

Iowa Farm Outlook

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March Hog and Pig Report

The March Hog and Pig report shows that the swine industry has scaled back considerably from a year ago. Total swine numbers were down -2.7 percent to 65.4 million head. Market hog numbers are down -2.7 percent to 59.4 million head and breeding swine inventories are down -3.0 percent to just over 6 million head. The pig crop in the first quarter of the year was down 0.6 percent. Farrowing intentions in the next two quarters are down from last year, -2.9 percent and -4.0 percent respectively. Table 1 contains a summary of the March Hog and Pig Report.

In Iowa, market hog numbers were up 1.3 percent at 18.3 million head and the breeding herd was down -3.7 percent from a year ago. Iowa continues to be the place to finish hogs with nearly 31 percent of the nation's market hogs. Production per sow has improved both in Iowa and nationally. The increase in litter size is offsetting a portion of the reduction in sow numbers.

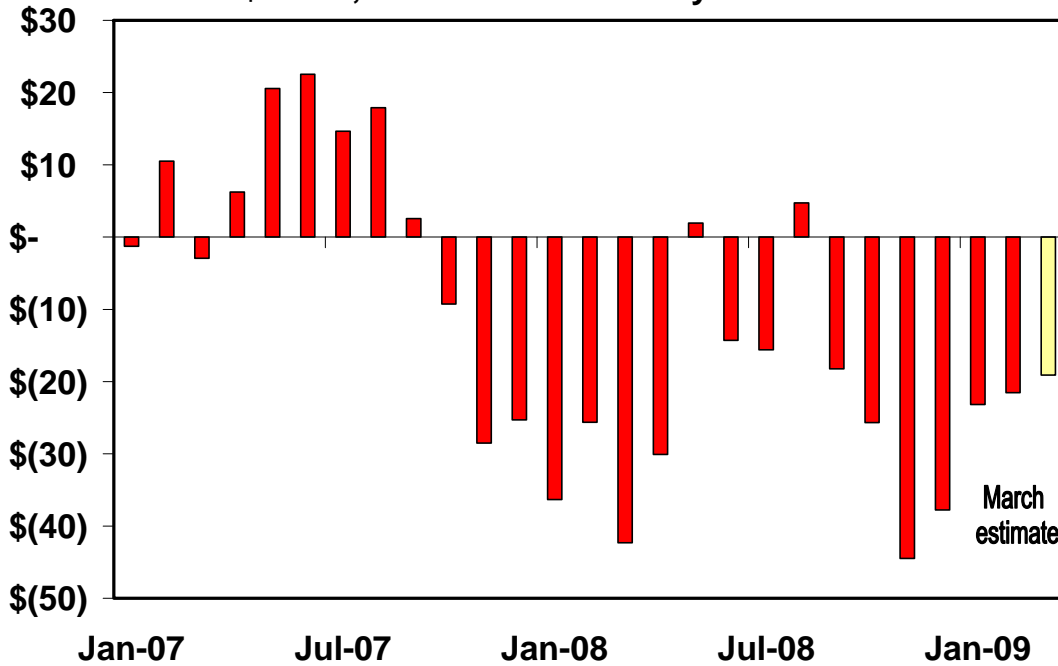
Table 1. March Hog and Pig Report

	US		Iowa	
	Million Hd.	% chg.	Million Hd.	% chg.
All Hogs	65.39	-2.7%	19.30	1.0%
Breeding Herd	6.01	-3.0%	1.04	-3.7%
Market Hogs	59.38	-2.7%	18.26	1.3%
Under 60	21.46	-3.1%	5.15	-5.5%
60 - 119	14.13	-2.5%	5.03	7.5%
120 - 179	12.86	-2.5%	4.69	5.6%
180 & over	10.93	-2.4%	3.39	-1.7%
Sows farrowing				
Mar - May	2.96	-2.9%	0.49	-5.8%
Jun - Aug	2.95	-4.0%	0.48	-5.9%
Pig Crop				
Sep - Nov	28.41	-3.7%	4.75	-5.4%
Dec - Feb	28.23	-0.6%	4.70	0.3%
Pigs per litter	9.48	2.6%	9.60	4.3%

The losses experienced by pork producers in the last four months have been some of the largest seen in the past decade. A combination of record hog supplies and declining demand in foreign markets drove down prices and increased cold storage stocks. Despite continued strength in the domestic pork market, supplies were great enough to drive down prices, and in turn drive down production. Figure 1 tracks the estimated returns since the beginning of 2007, with a preliminary estimated loss of \$19 per hog marketed in March.

Figure 1.

**Estimated Returns to Farrow to Finish Hog Production,
\$/Head, Iowa State University Extension**



Supply and Demand Factors

“The cure for low prices is low prices” and the pork industry is working to return to the realm of profitability by reducing supplies. With a declining supply of market hogs there should be some bullish pressure on the market in the near future. However, it may not be enough as further reduction is still needed. After such an extensive expansion in recent years (‘03-‘08), a significant retraction is especially difficult to accomplish.

As for competing meats, poultry supplies have been falling since the middle of last year and will continue to decline until prices recover enough to return profitability. Egg sets have been down an average of 7 percent so far in 2009 and chick placements are down 6 percent. Beef supplies are lower as cattle on feed numbers are down significantly, however demand for beef has not regained enough strength to lift prices. There are some indications that a spring rally in beef prices may be starting to emerge and that should help lift pork prices as well.

Exports for the coming year remain the wild card in the market. US pork exports had lost their robust growth trend by the fourth quarter of 2008. In the current year, January exports were down 8.7 percent from last year. Last year, phenomenal growth in pork exports, primarily during the summer months, led to a 50 percent increase in export volumes. However, that same growth is not expected to recur this year. Most indications are that exports will be near last year’s levels. 2008 proved to be an exception to the rule in the growth of export, and the current year should fall in closer to the year-over-year trends seen up through 2007.

Table 2 contains the ISU supply estimates and price forecasts for the next four quarters. Supplies are expected to be down 3 percent through early fall. A bullish trend in the pork market is expected in the near future with live hog prices between \$53-56/cwt now through the end of summer. The futures market was not as optimistic. However, we are entering the season for increasing hog prices as consumers gear up for the grilling season. A year ago, hog prices reached an average of \$55/cwt during the second quarter while supplies will be lower. Normally this would be the conditions needed to spawn a year over year increase in prices. The catch is that consumers are now spending less of their disposable income on food, lowering demand pressures all many key food such as meats. This generally weaker demand will offset lighter supplies, increasing the potential for a repetition of last year’s prices.

Table 2. Production and Price Forecasts

	Change in Supply	ISU Price Forecast \$/cwt live	Mar. 27 CME Futures Forecast adjusted for basis, \$/cwt live
Apr-Jun '09	-3%	53-56	50.17
Jul-Sep '09	-3%	53-56	52.69
Oct-Dec '09	-2%	45-48	46.53
Jan-Mar '10	-0.5%	44-47	45.24

What can producers expect for the rest of the year? There could be some profitability in three of the next nine months, but the average breakevens for the next nine months will remain around \$54.

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2008 Stocks and 2009 Acreage

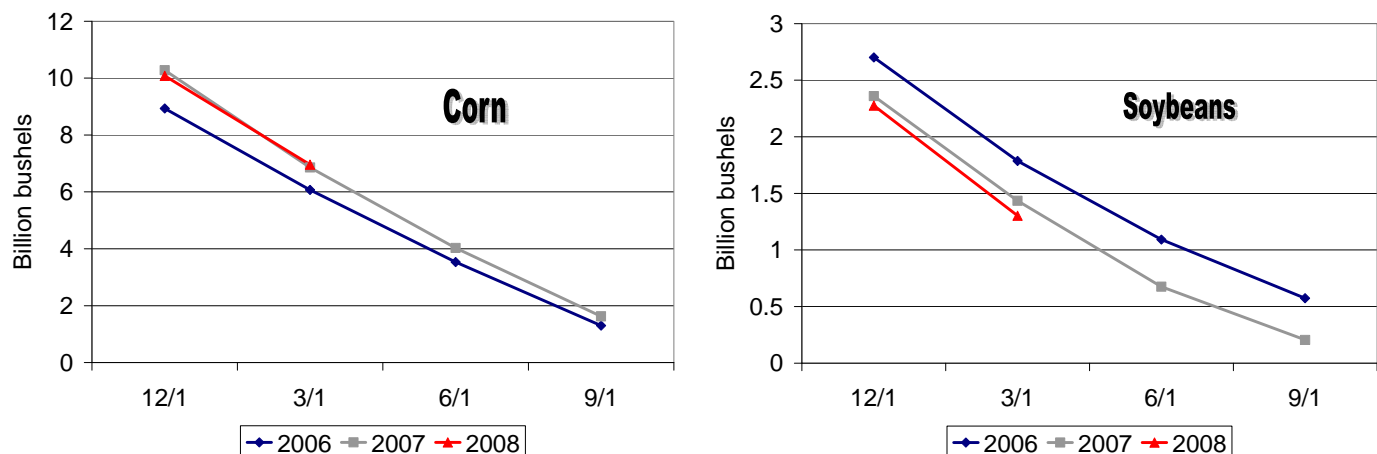
At the end of March, USDA released its Grain Stocks and Prospective Plantings reports. Those reports provided some additional lift to the corn and soybean markets. Crop stock levels were slightly below trade expectations for corn, soybeans, and wheat. Crop acreage estimates also lower than trade expectations for soybeans and wheat, with corn acreage coming in slightly above expectations.

Grain Stocks

Corn stocks on March 1, 2009 were computed at 6.96 billion bushels. This is up one percent from last year, but slightly below trade expectations. While the overall level was fairly steady, there was significant movement within the total. On-farm corn stocks jumped 8 percent from last year, while off-farm corn stocks declined 7 percent. The corn stock change from Dec. 1, 2008 implies 3.12 billion bushels were used during the quarter, down 9 percent from last year. For Iowa, corn stocks stand at 1.57 billion bushels, up 4 percent from last year. Over 60 percent of the Iowa corn stocks are held on-farm and the quarterly corn usage in Iowa is down 16 percent from last year. The shutdown of several ethanol plants during the quarter contributed to the shortfall in usage in Iowa. For the nation, feed and export usage was down from last year, but ethanol usage was up.

National soybean stocks on March 1, 2009 were estimated at 1.3 billion bushels, down 9 percent from last year and slightly below trade expectations. As with corn, farmers are holding more of the stocks on-farm. On-farm soybean storage is up 11 percent from a year ago, while off-farm stocks are down 23 percent. Quarterly soybean usage is estimated at 974 million bushels, up 5 percent from last year. Iowa's soybean stocks are given at 290 million bushels, down 11 percent from a year ago. Producers are holding just over of the soybean stocks on-farm. Iowa's soybean disappearance for the quarter is off 15 percent from last year.

Figure 1. Corn and Soybean Stock Levels for the 2006-2008 Crop Years



Wheat stocks are well above last year's low levels. On-farm wheat stocks are up 205 percent from last year, while off-farm wheat inventories are up 23 percent. Wheat usage for the quarter is down 9 percent, at 386 million bushels.

The stock report shows farmers are willing to hold more production on-farm and off of the market. This seems to be the case across the board as I look at corn, soybeans, and wheat. The market has pointed to the lack of farmer selling as one of the factors that has supported prices recently. But these stocks must eventually hit the market and make room for the upcoming crops.

Prospective Planting

The Prospective Plantings report contained the biggest surprise of the day. Trade expectations had put soybean planted area at roughly 79 million acres. The USDA report showed 76 million. This would still be a record amount of land planted to soybeans in the U.S., but was well below expected. Corn area came in slightly above expectations, at 85 million acres. And wheat plantings are projected at 58.6 million acres, slightly below expectations.

By state, soybean area is projected to increase in 14 states, hold steady in 2 states, and decline in 15 states. Arkansas, Iowa, Kansas, Mississippi, Nebraska, North Carolina, North Dakota, and Ohio are all projected to increase soybean plantings by 100,000 acres or more. Illinois, Indiana, Minnesota, Missouri, and South Dakota are expected to reduce soybean plantings. Given the national total of 76 million acres, the 20-year average harvest ratio of 98.2 percent, and a national trend yield of 42.6 bushels per acre, this would lead to a projected 2009 soybean crop of 3.18 billion bushels. That would be the 2nd largest soybean crop on record, just barely behind the 2006 crop.

For corn, 9 states are projected to increase plantings, 13 are expected to hold acreage steady, and 26 are projected to decrease corn area. Illinois, Missouri, and South Dakota are increasing corn area. Iowa and Minnesota are decreasing corn area. Indiana and Nebraska are holding steady at last year's values. USDA indicated that the total corn planted area from the 10 major corn-producing states would be up slightly from last year. This implies that most of the shift away from corn occurred outside of the Corn Belt. Given the national total of 85 million acres, the 20-year average harvest ratio of 90.6 percent, and a national trend yield of 156.9 bushels per acre, this would lead to a projected 2009 corn crop of 12.08 billion bushels. That would be the 3rd largest corn crop on record, just below 2008 production.

The other surprise in the report was the dramatic drop in overall crop area. USDA tracks acreage for over 30 crops and summarizes their combined area as "Principal Crop Acres" in the U.S. Prior to 2006, the number of principal crop acres had been on a downward trend, reaching 315.6 million acres in 2006. But with the increases in crop prices that began in late 2006 and lasted until last summer, principal crop area had rebounded to nearly 325 million acres in 2008. The outlook for 2009 is for a return to the decline in area, with 2009 projected principal crop area at 317.1 million acres. Much of the drop is due to wheat, but other crop area is down as well. Corn, sorghum, barley, peanuts, sunflower, canola, and cotton are projected to lose ground. Soybeans, oats, rice, and hay gain some area.

Following the 1996 farm bill, wheat acreage declined while soybean area increased. By 2000, those crops arrived at a relatively steady level of acreage. But over the past few years, the combination of corn and soybeans has been attracting land from other crops. In fact, the amount of "other" crop acreage, not including corn, soybeans, wheat, and hay, has dropped from 50 million acres in 2002 to less than 40 million acres projected for 2009. Much of that decline has hit the cotton industry. So while the overall crop base has been in decline, corn and soybean area has been able to increase.

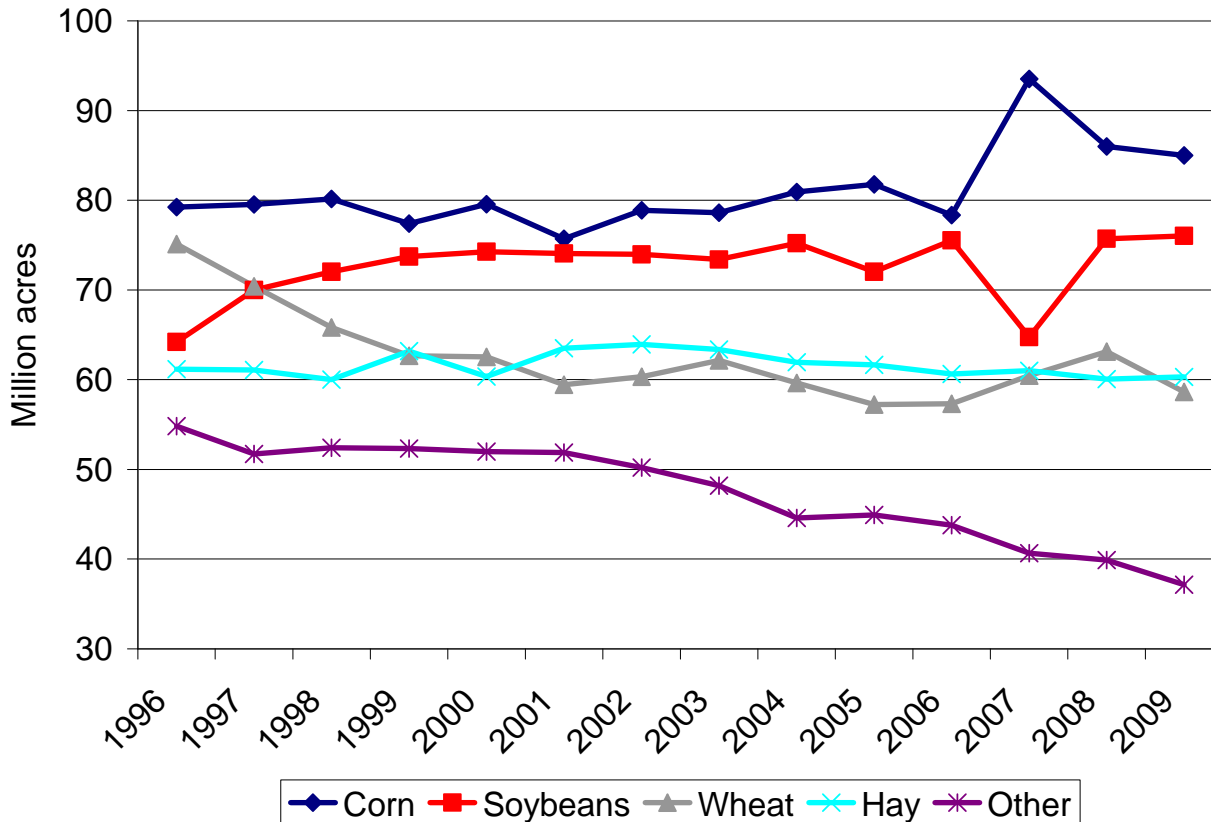
Only 9 states (Colorado, Iowa, Nebraska, Ohio, Oklahoma, Vermont, Washington, Wisconsin, and Wyoming) are projected to increase principal crop area in 2009 and only Oklahoma is projected to increase by more than 100,000 acres. 38 states are expected to see declines in principal crop area. North Dakota crop area is projected

to fall by 1.4 million acres. Texas is expected to see a 1 million acre drop. Arkansas, California, Georgia, Illinois, Kansas, Missouri, and South Dakota are all projected to have 400,000 less crop acres than last year.

Some of this projected decline can be attributed to higher input costs. Some can be attributed to weather events, such as lingering drought impacts in Texas and late harvesting of fall crops in the northern Great Plains. Double crop acreage is also likely to decline in 2009. But if weather conditions cooperate, and crop prices look attractive, then some of this lost acreage could be planted in 2009.

The acreage numbers from the Prospective Plantings will serve as the official USDA numbers until the June acreage report.

Figure 2. Crop Acreage Shifts Since 1996



Market Reaction

The futures markets responded favorably to the USDA reports. The new information in the reports, combined with higher stock prices and a drop in the U.S. dollar, led for a very strong day on the commodity markets. Both corn and soybeans saw double-digit gains on the day. And the funds joined in the market rally. The South American situation is also still providing support for prices in the near term as producers there begin to work through their harvest and see how widespread and significant drought damage is to their crops. The strike in Argentina has ended, but there is no agreement between farmers and the Argentine government in their dispute over export taxes.

Agricultural fundamentals were the major market maker today. But in the days ahead, the general economy will continue to lead the agricultural markets. One key question as we look forward to the 2009 crop is when will the general economy turn around. At the Ag Outlook conference in February, USDA put out unofficial season-average price estimates for 2009, \$3.60 for corn and \$8.00 for soybeans. Based on the futures prices at the end of March, the trade is pointing to 2009 season-average prices around \$4.10 for corn and \$8.50 for soybeans. Does the trade see a light at the end of the tunnel?

The Federal Stimulus Plan and Sustaining Jobs in the Iowa Economy

In February of 2009 Congress passed and the President signed the American Recovery and Reinvestment Act. That act is more commonly known as the “stimulus bill” because its primary purpose was to help create new economic activity to help offset the downward pressures of the current recession that began in December, 2007. Each state receives allocations from the stimulus bill, and Iowa’s announced share is \$1.91 billion. This article looks at the kinds of aid the state is receiving and estimates the types of impacts that spending may have on job creation or job stability.

When the details are analyzed and re-aggregated, the stimulus bill allocation in Iowa can be broken down into (1) a capital enhancement and infrastructure development component, (2) an array of safety net spending to help people most vulnerable and in need due to the recession, and (3) spending to assist the operations of state and local governments whose revenues are constrained by the economic downturn.

Item 1, is the capital and infrastructure development component, which is pure economic stimulus. It is designed to improve roads, bridges, sewer and water systems, flood control, and other physical public goods. It also has energy efficiency provisions to assist in upgrading government buildings and enhancing weatherization. In so doing, this bill through its funding takes future productivity, capital investment that would have happened over the next decade or so, and moves it up into the present time thus boosting the present economy. This happens, of course, at the expense of productivity down the road.

When all of those spending categories are subtotaled, there will be about \$592 million in capital development and improvements to occur over the next three years. We can calculate, using multipliers from an Iowa input-output model¹, what the annual job creation value of that spending will be. Per \$100 million annual spending in new infrastructure building and infrastructure repair, the state could expect about 1,620 jobs. If the \$592 million were spent over three years, then:

$$\mathbf{\$5.92 / 3 \text{ years} \times 1,620 = 3,196 \text{ jobs per year}}$$

The jobs that are sustained exist only so long as the funding exists, so the annualized job gains from the stimulus spending are 3,196 jobs. It is not appropriate to sum the jobs over the three years because the first year’s jobs disappear when the funding goes away. In addition, the job number includes all of the jobs that are further stimulated by supplying firms to the construction industry, along with all of the jobs that happen when the workers convert their paychecks into household spending in the overall economy.

The second item consists of all of the expenditures to bolster the state’s safety net for those most impacted by the recession – children, the unemployed and low income families. That amount is around \$630 million, about \$554 million of which is direct health care related. These are primarily payments to fund the state’s Medicaid system, which provides health care services to Iowa’s low income residents and to those who are disabled. The assistance takes two forms. First it is an increase in overall payments to the states to assist those who become eligible for funding because of the recession. This is mainly children who are eligible for health care even though their parents are not receiving traditional welfare assistance (or Temporary Assistance to Needy Families). The second amount is a boost in the national government’s share of spending. As Medicaid is matched by the states, this bill provides relief to the states by lowering their match requirements and shifting more of the payment share to the federal government.

These payments are not considered stimulus focused; instead they are designed to stabilize medical services and health delivery. Again, as an example, we can calculate using our input-output model of the Iowa economy, the number of jobs on an annualized basis that depend on this level of medical spending. In Iowa, each \$100 million of medical spending supports 1,570 jobs. If the boost in federal spending is designed to last 3 years, then:

$$\mathbf{5.52 / 3 \times 1,570 = 2,889 \text{ jobs per year}}$$

The level of medical spending equates to supporting 2,889 jobs per year in the entire Iowa economy – those providing health care, those providing supplies and services to the health industry, and those that provide goods and services to health care deliverers and their suppliers in the form of household consumption. These are not new jobs as they are already in the state’s economy. This spending helps to stabilize those positions, however.

Item 3 looks to assure continuity in government service delivery of education as well as a wide array of other state and local government activities. This, depending on how the numbers are allocated, could be around \$684.5 million. Again, this money will be allocated over three fiscal years and we can calculate the annual job stabilization impacts of education, justice, and general government support using our modeling system. Per \$100 million of annual spending on state and local government activity in Iowa, a total of 2,346 total jobs are supported in the entire state economy. Accordingly, then

$$6.845 / 3 \times 2,346 = 5,353 \text{ jobs per year}$$

This assistance for state and local governments translates into supporting, annually, 5,353 jobs. Again, these are not new jobs – they are already in the economy, but the assistance from the federal government conceivably has offset the need to cut government services, which could have resulted in layoffs.

Using the basic but quite realistic estimates provided here, about \$1.84 billion of the \$1.91 billion federal stimulus bill has the job value of either creating or helping to sustain 11,338 jobs in Iowa per year over the next three fiscal periods.

¹ This author continuously maintains an input – output model of the Iowa economy. That model is updated annually, and contains data for all 99 counties and up to 444 different types of Iowa industries. That model produces a variety of multipliers, based on the specifications of the operator, which can be used to anticipate economic impacts, both positive and negative, as the economy changes. It is never appropriate to use national level multipliers to infer economic changes in the states. The national economy is much more developed than any of the constituent states; hence, national multipliers are always higher than state or county multipliers.

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