IOWA STATE UNIVERSITY
Extension and Outreach

Iowa Farm Outlook

Department of Economics
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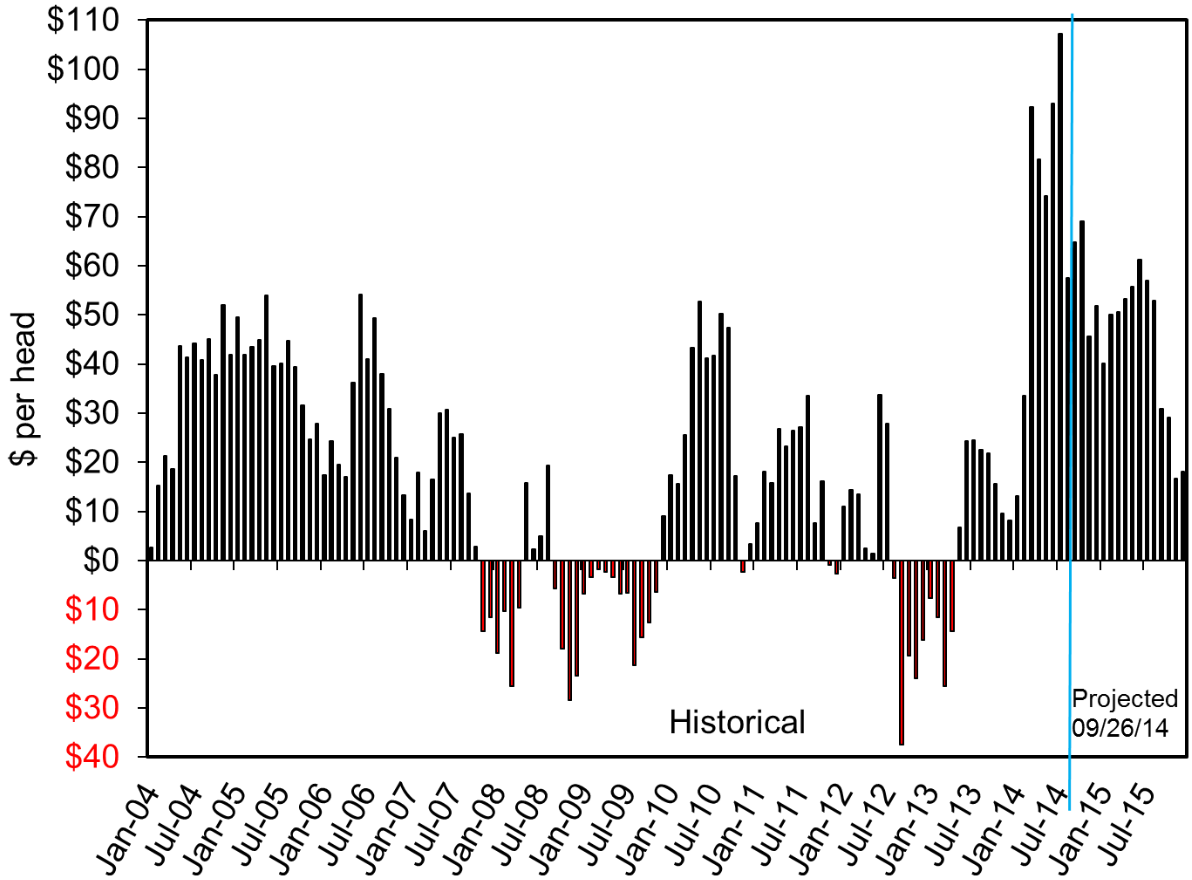
An Update on Herd Rebuilding and Hog and Pig Inventories

The combination of tighter supplies and robust pork demand has initiated a period of unprecedented profitability for the swine industry. The ultimate question becomes, given the uncertainty experienced the last several years (e.g., weather, price volatility, impacts of PEDv, etc.), what level of return will be required to encourage producers to begin rebuilding the swine breeding herd? In other words, what level of annual return would motivate producers to assume risk in retaining more gilts and investing in farrowing additional sows? Iowa State University estimates costs and returns for swine production based on typical production and marketing practices. The estimated numbers are designed to serve as a barometer of costs and returns and are not intended to represent any one operation. As shown in figure 1, projected farrow to finish returns for 2014 exceed $65/head and returns for 2015 exceed $42/head when previously returns over $30/head characterized very favorable returns.

Figure 1. Estimated Iowa Farrow to Finish Returns, Past and Projected with Basis Adjusted Futures



Data Source: Iowa State University Estimated Livestock Returns; http://www.econ.iastate.edu/estimated-returns/.
Note: The ISU Estimated Livestock Returns series assumes a "hand-to-mouth" cash based process of procuring inputs and selling hogs.

USDA's September Hogs and Pigs report confirmed what the industry had been suspecting for the past quarter — lingering impacts of PEDv and growing prospects of expansion within the industry. Table 1 provides a summary of the September 1, 2014 hogs and pigs estimates for the United States and Iowa.

Table 1. USDA NASS Quarterly Hogs and Pigs Report Summary

	U.S.			Iowa		
	2013	2014	2014 as % of 2013	2013	2014	2014 as % of 2013
September 1 inventory *						
All hogs and pigs	66,906	65,361	97.7	20,900	20,700	99.0
Kept for breeding	5,816	5,920	101.8	1,000	1,030	103.0
Market	61,090	59,441	97.3	19,900	19,670	98.8
Under 50 pounds	19,824	19,517	98.5	5,300	5,280	99.6
50-119 pounds	17,958	17,658	98.3	6,490	6,500	100.2
120-179 pounds	12,584	12,147	96.5	4,830	4,500	93.2
180 pounds and over	10,725	10,118	94.3	3,280	3,390	103.4
Sows farrowing **						
Dec-Feb farrowed [1]	2,788	2,765	99.2	465	480	103.2
Mar-May farrowed	2,806	2,797	99.7	465	470	101.1
Jun-Aug farrowed	2,890	2,907	100.6	485	510	105.2
Sep-Nov intentions [2]	2,780	2,890	104.0	455	500	109.9
Dec-Feb farrowed [1,3]	2,765	2,870	103.8	480	490	102.1
Pig Crop *						
Dec - Feb [1]	28,099	26,336	93.7	4,813	4,752	98.7
Mar - May	28,921	27,361	94.6	4,883	4,982	102.0
Jun - Aug	29,862	29,539	98.9	5,141	5,457	106.1
Pigs per litter						
Dec - Feb [1]	10.08	9.53	94.5	10.35	9.90	95.7
Mar - May	10.31	9.78	94.9	10.50	10.60	101.0
Jun - Aug	10.33	10.16	98.4	10.60	10.70	100.9

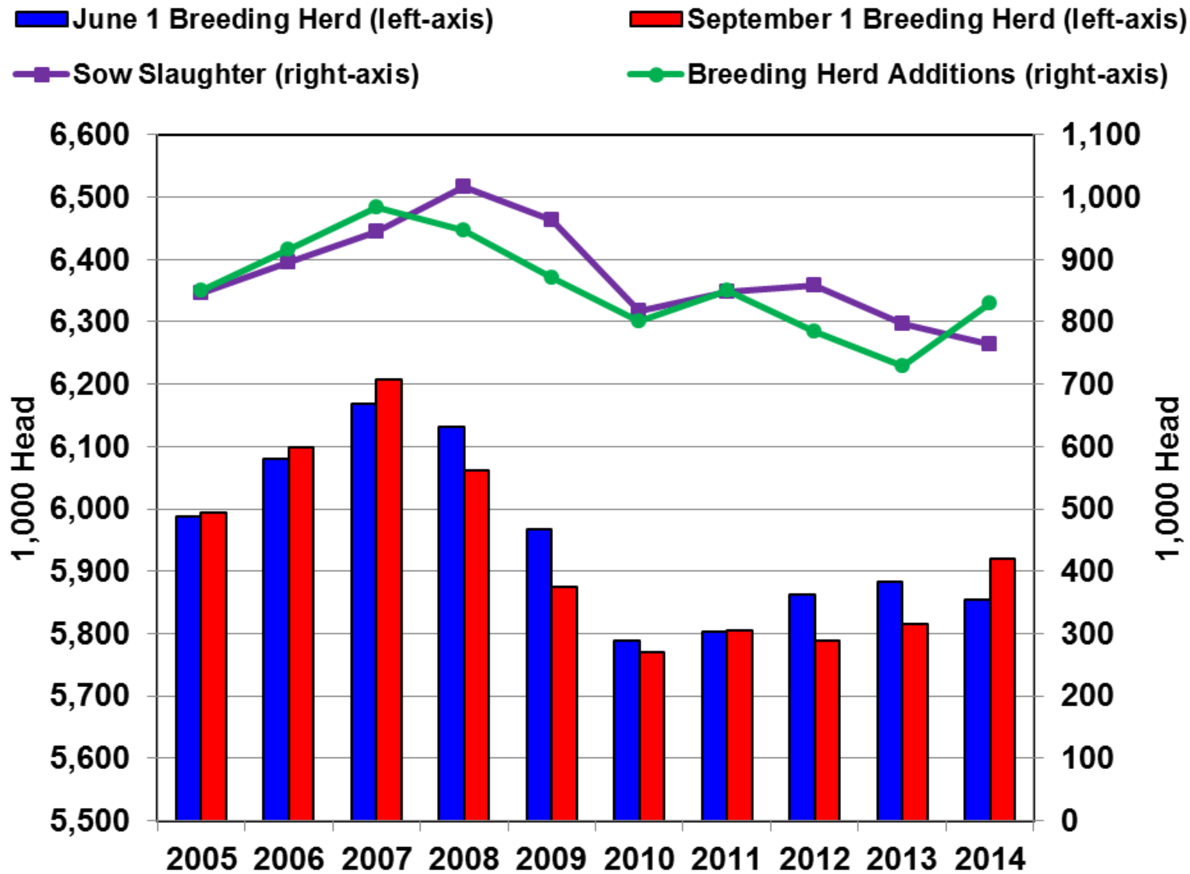
Full report: http://usda.mannlib.cornell.edu/usda/current/HogsPigs/HogsPigs-09-26-2014.pdf
* 1,000 head. ** 1,000 litters. [1] December preceding year. [2] Intentions for 2014. [3] Intentions for 2015.

U.S. Hogs and Pigs Estimates

The U.S. total hogs and pigs inventory, at 65.361 million head, was 2.3% below a year ago. The breeding herd inventory, at 5.920 million head, was up 1.8%. The increase in the kept for breeding inventory indicates that the profit margins seen so far in 2014, especially throughout the summer, have been an impetus for expansion. This increase comes at a time when sow slaughter has been lower and low enough to suggest growth. Year to date sow slaughter has been 6.1% below 2013 and 12.9% below the 2008-12 average. Inventory levels and slaughter data suggest expansion is pending, however important to realized expansion will be the ongoing impact of PEDv. If pig crops continue to be suppressed by PEDv, further retention of gilts will be a challenge as finishing markets will be willing to pay a significant premium for hogs.

This is the largest breeding herd inventory since June 1, 2008 and 104,000 head larger than the breeding herd last September. The expansion of the breeding herd was in many states but with Missouri and Iowa leading the way by adding 70,000 combined since last September and 40,000 combined since this last June. The increase in the breeding herd implies significant breeding herd additions during the June-August period (figure 2). Sow utilization, June-August farrowings / June 1 breeding herd, at 49.6% was higher than 2013 (49.1%) but lower still lower than the 2008-12 average (50.2%). With sow slaughter lower, breeding additions higher, and sow utilization trending higher many factors are pointing towards further expansion in the industry.

Figure 2. Swine Breeding Herd Inventory Disposition



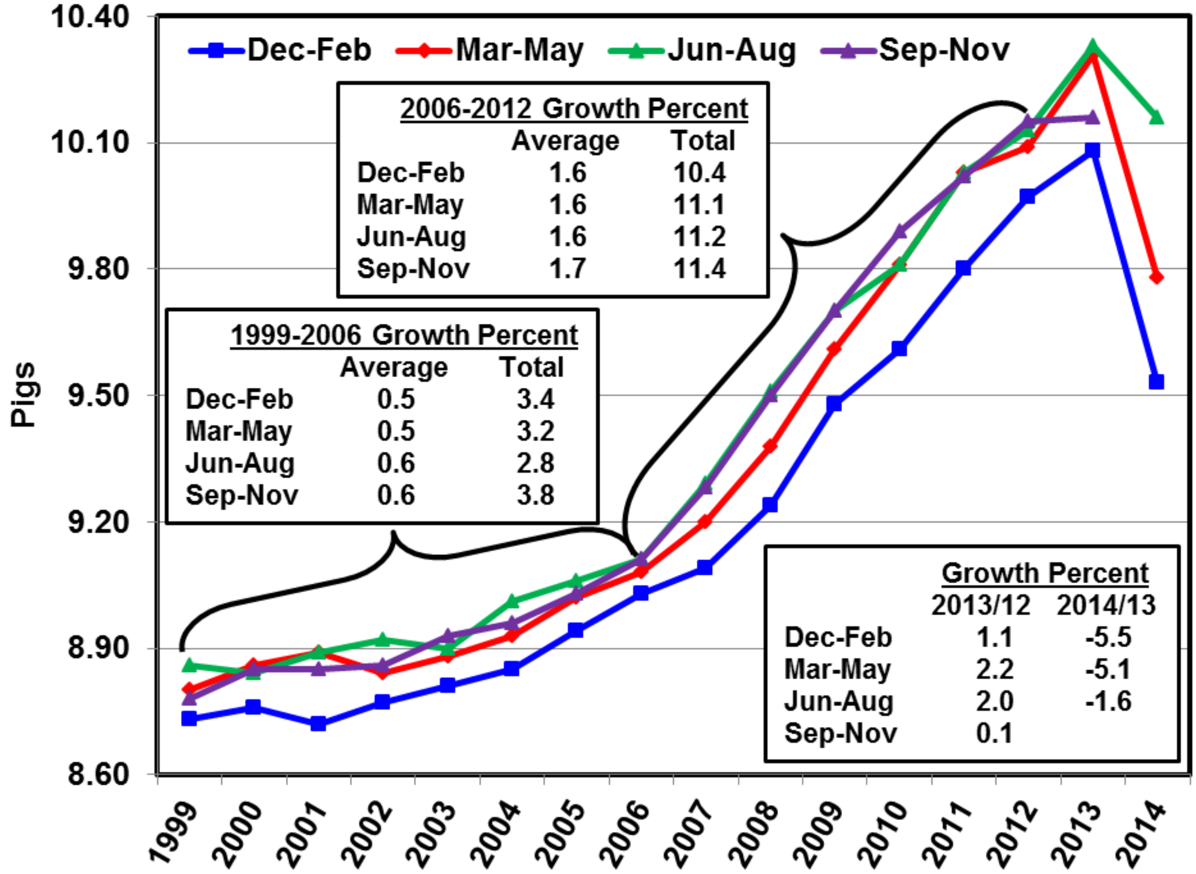
Data Source: USDA-NASS.

The June-August pigs saved per litter estimate, at 10.16 pigs, was down 1.6% compared to a year ago; continuing, albeit improving, this year's year over year decline in pigs saved per litter and further confirming PEDv's impact on the industry (figure 3). The June-August sows farrowing, at 2.907 million head, was up 0.6%; thus, netting a 1.1% decrease in the June-August pig crop.

The total market hog inventory was down 2.7% at 59.441 million head. The inventory of pigs less than 50 pounds, at 19.517 million head, was down 1.5% and the inventory of pigs 50 to 119 pounds, at 17.658 million head, was down 1.7%. Pig inventory weighing 120 to 179 pounds, at 12.147 million head, was down 3.5% while inventory weighing 180 pounds and over, at 10.118 million head, was down 5.7%. Overall, these pipe-line and near-market ready hog supplies are above what is likely currently priced into the market, especially feeder pig supplies, as analysts prior to the report expected larger year over year declines.

September-November 2014 sows farrowing, at 2.890 million head, would be up 4.0% compared to a year ago and December-February 2014/15 sows farrowing, at 2.870 million head, would be up 3.8%. The potential for strong and sustained profits this next year and the opportunity to offset losses from PEDv continues to encourage producers to maximize sows farrowing but the initial farrowing intention estimates, are quite optimistic even given the size of the increased breeding herd. And, if the number of pigs saved per litter continues to reflect a direct impact from PEDv as was experienced again this last quarter, there could be some limit on the growth potential in the pig crops in the upcoming quarters.

Figure 3. Quarterly U.S. Pigs Saved per Litter



Data Source: USDA-NASS.

Commercial Hog Slaughter Projections and Lean Hog Price Forecasts

Table 2 contains the Iowa State University price forecasts for the next four quarters and the quarterly average futures prices based on September 26,, 2014 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 Mar-May and Jun-Aug and farrowing intentions for Sep-Nov and Dec-Feb with commensurate pigs saved per litter to project supplies, one would expect hog slaughter in 2014.Q4 to be down about 3.36%, 2015.Q1 slaughter to be down 0.18%, 2015.Q2 slaughter to be up 3.93%, and 2015.Q3 slaughter to be up 3.85% compared to previous year levels.

Table 3. Commercial Hog Slaughter Projections and Lean Hog Price Forecasts, 2014-15

	Year over Year Change In Commercial Hog Slaughter (percent)	ISU Model Price Forecast ($/cwt)	CME Futures (09/26/14) Adjusted for Negotiated IA/So MN Basis ($/cwt)
Oct-Dec 2014	-3.36	94-99	96.41
Jan-Mar 2015	-0.18	89-95	89.76
Apr-Jun 2015	3.93	88-94	91.44
Jul-Sep 2015	3.85	82-90	82.86

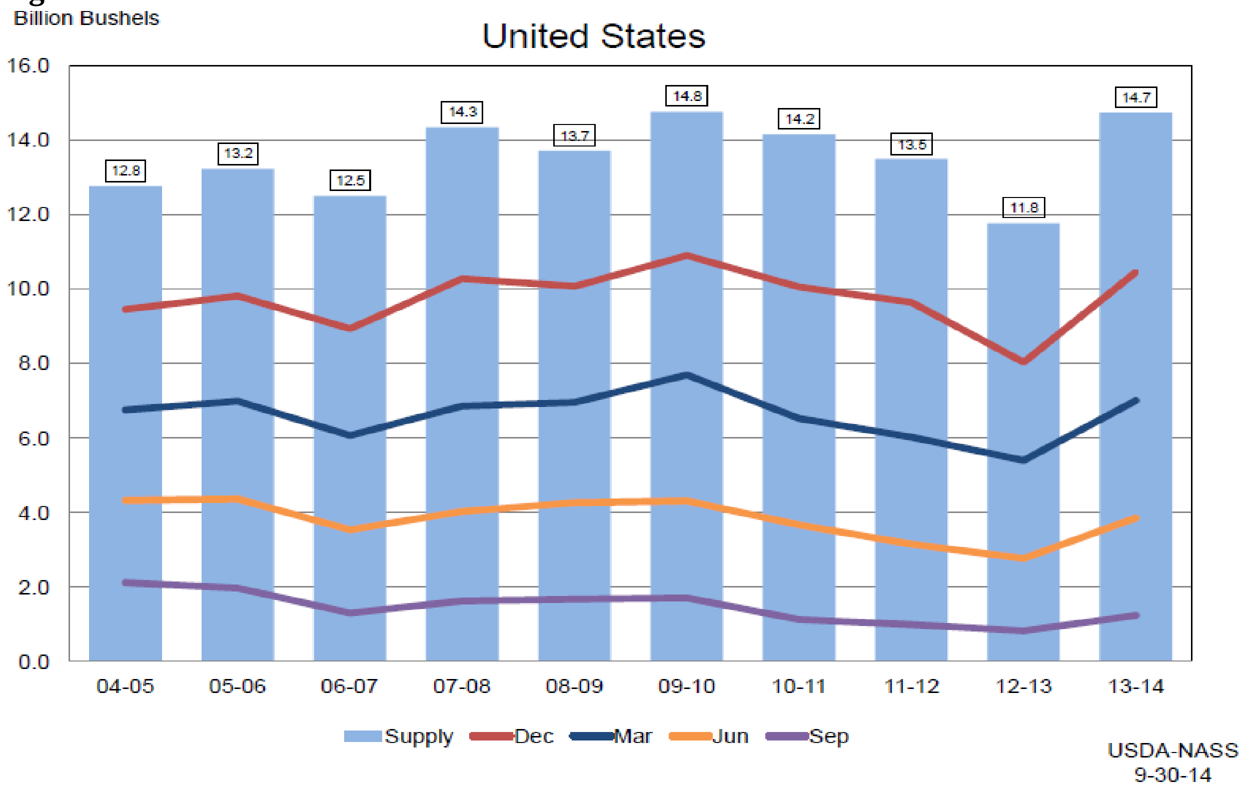
Lee Schulz

As the Combines Start to Roll

The Grain Stocks report rolled out earlier this week and it confirmed the buildup in corn stocks and the drawdown of soybean stocks. The report also contained an update on the 2013 soybean crop to rebalance the crop's balance sheet. But with the massive harvest starting to come in, the end result for the markets was minimal.

Corn ending stocks were recorded at 1.24 billion bushels. That is 50% higher than last year. Both on- and off-farm stocks increased. So there is more old crop corn in storage as the new crop is being brought to the bin. While corn disappearance is fairly strong, up 34% compared to last year, supplies are outpacing demands. The combined pressure from old and new corn crop supplies has weaken basis in many areas of the country.

Figure 1. Corn stocks. Source: USDA-NASS.

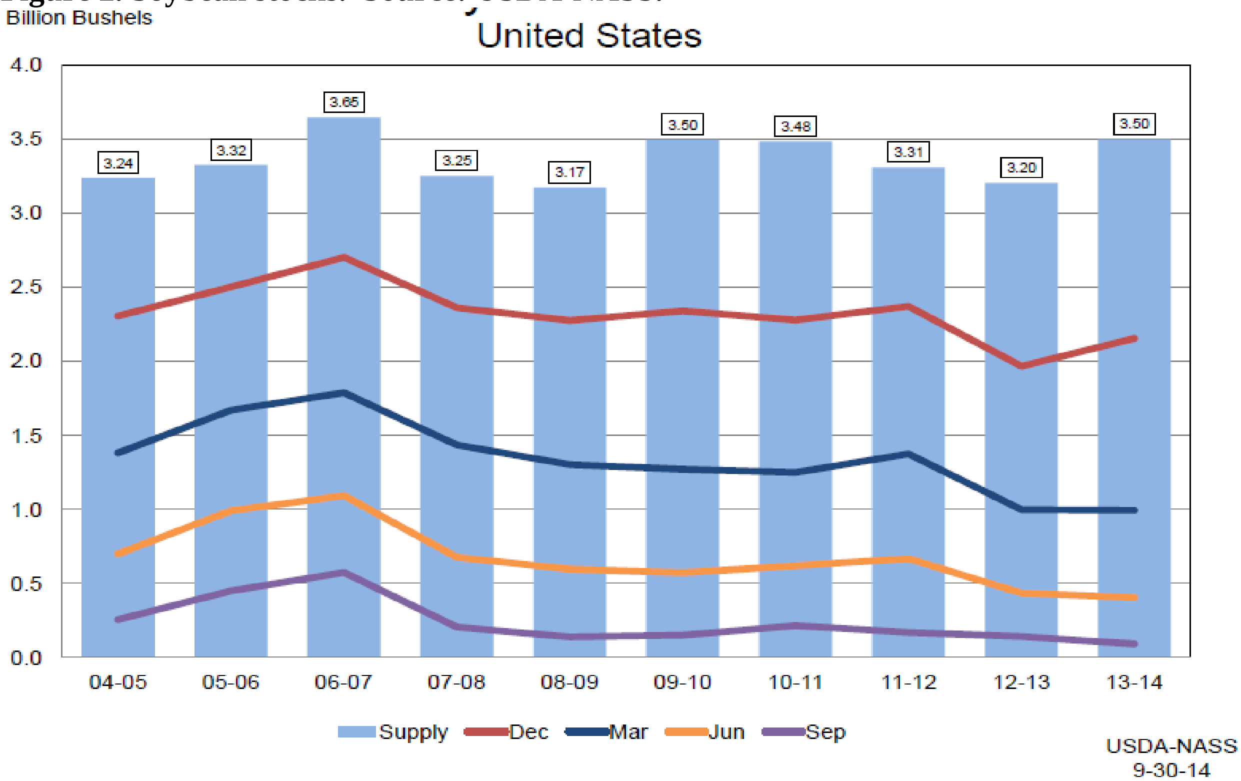


On the flipside, soybean ending stocks shrank to an incredibly low 92 million bushels. That's 35% below last year's tight stock level. Soybean disappearance during the June-August time period equaled 313 million bushels, 6% higher than the previous year. So soybean demand remained strong in the last quarter of the marketing year.

Given the stock levels and disappearance data, USDA updated the 2013 soybean planting and production numbers. Soybean plantings in 2013 were raised to 76.8 million acres, up roughly 300,000 from the previous estimate. The soybean yield was increased to 44 bushels per acre nationwide, up 0.7 bushels. Soybean production was recalculated at 3.358 billion bushels.

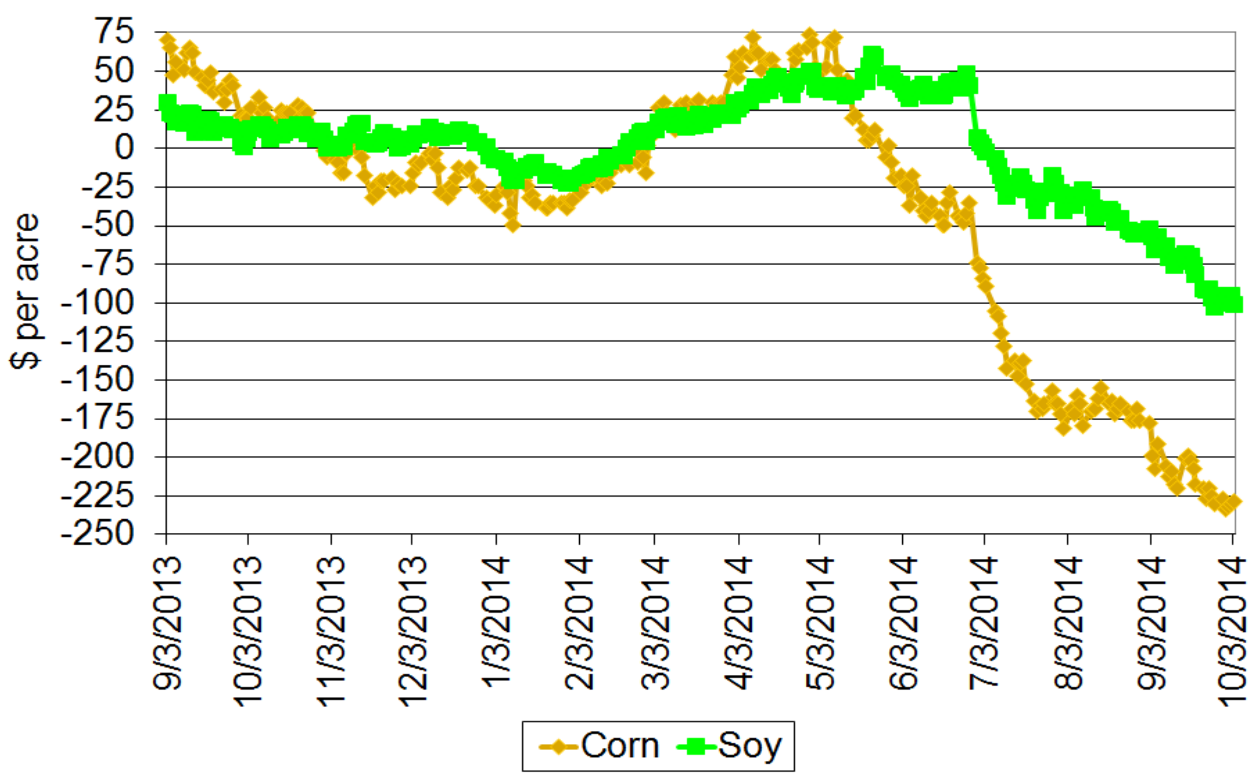
Corn harvest is running behind the 5-year average pace. Typically, 23% of the corn is harvested by the end of September. Currently, 12% is harvested. The corn condition ratings show 74% of the corn crop is in good to excellent condition. Early yield reports have been impressive. So while the corn harvest may take some time, it will provide a record crop.

Figure 2. Soybean stocks. Source: USDA-NASS.



Soybean harvest is also running behind the 5-year average. Like corn, the harvest is more in line with last year's slow pace. And as with corn, the crop's condition is solid and the early yield reports are sizable. 72% of the soybean crop is rated good to excellent.

Figure 3. 2014/15 projected crop margins.

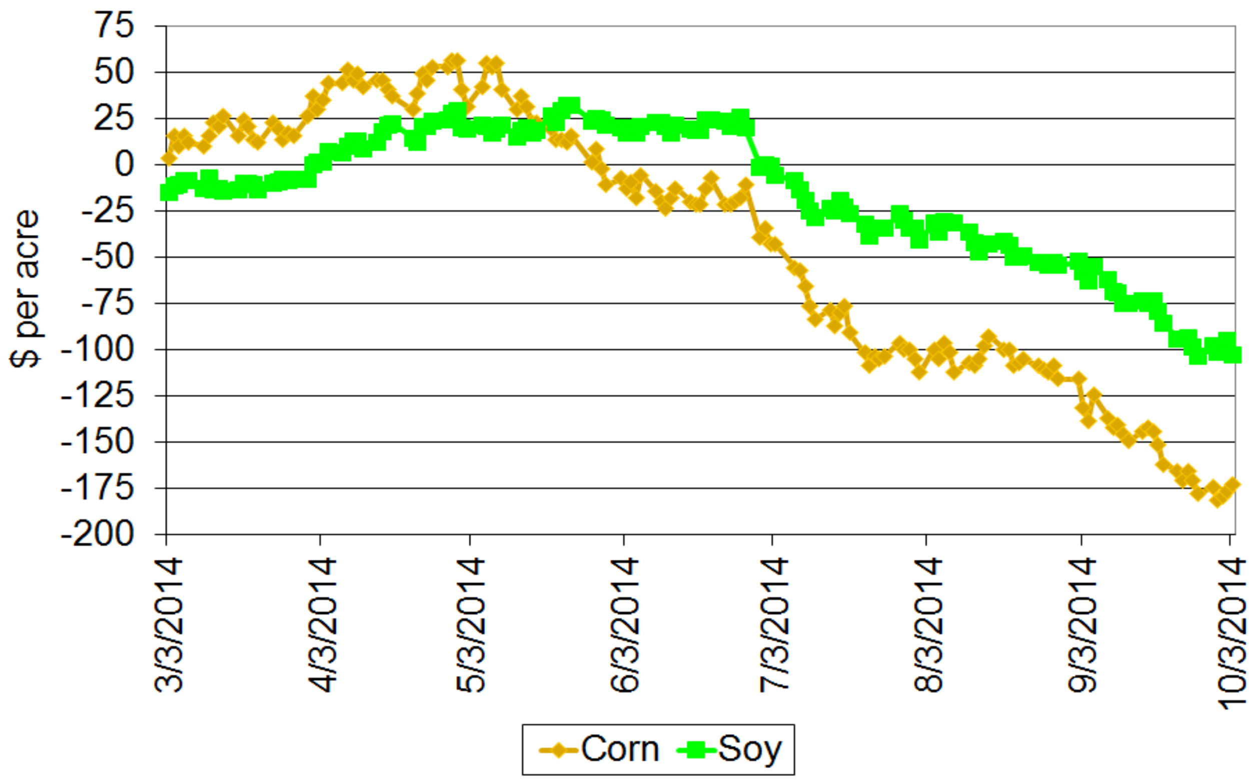


With the bulk of harvest approaching, the crop markets have continued their downward trend. December corn futures sank 40 cents over the month of September. November soybean futures fell by $1.20. And crop margins continue to slide with the prices. Based on our ISU estimated production costs, corn margins are a -

$225 per acre and soybean margins are -$100 per acre. After several years of significant profits for Iowa crops, these margin losses are large.

And the margins don't improve much as we look at the 2015 crops. For corn, the futures market is showing enough carry to push the projected 2015 season average price to roughly $3.50 per bushel. But that's still $1 per bushel below projected 2015 production costs. Soybean futures for the 2015 crop aren't provided nearly the same boost. The projected 2015 season average soybean price based on current futures is $9 per bushel. That's $2 per bushel below projected production costs.

Figure 4. 2015/16 projected crop margins.



So the markets are working on setting the harvest lows and the more traditional pricing patterns have re-emerged. Both corn and soybean markets are providing some carry and creating incentive to hold and store the crops. But the carry is not enough to get back to breakeven. The market situation is much more reminiscent of the late 1990's and early 2000's than the last few years. In my opinion, it is likely that positive margins will be few and far between over the two years. So producers need to be ready to react when the markets offer those positive margin opportunities. This past spring and early summer the markets offered one such prolonged opportunity. Too often since then, I heard many producers say they wish they had marketed more (or had marketed any). Have your marketing plan ready so when that next opportunity arises, you're ready to move.

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