IOWA STATE UNIVERSITY
Extension and Outreach

Iowa Farm Outlook

Department of Economics
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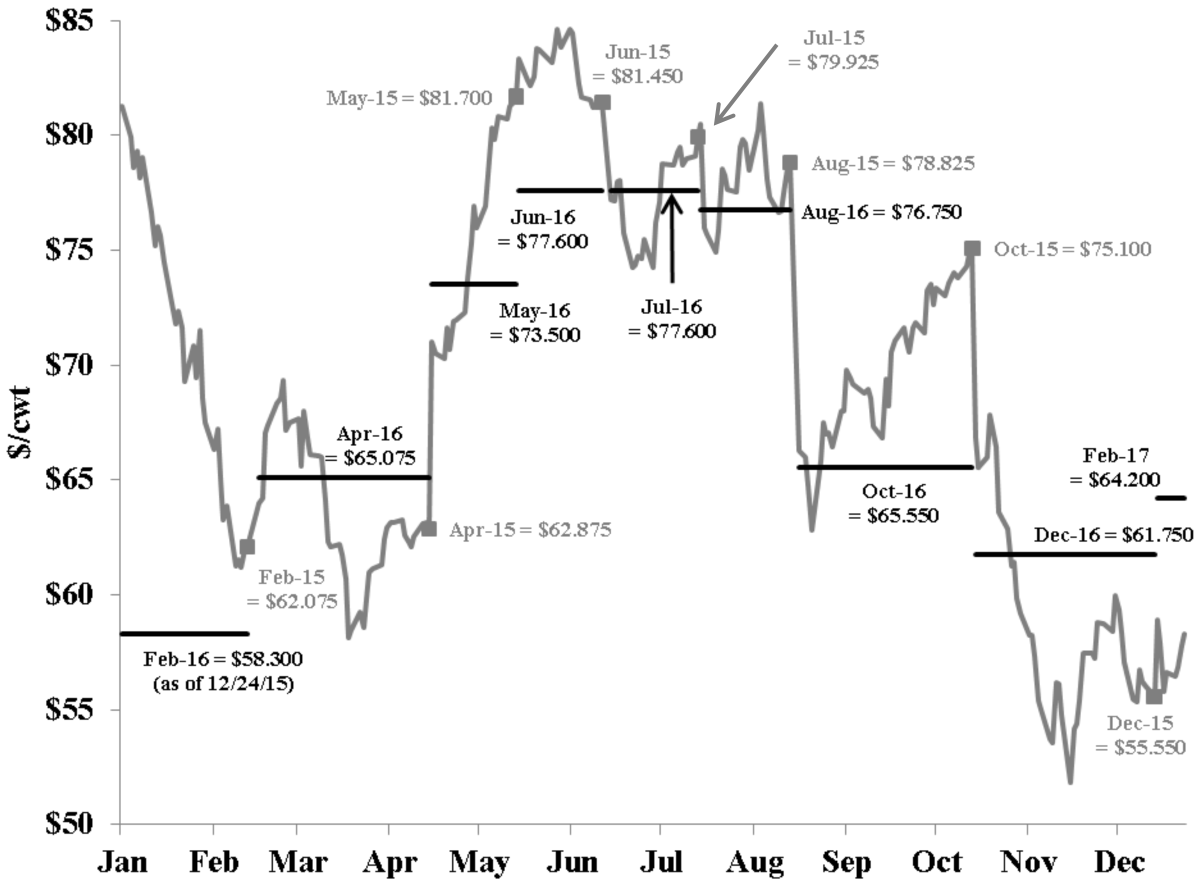
Big Supply, Strong Dollar Pressure Hog Prices

After holding between $60 and $75 per cwt for much of the fall, nearby lean hog futures bottomed at $51.80 on November 16, and then rebounded a bit to the upper $50s by year end (figure 1). Several factors drove the late-year price drop, but none is more glaring than the rising pork supply. Fourth quarter pork production rose 7%, with the number of head processed up 8% and weights down only 1%. This mimics the 2015 year-to-date 9% rise in slaughter, 1% dip in slaughter weights, and overall 8% hike in pork production.

Figure 1. Daily CME Lean Hog Futures Prices



Data Source: CME Group.

Pork trade is another culprit upping pork tonnage. During the first ten months of 2015, U.S. pork exports (excluding variety meats and byproducts) dipped 0.5%, while imports rose 12%, compared to January-October 2014. A focal reason—a strong U.S. dollar tends to stimulate imports and trim U.S. exports. Over the past year our dollar has appreciated 19% relative to the Canadian dollar, for example. January to September pork imports from Canada rose 78 million pounds. Plus Canadian producers shipped nearly 342,000 more feeder pigs and 252,000 more slaughter barrows and gilts, 9% and 64% higher, respectively, than last year. So, while domestic pork production is up 8%, higher imports and fewer exports further boost supply. Plus the 562 million pounds of pork in cold storage at the end of November were up 14% from 2014.

What about 2016? Comparing 2015 and 2016 lean hog futures prices, as of December 24 for each respective contract month, February, May, June, July, August and October 2016 contracts are currently trading lower. April and December contracts are trading higher. Larger expected production is the strongest factor pressuring prices. The magnitude of this anticipated larger production is certainly not set at this time. Still, USDA's December Hogs and Pigs Report provides some insight. Table 1 provides a summary of the December 1, 2015 hogs and pigs estimates for the United States.

Table 1. USDA Quarterly Hogs and Pigs Report Summary for the United States

	2012	2013	2014	2015	2015 as % of '12	2015 as % of '13	2015 as % of '14
Dec 1 inventory *							
All hogs and pigs	66,374	64,775	67,776	68,299	102.9	105.4	100.8
Kept for breeding	5,819	5,757	5,939	6,002	103.1	104.3	101.1
Market	60,555	59,018	61,838	62,297	102.9	105.6	100.7
Under 50 lbs	19,299	18,389	19,801	19,508	101.1	106.1	98.5
50-119 lbs	16,752	16,080	17,366	17,282	103.2	107.5	99.5
120-179 lbs	12,634	12,576	13,000	13,210	104.6	105.0	101.6
180 lbs and over	11,871	11,972	11,671	12,296	103.6	102.7	105.4
Sows farrowing **							
Jun-Aug	2,921	2,890	2,991	2,945	100.8	101.9	98.5
Sep-Nov	2,888	2,780	2,994	2,875	99.5	103.4	96.0
Dec-Feb [1,2]	2,788	2,763	2,895	2,840	101.9	102.8	98.1
Mar-May [3]	2,806	2,810	2,854	2,850	101.6	101.4	99.9
Pigs saved per litter							
Mar-May	10.09	10.31	9.78	10.37	102.8	100.6	106.0
Jun-Aug	10.13	10.33	10.16	10.39	102.6	100.6	102.3
Sep-Nov	10.15	10.16	10.23	10.53	103.7	103.6	102.9
Pig crop *							
May-May	29,712	28,921	27,495	29,593	99.6	102.3	107.6
Jun-Aug	29,587	29,862	30,402	30,588	103.4	102.4	100.6
Sep-Nov	29,319	28,253	30,633	30,271	103.2	107.1	98.8

Full report: http://usda.mannlib.cornell.edu/usda/nass/HogsPigs//2010s/2015/HogsPigs-12-23-2015.pdf.
* 1,000 head, **1,000 litters, [1] December preceding year; [2] 2012/13, 2013/14, 2014/15 and 2015/16 intentions; [3] 2013, 2014, 2015 and 2016 intentions.

From producer surveys, USDA tallied the December 1 inventories of all hogs and pigs and market hogs both record large, breaking the previous all hogs and pigs inventory record of September 2008 and the previous market hog inventory record of September 2012. The breeding herd was the largest since December 2008.

The September-November pig crop was 0.9% smaller than pre-report expectations of down 0.3%. But the components of the pig crop calculation were far from expectations. The September-November pigs saved per litter, at 10.53 pigs, was up 2.9% compared to 2014. September-November farrowings, at 2.875 million, were down 4.0% compared to one year earlier. Thus netting a 1.2% fall in the September-November pig crop. Pre-report expectations called for a 1.9% dip in farrowings and 1.6% rise in pigs per litter. Traders will keenly watch actual sows farrowing and pigs saved per litter going forward.

The market weight breakdown gives a good indication on how the industry will unfold in the next several months. Market hogs over 180 pounds were up 5.4%. Market hogs in the 120-179 pound category were up 1.6%, 50-119 pounds down 0.5%, and under 50 pounds down 1.5% compared to year ago levels. Year-to-year percentage increases in market hog inventories by weight groups are front loaded, suggesting that early-2016 slaughter will be ample and larger than year earlier levels.

December-February and March-May farrowings and pigs saved per litter will drive second half of 2016 slaughter. USDA's December report suggests the potential is there for a new record high March-May pig crop, and just shy of a record for the December-February pig crop. Projected very large pig crops will keep 2016 at or near record highs for slaughter. Chatter already suggests fourth quarter slaughter capacity could be an issue, hopefully not reminiscent of the 1998 cash hog price disaster.

Table 2 contains the Iowa State University price forecasts for the next four quarters and the quarterly average futures prices based on December 24, 2015 settlement prices. The futures price forecasts are adjusted for a historic Iowa/Southern Minnesota basis. The table also contains the projected year over year changes in commercial hog slaughter. Taking the report as is, using pig crop numbers for June-August and September-November and farrowing intentions for December-February and March-May with commensurate pigs saved per litter to project supplies, expect hog slaughter in 2016.Q1 to be up about 1.75%, 2016.Q2 slaughter to be up 0.96%, 2016.Q3 slaughter to be up 1.25%, and 2016.Q4 slaughter to be up 1.53% compared to previous year levels.

Table 2. Commercial Hog Slaughter Projections and Lean Hog Price Forecasts, 2016

	Year-over-Year Change In Commercial Hog Slaughter (percent)	ISU Model Price Forecast ($/cwt)	CME Futures (12/24/15) Adjusted for Negotiated IA/So MN Basis ($/cwt)
Jan-Mar 2016	1.75	58-63	61.69
Apr-Jun 2016	0.96	71-76	74.15
Jul-Sep 2016	1.25	69-74	71.29
Oct-Dec 2016	1.53	58-63	62.79

Price risk management should play a key role in marketing plans in 2016. Recall what happened to the fed cattle market in the fourth quarter of 2015 when the increasingly burdensome supply of heavy fed cattle boosted beef tonnage and pressured prices.

Pork producers should consider taking take some price coverage on hogs to protect against possible negative market impacts especially for prices in the second half of 2016. December 2016 and February 2017 futures contracts trading higher than year earlier levels seem favorable, at this time, given supply projections.

Lee Schulz

Crop Markets Looking for a Turnaround

Prices for Iowa's major crops over the 2015 calendar year were on a downward trend as supplies continued to outpace demand. While weather concerns tried to provide support in the middle of the year, in the end national corn and soybean production proved to be strong and market prices reflected that. For corn, the trading range was rather limited. While for soybeans, the downslide was more dramatic. Both markets have seen demand drop off slightly, even with lower prices. While domestic demand continues to grow, with the expansion of the livestock sector; international demand has faltered under the weight of a stronger U.S. dollar and lowered prospects of global economic growth.

For the corn market in Iowa, we saw only an 80 cent per bushel swing over the course of 2015. Last January, we entered the year with corn cash prices in the $3.70 price range. And for the first four months of the year, corn prices see-sawed in the $3.50-3.75 price range as demand held up as expected and the markets awaited the planting season. Once planting began, corn prices slowly slid toward $3.30 per bushel. A brief rally in the summer, driven by prevented planting concerns in the southern Corn Belt rocketed corn prices back to near $4 per bushel. But prices retreated just as quickly as market participants surmised that the potential for record production in other parts of the country would offset the losses from prevented planting. And since August, corn prices have bounced back and forth between $3.25 on the low end and $3.60 on the high end, with no definite trend established. As 2015 closed out, Iowa cash corn prices were around $3.30 per bushel. So the market finished roughly 40 cents down for the year.

Figure 1. North Central Iowa Corn Prices. Source: USDA-AMS.

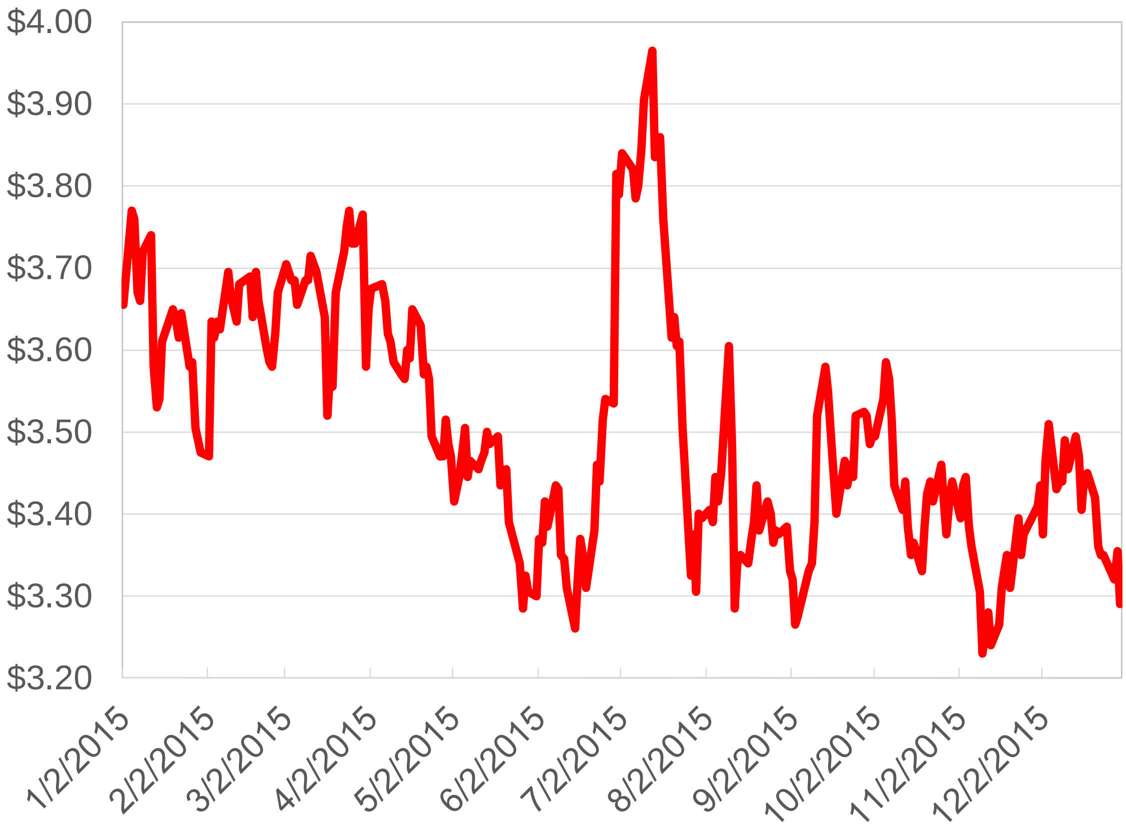
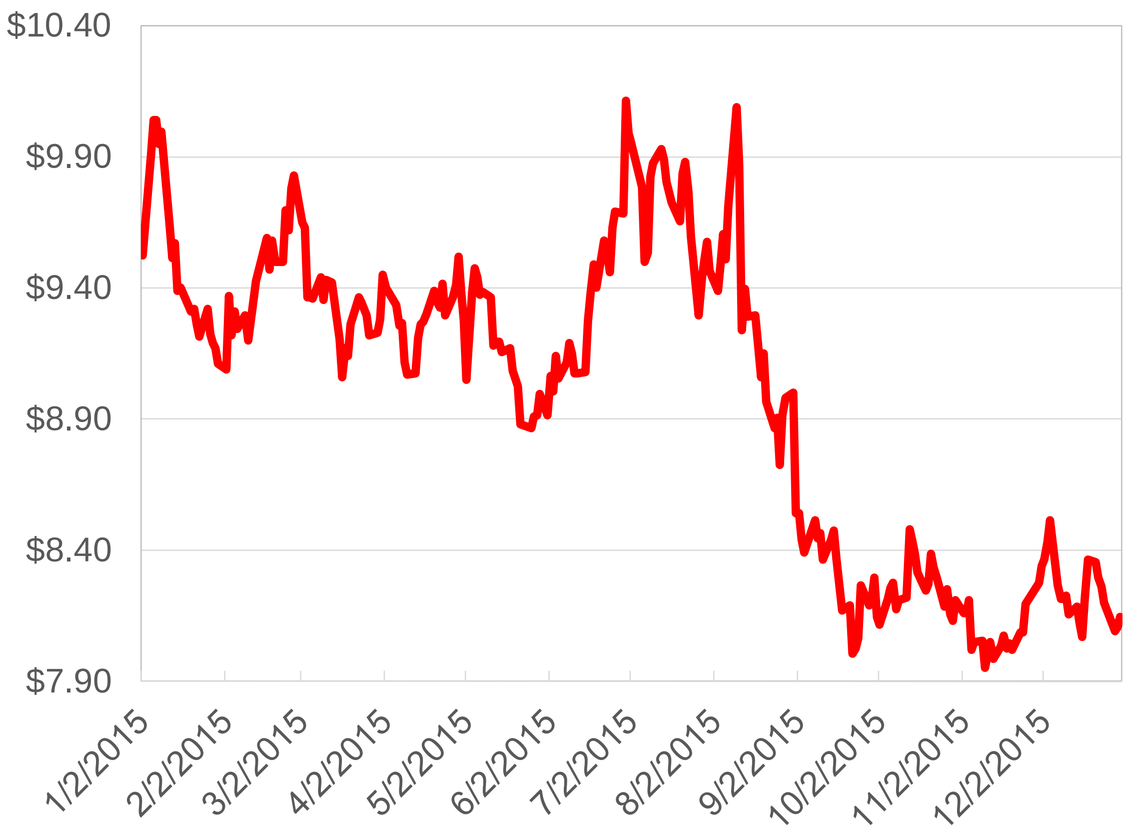


Figure 2. North Central Iowa Soybean Prices. Source: USDA-AMS.

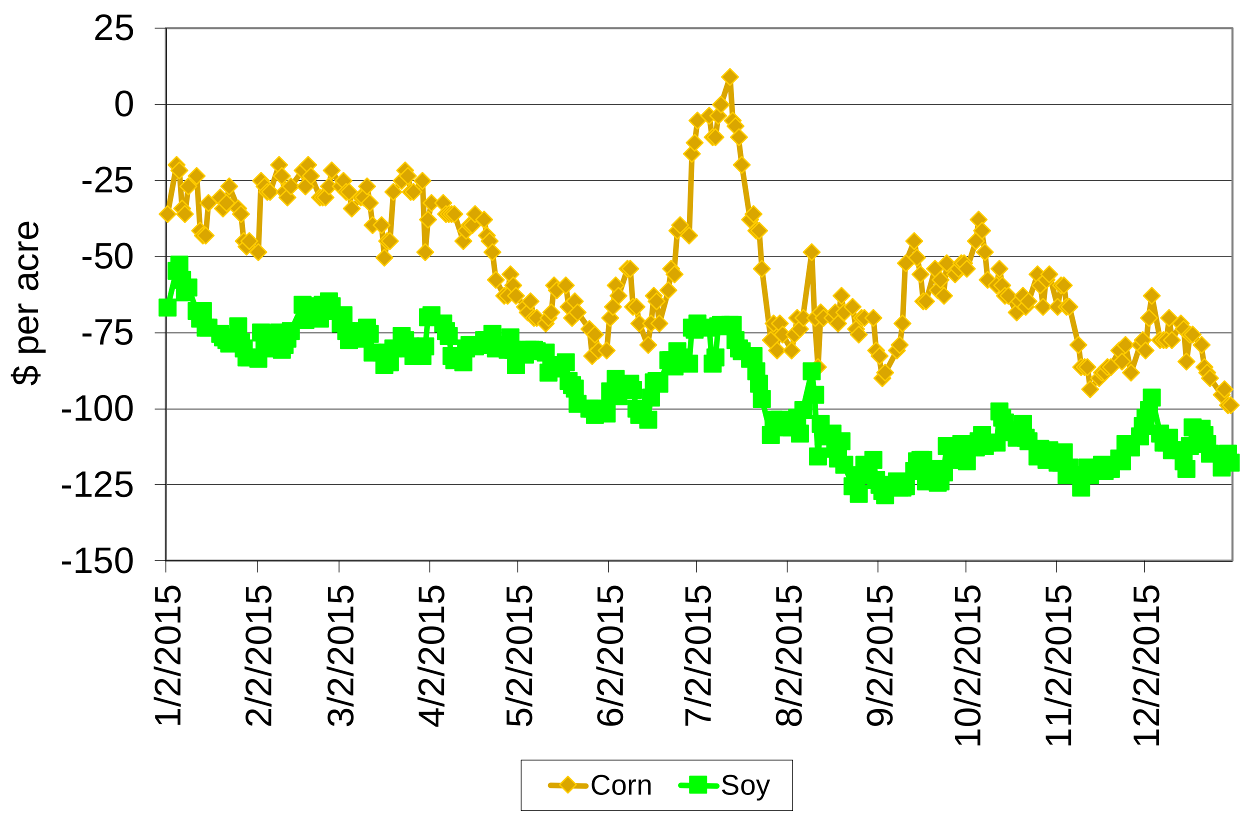


For the soybean market in Iowa, the cash price range was greater than $2.00 per bushel over the course of 2015. Last New Year's, Iowa cash soybean prices started at $9.50 per bushel. Following a very brief rally just before the final USDA reports in January, soybean prices began a slow slide toward $9 per bushel as the planting window opened. The relatively wet conditions across a large swath of the Midwest provided some thoughts about significant prevented planting and potential lowered yields. Those thoughts supported soybean prices in the $9.50-10.00 price range through July and August. But as harvest started and the yield reports began to roll in, prices fell significantly as we transitioned to the new crop. Cash soybean prices led off with a seven for a couple of days in the heat of harvest. And while Chinese demand has recovered some this fall, the recovery has not been strong enough to lift price significantly or sustainably. As 2015 closed out, Iowa cash soybean prices were around $8.10 per bushel. So the market finished roughly $1.40 per bushel down for the year.

So 2015 was a rough year for crop margins. And thus far, the outlook for 2016 is eerily similar to the one from 2015. As like last year, crop margins are not attractive, it doesn't matter which crop you examine. Thus, acreage shifts will likely be small. In fact, the largest shift may come about due to the prevented planting from last year. This land will come back into production and likely end up in corn. So corn area will around 90 million acres and soybeans will hold over 80 million acres. Soil moisture will be adequate to surplus as the planting season starts. So the crops will have plenty of water to work with and the potential continues for another year of near record production.

Tracking projected margins for corn and soybeans in Iowa, both crops have prices well below ISU Extension's production cost estimates. Corn holds a slight advantage we enter 2016, with margin estimates around -$100 per acre. Soybean margins are running $20 per acre below corn. As Figure 3 shows, a weather rally, like we had last July, can provide a boost to get margins closer to breakeven. But without some significant damage to the crops somewhere, the boost from the weather scare will disappear as quickly as it appeared.

Figure 3. 2016/17 projected crop margins.



The outlook for crop demand showed limited growth domestically. While feed demand is building with the growing livestock herds, that growth is slowing. Fed cattle and hog returns are projected to be around breakeven for much of 2016 and 2017. So the incentive to expand is diminishing. The ethanol industry has ramped up significantly over the past few years, but continued growth will be challenging given the lack of new plants. Unless the industry can find some additional efficiencies with the existing plants, crop usage for biofuels will likely be stable for corn and slightly rising for soybeans. But the real challenge for the crop markets is international demand. The strength of the dollar looms large in the crop markets. Given the triple headlines of large global supplies, the strong dollar, and weaker world economic growth; U.S. ag exports have taken a step back and may continue to erode in the next year. So crop demand will not likely pull the market higher.

And that leaves the markets waiting for another weather scare, searching for a way to diminish supplies and allow some room for prices to rise. Futures prices at the start of the year suggest cash prices around $3.65 per bushel for corn and $8.40 per bushel for soybeans for 2016. Looking into 2017, the futures markets indicate a slowly improving price path, $3.80 for corn and $8.50 for soybeans. So margin improvement will be more about controlling costs, than increased prices. Input costs have begun to decline as well, but producers will need to continue to evaluate input decisions, weighing the benefits of the input application versus the costs of the application. Finding that extra dime, whether it's from marketing on a weather rally or from reducing production costs, will be critical as we move through 2016.

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