

# Iowa Farm Outlook

Department of Economics  
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## Hog Inventories Decline, but at a Slower than Expected Pace

USDA released its estimate of the December 1, 2009 U.S. inventory of Hogs and Pigs on December 30 (Table 1). The inventory of all hogs was down 2%, market hogs down 1.8% and breeding herd down 3.5% compared the same quarter the year before. These numbers were similar to or larger than the pre-report trade estimates. The report will likely be viewed as neutral to bearish by the trade.

The Jun-Aug pig crop was 1.6% smaller than the year before and the Sep-Nov pig crop was down 3.2%. These estimates with slight increases in carcass weights and potentially larger hog and pig imports from Canada will predict the change in pork production for first and second quarters of 2010 compared to the year before. Dec-Feb farrowing intentions are expected to be 1.9% lower than the year before and Mar-May farrowings are expected to be down 2.8%. With increases in pigs per litter and carcass weights the change in pork production will not be as pronounced as the change in farrowings.

**Table 1. December USDA Hogs and Pigs Report Summary, Inventory and Percentage Changes From Year Before**

	United States		Iowa	
	1000 Head	% Chg	1000 Head	% Chg
All Hogs	65,807	-2.0%	19,300	-3.0%
Breed Herd	5,850	-3.5%	1,020	-4.7%
Market Hogs	59,957	-1.8%	18,280	-2.9%
<50#	19,085	-1.8%	4,530	-4.2%
50-119	17,062	-1.9%	5,800	-1.4%
120-179	12,529	-1.6%	4,530	0.7%
180+	11,282	-2.2%	3,420	-8.1%
Pig Crop				
Jun-Aug	28,777	-1.6%	4,631	-3.4%
Sep-Nov	28,833	-3.2%	4,900	1.1%
Farrowing Intentions				
Dec-Feb	2,954	-1.9%	500	-2.0%
Mar-May	2,935	-2.8%	495	-4.8%

Productivity increases continue to be significant in the pork industry. Pigs weaned per litter were 9.70, a record for Sep-Nov and equaling the all time record set in Jun-Aug. Also, note that farrowing intentions are off 1.9% and 2.8% while the breeding herd is down 3.5% suggesting that producers are getting more litters per female per year. It may also reflect fewer gilts in the breeding herd which is consistent with approximately 12,000 fewer sows slaughtered during the Sep-Nov quarter compared to the 25,000 smaller breeding herd inventory.

Given this estimate of inventory and pig crop, Iowa-Southern Minnesota live hog prices are expected to average \$49-52 in 2010 (Table 2). Comparable lean hog carcass prices would be \$66-71. Current forecast of cost production for farrow-to-finish operations is approximately \$51-52/cwt live (\$69-70/cwt carcass) indicating that

producers will likely see losses in the first and fourth quarters of 2010, but profits in the second and third quarters. Based on the ISU Estimated Livestock Returns Series, farrow-to-finish operations have had losses since October 2007 with the exceptions of May and August 2008.

**Table 2. Pork Supply and ISU ISM Hog Price Forecast and Pre-Report Basis Adjusted Futures Forecast**

	Supply change %	ISU Forecast		12/30/2009
		Live	Carcass	Futures
Jan-Mar	-1.0	46-49	62-66	63.83
Apr-Jun	-2.5	52-55	70-74	73.38
Jul-Sep	-1.5	51-54	69-73	72.72
Oct-Dec	-2.5	47-50	64-68	65.43

**Other factors to watch...**

Domestic pork demand has been relatively strong through the first three quarters of 2009, but showed some weakness in the fourth quarter as prices and supplies both declined relative to 2008 levels. The strengthening U.S. economy and still small poultry supplies should be helpful for hog prices. More importantly, the weaker U.S. dollar and improving global economy should support export demand in 2010. The removal of restrictions on U.S. pork by China late in 2009 provides the potential for more exports to that country.

Productivity has been excellent in 2009. Can producers maintain or improve productivity in 2010 or do they slip back? Factors to consider: 1) Small calculated gilt retention points to an older sow herd that may improve productivity near term, but hurt production when the herd is has more old and young females than normal as producers begin replacing gilts. 2) Disease problems have been relatively quiet since the circo-virus vaccine was introduced. Will there be disease breaks that hurt production as diseases mutate or as producer try to economize by cutting back on vaccinations. 3) There is wide spread reports of poorer quality corn across the Midwest with light test weights and in some cases molds and mico-toxins that can impact palatability and perhaps performance. Could grain quality reduce carcass weights or even the pig crop.

Is the contraction ending? The industry has suffered unprecedented losses, but sow slaughter has declined below a liquidation pace during the last quarter. As prices reached a point that operations could cash flow did they change their minds about further liquidation? The December market hog inventory was the smallest since December 2006. For the 2005 crop year, ending in August 2006 corn prices had averaged \$1.89/bu and cost of production averaged \$40-41/cwt live. For the 2008 crop year corn prices average \$3.80 and cost of production \$50-51/cwt live. Getting production to the levels of 2006 will not be profitable with the higher cost unless there is significantly more demand. A possible purgatory is that prices are high enough to cash flow and keep people in business, but not profitable enough to recover the lost equity of the last two years.

*John Lawrence*

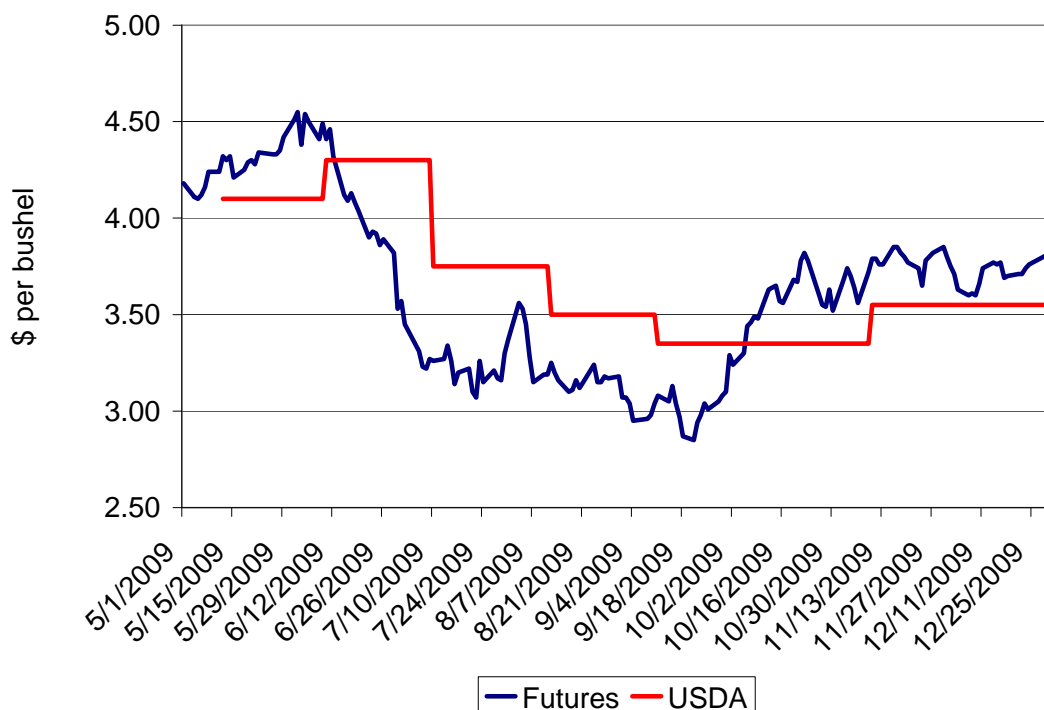
## Closing Out 2009, On a Positive Note

The final USDA Crop Progress report came out just before the Christmas holiday. It showed that five percent of the U.S. corn crop was still out in the field. Given the production estimate of 12.92 billion bushels, the delay in harvest implies roughly 650 million bushels are still out. Some of the recent market strength in corn is due to the potential loss of some of these bushels and some quality issues with the harvested crop. North Dakota has the largest percentage of corn still out, 32 percent. South Dakota and Wisconsin have 12 percent in the field. And several states, including Illinois, have at least five percent of their corn crop unharvested. USDA will provide revised production and usage estimates in a couple of weeks.

The December supply and demand estimates showed just a few changes from November. Corn production was projected at 12.92 billion bushels, while soybean production held at a record 3.32 billion bushels. On the demand side, the adjustments were limited to exports. Soybean exports were raised 15 million bushels to 1.34 billion, while corn exports were lowered 50 million bushels to 2.05 billion. Soybean crush holds at 1.695 billion bushels, so soybean ending stocks for the 2009/10 marketing year are projected at 255 million bushels, down 15 million. With the boost in soybean exports and reduction in ending stocks, USDA raised the midpoint of their season-average price range to \$9.50 per bushel, up 30 cents from last month. For corn, feed and residual demand held at 5.4 billion bushels and ethanol demand held at 4.2 billion bushels. Food and seed demand was also steady at 1.28 billion bushels. Projected 2009/10 corn ending stocks were raised to 1.675 billion bushels, basically even with 2008/09 ending stocks. The midpoint of USDA's corn season-average price range was held steady at \$3.55 per bushel.

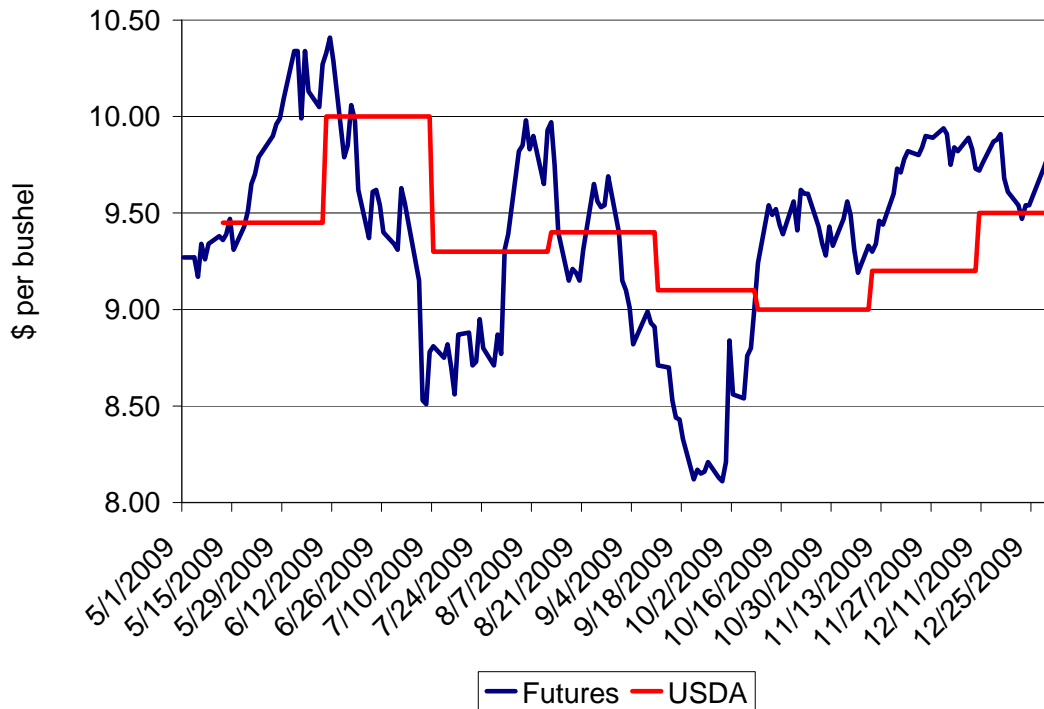
But the futures markets have been providing a more bullish scenario than the USDA price projections. As Figures 1 and 2 show, estimates of USDA's season-average price based on futures prices have been running well above USDA's official estimates for the past two months. Corn futures have been pointing to a season-average price in the \$3.70 to \$3.80 price range. Price support has come from the delays in the harvest, some strength in crude oil prices, a weakened dollar, and the reemergence of non-commercial (especially fund) buying at the end of the year. Since the middle of October, non-commercial futures trade has moved from a neutral position, neither short nor long, to a 1 billion bushel net long position. At the price peaks in 2007 and 2008, non-commercial trading reached roughly a 2 billion bushel net long position.

**Figure 1. Projected 2009/10 Season-Average Corn Price**



Soybean futures have been indicating a season-average price in the \$9.50 to \$10.00 price range, but spending most of the time around \$9.80. As late as the beginning of October, futures had indicated a season-average price below \$8.25. The harvest delays moved the futures-based season-average price estimate to the \$9.50 level. And export sales, crude oil prices, a weakened dollar, and non-commercial buying have provided additional support since then.

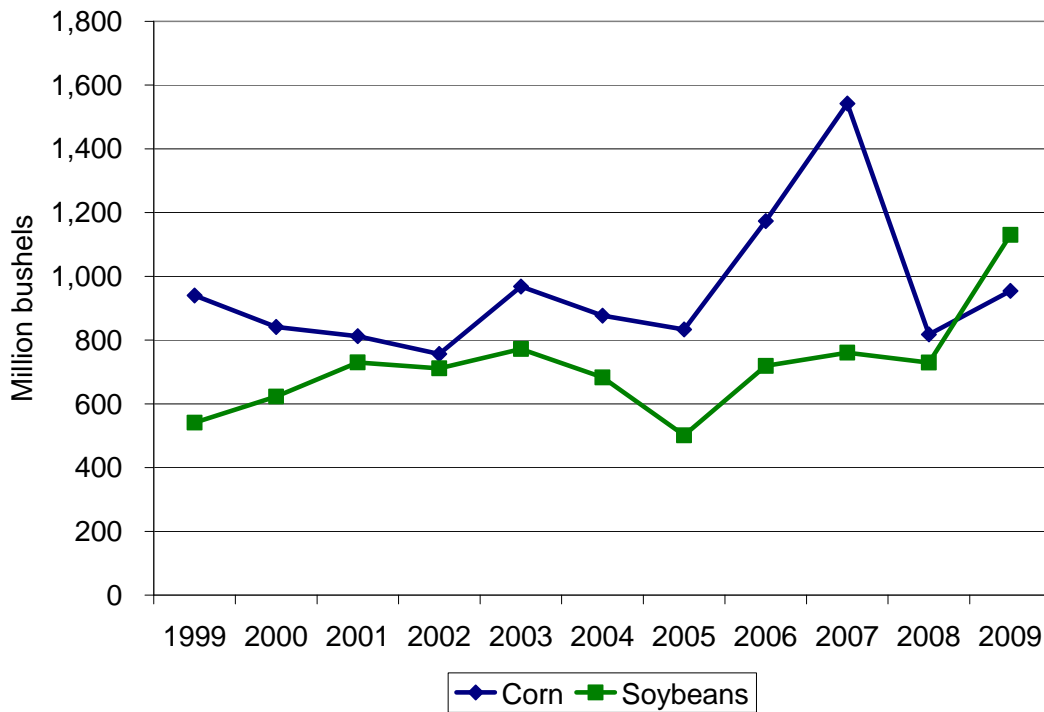
**Figure 2. Projected 2009/10 Season-Average Soybean Price**



Ethanol production margins have been in positive territory since June. With crude oil prices over the \$75 range, wholesale gasoline prices have worked their way back to \$2.00 per gallon and ethanol prices are currently around \$1.90 per gallon. With fuel prices at these levels, ethanol blending margins have been positive as well. So the ethanol industry continues to rebound from the economic downturn. Crude oil futures for 2010 are in the \$80 to 85 per barrel range, so energy prices remain supportive for biofuels and their crop feedstocks. But the demand sector that has provided the greatest support for crop prices has been and continues to be exports. Corn exports have picked up the pace over December, resulting in roughly a 150 million increase in export sales so far over last year. While our two largest markets, Japan and Mexico, have not purchased as much as last year, other markets have taken up the slack. Export sales to South Korea are up 74 percent. Sales to Africa, especially Egypt, are higher. With some markets, such as Mexico, opening up to more genetically modified varieties and expected continued weakness in the dollar, corn exports are projected to continue building.

Soybean exports continue to set a record pace. As Figure 3 shows, soybean export sales remain above corn sales, a rare event this far into the marketing year. China had been leading the charge in soybean buying. The Chinese have already purchased over 690 million bushels of soybeans. That's more than the combined soybean production for Iowa and South Dakota. But recently other markets have picked up the pace as well. Soybean export sales are up in parts of Europe, the Middle East, south Asia, and Central and South America. Based on the sales so far, the U.S. has already made 85 percent of its expected soybean export sales. And while U.S. soybeans are projected to remain a hot commodity for the next few months, there is some competition coming on the export market. The soybean production projections coming out of Brazil and Argentina indicate a record South American soybean crop may be on its way. And once their harvest begins in earnest, they will likely pull some of the soybean markets their way.

**Figure 3. Export Sales through Dec. 22 (Source: USDA-FAS)**



Crop futures are still showing some carry in corn and the carry has been rebuilding in the soybean market, at least for the short term. With the export and biofuel sectors continuing to provide support, crop prices over the next few months should remain firm. Basis levels had widened with the large corn and soybean crops. But they will likely improve as we work through the marketing year. The outlook for the 2010 crops is looking a bit brighter than it did for the 2009 crops. Input costs have come down and futures prices are running higher. The general economy has shown some signs of improvement and that would boost crop prospects.

*Chad Hart*

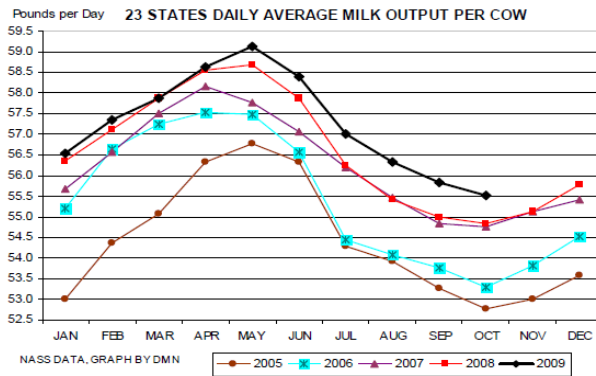
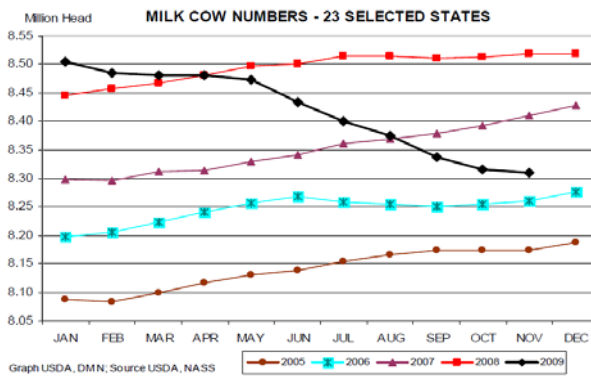
## November Production Down 1.0%, October Revised Down

November 2009 23 major dairy states milk production decreased 1.0%. Production per cow was up by 25 pounds from one year ago. Milk cow numbers were 209,000 less than November 08 and 6,000 less than October 09. October 09 milk production was revised down 0.1%, a decrease of 12 million pounds. Iowa November 09 milk production was 2.6% higher compared to one year ago. Cow numbers were even compared to one year ago and milk production per cow was 40 pounds higher than one year ago. October 09 Iowa cheese production was 20.239 million pounds, 48.5% higher than one year ago and 8.5% more than September 09.

**Milk Production: Selected Dairy States, November 2009**

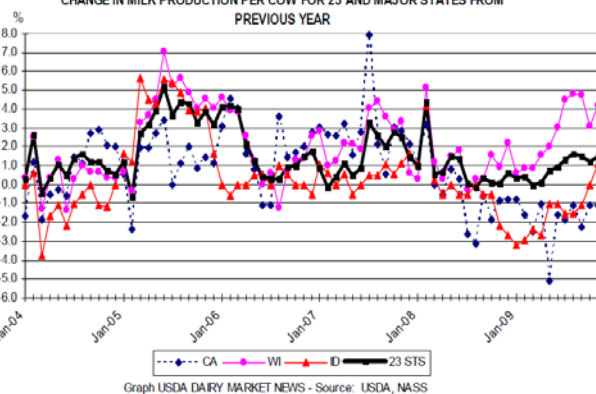
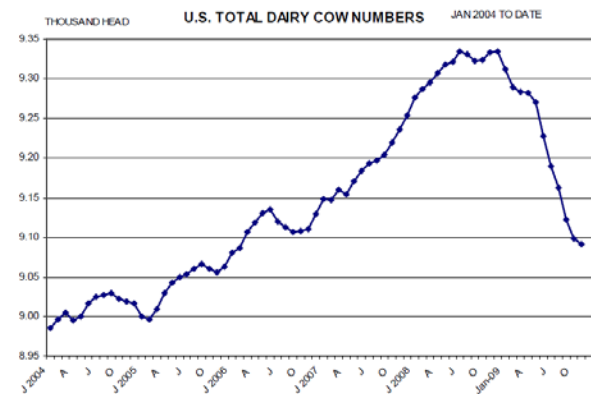
State	thousands			pounds			million pounds		
	2008 cow numbers	2009 cow numbers	% change cow numbers	2008 milk per cow	2009 milk per cow	% change milk/cow	2008 total milk production	2009 total milk production	% change total milk
Iowa	215	215	0.00%	1630	1670	2.45%	350	359	2.57%
MN	467	469	0.43%	1525	1535	0.66%	712	720	1.12%
WI	1254	1258	0.32%	1565	1630	4.15%	1963	2051	4.48%
IL	102	101	-0.98%	1470	1510	2.72%	150	153	2.00%
CA	1845	1765	-4.34%	1795	1775	-1.11%	3312	3133	-5.40%
CO	130	116	-10.77%	1845	1880	1.90%	240	218	-9.17%
KS	121	112	-7.44%	1695	1740	2.65%	205	195	-4.88%
ID	554	546	-1.44%	1770	1790	1.13%	981	977	-0.41%
NM	334	315	-5.69%	1900	1985	4.47%	635	625	-1.57%
PA	548	537	-2.01%	1510	1560	3.31%	827	838	1.33%
NY	624	611	-2.08%	1580	1580	0.00%	986	965	-2.13%
TX	430	413	-3.95%	1600	1710	6.88%	688	706	2.62%
23-State	8519	8310	-2.45%	1654	1679	1.51%	14089	13955	-0.95%
US 3rd quarter	9330	9159	-1.83%				46881	46758	-0.26%

AZ had the largest milk production drop again, -10.7% for Nov 09. And CO was second at -9.2%. CA had a -5.4% milk production level compared to one year ago. Fluid milk processors have seen large supplies due to holiday school closures. Churns and dryers are expected to be near capacity for the holiday period. Production in the West and Florida is starting to trend higher seasonally. The recent winter storms have affected milk production; these areas report flat production.

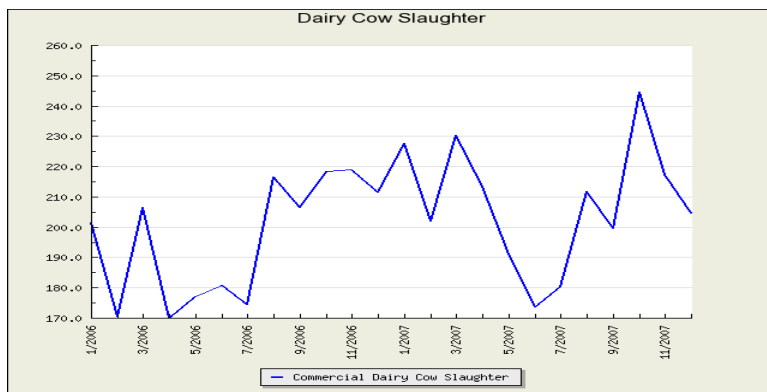


Source: Dairy Market News

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Graph USDA DAIRY MARKET NEWS - Source: USDA, NASS



Source: Understanding Dairy Markets, U of WI

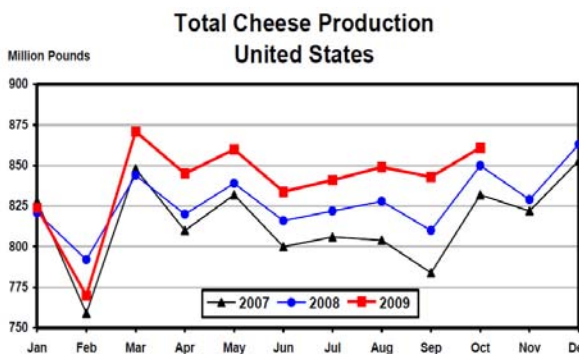
Oceania, Australia and New Zealand report cumulative decline in milk of -5%. Their milk production season begins July. These tight supplies have been a major reason that world cheese prices have remained strong, \$1.90 to \$2.26 in late December.

### Demand or Disappearance

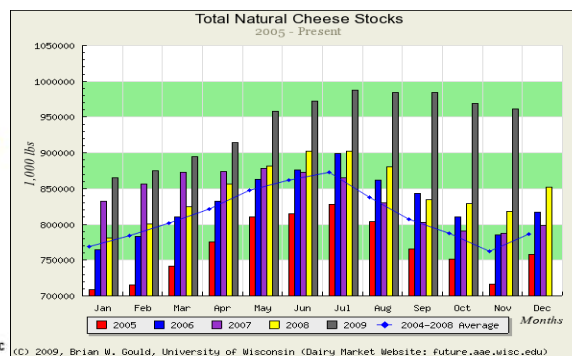
Organic milk demand continues to fluctuate. Pre-thanksgiving sales rose 15% and then declined by that same amount after. This causes severe scheduling problems for the plants processing organic milk. The USDA organic price survey indicates that the weakness in fluid milk is easing. Half gallon milk price stayed the same at the top of the range but the bottom of the range rose by 29 cents. The yogurt price range rose by 25 cents.

#### Dairy Product Manufacture: October 2009

Product	thousands pounds	Oct 08 % change	Sept 09 % change	YTD % change
Butter	111,918	-14.30%	18.3	-4.2
Cheese, total	861,192	1.30%	2.2	1.9
Cheddar	261,009	2.20%	2.2	2.1
Other American	86,160	-1.80%	2.8	
Swiss	26,260	-0.10%	4.1	
Italian Style	360,591	3.60%	2.9	0.9
NDM	91,524	24.40%	5.6	2.5
Sour Cream	108,467	6.30%	16.7	2.4
Yogurt	314,524	4.30%	-15.3	7.2
Dry Whey, total	88,673	1.10%	2.1	-2.7
Lactose	64,052	6.70%	8.7	-5.1
WPC	35,672	-0.40%	3.1	1710
Frozen	1000 gal			
Ice cream	70,220	-0.70%	-5.6	-1.1
Ice cream, lowfat	28,815	5.60%	-7.6	0.8



Source: Dairy Products



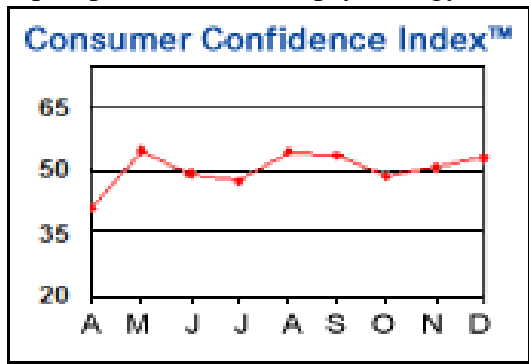
Source: Understanding Dairy Markets, U of WI

Cheese stocks have remained large compared to the 5-year average. And the usual seasonal decline in stocks appears to be weaker than usual. Cheese manufacturing is reported to be active with surplus Class I milk selling at a discount to Class III, as much as \$7. This will help keep cheese stocks higher than the 5-year average. Due to higher cheese manufacture, more dry whey is on the market with prices mostly about 37 cents per pound. October dairy exports were \$40 million more than September 09, 24%, but still less than Oct 08.

### Analysis

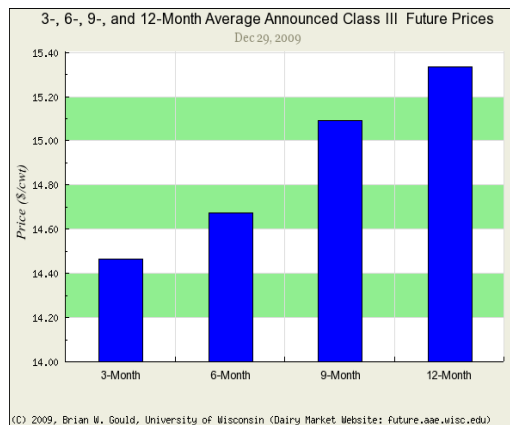
The Dec 2009 Milk-Feed price ratio was reported as 2.38. One year ago it was 1.92. It was 2.23 for Nov 09. The reason for the rise was a \$1/cwt rise in the milk price used to calculate the ratio. The corn price declined slightly, alfalfa was flat but the soybean price rose 43 cents.

The Consumer confidence Index has been effectively flat since June. Improved consumer confidence would help improve the market psychology, both dairy and stock.



Source: The conference Board

American cheese stocks increased from Oct to Nov. The likelihood is that we will continue to see little decline in cheese stocks over the next few months, at least not to the 5-year average. This will weigh on cheese prices since we have now moved past the seasonally high use period. However the US dairy industry is fortunate that weak milk production in Oceania will give support to US prices. We also are fortunate that the peak milk period in Oceania is past.



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## Getting a Handle on Disaster Losses and Recovery in Iowa

Iowa had a bout of devastating floods in June of 2008 which came after two deadly tornado strikes. Large portions of the state required immediate as well as long term recovery assistance. In the initial aftermath of the flood there were concerns of major losses to agriculture because of widespread inundation. Subsequently, however, the state posted a near-record harvest of both corn and beans. The urban devastation in the major cities of Cedar Rapids, Iowa City, Cedar Falls, and Coralville were pegged in the billions as well. Public buildings and infrastructure were damaged or destroyed, and the amount of private sector real estate, personal property, and the value of lost business activity was substantial.

Throughout all of this a common question from reporters and from state officials was asked: what was the economic impact of this series of disasters? Economists, agronomists, state and city officials and engineers could describe the magnitude of damage, but the final value of losses was yet to be accounted, and still remain substantially incomplete as of this writing.

To understand the financial outcomes of disaster it useful to look at the physical, economic, and social responses to disasters. The primary consequences of disasters fall into three important categories, only two of which lend themselves to an economic determination:

Damages are the compilations of all direct and indirect disaster related consequences. They describe the physical outcomes of the events: houses destroyed, roads damaged, bridges washed out, crop land erosion, households affected, and businesses disrupted, as examples.

Losses are estimates of the financial value of the damages, to the extent that they can be determined. These are mainly direct losses, for example a destroyed home and personal belongings or, perhaps, the destruction of business machinery or inventory. Direct losses, however, are only known to the extent that individuals, businesses, or governments itemize those losses when seeking assistance. Many losses may go undocumented. Indirect losses are also discussed at length when losses are compiled. These might include incomes derived from a business that was affected, lost wages to displaced workers, or even the increased costs to households, commuters, or firms because their life or business circumstances change. These indirect consequences are extremely difficult to measure, and often lend themselves to exaggeration as the evaluators are likely to mistake, for example, the value of lost sales as lost personal income.

Costs are the payments by insurers, to the extent that flood losses were insured, and by the public to directly repair or compensate persons or public entities that had losses. Not all losses are compensated, so there ultimately is a gap between the declared value of the losses and the value of the payments to households, businesses, and industries. Those are therefore uncompensated losses that must be borne by the private sector and the public as true losses.

So how do we measure the overall economic value of disasters? We cannot use the damages description because it is primarily physical in nature, and much of the damage, most especially environmental harms, cannot be valued in the marketplace. We begin by carefully accounting the direct losses, like our personal or business properties as well as the value of public goods and infrastructure that were destroyed to the extent that they can be known. Many will argue the determination of losses must also include the indirect consequences of lost wages, diminished business activity, and even the cost and consequences of flood related psychological distress. Obviously, some of these values can be better estimated than others, and this is an extremely imprecise practice. The federal guidelines limit loss determinations to direct losses when seeking aid, however, making the accumulation of indirect losses somewhat of a moot issue.

Because a large part of disaster recovery requires the active involvement of local, state, and federal government officials, we primarily rely on their determinations of the financial outcomes associated with disasters. The Federal Emergency Management Agency (FEMA) along with the U.S. Small Business Administration (SBA) and to a lesser extent the USDA all provide the technical and administrative expertise that victims of disasters require to recover. These agencies also provide or authorize the distribution of the bulk of recovery grants, loans, and other payments to assist victims.

As a consequence, agencies, households, and political leaders now focus on the amount of disaster-related assistance they have been able to secure from the state or, more likely, from the federal government as an expression of the magnitude of damage, and the overall economic value of the 2008 floods becomes more of a rhetorical question.

The state of Iowa established a state agency called the Rebuild Iowa Office (RIO) to coordinate the distribution of information and act as a clearinghouse for disaster related assistance. That office provides periodic updates of disaster related assistance to the state of Iowa.

According to recent ROI reports:

- ▶ Federal and state resources dedicated to disaster or disaster-related recovery in Iowa to date is \$3.562 billion.
- ▶ Of those federal or state funds, \$2.64 billion have been approved for state or local government use. This is about 75 percent of the amount allocated above.
- ▶ \$941.93 million has actually been spent. That is slightly over 26.3 percent of the amounts of aid that have been allocated to Iowa.

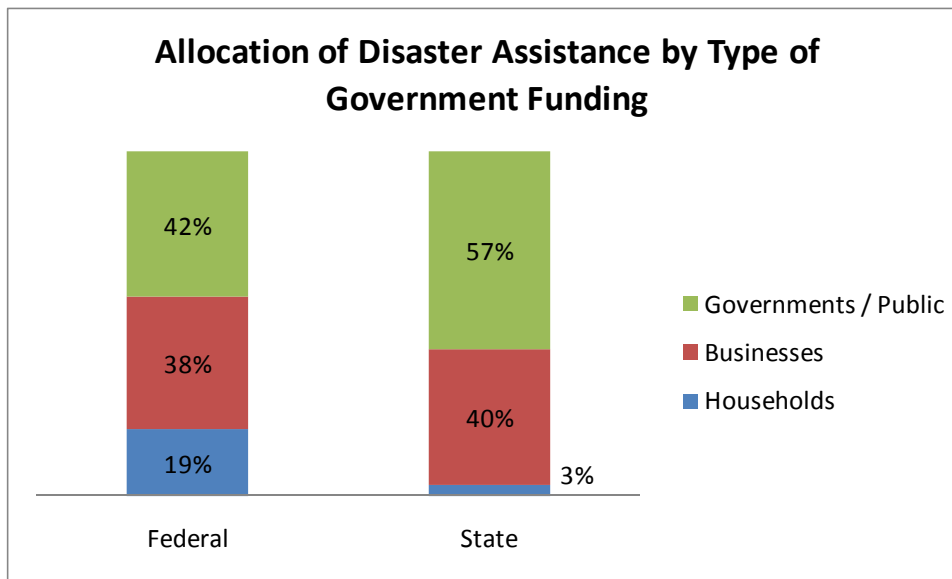
There is a substantial gap between the amount authorized and the amount spent. Some of the funds will be spent over several years. For example, the Iowa I Jobs program is listed as a disaster recovery program by ROI, but of the \$170 million in authorized spending, just \$1.31 million had been spent by the end of 2009. The remainder will be spent in subsequent years. Similarly, there are large allocations from the federal government that will be spent over time as recovery projects progress.

Using the most recent ROI data, the accompanying table details the allocation of disaster related assistance to date in Iowa. There are three categories of aid. Households received direct payments to compensate them for their losses, as well as additional assistance for those that found themselves unemployed as a result or in need of additional social services. Assistance to governments primarily involved infrastructure and public goods restoration projects, as well as the administration of recovery programs. Assistance to businesses involves both the value of direct aid to firms as well as, primarily, grants or loans made available to assist in business recovery. Much of loan-based assistance to businesses will be paid back eventually to the federal government.

**Disaster-Related Public Assistance in Iowa by the End of 2009 by Source of Assistance**

	Federal	State	Total
Households	164,483,565	2,976,752	167,460,317
Businesses	325,569,175	36,927,700	362,496,875
Governments / Public	358,621,893	53,346,974	411,968,867
	848,674,633	93,251,426	941,926,059

Of the \$941.93 million spent in Iowa, more than 90 percent came from the federal government. Fewer than 2 percent of the aid and assistance received by households came from state government. The following graph describes the allocation of those spent resources to recipients by federal or state funding authority.



The federal government allocated 19 percent of its payments to household, compared to only 3 percent for the state. Both had proportionately similar allocations in support of business activity, but the state of Iowa is spending a much larger portion of its aid on assisting local governments and itself in recovery.

It is evident that the value of disaster related aid authorizations, in whatever form they may take, is distinct from the actual disaster related spending in Iowa. The spending has actual consequences for the Iowa economy in that it replaces infrastructure, assisted households in need, or helps to underwrite business recovery utilizing loans and grants. Overall allocations, however, while perhaps important politically and conversationally, matter the most when they are converted to actual payments to individuals, businesses, and governments. In addition, it matters when those allocations are translated into spending. As is evident, the vast majority of disaster-related spending in Iowa is yet to occur.

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