Senate Committee on Agriculture, Nutrition & Forestry
Drought, Fire and Freeze: The Economics of Disasters for America's Agricultural Producers
Questions for the Record
February 14, 2013
Dr. Joseph W. Glauber

Chairwoman Debbie Stabenow

1.) Can you provide a table that quantifies the financial impacts of extreme weather events in 2012 on the crop, livestock, and specialty crop sectors respectively? Can you also include the mitigating factor of crop insurance coverage for these three sectors?

Response: On February 11, USDA's Economic Research Service (ERS) released its revised farm income forecast for 2012 as well as its first forecast of farm income for 2013. For 2012, net cash income is forecast at $135.6 billion, a record in nominal terms and, the highest since 1973, adjusting for inflation. Farm cash receipts are forecast at $391 billion, up $17 billion over 2011 levels. Crop receipts are estimated at $220 billion, up 5.4 percent over 2011, while livestock receipts are up 3.4 percent to $172 billion. Total expenditures are up as well relative to 2011, with feed costs forecast to rise 16.6% to $64 billion reflecting higher grain and oilseed prices. Other farm income, which includes crop insurance indemnities covering the 2011 and 2012 crop years, is forecast to be $31.3 billion in 2012, up 20 percent over 2011 levels.

Table 1a shows farm income projections for calendar year 2012 made by ERS in February 2012, compared to subsequent forecasts made in August 2012, November 2012, and most recently, in February 2013. This table can highlight some of the financial impacts of the extreme weather events in 2012. Projections for farm income for 2012 increased over the period. That increase was largely due to increased commodity prices which offset declines in crop yields over the period, increased placement of cattle from pasture to feedlots, higher pork production, stronger than expected meat exports, and increases in crop insurance indemnities. Cash receipts for crops are up almost 11 percent from projected levels made in February 2012. Livestock receipts are up almost 4 percent from previous projections. Projected cash expenses for 2012 are roughly the same level as was projected in February 2012. Higher feed expenses were offset by lower-than-forecast expenditures for energy-related expenses, machine hire and storage expenses.

Table 1a--Projected 2012 farm income

Item	2012 Farm Income Forecast as of:				Feb13/Feb12
	Feb 2012	Aug 2012	Nov 2012	Feb 2013	
Cash income statement:	Billion dollars				
1. Cash receipts	364.075	387.950	385.537	391.236	7.5%
Crops 1/	198.292	222.144	216.557	219.557	10.7%

Livestock	165.783	165.806	168.979	171.679	3.6%
2. Direct Government payments	10.993	11.077	10.860	10.845	-1.3%
3. Farm-related income 2/	19.898	34.542	34.895	31.322	57.4%
4. Gross cash income (1+2+3)	394.966	433.568	431.291	433.403	9.7%
5. Cash expenses 3/,4/	298.712	293.909	298.506	297.803	-0.3%
6. NET CASH INCOME (4-5)	96.254	139.659	132.785	135.599	40.9%
Farm income statement:					
7. Gross cash income (1+2+3)	394.966	433.568	431.291	433.403	9.7%
8. Nonmoney income 5/	24.660	24.630	24.649	24.475	-0.8%
9. Value of inventory adjustment	5.890	-6.840	-7.907	-11.363	-292.9%
10. Total gross income (7+8+9)	425.516	451.358	448.033	446.514	4.9%
11. Total expenses	333.767	329.126	334.032	333.679	0.0%
12. NET FARM INCOME (10-11)	91.749	122.232	114.001	112.836	23.0%

Table 1b shows net crop insurance indemnity payments for selected crops for 2012. As of April 1, 2013, over $16 billion had been paid out in crop insurance indemnity payments to cover 2012 crop losses. Almost $11 billion was paid to corn producers while soybean producers received over $2 billion in indemnity payments. Non-row crop producers received about $1 billion in indemnity payments in 2012. Less than $35 million has been paid to producers enrolled in the livestock and dairy pilot programs.

Table 1b--Net indemnity payments, selected 2012 crops (million dollars)

Crop	Total	Subsidy	Producer-paid	Indemnity	Net indemnity

	Premium		premium		
Barley	83.2	52.3	30.8	43.3	12.5
Corn	4,320.4	2,682.8	1,637.6	10,735.9	9,098.2
Grain Sorghum	213.9	138.2	75.7	400.8	325.1
Oats	8.3	5.2	3.1	5.0	1.9
Wheat	1,783.9	1,111.0	672.9	733.5	60.6
Rice	55.4	38.5	16.9	40.1	23.2
Upland cotton	835.3	553.2	282.1	1,078.4	796.3
Peanuts	87.3	51.7	35.6	24.6	-11.0
Soybeans	2,345.1	1,469.4	875.7	2,029.0	1,153.3
Total selected row crops	9,732.8	6,102.4	3,630.4	15,090.5	11,460.1
Other	1,350.0	854.8	495.2	998.9	503.7
All crops	11,082.7	6,957.1	4,125.6	16,089.4	11,963.8

Source: Risk Management Agency, Summary of Business, April 1, 2013.

2.) If livestock disaster assistance would have been available in 2012, what would have been the impact on the financial health of livestock producers, the financial situation of the meat processing industry, and on the size of the U.S. cattle herd?

Response: Livestock, dairy and poultry producers faced high feed costs for most of 2012 and high prices are likely to persist through much of 2013 until new crops are harvested in the fall. Feed ratios, which have generally been tight since 2007, tightened further in 2012 as feed costs rose relative to meat and dairy prices. In addition to high feed costs, cattle producers have been particularly hard hit by poor pasture and hay conditions. Almost 60 percent of pasture condition rated poor or very poor for most of July, August, and September 2012. Dryness in the Southern Plains has persisted for over two years and the U.S. cattle and calf herd is at its lowest level since 1952.

USDA took advantage of several flexibilities within the existing framework of statutory authorities to provide assistance to producers last summer. For example, USDA expanded lands in the Wetland Reserve Program and the Conservation Reserve Program (CRP) that would be eligible for emergency haying or grazing. Roughly 2.8 million acres in the CRP were opened up under the emergency haying and grazing option, which provided up to $200 million in forage value.

In addition, funds were prioritized under the Environmental Quality Incentives Program and the Wildlife Habitat Incentives Program to help producers manage drought conditions. Modifications of existing contracts were allowed for grazing and livestock watering in drought stricken areas.

Further, through a regulation change, USDA simplified the process for Secretarial disaster designations, which resulted in a 40 percent reduction in processing time for most counties affected by disasters. In 2012, 2,333 counties received disaster designation status (2,254 due to drought); 704 counties have been designated as disaster counties in 2013 (703 due to drought).

Other actions included a reduced interest rate for emergency loans and a payment reduction on CRP lands qualified for emergency haying and grazing in 2012, from 25 to 10 percent. The Secretary also worked with crop insurance companies to provide an extended payment period to pay crop insurance premiums and filed special provisions with the federal crop insurance program to allow haying or grazing of cover crops without affecting the insurability of planted 2013 spring crops.

Despite these actions, some programs that could have helped mitigate drought impacts currently have no funding. The three livestock disaster assistance programs authorized in the 2008 farm bill were reauthorized in the American Taxpayer Relief Act of 2012, but have not yet been funded by appropriations. For 2008-2011 losses, the Livestock Forage Program (LFP), for example, paid more than $550 million. Preliminary analysis suggests that LFP payments could have totaled between $500 million and $600 million for 2012 losses alone.

With total livestock, dairy and poultry cash receipts for 2012 estimated at $172 billion, LFP payments would have had limited impact to sector income, but they would have had potentially larger regional effects for producers adversely affected by the drought.

Ranking Member Thad Cochran

1.) ***In addition to the natural disaster damages that farmers and ranchers have seen this past year, I have also heard from many forest owners who have suffered from catastrophic events like drought, wildfires, and hurricanes. Can you provide the Committee with an estimate of the impact that these disasters have had on private forest owners? In particular, what is the loss in timber value from these disasters? What assistance is available at USDA for these kinds of landowners, especially given that it is very difficult for most forest owners to get insurance against disasters like these?***

Response**:** The natural disasters that have occurred with increasing intensity and frequency in recent years have had a significant impact on private forest land. While reliable national data is not currently available for assessing loss in timber value, local and state data indicate that millions of acres of private forest land have been adversely impacted cumulatively by wildfire, hurricanes, tornado outbreaks and drought. Some of the most widespread and devastating impacts have been the result of climate change and drought induced pine and bark beetle infestations that have resulted in vast areas of die-off particularly in western states. Southern pine

plantations have also proven particularly vulnerable to blow-down from recent hurricanes and tornado outbreaks.

USDA has a variety of technical and financial assistance programs to assist private landowners care for their forests, including the Forest Legacy Program, Forest Stewardship Program, Environmental Quality Assistance Program, Wildlife Incentive Program, and the Conservation Stewardship Program. More information about these, and other landowner assistance programs, can be found at http://www.usda.gov/wps/portal/usda/usdahome?navid=FOREST_FORESTRY.

2.) ***The 2012 fire season was one of the worst fire seasons on record, burning more than 3 million acres over the 10-year average. What is USDA doing to respond to this devastation on both public and private forests in an effort to maintain the livelihoods of forest owners and the forest products industry -- both of whom rely on these forests? Can you provide an estimate of the economic damages caused by these fires on both public and private forests?***

Response: The Forest Services' intent is to maintain a consistent level of goods and services and is accomplishing this in many ways, e.g., the Lakeview CFLR project in Oregon is modifying their proposal after wildfire burned through the project area in 2012 with the intent of providing a high level of goods and services in spite of the adjustment.

Hazard trees are being removed along roads and trails and in and around campgrounds to protect the public while providing logs to the industry.

Several million acres of NFS rangelands were burned throughout the West, including parts of the Great Plains. An example of the worst situation is the Pine Ridge District of the Nebraska NF where nearly all that district, thus all the grazing allotments, burned. Nationally, fires resulted in a grazing reduction of 327,397 head per month (>2% of all authorized grazing over two grazing seasons) affecting 436 allotments (>5% of all allotments were affected) of which 178 allotments were totally unusable, resulting in 455 permittees (ranchers) affected. However, there was a significant amount of assistance given in the form of reconstructed fences, water troughs and pipelines, as well as other structures ($5,603,604; 1257 structures; 112 alternative allotments offered)

There is a need for further mitigation of the drought effects on these NFS rangelands. The recuperation time for the grasses will greatly vary by site. In most areas recovery will require at least one full growing season before it can be grazed, and in other areas it might take longer. The Forest Service is working within current authorities and funding to implement mitigation activities.

Over the last two fiscal years the Forest Service burned area emergency response (BAER) program spent almost $94 million in emergency stabilization efforts on NFS lands immediately after fires to help with erosion, flooding, and other threats to human health and safety, and

threats to resources. Treatments were as diverse as hillside stabilization, road protection, hazardous material stabilization, and hazard tree removal, as well as myriad other treatments.

The most effective way to assist private forest landowners is proactively, through programs like the **Forest Stewardship Program** (FSP). Through the FSP, and state forest agency partners, the Forest Service is working with landowners to maintain and improve forest health and biodiversity. Healthy and diverse forests are much more resilient (and stable, resistant, and adaptive) and thus able to withstand natural disasters and stress much better than unmanaged forests. Well managed forests are also much less susceptible to intense wildfires that can significantly alter long-term ecosystem structure. Nationally, there are currently more than 20 million acres of private forestland that are being managed according to **Forest Stewardship Plans**, in a way that is intended to enhance and restore long-term forest health, biodiversity and resilience.

The FSP also provides forestry technical assistance to support the delivery of financial assistance to private forest landowners through the **Emergency Forest Restoration Program**.

3***.) Can the U.S. Forest Service provide a status update of the pine beetle outbreak in the DeSoto National Forest in Mississippi and the national forests in Texas? Is the U.S. Forest Service using all relevant authorities to control the outbreak? What other major insect infestations are occurring in other parts of the country that threaten the livelihood and health of our national forests?***

Response: In 2012 a southern pine beetle (SPB) outbreak developed on the National Forests of Mississippi quickly affecting more than 1,400 acres of pine forests in the State. Most of the beetle activity occurred on the Homochitto, Bienville and Tombigbee Forests; however, no activity was reported on the De Soto Forest. This is the first significant outbreak in the region since the last outbreak ended in the early 2000's. Over the past 10 years, the Forest Service and state cooperators have been focusing efforts on SPB prevention activities to help reduce future losses to SPB by thinning stands to increase resiliency. Of the more than 700 SPB spots on the Homochitto, only 2 spots were in thinned stands. The Forest Service is working closely with the Mississippi Forestry Commission and Mississippi State Extension Service to reach out to landowners and provide technical support needed to suppress beetle activity on private land. Additionally, the Forests are actively pursuing the use of Stewardship Contracting Authority to more cost-effectively address the suppression of any additional SPB activity.

Pine mortality on National Forests in Texas has been related to multi-year drought conditions and subsequent engraver beetle activity in these Forests. These beetles are much less aggressive than SPB and outbreaks often subside on their own once weather conditions improve.

Many other insects and pathogens affect our nation's forests. In 2012, approximately 4.6 million surveyed acres had tree mortality from insects and pathogens. This is down from 6.6 million acres in 2011. Most of this decline is due to the continued decrease in acres with mountain pine

beetle-caused mortality in the west. Other insects, such as the spruce beetle, western spruce budworm and gypsy moth affect many acres in different parts of the country. The Forest Service, and our state partners, has treated nearly a million acres of Federal, state and private forest lands to reduce the impacts of these threats to forest health.

4.) ***Last December, the U.S. Forest Service announced the Mountain Pine Beetle Response Project on the Black Hills National Forest in South Dakota after an extensive public comment period and environmental review. Can you tell me about the Mountain Pine Beetle Response Project and how that project is coming along? Do you expect litigation as you move to implementation? Is this a model for how to complete National Environmental Policy Act (NEPA) requirements more efficiently? If so, are you applying this model nationwide across the National Forest System?***

Response: The Black Hills National Forest's Mountain Pine Beetle Response Project (MPBRP) includes treatments on portions of 248,000 acres of ponderosa pine stands at high risk for MPB infestations in SW South Dakota and NE Wyoming. Since signing the decision, forest personnel have been actively implementing the project. Rose Petal is the first timber sale being implemented on the ground; two more sales, Fox Ridge and Buck Mountain, are in the review phase with on the ground implementation beginning soon. The chance of litigation is possible due to the fact that the organizations who gained standing to litigate, by filling objections to the project, have also litigated other pine beetle projects within the last couple of years. However, it is not possible to predict if they will file suit against the MPBRP. The National Environmental Policy Act approach utilized for the MPBRP has been utilized successfully for other projects within the agency. The adaptive nature of the MPBRP analysis and decision is being promoted agency wide as an efficient method to be considered for use when analyzing landscape scale acreage when specific treatment areas have not yet been identified.

5.) The Healthy Forest Restoration Act (HFRA) is approaching its ten-year anniversary. To date, how many acres has the Forest Service treated using HFRA authorities?

Response: 1,476,106 acres were treated under HFRA from Fiscal Year 2005 to 2012.

Is the Forest Service using the HFRA to its fullest extent to manage our national forests and reduce the threat of devastating wildfires?

Response: The HFRA is a tool that is being used to the fullest extent where appropriate within the limitations associated with implementation of the program.

Are there any areas within the HFRA that can be improved to provide the agency with additional tools to mitigate the risks of wildfire?

Response: Broadening of the application of HFRA's environmental analysis provisions to help accomplish more fuel reduction acres as part of landscape-scale projects; as the agency increases

focus on planning and implementing at the landscape level, the more likely a project will include some work items outside the scope of HFRA since HFRA use is limited to hazardous fuel reduction activities.

6.) Can you provide the Committee with information regarding what the Forest Service has accomplished to date in regards to carrying out the Large Airtanker Modernization Strategy which would upgrade the aging airtanker fleet with "next generation" airtankers?

Response: The Forest Service issued a solicitation for next generation large airtankers in late 2011. Due to protests, the announcement of the intent to award made in June 2012 was not finalized. A revised solicitation which clarified elements in the solicitation was issued in November 2012 with a projected tentative award in spring 2013.

What is the current make-up of the airtanker fleet under contract today, including both the number of aircrafts and aircraft types?

Response: The current airtanker fleet is made up of 8 airtankers awarded on March 27th, 2013. These 8 airtankers were awarded under what was called the "legacy" airtanker contract, because the solicitation focused on existing P-2V airtankers which the agency expects to phase out as more Next Gen airtankers become available. It is expected that when the Next Generation contracts are awarded there will be up to 7 additional airtankers under contract. Up to 3 airtankers may be available through interagency agreement from the State of Alaska. Additional airtankers may be available from Canada through an interagency agreement. Also, eight Modular Airborne Firefighting System (MAFFS) equipped Air Force/National Guard aircraft would be available in 2013.

From the Forest Service's perspective, what would an updated fleet of aerial assets, including airtankers and scoopers, look like – in terms of aircraft mix and how these planes are owned and operated?

Response: As stated in the Large Airtanker Modernization Strategy the Forest Service believes a core fleet of 18-28 next-generation large airtankers is needed to meet the firefighting challenges of the future. This fleet will be comprised of a mix of aircraft makes/models contracted from private industry with the potential that some airtankers may be government owned. If government owned aircraft are part of the airtanker fleet they would be operated and maintained by private industry.

Currently, the Forest Service has 2 water scoopers available through a contract shared with the Bureau of Land Management.

Has the Forest Service issued any contract solicitations for any next generation airtankers? Have there been any delays in making the awards?

Response: Yes, in the fall of 2011 a solicitation was issued for up to 7 Next Generation Large Airtankers. In January 2012 the solicitation closed. A technical evaluation board reviewed the proposals and the Next Generation intent to award was announced in June 2012, but the awards were protested by two companies that did not receive an award. The protests were based on technical evaluation and pricing. Following a GAO hearing, the FS amended the solicitation making clarification to the Request for Proposal (RFP). The amended RFP closed on November 5, 2012. Only the original bidders were eligible to submit revised proposals. These revised proposals were reviewed by the Technical Evaluation Board in late 2012 and early 2013 with a projected announcement of intent to award in Spring 2013. To date, the intent to award has not been announced. It is projected that Notices of Intent to Award will be issued to successful vendors in May, 2013, with subsequent contract award predicated upon the successful completion of cancellation ceilings thereafter

7.) Recently Secretary Vilsack stated that as a result of sequestration, Food Safety and Inspection Service (FSIS) inspectors at meat and poultry facilities would need to be furloughed for 15 days. If sequestration is a permanent cut to the FSIS budget, how does furloughing inspectors solve the budget gap? Wouldn't FSIS be forced to furlough inspectors again in future budget years?

Response**:** Based on the limited flexibility FSIS has in its budget, the size of the sequestration reductions pursuant to the Balanced Budget and Emergency Deficit Control Act (BBEDCA), the time left in FY2013, and the lack of flexibility in applying sequestration cuts, FSIS had no alternative but to make plans to furlough the entire Agency at that time. Subsequently, as a result of the Continuing Appropriations Act of 2013, Congress provided USDA with authority to transfer $55M from other accounts into FSIS. Although this leaves a significant FSIS funding shortfall, based on actions already taken and projected savings, FSIS will avoid a furlough in FY2013.

Under the *Blueprint for Stronger Service*, USDA has saved more than $700 million over the past three years, and continues to try to find efficiencies and reduce costs. FSIS is currently trying to complete a proposed rule on Modernization of Poultry Inspection that would increase food safety and also save the Agency approximately $31M per year once fully implemented. USDA and FSIS are committed to continuous efforts to find efficiencies and reduce costs; however, because FSIS funding requirements are driven by compliance with its regulatory mission there is a limit on how much FSIS can reduce its costs. Avoiding future furloughs will be largely contingent upon sustaining FSIS funding levels, particularly when mandated missions like the Cooperative Interstate Shipment Program are added or increased.

Further, during the threat of a government shutdown in spring 2011, USDA claimed that essential federal employees would not be subject to furloughs and that FSIS inspectors were included as "essential federal employees." It is our understanding that "essential" employees were those that are "necessary to fulfill constitutional responsibilities, safeguard human life

or protect property." What is different today or what has changed since 2011 to now claim FSIS inspectors as subject to being furloughed employees?

Response**:** A sequestration pursuant to BBEDCA and a short-term government shutdown due to a lapse of appropriations, whether by the expiration of full-year appropriations at the conclusion of the fiscal year or of a continuing resolution, will have different impacts on the agency. A government shutdown involves a lapse, not a reduction, of budget authority. In the context of a lapse in appropriations (*i.e.*, a shutdown), agencies can rely on an exception to the Antideficiency Act (ADA) that permits them to designate employees as essential "in cases of emergency involving the safety of human life or the protection of property" (31 U.S.C. § 1342). Unfortunately, that exception to the ADA does not apply in the current context, and BBEDCA does not contain a similar provision on which FSIS could rely to exempt FSIS inspectors from furloughs.

FSIS's governing statutes require that food safety inspections of meat and poultry products be conducted by FSIS personnel, with authorizations for Congress to make appropriations in such sums as necessary for that purpose. Accordingly, furloughing inspection personnel to comply with the limits of appropriations enacted by Congress for that purpose does not violate any provisions of the FMIA and PPIA. Faced with reduced resources as a result of sequestration, FSIS must take appropriate steps, potentially including furloughs, to control its expenditures and stay within its funding authority for the fiscal year. Unlike other budget scenarios, such as a short-term government shutdown, the exemption provisions of BBEDCA are not applicable to FSIS inspection activities. Although the PPIA and the FMIA state the Secretary shall "cause to be made" inspections of meat and poultry, this requirement is not a mandate for the Secretary to inspect meat and poultry that overrides following other laws. That is, the Secretary continues to be bound by fiscal law, including the ADA, which prohibits government officials from making or authorizing expenditures exceeding the amounts Congress has appropriated for those expenditures.

8.) On September 14, 2012, OMB provided preliminary estimates of the funding reductions scheduled to occur due to the 2013 sequester. Is there still intention to target the Tobacco Trust Fund and Agricultural Disaster Relief Fund?

Response: Both the Tobacco Trust Fund/Tobacco Transition Payment Program (TTPP) and the Agricultural Disaster Relief Trust Fund payments, of which the Supplemental Revenue Assistance Program (SURE) is a part, were subject to sequestration and reduced by $48,960,000 and $69,972,000, respectively. On March 19, 2013, Secretary Vilsack sent a letter to congressional leaders to notify them of USDA's intent to utilize interchange authority under 7 U.S.C. 2257 to transfer $155.584 million from the Farm Service Agency's (FSA) direct payment program to several other FSA administered programs, including TTPP and SURE, to address the reduction from sequestration. If the use of this interchange authority is not blocked, TTPP and

SURE recipients would receive payments as normal. Should the use of interchange authority be blocked, USDA would need to reexamine how the sequestration reduction is applied, but TTPP and SURE recipients would receive smaller payments and producers who already received payments in FY 2013 may be asked to return a portion of these payments.

Senator Sherrod Brown

1.) It's no secret that I've never been a supporter of direct payments -- the fixed payments made every year according to historical planting data -- paid to producers indiscriminate of need. I'm concerned that these payments exaggerate disparities between different types of agricultural production and may affect farmers' business decisions. Dr. Glauber, would you please provide some information for the 2012 crop year that would help us assess inequities in the system? For instance, what portion of producers who received direct payments did not experience any losses? And, what portion of producers who experienced a loss, but did not receive direct payments?

Response: Unfortunately, we do not have current data to match recipients of direct payments with 2012 indemnity payments. Based on the 2011 Agricultural Resource Management Survey (ARMS), almost 60 percent of the farm households that received direct payments in 2011 also purchased crop insurance in that year. Farms receiving direct payments and purchasing crop insurance accounted for about 80 percent of the value of production of farms receiving direct payments.

About 37 percent of farms that received direct payments and purchased crop insurance in 2011 received indemnity payments. About 30 percent of farms that did not receive direct payments in 2011, did receive indemnity payments.

While we do not yet have farm level data that can match 2012 losses with direct payment recipients, the attached table provides some insight into the percent of crop insurance policies receiving indemnity payments in 2012 for selected crops eligible for direct payments were made. Through April 1, 2013, about 42 percent of all crop insurance policies had received an indemnity payment for 2012 losses. This compares with 34 percent of policies indemnified in 2011 and 23 percent in 2010. Of crops eligible for direct payments, almost 54 percent of corn policies, 53 percent of cotton policies, 60 percent of sorghum policies, and 37 percent of soybean policies were indemnified as of April 1.

Note that we do not have data on farms who suffered crop losses but who did not receive an indemnity because their losses did not exceed their policy deductible. Thus, the percent of farms with crop losses who also received direct payments will likely be larger than what is reported above.

Incidence of Crop Insurance Indemnity Payments for Selected Crops, 2012 Crop Year

Crop	Loss ratio	Percent of policies indemnified
Barley	0.52	21.6%
Corn	2.48	53.5%
Grain Sorghum	1.87	60.4%
Oats	0.60	19.3%
Wheat	0.41	27.0%
Rice	0.72	7.9%
Upland cotton	1.29	52.9%
Peanuts	0.28	14.4%
Soybeans	0.87	36.9%
All crops	1.45	40.9%

Source: Risk Management Agency.

2.) Dr. Glauber, your written testimony and your remarks this morning point out a few simultaneous trends. We are here talking about disaster and the hardship producers are enduring because of uncontrollable weather events. Later this morning we'll hear from producers who lost much, if not all, of their harvest in 2012. At the same time, you've explained that net cash income for 2012 is forecast at record highs -- and net farm income for 2013 will likely follow suit – reaching the highest level, in real terms, in 40 years. Total cash receipts are up and while input costs -- such as feed and labor -- are up, net farm income remains at record levels. Additionally, Farm Equity is at record highs, farm real estate continues to increase in value, while the farm debt-to-asset ratio is at record lows. This all makes it sounds like agriculture is doing very well.

But at the same time you've noted that crop insurance indemnity payments for 2013 are likely to surpass the 2012 record. Would you please help me understand this seemingly incongruous information?

Response: Indemnity payments for 2012 losses continued to be made (in 2013) and total indemnity payments for the 2012 crops will exceed $17 billion, larger than last year's record $10.8 billion paid on 2011 crop year losses. We do not have an idea of what the indemnity

payments will be for the 2013 crop year. However, some of the crop losses from 2012 will indemnified in calendar year 2013, which are incorporated into the 2013 projected farm income statistics.

For 2013, ERS projects net cash income to be $123.5 billion, a decline of almost 9 percent. Total cash receipts are forecast at $393 billion, up marginally from 2012. While net cash income is projected to fall in 2013, net farm income is forecast at $128 billion, a nominal record and highest level in real terms since 1973 if realized. The increase in net farm income in 2013 reflects projected increases in farm inventories in 2013 due to the expectation of trend yields and increased crop production.

Farm equity is forecast to increase to record levels in 2012 and 2013. The farm debt-to-asset ratio for 2013 is forecast at 10.2 percent, the lowest level, if realized, since ERS began calculating the measure in 1960. Many producers have benefitted from high commodity prices, which have helped keep farmland values and subsequently farm sector assets high. Moreover, farmers who insured with revenue products were indemnified at prices 15 to 25 percent higher than planting prices, which helped offset crop losses. Farm assets in 2013 are forecast at a record high $2.732 trillion, a record high in both nominal and real terms. Farm real estate is forecast at $2.35 trillion, up 7.5 percent over 2012 levels (and up 15.7 percent over 2011 levels).

3.) Whether pervasive drought or a severe storm, once a disaster strikes, it is this Committee's job to determine how best to provide assistance to agricultural producers who suffer significant losses. The weather is one of those things we can't control -- but we can be prepared. Broadly speaking, agricultural research, soil and water conservation, diversification, appropriate risk management could all be seen as investments in prevention. Given your respective areas of expertise, what do you see as essential preventative measures this Committee can take at a time when farmers are facing changing weather patterns AND the federal government is focused on reducing expenditures? How can we do more and better with less?

Response: Designing an equitable and efficient means to provide producers with a safety net for unforeseen disasters is a difficult task made more difficult with the objective of reducing federal government expenditures. USDA has a number of programs that help form a safety net for crop and livestock producers. For example, farmers that grow crops for which catastrophic risk protection level of crop insurance is not available can apply for coverage under the Noninsured Crop Disaster Assistance Program (NAP), which functions similarly to catastrophic crop insurance. NAP payments for 2011 crop losses totaled over $260 million and to date have totaled almost $100 million for losses to the 2012 crop. And other programs that could have helped mitigate the impacts of the severe drought conditions have expired or currently have no funding, particularly for livestock producers. The President's budget has identified several places to lower expenditures on Farm Bill programs and has done so while maintaining a robust safety

net for times of need. The FY 2014 budget would cut more than $11 billion from the crop insurance program over the next 10 years, while extending some disaster assistance programs for the 2014 through the 2018 crops and provides additional support to dairy farmers through expansion of the dairy gross margin insurance program.

Senator Kirsten Gillibrand

1.) Feed Shortage Question:

Due to feed grain shortages and skyrocketing prices, New York dairy farmers are struggling to feed their cows through the winter. Corn is the primary component of feed grain for dairy cows, and as you know, we saw a 27% decrease in corn production nationwide last year, caused by the severe drought. Simultaneously, the price of corn increased by 61% in 2012, further taxing dairy farmers' narrow margins of income. Additionally, dairy farmers are suffering from severe shortages in hay, since we saw the lowest level of hay production since 1957.

These feed shortages are devastating for New York dairy farmers. I am hearing from agriculture extension workers in New York that farmers are faced with the distressing situation of having to cull cows since they don't have enough to feed them through the winter. I am hearing that auctioneers are expecting this to cause the closing and sale of hundreds of family farms across the state. One auctioneer in an impacted area said he was expecting to be "very, very busy" in March and April. I am very concerned that this will translate into small family dairy farms closing and the big mega-farms buying all of them up, which will mean a significant loss of jobs and livelihoods in rural areas of New York and across the country.

These feed shortages are devastating to the agriculture economy in New York State and across the country, and a solution needs to be found as soon as possible. Have you explored back up strategies, such as establishing a strategic grain reserve to save our dairy farms and livestock operations nationwide? Have you explored potential solutions to the extreme hay shortages nationwide?

Response: Livestock, dairy and poultry producers faced high feed costs for most of 2012 and high prices are likely to persist through much of 2013 until new crops are harvested in the fall. Feed ratios, which have generally been tight since 2007, tightened further in 2012 as feed costs rose relative to meat and dairy prices.

Due to the severity of the drought conditions last year and widespread impacts on agricultural production, USDA took advantage of flexibilities afforded under its authorities and expanded the lands in the Wetland Reserve Program and the Conservation Reserve Program that would be eligible for emergency haying or grazing in order to help manage the extremely poor pasture conditions and high feed costs faced by livestock producers. Roughly 2.8 million acres in the

Conservation Reserve Program were opened up under the emergency haying and grazing option, which provided up to $200 million in forage value to livestock producers.

And while major concerns related to persistent drought conditions remain: 56 percent of winter wheat areas; 61 percent of cattle production; and 50 percent of hay acreage remain under drought conditions, there have been improvements in the Corn Belt, where many areas are no longer experiencing drought. Assuming adequate precipitation, it is likely that the major spring planted row crops will see a return to trend yields. If so, a rebuilding of stocks and lower commodity prices would be expected in the fall. Futures prices for May delivery of corn have fallen nearly $1.00 per bushel and prices for September delivery of corn have declined more than $0.50 per bushel since February.

To restore the safety net for livestock and dairy producers, the Present's 2014 budget reflects a number of proposals that extend some disaster assistance programs for the 2014 through the 2018 crops, and provides additional support to dairy farmers through expansion of the dairy gross margin insurance program. The President's Budget also proposes to extend selected livestock disaster assistance programs for 2014 through 2018. Federal support for livestock insurance products, including dairy gross margin insurance, is currently capped at $20 million per year. The 2014 Budget provides an additional $100 million per year, from the funds of the Commodity Credit Corporation, to support the dairy gross margin insurance program available through the Federal crop insurance program

2.) Crop Insurance is Broken and Needs to be fixed for Diversified specialty crop farms in New York State:

In the past 1.5 years, New York farmers have suffered from multiple 100 year storm events. While I am heartened to hear about the successful crop insurance programs for the corn growers in the Midwest to deal with these types of weather events, I must ask – why don't the diversified fruit and vegetable farms in the Northeast, and namely New York, deserve the same adequate safety net?

Diversified family owned farms in New York more often than not function without any crop insurance at all because there isn't a policy that matches their needs. When the floods from Irene and Lee took out entire valleys of farms in Schoharie and Columbia Counties in NY, we learned that only 27% of farmers had insurance through the NAP program. They don't sign up because the potential payments (even when there is a 100% loss of crops) are insignificant. Farmers feel that NAP is inadequate and doesn't help them in times of need.

I believe that the crop insurance program is broken for diversified fruit and vegetable farmers and needs to be fixed as soon as possible. The family farm which grows 50 kinds of produce to meet local and national needs deserves the same safety net as the large corn producing farm in

the Midwest. Will you work with me to achieve this change at USDA, partnering with your counterpart at the Risk Management Agency?

Response**:** Diversified fruit and vegetable farmers in the Northeast deserve a strong safety net, and USDA continues to work to strengthen the safety net for diversified farmers.

Producers can elect to participate in the Non-insured Assistance Program (NAP), administered by the Farm Services Agency, which offers catastrophic type coverage for crops without insurance programs.

Producers can also elect to participate in the Federal crop insurance program, administered by the Risk Management Agency (RMA). There are many different Federal crop insurance programs available in New York. For example, in Schoharie County crop insurance is specifically available for apiculture (honey), apples, corn, fresh market sweet corn, nursery, oats, pasture/range/forage, and soybeans, and those same crops plus peaches and wheat are available in Columbia County. If a crop insurance program for a particular insured crop is not offered in the producer's county, the producer may be able to obtain a written agreement for insurance by contacting their crop insurance agent. Most crop insurance programs offer coverage levels up to 75 percent and some offer coverage up to 80 or 85 percent.

There are also currently two whole-farm pilot program insurance products offered in nearly all counties in New York, Adjusted Gross Revenue (AGR) and Adjusted Gross Revenue-Lite (AGR-Lite) insurance. These products are based on farm tax records and forms and are designed for very diverse operations. While these policies have not been as popular as single crop insurance programs, they do provide a method of offering crop insurance coverage to all commodities on the farm without requiring as much data as is needed to rate a single crop insurance product. RMA is currently beginning work to review and evaluate the whole farm policies to determine what improvements can be made to better tailor a whole farm product and coverage to a producer's needs.

RMA has initiated several ways to strengthen the safety net for diversified producers through the Federal crop insurance program. These efforts include exploring opportunities for new insurance products and improvements to existing products. Since 2000, RMA has developed 17 new risk management products through contracted work and worked with private developers to place 27 more new products on the market. Unfortunately, the unavailability of data for actuary and underwriting work has slowed the process of program development for this sector.

Federal crop insurance liability for 2012 in New York State totaled nearly $537.6 million with nearly $10 million covered by crop insurance in Columbia County and over $1.8 million covered in Schoharie County. Statewide for New York, approximately 48 percent of the total crop value was covered by insurance in 2012 with producers purchasing Federal crop insurance coverage to protect approximately 70 percent of the value of apples, 60 percent of the value of grapes, 80 percent of the value of onions, and 55 percent of the acres of principle crops. As RMA

continues to look for new products to cover more fruits and vegetables, a continuing challenge will be the need for credible and available data to support required actuarial and underwriting work. The lack of necessary data is the single biggest limiting factor in our ability to provide insurance products for specific crops.

As you can see, much work is being done to provide additional insurance options to producers, but we agree there is more work to do. I, and USDA, look forward to working with you to enhance crop insurance coverage for New York producers.

3.) Ethanol Question:

According to USDA, 35-40% of corn produced in the United States goes into producing ethanol. USDA also reports that the drought caused a decrease in corn production of 27%, coupled with a rise in the price of corn by 61%. This tragic situation for dairy farmers caused by severe drought and climate change has caused a dairy feed shortage that's breaking our dairy farmers' backs financially and forcing them to cull cows.

With the potential for continued severe drought, and feed shortages for our cows, why not explore an alternative to the current practice of using corn which is such an important feed for livestock and dairy cows? Have you considered cellulosic (i.e. switch grass) as an alternative? What is USDA doing to promote switch grass as an alternative biomass to corn in the production of ethanol?

Response**:** The renewable fuel standard (RFS2) as implemented under the Energy Independence and Security Act of 2007 (EISA) is actually a complement of multiple standards by year. The total RFS2 which calls for 36 billion gallons (bg) by 2022 to be utilized in the fuel supply. Of that total, 21 bg is "advanced biofuels" which can be further disaggregated into 16 bg of "cellulosic biofuels", 1.0 bg of biomass based diesel, and 4 bg of other advanced biofuels. The remaining 15 bg to meet the mandate is conventional biofuel, typically attributed to corn starch ethanol. For a biofuel to be classified as an advanced biofuel, the land used to produce the biomass must have been in production or actively managed prior to enactment of the EISA and meet a 50 percent greenhouse gas emissions reduction relative to a 2005 baseline 100 percent gasoline or diesel fuel. To be considered a cellulosic fuel a 60 percent GHG emissions reduction must be realized.

There are many alternative feedstocks, including switch grass, which can be used to meet the country's transportation fuels and heat and power needs. Alternative feedstocks for the production of biofuels include sugarcane; woody biomass (residues left after timber harvest, short-rotation woody species such as poplar, and diseased and insect damaged trees); perennial grasses (e.g., switch grass and Miscanthus); biomass sorghum (including sweet sorghum); and oil seed crops (including industrial canola, camelina, soybean) and algae. USDA is also researching crop residues, such as corn stover and cereal straws, as possible feedstocks for biofuel production. Different conversion technologies can produce different kinds of biofuels.

USDA's research focuses on quality and productivity, integrating "energy-based crops" into the agroforestry production system in a sustainable way using best management practices.

- In 2010, Secretary Vilsack created five Regional Biomass Research Centers to help make the most of existing USDA research resources. The centers are networks of existing ARS and Forest Service facilities with scientists in locations across the country. Those centers represent a commitment to research on dependable and sustainable supplies of feedstocks for advanced biofuels production. The regional approach to feedstock production enables USDA to take advantage of the resources unique to the region and promotes broad participation by many rural areas across the country in the emerging biofuels and biobased-products economy.
- USDA's National Institute of Food and Agriculture (NIFA) collaborates with other federal agencies such as the US Department of Energy on fundamental research of biomass genomics with emphasis on perennials and trees for biofuels production and the understanding of basic plant processes that control cell wall composition, nutrient uptake, carbon allocation, impacts of temperature and water availability. In addition, NIFA extramural research grants to investigate sustainable supply chains for the production of biofuels with emphasis on feedstock production and the harvest, handling storage; smaller standard grants are more focused but support a system.
- USDA and DOE co-chair the Biomass Research and Development Initiative Board (BRDI) and administer competitive grant projects that support the entire bioenergy supply chain from feedstock development through deployment and commercialization of technologies.
- The Biomass Crop Assistance Program (BCAP), Section 9011 of the 2008 Farm Bill, administered by USDA's Farm Services Agency provides incentives to farmers, ranchers and forest landowners to establish, cultivate and harvest biomass for heat, power, bio-based products and biofuels.
- USDA also collaborates with the Environmental Protection Agency (EPA) in its review and assessment of potential feedstocks that could be utilized to produce biofuels. USDA has provided data, market intelligence, and review of EPA analyses since the enactment of the EISA. This effort helps to broaden and increase the number of approved feedstocks for biofuels that can be used to meet the RFS2 mandates.
- USDA through a number of Title IX programs is providing loan guarantees and grants to improve efficiency of renewable fuel production and/or advance the production of second generation (cellulosic) biofuels. For example, a $75 million loan guarantee; $50 million DOE grant; $2.5 million State of Florida grant was made to INEOS New Planet Bioenergy, LLC. Municipal solid waste and citrus pulp are feedstocks that will produce 8 million gallons per year of cellulosic ethanol and 6 MW of electricity. The facility is completed and start-up is underway. Another USDA loan guarantee ($54.4 million) was made to Sapphire Energy for the production of renewable jet fuel and renewable diesel (from algae), both advanced fuels. Sapphire has repaid its loan and has recently reached

a new milestone of continuous cultivation of biocrude oil production from its New Mexico facility. Sapphire has also entered into a commercial agreement with Tesoro Refining and Marketing Company, LLC., which will purchase the biocrude oil.

- USDA and DuPont recently announced "federal-private collaboration" to safeguard natural resources on private lands used to supply bio-based feedstocks for cellulosic ethanol production. The agreement involves the signing of a Memorandum of Understanding (MOU) between USDA's Natural Resource Conservation Service (NRCS) and DuPont. USDA, through NRCS, will provide conservation planning assistance for farmers who supply bio-based feedstocks to biorefineries as the industry begins to commercialize. The first plant involved in this national agreement is Nevada, Iowa where DuPont is building a 30 million gallons/year cellulosic facility. This plant will use harvested residues from a 30-mile radius around the facility.

4.) Rebuilding after Superstorm Sandy:

I want to express my thanks for USDA's role in helping New York farmers rebuild after the catastrophic floods of Irene and Lee back in 2011. The funding through the Emergency Conservation Program (ECP) and Emergency Watershed Program (EWP) helped our agriculture communities hardest hit to rebuild and keep their land in production.

As you know, Superstorm Sandy was devastating to New York State, including damaging 4.5 miles of levees that protect five farms and over 700 acres of farmland in the Town of Southold on the North Fork of Long Island. Due to the destruction of these levees, salt water has washed up on this farmland and without needed repairs, continued to drench this land during high tides and full moons, making it impossible to grow fruits and vegetables. About half of the impacted land was already protected from development rights, so our state, federal and local governments, as well as the farm families, have already invested in keeping this land agricultural. I want to thank USDA for working with my office and those New York communities to rebuild after the storm. I understand that an Emergency Watershed Program (EWP) proposal has been submitted by the Town of Southold. I ask that you consider the great importance of this request for a community which risks losing over 200 years of farming heritage. Will you agree to work with me to ensure that this critical farmland remains in agricultural production?

Response**:** Thank you for supporting the Town of Southold's request for Emergency Watershed Protection (EWP) Program funding under the USDA Natural Resources Conservation Service (NRCS) to help with the broken levees that provide protection for farms and farmland in the Town of Southold area. We applaud your efforts in working with federal agencies to maximize the benefits to communities in New York that were harmed by Hurricane Sandy.

The NRCS State Office in New York received a "Request for Assistance" from the Town of Southold and made a visit to the site. At this time the NRCS State Office determined the land is

eligible and is working closely with the Town of Southold in assessing further eligibility requirements of the project, finalizing the damage surveys of the sites to estimate the cost for recovery, and securing the sponsor's financial commitment. A final funding decision will be made after all necessary documents are secured by the project sponsor and NRCS.

We are mindful of the challenging circumstances presented by Hurricane Sandy and we will continue to use the flexibility of the EWP program to maximize the benefits it provides to the Town of Southold and other communities in their recovery.

Senator Heidi Heitkamp

1.) ***Young farmers don't have the working capital built up that older, more established producers can rely on. Consequently, risk management tools are even more critical for this group of young and beginning farmers. An important goal of mine on this Committee is to explore ways to help young farmers, the future leaders of farm states like North Dakota.***

a) ***Can you tell me how disasters may impact new and beginning farmers, while addressing some of the challenges that are unique to a farmer that is just starting out?***

Response**:** Half of all current farmers in the U.S. are likely to retire in the next decade. Enlisting and supporting new farmers is essential to the future of family farms, the farm economy and healthy rural communities. Beginning farmers face two primary obstacles: starting a farm operation is expensive and there can be a lack of available land for purchase or rent. But, the USDA does have programs that are intended to help those starting a new farm gain access to financing. While new and beginning farmers have access to crop insurance an unforeseen disaster can have a greater impact on those farmers because they often have higher levels of debt and fewer assets relative to established farmers, which makes them less able to cope with stressful financial conditions. That is one reason why the Secretary streamlined the disaster declaration process last year in order to speed emergency loans and other emergency assistance programs to those most in need. Last year approximately 2,333 counties received disaster designation status.

b) ***The livestock disaster programs expired in calendar year 2011. How does the lack of a Livestock Forage Disaster Program (LFP), Livestock Indemnity Program (LIP) and an Emergency Livestock Assistance Program (ELAP) disproportionately impacts young farmers and ranchers?***

Response**:** USDA has a number of programs that help form a safety net for crop and livestock producers. Due to the severity of the drought conditions and widespread impacts on agricultural production, USDA took advantage of flexibilities afforded under its authorities to speed assistance to affected producers when possible. Despite those actions, some programs that could have helped mitigate the impacts of the severe drought conditions had expired or

currently have no funding, particularly for livestock producers: Livestock Forage Disaster Program (LFP); Livestock Indemnity Program (LIP); Emergency Assistance for Livestock, Honeybees, and Farm-Raised Catfish (ELAP); Tree Assistance Program (TAP); and Supplemental Revenue Assistance (SURE). In 2011, for example, payments from those programs totaled more than $500 million. Preliminary analysis suggests that in 2012, the Livestock Forage Program payments alone could have totaled between $500 million and $600 million, or roughly double the 2011 levels.

c) North Dakota is a state that experiences more natural disasters than many others. Some years we have flooding in the Red River Valley and near Devil's Lake. Other years we experience drought that can affect producers across the state in both livestock and row crop operations.

i.) Can an insurance based safety net meet the needs of producers facing steep losses from disaster?

Response: Crop insurance has worked very well for most row crop producers. Premium subsidies, the availability of revenue policies that indemnify losses at the greater of harvest time or planting prices, and recent program changes, such as the introduction of trend-adjusted APH provisions, have encouraged producers to insure at high coverage levels. Over $16 billion in indemnity payments will help producers offset the effects of lower yields due to the 2012 drought. As a result, net cash income for 2012 is forecast at a nominal record and the highest level since the early 1970s, adjusting for inflation.

ii.) What risk management tools do growers in my state need to survive events like flooding and drought?

Response: Crop insurance has become one of the most important and widely-used risk-management instruments crop producers can use to mitigate the economic impacts of adverse weather events. Insuring crops with a revenue policy allows producers to lock in a guaranteed gross level of income at planting with the potential of indemnifying losses at harvest prices in the event of price increases.

iii.) Where do you see the holes in the crop insurance program for row crop producers in a state like North Dakota?

Response: North Dakota has one of the highest participation rates in the crop insurance program and its producers have traditionally insured at high coverage levels. Progress has been made in recent years in addressing the problem of declining APH yields due to multiple-year crop losses. Recent improvements include rate changes for corn, wheat and soybean and the introduction of trend-adjusted yields which have allowed producers to insure at higher effective coverage rates.

Senator Pat Roberts

1.) ***Crop insurance already protects more than 250 million acres of cropland in the United States but there are still acres that aren't protected and producers who can't afford to purchase the kind of protection they need. As we continue our work to preserve, protect and strengthen crop insurance, how can we improve upon an enormously successful program?***

Response: While the Federal crop insurance program has grown substantially over the past 25 years, there still remain numerous producers who either are uninsured because crop insurance is unavailable for crops that they produce or underinsured because the cost of crop insurance is perceived as too high for the perceived benefit that it provides. For uninsured crops, interested parties can develop crop insurance policies for approval through the 508(h) process but this can be a costly process with oftentimes uncertain demand. The per-policy development costs are often quite high. One alternative that has been suggested is the development of weather derivatives that are more generic in nature (i.e., less crop-specific) but can be tailored to the individual crop needs (e.g., rainfall during critical time periods of crop growth, protection from freeze). However, because these products are based on area rather than farm specific inciators they are often less correlated with actual yield loss.

2.) ***In northwest Kansas, producers irrigating from the Oglala Aquifer must work to conserve their water, however, current RMA practices do not have a middle ground between fully irrigated and dry land practices. RMA has been evaluating a limited-irrigation crop insurance policy for several months and has contracted for a pilot program. Can you please provide a status update on this product and pilot program? Are there problems or concerns with moving forward, and if so, what are they? When do you believe it will be available to farmers?***

Response: Developing a solution for limited irrigation is a complex issue. The Risk Management Agency (RMA is in the process of evaluating the feasibility of a risk a management solution for reduced irrigation that meets the needs of a wide range of producers. The contractor, Watts and Associates, will provide the results of their study showing the best possible alternatives so work can move forward as quickly as possible. RMA cannot be certain about availability or timing until further progress is made on their evaluation. However, RMA hopes to make it available to producers for the 2014 crop year. Below we have outlined the efforts we have initiated so far to address a crop insurance risk management solution for producers who face reductions in their historical water allocation.

University of Nebraska – Lincoln (UNL) Model:

As a preliminary step RMA entered into a cooperative agreement with UNL to develop a risk management tool for producers to use in helping mitigate risk under limited irrigation

scenarios and conditions. The tool expanded and enhanced the existing W*ater Optimizer* program and provides assistance to producers' in understanding the potential trade-off between irrigation and production for crop management decisions. Elements of the tool were utilized to identify the potential reduction in yield for a given reduction in irrigation applicable to specific counties in CO, KS, and NE for corn and soybeans.

While the tool helped understand the trade-offs between irrigation and crop production, it lacked critical elements for purposes of establishing crop insurance coverage which include:

- Estimating an appropriate premium rate for a practice of limited irrigation.
    - The limited irrigation model focuses on the effect of irrigation on yield, but not the yield variability where yield risk increases as irrigation decreases.
    - The cooperative agreement did not contain a rating analysis, as such; no assessment or development of an actuarially sound premium rate was completed.
    - Without appropriate yield adjustments, insufficient coverage for growers or excessive losses for Approved Insurance Providers and taxpayers could result.
- The tool was not designed for producers in other states or crops experiencing similar situations, or even for all counties in the proposed states.
- To address these issues and seek a long range permanent solution, RMA initiated a contracted study on the effects of limited irrigation this past fall.

Limited Irrigation Written Agreements in Sheridan County 6 High Priority Area:

Sheridan County 6 High Priority Area is a defined area of Sheridan and Thomas counties in Kansas where producers voluntarily cut back on irrigation water over a period of time. For the 2013 crop year RMA is offering producers the opportunity to obtain a written agreement for these acres offering coverage for a limited irrigation practice, thus allowing RMA to respond to a local conservation effort in a proactive manner and test the UNL limited irrigation model in a small sample area.

This area was the first Local Enhanced Management Area plan received by the Kansas Division of Water Resources with approximately 100 irrigated producers. Written agreements will provide a means to obtain data and test the limited irrigation model results on yield reduction.

RMA Irrigation Contract Study:

On January 23, 2013, RMA awarded a contract to Watts and Associates to evaluate the feasibility and develop as appropriate the necessary materials for an actuarially sound risk management solution for reduced irrigation that meets the needs of a wide range of producers, and has long-term viability and sustainability as part of the Federal crop insurance program.

Two listening sessions were held in March 2013 to gather input from growers, industry, and other interested stakeholders about limited irrigation and ideas to address the crop insurance

consequences of the changing irrigation water situation in future years. Both sessions had good dialogue from varying stakeholders voicing ideas, concerns, and questions with the majority in attendance supportive of Federal crop insurance seeking solutions. Several participants cautioned that this is a very complex issue that needs to be thoroughly researched and vetted, and that RMA should not rush to develop a limited irrigation risk management solution that could have unintended consequences.
The next step in the process is for the contractor to advise whether the UNL limited irrigation proposal is a feasible alternative or whether existing policies and procedures are sufficient. If not, the contractor is to propose alternative solutions for development.

Once a solution for reduced irrigation that meets the need of a wide range of producers, and has long-term viability and sustainability as part of the Federal crop insurance program is developed, RMA will work to expeditiously make it available to producers and if possible, for the 2014 crop year; however, until the contractor's work further progresses RMA cannot be certain of the outcome.

Senator John Thune

1.) You have outlined the devastation to US corn production from last year's drought. 2012 also saw a record setting corn crop from Brazil, a major competitor with US corn exports on the world market. How will this affect US export market share, and how will we recover our status as the world's leader in corn exports?

Response: In the most recent World Agricultural Supply and Demand Estimates (WASDE) domestic corn production for 2012/13 is projected to be 274 million metric tons, down from 314 million metric tons in 2011/12. As a result exports fell to the lowest level in more than 40 years, accounting for a projected 23 percent of global corn exports. By comparison Brazil is projected to supply 22 percent of the global corn exports in marketing year 2012/13. As recently as 2010/11 the U.S. exported more than half of all the corn exported in the world. USDA currently projects that in the 2013/14 marketing year; the U.S. will recover its market share and could supply as much as 40 percent of global exports, twice as much as any other country.

2.) The drought's impact has far reaching effects in South Dakota's economy. How will drought resistant seed traits help western Corn Belt states deal with the effects of multiple year droughts? What can Congress or the Administration do to ensure that new traits are brought to market in a timely manner?

Response: Seed varieties have been improving along a number of traits for decades, which have helped improve overall plant health and crop productivity. For example, recent research suggests that had corn hybrids from 1988 been subject to the weather in 2012, yields would have been much lower than they were –by as much as 10 percent. Specific drought tolerant seed varieties for commercial crops are beginning to become more affordable and effective for farmers in areas such as the western Corn Belt. For example, Monsanto's *DroughtGard* and

DuPont Pioneer's *AQUAmax* hybrids are promoted as providing higher yields than other hybrids in water-limited conditions. USDA is also conducting research on drought tolerant crop varieties at experiment stations across the U.S., such as at the Plant Stress & Germplasm Development Unit in Lubbock, TX. In addition, USDA is focusing on cutting administrative processes and improving services, which should be reflected in faster approvals for new seed varieties. For example, APHIS is dramatically reducing times for programmatic processes and procedures, cutting wait time by 20 to 76 percent and enhancing business competiveness, by reducing the length and variability of time it takes to make determinations on petitions for nonregulated status for genetically engineered plants.

3.) The prolonged drought has had a dramatic impact on livestock herds in South Dakota and much of the United States. Can you tell us what the outlook and projected recovery of grazing livestock herds will look like for the Western United States? What impacts on this recovery would have been made if the livestock disaster programs included in the Senate passed Farm Bill had been in place for 2012?

Response: Cattle producers were hard hit last year by poor pasture conditions and a poor hay crop. And about 50 percent of the Nation's hay areas and 60 percent of cattle areas remain under moderate or more intense drought conditions. Dryness in the Southern Plains has persisted for over two years and has resulted in large liquidation in cattle numbers. The January 1 NASS *Cattle* report indicated that total cattle and calf numbers in Kansas, Oklahoma and Texas declined by 3.4 million head between 2011 and 2013. The reduction is a 13.6 percent decline and about equals the net decline in the U.S. herd over the same period. The U.S. cattle and calf herd is at its lowest level since 1952. Cattle placements in feedlots during February were down 14 below 2012 and were the lowest for the month since 1996, when NASS began collecting those data. However, USDA baseline projections suggest beef consumption in the United States and beef prices will level and remain relatively stable at around 25 billion pounds per year with farm prices at approximately $125 to $130 per cwt over the next 10 years.

USDA has a number of programs that help form a safety net for crop and livestock producers. Due to the severity of the drought conditions and widespread impacts on agricultural production, USDA took advantage of flexibilities afforded under its authorities to speed assistance to affected producers when possible. Despite those actions, some programs that could have helped mitigate the impacts of the severe drought conditions had expired or currently have no funding, particularly for livestock producers: Livestock Forage Disaster Program (LFP); Livestock Indemnity Program (LIP); Emergency Assistance for Livestock, Honeybees, and Farm-Raised Catfish (ELAP); Tree Assistance Program (TAP); and Supplemental Revenue Assistance (SURE). In 2011, for example, payments from those programs totaled more than $500 million. Preliminary analysis suggests that in 2012, the Livestock Forage Program payments alone could have totaled between $500 million and $600 million, or roughly double the 2011 levels.

4.) In December, the USDA and NOAA signed a Memorandum of understanding, the purpose of which was to better deliver information about events like drought to users on the ground. Can you both please inform the committee of the current status of the collaborations between your two agencies and how this MOU will foster improved collaboration in the future?

Response: The Memorandum of Understanding (MOU) between the Departments of Agriculture (USDA) and Commerce (DOC) signed December 21, 2012, provides recommendations and guidelines for cooperative efforts to meet the weather and climate information needs of stakeholders that rely on this information to make business and natural resource management decisions. It is an updated version of a similar document signed in 1995. The agreement provides for the development and delivery of local and regional climate information services, and fosters improved understanding by end-users of the value and use of weather and climatological information.

Subsidiary agreements attached to the MOU detail specific collaborative activities. A subsidiary agreement attached to the MOU establishes the Joint Agricultural Weather Facility (JAWF) and provides for the publication of the *Weekly Weather and Crop Bulletin*. In addition, other less formal working relationships are in place that provide for information sharing arrangements between the two Departments.

Currently, several USDA agencies are working with NOAA/NWS to develop new subsidiary agreements specifically aimed at monitoring drought with particular emphasis placed on serving the interests of the agricultural and forestry communities. These agreements are aimed at fully utilizing the existing infrastructure of both Departments and the National Integrated Drought Information System (NIDIS).

Particular activities addressed include:

- Improving forecast reliability and projection of weather and climate extremes in drought-risk areas;
- Improving accessibility, compatibility, and sharing of data, analysis, and expertise supporting the development of regional drought early warning systems;
- Establishing a National Soil Moisture Monitoring Network, using existing infrastructure and providing a foundation for expansion into under-served regions, including tribal lands;
- Developing enhanced drought adaptation strategies, using best practices and technologies, for at-risk regions throughout the United States; and
- Increasing collaboration on the development of products used in production of the *U.S. Drought Monitor* and other potential joint endeavors.