish and shellfish, a few commenters suggested that mandatory COOL would provide food safety benefits to consumers. As discussed in the IRIA, mandatory COOL does not address food safety issues. Appropriate preventative measures and effective mechanisms to recall products in the event of contamination incidents are the means used to protect the health of the consuming public regardless of the form in which a product is consumed or where it is purchased. In addition, foods imported into the United States must meet food safety standards equivalent to those required of products produced domestically.

Costs: To estimate the costs of this rule, a two-pronged approach was employed. First, implementation costs for firms in the industries directly affected by the rule were estimated. The implementation costs on directly affected firms represent increases in capital, labor, and other input costs that firms will incur to comply with the requirements of the rule. These costs are expenses that these particular firms must incur, and thus represent the opportunity costs of the rulemaking.

These costs, however, are not necessarily dead weight losses to the United States economy, as measured by the value of goods and services that are produced. This is simply because increases in capital, labor, and other inputs necessary to comply with the rule will benefit the providers of such inputs. In order to estimate the net decrease in economic activity as a result of this rulemaking, the implementation cost estimates were applied to a general equilibrium model to estimate overall impacts on the United States economy after a 10-year period of economic adjustment. The general equilibrium model provides a means to estimate the change in overall consumer purchasing power after the economy has adjusted to the requirements of the rule. In addition, since the Department has not identified a market failure associated with this rulemaking and therefore does not believe the rule would have measurable economic benefits, we believe this net decrease in economic activity can be considered the overall net costs (benefits minus costs) of this rulemaking.

Details of the data, sources, and methods underlying the cost estimates are provided in the IRIA and the previous PRIA's. This section provides the revised cost estimates and describes revisions made to the IRIA for this final analysis.

First-year incremental costs for directly affected firms are estimated at $2.6 billion, an increase of $0.1 billion over the IRIA due to the inclusion of fish and shellfish. Costs per firm are estimated at $370 for producers, $48,219 for intermediaries (such as handlers, importers, processors, and wholesalers), and $254,685 for retailers.

To assess the overall net impacts of the higher costs of production resulting from the rule, a computational general equilibrium (CGE) model of the model of the United States economy developed by USDA's Economic Research Service (ERS) (Ref 4) was used. The model was adjusted by imposing the estimated implementation costs on the directly impacted segments of the economy. That is, the costs of production for directly affected firms increase due to the costs of implementing the COOL program. These increased costs of production were imposed on the CGE model. The model estimates changes in prices, production, exports, and imports as the directly impacted industries adjust to higher costs of production over the longer run (10 years). The CGE model covers the whole United States economy, and estimates how other segments of the economy adjust to changes emanating from the directly affected segments and the resulting change in overall productivity of the economy.

Overall net costs to the United States economy in terms of reduced purchasing power resulting from a loss in productivity after a 10-year period of adjustment are estimated at $211.9 million in the tenth year. Domestic production for all of the covered commodities at the producer and retail levels is estimated to be lower, and prices are estimated to be higher, compared to the absence of this rulemaking. In addition, United States exports are estimated to decrease for all covered commodities. Compared to the baseline of no mandatory COOL, United States imports are estimated to increase for fruits and vegetables, cattle and sheep, hogs, chicken, and fish. United States imports of broilers, beef and veal, and pork are estimated to decrease.

The findings indicate that, consistent with standard economic theory, directly affected industries recover the higher costs imposed by the rule through slightly higher prices for their products. With higher prices, the quantities of their products demanded also decline. Consumers pay slightly more for the

products and purchase less of the covered commodities. Overall, the model indicates that the net loss to society, or ''deadweight'' burden of the rule, is considerably smaller than the incremental opportunity costs to directly affected firms that were imposed on the model. The remainder of this section describes in greater detail how the estimated direct, incremental costs and the overall costs to the United States economy are developed.

Cost assumptions: This rule directly regulates the activities of retailers (as defined by the law) and their suppliers. Retailers are required by the rule to provide country of origin information for the covered commodities that they sell, and firms that supply covered commodities to these retailers must provide them with this information. In addition, virtually all other firms in the supply chain for the covered commodities are potentially affected by the rule because country of origin information will need to be maintained and transferred along the entire supply chain.

Number of firms and number of establishments affected: This rule is estimated to directly or indirectly affect approximately 1,333,000 establishments owned by approximately 1,299,000 firms. Table 1 provides estimates of the affected firms and establishments.

TABLE 1—ESTIMATED NUMBER OF AFFECTED ENTITIES

Type	Firms	Establishments
Beef, Lamb, Pork, and Goat		
Cattle and Calves	971,400	971,400
Sheep and Lambs	69,090	69,090
Hogs and Pigs	65,540	65,540
Goats	9,146	9,146
Stockyards, Dealers & Market Agencies	6,807	6,807
Livestock Processing & Slaughtering	2,943	3,207
Meat & Product Wholesale	2,509	2,706
Chicken		
Chicken Producer and Processor	38	168
Chicken Wholesaler/Distributor	510	564
Fish		
Farm-Raised Fish and Shellfish	3,752	3,752
Fishing	71,128	71,142
Fresh & Frozen Seafood Processing	516	590
Fish & Seafood Wholesale	2,254	2,330
Perishable Agricultural Commodities		
Fruits & Vegetables	79,800	79,800
Ginseng Farms	190	190
Ginseng Dealers	46	46
Frozen fruit, juice & vegetable mfg	155	247
Fresh fruit & vegetable wholesale	4,654	5,016
Peanuts, Pecans, & Macadamia Nuts		
Peanut Farming	650	650
Macadamia Farming	53	53
Pecan Farming	1,119	1,119
Roasted nuts & peanut butter mfg	8	9
Peanut, Pecan, & Macadamia Wholesalers	5	5
General line grocery wholesalers	3,037	3,436
Retailers	4,040	36,392
Totals:		
Producers	1,271,906	1,272,050
Handlers, Processors, & Wholesalers	23,444	24,963
Retailers	4,040	36,392
Grand Total	1,299,390	1,333,405

It is assumed that all firms and establishments identified in Table 1 will be affected by the rule, although some may not produce or sell products ultimately within the scope of the rule. While this assumption likely overstates the number of affected firms and establishments, it is believed that the assumption is reasonable. Detailed data are not available on the number of entities categorized by the marketing channels in which they operate and the specific products that they sell.

Source of cost estimates: To develop estimates of the cost of implementing this rule, comments on the interim final rule for beef, pork, lamb, chicken, goat meat, perishable agricultural commodities, peanuts, pecans, ginseng, and macadamia nuts as well as the interim final rule for fish and shellfish were reviewed and available economic studies were also examined. No single source of information, however, provided comprehensive coverage of all economic benefits and costs associated with mandatory COOL for all of the covered commodities. Available information and knowledge about the operation of the supply chains for the covered commodities were used to synthesize the findings of the available studies about the rule's potential costs.

Cost drivers: This rule is a retail labeling requirement. Retail stores subject to this rule will be required to inform consumers as to the country of origin of the covered commodities that they sell. To accomplish this task, individual package labels or other point-of-sale materials will be required. If products are not already labeled by suppliers, the retailer will be responsible for labeling the items or providing the country of origin and, as applicable, method of production information through other point-of-sale

materials. This may require additional retail labor and personnel training. Modification of existing recordkeeping systems will likely be required to ensure that products are labeled accurately and to permit compliance and enforcement reviews. For most retail firms of the size defined by the statute (i.e., those retailing fresh and frozen fruits and vegetables with an invoice value of at least $230,000 annually), it is assumed that recordkeeping will be accomplished primarily by electronic means. Modifications to recordkeeping systems will require software programming and may entail additional computer hardware. Retail stores are also expected to undertake efforts to ensure that their operations are in compliance with the rule.

Prior to reaching retailers, most covered commodities move through distribution centers or warehouses. Direct store deliveries (such as when a local truck farmer delivers fresh produce directly to a retail store) are an exception. Distribution centers will be required to provide retailers with country of origin and, as applicable, method of production information. This likely will require modification of existing recordkeeping processes to ensure that the information passed from suppliers to retail stores permits accurate product labeling and permits compliance and enforcement reviews. Additional labor and training may be required to accommodate new processes and procedures needed to maintain the flow of country of origin and, as applicable, method of production information through the distribution system. There may be a need to further separate products within the warehouse, add storage slots, and alter product stocking, sorting, and picking procedures.

Packers and processors of covered commodities will also need to inform retailers and wholesalers as to the country of origin and, as applicable, method of production (wild and/or farm-raised) of the products that they sell. To do so, their suppliers will need to provide documentation regarding the country of origin and, as applicable, method of production of the products that they sell. The efficiency of operations may be affected as products move through the receiving, storage, processing, and shipping operations. For packers and processors handling products from multiple origins and/or methods of production, there may also be a need to separate shifts for processing products from different origins, or to split processing within shifts, or to alter labels to correctly identify the country or countries of origin and method or methods of production, as applicable. However, in the case of meat covered commodities, there is flexibility in labeling covered commodities of multiple origins under this final rule. In the case where products of different origins are segregated, our analysis indicates costs are likely to increase. The rule requires that records be maintained to ensure that accurate country of origin information is retained throughout the process and available to permit compliance and enforcement reviews.

Processors handling only domestic origin products or products from a single country of origin may have lower implementation costs compared with processors handling products from multiple origins, although such costs would likely be mitigated in those cases where firms are only using covered commodities which are multiple-origin labeled. Procurement costs also may be unaffected in this case, if the processor is able to continue sourcing products from the same suppliers. Alternatively it is possible that a processor currently sourcing products from multiple countries may choose to limit its source to fewer countries. In this case, such cost avoidance may be partially offset by additional procurement costs to source supplies from a narrower country of origin. Additional procurement costs of a narrower supply chain may include higher transportation costs due to longer shipping distances and higher acquisition costs due to supply and demand conditions for products from a particular country of origin, whether domestic or foreign.

At the production level, agricultural producers and fish and shellfish harvesters need to maintain records to establish country of origin and, as applicable, method of production information for the products they produce and sell. Country of origin and, as applicable, method of production information will need to be transferred to the first handler of their products, and records sufficient to allow the source of the product to be traced back will need to be maintained as the products move through the supply chains. For all covered commodities, producer affidavits shall be considered acceptable records on which suppliers may rely to initiate country of origin and, as applicable, method of production claims. In general, additional producer costs include the cost of modifying and maintaining a recordkeeping system for country of origin information, animal or product identification, and labor and training.

Incremental cost impacts on affected entities: To estimate the direct costs of this rule, the focus is on those units of production that are affected (Table 2).

TABLE 2—ESTIMATED ANNUAL UNITS OF PRODUCTION AFFECTED BY MANDATORY COUNTRY OF ORIGIN LABELING

	Beef	Pork	Lamb and goat	Chicken	Fish	Fruit, vegetable, and ginseng	Peanuts, pecans, and macadamia nuts
	Million head			Million pounds			
Producer	33.9	104.8	2.9	45,012.9	7,808.0	120,388.5	212.7
	Million pounds						
Intermediary	24,890	6,721	354	27,710	3,024	99,449	11
Retailer	8,193	2,330	133	17,645	1,104	47,078	5

For livestock, the relevant unit of production is an animal because there will be costs associated with maintaining country of origin information on each animal. These costs may include recordkeeping, ear tagging, and other related means of identification on either an individual animal or lot basis. Annual domestic slaughter numbers are used to estimate the flow of animals through the live

animal production segment of the supply chain.

For fish and chicken producers, production is measured by round weight (live weight) pounds, except mollusks, which excludes the weight of the shell. Wild caught fish and shellfish production is measured by United States domestic landings for fresh and frozen human food. It is assumed that fish harvesters generally know whether their catch is destined for fresh and frozen markets, canning, or industrial use. Fish production also includes farm-raised fish. Fish production has been updated with 2006 data from the regulatory analysis contained in the interim final rule for fish and shellfish.

For fruits and vegetables, it is assumed that essentially all production is predestined for either fresh or processing use. That is, growers know before the crop is produced whether it will be sold for fresh consumption or for processing. However, producers do not know whether their products ultimately will be sold to retailers, foodservice firms, or exporters. Therefore, it is assumed that all fresh fruit and vegetable production and production destined for frozen processors at the producer level will be affected by this rule. Ginseng production has been included with the fruit and vegetable production.

As previously discussed, only green and raw peanuts, macadamia nuts, and pecans sold at retail are subject to the requirements of this rule. Green and raw peanuts are specialty items typically sold at roadside stands, through mail order, and at specialty shops. These items frequently are not carried by many of the retailers subject to this rule. Statistics on the size of this niche market are not readily available. It is assumed that no more than 5 percent of the sales of peanuts at subject retailers are sold as green or raw peanuts. Macadamia nuts and pecans have been included with peanuts.

It is assumed that all sales by intermediaries such as handlers, packers, processors, wholesalers, and importers will be affected by the rule. Although some product is destined exclusively for foodservice or other channels of distribution not subject to the rule, it is assumed that these intermediaries will seek to keep their marketing options open for possible sales to subject retailers.

Fish production at the intermediary level is increased by 505 million pounds from the RIA estimate of 2004 in the interim final rule for fish and shellfish due to more recently available data.

Information and data on ginseng is limited. However, the Wisconsin Department of Agriculture reports the number of growers at 190, the number of dealers at 46, and grower sales at 282,055 dry root pounds for 2006 (Ref. 5). While some other regions in the country likely produce ginseng, information could not be found and it is believed that Wisconsin is the largest producing state. The information from Wisconsin likely underestimates the total number of farms, dealers, and production of ginseng. However, it is believed that Wisconsin represents most of the ginseng production and therefore, this information is used for this rule. Since the number of entities and production are likely underestimated and the production is relatively small as compared to other covered commodities, the production was not adjusted for retail consumption.

The Census of Agriculture provides an estimate of the number of macadamia nut farming operations. The total number of macadamia farms is estimated at 1,059 [Ref. 6]. Businesses that husk and crack macadamia nuts are unofficially estimated by the Hawaii Field Office of the National Agricultural Statistical Service (NASS) at 8 firms and establishments. Businesses that wholesale macadamia nuts are estimated by the Hawaii Department of Agriculture at 21 firms and establishments. Similar to peanuts, the rule exempts most product forms of macadamia nuts sold at retail. While data on macadamia nuts sold at retail that are covered by this rule are not available, the volume of sales is certainly very small. For purposes of estimation, the number of affected entities at each level of the macadamia nut sector has been reduced to 5 percent of the total estimated. The number of farms has been reduced from 1059 to 53 and the number of wholesalers has been reduced from 21 to 1.

The Census of Agriculture provides an estimate of 22,371 pecan farming operations [Ref. 7]. Similar to peanuts and macadamia nuts, the rule exempts most product forms of pecans sold at retail. For purposes of estimation, the number of affected entities at each level of the pecan sector has been reduced to 5 percent of the total 22,371 to 1,119 farms.

As with peanut, macadamia nut, and pecan production at the producer level, peanut, macadamia nut, and pecan production at the intermediary level is also reduced by 95 percent. The estimate of peanut, macadamia nut, and pecan production is intended to include only green and raw peanuts, macadamia nuts, and pecans.

For retailers, food disappearance figures are adjusted to estimate consumption through retailers as defined by the statute. For each covered commodity, disappearance figures are multiplied by 0.470, which represents the estimated share of production sold through retailers covered by this rule. To derive this share, the factor of 0.622 is used to remove the 37.8 percent food service quantity share of total food in 2006 (Ref. 8). This factor is then multiplied by 0.756, which was the share of sales by supermarkets, warehouse clubs and superstores of food for home consumption in 2006 (Ref. 9). In other words, supermarkets, warehouse clubs and superstores represent the retailers as defined by PACA, and these retailers are estimated to account for 75.6 percent of retail sales of the covered commodities.

Table 3 summarizes the direct, incremental costs that firms will incur during the first year as a result of this rule. These estimates are derived primarily from the available studies that addressed cost impacts of mandatory COOL.

TABLE 3—ESTIMATES OF FIRST-YEAR IMPLEMENTATION COSTS PER AFFECTED INDUSTRY SEGMENT

[Million dollars]

	Beef	Pork	Lamb & goat	Chicken	Fish	Fruit, vegetable, and ginseng	Peanuts, pecans, & macadamia nuts	Total
Producer	305	105	10	0	20	30	0	470
Intermediary	373	101	5	139	15	497	0	1,130
Retailer	574	93	5	44	77	235	0	1,029
Total	1,252	299	21	183	112	763	0	2,629

Assumptions and procedures underlying the cost estimates are described fully in the discussion of the estimates presented in the PRIA and the IRIA.

Considering all producer segments together, we have estimated a $9 per head cost to cattle producers to implement the rule. This estimate reflects the expectation of relatively small implementation costs at the cow-calf level of production, but relatively higher costs each time cattle are resold. Typically, fed steers and heifers change hands two, three, or more times from birth to slaughter, and each exchange will require the transfer of country of origin information. Thus, total costs for beef producers are estimated at $305 million.

It is expected that intermediaries will face increased costs associated with tracking cattle and the covered beef commodities produced from these animals and then providing this information to subsequent purchasers, which may be other intermediaries or covered retailers. Incremental costs for beef packers may include additional capital and labor expenditures to enable cattle from different origins to be tracked for slaughter, fabrication, and processing. As previously discussed, under this final rule, there is greater flexibility for labeling muscle cut covered commodities. In addition, the rule also provides for flexibility in labeling ground products by allowing the notice of country of origin to include a list of countries contained therein or that may reasonably be contained therein. Considering the costs likely to be faced by intermediaries in the beef sector, $0.015 per pound is adopted as an estimate of costs, which is consistent with estimates from the available studies. Total costs are thus estimated at $373 million.

The implementation costs are estimated at $0.07 per pound for beef retailers, for a total of $574 million. This figure reflects the costs for individual package labels, meat case segmentation, record keeping and information technology changes, labor, training, and auditing. In addition, there likely will be increased costs for in-store butcher department operations related to cutting, repackaging, and grinding operations.

Total costs for affected entities in the beef sector are thus estimated at $1,252 million.

Costs for pork producers are estimated at $1.00 per head. With annual slaughter of 104.8 million head, total costs for producers are estimated at $105 million.

Costs for all pork sector intermediaries (including handlers, processors, and wholesalers) should be similar to costs for beef sector intermediaries. These estimated costs for pork industry intermediaries are $0.015 per pound, for a total of $101 million.

Costs for retailers of pork are estimated to be $0.04 per pound. The per-pound cost estimate for pork is lower than for beef primarily to reflect the higher costs incurred by in-store grinding operations to produce ground beef. Although ground pork may also be produced in-store, most ground pork is processed into sausage and other products not covered by the rule. Total estimated costs for pork retailers are $93 million. Total costs for the pork sector are estimated at $299 million.

Costs per head for lamb and goat producers are estimated at $3.50 per head. Total costs for lamb and goat producers are estimated at $10 million.

Intermediaries in the lamb and goat sector will likely face per-pound costs similar to costs faced by beef and pork sector intermediaries, which are estimated at $0.015 per pound. Total costs for lamb and goat sector intermediaries are thus estimated at $5 million.

Costs to retailers for lamb and goat should be similar to costs borne for pork, which was estimated at $0.04 per pound. Total costs for retailers of lamb and goat are estimated at $5 million.

Total costs for producers, intermediaries, and retailers in the lamb and goat industries are estimated costs at $21 million.

Costs for chicken producers who grow-out chicken for an integrator (the firm that will slaughter and possibly further process the chickens) is $0.00 because these individuals do not own or control the movement of the chickens they are raising. All chickens produced are owned by the integrator which is the main intermediary in the chicken supply chain. We do not expect that producers will need change any current practices and thus will not incur any additional costs due to this rule.

Costs for the intermediaries in the chicken supply chain are estimated to be $0.005 per pound. Since the integrators own their chickens from the time they hatch to time they are sold to a retailer or distributor, there is no need to ''collect'' country of origin information. Costs to the integrator are mainly due to system changes to incorporate COOL information, recordkeeping, and supplying required information to the retailers and food distributors. Approximately 69 percent of chicken covered by COOL is supplied directly to the retailer from the integrator. The vast majority, if not all, of the chicken supplied by the integrator is pre-labeled. The bulk of the rest is supplied by the distributors whose costs will be slightly higher since they are receiving product from integrators and selling product to retailers. Total costs for intermediaries are estimated at $139 million.

Costs for retailers are estimated to be $0.0025 per pound. As noted above most chicken is purchased directly from integrators and will have been pre-labeled. This will significantly lower the retailers' cost in terms of meeting COOL requirements. Most of the costs retailers will bear will be from distributors. Total cost for retailers are estimated at $44 million.

Total estimated costs for chicken producers, intermediaries, and retailers are $183 million.

The estimated costs to fish and seafood producers are $0.0025 per pound. Total costs for fish and seafood producers are thus estimated at $20 million, $1 million more than the RIA in the interim final rule for fish and shellfish.

Costs for intermediaries are estimated at $0.005 per pound in the fish and seafood sector. Processors need to collect country of origin and method of production information from producers, maintain this information, and supply this information to other intermediaries or directly to retailers. There are also labeling costs associated with providing country of origin and method of production information on consumer-ready packs of frozen and fresh fish that are labeled by processors. Total costs for fish and seafood intermediaries are thus estimated at $15 million, an increase of $2 million from the RIA in the interim final rule for fish and shellfish. The increase is attributable to using the most recently available data, which reflects a higher demand for fresh fish and shellfish.

Retailer costs are estimated at $0.07 per pound for fish and seafood. This estimate results in total costs of $77 million for retailers of fish and seafood, an increase of $20 million from the RIA in the interim final rule for fish and shellfish.

Total costs for fish and seafood are estimated at $112 million, an increase of $23 million from the RIA in the interim final rule for fish and shellfish.

Although fruit, vegetable, and ginseng producers maintain the types of records that will be required to substantiate origin claims, it is believed that this information is not universally transferred by producers to purchasers of their products. Producers will have to supply this type of information in a format that allows handlers and

processors to maintain country of origin information so that it can be accurately transferred to retailers. For fruit, vegetable, and ginseng producers, costs are estimated at $0.00025 per pound to make and substantiate COOL claims, which equates to $0.01 for a 40 pound container. Because fruits and vegetables only have a single point of origin, which is where they are grown, substantiating country of origin claims is substantially simpler for fruit and vegetable producers than for livestock producers. Total costs for fruit, vegetable, and ginseng producers are estimated at $30 million.

Fruit, vegetable, and ginseng intermediaries will shoulder a sizeable portion of the burden of tracking and substantiating country of origin information. Intermediaries will need to obtain information to substantiate COOL claims by producers and suppliers; maintain COOL identity throughout handling, processing, and distribution; and supply retailers with COOL information through product labels and records. The estimated cost for these activities for fruit and vegetable sector intermediaries is $0.005 per pound, resulting in total estimated costs of $497 million.

Because intermediaries will bear a large portion of the burden of COOL tracking and labeling, implementation costs for retailers will be reduced. It is believed that virtually all frozen fruits and vegetables will be labeled by suppliers, thus imposing minimal incremental costs for retailers. In addition, over 60 percent of fresh fruits and vegetables arrive at retail with labels or stickers that may be used to provide COOL information. It is believed that fresh fruit and vegetable suppliers will provide COOL information on these labels and stickers, again imposing minimal incremental costs for retailers. Costs for retailers are estimated at $0.005 per pound of fresh and frozen fruits and vegetables. For pre-labeled products, the label itself is sufficient evidence on which the retailer may rely to establish a product's country of origin. For these pre-labeled products, the product label or sticker carries the required country of origin information, while the recordkeeping system maintains the information necessary to track the product back through the supply chain. Total costs for retailers of fruits, vegetables, and ginseng are estimated at $235 million.

Total costs for producers, intermediaries, and retailers of fruit, vegetable, and ginseng products are estimated at $763 million.

Costs per pound for each segment of the peanut, macadamia nut, and pecan industries is estimated at $0.00025 for producers, $0.005 for intermediaries and $0.015 for retailers. As a result, costs for the peanut, macadamia nut, and pecan industries are estimated at about $400,000, with negligible costs for producers and costs of less than $200,000 at the intermediary and retailer levels.

Total incremental costs are estimated for this rule at $470 million for producers, $1,130 million for intermediaries and $1,029 million for retailers for the first year. Total incremental costs for all supply chain participants are estimated at $2,629 million for the first year, an increase of $112 million from the IRIA due to the inclusion of and updating of data for the fish and shellfish industries.

There are wide differences in average estimated implementation costs for individual entities in different segments of the supply chain (Table 4). With the exception of a small number of fishing operations and chicken producers, producer operations are single-establishment firms. Thus, average estimated costs per firm and per establishment are somewhat similar. Retailers subject to the rule operate an average of just over nine establishments per firm. As a result, average estimated costs per retail firm also are just over nine times larger than average costs per establishment.

TABLE 4—ESTIMATED IMPLEMENTATION COSTS PER FIRM AND ESTABLISHMENT

	Cost estimates per	
	Firm	Establishment
Producer	$370	$369
Intermediary	48,219	45,285
Retailer	254,685	28,273

Average estimated implementation costs per producer are relatively small at $370 and slightly less than from the IRIA due to the inclusion of fish and shellfish producers. The slight difference between the cost per producers for firms and establishments is due to the inclusion of fish and shellfish and that there are more fishing establishments than firms. Estimated costs for intermediaries are substantially larger, averaging $48,219 per firm and $45,285 per establishment. The average cost per firm is $5,729 less than the IRIA estimated cost, with the lower cost attributable to the inclusion of fish and shellfish. Similarly, the average cost per intermediary establishment is $5,313 lower than IRIA estimate due to the inclusion of fish and shellfish. At an average of $254,685 per firm, retailers have the highest average estimated costs per firm. This is $19,134 higher than the IRIA estimate. The higher estimated cost per retailer is attributable to the inclusion of fish and shellfish. Retailers' average estimated costs per establishment are $28,273. This amount is $2,124 higher than the IRIA estimate.

The costs per firm and per establishment represent industry averages for aggregated segments of the supply chain. Large firms and establishments likely will incur higher costs relative to small operations due to the volume of commodities that they handle and the increased complexity of their operations. In addition, different types of businesses within each segment are likely to face different costs. Thus, the range of costs incurred by individual businesses within each segment is expected to be large, with some firms incurring only a fraction of the average costs and other firms incurring costs many times larger than the average.

Average costs per producer operation can be calculated according to the commodities that they produce (Table 5). Average estimated costs are lowest for lamb and goat producers ($128) and highest for hog operations ($1,599). Again, chicken ''producers'' do not own or control the movement of the birds they are growing-out. We do not expect that the rule will result in any changes in their current production practices, and thus their average cost is zero. Because average production volume per hog operation is large relative to other types of producer

TABLE 5—ESTIMATED FIRST-YEAR IMPLEMENTATION COSTS PER PRODUCER OPERATION

Producer	Average
Beef	$314
Lamb & Goats	128
Pork	1,599
Chicken	0
Fish	261
Fruits, Vegetables, & Ginseng	376
Peanuts, Pecans, & Macadamia Nuts	258
All	369

operations, estimated costs per hog operation are large relative to other producer operations. These costs are unchanged from the IRIA estimates except for fish which used more up-to-date information.

It is believed that the major cost drivers for the rule occur when livestock or other covered commodities are transferred from one firm to another, when livestock or other covered commodities are segregated in the production or marketing process when firms are not using a multiple-origin label, and when products are assembled and then redistributed to retail stores. In part, some requirements of the rule will be accomplished by firms using essentially the same processes and practices as are currently used, but with information on country of origin claims added to the processes. This adaptation generally would require relatively small marginal costs for recordkeeping and identification systems. In other cases, however, firms may need to revamp current operating processes to implement the rule. For example, a processing or packing plant may need to sort incoming products by country of origin and, if applicable, method of production, in addition to weight, grade, color, or other quality factors. This may require adjustments to plant operations, line processing, product handling, and storage. Ultimately, it is anticipated that a mix of solutions will be implemented by industry participants to effectively meet the requirements of the rule. Therefore, it is anticipated that direct, incremental costs for the rule likely will fall within a reasonable range of the estimated total of $2.6 billion.

In the IRIA, one regulatory alternative considered by AMS would be to narrow the definition of a processed food item, thereby increasing the scope of commodities covered by the rule. This alternative is not adopted in this final rule. An increase in the number of commodities that would require COOL would increase implementation costs of the rule with little expected economic benefit. Additional labeling requirements may also slow some of the innovation that is occurring with various types of value-added, further processed products.

A different regulatory alternative would be to broaden the definition of a processed food item, thereby decreasing the scope of commodities covered by the rule. Accordingly, such an alternative would decrease implementation costs for the rule. At the retail level and to a lesser extent at the intermediary level, cost reductions would be at least partly proportional to the reduction in the volume of production requiring retail labeling, although if the broader definition excluded products for which incremental costs are relatively high, the impact could be more than proportional. Start-up costs for retailers and many intermediaries likely would be little changed by a narrowing of the scope of commodities requiring labeling because firms would still need to modify their recordkeeping, production, warehousing, distribution, and sales systems to accommodate the requirements of the rule for those commodities that would require labeling. Ongoing maintenance and operational costs, however, likely would decrease in some proportion to a decrease in the number of items covered by the rule. On the other hand, implementation costs for the vast majority of agricultural producers would not be affected by a change in the definition of a processed food item. This is because it is assumed that virtually all affected producers would seek to retain the option of selling their products through supply channels for retailers subject to the rule. Agricultural producers generally would have little influence on the ultimate product form in which their products are sold at retail, and thus would be little affected by changes in the definition of a processed food item.

The definition of a processed food item developed for this rule has taken into account comments from affected entities and has resulted in excluding products that would be more costly and troublesome for retailers and suppliers to provide country of origin information.

Net Effects on the economy: The previous section estimated the direct, incremental costs of the rule to the affected firms in the supply chains for the covered commodities. While these costs are important to those directly involved in the production, distribution, and marketing of covered commodities, they do not represent net costs to the United States economy or net costs to the affected entities for that matter.

With respect to assessing the effect of this rule on the economy as a whole, it is important to understand that a significant portion of the costs directly incurred by the affected entities take the form of expenditures for additional production inputs, such as payments to others whether for increased hours worked or for products and services provided. As such, these direct, incremental costs to affected entities represent opportunity costs of the rule, but they do not represent losses to the economy. As a result, the direct costs incurred by the participants in the supply chains for the covered commodities do not measure the net impact of this rule on the economy as a whole. Instead, the relevant measure is the extent to which the rule reduces the amount of goods and services that can be produced throughout the United States economy from the available supply of inputs and resources.

Even from the perspective of the directly affected entities, the direct, incremental costs do not present the whole picture. Initially, the affected entities will have to incur the operation adjustments and expenses necessary to implement the rule. However, over time as the economy adjusts to the requirements of the rule, the burden facing suppliers will be reduced as their production level and the prices they receive change. What is critical in assessing the net effect of this rule on the affected entities over the longer run is to determine the extent to which the entities are able to pass these costs on to others and consequently how the demand for their commodities is affected.

Conceptually, suppose that all the increases in costs from the rule were passed on to consumers in the form of higher prices and that consumers continued to purchase the same quantity of the affected commodities from the same marketing channels. Under these conditions, the suppliers of these commodities would not suffer any net loss from the rule even if the increases in their operating costs were quite substantial. However, other industries might face losses as consumers may spend less on other commodities. It is unlikely, however, absent the rule leading to changes in consumers' preferences for the covered commodities that consumers will maintain their consumption of the covered commodities in the face of increased prices. Rather, many or most consumers will likely reduce their consumption of the covered commodities. The resulting changes in consumption patterns will in turn lead to changes in production patterns and

the allocation of inputs and resources throughout the economy. The net result, once all these changes have occurred, is that the total amount of goods and services produced by the United States economy will be less than before.

To analyze the effect of the changes resulting from the rule on the total amount of goods and services produced throughout the United States economy in a global context, a computable general equilibrium (CGE) model developed by Economic Research Service (ERS) is utilized (Ref. 4). The ERS CGE model includes all the covered commodities and the products from which they are derived, as well as non-covered commodities that will be indirectly affected by the rule, such as feed grains. Even though COOL for fish was implemented in 2004, the costs for fish and shellfish are included to account for the cross-commodity effects between covered commodities. Peanuts, however, are aggregated with oilseeds in the model, and there is no meaningful way to modify the model to account for the impacts of the rule on peanut production, processing, and consumption. Given the definition of a processed food item, almost all peanut products are exempt from this rule. As a consequence, the peanut sector accounts for only a negligible fraction of the total estimated incremental costs for all directly affected entities. Thus, omitting the small direct costs on the peanut sector is expected to have negligible impacts with respect to estimated impacts on the overall United States economy.

The ERS CGE model traces the impacts from an economic ''shock,'' in this case an incremental increase in costs of production, through the U.S agricultural sector and the U.S economy to the rest of the world and back through the inter-linking of economic sectors. By taking into account the linkages among the various sectors of the United States and world economies, a comprehensive assessment can be made of the economic impact on the United States economy of the rule implementing COOL. The model reports economic changes resulting after a ten-year period of adjustment.

The results of this analysis indicate that the rule implementing COOL after the economy has had a period of ten years to adjust will have a smaller net impact on the overall United States economy than the incremental costs for directly affected entities for the first year. Under the assumption that COOL will not change consumers' preferences for the covered commodities, it is estimated that the overall costs to the United States economy due to the rule, in terms of a reduction in consumers' purchasing power, will be $211.9 million. This represents the cost to the United States economy after all transfers and adjustments in consumption and production patterns have occurred.

As noted above, the overall net costs to the United States economy after a decade of adjustment are significantly smaller than the implementation costs to directly affected firms. This result does not imply that the implementation costs for directly affected firms have been substantially reduced from the initial estimates. While some of the increase in their costs will be offset by reduced production and higher prices over the longer term, the suppliers of the covered commodities will still bear direct implementation costs.

The estimates of the overall costs to the United States economy are based on the estimates of the incremental increases in operating costs to the affected firms. The model does not permit supply channels for covered commodities that require country of origin information to be separated from supply channels for the same commodities that do not require COOL. Thus, the direct cost impacts must be adjusted to accurately reflect changes in operating costs for all firms supplying covered commodities. Table 6 reports these adjusted estimates in terms of their percentage of total operating costs for each of the directly affected sectors. The percentages used are based on the estimate of the percentage change in operating costs for the entire supply channel and are adjusted between the various segments of each covered commodity's'' supply chain (producers, processors, importers, and retailers) based on the estimate of how the costs of the regulation will be distributed among them. As a result, the cost changes shown in Table 6 only approximate the direct cost estimates previously described.

TABLE 6—ESTIMATED INCREASES IN OPERATING COSTS BY SUPPLY CHAIN SEGMENT AND INDUSTRY

		Beef, Lamb, & Goat	Pork	Chicken	Fish	Fresh produce
		Percent change				
Farm Supply	Domestic	1.30	1.30	0.00	0.60	0.10
	Imported	1.30	1.30	1.00	0.60	0.10
Processing	Domestic	2.10	1.00	1.10	n.a.	n.a.
	Imported	2.10	1.00	1.10	n.a.	n.a.
Retail	Domestic	2.20	0.40	0.60	0.40	0.60
	Imported	2.20	0.40	0.60	0.40	0.60

n.a.—Not Applicable.

In addition, it is assumed that domestic and foreign suppliers of the covered commodities located at the same level or segment of the supply chain face the same percentage increases in their operating costs. In reality, the incremental costs for some imported covered commodities may be lower, as a portion of those products already enter the United States with country of origin labels.

As discussed above, consumption and production patterns will change as the incremental increases in operating costs are passed on, at least partially, to consumers in the form of higher prices by the affected firms. The increases in the prices of the covered commodities will in turn cause exports and domestic consumption and ultimately domestic production to fall. The results of our analysis indicate that United States production of all the covered commodities combined will decline 0.02 percent and that the overall price level for these commodities (a weighted average index of the prices received by suppliers for their commodities) will increase by 0.02 percent.

The structure of the model does not enable changes in net revenues to suppliers of the covered commodities to be determined. Likewise, the model cannot be used to determine the extent to which the reductions in production

arise from some firms going out of business or all firms cutting back on their production. To provide an indication of what effect this will have on the suppliers of the covered commodities, changes in revenues using the model results are estimated. The result of this calculation shows that revenues to suppliers of the covered commodities will decrease by $461 million. This decrease in revenue is due to the decrease in estimated revenues in all covered commodities; all affected sectors show a small revenue decrease due to the increased costs of the rule.

The costs of the rule will not be shared equally by all suppliers of the covered commodities. The distribution of the costs of the rule will be determined by several factors in addition to the direct costs of complying with the rule. These are the availability of substitute products not covered by the rule and the relative competitiveness of the affected suppliers with respect to other sectors of the United States and world economies.

Although the increases in operating costs are the initial drivers behind the changes in consumption and production patterns resulting from this rule, they do not, as can be seen by examining Table 7, determine which commodity sector will be most affected. Table 7 contains the percentage changes in prices, production, exports, and imports for the three main segments of the marketing chain by covered commodities. The estimated increases in operating costs reflect anticipated adjustments by industry as a result of the rule and provide the basis for the CGE analysis. However, the analysis does not reflect dynamic adjustments that industry will undertake to comply with the requirements of the rule, such as the flexibilities afforded by the use of multiple-origin labels.

TABLE 7—ESTIMATED IMPACT OF RULE ON U.S. PRODUCTION, PRICES AND TRADE OF IMPACTED SECTORS

Commodity	Price	Production	Exports (volume)	Imports (volume)
	Percent change from base year			
Fruits and Vegetables	0.21	−0.20	−0.39	0.04
Cattle and Sheep	0.52	−0.94	−1.18	0.25
Broilers	0.03	−0.57	−0.36	−0.03
Hogs	0.26	−0.46	−0.60	0.16
Beef and Veal	0.99	−1.09	−1.93	−2.32
Chicken	0.82	−0.90	−1.54	0.29
Pork	0.68	−0.81	−1.37	−0.86
Fish	0.50	−0.68	−0.06	0.04

As mentioned previously, peanuts, macadamia nuts, and pecans are included with oilseed products in the ERS CGE model. As a result they are not included in this analysis.

The rule increases operating costs for the supply chains of the covered commodities. As shown in Table 7, the increased costs result in higher prices for these products. The quantity demanded at these higher prices falls, with the result that the production of all of the covered commodities decreases.

Imports of fruits, vegetables, cattle, sheep, chicken, fish, and hogs increase because the model assumes United States domestic suppliers of these products respond more to changes in their operating costs than do foreign suppliers. The resulting gap between the supply response of United States and foreign producers provides foreign suppliers with a cost advantage in United States markets that enables them to increase their exports to the United States even though they face similar increases in operating costs.

To put these impacts in more meaningful terms, the percentage changes reported in Table 7 were converted into changes in current prices and quantities produced, imported, and exported (Table 8). The base values in Table 8 vary from those reported in Table 2 above because they are derived from projected levels reported in the USDA Agricultural Baseline for 2006 (Ref. 10), while values in Table 2 represent actual reported values for 2006 as compiled by USDA's NASS. Baseline values were used to accommodate the structure of the model.

Increases in prices for all covered commodities are small, less than one cent per pound. Production changes are similarly small, less than 100 million pounds for all covered commodities. The declines in the production of beef, chicken, and pork mirrors the decline in the production of beef, broilers, and hogs.

TABLE 8—ESTIMATED CHANGES IN U.S. PRODUCTION PRICES, AND TRADE FOR AFFECTED COMMODITIES

Indicator	Units	Base	Change from base
U.S. Production:			
Veg. & Fruits	Mil. Lbs. Thous	191,523	−383
Cattle	Hd	32,229	−303
Broilers	Mil. Hd	6,503	−36
Hogs	Thous. Hd	103,015	−474
Beef	Mil. Lbs	24,784	−270
Chicken	Mil. Lbs	35,733	−322
Pork	Mil. Lbs	20,706	−168
Fish	Mil. Lbs	7,997	−54
U.S. Price:			
Veg. & Fruits	$/Lb	0.25	0.0005
Cattle and sheep	$/Cwt	89.55	0.4657
Broilers	$/Lb	0.43	0.0001

TABLE 8—ESTIMATED CHANGES IN U.S. PRODUCTION PRICES, AND TRADE FOR AFFECTED COMMODITIES—Continued

Indicator	Units	Base	Change from base
Hogs	$/Cwt	49.62	0.1290
Beef and veal	$/Lb	4.09	0.0405
Chicken	$/Lb	1.74	0.0143
Pork	$/Lb	2.83	0.0192
Fish	$/Lb	0.93	0.0047
U.S. Exports (volume):			
Fruits & Vegetables	Mil Lbs	19,990	−78
Beef	Mil Lbs	697	−13
Chicken	Mil Lbs	5,203	−80
Pork	Mil Lbs	2,498	−34
Fish	Mil Lbs	6,384	−4
U.S. Imports (volume):			
Fruits & Vegetables	Mil. Lbs. Thous	37,573	15
Beef	Hd	2,502	−58
Chicken	Mil. Hd. Thous	0	0
Pork	Hd	5,741	−49
Fish	Mil. Lbs	10,158	4

SOURCES: Base values for meat and fruits and vegetables come from USDA Agricultural Baseline Projections to 2016, Staff Report WAOB–2007–1. USDA, Office of the Chief Economist, 2007. Changes are derived from applying percentage changes obtained from the ERS CGE model to the base values. [a] Live animal estimates derived from baseline values for meat product using 2005 average dress weight for cattle, hogs and broilers. [b] Base values for fish come from Fisheries of the United States, 2005. National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 2006. [c] Fruit and vegetable price derived by dividing the total value of fruit and vegetable production by total quantity of fruit and vegetables produced as reported in USDA baseline for 2005. [d] Fish price derived by dividing total value of commercial and aquaculture production, excluding other, by total commercial and aquaculture production.

The estimated changes in prices and production cause revenues for the fruit and vegetable industry to increase an estimated $5 million. The small revenue increase in the fruit and vegetable industry is attributed to the fact that the price increase just offsets the production decrease. The estimated changes in production and prices result in revenues decreasing by $94 million for beef cattle producers while revenues from production and sale of beef decrease by an estimated $112 million dollars. Revenues for broiler production declines by $91 million and revenues for the production and sale of chicken decrease by $54 million. In addition, revenues for hog production decrease by $21 million and revenues from production and sale of pork decrease by $79 million. Finally, revenues to the fish industry fall by nearly $14 million.

The increase in the prices of all covered commodities causes exports to decline (Table 8). These declines are small; they are for the most part smaller than the declines in United States production of these commodities.

The ERS CGE model assumes that firms behave as though they have no influence on either their input or output prices. On the other hand, a model that assumed that processors could influence their input and output prices could find that prices received by agricultural producers decreased because processors passed their cost increases down to their suppliers rather than increase the price they charged their customers.

The estimates of the economic impact of the rule on the United States are based on the assumption that country of origin labeling does not shift consumer demand toward the covered commodities of United States origin. This assumption is based on the earlier finding that there was no compelling evidence to support the view that mandatory COOL will increase the demand for United States products. Despite this lack of evidence, it is examined how much of a shift or increase in demand for commodities of United States origin would need to occur to offset the costs imposed on the economy by the rule. Consumer demand for the covered commodities would have to increase 0.90 percent to offset the costs to the economy of COOL as outlined in the rule.

The hypothetical 0.90 percent increase in demand for covered commodities represents the overall increase (shift) in demand from all outlets. If there were such a demand increase for domestically produced covered commodities, however, it would presumably occur at those retailers required to provide country of origin information. As previously discussed, the percentage share of covered commodities sold by retailers subject to this rule is estimated at 47.0 percent of total consumption. This suggests that demand at covered retailers actually would have to increase by 1.9 percent for purposes of this hypothetical exercise, assuming no change in demand at other domestic outlets or in export demand.

As previously mentioned, the estimates of the overall economic effects of the rule are derived from a CGE model developed by ERS. The results from this model show the changes in production and consumption patterns after the economy has adjusted to the incremental increase in costs (medium run results). Such changes occur over time and the economy does not adjust instantaneously.

The results of this analysis describe and compare the old production and consumption patterns to the new ones, but do not reflect any particular adjustment process. The purpose of using the ERS CGE model is not to forecast what prices and production will be over any particular time frame, but to explore the implications of COOL on the United States economy and capture the direction of the changes.

The ERS CGE model is global in the sense that all regions in the world are covered. Production and consumption decisions in each region are determined within the model following behavior that is consistent with economic theory. Multilateral trade flows and prices are determined simultaneously by world market clearing conditions. This permits prices to adjust to ensure that total demand equals total supply for each commodity in the world.

The general equilibrium feature of the model means that all economic sectors—agricultural and non-agricultural—are included. Hence,

resources can move among sectors, thereby ensuring that adjustments in the feed grains and livestock sectors, for example, are consistent with adjustments in the processed sectors.

The model is static and this implies that possible gains (or losses) from stimulating (or inhibiting) investment and productivity growth are not captured. The model allows the existing resources to move among sectors, thereby capturing the effects of re-allocation of resources that are the result of policy changes. However, because the model fixes total available resources, it underestimates the long-run effects of policies on aggregate output. For example, the 10-year average real growth of GDP between 1997 and 2007 was approximately 3.1 percent (Ref. 11). If applied to the next 10 years this implies an economy approximately 36 percent larger at the end of this analysis than at the beginning of this analysis.

The ERS CGE model uses data from the Global Trade Analysis Project (GTAP database, version 7.2). The database represents the world as of 2004 and includes information on macroeconomic variables, production, consumption, trade, demand and supply elasticities, and policy measures. The GTAP database includes 57 commodities and 101 countries/regions. For this analysis, the regions were represented by the following country/regions: the United States, Canada, Mexico, the European Union-25 (EU), Oceania, China, Other East Asian Countries, India, Other South Asian Countries, Brazil, South America (including Central America), OPEC Countries, Russia, Africa and the Rest of the World. The agricultural sector is subdivided into the following 7 commodity aggregations: rice, wheat, corn, other feed grains (barley, sorghum), soybeans, sugar (cane and beets), vegetables and fresh fruits, other crops (cotton, peanuts), cattle and sheep, hogs and goats, poultry, and fish. The food processing sectors are subdivided into the following 6 commodity aggregations, bovine cattle and sheep meat, pork meat, chicken meat, vegetable oils and fats, other processed food products, beverages and tobacco, and fish. The remaining sectors in the database were represented by 18 aggregated non-agricultural sectors.

Regulatory Flexibility Analysis

This rule has been reviewed under the requirements of the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq.*). The purpose of RFA is to consider the economic impact of a rule on small businesses and evaluate alternatives that would accomplish the objectives of the rule without unduly burdening small entities or erecting barriers that would restrict their ability to compete in the marketplace. The Agency believes that this rule will have a significant economic impact on a substantial number of small entities. As such, the Agency has prepared the following final regulatory flexibility analysis of the rule's likely economic impact on small businesses pursuant to section 604 of the Regulatory Flexibility Act. Section 604 of the RFA requires the Agency to provide a summary of the significant issues raised by public comments in response to the initial regulatory flexibility analysis. The Comments and Responses section includes the comments received on the interim final RFA and provides the Agency's responses to the comments.

The rule is the direct result of statutory obligations to implement the COOL provisions of the 2002 and 2008 Farm Bills. The intent of this law is to provide consumers with additional information on which to base their purchasing decisions. Specifically, the law imposes additional Federal labeling requirements for covered commodities sold by retailers subject to the law. Covered commodities include muscle cuts of beef (including veal), lamb, pork, goat; ground beef, ground lamb, ground pork, ground goat, and ground chicken; farm-raised fish and shellfish; wild fish and shellfish; chicken; perishable agricultural commodities; ginseng; peanuts; macadamia nuts; and pecans. The implementation date for mandatory COOL for the fish and shellfish covered commodities was September 30, 2004. The implementation date for the other covered commodities was September 30, 2008.

Under preexisting Federal laws and regulations, COOL is not universally required for the commodities covered by this rule. In particular, labeling of United States origin is not mandatory, and labeling of imported products at the consumer level is required only in certain circumstances. Thus, the Agency has not identified any Federal rules that would duplicate or overlap with this rule.

Many aspects of the mandatory COOL provisions are prescriptive and provide little regulatory discretion in rulemaking. The law requires a statutorily defined set of food retailers to label the country of origin and, if applicable, method of production (wild and/or farm-raised) of covered commodities. The law also prohibits USDA from using a mandatory identification system to verify the country of origin of covered commodities. However, the rule provides flexibility in allowing market participants to decide how best to implement mandatory COOL in their operations. Market participants other than those retailers defined by the statute may decide to sell products through marketing channels not subject to the rule. A complete discussion of the information collection and recordkeeping requirements and associated burdens appears in the Paperwork Reduction Act section.

The objective of the rule is to regulate the activities of retailers (as defined by the law) and their suppliers so that retailers will be able to fulfill their statutory obligations. The rule requires retailers to provide country of origin information for all of the covered commodities that they sell. It also requires all firms that supply covered commodities to these retailers to provide the retailers with the information needed to correctly label the covered commodities. In addition, all other firms in the supply chain for the covered commodities are potentially affected by the rule because country of origin information will need to be maintained and transferred along the entire supply chain. In general, the supply chains for the covered commodities consist of farms, fishing operations, processors, wholesalers, and retailers. Section 604 of the RFA requires the Agency to provide an estimate of the number of small entities to which the rule will apply. A listing of the number of entities in the supply chains for each of the covered commodities can be found in Table 1.

Retailers covered by this rule must meet the definition of a retailer as defined by Perishable Agricultural Commodities Act of 1930 (PACA). The PACA definition includes only those retailers handling fresh and frozen fruits and vegetables with an invoice value of at least $230,000 annually. By utilizing an existing regulatory definition for a retailer, Congress provided a simple and straightforward approach to determine which retailers are subject to the COOL program. In utilizing this definition, the number of retailers affected by this rule is considerably smaller than the total number of retailers nationwide. In addition, there is no requirement that firms in the supply chain must supply their products to retailers subject to the rule.

Because country of origin and, if applicable, method of production information will have to be passed along the supply chain and made available to consumers at the retail level, it is assumed that each participant in the supply chain as identified in Table 1 will likely encounter recordkeeping

costs as well as changes or modifications to their business practices. Absent more detailed information about each of the entities within each of the marketing channels, it is assumed that all such entities will be affected to some extent even though some producers and suppliers may choose to market their products through channels not subject to the requirements of this rule. Therefore, it is estimated that approximately 1,333,000 establishments owned by approximately 1,299,000 firms will be either directly or indirectly affected by this rule. The only change from the Interim Regulatory Impact Analysis contained in the August 1, 2008, interim final rule is the inclusion of affected firms and establishments in the fish and shellfish sector in this final rule. These changes and the use of more up-to-date information resulted in the number of establishments and firms increasing from the IRIA.

This rule potentially will have an impact on all participants in the supply chain, although the nature and extent of the impact will depend on the participant's function within the marketing chain. The rule likely will have the greatest impact on retailers and intermediaries (handlers, processors, wholesalers, and importers), while the impact on individual producers is likely to be relatively small.

The direct incremental costs are estimated for the rule at approximately $2,629 million as noted in Table 3. The increase in the direct incremental cost in the rule as compared to the IRIA is mainly the result of including fish and shellfish in this final rule.

There are two measures used by the Small Business Administration (SBA) to identify businesses as small: sales receipts or number of employees. In terms of sales, SBA classifies as small those grocery stores with less than $25 million in annual sales and specialty food stores with less than $6.5 million in annual sales (13 CFR 121.201). Warehouse clubs and superstores with less than $25 million in annual sales are also defined as small. SBA defines as small those agricultural producers with less than $750,000 in annual sales and fishing operations with less than $3.5 million in annual sales. Of the other businesses potentially affected by the rule, SBA classifies as small those manufacturing firms with less than 500 employees and wholesalers with less than 100 employees.

Retailers: While there are many potential retail outlets for the covered commodities, food stores, warehouse clubs, and superstores are the primary retail outlets for food consumed at home. In fact, food stores, warehouse clubs, and superstores account for 75.6 percent of all food consumed at home (Ref. 8). Therefore, the number of these stores provides an indicator of the number of entities *potentially* affected by this rule. The 2002 Economic Census (Ref. 9) shows there were 42,318 food stores, warehouse clubs, and superstore firms operated for the entire year. Most of these firms, however, would not be subject to the requirements of this rule.

The law defines the term retailer as that described in section 1(b) of the Perishable Agricultural Commodities Act of 1930 (PACA) Thus, under this final rule, a retailer is defined as any person licensed as a retailer under PACA. The number of such businesses is estimated from PACA data (Ref. 12). The PACA definition of a retailer includes only those retailers handling fresh and frozen fruits and vegetables with an invoice value of at least $230,000 annually. Therefore, the number of retailers affected by this rule is considerably smaller than the number of food retailers nationwide. USDA data indicate that there are 4,040 retail firms as defined by PACA that would thus be subject to the rule. As explained below, most small food store firms have been excluded from mandatory COOL based on the PACA definition of a retailer.

The 2002 Economic Census data provide information on the number of food store firms by sales categories. Of the 42,318 food store, warehouse club, and superstore firms, an estimated 41,629 firms had annual sales meeting the SBA definition of a small firm plus 689 other firms that would be classified as above the $25 million threshold. USDA has no information on the identities of these firms, and the PACA database does not identify firms by North American Industry Classification System code that would enable matching with Economic Census data. USDA assumes, however, that all or nearly all of the 689 large firms would meet the definition of a PACA retailer because most of these larger food retailers likely would handle fresh and frozen fruits and vegetables with an invoice value of at least $230,000 annually. Thus, an estimated 83 percent (3,351 out of 4,040) of the retailers subject to the rule are small. However, this is only 8.0 percent of the estimated total number of small food store retailers. In other words, an estimated 92.0 percent of small food store retailers would not be subject to the requirements of the rule.

Retailer costs under the rule are estimated at $1,029 million. Costs are estimated at $254,685 per retail firm and $28,273 per retail establishment. Retailers will face recordkeeping costs, costs associated with supplying country of origin and, if applicable, method of production information to consumers and possibly additional handling costs. These cost increases may result in changes to retailer business practices. The rule does not specify the systems that affected retailers must put in place to implement mandatory COOL. Instead, retailers will be given flexibility to develop or modify their own systems to comply with the rule. There are many ways in which the rule's requirements may be met and firms will likely choose the least cost method in their particular situation to comply with the rule.

Wholesalers: Any establishment that supplies retailers with one or more of the covered commodities will be required by retailers to provide country of origin and, if applicable, method of production information so that retailers can accurately supply that information to consumers. Of wholesalers potentially affected by the rule, SBA defines those having less than 100 employees as small. Importers of covered commodities will also be affected by the rule and are categorized as wholesalers in the data.

The 2004 Statistics of United States Businesses (Ref. 13) provides information on wholesalers by employment size. For meat and meat products wholesalers there is a total of 2,509 firms. Of these, 2,401 firms have less than 100 employees. This indicates that approximately 96 percent of meat wholesalers are considered as small firms using the SBA definition.

For fish and seafood wholesalers there are a total of 2,254 firms. Of these, 2,199 firms have less than 100 employees. Therefore, approximately 98 percent of the fish and seafood wholesalers could be considered as small firms.

There are 510 chicken wholesaler/distributor firms operating 564 facilities. Of these, there are 332 firms which have less than 100 employees, resulting in approximately 65 percent of the chicken wholesalers/distributors being classified as small businesses.

For fresh fruit and vegetable wholesalers there are a total of 4,654 firms. Of these, 4,418 firms have less than 100 employees, resulting in approximately 95 percent of the fresh fruit and vegetable wholesalers being classified as small businesses.

While information on ginseng wholesalers is not available, 46 dealers have been identified and they would all be considered as small businesses.

In addition to specialty wholesalers that primarily handle a single covered commodity, there are also general-line wholesalers that handle a wide range of

products. It is assumed that these general-line wholesalers likely handle at least one and possibly all of the covered commodities. Therefore, the number of general-line wholesale businesses is included among entities affected by the rule.

The 2004 Statistics of United States Businesses provides information on general-line grocery wholesalers by employment size. There were 3,037 firms in total, and 2,858 firms had less than 100 employees. This results in approximately 94 percent of the general-line grocery wholesalers being classified as small businesses.

In general, over 94 percent of the wholesalers are classified as small businesses. This indicates that most of the wholesalers affected by mandatory COOL may be considered as small entities as defined by SBA.

It is estimated that intermediaries (importers and domestic wholesalers, handlers, and processors) will incur costs under the rule of approximately $1,130 million. Costs are estimated at $48,219 per intermediary firm and $45,285 per establishment.

Wholesalers will encounter increased costs in complying with mandatory COOL. Wholesalers will likely face increased recordkeeping costs, costs associated with supplying country of origin and, if applicable, method of production information to retailers, possibly costs associated with segmenting products by country of origin and, if applicable, method of production and possibly additional handling costs. Some of the comments received on the proposed rule from wholesalers and retailers have indicated that retailers may choose to source covered commodities from a single supplier that procures the covered commodity from only one country in an attempt to minimize the costs associated with complying with mandatory COOL. These changes in business practices could lead to the further consolidation of firms in the wholesaling sector. The rule does not specify the systems that affected wholesalers must put in place to implement mandatory COOL. Instead, wholesalers will be given flexibility to develop their own systems to comply with the rule. There are many ways in which the rule's requirements may be met. In addition, wholesalers have the option of supplying covered commodities to retailers or other suppliers that are not covered by the rule.

Manufacturers: Any manufacturer that supplies retailers or wholesalers with a covered commodity will be required to provide country of origin information to retailers so that the information can be accurately supplied to consumers. Most manufacturers of covered commodities will likely print country of origin and, if applicable, method of production information on retail packages supplied to retailers. Of the manufacturers potentially affected by the rule, SBA defines those having less than 500 employees as small.

The 2004 Statistics of United States Businesses (Ref. 13) provides information on manufacturers by employment size. For livestock processing and slaughtering there is a total of 2,943 firms. Of these, 2,834 firms have less than 500 employees. This suggests that 96 percent of livestock processing and slaughtering operations would be considered as small firms using the SBA definition.

For chicken processing there are a total of 38 firms, only two of which are classified as small. Thus, only 5 percent of the chicken processors are small businesses.

For fresh and frozen seafood processing there is a total of 516 firms. Of these, 492 have less than 500 employees and thus, 95 percent are considered to be small firms.

For frozen fruit, juice, and vegetable manufacturers there is a total of 155 firms. There are 132 of these firms that are considered to be small. This suggests that 85 percent of the frozen fruit, juice, and vegetable manufacturers would be considered as small using the SBA definition.

There are a total of 161 roasted nuts and peanut butter manufacturers, which includes firms that do drying. Because only green and raw peanuts, macadamia nuts, and pecans will require retail country of origin labeling under this rule, it is estimated that no more than 5 percent of peanut, macadamia nut, and pecan manufacturing firms will be affected. Therefore, 8 peanut, macadamia nut, and pecan manufacturers are estimated to be affected, most if not all of which likely could be considered as small.

In general, approximately 95 percent of the manufacturers are classified as small businesses. This indicates that most of the manufacturers of covered commodities impacted by the rule would be considered as small entities as defined by SBA.

Manufacturers are included as intermediaries and additional costs for these firms are discussed in the previous section addressing wholesalers. Manufacturers of covered commodities will encounter increased costs in complying with mandatory COOL. Manufacturers like wholesalers will likely face increased recordkeeping costs, costs associated with supplying country of origin and, if applicable, method of production information to retailers, possibly costs associated with segmenting products by country of origin and, if applicable, method of production and possibly additional handling costs. Some of the comments received on the interim final rule from manufacturers have indicated that they may limit the number of sources from which they procure raw products. These changes in business practices could lead to the further consolidation of firms in the manufacturing sector. The rule does not specify the systems that affected manufacturers must put in place to implement mandatory COOL. Instead, manufacturers will be given flexibility to develop their own systems to comply with the rule. There are many ways in which the rule's requirements may be met.

Producers: Producers of fish, perishable agricultural commodities, peanuts, macadamia nuts, pecans, and ginseng are directly affected by mandatory COOL. Producers of cattle, hogs, sheep, and goats while not directly covered by this rule, will nevertheless be affected because covered meat commodities are produced from livestock. Whether directly or indirectly affected, these producers will more than likely be required by handlers and wholesalers to create and maintain country of origin and, if applicable, method of production information and transfer it to them so that they can readily transfer this information to retailers. Individuals who grow-out chickens for an integrator are not expected to be affected by this rule.

SBA defines a small agricultural producer as having annual receipts less than $750,000. The 2002 United States Census of Agriculture (Ref. 7) shows there are 1,018,359 farms that raise beef cows, and 2,458 are estimated to have annual receipts greater than $750,000. Thus, at least 99 percent of these beef cattle farms would be classified as small businesses according to the SBA definition. Similarly, an estimated 82 percent of hog farms would be considered as small and an estimated 99 percent of sheep, lamb, and goat farms would be considered as small.

Based on 2002 United States Census of Agriculture information, 92 percent of vegetable farms, 94 percent of fruit, nut, and berry farms, and 91 percent of peanut, macadamia nut, and pecan farms could be classified as small.

Based on 2005 Census of Aquaculture data (Ref. 14), it is estimated that at least 95 percent of fish and shellfish farming operations are small. Similar information on fishing operations is not

known to exist. However, it is assumed that the majority of these producers would be considered small businesses.

At the production level, agricultural producers will need to maintain records to establish country of origin and, if applicable, method of production information for the products they sell. This information will need to be conveyed as the products move through the supply chains. In general, additional producer costs include the cost of establishing and maintaining a recordkeeping system for the country of origin and, if applicable, method of production information, animal or product identification, and labor and training. Based on our knowledge of the affected industries as well as comments received on the interim final rules, the proposed rule, and the voluntary guidelines, it is believed that producers already have much of the information available that could be used to substantiate country of origin and, if applicable, method of production claims. Cattle, hog, lamb, sheep, chicken, and goat producers may have a slightly larger burden for recordkeeping than fruit, vegetable, ginseng, peanut, macadamia nut, and pecan producers because animals can be born in one country and fed and slaughtered in another country. However, this rule provides flexibility in labeling meat covered commodities of multiple origins.

The costs for producers are expected to be relatively limited and should not have a larger impact on small producers than large producers. Producer costs are estimated at $470 million, or an estimated $370 per firm.

Economic impact on small entities: Information on sales or employment is not available for all firms or establishments shown in Table 1. However, it is reasonable to expect that this rule will have a substantial impact on a number of small businesses. At the wholesale and retail levels of the supply chain, the efficiency of these operations may be affected. For packers and processors handling products sourced from multiple countries, there may also be a desire to operate separate shifts for processing products from different origins, or to split processing within shifts. In either case, costs are likely to increase. Records will need to be maintained to ensure that accurate country of origin and, if applicable, method of production information is retained throughout the process and to permit compliance and enforcement reviews.

Even if only domestic origin products or products from a single country of origin are handled, there may be additional procurement costs to source supplies from a single country of origin. Additional procurement costs may include higher transportation costs due to longer shipping distances and higher acquisition costs due to supply and demand conditions for products from a particular country of origin, whether domestic or foreign.

These additional costs may result in consolidations within the processor, manufacturer, and wholesaler sectors for these covered commodities. Also, to comply with the rule, retailers may seek to limit the number of entities from which they purchase covered commodities.

Additional alternatives considered: Section 604 of the RFA requires the Agency to describe the steps taken to minimize the significant economic impact on small entities including a discussion of alternatives considered. As previously mentioned, the COOL provisions of the Act leave little regulatory discretion in defining who is directly covered by this rule. The law explicitly identifies those retailers required to provide their customers with country of origin and, if applicable, method of production information for covered commodities (namely, retailers as defined by PACA).

The law also requires that any person supplying a covered commodity to a retailer provide information to the retailer indicating the country of origin and, if applicable, method of production of the covered commodity. Again, the law provides no discretion regarding this requirement for suppliers of covered commodities to provide information to retailers.

The rule has no mandatory requirement, however, for any firm other than statutorily defined retailers to make country of origin and, if applicable, method of production claims. In other words, no producer, processor, wholesaler, or other supplier is required to make and substantiate a country of origin and, if applicable, method of production claim provided that the commodity is not ultimately sold in the form of a covered commodity at the establishment of a retailer subject to the rule. Thus, for example, a processor and its suppliers may elect not to maintain country of origin and, if applicable, method of production information nor to make country of origin and, if applicable, method of production claims, but instead sell products through marketing channels not subject to the rule. Such marketing alternatives include foodservice, export, and retailers not subject to the rule. It is estimated that 47.0 percent of United States food sales occur through retailers subject to the rule, with the remaining 53.0 percent sold by retailers not subject to the rule or sold as food away from home. Additionally, food product sales into export markets provide marketing opportunities for producers and intermediaries that are not subject to the provisions of the rule. The majority of product sales are not subject to the rule, and there are many current examples of companies specializing in production of commodities for foodservice, export markets, and other channels of distribution that would not be directly affected by the rule.

The rule does not dictate systems that firms will need to put in place to implement the requirements. Thus, different segments of the affected industries will be able to develop their own least-cost systems to implement COOL requirements. For example, one firm may depend primarily on manual identification and paper recordkeeping systems, while another may adopt automated identification and electronic recordkeeping systems.

The rule has no requirements for firms to report to USDA. Compliance audits will be conducted at firms' places of business. As stated previously, required records may be kept by firms in the manner most suitable to their operations and may be hardcopy documents, electronic records, or a combination of both. In addition, the rule provides flexibility regarding where records may be kept. If the product is pre-labeled with the necessary country of origin and, if applicable, method of production information, records documenting once-forward and once-back chain of custody information are sufficient as long as the source of the claim can be tracked and verified. Such flexibility should reduce costs for small entities to comply with the rule.

The rule requires that covered commodities at subject retailers be labeled with country of origin and, as applicable, method of production information, that suppliers of covered commodities provide such information to retailers, and that retailers and their suppliers maintain records and information sufficient to verify all country of origin and method of production claims. The rule provides flexibility regarding the manner in which the required information may be provided by retailers to consumers. The rule provides flexibility in the manner in which required country of origin information is provided by suppliers to retailers, and in the manner in which records and information are maintained to substantiate country of origin claims. Thus, the rule provides the maximum flexibility practicable to enable small

entities to minimize the costs of the rule on their operations.

Paperwork Reduction Act

Pursuant to the Paperwork Reduction Act (PRA) (44 U.S.C 3501–3520) the information collection provisions contained in this rule have been approved by OMB and have been assigned OMB Control Number 0581–0250. This revision reflects a 155,464 increase in the number of annual responses and an 861,282 increase in the number of annual burden hours from the August 1, 2008, interim final rule due to the inclusion of fish and shellfish data. The Comments and Responses section includes the relevant comments received and provides the Agency's responses to the comments. A description of these provisions is given below with an estimate of the annual recordkeeping burden.

Title: Mandatory Country of Origin Labeling of Covered Commodities.

OMB Number: 0581–0250.

Type of Request: Revision of a previously approved collection.

Expiration Date: November 30, 2011.

Abstract: The COOL provision in the 2002 and 2008 Farm Bills requires that specified retailers inform consumers as to the country of origin and, if applicable, method of production (wild and/or farm-raised) of covered commodities. Covered commodities included in this rulemaking are: Muscle cuts of beef, lamb, goat, pork, and chicken; ground beef, ground lamb, ground pork, ground goat, and ground chicken; wild and farm-raised fish and shellfish; perishable agricultural commodities; ginseng; peanuts; macadamia nuts; and pecans. Upon request by USDA representatives, suppliers and retailers subject to this subpart shall make available records maintained in the normal course of business that verify an origin claim. Such records shall be provided within 5 business days of the request and may be maintained in any location. Any person engaged in the business of supplying a covered commodity to a retailer (i.e., including but not limited to growers, distributors, handlers, packers, and processors), whether directly or indirectly, must make country of origin and, if applicable, method of production information available to the retailer and must maintain records to establish and identify the immediate previous source and immediate subsequent recipient of a covered commodity for a period of 1 year from the date of the transaction. In addition, the supplier of a covered commodity that is responsible for initiating a country(ies) of origin claim, which in the case of beef, lamb, chicken goat, and pork is the slaughter facility, must possess records that are necessary to substantiate that claim for a period of 1 year from the date of the transaction. In the case of all covered commodities, producer affidavits shall also be considered acceptable records that suppliers may utilize to initiate origin claims, provided it is made by someone having first-hand knowledge of the origin of the covered commodity and identifies the covered commodity unique to the transaction.

For an imported covered commodity, the importer of record must ensure that records provide clear product tracking from the port of entry into the United States to the immediate subsequent recipient. In addition, the records must accurately reflect the country of origin in relevant United States Customs and Border Protection entry documents and information systems and must be maintained for a period of 1 year from the date of the transaction.

As previously mentioned, upon request by USDA representatives, suppliers and retailers subject to this subpart shall make available to USDA representatives, records maintained in the normal course of business that verify an origin claim. Such records shall be provided within 5 business days of the request and may be maintained in any location.

Description of Recordkeepers: Individuals who supply covered commodities, whether directly to retailers or indirectly through other participants in the marketing chain, are required to establish and maintain country of origin and, if applicable, method of production information for the covered commodities and supply this information to retailers. As a result, producers, handlers, manufacturers, wholesalers, importers, and retailers of covered commodities will be affected by this rule.

Burden: Approximately 1,333,000 establishments owned by approximately 1,299,000 firms are estimated to be either directly or indirectly affected by this rule. The only changes from the IRIA are increases in the numbers of affected firms and establishments due to including and updating fish and shellfish information.

In general, the supply chain for each of the covered commodities includes agricultural producers or fish harvesters, processors, wholesalers, importers, and retailers. Imported products may be introduced at any level of the supply chain. Other intermediaries, such as auction markets, may be involved in transferring products from one stage of production to the next. The rule's paperwork burden will be incurred by the number and types of firms and establishments listed in Table 9, which follows.

TABLE 9—COSTS ASSOCIATED WITH PAPERWORK BURDEN

Type	Firms	Initial costs	Establishments	Maintenance costs	Total costs
Producers:					
Cattle & Calves	971,400	75,699,259	971,400	145,651,716	221,350,975
Sheep & Lambs	69,090	5,384,046	69,090	10,359,355	15,743,400
Hogs & Pigs	65,540	5,107,401	65,540	9,827,068	14,934,469
Goats	9,146	712,745	9,146	1,371,381	2,084,126
Chicken Producer and Processor	38	2,961	168	25,190	28,151
Farm-Raised Fish & Shellfish	3,752	292,386	3,752	562,575	854,961
Fishing	71,128	5,542,863	71,142	3,555,677	9,098,540
Fruits & Vegetables	79,800	6,218,654	79,800	3,788,984	10,007,638
Ginseng	190	14,806	190	9,021	23,828
Peanuts	650	50,653	650	30,863	81,516
Pecans	1,119	87,192	1,119	53,130	140,323
Macadamia	53	4,130	53	2,516	6,647
Handlers, Processors, & Wholesalers:					
Stockyards, Dealers & Market Agencies	6,807	8,910,363	6,807	6,589,040	15,499,403
Livestock Processing & Slaughtering	2,943	3,582,387	3,207	62,086,237	65,938,624
Meat & Meat Product Wholesale	2,509	3,284,281	2,706	2,619,354	5,903,635

TABLE 9—COSTS ASSOCIATED WITH PAPERWORK BURDEN—Continued

Type	Firms	Initial costs	Establishments	Maintenance costs	Total costs
Chicken Processor and Wholesaler	510	667,590	564	545,941	1,213,531
Fresh & Frozen Seafood Processing	516	675,444	590	571,108	1,246,552
Fish & Seafood Wholesale	2,254	2,950,486	2,330	2,255,393	5,205,879
Frozen Fruit, Juice & Vegetable Mfg	155	202,895	247	239,091	441,986
Fresh Fruit & Vegetable Wholesale	4,654	6,092,086	5,016	4,855,388	10,947,474
Ginseng Dealers	46	60,214	46	44,527	104,741
Roasted Nuts & Peanut Butter Mfg	8	10,472	9	8,712	19,184
Peanut, Pecans, & Macadamia Nut Wholesalers	5	6,545	5	4,840	11,385
General Line Grocery Wholesalers	3,037	3,975,433	3,436	3,325,979	7,301,412
Retailers	4,040	5,288,360	36,392	247,264,534	252,552,894
Totals					
Producers	1,271,906	99,117,097	1,262,050	175,237,476	274,354,573
Handlers, Processors, & Wholesalers	23,444	30,688,196	24,963	83,145,610	113,833,806
Retailers	4,040	5,288,360	36,392	247,264,534	252,552,894
Grand Total	1,299,390	135,093,653	1,333,405	505,647,620	640,741,274

The affected firms and establishments will broadly incur two types of costs. First, firms will incur initial or start-up costs to comply with the rule. Initial costs will be borne by each firm, even though a single firm may operate more than one establishment. Second, enterprises will incur additional recordkeeping costs associated with storing and maintaining records on an ongoing basis. These activities will take place in each establishment operated by each affected business.

With respect to initial recordkeeping costs, it is believed that most producers currently maintain many of the types of records that would be needed to substantiate country of origin and, if applicable, method of production claims. However, producers do not typically record or pass along country of origin and, if applicable, method of production information to subsequent purchasers. Therefore, producers will incur some additional incremental costs to record, maintain, and transfer country of origin and, if applicable, method of production information to substantiate required claims made at retail. Because much of the necessary recordkeeping has already been developed during typical farm, ranch, and fishing operations, it is estimated that the incremental costs for producers to supplement existing records with country of origin and, if applicable, method of production information will be relatively small per firm. Examples of initial or start-up costs would be any additional recordkeeping burden needed to record the required country of origin and, if applicable, method of production information and transfer this information to handlers, processors, wholesalers, or retailers via records used in the normal course of business.

Producers will need an estimated 4 hours to modify an established system for organizing records to carry out the purposes of this regulation. This additional time would be required to modify existing recordkeeping systems to incorporate any added information needed to substantiate country of origin claims. Although not all farm products ultimately will be sold at retail establishments covered by this rule, it is assumed that virtually all producers will wish to keep their marketing options as flexible as possible. Thus, all producers of covered commodities or livestock (in the case of the covered meat commodities) will establish recordkeeping systems sufficient to substantiate country of origin claims. It is also recognized that some operations will require substantially more than 4 hours modifying their recordkeeping systems. In particular, it is believed that livestock backgrounders, stockers, and feeders will face a greater burden in establishing recordkeeping systems. These types of operations will need to track country of origin information for animals brought into the operation as well as for animals sold from the operation via records used in the normal course of business, increasing the burden of substantiating country of origin claims. Conversely, operations such as fruit and vegetable farms that produce only United States products likely will require little if any change to their existing recordkeeping systems in order to substantiate country of origin claims. Overall, it is believed that 4 hours represents a reasonable estimate of the average additional time that will be required per year across all types of producers.

In estimating initial recordkeeping costs, 2006 wage rates and benefits published by the Bureau of Labor statistics from the National Compensation Survey are used.

For producers, it is assumed that the added work needed to initially adapt an existing recordkeeping system for country of origin and, if applicable, method of production information is primarily a bookkeeping task. This task may be performed by independent bookkeepers, or in the case of operations that perform their own bookkeeping, an individual with equivalent skills. The Bureau of Labor Statistics (BLS) publishes wage rates for bookkeepers, accounting, and auditing clerks (Ref. 15). It is assumed that this wage rate represents the cost for producers to hire an independent bookkeeper. In the case of producers who currently perform their own bookkeeping, it is assumed that this wage rate represents the opportunity cost of the producers' time for performing these tasks. The May 2006 wage rate is estimated at $15.28 per hour. For this analysis, an additional 27.5 percent is added to the wage rate to account for total benefits which includes social security, unemployment insurance, workers compensation, etc. The estimate of this additional cost to employers is published by the BLS (Ref. 15). At 4 hours per firm and a cost of $19.48 per hour, initial recordkeeping costs to producers are estimated at approximately $135.1 million to modify existing recordkeeping systems in order to substantiate country of origin and, if applicable, method of production claims.

The recordkeeping burden on handlers, processors, wholesalers, and retailers is expected to be more complex than the burden most producers face. These operations will need to maintain country of origin and, if applicable, methods of production information on the covered commodities purchased and subsequently furnish that information to the next participant in the supply chain. This will require adding additional information to a firm's bills of lading, invoices, or other records associated with movement of covered commodities from purchase to sale. Similar to producers, however, it is believed that most of these operations already maintain many of the types of necessary records in their existing systems. Thus, it is assumed that country of origin and, if applicable, method of production information will require only modification of existing recordkeeping systems rather than development of entirely new systems.

The Label Cost Model Developed for FDA by RTI International (Ref. 16; Ref. 17) is used to estimate the cost of including additional country of origin and, if applicable, method of production information to an operation's records. It is assumed that a limited information, one-color redesign of a paper document will be sufficient to comply with the rule's recordkeeping requirements. The number of hours required to complete the redesign is estimated to be 29 with an estimated cost at $1,309 per firm. While the cost will be much higher for some firms and lower for others, it is believed that $1,309 represents a reasonable estimate of average cost for all firms. Based on this, it is estimated that the initial recordkeeping costs to intermediaries such as handlers, processors, and wholesalers (importers are included with wholesalers) will be approximately $31 million, and initial recordkeeping costs at retail will be approximately $5 million. The recordkeeping cost to producers increases due to the inclusion of fish and shellfish.

The total initial recordkeeping costs for all firms are thus estimated at approximately $135 million. This increase in the recordkeeping cost as compared to the recordkeeping costs in the interim final rule is due to the inclusion of fish and shellfish.

In addition to these one-time costs to modify recordkeeping systems, enterprises will incur additional recordkeeping costs associated with storing and maintaining records. These costs are referred to as maintenance costs in Table 9. Again, the marginal cost for producers to maintain and store any additional information needed to substantiate country of origin and, if applicable, method of production claims is expected to be relatively small.

For wild fish harvesters, fruit, vegetable, and ginseng producers, and peanut, macadamia nut, and pecan producers, country of origin and, if applicable, method of production generally is established at the time that the product is harvested, and thus there is no need to track country of origin and, if applicable, method of production information throughout the production lifecycle of the product. Likewise, this is also the case for chicken as the vast majority of chicken products sold by covered retailers are from chickens that are produced in a controlled environment in the United States. This group of producers is estimated to require an additional 4 hours a year, or 1 hour per quarter, to maintain country of origin and, if applicable, method of production information.

Compared to wild fish harvesters, chicken, fruit, vegetable, ginseng, peanut, macadamia nut, and pecan producers, it is expected that fish farmers and livestock producers will incur higher costs to maintain country of origin and, if applicable, method of production information. Wild fish, chicken, fruits, vegetables, ginseng, peanuts, and macadamia nuts are generally harvested once and then shipped by the producer to the first handler. In contrast, farm-raised fish and livestock can and often do move through several geographically dispersed operations prior to sale for processing or slaughter. Cattle, for example, typically change ownership between 2 to 3 times before they are slaughtered and processed. Fish and livestock may be acquired from other countries by United States producers, which may complicate the task of tracking country of origin and, if applicable, method of production information. Because animals are frequently sorted and regrouped at various stages of production and may change ownership several times prior to slaughter, country of origin information will need to be maintained on animals as they move through their lifecycle. Thus, it is expected that the recordkeeping burden for fish farmers and livestock producers will be higher than it will be for producers of other covered commodities. It is estimated that these producers will require an additional 12 hours a year, or 1 hour per month, to maintain country of origin and, if applicable, method of production records. Again, this is an average for all enterprises.

It is assumed that farm labor will primarily be responsible for maintaining country of origin information at producers' enterprises. NASS data (Ref. 18) are used to estimate average farm wage rates—$9.80 per hour for livestock workers and $9.31 per hour for other crops workers. Applying the rate of 27.5 percent to account for benefits, this results in an hourly rate of $12.50 for livestock workers and $11.87 for other crops workers. Wage rates for fish workers were unavailable, so the average wage rate for livestock workers is used. Assuming 12 hours of labor per year for livestock and farmed fish operations and 4 hours per year for all other operations, the estimated total annual maintenance costs to producers is $175 million which is higher than the initial maintenance costs in the interim final rule. The increase in the estimated maintenance cost is due to the inclusion of fish and shellfish in this final rule.

It is expected that intermediaries such as handlers, processors, and wholesalers will face higher costs per enterprise to maintain country of origin and, if applicable, method of production information compared to costs faced by producers. Much of the added cost is attributed to the larger average size of these enterprises compared to the average producer enterprise. In addition, these intermediaries will need to track products both coming into and going out of their businesses.

With the exception of livestock processing and slaughtering establishments, the maintenance burden hours for country of origin and, if applicable, method of production recordkeeping is estimated to be 52 hours per year per establishment. For this part of the supply chain, the recordkeeping activities are ongoing and are estimated to require an additional hour a week. It is expected, however, that livestock processing and slaughtering enterprises will experience a more intensive recordkeeping burden. These enterprises disassemble carcasses into many individual cuts, each of which must maintain its country of origin identity. In addition, businesses that produce ground beef, lamb, goat, and pork products may commingle product from multiple origins, which will require some monitoring and recordkeeping to ensure accurate labeling and to substantiate the country of origin information provided to retailers. Maintenance of the recordkeeping system at these establishments is estimated to total 1,040 hours per establishment, or 20 hours per week.

Maintenance activities will include inputting, tracking, and storing country of origin and, if applicable, method of production information for each covered

commodity. Since this is mostly an administrative task, the cost is estimated by using the May 2006 BLS wage rate from the National Compensation Survey for administrative support occupations ($14.60 per hour with an additional 27.5 percent added to cover benefit costs for a total of $18.62 per hour). This occupation category includes stock and inventory clerks and record clerks. Coupled with the assumed hours per establishment, the resulting total annual maintenance costs to handlers, processors, and wholesalers and other intermediaries are estimated at approximately $83 million.

Retailers will need to supply country of origin and, if applicable, method of production information for each covered commodity sold at each store. Therefore, additional recordkeeping maintenance costs are believed to affect each establishment. Because tracking of the covered commodities will be done daily, it is believed that an additional hour of recordkeeping activities for country of origin and, if applicable, method of production information will be incurred daily at each retail establishment. These additional activities result in an estimated 365 additional hours per year per establishment. Using the BLS wage rate for administrative support occupations ($14.60 per hour with an additional 27.5 percent added to cover benefit costs for a total of $18.62 per hour) results in total estimated annual maintenance costs to retailers of $247 million.

The total maintenance recordkeeping costs for all enterprises are thus estimated at approximately $506 million. The increase in the total maintenance cost over the maintenance cost estimate in the interim final rule is due to the inclusion of fish and shellfish in this final rule.

The total first-year recordkeeping burden is calculated by summing the initial and maintenance costs. The total recordkeeping costs are estimated for producers at approximately $274 million; for handlers, processors, and wholesalers at approximately $114 million; and for retailers at approximately $253 million. The total recordkeeping cost for all participants in the supply chain for covered commodities is estimated at $641 million for the first year, with subsequent maintenance costs of $506 million per year.

Annual Reporting and Recordkeeping Burden for the First Year (Initial): Public reporting burden for establishing this initial recordkeeping is estimated to average 4.5 hours per year per individual recordkeeper.

Estimated Number of Firms Recordkeepers: 1,299,390.

Estimated Total Annual Burden: 5,884,661 hours.

Annual Reporting and Recordkeeping Burden (Maintenance): Public reporting burden for recordkeeping storage and maintenance is estimated to average 23.8 hours per year per individual recordkeeper.

Estimated Number of Establishments Recordkeepers: 1,333,405.

Estimated Total Annual Burden: 31,790,642 hours.

To the extent possible, the Agency complies with the e-Government Act, which requires Government agencies in general to provide the public the option of submitting information or transacting business electronically to the maximum extent possible. This information collection has no forms and is only for recordkeeping purposes. Therefore, the provisions of an electronic submission alternative are not required.

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Executive Order 12988

The contents of this rule were reviewed under Executive Order 12988, Civil Justice Reform. This rule is not intended to have a retroactive effect. States and local jurisdictions are preempted from creating or operating country of origin labeling programs for the commodities specified in the Act and these regulations. With regard to other Federal statutes, all labeling claims made in conjunction with this regulation must be consistent with other applicable Federal requirements. There are no administrative procedures that must be exhausted prior to any judicial challenge to the provisions of this rule.

Civil Rights Review

AMS considered the potential civil rights implications of this rule on minorities, women, or persons with disabilities to ensure that no person or group shall be discriminated against on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. This review included persons that are employees of the entities that are subject to these regulations. This final rule does not require affected entities to relocate or alter their operations in ways that could adversely affect such persons or groups. Further, this rule will not deny any persons or groups the benefits of the program or subject any persons or groups to discrimination.

Executive Order 13132

This rule has been reviewed under Executive Order 13132, Federalism. This Order directs agencies to construe, in regulations and otherwise, a Federal statute to preempt State law only where

the statute contains an express preemption provision or there is some other clear evidence to conclude that the Congress intended preemption of State law, or where the exercise of State authority conflicts with the exercise of Federal authority under the Federal statute. This rule is required by the 2002 Farm Bill, as amended by the 2008 Farm Bill.

While this statute does not contain an express preemption provision, it is clear from the language in the statute that Congress intended preemption of State law. The law assigns enforcement responsibilities to the Secretary and encourages the Secretary to enter into partnerships with States with enforcement infrastructure to assist in the administration of the program. The law provides for a 30-day period in which retailers and suppliers may take the necessary corrective action after receiving notice of a nonconformance. The Secretary can impose a civil penalty only if the retailer or supplier has not made a good faith effort to comply and only after the Secretary provides notice and an opportunity for a hearing. Allowing private rights of actions would frustrate the purpose of this comprehensive enforcement system in which Congress struck a delicate balance of imposing a requirement, but ensuring that the agency had wide latitude in enforcement discretion. Thus, it is clear that State laws and other actions were intended to be preempted.

Several States have implemented mandatory programs for country of origin labeling of certain commodities. For example, Alabama, Arkansas, Mississippi, and Louisiana have origin labeling requirements for certain seafood products. Other States including Wyoming, Idaho, North Dakota, South Dakota, Louisiana, Kansas, and Mississippi have origin labeling requirements for certain meat products. In addition, the State of Florida and the State of Maine have origin labeling requirements for fresh produce items.

To the extent that these State country of origin labeling programs encompass commodities that are not governed by this regulation, the States may continue to operate them. For those State country of origin labeling programs that encompass commodities that are governed by this regulation, these programs are preempted. In most cases, the requirements contained within this rule are more stringent and prescriptive than the requirements of the State programs. With regard to consultation with States, as directed by the Executive Order 13132, AMS has consulted with the States that have country of origin labeling programs.

The effective date of this regulation is March 16, 2009. In the August 1, 2008, interim final rule for the remaining covered commodities, the Agency indicated that during the six month period following the effective date of that regulation, AMS would conduct an industry education and outreach program concerning the provisions and requirements of that rule. AMS will continue this period of informed compliance for this regulation through March 2009.

List of Subjects

7 CFR Part 60

Agricultural commodities, Fish, Food labeling, Reporting and recordkeeping requirements.

7 CFR Part 65

Agricultural commodities, Food labeling, Meat and meat products, Macadamia nuts, Peanuts, Pecans, Reporting and recordkeeping requirements.

■ For the reasons set forth in the preamble, 7 CFR chapter I is amended as follows:

■ 1. Part 60 is revised to read as follows:

PART 60—COUNTRY OF ORIGIN LABELING FOR FISH AND SHELLFISH

Subpart A—General Provisions

Definitions

Sec.
60.101 Act.
60.102 AMS.
60.103 Commingled covered commodities.
60.104 Consumer package.
60.105 Covered commodity.
60.106 Farm-raised fish.
60.107 Food service establishment.
60.108–60.110 [Reserved]
60.111 Hatched.
60.112 Ingredient.
60.113 [Reserved]
60.114 Legibly.
60.115 [Reserved]
60.116 Person.
60.117 [Reserved]
60.118 Pre-labeled.
60.119 Processed food item.
60.120 [Reserved]
60.121 [Reserved]
60.122 Production step.
60.123 Raised.
60.124 Retailer.
60.125 Secretary.
60.126 [Reserved]
60.127 United States.
60.128 United States country of origin.
60.129 USDA.
60.130 U.S. flagged vessel.
60.131 Vessel flag.
60.132 Waters of the United States.
60.133 Wild fish and shellfish.

Country of Origin Notification

60.200 Country of origin notification.
60.300 Labeling.

Recordkeeping

60.400 Recordkeeping requirements.
Appendix A to Subpart A-Exclusive Economic Zone and Maritime Boundaries; Notice of Limits

Authority: 7 U.S.C. 1621 *et seq.*

Subpart A—General Provisions

Definitions

§ 60.101 Act.

Act means the Agricultural Marketing Act of 1946 (7 U.S.C. 1621 *et seq.*).

§ 60.102 AMS.

AMS means the Agricultural Marketing Service, United States Department of Agriculture.

§ 60.103 Commingled covered commodities.

Commingled covered commodities means covered commodities (of the same type) presented for retail sale in a consumer package that have been prepared from raw material sources having different origins.

§ 60.104 Consumer package.

Consumer package means any container or wrapping in which a covered commodity is enclosed for the delivery and/or display of such commodity to retail purchasers.

§ 60.105 Covered commodity.

(a) *Covered commodity* means:

(1) [Reserved]

(2) [Reserved]

(3) Farm-raised fish and shellfish (including fillets, steaks, nuggets, and any other flesh);

(4) Wild fish and shellfish (including fillets, steaks, nuggets, and any other flesh);

(5) [Reserved]

(6) [Reserved]

(b) Covered commodities are excluded from this part if the commodity is an ingredient in a processed food item as defined in § 60.119.

§ 60.106 Farm-raised fish.

Farm-raised fish means fish or shellfish that have been harvested in controlled environments, including ocean-ranched (e.g., penned) fish and including shellfish harvested from leased beds that have been subjected to production enhancements such as providing protection from predators, the addition of artificial structures, or providing nutrients; and fillets, steaks, nuggets, and any other flesh from a farm-raised fish or shellfish.

§ 60.107 Food service establishment.

Food service establishment means a restaurant, cafeteria, lunch room, food stand, saloon, tavern, bar, lounge, or other similar facility operated as an enterprise engaged in the business of selling food to the public. Similar food service facilities include salad bars, delicatessens, and other food enterprises located within retail establishments that provide ready-to-eat foods that are consumed either on or outside of the retailer's premises.

§ 60.108–60.110 [Reserved]

§ 60.111 Hatched.

Hatched means emerged from the egg.

§ 60.112 Ingredient.

Ingredient means a component either in part or in full, of a finished retail food product.

§ 60.113 [Reserved]

§ 60.114 Legible.

Legible means text that can be easily read.

§ 60.115 [Reserved]

§ 60.116 Person.

Person means any individual, partnership, corporation, association, or other legal entity.

§ 60.117 [Reserved]

§ 60.118 Pre-labeled.

Pre-labeled means a covered commodity that has the commodity's country of origin and method of production and the name and place of business of the manufacturer, packer, or distributor on the covered commodity itself, on the package in which it is sold to the consumer, or on the master shipping container. The place of business information must include at a minimum the city and state or other acceptable locale designation.

§ 60.119 Processed food item.

Processed food item means a retail item derived from fish or shellfish that has undergone specific processing resulting in a change in the character of the covered commodity, or that has been combined with at least one other covered commodity or other substantive food component (e.g., breading, tomato sauce), except that the addition of a component (such as water, salt, or sugar) that enhances or represents a further step in the preparation of the product for consumption, would not in itself result in a processed food item. Specific processing that results in a change in the character of the covered commodity includes cooking (e.g., frying, broiling, grilling, boiling, steaming, baking, roasting), curing (e.g., salt curing, sugar curing, drying), smoking (hot or cold), and restructuring (e.g., emulsifying and extruding, compressing into blocks and cutting into portions). Examples of items excluded include fish sticks, surimi, mussels in tomato sauce, seafood medley, coconut shrimp, soups, stews, and chowders, sauces, pates, smoked salmon, marinated fish fillets, canned tuna, canned sardines, canned salmon, crab salad, shrimp cocktail, gefilte fish, sushi, and breaded shrimp.

§ 60.120 [Reserved]

§ 60.121 [Reserved]

§ 60.122 Production step.

Production step means in the case of:

(a) [Reserved]

(b) Farm-raised Fish and Shellfish: Hatched, raised, harvested, and processed.

(c) Wild Fish and Shellfish: Harvested and processed.

§ 60.123 Raised.

Raised means in the case of:

(a) [Reserved]

(b) Farm-raised fish and shellfish as it relates to the production steps defined in § 60.122: The period of time from hatched to harvested.

§ 60.124 Retailer.

Retailer means any person licensed as a retailer under the Perishable Agricultural Commodities Act of 1930 (7 U.S.C. 499a(b)).

§ 60.125 Secretary.

Secretary means the Secretary of Agriculture of the United States or any person to whom the Secretary's authority has been delegated.

§ 60.126 [Reserved]

§ 60.127 United States.

United States means the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, American Samoa, Guam, the Northern Mariana Islands, and any other Commonwealth, territory, or possession of the United States, and the waters of the United States as defined in § 60.132.

§ 60.128 United States country of origin.

United States country of origin means in the case of:

(a) [Reserved]

(b) [Reserved]

(c) Farm-raised Fish and Shellfish: From fish or shellfish hatched, raised, harvested, and processed in the United States, and that has not undergone a substantial transformation (as established by U.S. Customs and Border Protection) outside of the United States.

(d) Wild-fish and Shellfish: From fish or shellfish harvested in the waters of the United States or by a U.S. flagged vessel and processed in the United States or aboard a U.S. flagged vessel, and that has not undergone a substantial transformation (as established by U.S. Customs and Border Protection) outside of the United States.

(e) [Reserved]

(f) [Reserved]

§ 60.129 USDA.

USDA means the United States Department of Agriculture.

§ 60.130 U.S. flagged vessel.

U.S. flagged vessel means:

(a) Any vessel documented under chapter 121 of title 46, United States Code; or

(b) Any vessel numbered in accordance with chapter 123 of title 46, United States Code.

§ 60.131 Vessel flag.

Vessel flag means the country of registry for a vessel, ship, or boat.

§ 60.132 Waters of the United States.

Waters of the United States means those fresh and ocean waters contained within the outer limit of the Exclusive Economic Zone (EEZ) of the United States as described by the Department of State Public Notice 2237 published in the **Federal Register** volume 60, No. 163, August 23, 1995, pages 43825–43829. The Department of State notice is republished in Appendix A to this subpart.

§ 60.133 Wild fish and shellfish.

Wild fish and shellfish means naturally-born or hatchery-originated fish or shellfish released in the wild, and caught, taken, or harvested from non-controlled waters or beds; and fillets, steaks, nuggets, and any other flesh from a wild fish or shellfish.

Country of Origin Notification

§ 60.200 Country of origin notification.

In providing notice of the country of origin as required by the Act, the following requirements shall be followed by retailers:

(a) *General.* Labeling of covered commodities offered for sale whether individually, in a bulk bin, display case, carton, crate, barrel, cluster, or consumer package must contain country of origin and method of production information (wild and/or farm-raised) as set forth in this regulation.

(b) *Exemptions.* Food service establishments as defined in § 60.107

are exempt from labeling under this subpart.

(c) *Exclusions.* A covered commodity is excluded from this subpart if it is an ingredient in a processed food item as defined in § 60.119.

(d) *Designation of Method of Production (Wild and/or Farm-Raised).* Fish and shellfish covered commodities shall also be labeled to indicate whether they are wild and/or farm-raised as those terms are defined in this regulation.

(e) *Labeling Covered Commodities of United States Origin.* A covered commodity may only bear the declaration of ''Product of the U.S.'' at retail if it meets the definition of United States Country of Origin as defined in § 60.128.

(f) *Labeling Imported Products That Have Not Undergone Substantial Transformation in the United States.* An imported covered commodity shall retain its origin as declared to U.S. Customs and Border Protection at the time the product entered the United States, through retail sale, provided that it has not undergone a substantial transformation (as established by U.S. Customs and Border Protection) in the United States.

(g) *Labeling Imported Products That Have Subsequently Been Substantially Transformed in the United States.*

(1) [Reserved]

(2) Wild and Farm-Raised Fish and Shellfish: If a covered commodity was imported from country X and subsequently substantially transformed (as established by U.S. Customs and Border Protection) in the United States or aboard a U.S. flagged vessel, such product shall be labeled at retail as ''From country X, processed in the United States.'' Alternatively, the product may be labeled as ''Product of country X and the United States''.

(h) *Labeling Commingled Covered Commodities.* (1) For imported covered commodities that have not subsequently been substantially transformed in the United States that are commingled with other imported covered commodities that have not been substantially transformed in the United States, and/or covered commodities of U.S. origin and/or covered commodities as described in § 60.200(g), the declaration shall indicate the countries of origin for covered commodities in accordance with existing Federal legal requirements.

(2) For imported covered commodities that have subsequently undergone substantial transformation in the United States that are commingled with other imported covered commodities that have subsequently undergone substantial transformation in the United States (either prior to or following substantial transformation in the United States) and/or U.S. origin covered commodities, the declaration shall indicate the countries of origin contained therein or that may be contained therein.

(i) *Remotely Purchased Products.* For sales of a covered commodity in which the customer purchases a covered commodity prior to having an opportunity to observe the final package (e.g., Internet sales, home delivery sales, etc.), the retailer may provide the country of origin notification and method of production (wild and/or farm-raised) designation either on the sales vehicle or at the time the product is delivered to the consumer.

§ 60.300 Labeling.

(a) Country of origin declarations and method of production (wild and/or farm-raised) designations can either be in the form of a placard, sign, label, sticker, band, twist tie, pin tag, or other format that provides country of origin and method of production information. The country of origin declaration and method of production (wild and/or farm-raised) designation may be combined or made separately. Except as provided in § 60.200(g) and 60.200(h) of this regulation, the declaration of the country(ies) of origin of a product shall be listed according to applicable Federal legal requirements. Country of origin declarations may be in the form of a check box provided it is in conformance with other Federal legal requirements. Various forms of the production designation are acceptable, including ''wild caught'', ''wild'', ''farm-raised'', ''farmed'', or a combination of these terms for blended products that contain both wild and farm-raised fish or shellfish, provided it can be readily understood by the consumer and is in conformance with other Federal labeling laws. Designations such as ''ocean caught'', ''caught at sea'', ''line caught'', ''cultivated'', or ''cultured'' are not acceptable substitutes. Alternatively, method of production (wild and/or farm-raised) designations may be in the form of a check box.

(b) The declaration of the country(ies) of origin and method(s) of production (wild and/or farm-raised) (e.g., placard, sign, label, sticker, band, twist tie, pin tag, or other display) must be placed in a conspicuous location, so as to render it likely to be read and understood by a customer under normal conditions of purchase.

(c) The declaration of the country(ies) of origin and the method(s) of production (wild and/or farm-raised) may be typed, printed, or handwritten provided it is in conformance with other Federal labeling laws and does not obscure other labeling information required by other Federal regulations.

(d) A bulk container (e.g., display case, shipper, bin, carton, and barrel), used at the retail level to present product to consumers, may contain a covered commodity from more than one country of origin and/or more than one method of production (wild and farm-raised) provided all possible origins and/or methods of production are listed.

(e) In general, country abbreviations are not acceptable. Only those abbreviations approved for use under CBP rules, regulations, and policies, such as ''U.K.'' for ''The United Kingdom of Great Britain and Northern Ireland'', ''Luxemb'' for Luxembourg, and ''U.S. or USA'' for the ''United States'' are acceptable. The adjectival form of the name of a country may be used as proper notification of the country(ies) of origin of imported commodities provided the adjectival form of the name does not appear with other words so as to refer to a kind or species of product. Symbols or flags alone may not be used to denote country of origin.

(f) State or regional label designations are not acceptable in lieu of country of origin labeling.

Recordkeeping

§ 60.400 Recordkeeping requirements.

(a) *General.* (1) All records must be legible and may be maintained in either electronic or hard copy formats. Due to the variation in inventory and accounting documentary systems, various forms of documentation and records will be acceptable.

(2) Upon request by USDA representatives, suppliers and retailers subject to this subpart shall make available to USDA representatives, records maintained in the normal course of business that verify an origin claim and method of production (wild and/or farm-raised). Such records shall be provided within 5 business days of the request and may be maintained in any location.

(b) *Responsibilities of suppliers.* (1) Any person engaged in the business of supplying a covered commodity to a retailer, whether directly or indirectly, must make available information to the buyer about the country(ies) of origin and method(s) of production (wild and/or farm-raised), of the covered commodity. This information may be provided either on the product itself, on the master shipping container, or in a document that accompanies the product

through retail sale provided that it identifies the product and its country(ies) of origin and method(s) of production. In addition, the supplier of a covered commodity that is responsible for initiating a country(ies) of origin and method(s) of production (wild and/or farm-raised) claim must possess records that are necessary to substantiate that claim for a period of 1 year from the date of the transaction. Producer affidavits shall also be considered acceptable records that suppliers may utilize to initiate origin claims, provided it is made by someone having first-hand knowledge of the origin of the covered commodity and identifies the covered commodity unique to the transaction.

(2) Any intermediary supplier handling a covered commodity that is found to be designated incorrectly as to the country of origin and/or method of production (wild and/or farm-raised) shall not be held liable for a violation of the Act by reason of the conduct of another if the intermediary supplier relied on the designation provided by the initiating supplier or other intermediary supplier, unless the intermediary supplier willfully disregarded information establishing that the country of origin and/or method of production (wild and/or farm-raised) declaration was false.

(3) Any person engaged in the business of supplying a covered commodity to a retailer, whether directly or indirectly (i.e., including but not limited to harvesters, producers, distributors, handlers, and processors), must maintain records to establish and identify the immediate previous source (if applicable) and immediate subsequent recipient of a covered commodity for a period of 1 year from the date of the transaction.

(4) For an imported covered commodity (as defined in § 60.200(f)), the importer of record as determined by U.S. Customs and Border Protection, must ensure that records: provide clear product tracking from the port of entry into the United States to the immediate subsequent recipient and accurately reflect the country of origin and method of production (wild and/or farm-raised) of the item as identified in relevant CBP entry documents and information systems; and must maintain such records for a period of 1 year from the date of the transaction.

(c) *Responsibilities of retailers.* (1) In providing the country of origin and method of production (wild and/or farm-raised) notification for a covered commodity, in general, retailers are to convey the origin and method of production information provided to them by their suppliers. Only if the retailer physically commingles a covered commodity of different origins and/or methods of production in preparation for retail sale, whether in a consumer-ready package or in a bulk display (and not discretely packaged) (i.e., full service fish case), can the retailer initiate a multiple country of origin and/or method of production designation that reflects the actual countries of origin and method of production for the resulting covered commodity.

(2) Records and other documentary evidence relied upon at the point of sale to establish a covered commodity's country(ies) of origin and designation of wild and/or farm-raised must either be maintained at the retail facility or at another location for as long as the product is on hand and provided to any duly authorized representative of USDA in accordance with § 60.400(a)(2). For pre-labeled products, the label itself is sufficient information on which the retailer may rely to establish the product's origin and method(s) of production (wild and/or farm-raised) and no additional records documenting origin and method of production information are necessary.

(3) Records that identify the covered commodity, the retail supplier, and for products that are not pre-labeled, the country of origin information and the method(s) of production (wild and/or farm-raised) must be maintained for a period of 1 year from the date the declaration is made at retail.

(4) Any retailer handling a covered commodity that is found to be designated incorrectly as to the country of origin and/or the method of production (wild and/or farm-raised) shall not be held liable for a violation of the Act by reason of the conduct of another if the retailer relied on the designation provided by the supplier, unless the retailer willfully disregarded information establishing that the country of origin and/or method of production declaration was false.

Subpart B—[Reserved]

■ 2. Part 65 is revised to read as follows:

PART 65—COUNTRY OF ORIGIN LABELING OF BEEF, PORK, LAMB, CHICKEN, GOAT MEAT, PERISHABLE AGRICULTURAL COMMODITIES, MACADAMIA NUTS, PECANS, PEANUTS, AND GINSENG

Subpart A—General Provisions

Definitions

65.100 Act.
65.105 AMS.
65.110 Beef.
65.115 Born.
65.120 Chicken.
65.125 Commingled covered commodities.
65.130 Consumer package.
65.135 Covered commodity.
65.140 Food service establishment.
65.145 Ginseng.
65.150 Goat.
65.155 Ground beef.
65.160 Ground chicken.
65.165 Ground goat.
65.170 Ground lamb.
65.175 Ground pork.
65.180 Imported for immediate slaughter.
65.185 Ingredient.
65.190 Lamb.
65.195 Legibly.
65.205 Perishable agricultural commodity.
65.210 Person.
65.215 Pork.
65.218 Pre-labeled.
65.220 Processed food item.
65.225 Produced.
65.230 Production step.
65.235 Raised.
65.240 Retailer.
65.245 Secretary.
65.250 Slaughter.
65.255 United States.
65.260 United States country of origin.
65.265 USDA.

Country of Origin Notification

65.300 Country of origin notification.
65.400 Labeling.

Recordkeeping

65.500 Recordkeeping requirements.

Subpart B—[Reserved]

Authority: 7 U.S.C. 1621 *et seq.*

Subpart A—General Provisions

Definitions

§ 65.100 Act.

Act means the Agricultural Marketing Act of 1946, (7 U.S.C. 1621 *et seq.*).

§ 65.105 AMS.

AMS means the Agricultural Marketing Service, United States Department of Agriculture.

§ 65.110 Beef.

Beef means meat produced from cattle, including veal.

§ 65.115 Born.

Born in the case of chicken means hatched from the egg.

§ 65.120 Chicken.

Chicken has the meaning given the term in 9 CFR 381.170(a)(1).

§ 65.125 Commingled covered commodities.

Commingled covered commodities means covered commodities (of the same type) presented for retail sale in a consumer package that have been prepared from raw material sources having different origins.

§ 65.130 Consumer package.

Consumer package means any container or wrapping in which a covered commodity is enclosed for the delivery and/or display of such commodity to retail purchasers.

§ 65.135 Covered commodity.

(a) *Covered commodity* means:

(1) Muscle cuts of beef, lamb, chicken, goat, and pork;

(2) Ground beef, ground lamb, ground chicken, ground goat, and ground pork;

(3) Perishable agricultural commodities;

(4) Peanuts;

(5) Macadamia nuts;

(6) Pecans; and

(7) Ginseng.

(b) Covered commodities are excluded from this part if the commodity is an ingredient in a processed food item as defined in § 65.220.

§ 65.140 Food service establishment.

Food service establishment means a restaurant, cafeteria, lunch room, food stand, saloon, tavern, bar, lounge, or other similar facility operated as an enterprise engaged in the business of selling food to the public. Similar food service facilities include salad bars, delicatessens, and other food enterprises located within retail establishments that provide ready-to-eat foods that are consumed either on or outside of the retailer's premises.

§ 65.145 Ginseng.

Ginseng means ginseng root of the genus Panax.

§ 65.150 Goat.

Goat means meat produced from goats.

§ 65.155 Ground beef.

Ground beef has the meaning given that term in 9 CFR 319.15(a), i.e., chopped fresh and/or frozen beef with or without seasoning and without the addition of beef fat as such, and containing no more than 30 percent fat, and containing no added water, phosphates, binders, or extenders, and also includes products defined by the term ''hamburger'' in 9 CFR 319.15(b).

§ 65.160 Ground chicken.

Ground chicken means comminuted chicken of skeletal origin that is produced in conformance with all applicable Food Safety and Inspection Service labeling guidelines.

§ 65.165 Ground goat.

Ground goat means comminuted goat of skeletal origin that is produced in conformance with all applicable Food Safety and Inspection Service labeling guidelines.

§ 65.170 Ground lamb.

Ground lamb means comminuted lamb of skeletal origin that is produced in conformance with all applicable Food Safety and Inspection Service labeling guidelines.

§ 65.175 Ground pork.

Ground pork means comminuted pork of skeletal origin that is produced in conformance with all applicable Food Safety and Inspection Service labeling guidelines.

§ 65.180 Imported for immediate slaughter.

Imported for immediate slaughter means imported into the United States for ''immediate slaughter'' as that term is defined in 9 CFR 93.400, i.e., consignment directly from the port of entry to a recognized slaughtering establishment and slaughtered within 2 weeks from the date of entry.

§ 65.185 Ingredient.

Ingredient means a component either in part or in full, of a finished retail food product.

§ 65.190 Lamb.

Lamb means meat produced from sheep.

§ 65.195 Legible.

Legible means text that can be easily read.

§ 65.205 Perishable agricultural commodity.

Perishable agricultural commodity means fresh and frozen fruits and vegetables of every kind and character that have not been manufactured into articles of a different kind or character and includes cherries in brine as defined by the Secretary in accordance with trade usages.

§ 65.210 Person.

Person means any individual, partnership, corporation, association, or other legal entity.

§ 65.215 Pork.

Pork means meat produced from hogs.

§ 65.218 Pre-labeled.

Pre-labeled means a covered commodity that has the commodity's country of origin and the name and place of business of the manufacturer, packer, or distributor on the covered commodity itself, on the package in which it is sold to the consumer, or on the master shipping container. The place of business information must include at a minimum the city and state or other acceptable locale designation.

§ 65.220 Processed food item.

Processed food item means a retail item derived from a covered commodity that has undergone specific processing resulting in a change in the character of the covered commodity, or that has been combined with at least one other covered commodity or other substantive food component (e.g., chocolate, breading, tomato sauce), except that the addition of a component (such as water, salt, or sugar) that enhances or represents a further step in the preparation of the product for consumption, would not in itself result in a processed food item. Specific processing that results in a change in the character of the covered commodity includes cooking (e.g., frying, broiling, grilling, boiling, steaming, baking, roasting), curing (e.g., salt curing, sugar curing, drying), smoking (hot or cold), and restructuring (e.g., emulsifying and extruding). Examples of items excluded include teriyaki flavored pork loin, roasted peanuts, breaded chicken tenders, and fruit medley.

§ 65.225 Produced.

Produced in the case of a perishable agricultural commodity, peanuts, ginseng, pecans, and macadamia nuts means harvested.

§ 65.230 Production step.

Production step means, in the case of beef, pork, goat, chicken, and lamb, born, raised, or slaughtered.

§ 65.235 Raised.

Raised means, in the case of beef, pork, chicken, goat, and lamb, the period of time from birth until slaughter or in the case of animals imported for immediate slaughter as defined in § 65.180, the period of time from birth until date of entry into the United States.

§ 65.240 Retailer.

Retailer means any person licensed as a retailer under the Perishable Agricultural Commodities Act of 1930 (7 U.S.C. 499a(b)).

§ 65.245 Secretary.

Secretary means the Secretary of Agriculture of the United States or any person to whom the Secretary's authority has been delegated.

§ 65.250 Slaughter.

Slaughter means the point in which a livestock animal (including chicken) is prepared into meat products (covered commodities) for human consumption. For purposes of labeling under this part, the word harvested may be used in lieu of slaughtered.

§ 65.255 United States.

United States means the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, American Samoa, Guam, the Northern Mariana Islands, and any other Commonwealth, territory, or possession of the United States.

§ 65.260 United States country of origin.

United States country of origin means in the case of:

(a) Beef, pork, lamb, chicken, and goat:

(1) From animals exclusively born, raised, and slaughtered in the United States;

(2) From animals born and raised in Alaska or Hawaii and transported for a period of not more than 60 days through Canada to the United States and slaughtered in the United States; or

(3) From animals present in the United States on or before July 15, 2008, and once present in the United States, remained continuously in the United States.

(b) Perishable agricultural commodities, peanuts, ginseng, pecans, and macadamia nuts: from products produced in the United States.

§ 65.265 USDA.

USDA means the United States Department of Agriculture.

Country of Origin Notification

§ 65.300 Country of origin notification.

In providing notice of the country of origin as required by the Act, the following requirements shall be followed by retailers:

(a) *General.* Labeling of covered commodities offered for sale whether individually, in a bulk bin, carton, crate, barrel, cluster, or consumer package must contain country of origin as set forth in this regulation.

(b) *Exemptions.* Food service establishments as defined in § 65.135 are exempt from labeling under this subpart.

(c) *Exclusions.* A covered commodity is excluded from this subpart if it is an ingredient in a processed food item as defined in § 65.220.

(d) *Labeling Covered Commodities of United States Origin.* A covered commodity may bear a declaration that identifies the United States as the sole country of origin at retail only if it meets the definition of United States country of origin as defined in § 65.260.

(e) *Labeling Muscle Cut Covered Commodities of Multiple Countries of Origin that include the United States.* (1) For muscle cut covered commodities derived from animals that were born in Country X or (as applicable) Country Y, raised and slaughtered in the United States, and were not derived from animals imported for immediate slaughter as defined in § 65.180, the origin may be designated as Product of the United States, Country X, and (as applicable) Country Y.

(2) For muscle cut covered commodities derived from animals born, raised, and slaughtered in the U.S. that are commingled during a production day with muscle cut covered commodities described in § 65.300(e)(1), the origin may be designated as Product of the United States, Country X, and (as applicable) Country Y.

(3) If an animal was imported into the United States for immediate slaughter as defined in § 65.180, the origin of the resulting meat products derived from that animal shall be designated as Product of Country X and the United States.

(4) For muscle cut covered commodities derived from animals that are born in Country X or Country Y, raised and slaughtered in the United States, that are commingled during a production day with muscle cut covered commodities that are derived from animals that are imported into the United States for immediate slaughter as defined in § 65.180, the origin may be designated as Product of the United States, Country X, and (as applicable) Country Y. In each case of paragraphs (e)(1), (e)(2), and (e)(4) of this section, the countries may be listed in any order. In addition, the origin declaration may include more specific information related to production steps provided records to substantiate the claims are maintained and the claim is consistent with other applicable Federal legal requirements.

(f) *Labeling Imported Covered Commodities.* Imported covered commodities for which origin has already been established as defined by this law (e.g., born, raised, and slaughtered or produced) and for which no production steps have occurred in the United States, shall retain their origin, as declared to U.S. Customs and Border Protection at the time the product entered the United States, through retail sale.

(g) *Labeling Commingled Covered Commodities.* In the case of perishable agricultural commodities; peanuts; pecans; ginseng; and macadamia nuts: For imported covered commodities that have not subsequently been substantially transformed in the United States that are commingled with covered commodities sourced from a different origin that have not been substantially transformed (as established by CBP) in the United States, and/or covered commodities of United States origin, the declaration shall indicate the countries of origin in accordance with existing Federal legal requirements.

(h) *Labeling Ground Beef, Ground Pork, Ground Lamb, Ground Goat, and Ground Chicken.* The declaration for ground beef, ground pork, ground lamb, ground goat, and ground chicken covered commodities shall list all countries of origin contained therein or that may be reasonably contained therein. In determining what is considered reasonable, when a raw material from a specific origin is not in a processor's inventory for more than 60 days, that country shall no longer be included as a possible country of origin.

(i) *Remotely Purchased Products.* For sales of a covered commodity in which the customer purchases a covered commodity prior to having an opportunity to observe the final package (e.g., Internet sales, home delivery sales, etc.), the retailer may provide the country of origin notification either on the sales vehicle or at the time the product is delivered to the consumer.

§ 65.400 Labeling.

(a) Country of origin declarations can either be in the form of a placard, sign, label, sticker, band, twist tie, pin tag, or other format that allows consumers to identify the country of origin. The declaration of the country of origin of a product may be in the form of a statement such as ''Product of USA,'' ''Produce of the USA'', or ''Grown in Mexico,'' may only contain the name of the country such as ''USA'' or ''Mexico,'' or may be in the form of a check box provided it is in conformance with other Federal labeling laws.

(b) The declaration of the country of origin (e.g., placard, sign, label, sticker, band, twist tie, pin tag, or other display) must be legible and placed in a conspicuous location, so as to render it likely to be read and understood by a customer under normal conditions of purchase.

(c) The declaration of country of origin may be typed, printed, or handwritten provided it is in conformance with other Federal labeling laws and does not obscure other labeling information required by other Federal regulations.

(d) A bulk container (e.g., display case, shipper, bin, carton, and barrel) used at the retail level to present product to consumers, may contain a covered commodity from more than one country of origin provided all possible origins are listed.

(e) In general, country abbreviations are not acceptable. Only those

abbreviations approved for use under Customs and Border Protection rules, regulations, and policies, such as ''U.K.'' for ''The United Kingdom of Great Britain and Northern Ireland'', ''Luxemb'' for Luxembourg, and ''U.S. or USA'' for the ''United States of America'' are acceptable. The adjectival form of the name of a country may be used as proper notification of the country of origin of imported commodities provided the adjectival form of the name does not appear with other words so as to refer to a kind or species of product. Symbols or flags alone may not be used to denote country of origin.

(f) Domestic and imported perishable agricultural commodities, peanuts, pecans, macadamia nuts, and ginseng may use State, regional, or locality label designations in lieu of country of origin labeling. Abbreviations may be used for state, regional, or locality label designations for these commodities whether domestically harvested or imported using official United States Postal Service abbreviations or other abbreviations approved by CBP.

Recordkeeping

§ 65.500 Recordkeeping requirements.

(a) *General.* (1) All records must be legible and may be maintained in either electronic or hard copy formats. Due to the variation in inventory and accounting documentary systems, various forms of documentation and records will be acceptable.

(2) Upon request by USDA representatives, suppliers and retailers subject to this subpart shall make available to USDA representatives, records maintained in the normal course of business that verify an origin claim. Such records shall be provided within 5 business days of the request and may be maintained in any location.

(b) *Responsibilities of suppliers.* (1) Any person engaged in the business of supplying a covered commodity to a retailer, whether directly or indirectly, must make available information to the buyer about the country(ies) of origin of the covered commodity. This information may be provided either on the product itself, on the master shipping container, or in a document that accompanies the product through retail sale. In addition, the supplier of a covered commodity that is responsible for initiating a country(ies) of origin claim, which in the case of beef, lamb, chicken, goat, and pork is the slaughter facility, must possess records that are necessary to substantiate that claim for a period of 1 year from the date of the transaction. For that purpose, packers that slaughter animals that are tagged with an 840 Animal Identification Number device without the presence of any additional accompanying marking (i.e., ''CAN'' or ''M'') may use that information as a basis for a U.S. origin claim. Packers that slaughter animals that are part of another country's recognized official system (e.g., Canadian official system, Mexico official system) may also rely on the presence of an official ear tag or other approved device on which to base their origin claims. Producer affidavits shall also be considered acceptable records that suppliers may utilize to initiate origin claims, provided it is made by someone having first-hand knowledge of the origin of the covered commodity and identifies the covered commodity unique to the transaction. In the case of cattle, producer affidavits may be based on a visual inspection of the animal to verify its origin. If no markings are found that would indicate that the animal is of foreign origin (i.e., ''CAN'' or ''M''), the animal may be considered to be of U.S. origin.

(2) Any intermediary supplier handling a covered commodity that is found to be designated incorrectly as to the country of origin shall not be held liable for a violation of the Act by reason of the conduct of another if the intermediary supplier relied on the designation provided by the initiating supplier or other intermediary supplier, unless the intermediary supplier willfully disregarded information establishing that the country of origin declaration was false.

(3) Any person engaged in the business of supplying a covered commodity to a retailer, whether directly or indirectly (i.e., including but not limited to growers, distributors, handlers, packers, and processors), must maintain records to establish and identify the immediate previous source (if applicable) and immediate subsequent recipient of a covered commodity for a period of 1 year from the date of the transaction.

(4) For an imported covered commodity (as defined in § 65.300(f)), the importer of record as determined by CBP, must ensure that records: provide clear product tracking from the port of entry into the United States to the immediate subsequent recipient and accurately reflect the country of origin of the item as identified in relevant CBP entry documents and information systems; and must maintain such records for a period of 1 year from the date of the transaction.

(c) *Responsibilities of retailers.* (1) In providing the country of origin notification for a covered commodity, in general, retailers are to convey the origin information provided by their suppliers. Only if the retailer physically commingles a covered commodity of different origins in preparation for retail sale, whether in a consumer-ready package or in a bulk display (and not discretely packaged) (i.e., full service meat case), can the retailer initiate a multiple country of origin designation that reflects the actual countries of origin for the resulting covered commodity.

(2) Records and other documentary evidence relied upon at the point of sale to establish a covered commodity's country(ies) of origin must either be maintained at the retail facility or at another location for as long as the product is on hand and provided to any duly authorized representative of USDA in accordance with § 65.500(a)(2). For pre-labeled products, the label itself is sufficient information on which the retailer may rely to establish the product's origin and no additional records documenting origin information are necessary.

(3) Any retailer handling a covered commodity that is found to be designated incorrectly as to the country of origin shall not be held liable for a violation of the Act by reason of the conduct of another if the retailer relied on the designation provided by the supplier, unless the retailer willfully disregarded information establishing that the country of origin declaration was false.

(4) Records that identify the covered commodity, the retail supplier, and for products that are not pre-labeled, the country of origin information must be maintained for a period of 1 year from the date the origin declaration is made at retail.

Subpart B—[Reserved]

Dated: January 9, 2009.

James E. Link,

Administrator, Agricultural Marketing Service.

[FR Doc. E9–600 Filed 1–12–09; 11:15 am]

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Appendix C

2013 COOL Final Rule

Rules and Regulations

Federal Register
Vol. 78, No. 101
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This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510.

The Code of Federal Regulations is sold by the Superintendent of Documents. Prices of new books are listed in the first FEDERAL REGISTER issue of each week.

DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service

7 CFR Parts 60 and 65

[Document No. AMS–LS–13–0004]

RIN 0581–AD29

Mandatory Country of Origin Labeling of Beef, Pork, Lamb, Chicken, Goat Meat, Wild and Farm-Raised Fish and Shellfish, Perishable Agricultural Commodities, Peanuts, Pecans, Ginseng, and Macadamia Nuts

AGENCY: Agricultural Marketing Service (AMS), U.S. Department of Agriculture (USDA).

ACTION: Final rule.

SUMMARY: This final rule amends the Country of Origin Labeling (COOL) regulations to change the labeling provisions for muscle cut covered commodities to provide consumers with more specific information and amends the definition for ''retailer'' to include any person subject to be licensed as a retailer under the Perishable Agricultural Commodities Act (PACA). The COOL regulations are issued pursuant to the Agricultural Marketing Act of 1946. The Agency is issuing this rule to make changes to the labeling provisions for muscle cut covered commodities to provide consumers with more specific information and other modifications to enhance the overall operation of the program.

DATES: This final rule is effective May 23, 2013. The requirements of this rule do not apply to covered muscle cut commodities produced or packaged before May 23, 2013.

FOR FURTHER INFORMATION CONTACT: Erin Morris, Deputy Associate Administrator, AMS, USDA, by telephone on 202/690–4024, or via email at: *erin.morris@ams.usda.gov.*

SUPPLEMENTARY INFORMATION:

Background

The Farm Security and Rural Investment Act of 2002 (2002 Farm Bill) (Pub. L. 107–171), the 2002 Supplemental Appropriations Act (2002 Appropriations) (Pub. L. 107–206), and the Food, Conservation and Energy Act of 2008 (2008 Farm Bill) (Pub. L. 110–234) amended the Agricultural Marketing Act of 1946 (Act) (7 U.S.C. 1621 *et seq.*) to require retailers to notify their customers of the country of origin of covered commodities. Covered commodities include muscle cuts of beef (including veal), lamb, chicken, goat, and pork; ground beef, ground lamb, ground chicken, ground goat, and ground pork; wild and farm-raised fish and shellfish; perishable agricultural commodities; macadamia nuts; pecans; ginseng; and peanuts. AMS published a final rule for all covered commodities on January 15, 2009 (74 FR 2658), which took effect on March 16, 2009. On March 12, 2013, AMS published a proposed rule to amend the country of origin labeling provisions for muscle cut covered commodities (78 FR 15645).

Executive Summary

Purpose of the Regulatory Action

In June 2012, in a WTO case brought by Mexico and Canada, the WTO Appellate Body (AB) affirmed a previous WTO Panel's finding that the COOL requirements for muscle cut meat commodities were inconsistent with U.S. obligations under the WTO Agreement on Technical Barriers to Trade (TBT Agreement). In particular, the AB affirmed the Panel's determination that the COOL requirements were inconsistent with the TBT Agreement's national treatment obligation to accord imported products treatment no less favorable than that accorded to domestic products. The WTO Dispute Settlement Body (DSB) adopted its recommendations and rulings on July 23, 2012. The United States has until May 23, 2013, to comply with the WTO ruling.

As a result of this action, the Agency reviewed the overall regulatory program and is issuing this rule, under the authority of the Agricultural Marketing Act (7 U.S.C. 1621 *et seq.*), to make changes to the labeling provisions for muscle cut covered commodities and certain other modifications to the program. The Agency expects that these changes will improve the overall operation of the program and also bring the current mandatory COOL requirements into compliance with U.S. international trade obligations.

Summary of the Major Provisions of the Regulatory Action in Question

Under this final rule, origin designations for muscle cut covered commodities derived from animals slaughtered in the United States are required to specify the production steps of birth, raising, and slaughter of the animal from which the meat is derived that took place in each country listed on the origin designation. In addition, this rule eliminates the allowance for commingling of muscle cut covered commodities of different origins. These changes will provide consumers with more specific information about the origin of muscle cut covered commodities.

Costs and Benefits

The costs of implementing these requirements will be incurred by intermediaries (primarily packers and processors of muscle cut covered commodities) and retailers subject to requirements of mandatory COOL. The Agency considers that the total cost of the rule is driven by the cost to firms of changing the labels and the cost some firms will incur to adjust to the loss of the flexibility afforded by commingling.

The estimated number of firms that will need to augment labels for muscle cut covered commodities is 2,808 livestock processing and slaughtering firms, 38 chicken processing firms, and 4,335 retailers. This totals 7,181 firms that will need to augment the mandatory COOL information presented on labels for muscle cut covered commodities.

Based on 2009 data, the Food Safety and Inspection Service (FSIS) estimated there were approximately 121,350 raw meat and poultry unique labels submitted by official establishments (i.e., establishments regulated by FSIS) and approved by the Agency (76 FR 44862). Assuming the upper bound estimate of 121,350 unique labels, the Agency estimates the midpoint cost of the final rule for this label change is $32.8 million with a range of $17.0 million to $47.3 million.

With regard to the elimination of commingling flexibility, which affects the beef and pork segments, the information submitted by commenters

confirms the Agency's understanding that the commingling flexibility is used by some packers, but that it is not possible to specify the extent to which packers are making use of the flexibility. Accordingly, the Agency made various assumptions and used several sources of data to estimate the range of commingling activity that might be occurring in the industry and the related range of costs that might be incurred from the elimination of commingling.

The Agency estimates a potential range of commingling of U.S. and foreign-origin livestock by U.S. packers of five percent to 20 percent. The Agency considers that the data analyzed support the possibility that the extent to which packers are commingling is closer to the lower end than the higher end of the range. Midrange estimates of commingling are 12.5 percent for fed cattle and hogs.

Estimated costs for the loss of commingling flexibility at the packer/processor level are $7.16 per head for cattle and $1.79 per head for hogs that are currently commingled. Estimated costs at the retail level are $0.050 per pound for beef and $0.045 per pound for pork muscle cuts derived from commingled livestock. For the beef segment, total costs for the loss of commingling flexibility to intermediaries and retailers are estimated to be $21.1 million, $52.8 million, and $84.5 million at the lower, midpoint, and upper levels. Similarly for the pork segment, total costs for the loss of commingling flexibility to intermediaries and retailers are estimated to be $15.0 million, $37.7 million, and $60.3 million at the lower, midpoint, and upper levels.

Combining costs for label changes with costs from the elimination of commingling flexibility yields estimated total adjustment costs of $123.3 million at the midpoint and ranging from $53.1 million at the low end to $192.1 million at the high end. Given that the Agency believes that the current extent of commingling likely falls closer to the lower end than the higher end of the estimates, the estimated implementation costs narrow to a range of $53.1 to $137.8 million.

The Agency believes that the incremental economic benefits from the labeling of production steps will be comparatively small relative to those that were discussed in the 2009 final rule.

A complete discussion of the costs and benefits can be found under the Executive Order 12866 section.

Summary of Changes to the COOL Regulations

Definitions

In the regulatory text for fish and shellfish (7 CFR part 60) and for all other covered commodities (7 CFR part 65), the definition for ''retailer'' is amended to include any person subject to be licensed as a retailer under the Perishable Agricultural Commodities Act (PACA) of 1930 (7 U.S.C. 499a(b)). This change more closely aligns with the language contained in the PACA regulation and clarifies that all retailers that meet the PACA definition of a retailer, whether or not they actually have a PACA license, are also covered by COOL.

Country of Origin Notification

Labeling Provisions for Muscle Cut Covered Commodities

Under this final rule, all origin designations for muscle cut covered commodities slaughtered in the United States must specify the production steps of birth, raising, and slaughter of the animal from which the meat is derived that took place in each country listed on the origin designation. The requirement to include this information applies equally to all muscle cut covered commodities derived from animals slaughtered in the United States. This requirement will provide consumers with more specific information on which to base their purchasing decisions without imposing additional recordkeeping requirements on industry. The Agency considers these changes, which are discussed in detail below, consistent with the provisions of the statute.

Labeling Covered Commodities of United States Origin

Under this final rule, the United States country of origin designation for muscle cut covered commodities is required to include location information for each of the three production steps (i.e., ''Born, Raised, and Slaughtered in the United States''). The current COOL regulations permit the term ''harvested'' to be used in lieu of ''slaughtered.'' This final rule retains that flexibility.

In the case of chicken muscle cut covered commodities, the current COOL regulations define the term ''born'' as hatched from the egg. Therefore, under this final rule, the origin designations for chicken muscle cut covered commodities may use the term ''hatched'' in lieu of ''born.''

Labeling Muscle Cut Covered Commodities of Multiple Countries of Origin (From Animals Slaughtered in the United States)

Muscle cut covered commodities derived from multiple countries (from animals slaughtered in the United States) are those muscle cut covered commodities derived from animals that were born in another country (and thereby raised for a period of time in that country) and then, following importation, were further raised and slaughtered in the United States. Under this final rule, the origin designation for these muscle cut covered commodities must include location information for each of the three production steps (i.e., born, raised, and slaughtered). As stated above, there is some flexibility in the terminology that must be used with respect to referencing the production steps.

As discussed in the preamble of the January 15, 2009, final rule and in the March 12, 2013, proposed rule, if animals are born and raised in another country and subsequently further raised in the United States, only the raising that occurs in the United States needs to be declared on the label, as it is understood that an animal born in another country will have been raised at least a portion of its life in that other country. Because the country of birth is already required to be listed in the origin designation, and to reduce the number of required characters on the label, the Agency is not requiring the country of birth to be listed again as a country in which the animal was also raised. Accordingly, under this final rule, the production step related to any raising occurring outside the United States may be omitted from the origin designation of these commodities (e.g., ''Born in Country X, Raised and Slaughtered in the United States'' in lieu of ''Born and Raised in Country X, Raised and Slaughtered in the United States'').

However, in the relatively rare situation where an animal was born and raised in the United States, raised in another country (or countries), and then raised and slaughtered in the United States, the label must indicate all countries which the production step related to raising occurred. In this rare case, the label could read ''Born and Raised in the United States, Raised in Country X, Slaughtered in the United States.''

Finally, the origin designation for muscle cut covered commodities derived from animals imported for immediate slaughter as defined in § 65.180 is required to include

information as to the location of the three production steps. However, the country of raising for animals imported for immediate slaughter as defined in § 65.180 shall be designated as the country from which they were imported (e.g., ''Born and Raised in Country X, Slaughtered in the United States'').

Commingling

This final rule eliminates the allowance for commingling of muscle cut covered commodities of different origins. As discussed in the March 12, 2013, proposed rule, all origin designations are required to include specific information as to the place of birth, raising, and slaughter of the animal from which the meat is derived. Removing the commingling allowance lets consumers benefit from more specific labels.

Labeling Imported Muscle Cut Covered Commodities

As stated in the March 12, 2013, proposed rule, under the current COOL regulations, imported muscle cut covered commodities retain their origin as declared to the U.S. Customs and Border Protection at the time the products entered the United States (i.e., Product of Country X) through retail sale.

Under this final rule, these labeling requirements for imported muscle cut covered commodities remain unchanged. As is permitted under the current COOL regulations, the Agency will continue to allow the origin designation to include more specific information related to the three production steps, provided records to substantiate the claims are maintained and the claim is consistent with other applicable Federal legal requirements.

Labeling

The current COOL regulations allow for a variety of ways that the origin information can be provided, such as placards, signs, labels, stickers, etc. Many retail establishments have chosen to use signage above the relevant sections of the meat case to provide the required origin information in lieu of or in addition to providing the information on labels on each package of meat. Under this final rule, the Agency will continue to allow the COOL notification requirements to be met by using signs or placards. For example, for meat derived from cattle born in Canada and raised and slaughtered in the United States, the signage could read ''Beef is from animals born in Canada, Raised and Slaughtered in the United States.''

In terms of using labels and stickers to provide the origin information, the Agency recognizes that there is limited space to include the specific location information for each production step. Therefore, under this final rule, abbreviations for the production steps are permitted as long as the information can be clearly understood by consumers. For example, consumers would likely understand ''brn'' as meaning ''born''; ''htchd'' as meaning ''hatched''; ''raisd'' as meaning ''raised''; ''slghtrd'' as meaning ''slaughtered'' or ''hrvstd'' as meaning ''harvested''. In addition, the current COOL regulations allow for some use of country abbreviations, as permitted by Customs and Border Protection, such as ''U.S.'' and ''USA'' for the ''United States'' and ''U.K.'' for ''The United Kingdom of Great Britain and Northern Island.'' This final rule retains that flexibility. To help educate consumers about the new requirements, the Agency will redesign its consumer brochures and use tools such as social media, etc.

Effective Date and Period of Education and Outreach

The effective date of this regulation is May 23, 2013, and the rule is mandatory as of that date. As the Agency explains below, it would be impracticable and contrary to the public interest to delay the effective date of the rule beyond May 23, 2013.

However, AMS understands that it may not be feasible for all of the affected entities to achieve 100% compliance immediately and that some entities will need time to make the necessary changes to achieve full compliance with the amended provisions for 100% of muscle cut covered commodities. Therefore, during the six month period following the effective date of the regulation, AMS will conduct an industry education and outreach program concerning the provisions and requirements of this rule. AMS has determined that this allocation of resources will ensure that the industry effectively and rationally implements this final rule.

In addition, it is reasonable to allow time for the existing stock of muscle cut covered commodities labeled in accordance with the 2009 COOL regulations that are already in the chain of commerce to clear the system. Therefore, the requirements of this rule do not apply to muscle cut covered commodities produced or packaged before May 23, 2013. The Agency believes that providing an education and outreach period and allowing existing stock to clear the chain of commerce is necessary to prevent retailer and supplier confusion and will help alleviate some of the economic burden on regulated entities.

Finally, the Agency recognizes that for some period of time following the period of education and outreach, existing label and package inventories may provide less specific origin information (e.g., Product of Country X and the U.S.). As long as retail establishments provide the more specific information via other means (e.g., signage), the Agency will consider the origin notification requirements to have been met until these existing label and package inventories have been completely used.

Comments and Responses

On March 12, 2013, the Agency published a proposed rule with a 30-day comment period. AMS received 936 timely comments from consumers, retailers, producers, wholesalers, foreign governments, distributors, trade associations, and other interested parties. The majority of commenters registered their support or opposition to the rule without providing specific substantive guidance or information to modify the rule text.

AMS received 453 comments, including four petitions signed by more than 40,000 individuals, which indicated that the proposed rule makes labels more informative for consumers. AMS also received 476 comments opposing the rule from numerous producer, packer, and international trading partner entities, as well as individual ranchers, packing companies and Foreign Government officials. The comments expressed opposition to the proposed rule due to concerns about the costs of implementation and the lack of quantifiable benefits to consumers. For the ease of the reader, the comments have been summarized by issue.

Executive Orders 13563 and 12866

Summary of Comments: Numerous commenters stated their belief that the proposed rule should be withdrawn in light of Executive Order (E.O.) 13563—Improving Regulation and Regulatory Review. The commenters contended that they believe the costs of the rule outweigh the benefits and, therefore, the standard of the E.O. is not being met. Another commenter contended that the proposed rule does not comply with E.O. 12866 based on the commenter's belief that there is no explanation of the need for the rule; that the cost/benefit analysis lacks meaning; and that there is no explanation of how regulation is consistent with the statute.

Agency Response: The Agency believes that the proposed rule and this final rule comply with both E.O. 13563

and E.O. 12866. The Act provides authority for the Secretary to promulgate regulations necessary to implement the COOL program. In addition, as explained previously, in order to implement mandatory country of origin labeling for certain meat products as required by statute, the Agency has made changes to the labeling provisions for muscle cut covered commodities. These changes provide consumers with more specific information and enhance the overall operation of the program. The Agency also expects that these changes will bring the mandatory COOL requirements into compliance with U.S. international trade obligations.

The proposed rule contained an executive summary of the rule, which included a statement of need. The Agency has conducted a cost benefit analysis, as required, and has modified the analysis based on the comments received. As noted in a subsequent response below, the Agency believes that this final rule is consistent with the statute.

Miscellaneous

Summary of Comments: Several commenters stated their belief that the proposed rule violates the First Amendment because it impermissibly compels commercial speech. The commenters argued that AMS has not stated an interest sufficient to require labeling of specific production steps as recommended in the proposed rule.

Agency Response: The Agency disagrees. The Act directs that a COOL program be implemented that provides consumers with country of origin information on specified commodities, including muscle cuts of meat. It also provides authority for the Secretary to promulgate regulations necessary to implement the COOL program. The Agency believes that the Act provides the authority to amend the COOL regulations to require the labeling of specific production steps in order to inform consumers about the origin of muscle cuts of meat at retail.

Summary of Comments: One commenter expressed concern that packers will need to maintain two label inventories—one for domestic use and one for export.

Agency Response: The COOL regulations apply to only those products sold at covered domestic retail establishments. Because various countries presently have different labeling and other requirements for accepting products exported from the United States, packers already utilize different labels for products destined for export (as well as for products destined for food service) than for products destined for the domestic retail market.

World Trade Organization

Summary of Comments: Several commenters expressed a wide range of views regarding the WTO dispute. Some commenters contended that the proposed rule will not bring the United States into compliance with its international trade obligations while other commenters contended that the proposed rule will satisfy U.S. trade obligations.

Agency Response: The Agency considers that this rule brings the United States into compliance with its international trade obligations. In the COOL dispute, the WTO affirmed that WTO Members have the right to adopt country of origin labeling requirements, in that providing such information to consumers about the products they buy is a legitimate government objective. However, the WTO had concerns with specific aspects of the current COOL requirements. In particular, the WTO considered that the current COOL requirements imposed record keeping costs that appeared disproportionate to the information conveyed by the labels. This final rule addresses those concerns of the WTO.

Statutory Authority

Summary of Commenters: Some commenters stated their belief that the proposed rule is not authorized by the statute. One commenter stated that the statute does not explicitly or implicitly allow USDA to require retailers to provide point of processing information; that the statute provides that labels must identify the origin of category C covered commodities as the country from which it was imported and the United States; and that, applying the whole statute rule, categories A and B must be labeled in the same manner as categories C and D.

Agency Response: The Agency believes this rule is consistent with the statute and that the Act provides authority for the Secretary to promulgate regulations necessary to implement the COOL program. The statute contemplates four different labeling categories for meat, based on where the animal was born, raised, and/or slaughtered. This final rule preserves these four different labeling categories for meat and is consistent with the labeling criteria set forth in the statutory scheme.

Effective Date and Period of Education and Outreach

Summary of Comments: Several commenters stated that the effective date of the rule should be delayed until it is known whether the WTO considers the final rule to be compliant with U.S international trade obligations. Other commenters recommended that the effective date should be the latter of 180 days after the WTO ruling or the publication of the final rule. Another commenter recommended that the effective date should be 18 months to 2 years after publication of the final rule. With regard to enforcement, another commenter stated their opinion that the industry needs 12–18 months to comply with the final rule due to livestock commitments. Another commenter suggested that companies need 12 months to work through existing inventory of labels.

Agency Response: The effective date of this regulation is May 23, 2013, and the rule is mandatory as of that date. As the Agency explains below, it would be impracticable and contrary to the public interest to delay the effective date of the rule beyond May 23, 2013.

However, and as discussed previously, the Agency determined that an industry education and outreach program concerning the provisions and requirements of this rule is appropriate. The Agency believes that a six month period, as was provided for in the August 1, 2008, interim final rule (73 FR 45106) and the 2009 final COOL rule, is sufficient time for retailers and suppliers to become educated on and fully transition over to the new requirements of the final rule.

Both during this six month period and beyond, the Agency will continue to educate retailers and suppliers on the Agency's compliance and enforcement procedures so that the regulated industries have clear expectations as to how the Agency will enforce this rule. With regard to working through existing packaging inventories, this final rule does not require covered commodities to be individually labeled with COOL information. As discussed previously, retailers can use placards and other signage to convey origin information. In addition, as also previously discussed, it is reasonable to allow time for the existing stock of muscle cut covered commodities labeled in accordance with the 2009 COOL regulations that are already in the chain of commerce to clear the system. Therefore, the requirements of this rule do not apply to muscle cut covered commodities produced or packaged before May 23, 2013.

Labeling

Summary of Comments: Several commenters stated their belief that retailers and suppliers should not have

to list production step information for U.S. origin products. Other commenters stated their belief that requiring production step information is too onerous and that consumers do not desire this information. Another commenter stated that the rule will cause product labels to mislead consumers and referenced the Federal Meat Inspection Act (FMIA) (21 U.S.C. 601 *et seq.*). The commenter further stated that consumers will be confused by imported meat products bearing an ''inspected & passed'' sticker. Another commenter recommended that chicken should be labeled ''hatched'' instead of ''born.'' This commenter as well as other commenters stated their opposition to having to use the term ''slaughtered.'' The commenters suggested alternatives to the term ''slaughtered'' that consumers may find more acceptable including ''harvested'' or ''processed.''

Agency Response: Numerous comments received on this and previous COOL rulemaking actions indicate that there clearly is interest by certain U.S. consumers in the country of origin of food they purchase, including the production step information that retailers must provide pursuant to this final rule. The Agency also considers that providing this more specific information regarding the country in which each production step occurred is consistent with the COOL statute. The Agency further considers that the rule will bring the United States into compliance with its international trade obligations.

In addition, current country of origin labeling for imported meat products follows pre-existing regulations, including those of the U.S. Customs and Border Protection, regarding the origin of imported products. Further, the ''inspected and passed'' sticker is applied under the FMIA by FSIS inspectors and does not relate to the COOL program. The Agency is not aware that the requirements set forth in the 2009 final rule are causing any confusion among consumers related to meat products sold with the ''inspected and passed'' label. In any event, as noted above, this final rule does not change existing COOL labeling requirements for imported meat products nor does it alter the ''inspected and passed'' sticker. As such, there is no reason to believe that this rule will cause confusion related to the ''inspected and passed'' sticker among consumers.

With regard to chicken products, the current COOL regulations define the term ''born'' with respect to chicken as ''hatched.'' Accordingly, it is permissible to utilize the term ''hatched'' in origin designations for chicken products under this final rule. The Agency has included additional language in this preamble to clarify this point. With respect to the suggested alternatives that may be more acceptable to consumers, the 2009 COOL regulations permit the use of the term ''harvested'' in lieu of ''slaughtered.'' As discussed previously, this flexibility will continue to be allowed under this final rule.

Definition of Retailer

Summary of Comments: One commenter provided extensive comments on both the definition of a retailer in the current COOL regulations and the definition of a retailer in the proposed rule. The commenter stated their belief that AMS should not use the definition that is contained in PACA regulations and further stated that AMS should develop its own definition. The commenter provided specific recommendations, including using a definition similar to the one used by the Supplemental Nutrition Assistance Program (SNAP), which is administered by USDA's Food and Nutrition Service. Another commenter stated their support for the proposed rule's definition change and indicated that the change will make the definition less ambiguous.

Agency Response: The COOL statute defines the term ''retailer'' as having the meaning given the term in section 1(b) of the Perishable Agricultural Commodities Act of 1930 (7 U.S.C. 499a(b)). Therefore, the Agency does not have the authority to develop an alternative definition based on SNAP as it is not consistent with the COOL statute. As stated in the March 12, 2013, proposed rule, the Agency believes that the revised definition of a retailer more closely mirrors the definition in the PACA and agrees that this definition is less ambiguous. Accordingly, the Agency has not adopted the alternative recommendations.

Recordkeeping

Summary of Comments: Several commenters stated that they were unclear as to whether current producer affidavits systems will satisfy the regulatory requirements of the proposed rule.

Agency Response: The proposed rule did not alter the recordkeeping requirements of suppliers or retailers. Therefore, the use of affidavits for conveying origin information is still permitted under this final rule.

Raised

Summary of Comments: Several commenters suggested that the Agency redefine the term ''raised'' to refer to the period of time encompassing a majority of an animal's life. The commenters further stated that compared to the retail value of beef, time spent in another country, i.e., country of birth, could be considered *de minimus.* Another commenter stated that retailers should be required to list all countries of raising. Lastly, one commenter asked for clarification of the phrase ''minimal raising,'' which was used in the proposed rule.

Agency Response: The COOL regulations define the term ''raised'' as ''the period of time from birth until slaughter or in the case of animals imported for immediate slaughter as defined in section 65.180, the period of time from birth until date of entry into the United States.'' The proposed rule did not recommend a change to this definition; therefore, the suggestion to modify the definition of the term ''raised'' is outside the scope of this rulemaking. With regard to the request to clarify the phrase ''minimal raising,'' that phrase does not appear in the COOL regulations, and the Agency believes that the language in the existing regulatory text provides readers with a clear definition of the term ''raising.'' Regarding the suggestion to require that all countries of raising be listed on the label, the Agency believes this final rule provides more specific information to consumers with regard to the place of raising in sufficient detail. However, the Agency has added language to this preamble to further explain the regulatory text in § 65.300(e).

Miscellaneous

Summary of Comments: Several commenters stated that the proposed rule runs counter to the shared U.S.-Canada vision of the Regulatory Cooperation Council (RCC) initiative.

Agency Response: As explained previously, in order to implement mandatory country of origin labeling for certain meat products as required by statute in a manner consistent with U.S. WTO obligations, the Agency has made these changes to the labeling provisions for muscle cut covered commodities, which provide consumers with more specific information and enhance the overall operation of the program. The United States values its relationships with its trading partners and is committed to looking for ways to improve regulatory transparency and coordination with Canada as described in the RCC Joint Action Plan.

Summary of Comments: Several commenters stated their opinion that there is no regulatory solution that will bring the United States into compliance

with its international trade obligations. The commenters further stated that the United States should seek a legislative change.

Agency Response: As discussed above, the Agency considers that this final rule constitutes compliance with the WTO DSB's recommendations and rulings.

Summary of Comments: One commenter suggested that the Agency should expand the civil rights review statement to ensure that it is as broad as possible. The commenter specifically requested that the Agency remove the phrase ''. . . on minorities, women, or persons with disabilities'' from the statement.

Agency Response: USDA prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex (including gender identity and expression), marital status, familial status, parental status, religion, sexual orientation, political beliefs, genetic information, reprisal, or because all or part of an individual's income is derived from any public assistance program. The Agency has modified the civil rights review statement as the commenter suggested by removing the phrase in question and using ''protected groups'' in its place.

Alternatives

Summary of Comments: A number of commenters suggested alternatives to the proposed rule, including: COOL should be voluntary; country of origin should be where an animal is processed; and COOL should be based on substantial transformation (recognizing need for statutory change). Another commenter suggested that the enforcement of COOL should be reduced and gave several specific examples.

Agency Response: The alternative labeling programs suggested by the commenters are not authorized by the COOL statute, which provides for a mandatory COOL program and four distinct categories of origin designations for muscle cut covered commodities. Accordingly, these suggestions are not adopted. With regard to the suggestions to reduce the enforcement of the COOL program, this is not within the scope of this rulemaking. The Agency notes, however, that it plans to review its current enforcement procedures to determine if changes should be made.

Summary of Comments: A number of commenters provided recommendations that are outside the scope of the proposed rule, including: Food establishments should be covered because 48% of spending on food occurs at restaurants; the definition of processed should be narrowed such that more products are covered; turkey should be a covered commodity; the definition of ground beef should be narrowed; COOL is not food safety related and the Agency should clarify that mislabeling will not result in a recall; the Agency should disallow the 60-day inventory allowance for ground meat; the Agency should remove the burden on producers of requiring affidavits.

Agency Response: Because these recommendations are outside the scope of this rulemaking, they will not be considered.

Costs and Benefits

Proposal Adds Significant Costs

Summary of Comments: Several commenters stated their belief that the recordkeeping and verification processes necessitated by the proposed rule will be more onerous, disruptive, and expensive than the current regulations. The commenters further contended that the costs of new labels and printers and other equipment, together with increased needs to segregate livestock and the need to make new investments in trucks, processing lines and coolers will add cost to all segments of the production chain.

Other commenters agreed with the Agency's estimates contained in the proposed rule and noted that the incremental cost associated with the proposed labeling changes is only a slight increase over the initial COOL compliance cost estimates contained in the final rule implementing the program. One commenter noted that the proposed rule does not require the collection of additional information and that the primary added costs are associated with changing the labels. Another commenter pointed out that there will be no additional recordkeeping requirements as a result of the proposed rule and that additional labeling costs are concentrated almost entirely at the retail level.

Agency Response: As discussed further in the Regulatory Impact Analysis (RIA), the Agency agrees that there will be additional costs associated with this final rule, although only those muscle cut covered commodities subject to COOL requirements will be affected by the changes in this final rule. Those costs will be incurred by processors and retailers as they adjust to the loss of commingling flexibility and to the new labeling requirements in this final rule. It is necessary, however, to ensure label information accurately reflects the origin of muscle cut covered commodities in accordance with the intent of the statute while complying with U.S. WTO obligations.

That said, the Agency does not agree that additional recordkeeping or verification processes will be required to transfer information from one level of the production and marketing channel to the next. There are no recordkeeping requirements beyond those currently in place, and the Agency believes that the information necessary to transmit production step information is already maintained by suppliers in order to comply with the current COOL regulations. As with the current mandatory COOL program, this final rule contains no requirements for firms to report to USDA. Compliance audits will continue to be conducted at firms' places of business.

In addition, the Agency has sought to minimize the cost to industry at each step of the marketing process. For example, the Agency has clarified that retailers may continue to utilize existing label and package inventories, as long as retail establishments convey the more specific information concerning the location where the production steps occurred via other means (e.g., signage). This will reduce the costs of switching over to the new labels. The Agency further recognizes that there is limited space to include the specific location information for each production step. Therefore, to reduce the potential need for new printers and other equipment, under this final rule, abbreviations for the production steps are permitted as long as the information can be clearly understood by consumers. The Agency also notes many retail establishments have chosen to use signage above the relevant sections of the meat case to provide the required origin information in lieu of or in addition to providing the information on labels on each package of meat.

The Agency further considers it reasonable to allow time for the existing stock of muscle cut covered commodities labeled in accordance with the 2009 COOL regulations that are already in the chain of commerce to clear the system. Therefore, the requirements of this rule do not apply to muscle cut covered commodities produced or packaged before May 23, 2013.

Finally, while the requirements of this rule are mandatory as of the effective date, because AMS understands that it may not be feasible for all of the affected entities to achieve 100% compliance immediately and that some entities will need time to make the necessary changes to achieve full compliance with the amended provisions for 100% of

muscle cut covered commodities, AMS will conduct an industry education and outreach program concerning the provisions and requirements of this rule during the six month period following the effective date of the regulation, as was provided for in the 2008 interim rule and the 2009 final rule. AMS has determined that this allocation of enforcement resources will ensure that the industry effectively and rationally implements this final rule. With regard to costs related to the elimination of commingling flexibility, the Agency has responded to these issues in a subsequent response below.

Processors' Cost of Segregation

Summary of Comments: Numerous commenters provided statements on the costs of segregating livestock they believe will be necessitated by the proposed rule. These commenters explained how, in their opinion, the labeling changes will require additional livestock and meat segregation and record keeping that will increase costs to the industry that must be absorbed by livestock producers, feedlots, shippers, meat packers, processors, retailers and consumers.

One commenter stated that the segregation of cattle and beef carcasses within the packing plant requires unique operational procedures. The commenter further contended that current packing plants were neither designed for nor constructed in a manner to allow for efficiency in the segregation of cattle and beef.

Several commenters stated their belief that the costs of segregating livestock would adversely affect their businesses due to the need to increase hiring and worker hours as well as make large capital investments to accommodate the demands of segregation. In addition, the commenters stated that they would experience an increase in maintenance costs for contracted information technology services to track the additional information required by the proposed rule in company databases.

Another commenter presented an analysis showing how eliminating commingling would significantly impact slaughter and processing facilities now using commingling flexibility, as well as the rest of the downstream supply chain. The commenter contended that increased annual operating costs for the fed cattle and hog processing industries would range from $97.9 to $132.6 million due to the elimination of commingling. The commenter opined that the prohibition on commingling could have an even greater adverse impact on smaller packers, providing one example of a very small cattle slaughter company (fewer than 100 employees) that currently commingles production. According to the commenter's estimate, elimination of commingling would impose an additional $275,000 in costs annually on this company, which is approximately the company's annual profit.

Another commenter stated that there would be significant costs resulting from the need to reconfigure processing plants to segregate product by origin for those plants currently commingling. The commenter stated that estimates of capital costs for beef slaughter and processing operations ranged from $20 to $50 million and from $12 million to $25 million for hog slaughter and processing operations for those plants currently commingling.

Other commenters stated that the proposed rule will add only modest costs to the industry. The commenters pointed out that, as noted in the 2009 COOL regulations, segregating animals by origin can be accomplished through processes that are essentially the same as those that firms already use to sort animals by weight, grade, and other factors. In addition, the commenters stated that strengthening the origin labels in this manner can be achieved without imposing significant additional recordkeeping or verification requirements, as producers are already required to track the origin of animals from which meat is derived.

Agency Response: As previously discussed, no additional recordkeeping is required by this final rule, and no new processes need be developed to transfer information from one level of the supply chain to the next. The information necessary to transmit production step information should already be maintained by suppliers in order to satisfy the 2009 COOL regulations.

With respect to additional operational costs anticipated from the elimination of the commingling flexibility, the Agency has modified its analysis to account for these estimated costs. As noted by commenters, the elimination of this flexibility may require adjustments to plant operations, line processing, product handling, storage, transportation, and distribution for those companies that commingle. As discussed in the RIA, commenters to the proposed rule submitted anecdotal information indicating that commingling flexibility is used by some packers. However, the information provided was insufficient to enable the Agency to determine the extent to which industry is making use of commingling flexibility. As discussed in the RIA, the Agency estimates that the current use of the flexibility likely falls within a range of five to 20 percent of the production of beef and pork muscle cut covered commodities, although it is likely that the extent to which packers are commingling is closer to the lower end than the higher end of the range.

As also discussed in the RIA, the Agency estimates that adjustment costs due to elimination of commingling will range between $19.0 million and $76.3 million in the processing sector and between $17.1 million and $68.5 million in the retail sector (see table 3). The Agency believes these estimates, however, are likely to overstate actual adjustment costs over time. The Agency anticipates that intermediaries will develop ways to minimize down time and processing line changes and that, ultimately, a mix of solutions will be implemented by industry participants to effectively meet the requirements of the final rule. Over the long run, the Agency believes that initial adjustment costs are not likely to persist and that firms will continue to seek methods for efficient production and marketing of the affected products.

Processors' Ability To Source Animals

Summary of Comments: Several commenters discussed the sourcing of animals and the impact the proposed changes will have on these practices. The commenters contended that animals from other countries are used to supplement domestic sources, often on a seasonal basis, and that the proposed rule's new requirements may add sufficient burden that this form of sourcing is no longer economically viable.

One commenter stated concern that his business will suffer because current customers will no longer purchase his company's meat products, which are sometimes sourced from Canadian cattle, because the customers will now have to change all of their labeling. Two commenters stated that the proposed rule gives an unfair advantage to those producers who do not rely on Canadian pigs. A commenter suggested this would create incentives for U.S. processors to use U.S. livestock over imported livestock. Another commenter contended the proposed rule's new requirements would cause the processing industry in Canada to expand at the expense of jobs in the United States.

Agency Response: All labels for muscle cut covered commodities produced in the United States must bear information related to the location of birth, raising, and slaughter. Therefore, all affected retailers and packers will

have to change their labeling practices to conform to this final rule, regardless of the origin of the animal from which their muscle cut covered commodities are derived. Accordingly, while the industry will incur costs for augmenting the label, those particular costs will be borne by all industry participants, regardless of their sourcing decisions.

With regard to commingling, the Agency recognizes that those packers that are commingling will incur additional costs in complying with this rule. However, removing the commingling allowance lets consumers benefit from more specific and detailed labels. Moreover, given that the current COOL requirements already compel retailers to differentiate muscle cut commodities based on origin, the Agency does not believe there is a sufficient basis to definitively conclude that this rule, which continues to require retailers to make that same differentiation based on origin (albeit with more specific labels), will affect purchasing decisions of industry participants or give an unfair advantage to any particular participants.

Retailers' and Wholesalers' Costs

Summary of Comments: Some commenters discussed the additional cost related to retraining associates at their stores, replacing scales, and upgrading distribution systems to allow for the tracking of COOL related information for invoices and manifests.

Several commenters stated that the proposed rule will require retailers to double the number of words on the retail label. For example, a product currently labeled ''Product of the US'' would have to be labeled ''Born, Raised and Slaughtered in the US.'' Those commenters also contended that the more likely result will be that retailers will make an economic decision to purchase only meat from animals born, raised and slaughtered in the U.S. to reduce their risk of inadvertently not complying with this rule. An additional commenter made the point that one of the reasons the current scale systems have less space remaining is due to the implementation of mandatory meat nutrition labeling.

One commenter stated their opinion that certain retailers repack muscle cuts and that the revised labeling requirements would impose an additional layer of complexity and cost from redoing labels, maintaining more complex records and recordkeeping systems, buying new equipment and software, and employee training.

Another commenter that supplies independent stores indicated that the commenter's present software will not allow it to comply with the new rule, and that its stores will need new equipment or must use a second label.

Another commenter stated that the COOL law currently imposes enormous burdens on the supermarket industry and specifically the wholesale industry. The commenter believed that should the proposed rule be adopted, packers will need to document the country or countries with ''all of the production steps'' on the master case and bill of lading and will need to validate proper COOL labeling prior to selling product to their customers. The commenter contended that this will create another step in their receiving process at the warehouse.

An industry association stated that the proposed rule makes substantial changes to COOL requirements that will result in market and supply dislocations and will adversely affect jobs, business operations, and international trade. The commenter stated that a large volume of product is still subject to costly labeling in retail stores and reported that costs would vary, depending on whether retailers could accommodate the additional language required by the proposed rule on current label sizes and existing printers. The commenter also noted the cost of liquidating old labels.

Another commenter stated that because imported products will now have to be separated under the proposal, the cost of U.S. products sold to supermarkets will go up, and imported product will be sold through foodservice channels like restaurants where it will not have to be labeled and likely will be sold at a cheaper price.

Agency Response: The Agency recognizes that additional costs will be borne by industry participants. Estimates of those costs include adjustment costs to processors and retailers due to losing the flexibility to commingle muscle cut covered commodities for purposes of COOL. In addition, the estimated costs include adjustments due to the need to change the labels currently in place. As discussed in further detail in a prior response, the Agency has, to its best ability, sought to minimize the cost to industry at each step of the marketing process, including allowing abbreviations to be used on the new labels.

The Agency further notes that the existing COOL regulations already require retailers to maintain records and other documentary evidence upon which they have relied to establish a covered commodity's country or countries of origin. Similarly, any person directly or indirectly engaged in the business of supplying a covered commodity to a retailer, including wholesalers, must make available information to the buyer about the country(ies) of origin of the covered commodity. Thus, to comply with existing COOL regulations, wholesalers must already have distribution systems to allow for the tracking of COOL-related information for invoices and manifests and receiving procedures to verify the origin information received from packers and processors. This final rule does not alter those requirements, and, accordingly, no new records are required of retailers or wholesalers. As such, the Agency does not agree that a retailer using a mixed origin label would be more likely to find itself inadvertently out of compliance with this rule than it would when using a mixed origin label under the 2009 COOL regulations.

Producer Impacts

Summary of Comments: Many commenters expressed concern that U.S. cattle producers are facing burdens that adversely impact profitability and the viability of their operations. Concerns include the continuing drought conditions across much of the country's cattle producing areas. These commenters observed that drought-induced liquidation of cattle has driven the national beef herd down to the lowest cattle numbers in 60 years. As a result, the commenters asserted that the beef industry must continue to use other feeder cattle procurement possibilities.

One commenter asserted that without these added imported animals in the U.S. herds, the United States would face a large shortage because of the shrinking supply in the United States. The commenter stated that it ships Canadian-sourced cattle an extra 300 miles to a plant that processes Canadian cattle, even though the company is located only 45 miles away from a plant owned by the same processing company that does not process Canadian cattle. The commenter also suggested that the beef produced from imported Mexican feeder cattle should be treated as U.S. beef, since the value of the imported animal is relatively minimal compared to the retail value of the beef from the finished animal once it undergoes substantial transformation into fed beef in the United States.

One commenter expressed concerns about the effects of any trade retaliation that might be implemented by either Mexico or Canada. The commenter was also concerned that retailers may decide to reduce or eliminate sales of pork rather than implement systems necessary to comply with the proposed labeling requirements.

One commenter stated that its members support the rule change and are already very well versed with providing affidavits at point of sale and other documentation to verify the origin of their livestock as needed in order to assure supplier and retailer compliance with COOL. The organization does not have concerns that this rule will cause members any additional hardships.

Another commenter stated that the only industry actor that cannot pass along the costs of doing business in the meat sector is the livestock producer. The commenter stated that compared to the impact that drought has had on feed costs for beef producers, the cost of labeling for food retailers is negligible and that the revised labeling requirements will provide necessary information to consumers.

Agency Response: USDA recognizes the hardship imposed on the U.S. livestock industry due to the recent drought and has addressed this issue to the greatest extent possible through authorized means. The drought has also reduced the size of the Mexican cattle herd and made fewer animals available for export to the United States.

The Agency recognizes that additional costs will be borne by industry participants as they comply with the requirements of this final rule. However, the Agency believes it is necessary to ensure label information more accurately reflects the origin of muscle cut covered commodities in accordance with the intent of the statute while complying with U.S. WTO obligations. As the Agency has noted, the requirement to include this information will apply equally to all muscle cut covered commodities derived from animals slaughtered in the United States, regardless of where the animal was born or raised. The Agency does not believe that these requirements will prevent the U.S. industry from continuing to purchase animals from Canada or Mexico.

With regard to costs borne by the U.S. industry, and as discussed in a prior response, the Agency has sought to minimize the cost to industry at each step of the marketing process. This final rule does not lessen any existing flexibility in how required country of origin information is currently conveyed along the supply chain. The Agency's goal is to enable firms to implement the requirements of this final rule with the least possible disruption to cost-efficient production methods.

Rural Economy/Miscellaneous

Summary of Comments: Some commenters expressed concern about the state of the economy, particularly the rural economy, and the impact the rule might have regarding loss of jobs. For example, one commenter stated that with around 2,000 employees in a typical meat processing plant, it is important not to jeopardize these jobs. Another commenter expressed concern about the elimination of thousands of jobs in rural America at a time when jobs are badly needed.

Agency Response: USDA supports strong rural economies. Through various programs, including USDA's Rural Development, the USDA provides assistance to rural communities. USDA also supports the creation of jobs in this industry, including through the opening of foreign markets for U.S. agricultural exports, including beef and pork. For example, in January, USDA and the United States Trade Representative announced that the United States and Japan have agreed on new terms and conditions that pave the way for expanded exports of U.S. beef and beef products to Japan. Under these new terms, which are now in effect, Japan now permits the importation of beef from cattle less than 30 months of age, compared to the previous limit of 20 months, among other steps. It is estimated that these important changes will result in hundreds of millions of dollars in exports of U.S. beef to Japan in the coming years.

That said, the Agency recognizes that additional costs will be borne by industry participants as a result of this final rule. However, the Agency believes it is necessary to ensure label information more accurately reflects the origin of muscle cut covered commodities in accordance with the intent of the statute while complying with U.S. WTO obligations. At the same time, as discussed in a prior response, the Agency has sought to minimize the cost to industry at each step of the marketing process. As previously stated, the Agency's goal is to enable firms to implement the requirements of this final rule with the least possible disruption to cost-efficient production methods. This final rule does not lessen existing flexibility in how required country of origin information is currently conveyed along the supply chain.

Benefits

Summary of Comments: Some commenters expressed their support for the proposed rule on the grounds that the proposed labeling requirements provide consumers with information they need to make informed choices about the source of food and how it was raised. The commenters stated that there is increased consumer demand to know where and how food is produced.

Some commenters stated that consumer confidence benefits can accrue just as a result of having the information available, even if the consumers do not read the labels' information. In the opinion of some commenters, mandatory labels address concerns of market failure and fraudulent labeling and help investigators trace-back foodborne illness outbreaks. A commenter referenced a 2005 survey that found that nearly two-thirds of consumers (60 percent) preferred country of origin labeling to be administered by a government policy rather than by companies marketing the meat.

Some commenters stated their belief that consumers can differentiate various attributes of competing products and will increase demand, and price, for those attributes they view favorably, including the perceived higher quality of meat derived from animals born, raised and slaughtered in one country rather than another country.

Other commenters provided additional rationale and references to studies indicating consumers benefit from food origin information. The commenters noted there have been numerous polls and studies demonstrating that consumers value origin information regarding the food that they buy, including meat, including a national poll in 2007 that found that 94 percent of those surveyed believed that consumers have a right to know the country of origin of the foods that they purchase, and 85 percent of consumers say knowing where their food comes from is important.

Commenters also referenced a study showing that consumers are willing to pay more for a more precise, country-specific label than for a less precise, mixed-origin label. The commenters noted that mixed-origin labels may be affixed to exclusively U.S. origin product due to the commingling flexibilities in the current program and that eliminating the commingling flexibility and ensuring that single-origin product is accurately labeled will therefore benefit consumers who value being able to purchase products with more precise label information.

Other commenters noted that the Agency did not offer an estimate of any additional benefits from the proposed rule, noting only that the Agency had ''been unable to quantify incremental economic benefits from the proposed labeling of production steps . . . .'' These commenters shared a belief that the Agency's analysis is consistent with recent work on COOL, which has generally failed to document any demand-side benefits from the program.

Numerous commenters stated that there is little evidence that consumers benefit from country of origin labeling and referred to a recent study by Kansas State University and Oklahoma State University [1] which found no demand increase following the implementation of the mandatory COOL program in spite of previous research suggesting consumers would pay more for products carrying origin information. The study concluded that consumers do not value meat products carrying Product of United States labels over those with Product of North America labels and that economic gains would occur by utilizing the latter, less expensive, labeling requirement.

One commenter stated their belief that there is no evidence that consumers base their buying decisions on the source information currently available through the COOL program. The commenter stated that the market has demonstrated and fulfilled the existing limited demand for such information through the success of local production systems, farmers markets, source-verified programs and ''USA'' branded programs. The commenter believed that there is a strong argument that the promulgation of this rule will actually erode these market-driven, premium source-verified programs because it will erode the differentiation they currently own in the marketplace.

One commenter asserted that the Agency has failed to quantify the benefits arising from the promulgation of the proposed rule and that the costs of the proposed rule clearly outweigh any benefits. The commenter cited a study of shrimp purchases [2] which found no difference between consumer purchases before the implementation of COOL and those after it went into effect, quoting from a USDA publication [3] that ''the implications of the research suggest that price is a more important determinant of buyer behavior than COOL, a finding consistent with various consumer surveys.''

Agency Response: As discussed more fully in the RIA, the many comments the Agency has received noting the proposed rule's benefits to consumers reinforce the Agency's original conclusion that implementing the proposed label changes will in fact benefit consumers. These comments demonstrate that there is interest by certain U.S. consumers in information disclosing the countries of birth, raising, and slaughter on muscle cut product labels. Specifying the production step occurring in each country listed on meat labels and eliminating the commingling flexibility as required by this final rule will benefit consumers by providing them with more specific information on which to base their purchasing decisions. The Agency does not agree that this rule will negatively impact the value of premium source-verified programs. The 2009 COOL regulations already differentiate covered muscle cut commodities based on origin. This final rule ensures that the labels will provide the consumers more specific information. Premium source-verified programs are thereby unaffected by this rule.

The Agency acknowledges that an empirical finding of a change in demand due to COOL would support the conclusion that consumers act on the information provided through COOL. Conversely, however, the Agency does not concur that an empirical finding of no change in demand implies that consumers do not value the information or that there are no benefits from providing the information; it may instead imply that the economic benefits are positive but too small to be measurable in a general-population study. The purpose of COOL is to provide consumers with information upon which they can make informed shopping choices. The availability of COOL information does not imply that there will necessarily be any change in aggregate consumer demand or in demand for products of one origin versus others.

Comments received on the proposed rule do not alter the Agency's conclusion that the expected benefits from implementing mandatory COOL requirements remain difficult to quantify and that the incremental economic benefits of this final rule will be comparatively small relative to those afforded by the current COOL requirements.

Regulatory Flexibility Analysis

Summary of Comments: The effects of the proposed rule on small meat plants were described by several commenters including trade associations and individual plant operators. As noted previously, one commenter stated that the prohibition on commingling could have an even greater adverse impact on smaller packers, providing one example of a very small cattle slaughter company (fewer than 100 employees) that currently commingles production. According to the commenter's estimate, elimination of commingling would impose an additional $275,000 in costs annually on this company, which is approximately the company's annual profit.

A commenter stated that many small and very small establishments will need to expand their infrastructure and hire more employees to maintain segregation of carcasses on the slaughter floor and of product in the coolers. One commenter summarized that small meat processing firms estimated their costs to implement the revisions will range from $5,000 on the low end to tens of thousands of dollars on the high end. Several small-scale, local and regional packing plants commented individually and collectively that they do not have the flexibility to segregate and label three different sources of cattle, create different product categories for each (potentially adding 600 times the number of product codes), and segregate the customers as well. The commenters stated that there will be a significant advantage to the larger packing companies that can isolate different categories of consolidation of the industry. The commenters claimed that the vast majority of plants, particularly the small to medium size plants, that purchase cattle from different origins apply the commingling practice. Commenters stated that smaller plants will be forced out of business because of their inability to utilize all sources of the cattle supply, leading to more consolidation and packer concentration with significant negative impacts on suppliers and customers.

One beef packer commented that 2009 COOL regulations forced its customers to accept two SKUs of every item the company sold to them, one labeled Product of USA and the other labeled Product of USA, Mexico. The commenter stated that several of the smaller independent grocery customers indicated that they simply could not handle that many SKUs in their distribution warehouses and in their invoicing and record keeping systems. These retailers told the commenter to choose one or the other or they would have to find other suppliers. The commenter stated that the proposed rule requires even more segregation and even more duplication of labels and SKUs, noting that this may be possible for a large packer and a large retailer but it is extremely difficult and restrictive for a small operator.

Agency Response: As previously discussed, no additional recordkeeping is required by this final rule. Processes currently in place to transfer

[1] Tonsor, Lusk et al. Mandatory Country of Origin Labeling: Consumer Demand Impact, November 2012 *http://www.agmanager.info/livestock/policy/Tonsor_KSU_FactSheet_MCOOL_11-13-12.pdf.*

[2] ''Do Consumers Respond to Country-of-Origin Labeling?'' by Fred Kuchler, Barry Krissoff, and David Harvey, in *Journal of Consumer Policy,* 2010, Vol. 33, pp. 323–337.

[3] *http://www.ers.usda.gov/amber-waves/2012-june/consumers-appear-indifferent.aspx.*

information from one level of the supply chain to the next should be sufficient to accommodate the additional requirements of this rule. With respect to additional operational costs anticipated from the elimination of the commingling flexibility, the Agency has modified its analysis to account for these estimated costs. Over the long run, the Agency believes that initial adjustment costs are not likely to persist and that firms will continue to seek methods for efficient production and marketing of the affected products.

The Agency notes that comments referencing changes and adjustments to production and marketing practices already in place to comply with the 2009 COOL requirements should not be ascribed to the amendments set forth in this final rule.

With regard to commingling, the Agency recognizes that those packers that may currently be commingling will incur additional costs in complying with this rule. However, removing the commingling allowance lets consumers benefit from more specific and detailed labels. That said, there is no clear indication that adjustment will be more difficult for smaller versus larger packers. As noted in the comments and responses to the economic impact analysis, packers already have systems in place for handling and sorting livestock and resultant muscle cuts according to various criteria such as grade, weight, and other factors. Adjustment to the final rule should be able to be accomplished in a similar manner.

Executive Order 12866 and Executive Order 13563

Executive Orders 12866 and 13563 direct agencies to assess all costs and benefits of available regulatory alternatives, and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility. This final rule has been designated as an ''economically significant regulatory action'' under section 3(f) of Executive Order 12866, and, therefore, has been reviewed by the Office of Management and Budget (OMB).

Regulations must be designed in the most cost-effective manner possible to obtain the regulatory objective while imposing the least burden on society. This final rule amends the COOL regulations (1) by changing the labeling provisions for muscle cut covered commodities to provide consumers with more specific information and (2) by amending the definition for ''retailer'' to include any person subject to be licensed as a retailer under PACA to enhance the overall operation of the program and to bring the COOL requirements into compliance with the United States' WTO obligations.

Statement of Need

Justification for this final rule remains unchanged from the 2009 final rule. This rule, as with the 2009 final rule, is the result of statutory obligations to implement the COOL provisions of the 2002 and 2008 Farm Bills. There are no alternatives to federal regulatory intervention for implementing this statutory directive.

The COOL provisions of those laws changed federal labeling requirements for muscle cuts of beef, pork, lamb, goat, and chicken; ground beef, ground pork, ground lamb, ground goat, and ground chicken; wild and farm-raised fish and shellfish; perishable agricultural commodities; ginseng; peanuts; macadamia nuts; and pecans (hereafter, covered commodities). As described in the 2009 final rule, the conclusion remains that there does not appear to be a compelling market failure argument regarding the provision of country of origin information.

Comments received on the 2009 final rule and previous requests for comments elicited no evidence of significant barriers to the provision of this information other than private costs to firms and low expected returns. Thus, from the point of view of society, such evidence suggests that market mechanisms could ensure that the optimal level of country of origin information would be provided to the degree valued by consumers.

Analysis of Benefits and Costs

As set forth in the initial analysis of benefits and costs, the baseline for this analysis is the present state of the beef, chicken, goat, lamb and pork industries, which have been subject to the requirements of mandatory COOL (7 CFR parts 60 and 65) since the effective date of the final rule on March 16, 2009.

Benefits: Comments on the initial regulatory impact analysis for the proposed rule (78 FR 15647) as well as on previous COOL rulemaking actions, reinforce the Agency's conclusion that the final rule's amendments to the COOL labeling requirements will benefit consumers. Numerous comments supported the proposed rule and confirmed that certain U.S. consumers value the designation of the countries of birth, raising, and slaughter on meat product labels. These attributes of meat products are credence attributes, meaning that otherwise consumers would not be able to obtain information on or verify by inspection of the product at the point of purchase. Economic theory shows that unregulated markets may undersupply information on such credence attributes. Specifying the production step occurring in each country listed on meat labels as provided in this rule will provide additional benefits by providing more specific information on which consumers can base their purchasing decisions. Furthermore, information on the production steps in each country may embody latent (hidden or unobservable) attributes, which may be important to individual consumers and result in additional but hard to measure benefit increases. The Agency, however, has not been able to quantify this benefit, as singling out the value of those additional latent attributes and the resultant consumer benefit increases would require complicated modeling techniques that none of the available studies utilized.

The final rule also eliminates the allowance for commingling of muscle cut covered commodities of different origins. As discussed above, the rule requires all origin designations to include specific information as to the place of birth, raising, and slaughter of the animal from which the meat is derived and no longer allows a single mixed origin label to be used on muscle cuts derived from animals of different origins commingled during a single production day. Removing the commingling allowance will benefit consumers by resulting in more specific labels.

The Agency observes that the comments it has received on the proposed rule reinforce the Agency's conclusion that the expected benefits from implementing the final rule's amendments to the existing COOL labeling requirements are difficult to quantify, as no commenters provided quantified assessments of the benefits. Moreover, the comments received do not alter the Agency's conclusion that the incremental economic benefits from the labeling of production steps will be positive, but likely will be comparatively small relative to those already afforded by the 2009 COOL final rule.

Costs: A number of commenters directly addressed or provided information related to the Agency's estimated costs of the proposed rule. Most of these commenters asserted that

the Agency underestimated implementation costs, mainly by omitting costs associated with activities that commenters said would be required to comply with the proposed amendments to the current COOL regulations. The revised cost estimates below take into account these comments.

The Agency believes that there are two primary cost drivers that will be incurred as firms adjust to the amendments to the 2009 COOL regulations. First, muscle cut covered commodity COOL information will need to be augmented to provide the additional specific origin information required by this rule. Second, those firms currently using the flexibility afforded by commingling livestock of more than one origin on a single production day will need to adjust to the new requirement to provide origin information on the birth, raising, and slaughter of the muscle cut covered commodities derived from livestock of each origin. Moreover, the new requirements preclude the use of commingling flexibility.

With respect to commingling, the initial analysis of costs sought ''comment and data regarding the extent to which the flexibility afforded by commingling on a production day is used to designate the country of origin under the current COOL program and the potential costs, such as labor and capital costs, which may result from the loss of such flexibility'' (78 FR 15648). Such flexibility is relevant to the beef and pork industries in the United States. Both feeder and slaughter cattle and hogs are imported from Canada, while mainly feeder cattle are imported from Mexico.

As noted by several commenters, commingling may allow some packers with reliable access to U.S. and foreign-origin livestock to produce products with a single country of origin label, such as ''Product of the U.S. and Canada'' or ''Product of the U.S. and Mexico.'' Several commenters stated that packers can currently take advantage of the commingling flexibility to label all of their production with the same COOL label information every day, even if the animals processed each day are of different origins, so long as the packers can ensure that they process animals of the declared mix of origins every production day. The commenters stated that, in those cases, there may be no need for segregation, sorting, additional labels, and other processes that would otherwise be required to provide COOL information.

In the case of lamb, chicken, and goat meat, imports of live animals for feeding and slaughter in the United States are inconsequential for purposes of this regulatory impact analysis, due to being of negligible quantities.[4] Thus, the following discussion addresses the potential impacts of the loss of commingling flexibility on the beef and pork sectors only.

Commenters to the notice of proposed rulemaking submitted anecdotal information that confirmed that commingling flexibility is used by some packers. However, the information submitted was not sufficient to allow the Agency to determine the extent to which industry is making use of commingling flexibility. Therefore, to develop a range of estimates of the extent to which the beef and pork subsectors may potentially use commingling flexibility under the current COOL regulations (Table 1), the Agency made various assumptions and used several sources of data to examine the cost implications of ending the commingling activity that might be occurring in the industry.

TABLE 1—RANGE OF ESTIMATED POTENTIAL CURRENT USE OF COMMINGLING FLEXIBILITY

Segment	Lower (percent)	Midpoint (percent)	Upper (percent)
Beef	5	12.5	20
Pork	5	12.5	20

The lower-bound estimate is derived from the position of certain U.S. industry actors as well as the complainants in the WTO dispute that the proportion of beef and pork that carries the U.S.-origin label is close to 90 percent.[5] Given that imported livestock represent about eight percent of fed steer and heifer slaughter and just over five percent of barrow and gilt slaughter in recent years, and assuming that some portion of these animals are segregated and labeled accordingly, the Agency adopts five percent as a plausible lower-bound estimate of the portion of total production that may be commingled.[6] For the upper bound of commingling, 20 percent is adopted for both beef and pork and is derived from mandatory COOL retail record reviews that were conducted in 2012. Although the sampling plan for retail compliance reviews is not constructed so as to allow generalization to the entire amount of beef and pork muscle cut covered commodities according to different label types, there are randomization procedures used to select the stores and items for record reviews. Thus, for purposes of establishing an upper bound on the current extent to which commingling flexibility may currently be used, the proportions of different label types found in the sample of retail record reviews provides a source of empirical evidence of the proportions that may be found in the population of retailers subject to the COOL requirements. Of 1,472 retail record reviews for beef and 1,652 for pork, 80 percent were of single-country origin and by definition, could not be the result of commingling. The remaining 20 percent of items reviewed had either two or more countries of origin or were unlabeled. At the most, then, 20 percent of the production could potentially be commingled, which implies the technically possible but highly unlikely assumption that every item with more than one country of origin plus all items without country of origin information are the result of commingling.

Given that the assumption underlying the higher end estimate is highly unlikely, the extent to which the industry is commingling likely falls closer to the lower end than the higher end of the estimated range of commingling.

[4] In 2012, over 8.4 billion broilers were produced in the United States (USDA, NASS. Poultry—Production and Value, 2012 Summary. April 2013.). However, only 4.2 million chickens other than breeding stock were imported into the United States (USDA FAS. GATS Global Agricultural Trade System Online. *http://www.fas.usda.gov/gats/Default.aspx*), constituting just 0.05 percent of U.S. broiler production. The FAS data also show that only 2,569 sheep and 316 goats were imported into the United States in 2012.)

[5] *See* Panel Reports, *United States—Certain Country of Origin Labelling (COOL) Requirements,* WT/DS384/R/WT/DS386/R, adopted 23 July 2012, paras. 7.361, 7.370.

[6] This lower bound estimate is consistent with estimates of U.S. industry in 2009 as well as the complaining parties in the WTO dispute. *See US—COOL (Panel),* para. 7.365.

The second step in estimating the impact of the elimination of commingling flexibility is to determine the cost of the change. A number of commenters provided information regarding the costs associated with the loss of the flexibility afforded by the current allowance of commingling multiple countries of origin on a production day. As noted by commenters, the loss of commingling flexibility means that muscle cut covered commodities of different production step origins will need to be separately labeled with their specific production step information to make the information available to retailers. Commenters pointed out a number of costs that would be incurred to accommodate this requirement. For instance, packers indicated that there would be decreased processing plant efficiency due to an increased number of changes from processing carcasses of one origin to another. For each change, commenters indicated that there is downtime of processing plant labor and capital that runs from $750 to $900 per minute in large beef and pork processing facilities. Commenters also indicated that there would be additional stock keeping units (SKUs) to distinguish differently labeled products, and that the additional SKUs would require reconfiguration of slaughter and processing facilities to segregate animals in pens and products in coolers. Retailers likewise indicated that there would be additional costs associated with an increase in the potential number of origins due to the loss of commingling flexibility at the processor level and the requirement to provide information on the country of birth, raising, and slaughter.

As noted by several commenters, the mandatory COOL proposed rule published in October 2003, did not provide for commingling of muscle cut covered commodities (68 FR 61944). Thus, the regulatory impact analysis (hereafter, 2003 RIA (68 FR 61952)) accounted for the fact that animals and products would need to be segregated to enable labeling of muscle cut covered commodities by country of origin. Among other changes from the 2003 proposed rule, the mandatory COOL final rule published in January 2009, provided that muscle cut covered commodities could be commingled in a single production day.[7] Thus, the regulatory impact analysis (hereafter, 2009 RIA (74 FR 2682)) accounted for the expectation that some degree of commingling according to these two provisions would occur, with the resultant costs estimated to be lower than would be the case without the flexibility of commingling.

Despite receiving anecdotal evidence from commenters on costs of specific activities associated with adjustment to the loss of commingling flexibility, the information was not suitable for compiling into industry-wide total cost estimates. However, with appropriate adjustments, comparing estimated costs from the 2003 RIA (no commingling) to the estimated costs from the 2009 RIA (commingling allowed) provides a basis for estimating the portion of the adjustment costs of this final rule that arise from the disallowance of commingling. The 2003 RIA presented lower-range and upper-range estimates of implementation costs for affected producer, intermediary, and retailer segments. The upper-range estimates were derived from available studies, comments on guidelines for interim voluntary COOL (67 FR 63367), and institutional knowledge of the industries subject to the proposed rule. The 2003 proposed rule did not allow for commingling of covered beef, pork, and lamb muscle cut covered commodities.

The 2009 RIA presented estimates of implementation costs for the requirements of the COOL final rule. In deriving cost estimates for the 2009 RIA, the underlying assumptions were adjusted to reflect changes in the requirements from the proposed rule to the final rule. Most importantly for purposes of deriving cost estimates for muscle cut covered commodities, the 2009 RIA assumed that commingling on a production day would be permitted. Thus, per-unit incremental implementation costs were lowered from the upper-range estimates presented in the 2003 RIA. As a result, differences between the 2003 RIA estimates and the 2009 RIA estimates mainly represent expected marginal cost impacts of the loss of commingling flexibility (Table 2).

TABLE 2—ESTIMATED IMPLEMENTATION COSTS PER AFFECTED INDUSTRY SEGMENT ADJUSTED TO 2012 DOLLARS

Segment	Beef			Pork		
	2003 RIA	2009 RIA	Difference	2003 RIA	2009 RIA	Difference
Intermediary ($/head)	20.00	12.84	7.16	5.00	3.21	1.79
Retailer ($/pound)	0.125	0.075	0.050	0.088	0.043	0.045

In the 2003 RIA, upper-range implementation costs for intermediaries (primarily packers and processors) in the beef segment were estimated at $0.02 per pound of carcass weight. Assuming an 800 pound average carcass weight for steers and heifers, the cost per pound estimate translates into $16.00 per head, or $20 per head after adjusting to 2012 dollars using a Consumer Price Index (CPI) inflation factor of 1.25 (see Table 2). In the 2009 RIA, the implementation cost for beef segment intermediaries was estimated at $0.015 per pound or $12.00 per head, which was considered a best estimate. Adjusting to 2012 dollars using a CPI inflation factor of 1.07 results in an estimate of $12.84 per head. Consequently, in 2012 dollars, the difference between the 2003 RIA estimate and the 2009 RIA estimate for beef segment intermediaries is $7.16 per head, which represents potential adjustment costs due to the loss of commingling flexibilities. Similar calculations apply at the retail level for the beef segment, where the upper-range of costs were estimated at $0.10 per pound in the 2003 RIA and a best estimate of $0.07 per pound in the 2009 RIA. The resulting difference in retailer costs for the beef segment is $0.050 per

[7] As discussed in the 2009 final rule, USDA considers that commingling typically takes place in two different scenarios. First, muscle cut covered commodities derived from animals born, raised, and slaughtered in the United States that are commingled during a production day with muscle cut covered commodities derived from animals that were raised and slaughtered in the United States, and were not derived from animals imported for immediate slaughter, could be designated as, for example, Product of the United States, Country X, and (as applicable) Country Y. Second, muscle cut covered commodities derived from animals that are born in Country X or Country Y, raised and slaughtered in the United States, that are commingled during a production day with muscle cut covered commodities that are derived from animals that are imported into the United States for immediate slaughter, could be designated as Product of the United States, Country X, and (as applicable) Country Y.

pound in 2012 dollars, which represents adjustment costs to affected retailers that no longer can market commingled meat cuts.

The same procedures that were applied to the beef segment were applied to the pork segment to arrive at estimated marginal impacts of the loss of commingling flexibility, also shown in Table 2. The relevant figures are $0.02 per pound for pork segment intermediaries in the 2003 RIA, which converts to $4.00 per head assuming an average 200 pound carcass weight for barrows and gilts. In the 2009 RIA, the intermediary estimate was $0.015 per pound or $3.00 per head. Adjusted to 2012 dollars, the difference between the 2003 RIA and 2009 RIA cost estimates for intermediaries in the pork segment is $1.79 per head. At the retail level in the pork segment, costs were estimated at $0.07 per pound in the 2003 RIA and $0.04 per pound in the 2009 RIA. The difference translates to $0.045 per pound adjusted to 2012 dollars.

The final step in estimating the potential costs of the loss of commingling flexibility is to apply the estimated costs per unit to the relevant measure of production. At the intermediary level for the beef segment, the starting point begins with estimated slaughter of 33.0 million head of cattle in 2012.[8] Given that steers and heifers made up 78.4 percent of total Federally inspected cattle slaughter,[9] total commercial slaughter of steers and heifers is estimated at 25.8 million head. Only steer and heifer slaughter is examined, as the amended labeling requirements only apply to muscle cuts (e.g., steaks and roasts). While a small amount of muscle cuts of cows are marketed at retail, most beef derived from cows (and bulls) is used for grinding or other further processed items. Muscle cuts from cows typically are marketed through hotel, restaurant, or institutional channels or are further processed such that COOL requirements no longer apply.

The total number of head of steers and heifers is then multiplied by the lower, midpoint, and upper ranges of potentially affected animals (or five, 12.5, and 20 percent from above) to arrive at the range of potential adjustment costs shown in Table 3. Specifically, the estimated number of commingled steers and heifers is 1.3 million head at the lower bound, 3.2 million head at the midpoint, and 5.2 million head at the upper bound. Note that within each scenario, different mixes of U.S.-origin cattle versus foreign-origin cattle are possible and the actual mix is undetermined.

TABLE 3—ESTIMATED AFFECTED QUANTITIES AND COSTS OF THE LOSS OF COMMINGLING FLEXIBILITY BY INDUSTRY SEGMENT

[In millions]

	Lower bound		Midpoint		Upper bound	
	Beef	Pork	Beef	Pork	Beef	Pork
Intermediary						
Head	1.3	5.5	3.2	13.7	5.2	22.0
Segment Cost	$9.2	$9.8	$23.1	$24.6	$37.0	$39.3
Retailer						
Pounds	237.6	116.5	594.0	291.3	950.4	570.2
Segment Cost	$11.9	$5.2	$29.7	$13.1	$47.5	$21.0
Total Cost	$21.1	$15.0	$52.8	$37.7	$84.5	$60.3

Multiplying the number of head in Table 3 by the estimated cost per head of $7.16 shown in Table 2 yields beef segment intermediary costs of $9.2 million, $23.1 million, and $37.0 million at the lower, midpoint, and upper levels. These are industry-wide total costs that are expected to be borne primarily by beef packers and processors that currently commingle domestic and foreign-origin cattle under a single COOL declaration. Those costs represent activities such as segregation, sorting, breaks or changes in processing lines from one COOL category to another, additional labels, and other activities above and beyond those required for compliance with current COOL regulations.

Costs of the loss of commingling flexibility for pork segment intermediaries are calculated in a similar manner to that used for the beef segment. In 2012, U.S. commercial hog slaughter was 113.0 million head. Of Federally inspected slaughter, 97.0 percent was barrows and gilts, resulting in an estimated commercial slaughter of 109.8 million barrows and gilts. Meat derived from sows and boars is used for further processed products and is not marketed as muscle cuts that would be subject to COOL requirements. Table 3 shows the estimated number of commingled barrows and gilts to be 5.5, 13.7, and 22.0 million head at the lower, midpoint, and upper levels. After multiplying by the per-head cost estimate of $1.79, expected costs due to the loss of commingling flexibility for pork muscle cut covered commodities at the intermediary level are estimated to be $9.8 million at the lower bound, $24.6 million at the midpoint, and $39.3 million at the upper bound.

The anticipated cost at the retail level due to the loss of commingling flexibility can be computed in a manner similar to that applied at the intermediary level. Adjustment costs for retailers currently marketing commingled beef and pork muscle cut covered commodities stem from activities that may be associated with switching from handling a stream of commingled products carrying the same COOL information to dealing with products that may carry two or more distinct origin labels due to the disallowance of commingling flexibility and the requirement for more specific information on the place of birth, raising, and slaughter. As at the intermediary level, retailers may incur additional costs for segregation, breaks or changes in retail scale weighing and printing from one COOL category to another, additional labels, and other activities above and beyond those required for compliance with current COOL regulations.

Estimating the quantity of beef and pork products that may be commingled at the retail level differs from the process applied at the intermediary

[8] USDA National Agricultural Statistics Service. Livestock Slaughter. January 2013. *http://usda01.library.cornell.edu/usda/nass/LiveSlau//2010s/2013/LiveSlau-01-24-2013.pdf.*

[9] *Ibid.*

level. At the intermediary (packer/processor) level, conveying COOL information begins with entire animals and subsequently carcasses. Thus, the marginal costs of the loss of commingling flexibility are estimated on a per-head basis. In the case of retailers, however, only those muscle cut covered commodities subject to COOL requirements may potentially be affected by the loss of commingling flexibility. For both beef and pork, estimated retail quantities begin with the estimated quantities shown in Table 2 of the 2009 RIA. The retail quantities from the 2009 RIA—8.2 million pounds of beef and 2.3 million pounds of pork—reflect the volume of product estimated to be subject to COOL requirements at retailers subject to the regulations. Further, the retail quantities are adjusted to account for processed products that are exempt from COOL requirements, such as marinated beef tenderloin or cooked ham. The retail quantities are then further adjusted to estimate the quantity of muscle cut covered commodities. For beef, 58 percent of the retail weight is estimated to be sold as cuts,[10] and then the factors of five, 12.5, and 20 percent are applied to arrive at the lower, midpoint, and upper estimates shown in Table 3. For pork, no further adjustment is applied to the retail weight, but the factors of five, 12.5, and 20 percent are applied to arrive at the lower, midpoint, and upper estimates.

The retail quantity estimates for beef and pork are multiplied by the respective per-pound cost estimates of $0.050 and $0.045 to calculate the anticipated cost to retailers for the loss of commingling flexibility. Summing the intermediary and retailer costs yields the total cost estimates shown in the bottom row of Table 3. The total estimated costs for the loss of commingling flexibility range from $15.0 million at the lower end for pork to $84.5 million at the upper end for beef.

Total costs for adjustment to this rule are estimated as the sum of costs for label changes and costs associated with the elimination of the provision that allows for commingling. While some comments suggested that costs of changing labels would be higher than estimated in the regulatory impact analysis for the proposed rule, others suggested that costs of changing labels would be within the range estimated in the proposed rule.

As discussed previously, the 2009 COOL regulations allow for a variety of ways that origin information can be provided, such as placards, signs, labels, stickers, etc. Many retail establishments have chosen to use signage above the relevant sections of the meat case to provide the required origin information in lieu of or in addition to providing the information on labels on each package of meat. Under this final rule, the Agency will continue to allow the COOL notification requirements to be met, including the requirement to provide the location where the production steps occurred, by using signs or placards. For example, for meat derived from cattle born in Canada and raised and slaughtered in the United States, the signage could read ''Beef is from animals born in Canada, Raised and Slaughtered in the United States.'' Further, the Agency recognizes that for some period of time following the period of education and outreach, existing label and package inventories will include less specific origin information (e.g., Product of Country X and the U.S.) As long as retail establishments provide the more specific information via other means (e.g., signage), the Agency will consider the origin notification requirements to have been met. This ability to use in-store signage is expected to reduce transition costs from the current COOL requirements to the more specific information required by this rule.

With respect to changing current COOL label information, in the initial regulatory impact analysis, cost estimates provided in a March 2011, Food and Drug Administration (FDA) report [11] were used to estimate the cost of adding the production step information to currently required COOL labels for muscle cut covered commodities.

Under the FDA model, one-time costs for a coordinated label change are assumed to involve only administrative labor costs and recordkeeping. However, as discussed in the regulatory impact analysis for the proposed rule, no additional recordkeeping costs are anticipated from this rule. Assuming an upper bound estimate of 121,350 unique labels, the Agency estimated the midpoint cost at $32.8 million with a range of $17.0 to $47.3 million in the proposed rule.

Table 4 shows the total estimated adjustment costs for the amendments to the labeling requirements for muscle cut covered commodities. The estimates are presented as a matrix spanning the range of estimated costs of modifying existing labels cross-tabulated with the range of estimated costs resulting from the loss of the flexibility to commingle more than one specific birth, raising, and slaughter origin. The total adjustment costs calculated by adding the labeling costs at the lower, midpoint, and upper range ($17.0, $32.8, and $47.3 million, respectively) to the commingling costs at the lower, midpoint, and upper range ($36.1, $90.5, and $144.8 million, respectively).

TABLE 4—ESTIMATES OF ADJUSTMENT COSTS

[Million dollars]

Label cost		Loss of commingling flexibility		
		Lower 36.1	Midpoint 90.5	Upper 144.8
Lower	17.0	53.1	107.5	161.8
Midpoint	32.8	68.9	123.3	177.6
Upper	47.3	83.4	137.8	192.1

Total costs are estimated to range from $53.1 million at the low end to $192.1 million at the high end.

Comparatively, implementation costs for intermediaries and retailers for beef, pork, lamb, goat, and chicken covered commodities for the current COOL requirements were estimated to total $1,334.0 million in the 2009 RIA, or

[10] *http://www.beefusa.org/CMDocs/BeefUSA/Resources/Statistics/averageannualpercapitaconsumptionbeefcutsandgroundbeef559.pdf.*

[11] Model to Estimate Costs of Using Labeling as a Risk Reduction Strategy for Consumer Products Regulated by the Food and Drug Administration, FDA, March 2011 (Contract No. GS–10F–0097L, Task Order 5).

$1,427.4 million in 2012 dollars. Adjustment costs for the amendments to the current labeling requirements for these commodities are thus estimated at 3.7 to 13.5 percent of the initial COOL adjustment costs for intermediaries and retailers.

The likely range of adjustment costs can be narrowed to some extent from the wide range shown Table 4. In terms of commingling flexibility, the true, but unknown, percentages of beef and pork muscle cut covered commodities that are currently produced and marketed through retailers subject to COOL requirements are unlikely to be at the upper range of estimates. The upper range estimates imply that one in five beef and pork muscle cut items are commingled. While technically possible, that is unlikely, because it requires the assumption that every item in the COOL record review in 2012 having more than one country of origin plus all items without country of origin information would have been the result of commingling. This assumption is unrealistic and not consistent with numerous comments received on the proposed rule as well as comments of industry on the effect that the 2009 final rule has had on the industry.[12] Considering only the lower to midpoint estimates for commingling narrows the estimated adjustment costs to a range of $53.1 to $137.8 million.

Furthermore, over time those costs are expected to fall as packing facilities develop procurement arrangements that are tailored to the loss of commingling. Similarly, retailers' additional labeling costs and adjustment costs for separately providing information on different origin products will diminish over time. Thus, initial adjustment costs are expected to fall over time.

The greater the extent to which individual packers, processors, and retailers use commingling flexibility, the higher is the expected cost of adjustment due to the loss of that flexibility. Packers and processors located nearer to sources of imported cattle and hogs may be commingling to a greater extent than others.

Regulatory Flexibility Analysis

This rule has been reviewed under the requirements of the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 et seq.). The purpose of the RFA is to consider the economic impact of a rule on small businesses and evaluate alternatives that would accomplish the objectives of the rule without unduly burdening small entities or erecting barriers that would restrict their ability to compete in the marketplace. The Agency believes that this rule will have a relatively small economic impact on a substantial number of small entities. As such, the Agency has prepared the following regulatory flexibility analysis of the rule's likely economic impact on small businesses pursuant to section 603 of the RFA. Section 604 of the RFA requires the Agency to provide a summary of the significant issues raised by public comments in response to the initial regulatory flexibility analysis. The Comments and Responses section includes the comments received on the initial RFA and provides the Agency's responses to the comments.

As mentioned in the summary above, this rulemaking was contemplated after the Agency reviewed the overall regulatory program in light of the WTO's finding that the current COOL requirements are inconsistent with U.S. WTO obligations. The objective of this rulemaking is to amend current mandatory COOL requirements to provide consumers with information on the country in which productions steps occurred for muscle cut covered commodities, thus fulfilling the program's objective of providing consumers with information on origin in a manner consistent with the COOL statute and U.S. international trade obligations. The legal basis for the mandatory COOL regulations is Subtitle D of the Agricultural Marketing Act of 1946 (Act) (7 U.S.C. 1638, et seq.).

Under preexisting Federal laws and regulations, origin designations for muscle cut covered commodities need not specify the production steps of birth, raising, and slaughter of the animals from which the cuts are derived. Thus, the Agency has not identified any Federal rules that would duplicate or overlap with this rule.

We do not anticipate that additional recordkeeping will be required or that new systems will need to be developed to transfer information from one level of the production and marketing channel to the next. However, information available to consumers at retail will need to be augmented to include information on the location in which the three major production steps occurred. Therefore, the companies most likely to be affected are packers and processors that produce muscle cut covered commodities and retailers that sell them.

There are two measures used by the Small Business Administration (SBA) to identify businesses as small: Sales receipts or number of employees.[13] In terms of sales, SBA classifies as small those grocery stores with less than $30 million in annual sales (13 CFR 121.201). Warehouse clubs and superstores with less than $30 million in annual sales are also defined as small. SBA defines as small those manufacturing firms with less than 500 employees and wholesalers with less than 100 employees.

While there are many potential retail outlets for the covered commodities, food stores, warehouse clubs, and superstores are the primary retail outlets for food consumed at home. In fact, food stores, warehouse clubs, and superstores account for 75.6 percent of all food consumed at home.[14] Therefore, the number of these stores provides an indicator of the number of entities potentially affected by this rule. The 2007 Economic Census[15] shows there were 4,335 supermarkets and grocery stores (not including convenience stores), warehouse clubs, and superstore firms operated for the entire year with annual sales exceeding $5,000,000 (Table 5). We assume that stores with overall sales above this threshold would be most likely to be subject to the PACA and therefore subject to mandatory COOL and the proposed amendments. We recognize that there may be retail firms, particularly smaller retail firms, subject to PACA but that do not actually hold a PACA license. Therefore, a lower annual sales threshold may be appropriate for estimating the number of retailers subject to PACA. However, the $5,000,000 threshold provides estimated firm and establishment numbers that are generally consistent with the PACA database listing licensed retailers.

[12] *See US—COOL (Panel),* paras. 7.361–7.365.

[13] Small Business Administration. *http://www.sba.gov/sites/default/files/files/Size_Standards_Table(1).pdfhttp://www.sba.gov/sites/default/files/files/Size_Standards_Table(1).pdf.*

[14] ERS, USDA. Food CPI, Prices and Expenditures: Sales of Food at Home by Type of Outlet. *http://www.ers.usda.gov/Briefing/CPIFoodAndExpenditures/Data/table16.htmhttp://www.ers.usda.gov/Briefing/CPIFoodAndExpenditures/Data/table16.htm.*

[15] U.S. Census Bureau. 2007 Economic Census. Retail Trade Subject Series. Establishment and Firm Size. EC0744SSSZ4 and EC0744SSSZ1. Issued January 2013.

TABLE 5—ESTIMATED NUMBER OF AFFECTED ENTITIES, SHARE OF FIRMS BY SIZE, AND COST OF RULE REVISION

NAICS code	NAICS description	Enterprise size criteria	Number of firms	Number of establishments	Share of firms by size %	Cost of rule revision
311611	Animal (except Poultry) Slaughtering.	<500 Employees	1,504	1,518	97.6	$5,165,754
		500+ Employees	37	115	2.4	27,874,505
		Total	1,541	1,633		33,040,259
311612	Meat Processed from Carcasses.	<500 Employees	1,203	1,232	94.9	6,745,200
		500+ Employees	64	173	5.1	10,902,633
		Total	1,267	1,405		17,647,833
311615	Chicken Processing	<500 Employees	2	N/A	5.3	N/A
		500+ Employees	36	N/A	94.7	N/A
		Total	38	156		153,504
445110	Supermarkets and Other Grocery (except Convenience) Stores, Sales >$5,000,000.	<$50,000,000 Sales	4,106	6,050	95.0	14,536,907
		$50,000,000+ Sales	217	19,846	5.0	47,685,862
		Total	4,323	25,896		62,222,770
452910	Warehouse Clubs and Supercenters.	<$50,000,000 Sales	0	0	0.0	
		$50,000,000+ Sales	12	4,260	100.0	10,235,905
		Total	12	4,260		10,235,905
Grand Total			7,181	33,350		123,300,000

Numbers may not sum due to rounding.
SOURCE: 2007 County Business Patterns and 2007 Economic Census.

The 2007 Economic Census data provide information on the number of food store firms by sales categories. Of the 4,335 food store, warehouse club, and superstore firms with annual sales of at least $5,000,000, an estimated 4,106 firms had annual sales of less than $50,000,000, which is higher than the threshold for the SBA definition of a small firm. The Economic Census data do not provide a breakout at the $30,000,000 SBA threshold, which means that the estimated number of small businesses likely is an overestimate.

We estimate that 33,350 establishments owned by 7,181 firms will be either directly or indirectly affected by this rule (Table 5). Of these establishments/firms, we estimate that 6,849 qualify as small businesses. The midpoint total direct incremental costs are estimated for the rule at approximately $123.3 million with a range of $53.1 million to $192.1 million. The direct incremental costs of the rule are the result of revisions in labeling of muscle cut covered commodities. At the total estimated midpoint cost of $123.3 million, $26.4 million would be estimated to be costs borne by small businesses based on the calculations explained below. As also explained below, implementation costs are not expected to be the same for all establishments.

The average cost for each retail establishment is calculated assuming an average label cost per establishment of approximately $984 plus and an average cost for loss of commingling of approximately $1,419 for a total of $2,403. The average label cost for retailer as well as packer and processor establishments is the total midpoint label cost of $32.8 million divided by the total of 33,350 establishments. The average cost per retail establishment for the loss of commingling is the total midpoint cost of $42.8 million for all retailers divided by 30,156 retail establishments. Assuming the same average implementation cost of approximately $2,403 for all retail establishments, small retailers' portion of these costs would be estimated at approximately $14.5 million. However, small retail establishments are expected to incur substantially lower implementation costs due to lower volumes and varieties of muscle cut covered commodities typically marketed at such operations.

Any manufacturer that supplies retailers or wholesalers with a muscle cut covered commodity will be required to provide revised country of origin information to retailers so that the information can be accurately supplied to consumers. Of the manufacturers potentially affected by the rule, SBA defines those having less than 500 employees as small.

The 2007 Economic Census [16] provides information on manufacturers by employment size. For livestock processing and slaughtering there is a total of 2,808 firms (Table 5). Of these, 2,707 firms have less than 500 employees. This suggests that 96 percent of livestock processing and slaughtering operations would be considered as small firms using the SBA definition. For chicken processing there are a total of 38 firms, only two of which are classified as small. Thus, only five percent of the chicken processors are small businesses.

As with retailers above, the average cost for each packer/processor establishment is calculated assuming an average label cost per establishment of approximately $984 plus and an average cost for loss of commingling. The average label cost for packer and processor establishments is calculated as previously explained for retail establishments. However, the average cost per packer/processor establishment for the loss of commingling is calculated using additional information that relates to the size of establishments. Estimated receipts from the 2007 Economic Census are used as a proxy for the relative throughput of livestock slaughtering and meat processing establishments. For instance, small livestock slaughtering enterprises had 7.7 percent of total receipts of $104.7 billion for animal slaughtering (NAICS code 311611) and meat processing (NAICS code 311612) combined. Large livestock slaughtering enterprises had 58.2 percent of the combined receipts, while shares were 11.6 percent for small meat processors and 22.5 percent for large meat processors. These percentages are then applied to the total midpoint cost of $47.7 million for the loss of commingling for all packers and processors. The resulting values are then divided by the number of establishments to estimate the cost per establishment resulting from the loss of commingling flexibility. For livestock slaughtering, the estimated costs are $2,420 for small establishments and

[16] U.S. Census Bureau. 2007 Economic Census. Historical Data Tabulations by Enterprise Size. 2007 Annual Tabulations: U.S., All Industries. *http://www.census.gov/econ/susb/data/susb2007.html.*

$241,403 for large establishments. For meat processing, the estimated costs are $4,491 for small establishments and $62,038 for large establishments. Adding in the average estimated label cost of $984 yields total estimated costs of $3,403 per small livestock slaughtering establishment and $242,387 per large establishment. Similarly, the total estimated costs are $5,475 per small meat processing establishment and $63,021 per large establishment. Based on these average estimated implementation costs, small packer and processor costs under the rule are estimated at about $11.9 million. However, the cost of the loss of commingling flexibility is expected to be mostly concentrated among those facilities that currently commingle domestic and foreign-origin cattle or hogs. The number of small slaughtering and processing establishments that currently commingle is expected to be considerably fewer than the total number of small establishments.

Alternatives considered: Section 603 of the RFA requires the Agency to describe the steps taken to minimize any significant economic impact on small entities including a discussion of alternatives considered. The law explicitly identifies those retailers required to provide their customers with country of origin information for covered commodities (namely, retailers subject to PACA). Thus, the amendments are consistent with the requirements of the Act in terms of who is subject to the final rule.

The change in the definition of a retailer will not have a substantial effect on the number of retailers subject to COOL requirements. The PACA program continually monitors the retail industry for firms that may meet the threshold for PACA licensing and seeks to enforce compliance with those requirements. Thus, those retailers that are required to hold a PACA license should, in fact, be licensed separate and apart from any COOL program requirements.

The Agency considered other alternatives including taking no action or providing less information than was required under the 2009 COOL regulations. These alternatives would not achieve the purpose of this action.

As with the current mandatory COOL program, this final rule contains no requirements for firms to report to USDA. Compliance audits will be conducted at firms' places of business. There are no recordkeeping requirements beyond those currently in place, and the Agency believes that the information necessary to transmit production step information largely is already in place within the affected industries.

As stated in the RFA of the COOL final rule published in January 2009 (74 FR 2693), the COOL program provides the maximum flexibility practicable to enable small entities to minimize the costs on their operations. While the allowance for commingling has been removed from this final rule, the Agency is providing other labeling flexibilities.

The 2009 COOL regulations allowed for a variety of ways that the origin information can be provided, such as placards, signs, labels, stickers, etc. Many retail establishments have chosen to use signage above the relevant sections of the meat case to provide the required origin information in lieu of or in addition to providing the information on labels on each package of meat. Under this final rule, the Agency will continue to allow the COOL notification requirements to be met, including the requirement to provide the location where the production steps occurred, by using signs or placards. For example, for meat derived from cattle born in Canada and raised and slaughtered in the U.S., the signage could read ''Beef is from animals born in Canada, Raised and Harvested in the U.S.'' Further, the Agency recognizes that for some period of time following the period of education and outreach, existing label and package inventories will include less specific origin information (e.g., Product of Country X and the U.S.) As long as retail establishments provide the more specific information via other means (e.g., signage), the Agency will consider the origin notification requirements to have been met.

In addition, small packers, processors, and retailers are expected to produce and stock a smaller number of unique muscle cut covered commodities compared to large operations. Thus, adjustment costs for small establishments likely will be substantially lower than the estimated midpoint average of approximately $3,700 assuming the same average cost for all establishments regardless of type or size.

Executive Order 13175

This rule has been reviewed in accordance with the requirements of Executive Order 13175, Consultation and Coordination with Indian Tribal Governments. The review reveals that this regulation will not have substantial and direct effects on Tribal governments and will not have significant Tribal implications.

Paperwork Reduction Act

Pursuant to the Paperwork Reduction Act (PRA) (44 U.S.C 3501–3520) the information collection provisions contained in this collection package are currently approved by OMB under Control Number 0581–0250. On December 4, 2012, AMS published a notice and request for comment seeking OMB approval to renew and revise this information collection. The comment period closed on February 4, 2013. This final rule does not change any of the recordkeeping provisions.

Executive Order 12988

The contents of this rule were reviewed under Executive Order 12988, Civil Justice Reform. This rule is not intended to have a retroactive effect. States and local jurisdictions are preempted from creating or operating country of origin labeling programs for the commodities specified in the Act and these regulations. With regard to other Federal statutes, all labeling claims made in conjunction with this regulation must be consistent with other applicable Federal requirements. There are no administrative procedures that must be exhausted prior to any judicial challenge to the provisions of this rule.

Civil Rights Review

AMS considered the potential civil rights implications of this rule on protected groups to ensure that no person or group shall be discriminated against on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. This review included persons that are employees of the entities that are subject to these regulations. This rule does not require affected entities to relocate or alter their operations in ways that could adversely affect such persons or groups. Further, this rule will not deny any persons or groups the benefits of the program or subject any persons or groups to discrimination.

Executive Order 13132

This rule has been reviewed under Executive Order 13132, Federalism. This Order directs agencies to construe, in regulations and otherwise, a Federal statute to preempt State law only where the statute contains an express preemption provision or there is some other clear evidence to conclude that the Congress intended preemption of State law, or where the exercise of State authority conflicts with the exercise of Federal authority under the Federal statute. This program is required by the

2002 Farm Bill, as amended by the 2008 Farm Bill.

In the January 15, 2009, final rule, the Federalism analysis stated that to the extent that State country of origin labeling programs encompass commodities that are not governed by the COOL program, the States may continue to operate them. It also contained a preemption for those State country of origin labeling programs that encompass commodities that are governed by the COOL program. This final rule does not change the preemption. With regard to consultation with States, as directed by the Executive Order 13132, AMS previously consulted with the States that have country of origin labeling programs. AMS has cooperative agreements with all 50 States to assist in the enforcement of the COOL program and has communications with the States on a regular basis.

It is found and determined that good cause exists for implementing this final rule May 23, 2013. This rule has been determined to be a major rule for purposes of the Congressional Review Act (5 U.S.C. 801 et seq.); however, the Agency finds that under 5 U.S.C. 808(2) good cause exists to waive the 60-day delay in the effective date for two reasons. First, and as discussed above, on July 23, 2012, the DSB adopted its recommendations and rulings, finding certain COOL requirements to be inconsistent with U.S. WTO obligations. A WTO arbitrator determined that the reasonable period of time for the United States to comply with the DSB recommendations and rulings is ten months, meaning that the United States must comply with the recommendations and rulings by May 23, 2013. If the United States does not bring the rule into effect by this date, the complaining parties in the WTO dispute, Canada and Mexico, may seek to exercise their rights to suspend application to the United States of WTO concessions or other obligations equivalent to the trade benefits they have lost as a result of the inconsistent COOL requirements. If so authorized, Canada and Mexico could take action that adversely affects U.S. interests (e.g., increasing tariffs on U.S. goods). Second, and as also discussed above, changes to the labeling provisions for muscle cut covered commodities, which will provide consumers with more specific information with regard to muscle cut covered commodities, and the other modifications to the regulations will enhance the overall operation of the program. For these same reasons, pursuant to 5 U.S.C. 553, it is found and determined that good cause exists for not postponing the effective date of this rule until 30 days after publication in the **Federal Register**. Accordingly, this rule will be effective May 23, 2013.

List of Subjects

7 CFR Part 60

Agricultural commodities, Fish, Food labeling, Reporting and recordkeeping requirements.

7 CFR Part 65

Agricultural commodities, Food labeling, Meat and meat products, Macadamia nuts, Peanuts, Pecans, Reporting and recordkeeping requirements.

For the reasons set forth in the preamble, 7 CFR parts 60 and 65 are amended as follows:

PART 60—COUNTRY OF ORIGIN LABELING FOR FISH AND SHELLFISH

■ 1. The authority citation for part 60 continues to read as follows:

Authority: 7 U.S.C. 1621 *et seq.*

■ 2. Section 60.124 is revised to read as follows:

§ 60.124 Retailer.

Retailer means any person subject to be licensed as a retailer under the Perishable Agricultural Commodities Act of 1930 (7 U.S.C. 499a(b)).

PART 65—COUNTRY OF ORIGIN LABELING OF BEEF, PORK, LAMB, CHICKEN, GOAT MEAT, PERISHABLE AGRICULTURAL COMMODITIES, MACADAMIA NUTS, PECANS, PEANUTS, AND GINSENG

■ 3. The authority citation for part 65 continues to read as follows:

Authority: 7 U.S.C. 1621 *et seq.*

■ 4. Section 65.240 is revised to read as follows:

§ 65.240 Retailer.

Retailer means any person subject to be licensed as a retailer under the Perishable Agricultural Commodities Act of 1930 (7 U.S.C. 499a(b)).

■ 5. Section 65.300 paragraphs (d), (e), and (f) are revised to read as follows:

§ 65.300 Country of origin notification.

* * * * *

(d) *Labeling Covered Commodities of United States Origin.* A covered commodity may bear a declaration that identifies the United States as the sole country of origin at retail only if it meets the definition of United States country of origin as defined in § 65.260. The United States country of origin designation for muscle cut covered commodities shall include all of the production steps (i.e., ''Born, Raised, and Slaughtered in the United States'').

(e) *Labeling Muscle Cut Covered Commodities of Multiple Countries of Origin from Animals Slaughtered in the United States.* If an animal was born and/or raised in Country X and/or (as applicable) Country Y, and slaughtered in the United States, the resulting muscle cut covered commodities shall be labeled to specifically identify the production steps occurring in each country (e.g., ''Born and Raised in Country X, Slaughtered in the United States''). If an animal is raised in the United States as well as another country (or multiple countries), the raising occurring in the other country (or countries) may be omitted from the origin designation except if the animal was imported for immediate slaughter as defined in § 65.180 or where by doing so the muscle cut covered commodity would be designated as having a United States country of origin (e.g., ''Born in Country X, Raised and Slaughtered in the United States'' in lieu of ''Born and Raised in Country X, Raised in Country Y, Raised and Slaughtered in the United States'').

(f) *Labeling Imported Covered Commodities.* (1) Perishable agricultural commodities, peanuts, pecans, ginseng, macadamia nuts and ground meat covered commodities that have been produced in another country shall retain their origin, as declared to U.S. Customs and Border Protection at the time the product entered the United States, through retail sale.

(2) Muscle cut covered commodities derived from an animal that was slaughtered in another country shall retain their origin, as declared to U.S. Customs and Border Protection at the time the product entered the United States, through retail sale (e.g., ''Product of Country X''), including muscle cut covered commodities derived from an animal that was born and/or raised in the United States and slaughtered in another country. In addition, the origin declaration may include more specific location information related to production steps (i.e., born, raised, and slaughtered) provided records to substantiate the claims are maintained and the claim is consistent with other applicable Federal legal requirements.

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Dated: May 20, 2013.

Rex A. Barnes,

Associate Administrator, Agricultural Marketing Service.

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