

Iowa Farm Outlook

Department of Economics
Ames, Iowa

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December Hogs and Pigs Report

USDA released the *Quarterly Hogs and Pigs* report December 28 with estimates of December 1 inventories. Much discussion leading up to the report called for a decline in inventory numbers as a result of this year's cost levels and significant red ink. Somewhat surprising to many, was that the report told us that the reduction has been very minimal and actually there has been a little bit of expansion of the breeding herd. For the last two to three months sow slaughter and gilt retention numbers were not supporting the expected reduction and now the most recent *Hogs and Pigs* report helps to confirm no significant decline in inventories.

Table 1 is a summary of the December 1, 2012 estimates. The national hog and pig inventory, at 66.3 million head, was only 0.02 percent less than a year ago. Breeding herd inventory, at 5.8 million head, was up 0.02 percent and market hog inventory was down 0.04 percent at 60.5 million head. Lighter classes of market hogs were about at par with year previous levels. Pigs per litter for Sep-Nov12 at 10.15 was the highest quarterly estimate in history, indicating the productivity train keeps running down the track.

Table 1. Summary of December 2012 Hog and Pig Report

	U.S.		Iowa	
	1,000 Head	% Change from Year Ago	1,000 Head	% Change from Year Ago
All Hogs and Pigs	66,348	-0.02	20,600	3.0
Breeding Herd	5,817	0.2	1,030	2.0
Market Hogs	60,531	-0.04	19,570	3.1
<50 lbs	19,448	-0.4	5,150	1.0
50-119 lbs	16,643	0.0	6,000	4.3
120-179 lbs	12,479	0.05	4,700	3.5
180+ lbs	11,961	0.4	3,720	3.3
Pig Crop				
Dec 11-Feb 12	28,550	2.5	4,893	4.0
Mar-May 12	30,077	2.8	5,148	3.0
Jun-Aug 12	29,269	-0.3	5,068	0.4
Sep-Nov 12	29,443	0.3	5,202	2.1
Sows Farrowings				
Dec 11-Feb 12	2,864	0.7	475	-1.0
Mar-May 12	2,982	2.2	495	2.1
Jun-Aug 12	2,890	-1.3	485	-1.0
Sep-Nov 12	2,900	-1.0	505	3.1
Dec 12- Feb 13	2,865	0.03	500	5.3
Mar-May 13	2,925	-1.9	520	5.1
Pigs per Litter				
Dec 11-Feb 12	9.97	1.7	10.30	5.1
Mar-May 12	10.09	0.6	10.40	1.0
Jun-Aug 12	10.13	1.0	10.45	1.5
Sep-Nov 12	10.15	1.3	10.30	-1.0

This report included a significant revision to the Mar-May12 sows farrowed (+63,000 head leading to a +2.2% year-over-year increase) and pig crop (+363,000) which makes the Mar-May 2012 pig crop of 30.1 million the highest singular quarterly pig crop in history back to 1973.

Projecting farrowing intentions out with commensurate pigs per litter it looks like the potential is there for a new record high for the Dec12-Feb13 pig crop at 28.9 million head. The Mar-May13 pig crop, with such a big revision to Mar-May12, makes a projection of 29.8 million head slightly below the previous year. Projecting further out it, it looks like the pig crops in 2013 could approach record highs for their individual quarters and possibly a new all-time record high for the Jun-Aug period. The point is these pig crops remain and project to be very large compared to historical levels, record highs in some cases.

Iowa producers increased inventories of the breeding herd and market hogs 2.0% and 3.1%, respectively, over December 1, 2011. This added 20,000 animals to the breeding herd and 580,000 market hogs. The total inventory was 20.6 million head, up 3.0% from the year before and near the record inventory of 20.7 million reported September 1, 2012. Similarly, the 19.57 million market hog estimate, up 3.1% from last December, is only second historically to the September 1, 2012 market inventory of 19.70 million head. Producers in Iowa appear to be ramping up their farrowing plans. Sows farrowed in Sep-Nov were 3.1 percent above year previous levels and farrowing intentions call for 5.3 percent and 5.1 percent increase year-over-year in Dec12-Feb13 and Mar-May13, respectively.

What has occurred that has kept record high feed costs last summer and a big sell off in hog prices in September from extracting a higher toll among hog producers? There are likely two main factors at play. First, there is a good portion of the business that started several years ago actively managing risk and managing margins on a forward contract basis either through the board or with packers and in doing so they managed both sides of the profit equation, costs and hog prices. This practice continues to be carried on by a larger and wider proportion of hog producers and these producers likely avoided (or limited) the losses that cash driven models (cash buying of corn and cash selling of hogs) were predicting for the second half of 2012. As such, many producers may have entered summer and fall in much better financial staying power than what many had expected. Second, hog producers are resilient and periods of low and negative returns followed by profitable conditions are not all too uncommon to many. For instance, 2008-09 was marred by returns to farrow-to-finish production of approximately -\$20 per head on average (cash market estimate – ISU Estimated Returns) only to be followed by returns of greater than \$26 per head in most of 2010. Moving forward, producers appear to be betting on a decent corn crop in 2013, leading to costs going down, and surviving another year and then thriving into 2014. Everything looks to be on-the-line going into 2013, with hopes of strong exports and significant or very timely rains during the next growing season.

Current inventories and expectations for future supplies have implications for market prices in 2013. What is expected for first quarter hog slaughter and pork supply looks to be currently priced into the market. But, then it looks like no reduction in slaughter levels year-over-year in any of the following three quarters equating to a larger supply than the board has priced in. Lean hog futures contracts closed sharply the first trading day following the report as traders adjusted to the greater pork production potential implied by the December 1 inventory.

Table 2 summarizes price forecasts by quarter. Price forecast are for the Iowa-Southern Minnesota cash price for barrows and gilts and a comparable CME Lean Hog contract price adjusted for Iowa basis. For the spring and summer, hog prices will be back into the mid to high 80's to low 90's as hog supplies level off and the general meat market heats up. The ISU model suggests a little more bullish market than the futures are expecting in the fourth quarter of 2013.

With the large amount of risk out there because of the reduction in financial resources and the risk based on the potential for persistence of drought it is important to watch for hedging opportunities. While it is difficult to fully anticipate how a market will respond, this *Hogs and Pigs* report was seen as bearish, and the market may overreact to the news of more supplies than anticipated by pushing lean hog futures prices lower. With respect to the feed market, to quote my colleague Dr. Chad Hart, "For 2013, I have a good \$4 corn story and a good \$9

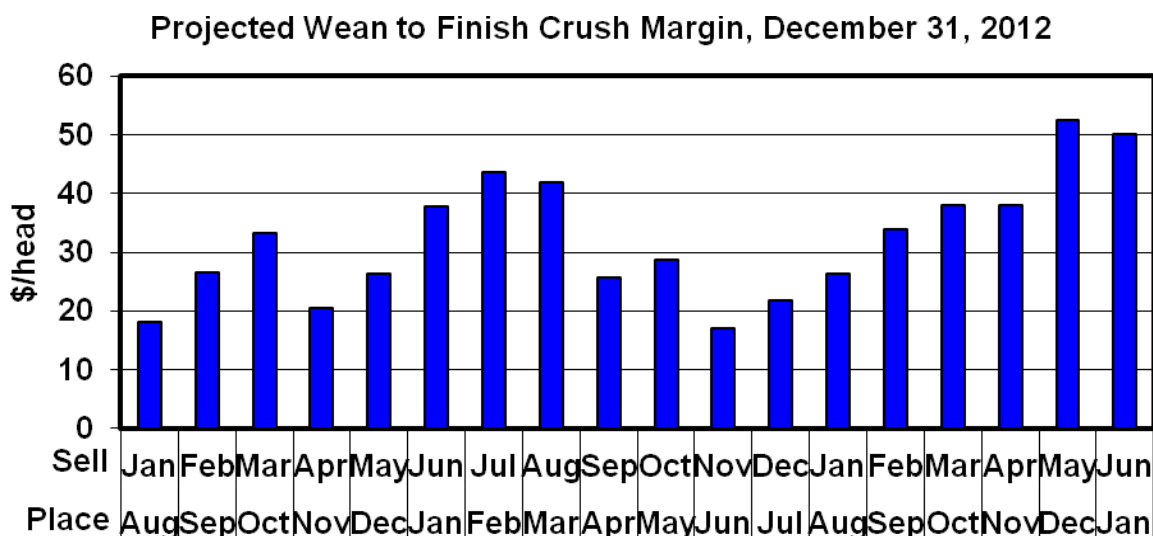
corn story. The problem is that I don't know which story to tell. Timely rains and a bumper crop (or another bout of recession) would bring significantly lower prices. Continuation of drought would drive 2013 prices higher. The markets for the moment have sort of split the difference between the two stories." In light of this uncertainty, if you haven't already done so, it may be a good time to think about price protection.

Table 2. ISU Projected Change in Pork Supply and Lean Hog Price Forecasts

	ISU Model Price Forecasts	Futures (12/31/12) Adjusted for IA Basis
	-----(\$/cwt)-----	
Jan-Mar	85-87	85.50
Apr-Jun	89-92	94.53
Jul-Sep	90-93	93.54
Oct-Dec	84-86	81.20

Figure 1 is a graph of the computed hog "crush" margin (<http://www.econ.iastate.edu/margins/>) based on the close of the futures market on Monday, December 31. Assuming a \$40 gross margin is needed to cover overhead and other costs and breakeven, then the road ahead appears to be rough if the current futures prices for hogs, corn, and soybean meal prove to be a true prediction. However, each individual operation may have different pricing for weaned pigs, hogs, corn, and soybean meal, and different feed use and costs that must be covered. Regardless, the crush margin can act as an indicator of hedging opportunities by alerting a producer when futures prices are in the desired range.

Figure 1. Iowa State University Calculated "Crush" Margin



Lee Schulz

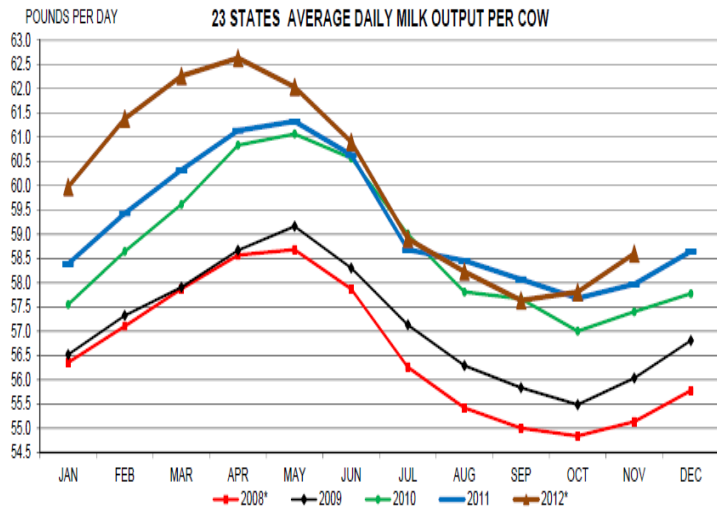
November Milk Production Increases

November 2012 23 major dairy states milk production increased 1.1%. Production per cow was up by 19 pounds from one year ago. Milk cow numbers were 3000 less than November 2011 but we added 8000 cows compared to October 2012. October 2012 milk production was revised down 1 million pounds or -0.1%.

The largest declines in milk production occurred in New Mexico and Texas. Feed costs caused some of the drop in milk there but also heat stress has negatively impacted milk per cow for the current lactation. Again this month, Colorado had the largest increase in milk production due to more milk cows and more milk per cow. New dairy plants in Colorado are looking for more milk cows also. Iowa added 5000 cows from one year ago and added 25 pounds of milk per cow.

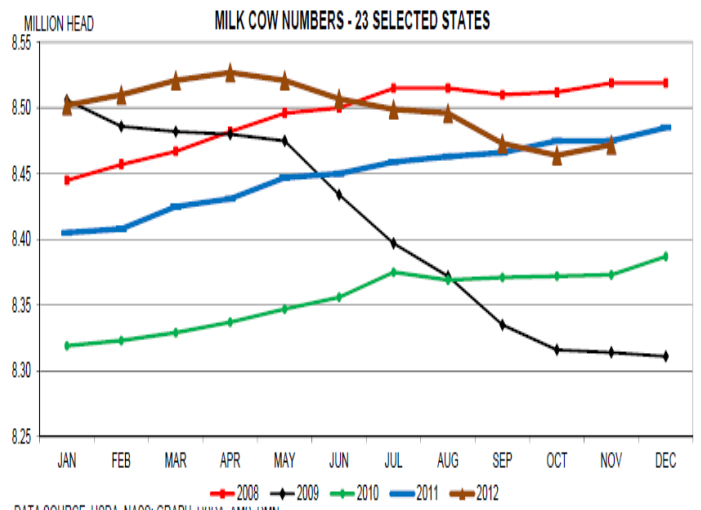
Table 1. Milk Statistics

State	2011 Cow Numbers	2012 Cow Numbers	% Change in Cow Numbers	2011 Milk per Cow	2012 Milk per Cow	% Change in Milk per Cow	2011 Total Milk Production	2012 Total Milk Production	% Change in Total Milk Production
	1000's			Pounds			Million pounds		
Iowa	200	205	2.50%	1765	1790	1.42%	353	367	3.95%
MN	465	465	0.00%	1520	1590	4.61%	707	739	4.61%
WI	1265	1271	0.47%	1660	1730	4.22%	2100	2199	4.71%
IL	98	100	2.04%	1580	1580	0.00%	155	158	2.04%
CA	1778	1780	0.11%	1880	1835	-2.39%	3343	3266	-2.28%
CO	131	135	3.05%	1870	1935	3.48%	245	261	6.64%
KS	123	127	3.25%	1725	1770	2.61%	212	225	5.95%
ID	579	579	0.00%	1840	1880	2.17%	1065	1089	2.17%
AZ	192	180	-6.25%	1855	1940	4.58%	356	349	-1.95%
NM	333	323	-3.00%	2020	2000	-0.99%	673	646	-3.96%
PA	538	533	-0.93%	1580	1600	1.27%	850	853	0.32%
NY	610	610	0.00%	1680	1735	3.27%	1025	1058	3.27%
TX	435	430	-1.15%	1815	1770	-2.48%	790	761	-3.60%
23- State	8475	8472	-0.04%	1739	1758	1.09%	14742	14898	1.06%
US 3rd quarter	9200	9215	0.16%				48684	48724	0.08%



DATA SOURCE: USDA, NASS; GRAPH: USDA, DMN
NOTE: 2008* and 2012* February values adjusted to 28 day equivalent

Source: Dairy Market News, USDA



DATA SOURCE: USDA, NASS; GRAPH: USUA, AMS, UMN

Source: Dairy Market News USDA

Livestock Slaughtered Under Federal Inspection, By Class – United States

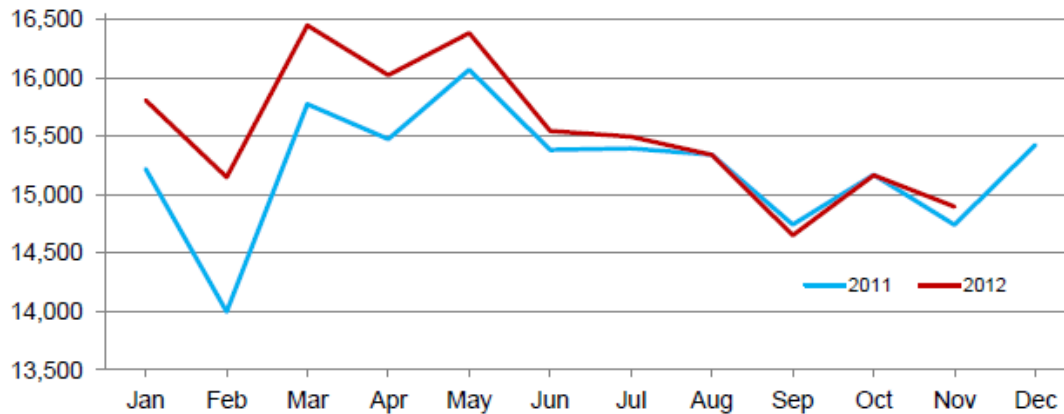
[Data may not add to totals due to rounding]

Class	November 2011	October 2012	November 2012	January to November		November 2011	October 2012	November 2012	January to November	
	(1,000 head)	(1,000 head)	(1,000 head)	2011	2012	(percent of total)	(percent of total)	(percent of total)	2011	2012
Cattle										
Steers	1,302	1,431	1,308	15,224	14,955	47.5	49.4	47.7	49.4	50.0
Heifers	775	804	785	8,980	8,572	28.3	27.7	28.7	29.1	28.6
All cows	613	611	599	6,110	5,890	22.4	21.1	21.9	19.8	19.7
Dairy cows	253	285	269	2,652	2,843	9.2	9.9	9.8	8.6	9.5
Other cows	360	325	330	3,458	3,047	13.1	11.2	12.0	11.2	10.2
Bulls	50	51	48	534	508	1.8	1.8	1.8	1.7	1.7
Total	2,739	2,897	2,740	30,848	29,925	100.0	100.0	100.0	100.0	100.0

Source: Livestock Slaughter, USDA

Monthly Milk Production – 23 Selected States

Million pounds



Source: Milk Production, USDA

USDA's "Livestock Slaughter" report said dairy producers sent 269,000 dairy cows to slaughter during November 2012, 16000 less than October 2012 and 12000 more than one year ago. During Jan-Oct period, US dairy producers culled 191000 more dairy cows than one year ago. The pace of dairy cow slaughter has declined from the October report however.

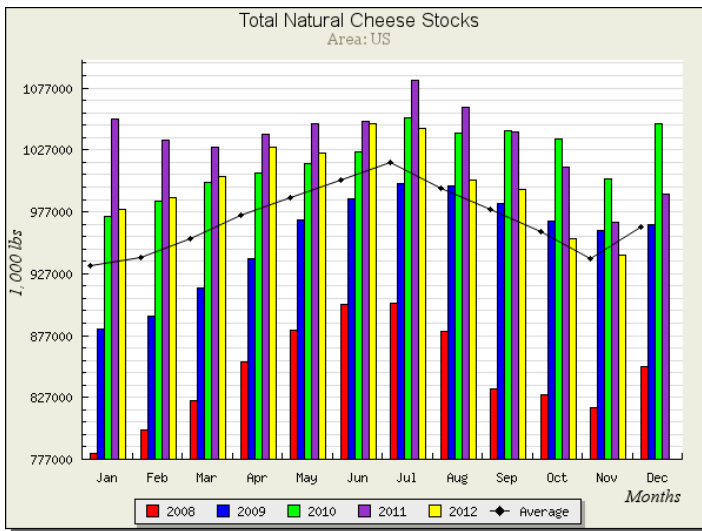
Demand or Disappearance

"So far (January-September) 2012 is off to a better start with total commercial disappearance up 2.1 percent. Total commercial disappearance set all-time monthly records January-March and May-Aug; however, was down in April (-3.3 percent) and September (-2.2 percent). The January through September disappearance of individual dairy product categories was: American cheese, +1.9 percent; other cheese, +2.2 percent; nonfat dry milk, +27.7 percent; butter, +3.6 percent and fluid milk, -1.5 percent." said Craig Thomas, Michigan State University Extension.

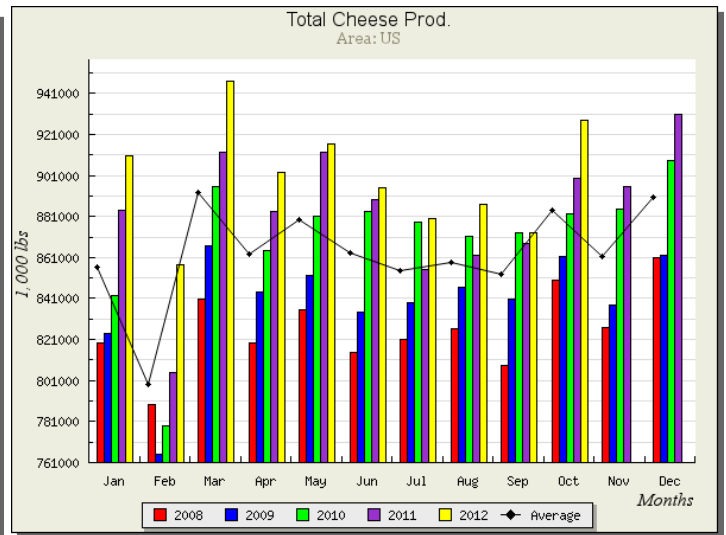
Table 2. Dairy Product Manufacturing: Oct. 2012

Product	Production	Sept.2012	Oct. 2011
	1,000 pounds	% change	% change
Butter	145,677	0.00	-3.30
Cheese, total	927,871	6.30	3.20
Cheddar	262,996	7.90	6.20
Other American	107,612	1.90	2.50
Swiss	26,772	5.40	-2.40
Italian Style	387,746	4.80	0.90
NDM			
Sour Cream	114,530	16.60	8.10
Yogurt	371,044	-7.00	4.40
Dry Whey, total	85,990	-6.60	-2.50
Lactose	88,571	8.00	24.20
WPC	57,486	2.70	50.30
Frozen	1,000 gallons		
Ice cream, regular	63,962	11.30	6.10
Ice cream, lowfat	31,588	-8.70	4.00

Source: Dairy Products



Source: Understanding Dairy Markets, U of WI



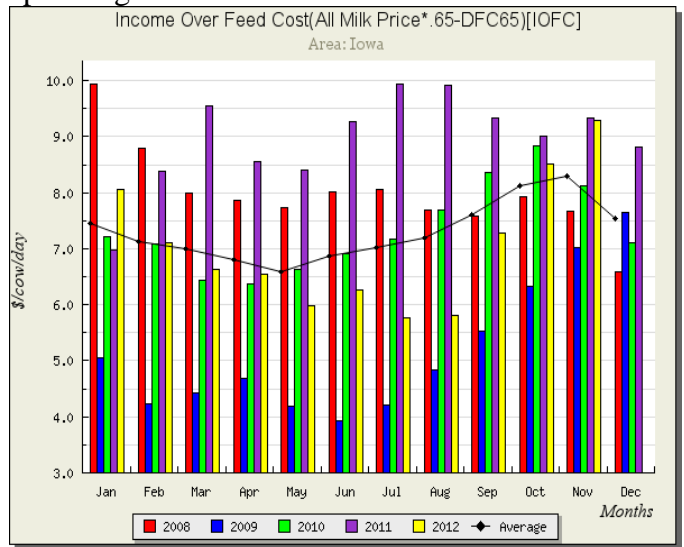
Source: Understanding Dairy Markets, U of WI

Analysis

The Nov 2012 Income Over Feed Cost (IOFC) calculation for milk production is much improved compared to the lows in July and August and is above the 5-year average. The Consumer Confidence Index rose slightly compared to the previous month and is now nearly 74, much higher than the low this summer, just over 61 in August. On the other hand the Restaurant Industry Index and Expectations Index fell to 99.9. This was up 0.4% from the previous month. When these indices are above 100 restaurant performance and expected conditions is that expansion will occur. Thus it appears restaurants still expect slight contraction.



Source: Understanding Dairy Markets, U of WI



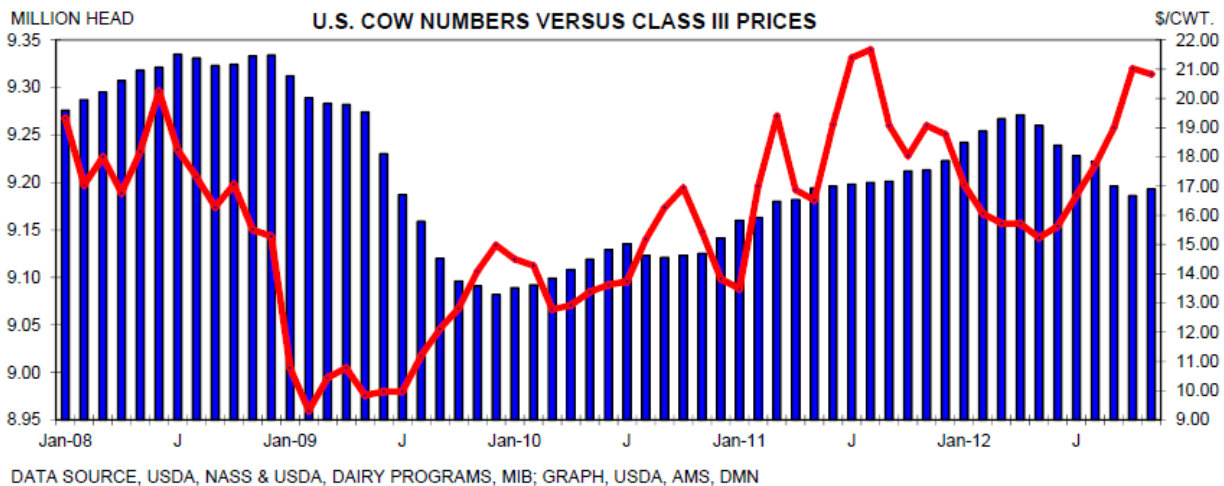
Source: Understanding Dairy Markets, U of WI

The June Class III milk price remains in a narrow trading range 25 cents above or below \$18.40. Except for a short period in September, this has been the trading range since mid-August. September did give dairy producers an opportunity to lock in Class III prices for June above \$19 but that did not last long. Future milk prices may turn bearish if the milk production growth continues. The reason for milk production growth is not clear, but hot weather this past summer could depress future milk per cow and thus total milk production. What happens often is that reproduction suffers during hot weather and days in milk (DIM) increases. As DIM increases, cows will produce less milk daily and total milk from a herd declines unless heifers are available to replace those cows. Bob Cropp, suggests that milk prices for the first half of 2013 appears likely to be flat.

DLM13 - Class III Milk - Daily OHLC Chart



Source: Barchart.com



Source: Dairy Market News, USDA

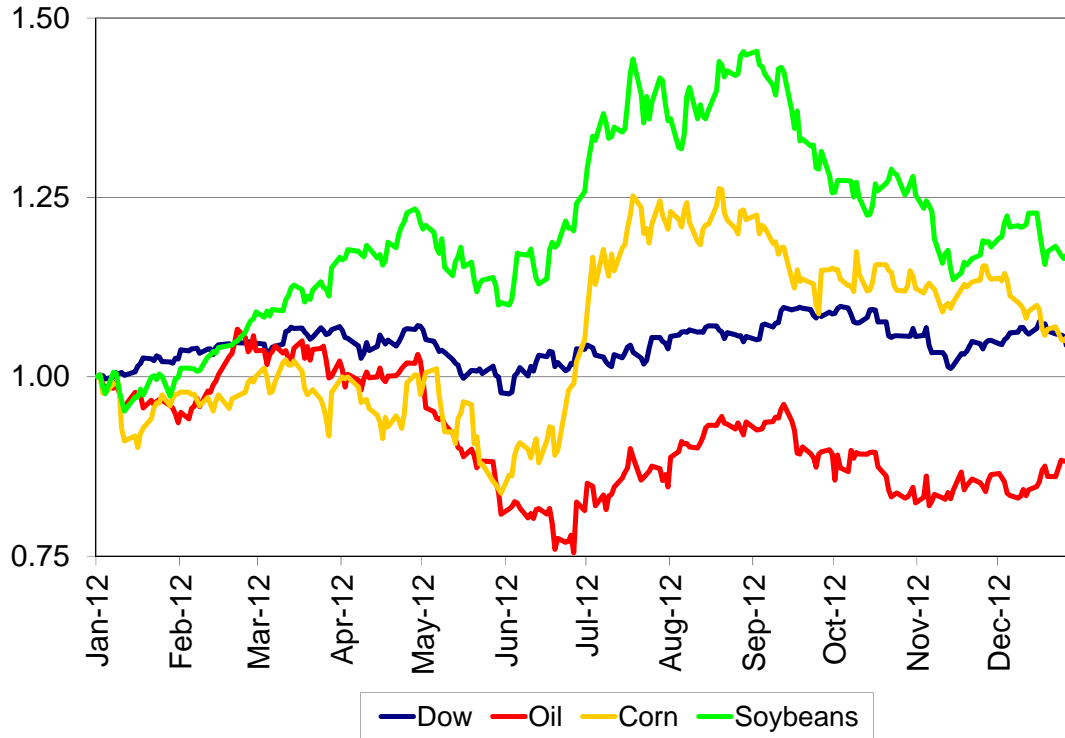
Robert Tigner

2012: Another Year for the Record Books

As we enter 2013, it's good to look back at the events of 2012 and how they continue to shape the markets for the upcoming year. 2012 was another year for the record books. Between the drought and the "fiscal cliff," the agricultural markets have had some major issues shaping prices. Projected 2012 crop year prices are holding at record levels. Corn hung in the \$7 range throughout harvest. Beans are still in the teens. Despite the drought, the U.S. produced the 8th largest corn crop and the 7th largest soybean crop in our history. And demand, while weakening, continues to keep crop stock levels thin.

As Figure 1 shows, if you wanted volatility in your markets, then the agricultural commodities were for you. Compared to oil price and the Dow Jones Index, corn and soybean prices are much more variable. The Dow had a relatively quiet year, swinging roughly 12% over the year. The Dow hit its annual low point in early June, down 2%, peaked in the fall at a positive 10%, but has since retreated to finish the year up 6%. Energy prices had some stronger movements. Oil prices started the year strong and were up nearly 7% in February. But increasing domestic supplies and continued lack of strength in gasoline demand brought oil prices lower into the summer. During the year, oil prices had a 31% range and finished down 10% from the start of the year.

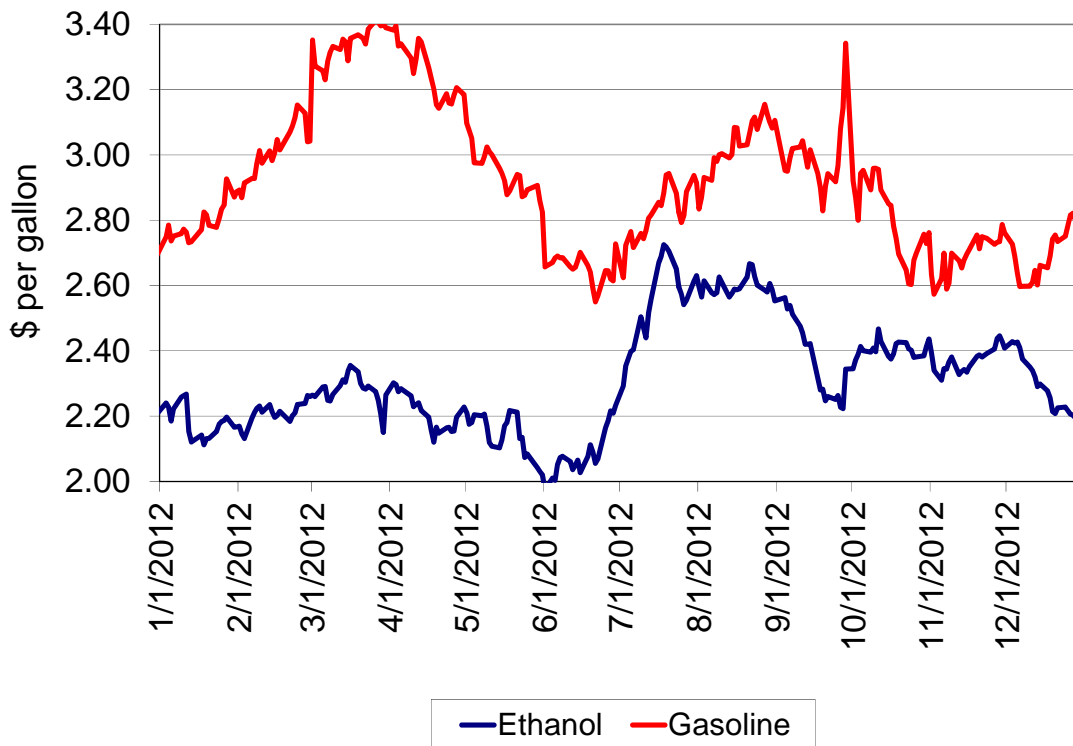
Figure 1. Price Moves during 2012 (Jan. 3, 2012 = 1)



In comparison to those markets, the corn and soybean markets had a wilder ride. Corn prices swung 42% and soybean prices swung 50% during the year. Soybean prices were in positive territory throughout the bulk of 2012. Corn prices struggled during the first half of 2012, before heading up under the drought pressures. Both crops hit their highs right before harvest and retreated as the crops came in. But both still ended the year in positive territory. Corn was up 6% over the year, while soybeans gained 16%. The soybean market has essentially given up all of the drought premium that had built up this summer. The corn market has managed to hang on to roughly half of the drought price bump thus far.

A lot of the downward pressure on prices over the last quarter of 2012 was driven by the pullback in crop demand. Corn usage is down across the board, while soybean demand has split. Domestic soybean demand is down and export demand is up. Much of the pullback is centered on the livestock industry as it deals with feed pricing and availability issues and the relative weakness in domestic meat demand. And similar tales can be told for the other demand sectors. For example, corn demand via ethanol took a hit this summer as corn prices rose and ethanol plant margins fell. Figure 2 shows ethanol and gasoline price movements during 2012. While ethanol prices rose this summer, they could not keep pace with corn prices. Throughout the year, ethanol maintained its cost advantage to gasoline, which supported blender margins. But those margins were not necessarily passed back to the ethanol plants. Ethanol production declined 10% as corn prices rose this summer and that production has not returned.

Figure 2. Ethanol and Gasoline Prices

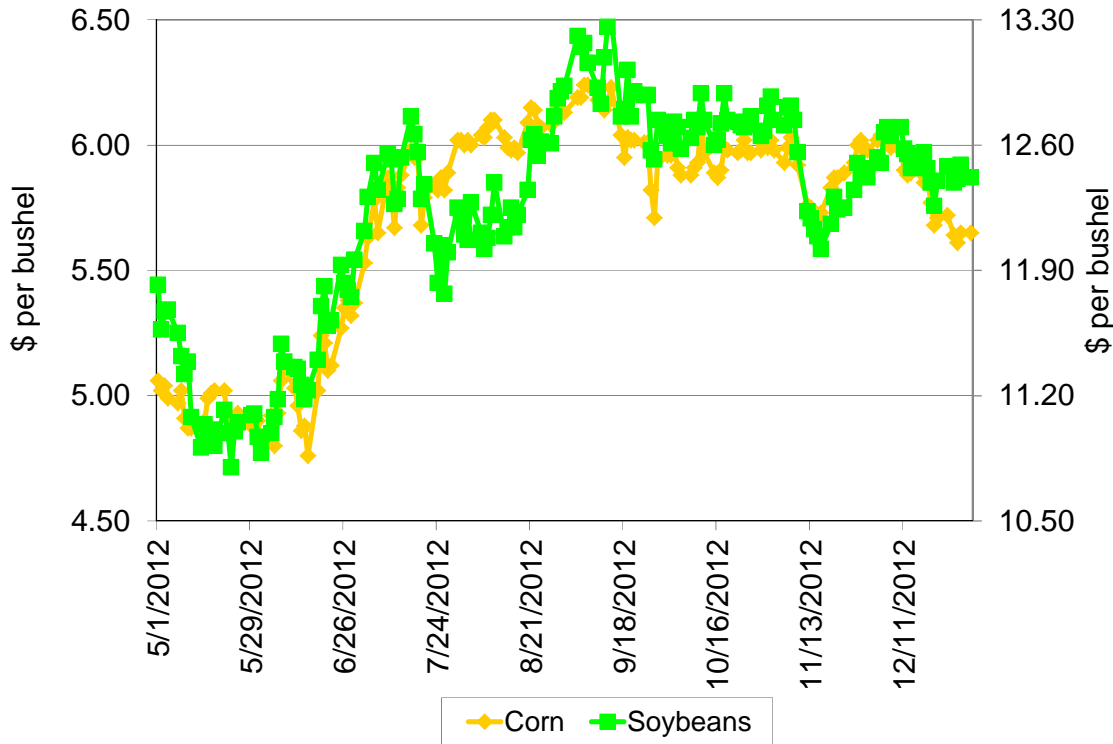


One of the bigger questions going into 2013 deals with the resiliency of demand. The markets did their job in 2012, balancing supply and demand. With the shorter crops, prices rose and demands withdrew. As we move into 2013, will those demand sectors rebound quickly enough if we are able to produce a normal crop? Current demand projections show livestock and biofuel demand continuing to decline. Over the last five years, the corn and soybean markets have been strongly supported by robust demand from the food, feed, fuel, and fiber sectors. But that run may be coming to an end.

Price variability continues to be the main feature of crop markets as we begin 2013. Crop prices seem primed to move quickly on any rumor or news story. And there is no lack of stories for 2013, from the continuing effects of the drought to the “fiscal cliff” and Chinese soybean demand. Figure 3 shows what the futures markets have indicated for 2013/14 season-average cash prices. Just before the 2012 harvest, the futures markets pointed to 2013/14 corn prices in the \$6.25 per bushel range. 2013/14 soybeans were pricing over \$13 per bushel. Those prices have declined, based on the questions about demand. But we ended the year with futures indicating 2013/14 corn prices around \$5.65 per bushel and soybean prices around \$12.40 per bushel

These prices, while a significant retreat from 2012 price levels, are still well above projected production costs. So 2013 looks to be another profitable year for Iowa crop producers. But margins are tightening both prices fall and input costs increase. Farming is still a competitive industry. The profits over the last five years have induced more acreage into production and created more demand for cropland and crop inputs. Eventually, the crop sector will work its way back to breakeven profitability or losses. But thus far, 2013 does not look to be that year.

Figure 3. Projected 2013 Season-Average Crop Prices



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