

Iowa Farm Outlook

Department of Economics
Ames, Iowa

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March 2013 Hogs and Pigs Summary

On March 28, USDA released the Quarterly *Hogs and Pigs Report* as of March 1, 2013. As expected the number of hogs nationally continues a modest increase, with approximately 1.5 percent growth in total hog inventories (table 1). Breeding hog numbers have increased to 5,834 thousand head nationally, up 0.2 percent from a year ago. Market hog numbers are currently at 60,077 thousand head, up 1.5 percent from a year ago. Among market swine, the number of hogs weighing 120-179 pounds and 180 pounds or more was up 2.2 percent and 2.3 percent year/year, respectively, while other weights posted more modest gains. Inventories of market hogs were significantly larger than many pre-report estimates, albeit the lightest class of market hogs. Near term we can expect larger hog supplies and hog prices to remain softer than previously expected. USDA made some modest revisions to past inventory estimates to bring them in line with final pig crop estimates, official slaughter, death loss, and updated import and export data. USDA raised their previous estimate of the September market hog inventory by 470,000 head (0.8 percent) and raised the estimate of the December market hog inventory by 65,000 head (0.1 percent). They increased the reported number of sows farrowed during June-August 2012 by 38,000 head (1.3 percent) and also increased the June-August 2012 pig crop by 385,000 head (1.3 percent).

Iowa producers increased inventories of the breeding herd and market hogs 1.0 percent and 3.2 percent, respectively, over March 1, 2012. This added 10,000 females to the breeding herd and 590,000 market hogs. The total inventory was 20,300 thousand head, up 3.0 percent from the year before and down 1.5 percent from the 20,600 thousand head reported for December 1, 2012. Market hog inventories in Iowa provide further confirmation of the state's growth in finishing capacity. The 19,280 thousand market hog estimate, up 3.2 percent from last March, is only fourth historically to the market hog inventories in the final three quarters of 2012.

A Deeper Look at Inventories and Changes Underway

A deeper assessment of multi-year adjustments can shed additional light on transitions underway in the industry. Tables 2 and 3 were derived to present estimates of closely watched inventory statistics individually for the 13 states currently with the largest breeding and market inventories. Values are presented to enable easy comparison not to last year (which is provided in the March 28 report) but rather to the pre-drought period, 10 years ago, and 20 years ago. This reveals some important broader trends that can easily be missed by looking solely at year/year adjustments. While the ongoing drought certainly has important implications, comparing the current situation to that of 10 and 20 years ago reveals additional potential industry adjustments underway.

A review of table 2 reveals how remarkably stable the geographic dispersion of the breeding hog inventory has been over the 1994-2013 period. While in total head, for the most part each state has followed the national trend of downsizing over time, their relative role as home to breeding inventory remained relatively consistent prior to the ongoing drought as well as currently. Similarly, the share of the country's market hog inventory has been relatively stable among individual states (table 3). However, there have been a few notable exceptions. Iowa and Minnesota (to a slightly lesser degree) has a long history of an increasing role in market hog inventory. This suggests Iowa and Minnesota may slowly be increasing its overall relative industry role. The past pattern of increased comparative advantage with respect to corn and soybean production and slaughter capacity increase the likelihood of region-level expansion. Of course a host of issues, namely the current ongoing weather concerns, demand uncertainty, social pressure, etc., could potentially alter this trajectory.

Table 1. Summary of USDA March 2013 Hogs and Pigs Report ^{1/}

	U.S.		Iowa	
	1,000 Head	% Change from Year Ago	1,000 Head	% Change from Year Ago
All Hogs and Pigs	65,911	1.5	20,300	3.0
Breeding Herd	5,834	0.2	1,020	1.0
Market Hogs	60,077	1.5	19,280	3.2
<50 lbs	19,426	1.0	5,150	4.5
50-119 lbs	16,650	1.5	5,940	2.1
120-179 lbs	13,059	2.2	4,800	3.4
180+ lbs	10,942	2.3	3,390	2.7
Sows farrowing				
Dec-Feb ^{2/}	2,879	0.5	485	2.1
Mar-May ^{3/}	2,955	-0.9	500	1.0
Jun-Aug ^{3/}	2,905	-0.8	490	-1.0
Pig crop				
Dec-Feb ^{2/}	29,019	1.6	5,020	2.6
Pigs per Litter				
Dec-Feb ^{2/}	10.08	1.1	10.35	0.5

^{1/}The full report can be found at: <http://usda01.library.cornell.edu/usda/current/HogsPigs/HogsPigs-03-28-2013.pdf>.

^{2/} December preceding year.

^{3/} Intentions for 2013.

Table 2. Breeding Hog Inventory – States and United States, March 1, (1,000 head) ^{1/}

State	1994	2004	2011	2013	1994 (% of US)	2004 (% of US)	2011 (% of US)	2013 (% of US)
IL	730	410	470	490	10.2%	6.9%	8.1%	8.4%
IN	515	300	290	270	7.2%	5.0%	5.0%	4.6%
IA	1,600	1,030	1,030	1,020	22.3%	17.3%	17.8%	17.5%
KS	175	180	170	170	2.4%	3.0%	2.9%	2.9%
MI	185	100	110	110	2.6%	1.7%	1.9%	1.9%
MN	560	590	560	570	7.8%	9.9%	9.7%	9.8%
MO	445	330	360	340	6.2%	5.5%	6.2%	5.8%
NE	520	360	370	390	7.2%	6.0%	6.4%	6.7%
NC	675	1,020	850	870	9.4%	17.1%	14.7%	14.9%
OH	225	160	170	165	3.1%	2.7%	2.9%	2.8%
OK	65	380	410	410	0.9%	6.4%	7.1%	7.0%
PA	120	120	95	100	1.7%	2.0%	1.6%	1.7%
SD	220	145	175	175	3.1%	2.4%	3.0%	3.0%
US	7,189	5,971	5,788	5,834				

^{1/}USDA-NASS data, modified for presentation by Lee Schulz.

Table 3. Market Hog Inventory – States and United States, March 1, (1,000 head) ^{1/}

State	1994	2004	2011	2013	1994 (% of US)	2004 (% of US)	2011 (% of US)	2013 (% of US)
IL	4,870	3,440	3,930	4,160	9.7%	6.4%	6.8%	6.9%
IN	3,585	2,850	3,260	3,380	7.1%	5.3%	5.6%	5.6%
IA	13,000	14,470	17,870	19,280	25.9%	27.0%	30.9%	32.1%
KS	1,245	1,550	1,640	1,650	2.5%	2.9%	2.8%	2.7%
MI	935	830	920	970	1.9%	1.5%	1.6%	1.6%
MN	4,190	5,910	7,040	7,180	8.3%	11.0%	12.2%	12.0%
MO	2,405	2,570	2,490	2,410	4.8%	4.8%	4.3%	4.0%
NE	3,680	2,490	2,730	2,610	7.3%	4.6%	4.7%	4.3%
NC	5,025	8,880	7,650	8,030	10.0%	16.6%	13.2%	13.4%
OH	1,355	1,340	1,840	1,965	2.7%	2.5%	3.2%	3.3%
OK	295	1,970	1,900	1,910	0.6%	3.7%	3.3%	3.2%
PA	1,080	910	1,005	1,060	2.1%	1.7%	1.7%	1.8%
SD	1,460	1,105	1,135	1,005	2.9%	2.1%	2.0%	1.7%
US	50,246	53,558	57,896	60,077				

^{1/}USDA-NASS data, modified for presentation by Lee Schulz.

Supply and Price Forecasts

Looking into the coming year hog prices can be expected to be lower than the previous year. Table 4 contains the Iowa State University price forecasts for the next four quarters and the quarterly average futures prices based on Monday's settlement prices after the report was released. The futures price forecasts are adjusted for an historic Iowa/Southern Minnesota basis. The table also contains the forecasted year/year changes in hog slaughter, which are expected to see year/year increases.

Table 4. Slaughter and Iowa Lean Hog Price Forecasts, 2013-2014

	Slaughter	ISU Model Price Forecast	CME Futures (04/01/13) Adjusted for IA/So MN Basis
	-----% change year/year-----	-----(\$/cwt)-----	
Apr-Jun 2013	1.13	84-88	86.72
Jul-Sep 2013	1.63	83-87	86.02
Oct-Dec 2013	0.60	78-82	76.25
Jan-Mar 2014	0.46	81-85	77.83

For the spring and summer, hog prices look be back into the mid to high 80's as the general meat market heats up. However, even during these times of seasonal highs, prices may be limited by the anticipated supply of pork on the market. The Iowa State University model suggests a little more bullish market than the futures are expecting in the fourth quarter of 2013 and first quarter of 2014.

Lee Schulz

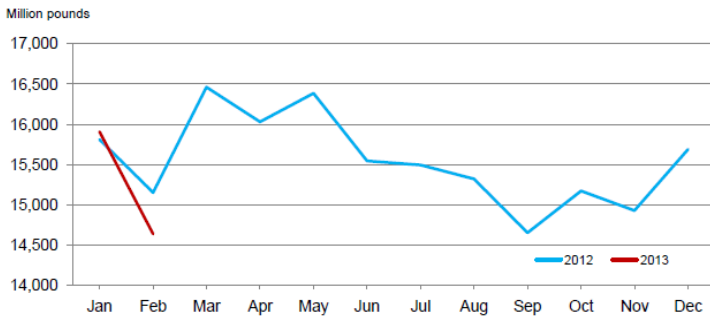
Milk Production drops big in February, or did it?

February 2013, 23 major dairy states milk production decreased by 3.4% but when adjusted for last year's leap year it was actually up by nearly 0.2%. Production per cow was down by 58 pounds from one year ago, but was flat when adjusted for leap year. Milk cow numbers were 13,000 less than February 2012 and 2,000 more than January 2013. January 2013 milk production was revised up 0.1% from the earlier report or an increase of 6 million pounds.

Milk Production: Selected Dairy States, February 2013

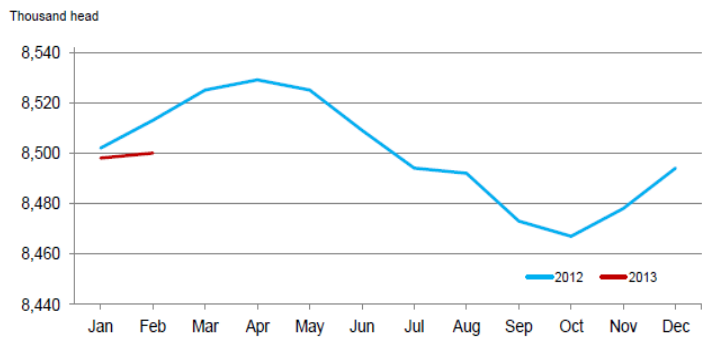
State	thousands			pounds			million pounds		% change total milk
	2012 cow numbers	2013 cow numbers	% change cow numbers	2012 milk per cow	2013 milk per cow	% change milk/cow	2012 total milk production	2013 total milk production	
Iowa	205	204	-0.49%	1760	1730	-1.70%	361	353	-2.18%
MN	465	465	0.00%	1580	1565	-0.95%	735	728	-0.95%
WI	1266	1270	0.32%	1700	1700	0.00%	2152	2159	0.32%
IL	100	100	0.00%	1630	1600	-1.84%	163	160	-1.84%
CA	1784	1782	-0.11%	1965	1810	-7.89%	3506	3225	-7.99%
CO	133	135	1.50%	1865	1865	0.00%	248	252	1.50%
KS	124	132	6.45%	1725	1680	-2.61%	214	222	3.67%
ID	581	579	-0.34%	1800	1730	-3.89%	1046	1002	-4.22%
AZ	190	190	0.00%	2060	1940	-5.83%	391	369	-5.83%
NM	335	322	-3.88%	1985	1985	0.00%	665	639	-3.88%
PA	541	534	-1.29%	1570	1560	-0.64%	849	833	-1.92%
NY	610	610	0.00%	1730	1695	-2.02%	1055	1034	-2.02%
TX	436	435	-0.23%	1835	1740	-5.18%	800	757	-5.39%
23-State	8513	8500	-0.15%	1780	1722	-3.26%	15153	14638	-3.40%
US 4th quarter	9216	9199	-0.18%				48654	49093	0.90%

Monthly Milk Production – 23 Selected States



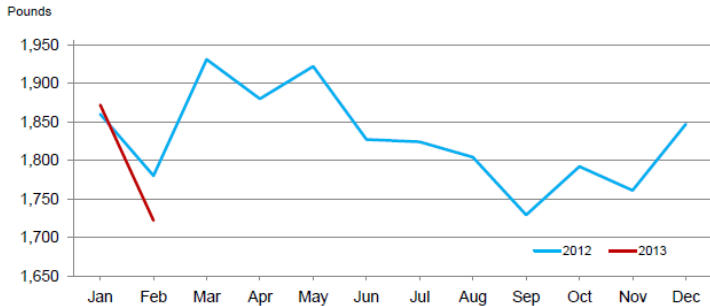
Source: Milk Production, USDA

Monthly Milk Cows – 23 Selected States



Source: Milk Production, USDA

Monthly Milk per Cow – 23 Selected States



Source: Milk Production, USDA

Livestock Slaughtered Under Federal Inspection, By Class – United States

[Data may not add to totals due to rounding]

Class	February 2012	January 2013	February 2013	January to February		February 2012	January 2013	February 2013	January to February	
	(1,000 head)	(1,000 head)	(1,000 head)	2012	2013	(percent of total)	(percent of total)	(percent of total)	2012	2013
Cattle				(1,000 head)	(1,000 head)				(percent of total)	(percent of total)
Steers	1,185	1,371	1,110	2,470	2,482	47.1	49.2	48.0	47.7	48.7
Heifers	781	794	689	1,547	1,483	31.1	28.5	29.8	29.9	29.1
All cows	508	578	479	1,080	1,057	20.2	20.7	20.7	20.9	20.7
Dairy cows	261	297	259	525	556	10.4	10.7	11.2	10.1	10.9
Other cows	247	281	219	555	500	9.8	10.1	9.5	10.7	9.8
Bulls	40	42	37	83	78	1.6	1.5	1.6	1.6	1.5
Total	2,515	2,785	2,315	5,180	5,100	100.0	100.0	100.0	100.0	100.0

Source: Livestock Slaughter, USDA

USDA's "Livestock Slaughter" report said dairy producers sent 259,000 dairy cows to slaughter during February 2013, 38,000 less than January 2013 and only 2,000 less than one year ago. January did see heavy culling and February 2013 had one less day than last year. Dairy farmers did cull at a slower rate during February 2013 than one year ago and more slowly than January 2013.

Demand or Disappearance

Commercial disappearance rose by 1.3% Jan-Dec 2012 compared to the same period one year ago. Fluid milk consumption is down 1.9% YTD, the same rate as one year ago. Butter consumption was up 1.6% YTD, American cheese up 2% and other cheese up 1.6%.

COMMERCIAL DISAPPEARANCE: TOTAL MILK AND SELECTED DAIRY PRODUCTS – OCTOBER-DECEMBER AND YEAR-TO-DATE 2011-2012 1/

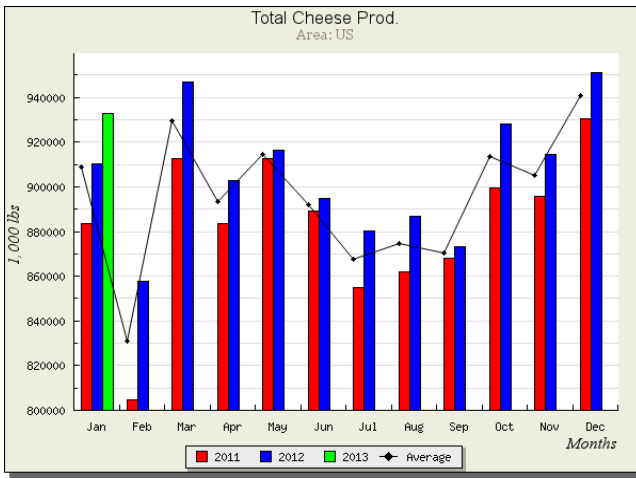
Item	Oct.-Dec. 2011	Percent change 2/	Oct.-Dec. 2012	Percent change 2/	Jan.-Dec. 2011	Percent change 2/	Jan.-Dec. 2012	Percent change 2/
	Million Pounds							
<u>MILK</u>								
Production	48,108	0.5	49,093	2.0	195,674	1.3	200,284	2.1
Marketings	47,859	0.5	48,844	2.1	194,686	1.3	199,297	2.1
Beginning Commercial Stocks 2/	12,482	2.4	13,236	6.0	10,927	-3.6	10,983	0.5
Imports 2/	1,175	37.4	1,283	9.2	3,220	3.9	3,673	13.8
Total Supply 2/	61,516	1.4	63,362	3.0	208,833	1.1	213,953	2.0
Ending Commercial Stocks 2/	10,983	0.5	12,194	11.0	10,983	0.5	12,194	11.0
Net Removals 2/	0	0.0	0	0.0	0	-100.0	0	0.0
Commercial Disappearance 2/	50,533	1.6	51,168	1.3	197,850	1.2	201,759	1.7
<u>SELECTED PRODUCTS 2/</u>								
Butter	527.3	13.3	517.7	-1.8	1,809.9	11.0	1,844.4	1.6
American Cheese	1,102.7	1.7	1,148.4	4.1	4,271.1	0.1	4,369.4	2.0
Other Cheese	1,762.5	4.0	1,788.0	1.4	6,670.2	4.4	6,795.8	1.6
Nonfat Dry Milk	357.0	-2.3	306.4	-14.2	1,494.6	-3.6	1,766.7	17.9
Fluid Milk Products 2/	13,789.1	-2.6	13,651.4	-1.0	53,714.2	-1.9	52,850.7	-1.9

Source: Dairy Market News, USDA

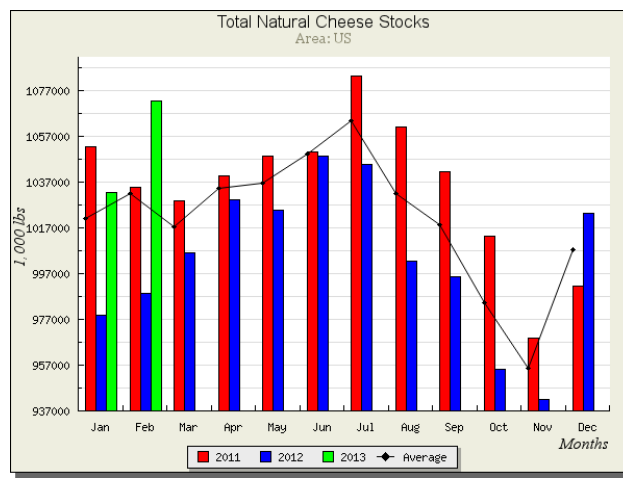
Dairy Product Manufacture: January 2013

Product	thousands Jan 2012	Dec 2012	YTD	
	pounds	% change	% change	% change
Butter	173,154	7.00	2.6	2.6
Cheese, total	910,467	2.40	-2	2.4
Cheddar	279,676	2.90	0.3	2.9
Other American	95,259	0.70	-9.5	
Swiss	25,645	-7.90	-1.6	
Italian Style	399,986	-0.20	-2.3	-0.2
NDM	143,401	-9.00	35.8	-6.9
Sour Cream	106,357	3.40	-3	
Yogurt	395,927	1.10	11.2	
Dry Whey, total	87,172	-9.30	-2.3	
Lactose	86,867	35.00	-7.9	
WPC	38,831	0.80	1.1	
Frozen	1000 gal			
Ice cream, regular	58,422	5.90	19.6	
Ice cream, lowfat	27,407	-3.90	17.1	

Source: Dairy Products, USDA



Source: Understanding Dairy Markets, U of WI

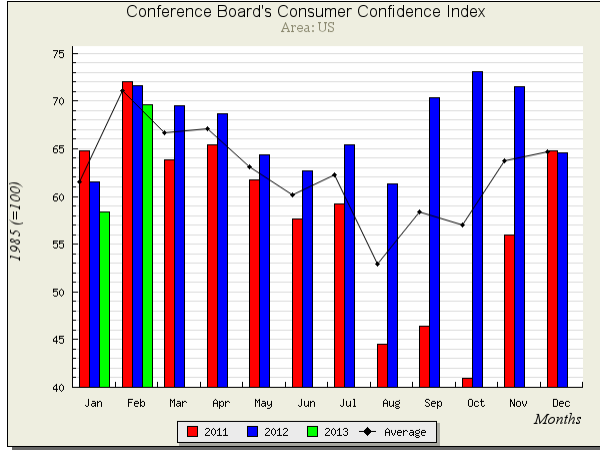


Source: Understanding Dairy Markets, U of WI

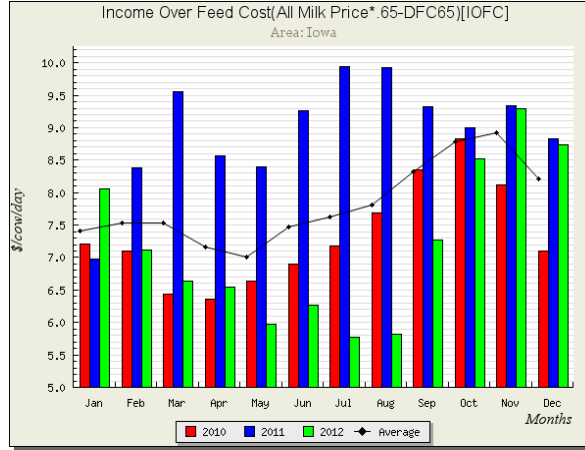
Analysis

The December 2012 Income Over Feed Cost (IOFC) calculation for milk production is significantly higher than the most recent low in July although it did decline slightly from November to December.

The Consumer Confidence Index took a big jump for February, up 11.2 points to 69.6. The restaurant performance index hit a 5-month high, 99.7, up 0.6 from December. This indicates short-run optimism by restaurant owners/managers. “Driven by a more optimistic outlook among restaurant operators, the RPI rose to its highest level in five months in January. The RPI stood at 100.6 in January, up 1.0 percent from December and its highest level since August 2012. In addition, January represented the first time in four months that the RPI rose above 100, which signifies contraction in the index of key industry indicators.” Source: National Restaurant Association



Source: Understanding Dairy Markets, U of WI

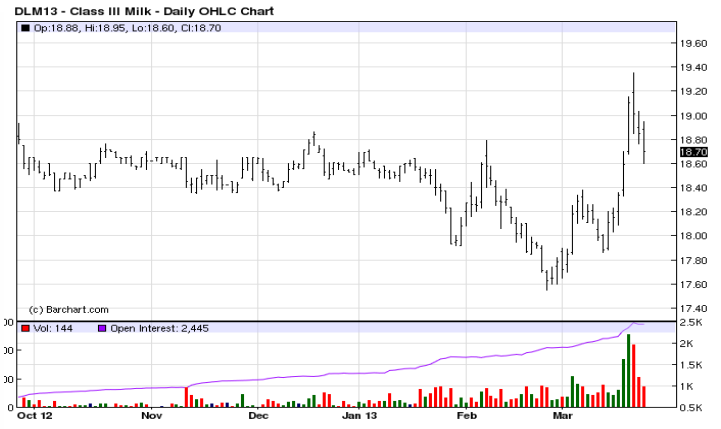


Source: Understanding Dairy Markets, U of WI

Below is the June 2013 Class III milk price at the CME as of Mar 25. Class III milk for June 2013 closed at \$18.70. The trade now appears to expect somewhat higher milk consumption and dairy product sales leading to higher Class III milk prices compared to one month ago. However USDA is projecting slightly higher Class III milk prices for the 3rd and 4th quarter of 2013. This should lead to an annual average milk price similar to 2012 but with less volatility.



Source: National Restaurant Association



Source: Barchart.com: June 2013 Class III milk

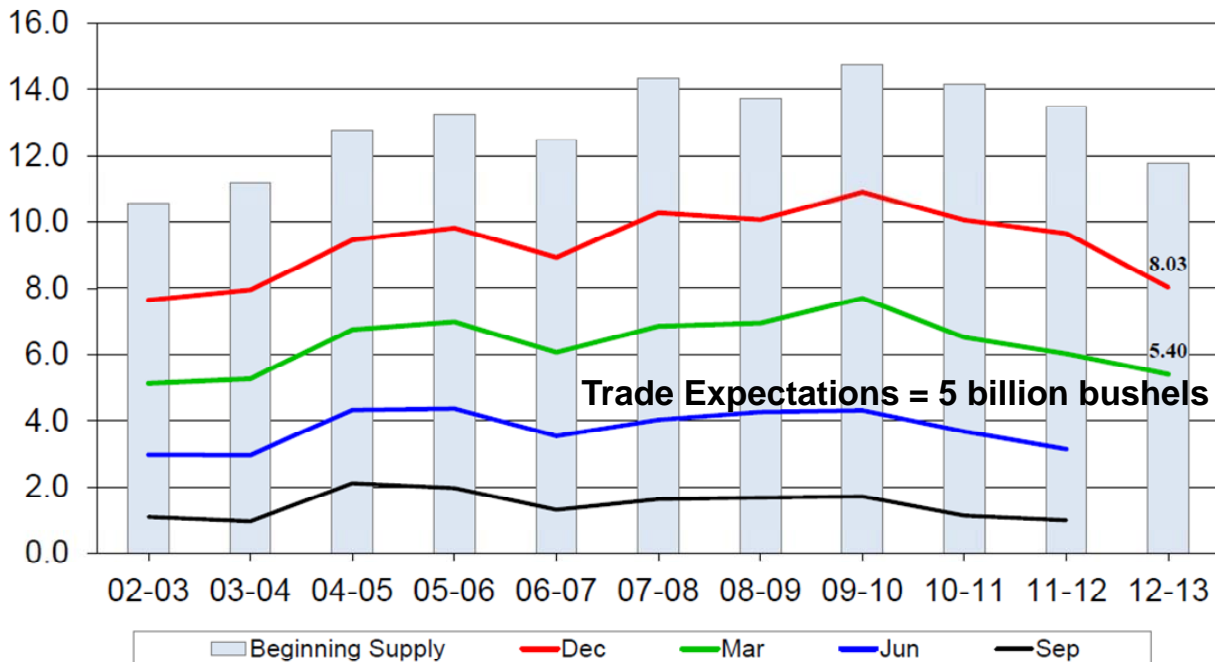
Robert Tigner

Higher Stocks, but the Same Acreage

USDA released the Grain Stocks and Prospective Plantings reports just before the Easter holiday. While the plantings report was generally along trade expectations, the stocks report held some surprises for the markets. As USDA surveyed farmers and elevator last month, they found more corn and soybeans in storage than was anticipated by the markets. For corn, the market was expected March 1 stocks in the 5 billion bushel range. USDA found 5.4 billion bushels in storage. That had the corn market limit down after the report. As the graph below shows, the 5.4 billion bushels is still the lowest March stock level we have had since 2004. But with the quarterly disappearance of corn limited to 2.6 billion bushels, this also showed how much demand has retreated. Last year, in the December-February quarter, the U.S. used 3.6 billion bushels of corn. So demand dropped 1 billion bushels in this quarter alone. If demand over the next two quarters was to follow its typical seasonal decline, then 2012/13 ending stocks could exceed 1 billion bushels. Currently, USDA's estimate is still around 600 million bushels.

Figure 1. Corn Stocks (Source: USDA-NASS).

Billion bushels



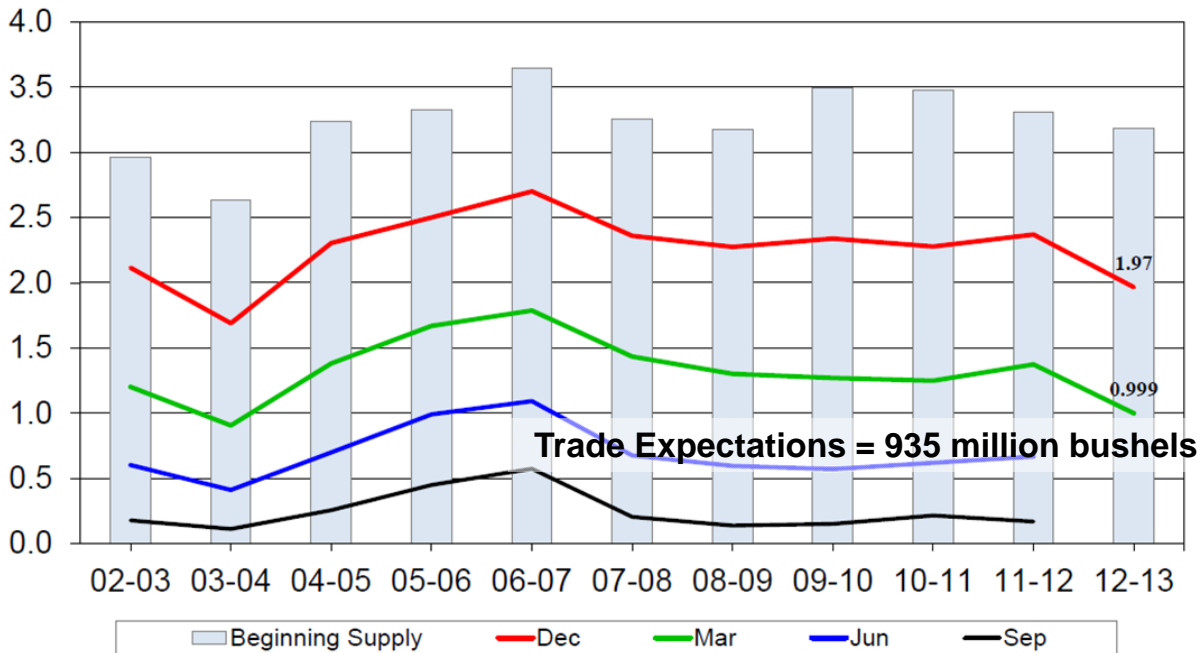
USDA-NASS
03-28-13

As ethanol and export demand are tracked on a weekly basis, the big stock surprise is being chalked up to lower feed usage. Current livestock projections have both the broiler and pork industries growing in 2013. That projected growth led to expectations of greater corn feed use this winter. That evidently did not occur. Or if it did, other feed grains were utilized.

Soybean stocks came in roughly 65 million bushels above expectations. As with corn, March 1 soybean stocks have not been this tight since 2004. But the trade expected tighter. While corn demand has backed off, soybean demand has remained relatively strong. Quarterly disappearance is only 3 percent below last year. However, the extra bushels led to lower prices for the soybean complex. And as South American production begins to flow into the global market, U.S. quarterly disappearance will drop.

Figure 2. Soybean Stocks (Source: USDA-NASS).

Billion bushels



USDA-NASS
03-28-13

Moving on the acreage report, 2013 is shaping up to be a repeat of 2012, as the acreage for both corn and soybeans is very near last year's totals. Corn is projected to gain 127,000 acres nationwide. But while the total acreage is approximately the same, the pattern across the country is shifting. While many states in the traditional Corn Belt are reduced corn area, many states surrounding the Corn Belt are moving into corn. The big leaders in this shift are North Dakota (up 500,000 acres), Minnesota (up 250,000), Texas (up 250,000), Arkansas (up 290,000), and Mississippi (up 230,000). North Dakota and Minnesota are both on pace to plant record corn area. Meanwhile, Illinois and Indiana are reducing corn plantings significantly, along with most of the Central Plains states. Iowa corn acreage held steady at 14.2 million acres.

While corn is gaining a little ground, soybean plantings are projected to decline by 72,000 acres, a very small decrease. So soybean plantings will again exceed 77 million acres. North Dakota is again one of the main stories as farmers there plan to increase plantings by 150,000 acres, setting another record (two years in a row with record corn and soybean plantings). The biggest gain in soybean area will come from Illinois. Michigan and Tennessee also plan to increase soybean plantings by 100,000 acres each. The largest declines in soybean plantings are projected in Nebraska and Minnesota. South Dakota, Kansas, and Missouri are also expected to plant fewer soybeans as drought conditions still hold across the Central and Southern Plains. Iowa farmers are looking to add 50,000 soybean acres to last year's base, raising the total Iowa soybean area to 9.4 million acres.

Figure 3. 2013 U.S. corn intended acreage (Source: USDA-NASS).

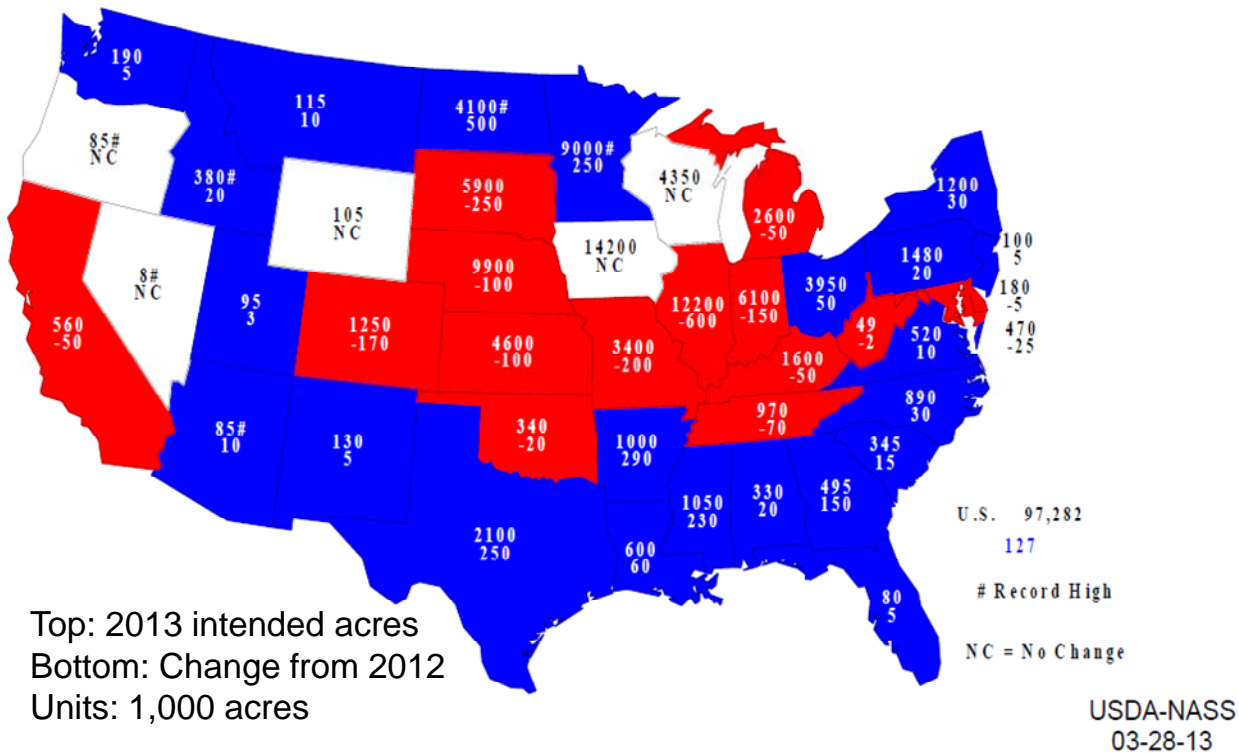
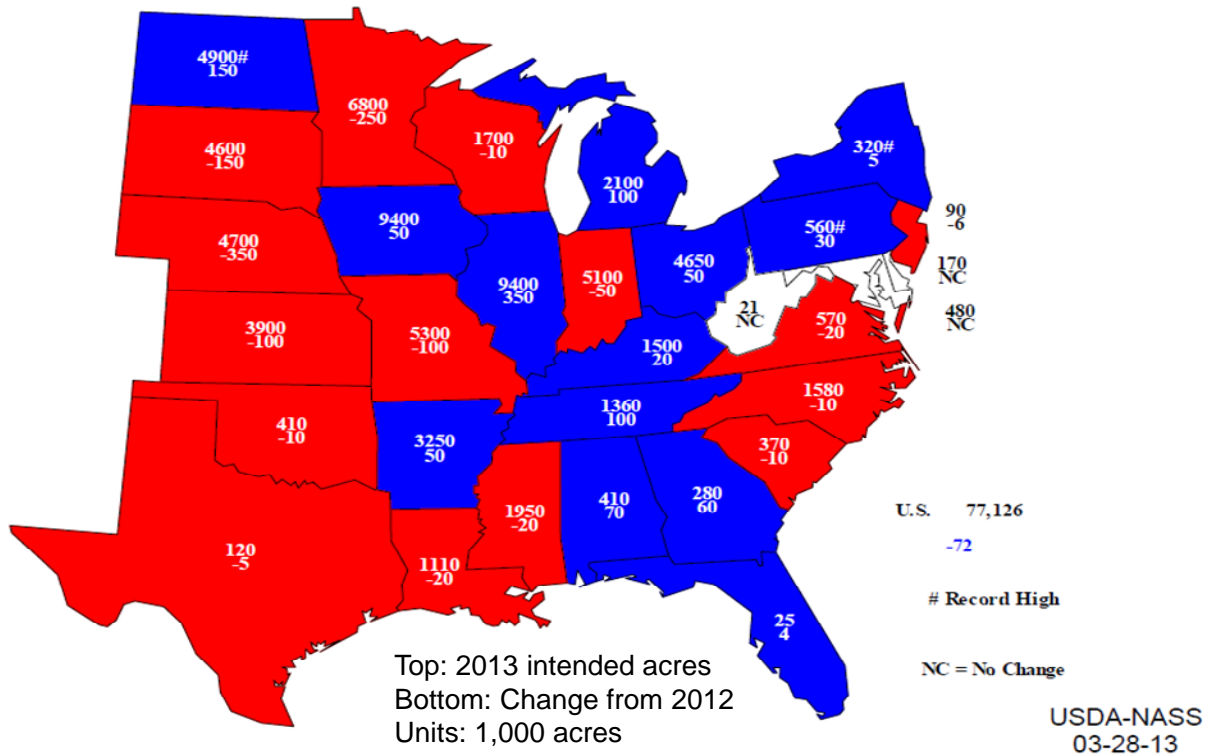


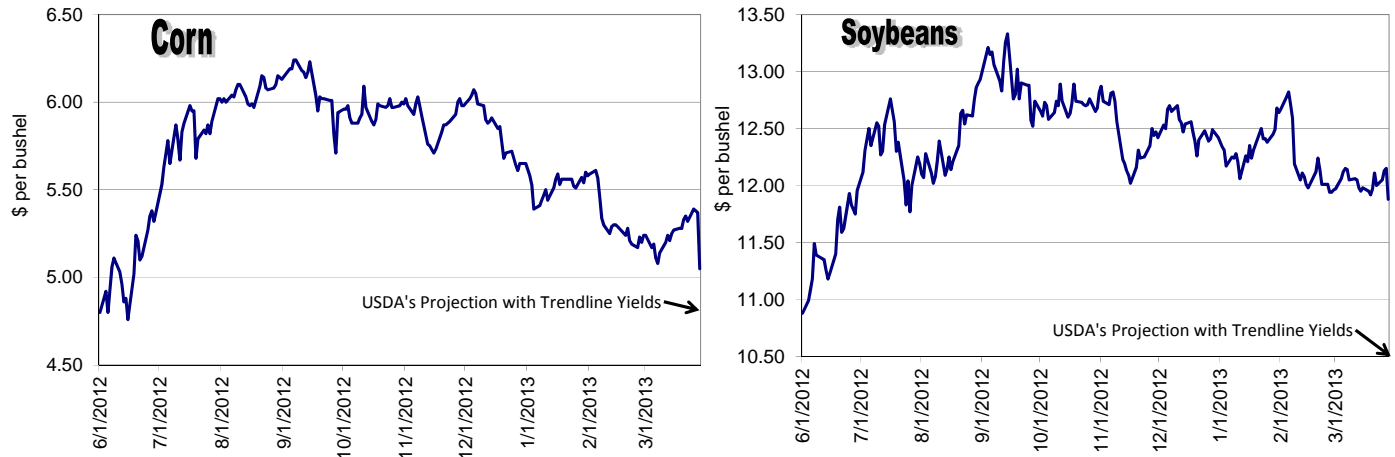
Figure 4. 2013 U.S. soybeans intended acreage (Source: USDA-NASS).



Combining these acreages with USDA trendline yields leads to projected record production for both corn and soybeans. Corn production would come at 14.6 billion bushels, while soybean production would reach 3.38 billion bushels. However, with soil moistures across Iowa and the western Corn Belt below normal, most analysts aren't expecting trendline yields. If we take 10% off of those trendline yields, corn would average 147 bushels per acre and soybeans would be at 40 bushels per acre. Given the intended acreages, that would lead to 13.15 billion bushels of corn and 3.05 billion bushels of soybeans. So corn could still reach record production with yields roughly in line with 2011, but soybeans would fall off of record pace.

Given that potential production outlook, both the corn and soybean markets have generally been in retreat over the last few months. That retreat accelerated with the larger than expected stocks. But prices are holding above USDA's early projections. Both the 2013 corn and soybean crops have lost roughly a dollar per bushel since the 2012 harvest. Corn has taken the relatively bigger price hit, based on that ability to still reach record production with below trendline yields. But 2013 prices are still above production costs. Current futures for 2013 corn point to a 2013 season-average price around \$5 per bushel. Soybeans are hovering around \$12 per bushel.

Figure 5. 2013 season-average price estimates.



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