USDA has a number of rulemaking offices and a number of reviewers before the regulation is sent to OMB.
The following delegations of authority are made by the Secretary of Agriculture to the Chief Economist:

- Review and assess the economic impact of all significant regulations proposed by any agency of the Department.

- Provide direction to Department agencies in the appropriate methods of risk assessment and cost-benefit analyses and coordinate and review all risk assessments and cost-benefit analyses prepared by any agency of the Department.
“...The Director shall ensure that any regulatory analysis that is conducted under this section includes a risk assessment and cost-benefit analysis that is performed consistently and uses reasonably obtainable and sound scientific, technical, economic, and other data....”

“...for each proposed major regulation...”

“...As used in this section, the term “major regulation” means any regulation that the Secretary of Agriculture estimates is likely to have an annual impact on the economy of the United States of $100,000,000 in 1994 dollars. ic, and other data...”
U.S. Department of Agriculture Reviews

- Office of the Chief Economist (OCE) Reviews
- Office of Management and Budget (OMB) Reviews
- OMB Economically Significant Reviews

Source: USDA-OCE and Reginfo.gov
Regulatory Process at USDA

- Agency prepares proposed/final rule
  - (P)RIA or cost benefit analysis --- costs and benefits
  - RA --- required for major regulations affecting human health, safety or the environment
  - NEPA --- for environmental impacts
  - CRIA --- for civil rights impacts
  - Small Business requirements --- for small business impacts

- Submit to USDA agencies to Review
  - OCE/ORACBA review of RIA and RA

- Send to OMB for interagency review

- Respond to review comments & publish

- Solicit public comments (proposed rule)
Risk Assessment Seeks to Answer Three Questions

• What can go wrong?

• How likely is it to happen?

• What are the consequences if it does happen?
Characteristics of a Good Risk Assessment

- Transparency
- Clarity
- Logical structure
- Use of good science
- Well documented
- Includes discussion of sources and magnitude of uncertainty
How Risk Assessments Go Wrong

• Failure to communicate
• Presentation of list of hazards, but no exposure or risk
• No discussion of uncertainty
• Analysis of only a subset of alternatives
• Failure to discuss (or consider) risks that are difficult or impossible to quantify
Circular A-4 Framework

• Benefit Cost Analysis
  – Max E[Benefits] – E[Costs]
  – Condition: MB = MC

• Cost Effective Analysis
  – Max E[Benefits] s.t. fixed budget
  – or Min E[Costs] s.t. fixed objective
    • Standards of performance
    • Other social purpose, protection of privacy, etc

http://www.whitehouse.gov/omb/circulars_a004_a-4
Lack of Effective Animal Disease Traceability as Market Failure

Title 9 of CFR: Animals and Animal Products;
PART 86—ANIMAL DISEASE TRACEABILITY

Contents
§86.1 Definitions.
§86.2 General requirements for traceability.
§86.3 Recordkeeping requirements.
§86.4 Official identification.
§86.5 Documentation requirements for interstate movement of covered livestock.
§§86.6-86.7 [Reserved]
§86.8 Preemption.

§86.2 General requirements for traceability
(b) No person may move covered livestock interstate or receive such livestock moved interstate unless the livestock meet all applicable requirements of this part
Circular A-4 Guidance

Market Failure Type of Rules

- Baseline
- Alternative approaches
  - Expected costs
  - Expected benefits
- Select option with greatest net benefits
- Solicit public comment

http://www.whitehouse.gov/omb/circulars_a004_a-4
Additional Guidance from EO12866

“...Each agency shall tailor its regulations to impose the least burden on society, including individuals, businesses of differing sizes, and other entities (including small communities and governmental entities), consistent with obtaining the regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations...”

http://www.whitehouse.gov/omb/inforeg_regmatters#eo12866
“Traceability for Livestock Moving Interstate” Rule

• **Need for Rule:** The United States did not have an overarching animal disease traceability program integrated to meet the needs of all farm-raised livestock and poultry as well as disease programs.

• Animal traceability does not prevent disease but provides invaluable information for emergency response and for ongoing disease control programs.

• Markets usually fail in the provision of this type of integrated information.
Need for Rule (cont.)

• The most significant inadequacies in disease tracing capabilities existed in the cattle industry

• Previously, many cattle received official identification through USDA’s vaccination program for brucellosis

• Successful eradication efforts however resulted in a large decline in the number of officially identified cattle (10 million in 1988 vs. 3.1 million in 2010)
## US Beef Industry

<table>
<thead>
<tr>
<th>Year</th>
<th>Averaged annual U.S. retail Choice beef price*</th>
<th>Retail equivalent value of U.S. beef industry</th>
<th>Total U.S. beef consumption</th>
<th>Value of U.S. cattle and calf production</th>
<th>U.S. beef production (commercial carcass weight)</th>
<th>U.S. beef exports (commercial carcass weight)</th>
<th>U.S. beef exports (value)</th>
<th>U.S. beef exports as percent of production</th>
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<tbody>
<tr>
<td>2002</td>
<td>3.32</td>
<td>60</td>
<td>27.9</td>
<td>27.1</td>
<td>27.09</td>
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<td>3.186</td>
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<td>2004</td>
<td>4.07</td>
<td>70</td>
<td>27.8</td>
<td>34.8</td>
<td>24.55</td>
<td>0.46</td>
<td>0.631</td>
<td>1.9</td>
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<td>28.1</td>
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<td>26.42</td>
<td>1.434</td>
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<td>2008</td>
<td>4.33</td>
<td>76</td>
<td>27.3</td>
<td>35.6</td>
<td>26.56</td>
<td>1.996</td>
<td>3.014</td>
<td>7.5</td>
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<td>2009</td>
<td>4.26</td>
<td>73</td>
<td>26.8</td>
<td>32</td>
<td>26.07</td>
<td>1.935</td>
<td>2.909</td>
<td>7.4</td>
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<tr>
<td>2010</td>
<td>4.4</td>
<td>74</td>
<td>26.4</td>
<td>37</td>
<td>26.41</td>
<td>2.3</td>
<td>3.839</td>
<td>8.7</td>
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<tr>
<td>2011</td>
<td>4.81</td>
<td>79</td>
<td>25.5</td>
<td>45.2</td>
<td>26.28</td>
<td>2.785</td>
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<td>25.8</td>
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<td>5.114</td>
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<td>2013</td>
<td>5.29</td>
<td>88</td>
<td>25.5</td>
<td>49.5</td>
<td>25.8</td>
<td>2.584</td>
<td>5.711</td>
<td>10</td>
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</tbody>
</table>

Source: USDA-ERS.
Principles of the New Framework

• Traceability rulemaking moved forward as collaborative effort (including numerous public meetings, Tribal consultations, and conference calls with industry)

• Principles of the regulatory framework adopted included: flexibility, coordination with stakeholders, producer data controlled by States and Tribes, requirements applied to farm-raised livestock (cattle and bison, horses and other equine species, sheep and goats, swine, captive cervids) and poultry

• Progress envisioned over time and driven by industry
The NAIS Study

In April 2009, APHIS released the “Benefit-Cost Analysis of the National Animal Identification System,” an assessment of the economic costs and benefits of adopting a voluntary NAIS, that found the following:

– The cattle industry estimated cost represented 91.5 percent of the total cost of NAIS for the primary animal species

– Estimated cost for implementing NAIS in the cattle sector, as described in the study, was $175.9 million annually (at a 90 percent participation level)

– Economic benefits in both domestic and international markets resulting from enhanced traceability might be greater than the cost savings realized during animal disease control and eradication efforts

– Implementation of NAIS would be more cost effective at higher participation levels
Proposed Rule

• Instead, APHIS prepared an economic analysis for the **proposed** traceability rule, as required by EO 12866, for significant rules

• Review and clearance of the rule started in April 2011 and was completed in August 2011 (published in Federal Register in the same month)
Published and made available for comment in several places and requested public comment.

* The proposed rule will lead to an increase in the number of officially identified animals and will require that the eartags be collected at slaughter.

** The proposed rule will increase the number of animals moving interstate with eartags recorded on ICVls.
Cost Estimation Approach

• The economic analysis provided an estimation of costs
  – Focus on the beef and dairy cattle industries (as most affected by the rule), 30 million of animals, cattle moving interstate, included in the analysis
  – Estimate expected producer costs of acquiring official animal identifications (ear-tags or electronic devices) and of ICVI (certificate) issuances
  – Expect significantly higher costs if animal identification and other new practice requirements undertaken separately from other routine management practices
Cost Estimation Results

• Total estimated expected producer costs ranged between $14.5 million and $34.3 million (if new practices undertaken separately from other routine management practices)

• Or, between $5.5 million and $7.3 million (if new practices combined with other routine management practices)
Table 3. Estimated costs of official identification with current management practices

<table>
<thead>
<tr>
<th>Estimated Number of Cattle Moving Interstate</th>
<th>Incremental Cost, Low Estimate</th>
<th>Incremental Cost, High Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using Official ID</td>
<td>10,500,000</td>
<td>$0</td>
</tr>
<tr>
<td>Tagging but not using official ID</td>
<td>13,500,000</td>
<td>$2,430,000</td>
</tr>
<tr>
<td>Not tagging</td>
<td>6,000,000</td>
<td>$10,080,000</td>
</tr>
<tr>
<td>Total</td>
<td>30,000,000</td>
<td>$12,510,000</td>
</tr>
</tbody>
</table>

Table 4. Estimated costs of official identification with modified management practices

<table>
<thead>
<tr>
<th>Estimated Number of Cattle Moving Interstate</th>
<th>Incremental Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using Official ID</td>
<td>10,500,000</td>
</tr>
<tr>
<td>Tagging but not using official ID</td>
<td>13,500,000</td>
</tr>
<tr>
<td>Not currently tagging</td>
<td>6,000,000</td>
</tr>
<tr>
<td>Total</td>
<td>30,000,000</td>
</tr>
</tbody>
</table>
Benefits Evaluation Approach

• The economic analysis also provided an evaluation of benefits:
  – Expected benefits were illustrated using case studies for bovine tuberculosis, brucellosis, and spongiform encephalopathy (BSE) that showed inefficiencies in tracing animal disease occurrences and the potential gains in terms of cost savings.
  – Additional expected benefits also derived from a university study of the value of enhanced ability of the U.S. producers to minimize the trade impacts of animal disease outbreaks.
  – Qualitative estimate was potentially a $3.7 billion savings over 10 years.
Public Comment Period

• Started on August 11, 2011 and ended on November 9, 2011
• APHIS received 1,618 of public comments
• Most comments were related to cattle id requirements.
• Public comments led APHIS to revise the proposed rule to some extent, resulting in greater flexibility of requirements of the final rule.
Revisions of the Proposed Rule

• The most important revisions included:
  – The final rule provisions related to cattle apply only to animals over 18 months of age that will not need to be identified, but will still require an ICVI for interstate movement
  – If USDA determines that there is a need to include cattle under 18 months of age, then action will be undertaken through a separate rulemaking
  – The final rule allows other than ICVI documents for animal movement, if involved States agree
Revisions of the Proposed Rule (cont.)

• Revisions also included:
  – No need to re-tagging of animals tagged before the publication of the final rule
  – Some exemptions for equines providing more flexibility for local areas to transport animals across State lines
  – Exemptions provided for “custom slaughtered animals”
  – There are no traceability performance standards for States and Tribes (action will be undertaken through a separate rulemaking in the future)
Final Rule

• APHIS prepared an economic analysis for the final rule, as required by EO 12866, for significant rules

• Review and clearance of the rule started in April 2012 and was completed in December 2012 (published in Federal Register in January 2013)
Cost Estimation and Benefits Evaluation Results

- Total estimated expected producer costs ranged between $14.5 million and $34.3 million (if new practices undertaken separately from other routine management practices), same as the proposed rule.
- Or, between $10.9 million and $23.5 million (if new practices combined with other routine management practices), estimates increased after public comments.
- Also, expected some additional State and Tribal costs but supplemented from Federal funds (up to $14.2 million).
- Benefits evaluation approach and results:
  - Same as the proposed rule.
Questions?
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