Iowa Farm Outlook

Department of Economics Ames, Iowa

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Long-term Projections for Livestock Production

High feed prices, economic recession, and persistent drought conditions have combined to reduce producer returns and lower production incentives in the livestock industry over the past several years. As a result, beef and pork production is projected to decline into 2013. However, if you get out of the current short-term assessment and look toward the future it is useful to make note of USDA's 10-year projections.¹

Despite improved returns for cow-calf producers in 2011 and 2012, drought over the past two years will prevent producers from expanding beef cow inventories until 2014. Lower beef cow inventories and increases in heifer retention are expected to lead to declines in beef production through 2015. Beef production is then expected to increase over the remainder of the projection period as returns support herd expansion. Likely increases in slaughter weights will also contribute to the long-term increases in beef production. The long-term increases in beef production will likely be accompanied by increases in per capita consumption and increases in exports to traditional (Japan, Canada, and Mexico) and growing (Africa, Middle East, and Asia) markets.

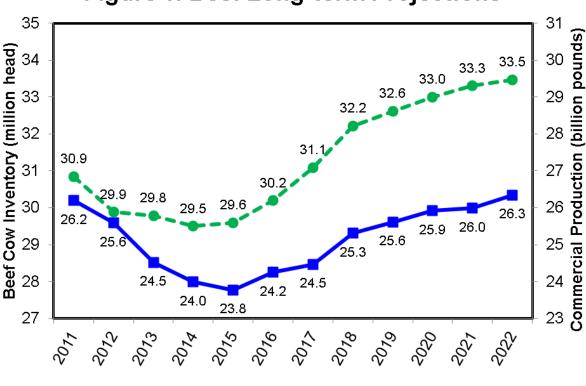


Figure 1. Beef Long-term Projections

-● -Beef Cow Inventory (million head) ———Commercial Production (billion pounds)

Significant positive returns to hog production in 2010 and 2011 brought about expansion in breeding herd inventory and market hog numbers that were realized in 2012. The record high feed costs last summer and the

¹ The full report can be found at: http://www.ers.usda.gov/publications/oce-usda-agricultural-projections/oce131.aspx.

increased sell-off of hog inventories in the latter part of 2012 are projected to slightly decrease hog inventories and pork production in 2013. As feed costs are projected to decline further into the projection period, pork producers are expected to increase farrowings, with pork production expected to increase over the next decade. Production increases will likely also be supported by productivity gains in the breeding herd (pigs/litter, pigs/sow/year) and increased slaughter weights.

Production efficiency in the U.S. pork sector enhances the industry's global competitiveness. Longer-term U.S. pork export gains will be determined by costs of production in the U.S. relative to competitors' costs. USDA projects U.S. pork exports to grow by 14.5 percent from 2013 to 2022. Japan accounted for 25.6 percent of the U.S. pork export market in 2012 and is projected to grow slightly during the coming decade; however, with Japan's aging and declining population, its imports are not projected to rise significantly. Mexican pork imports (21.6 percent of the U.S. pork export market in 2012) may increase significantly between 2013 and 2022 due to increases in income and population. China and Hong Kong may also provide significant export growth potential for U.S. pork. The U.S. increased pork exports to Hong Kong by 189.1 percent from 2009 to 2010 and increased pork exports to China 328.2 percent from 2010 to 2011.

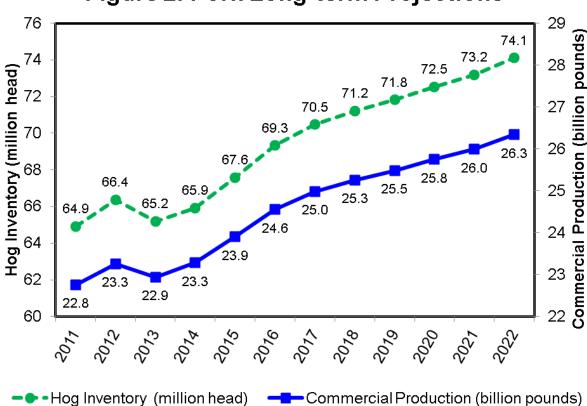


Figure 2. Pork Long-term Projections

Lee Schulz

Milk Production rises for a Second Month

For January 2012, the 23 major dairy states milk production increased 0.6%. Production per cow was up by 11 pounds from one year ago. Milk cow numbers were 2,000 less than January 2012 and 6,000 more than December 2012. December 2012 milk production was revised down 6 million pounds or less than 0.1%. 2012 total milk production in the 23 dairy states was 200 billion pounds up 2% from 2011. Milk per cow for 2012 was 21,697 pounds, up 361 pounds for 2011, with an average of 9.23 million dairy cows, up 0.4% from 2011.

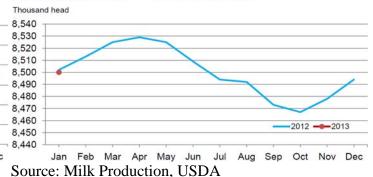
Table 1. Milk production, January 2013

	2012	2013	•	2012	2013		2012	2013	
State	# of	cows	% change	milk p	er cow	% change	milk pro	oduction	% change
	(1,000 head)			(pounds)			(million pounds)		
Iowa	205	205	0.00%	1,865	1,905	2.14%	382	391	2.14%
MN	465	465	0.00%	1,660	1,735	4.52%	772	807	4.52%
WI	1,265	1,270	0.40%	1,790	1,870	4.47%	2,264	2,375	4.88%
IL	100	100	0.00%	1,710	1,730	1.17%	171	173	1.17%
CA	1,782	1,780	-0.11%	2,030	1,945	-4.19%	3,617	3,462	-4.29%
CO	133	135	1.50%	1,970	2,030	3.05%	262	274	4.60%
KS	123	132	7.32%	1,800	1,855	3.06%	221	245	10.60%
ID	581	580	-0.17%	1,920	1,900	-1.04%	1,116	1,102	-1.21%
AZ	190	190	0.00%	2,100	2,075	-1.19%	399	394	-1.19%
NM	335	320	-4.48%	2,045	2,150	5.13%	685	688	0.43%
PA	540	535	-0.93%	1,660	1,690	1.81%	896	904	0.86%
NY	610	610	0.00%	1,800	1,855	3.06%	1,098	1,132	3.06%
TX	435	435	0.00%	1,900	1,880	-1.05%	827	818	-1.05%
23-State	8,502	8,500	-0.02%	1,860	1,871	0.59%	15,810	15,901	0.58%
US 4th quarter	9,216	9,199	-0.18%				48,654	49,093	0.90%

Monthly Milk Production - 23 Selected States

Apr May Jun Jul Aug Sep Oct Nov Dec

Monthly Milk Cows - 23 Selected States



Source: Milk Production, USDA

Million pounds

16,800

16,300

15,800

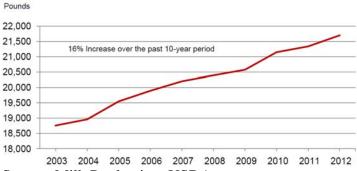
15,300

14,800

14,300

13,800

Rate per Cow - United States: 2003-2012



Source: Milk Production, USDA

USDA's "Livestock Slaughter" report said dairy producers sent 297,000 dairy cows to slaughter during January 2013, 38,000 more than December 2012 and 33,000 more than one year ago. The January 1 dairy cattle inventory said that the dairy cow number was 9.22 million cows or about 9,600 cows less than 1 year ago. Dairy heifers were 4.55 million head or about 71,300 less than 1 year ago. Iowa dairy cow numbers were unchanged Jan. 12 to Jan. 13 at 205,000 head. Iowa dairy replacement numbers were down by 40,000 to 120,000 head.

Livestock Slaughtered Under Federal Inspection, By Class - United States

[Data may not add to totals due to rounding]

(1)266	January	December	January	January to January		January	December	January	January to January	
	2012	2012	2013	2012	2013	2012	2012	2013	2012	2013
	(1,000 head)	(1,000 head)	(1,000 head)	(1,000 head)	(1,000 head)	(percent of total)				
Cattle										
Steers	1,285	1,204	1,371	1,285	1,371	48.2	48.2	49.2	48.2	49.2
Heifers	766	697	794	766	794	28.7	27.9	28.5	28.7	28.5
All cows	572	556	578	572	578	21.5	22.2	20.7	21.5	20.7
Dairy cows	264	259	297	264	297	9.9	10.3	10.7	9.9	10.7
Other cows	308	297	281	308	281	11.6	11.9	10.1	11.6	10.1
Bulls	43	44	42	43	42	1.6	1.7	1.5	1.6	1.5
Total	2,665	2,500	2,785	2,665	2,785	100.0	100.0	100.0	100.0	100.0

Source: Livestock Slaughter, USDA

Demand or Disappearance

Commercial disappearance rose by 2.1% Jan.-Nov. 2012 compared to the same period one year ago. Fluid milk consumption is down 1.7% year to date, the same as one year ago.

COMMERCIAL DISAPPEARANCE: TOTAL MILK AND SELECTED DAIRY PRODUCTS - SEPTEMBER-NOVEMBER AND YEAR-TO-DATE 2011-2012 1/

Item	SepNov. 2011	Percent change ^{2/}	SepNov. 2012	Percent change ²	JanNov. 2011	Percent change ^{2/}	JanNov. 2012	Percent change ^{2/}		
	Million Pounds									
MILK										
Production	47,346	0.9	47,951	1.3	179,125	1.4	183,464	2.1		
Marketings	47,100	0.9	47,705	1.3	178,221	1.4	182,561	2.1		
Beginning Commercial Stocks 3/	13,001	1.8	13,034	0.3	10,927	-3.6	10,983	0.5		
Imports 3/	978	21.3	1,069	9.3	2,787	-1.4	3,162	13.1		
Total Supply 4	61,079	1.3	61,808	1.2	191,935	1.1	196,706	2.0		
Ending Commercial Stocks 3/	10,567	0.5	10,915	3.3	10,567	0.5	10,915	3.3		
Net Removals ^{3/}	0	0.0	0	0.0	0	-100.0	0	0.0		
Commercial Disappearance 4/	50,512	1.5	50,893	0.8	181,368	1.1	185,791	2.1		
SELECTED PRODUCTS 5/										
Butter	527.3	15.1	470.7	-10.7	1,648.8	11.1	1,653.5	0.0		
American Cheese	1,102.7	3.0	1,120.4	1.6	3,919.3	0.4	4,016.6	2.2		
Other Cheese	1,762.5	4.5	1,743.6	-1.1	6,078.3	4.2	6,212.8	1.9		
Nonfat Dry Milk	357.0	-5.4	274.5	-23.1	1,364.0	-4.5	1,663.0	21.6		
Fluid Milk Products ⁶	13,672.3	-1.8	13,501.4	-1.3	49,071.6	-1.7	48,409.7	-1.7		

Source: Dairy Market News, USDA

Table 2. Dairy Product Manufacturing, December 2012

· · · · · · · · · · · · · · · · · · ·	1,000	Dec. 2011	Nov. 2012	Year to date
Product	pounds		% change	
Butter	173,201	4.4	20.9	2.6
Cheese, total	949,260	2.0	3.8	2.5
Cheddar	273,181	1.0	6.3	1.3
Other American	105,151	6.9	-1.0	
Swiss	26,176	-5.7	5.2	
Italian Style	409,115	-0.1	6.4	1.2
NDM	157,285	4.7	35.8	17.6
Sour Cream	110,045	-4.0	-11.2	
Yogurt	355,917	11.0	12.2	
Dry Whey, total	88,586	6.6	21.7	
Lactose	87,605	3.1	8.6	
WPC	38,552	-1.9	7.4	
	1,000			
Frozen	gallons			
Ice cream, regular	49,104	-2.9	-8.4	
Ice cream, lowfat	10,460	-11.4	-4.4	

Source: Dairy Products, USDA

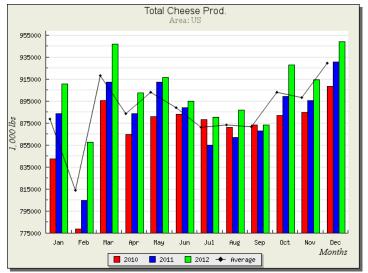
Total natural cheese in cold storage was up 1% for Jan. 2013 from Dec. 2012 and Jan. 2012. Butter stocks surged 35% from one month ago and 21% from one year ago. Total cheese production was higher in December 2012, compared to one year ago, but 3.8% more than November 2012.

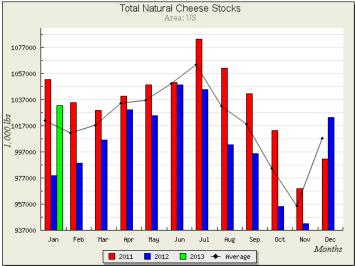
COMMERCIAL DISAPPEARANCE: TOTAL MILK AND SELECTED DAIRY PRODUCTS - AUGUST 2011-OCTOBER 2012 AND YEAR-TO-DATE 2011-2012 1/

Item	AugOct. 2011	Percent change ^{2/}	AugOct. 2012	Percent change ^{2/}	JanOct. 2011	Percent change ^{2/}	JanOct. 2012	Percent change ^{2/}		
		Million Pounds								
MILK										
Production	48,498	2.0	48,327	-0.4	163,845	1.7	167,426	1.8		
Marketings	48,249	2.0	48,078	-0.4	163,022	1.7	166,604	1.9		
Beginning Commercial Stocks 3/	13,625	-0.6	14,115	3.6	10,927	-3.6	10,983	0.5		
Imports 3/	810	-6.5	924	14.1	2,375	-4.3	2,715	13.9		
Total Supply 4/	62,684	1.3	63,117	0.7	176,324	1.2	180,302	1.7		
Ending Commercial Stocks 3/	11,744	0.9	11,395	-3.0	11,744	0.9	11,395	-3.0		
Net Removals ^{3/}	0	0.0	0	0.0	0	-100.0	0	0.0		
Commercial Disappearance 4/	50,940	1.4	51,722	1.5	164,580	1.3	168,907	2.3		
SELECTED PRODUCTS 5/										
Butter	480.8	12.8	509.5	6.0	1,452.5	10.9	1,527.0	4.8		
American Cheese	1,061.2	-0.7	1,132.1	6.7	3,541.8	0.1	3,652.0	2.8		
Other Cheese	1,708.6	2.9	1,725.8	1.0	5,489.8	4.7	5,614.8	2.0		
Nonfat Dry Milk	369.2	-11.6	310.9	-15.8	1,245.8	-5.3	1,569.7	25.6		
Fluid Milk Products 6/	13,615.3	-0.6	13,444.7	-1.3	44,515.5	-1.5	43,876.5	-1.8		

To Commercial disappearance includes civilian and military purchases of milk and dairy products for domestic and foreign use, but excludes farm household use and USDA donations of dairy products. Disappearance is a residual figure and therefore can be affected by any inaccuracies in estimating milk production, on-farm use, stocks, and imports. Therefore year earlier on a daily average basis. Milk-equivalent, milkfat basis. Totals may not add because of rounding. Commercial disappearance in product pounds. Sales. Estimate based on actual sales in Federal milk order marketing areas and California. These sales figures have not been adjusted for calendar composition. Source: U.S. Department of Agriculture. Economic Research Service. Agricultural Marketing Service. Fluid Milk Products.

Source: Dairy Market News



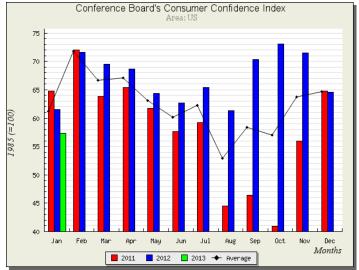


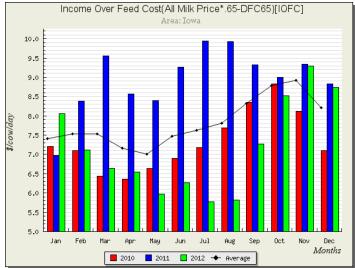
Source: Understanding Dairy Markets, U of WI

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Analysis

The December 2012 Income over Feed Cost (IOFC) calculation for milk production is significantly higher than the most recent low in April. The Consumer Confidence Index continues to drop since its most recent peak in Oct. 12. The restaurant performance index hit a 5-month high, 100.6, up 1% from December. This indicates short-run optimism by restaurant owners/managers. Quoting the National Restaurant Association, "Although restaurant operators reported net positive same-store sales for the 20th consecutive month, results remained mixed in January. Forty-four percent of restaurant operators reported a same-store sales gain between January 2012 and January 2013, while 37 percent of operators reported lower sales. In December, 42 percent of operators reported higher same-store sales, while 38 percent reported a sales decline."

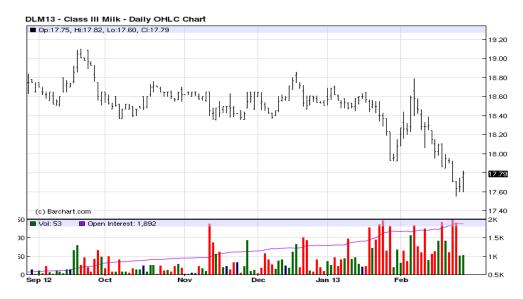




Source: Understanding Dairy Markets, U of WI

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Below is the June 2013 Class III milk price at the CME as of Feb. 28. The trade now appears to expect significantly lower milk prices going forward. The highest projected Class III price on Feb. 28 was Sept. 2013 at \$18.44. Those milk prices would not change the net income picture of dairy farmers if the Midwest drought repeats. There appears to be only one thing that could improve dairy farm income in the near future, crop production returning to trend line yields.



Source: Barchart.com, June 2013 Class III milk

Robert Tigner

Which Will Recover Quicker: Supply or Demand?

Over the last eight months, the U.S. crop markets have dealt with the impacts of the drought, the high prices associated with it, and the erosion of crop demand. Now as we look forward to the 2013 crop production season, the question becomes "Which will recover quicker: supply or demand?". USDA has provided an early assessment of the 2013 crop prospects as part of their Ag Outlook Forum. This early assessment is based on the assumption of trendline yields. Thus, it should be taken with a grain of salt, as the drought still looms in the western U.S. and soil moisture conditions in the western Corn Belt are lower than average. But this outlook does provide a dramatic picture of how quickly the markets can change, especially with the return of more normal precipitation.

First, let's look at corn. USDA projects a slight decline in corn acres for 2013. This is based on a return to more normal planting conditions. Last year, the planting season started early with the dry conditions and that allowed more corn to be planted. But with trendline yields in place, corn production would leap to 14.5 billion bushels. That would set another production record, passing the previous record by roughly 1.4 billion bushels. Combining that with ending stocks and some meager imports, we would have over 15 billion bushels of corn ready for the 2013 marketing year. So supplies could recover with one good crop year.

USDA also shows that demand could rebound quickly as well, just not quite as quickly as supply. Feed and residual demand is projected to jump by 950 million bushels. Most of this increase is in the residual portion. However, USDA does expect more feed demand as poultry and pork production is projected to rise, offsetting the continued decline in beef production.

Table 1. U.S. corn supply and use

		2009	2010	2011	2012	2013
Area Planted	(mil. acres)	86.4	88.2	91.9	97.2	96.5
Yield	(bu./acre)	164.7	152.8	147.2	123.4	163.6
Production	(mil. bu.)	13,092	12,447	12,360	10,780	14,530
Beg. Stocks	(mil. bu.)	1,673	1,708	1,128	989	632
Imports	(mil. bu.)	8	28	29	100	25
Total Supply	(mil. bu.)	14,774	14,182	13,516	11,869	15,187
Feed & Residual	(mil. bu.)	5,125	4,795	4,548	4,450	5,400
Ethanol	(mil. bu.)	4,591	5,019	5,011	4,500	4,675
Food, Seed, & Other	(mil. bu.)	1,370	1,407	1,426	1,387	1,435
Exports	(mil. bu.)	1,980	1,834	1,543	900	1,500
Total Use	(mil. bu.)	13,066	13,055	12,527	11,237	13,010
Ending Stocks	(mil. bu.)	1,708	1,128	989	632	2,177
Season-Average Price	(\$/bu.)	3.55	5.18	6.22	7.20	4.80

Ethanol demand is projected to rebound as well. But the recovery will be incomplete, as corn usage for ethanol is expected to remain below the level in 2011. The major issue here is the lack of growth in the gasoline market. Throughout the recession and the anemic recovery since, gasoline consumption has declined significantly. This has limited the potential market for ethanol and allowed ethanol stocks to build. Thus, the ethanol industry is not expected to ramp back up to full capacity over the coming year.

Food, seed, and other uses are projected to rise by 50 million bushels, as the starch and sweetener markets continue to rebuild. Corn exports are projected to grow by 600 million bushels. With abundant supplies and lower prices, U.S. competitiveness in the export markets improves. One of the key markets to watch is China. China has been purchasing corn from us over the last couple of years. And that trade is expected to grow as China expands and modernizes its pork production.

Overall, these projections indicate total demand of 13 billion bushels, approaching the levels from back in 2009 and 2010. That would be a substantial rebound in corn demand. In my own view, that is probably overoptimistic, with my biggest concern being in the feed and residual category. In either case, 2013/14 ending stocks would be projected to grow dramatically to over 2 billion bushels. And corn prices, under this scenario, would drop below \$5 per bushel. Given our ISU projected production costs for the 2013 corn crop, the 2013 corn marketing year looks profitable, but the margins are much smaller than we have captured over the last three years. In this respect, the 2013 corn crop year is reminiscent of 2009.

The early outlook for the 2013 soybean crop parallels the story for corn with increased production and increased demand, but increasing ending stocks and declining prices. Looking at the supply side, soybean acreage is projected to increase. This is based on the normal of land from corn to soybeans as typical weather slightly delays planting. With a trendline yield of 44.5 bushels per acre, the U.S. would produce 3.4 billion bushels of soybeans. That would top the record from 2009. Total soybean supplies would reach 3.5 billion bushels for only the 2nd time in U.S. history.

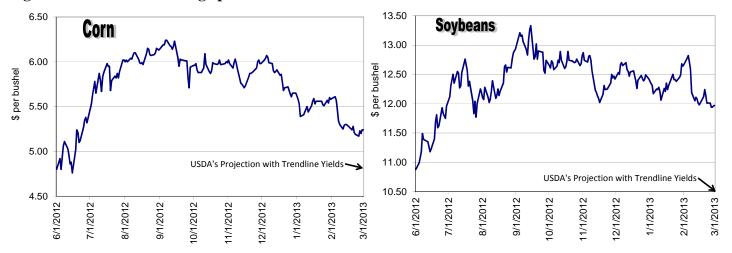
Table 2. U.S. soybeans supply and use

		2009	2010	2011	2012	2013
Area Planted	(mil. acres)	77.5	77.4	75.0	77.2	77.5
Yield	(bu./acre)	44.0	43.5	41.9	39.6	44.5
Production	(mil. bu.)	3,359	3,329	3,094	3,015	3,405
Beg. Stocks	(mil. bu.)	138	151	215	169	125
Imports	(mil. bu.)	15	14	16	20	15
Total Supply	(mil. bu.)	3,512	3,495	3,325	3,204	3,545
Crush	(mil. bu.)	1,752	1,648	1,703	1,615	1,660
Seed & Residual	(mil. bu.)	110	130	91	120	135
Exports	(mil. bu.)	1,499	1,501	1,362	1,345	1,500
Total Use	(mil. bu.)	3,361	3,280	3,155	3,080	3,295
Ending Stocks	(mil. bu.)	151	215	169	125	250
Season-Average Price	(\$/bu.)	9.59	11.30	12.50	14.30	10.50

Soybean demand is projected to rebound as well. Domestic crush demand is projected at 1.66 billion bushels as demand for soybean meal from domestic livestock producers leads the charge. Seed and residual demand is projected to increase by 15 million bushels. And export demand is projected to hit 1.5 billion bushels again. We have not shipped out that many bushels since 2010 crop year. In fact, the 2010 crop year is our closest comparable to the projections for 2013 in terms of acreage, demand, ending stocks, and prices. The key market to watch again is China. China represents roughly 60% of our export market and they would likely be the largest part of any soybean demand surge. But overall, supplies exceed demand and ending stocks build. And that combination points to lower prices. USDA early projection is at \$10.50 per bushel, which is roughly 50 cents below ISU's projected production costs. So based on these projections, soybean profit margins would disappear.

However, when we look where the futures markets are currently at for the 2013 crops, we see larger positive profit margins for both crops. Some of these profit margins are originating from the ongoing acreage bidding in the markets, but I would guess that most of the margins are derived from the concerns about the lingering drought and low soil moisture conditions. With many market analysts projecting below-trendline yields for the coming year, the supply rebound will not be as strong. There will likely be less of a buildup in ending stocks for both crops. And the futures markets show 2013 season-average crop prices in the \$5.25 range for corn and \$12 range for soybeans. These prices provide about a 75 cent margin per bushel for corn and a \$1 margin per bushel for soybeans. Again, not as strong of margins as we have captured over the past three years, but good margins none the less.

Figure 1. 2013 season-average price estimates



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