## **Iowa Farm Outlook**



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### September Hog and Pig Report: Expansion Continues

US pork producers continue to build swine inventories. For the past six years, there has been a year over year increase in September total swine inventories, while the swine breeding herd has increased for the past three years. Currently there are 62.7 million head of swine nationally, up 1.4 percent from a year ago. The swine breeding herd inventory numbered just over 6 million head, an increase of almost 2 percent since last September. Breeding herd numbers have been below 6 million head since 2002. Market hog inventories have increased 1.3 percent to over 56.6 million head. Farrowings in the next quarter are expected to be up almost a percent in the coming quarter and then steady in the first quarter of next year. The US pig crop in the past six months was up more than a percent in the past six months. Table 1 contains a summary of the inventory numbers from the hog and pig report and the percentage change in each from a year ago.

Table 1. Summary of the Sept 2006 USDA Hog and Pig Report Percent Changes from Year Previous

	US Million	% change	lowa Million	% change			
All Hogs	62.7	1.4%	16.9	1.8%			
Breeding Herd	6.1	1.8%	1.08	0.0%			
Market Hogs	56.6	1.3%	15.82	1.9%			
Under 60	21.0	1.1%	4.85	1.5%			
60-119	14.0	0.8%	4.47	1.6%			
120-179	11.6	1.3%	3.52	2.0%			
180+	10.1	2.6%	2.98	3.1%			
Pig Crop							
Mar-May	26.3	1.2%	4.072	2.3%			
Jun-Aug	26.7	1.1%	4.141	0.0%			
Farrowing Intentions							
Sep-Nov	2.9	0.9%	0.46	1.1%			
Dec-Feb	2.9	0.0%	0.45	-1.1%			

The pig crop in the most recent quarter was up on a national average, but in Iowa it did not change from a year ago. Iowa's breeding herd also appears to be holding steady while the rest of the nation continues

a steady increase in breeding herd numbers. Iowa farrowing intentions are up a percent in this quarter and down a percent in the winter months. Over all the industry seems to be taking a cautious approach in their farrowing intentions. Uncertainly over corn prices and the increased number of sows slaughtered are primary contributors to the lower than would be expected farrowing intentions in the next six months.

Market hog inventories have also increased in all weight classes. The number of hogs on the heavy side of the weight range, over 180 pounds, has increased 2.6 percent nationally and more than 3 percent in Iowa. More hogs are on feed because pig supplies have increased while hogs continue to be fed to a finish weight above the five year average.

The USDA also released the report, *U.S. Hog Breeding Herd Structure*, earlier this week. Although changes in the breeding swine herd are continually discussed by analysts, this report does deliver an overview of the changes in the past two years. This report notes that the productive efficiency of operations both above and below the 5000 head benchmark weaned more pigs per litter. This improved efficiency not only comes from a general improvement in production methods, but also a change in the number of smaller and usually less productive small operations. The number of hog operations with less than a hundred head has decreased by 19 percent since 2000 and 3.5 percent since 2004. The number of pigs produced per litter has again set a new record of 9.14 head for all producers and 9.2 head for larger operations with more than 5000 head.

#### **Production and Prices**

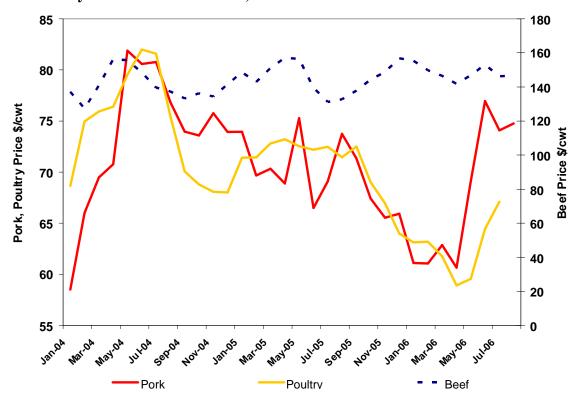
Pork supplies are expected to increase due to increased pig crops in the US and Canada. Importation of hogs, pigs, and pork from Canada is expected to increase. Table 2 contains the expected changes in US pork production, the forecasted ISU live hog price and basis adjusted futures hog prices for the next four quarters. Prices are expected to remain profitable into next year for most producers if corn prices do not escalate. The futures market also seems optimistic for continued profitable prices. Pork production is expected to increase in the fourth quarter of this year due to several reasons: more hog on the heavy side of the feeding period, a larger first quarter pig crop, and more imported of live Canadian pigs and hogs.

Table 2. Percent Change in Pork Production From Last Year, ISU Price Forecast

	% Change in	ISU Forecast	Sept 29	Cornbelt	Basis
	Production	Live cwt	Futures, live	Basis	Adjusted, live
Oct-Dec	1.5	41-43	46.06	-1.35	44.71
Jan-Mar	1.5	45-48	45.81	-3.10	42.71
Apr-Jun	1	45-49	48.39	-1.65	46.74
Jul-Sep	1	41-45	47.23	+.36	47.59

Figure 1 contains a graph of the US wholesale prices of pork, poultry, and beef. Pork prices in the past 12 months dropped and then rebounded by almost \$13/cwt, while chicken values have not yet recovered from a similar decline. This has put a larger than usual spread between wholesale values of pork and chicken. Historic seasonality suggests that as the winter months approach demand for meat usually falls and pork values are expected to follow.

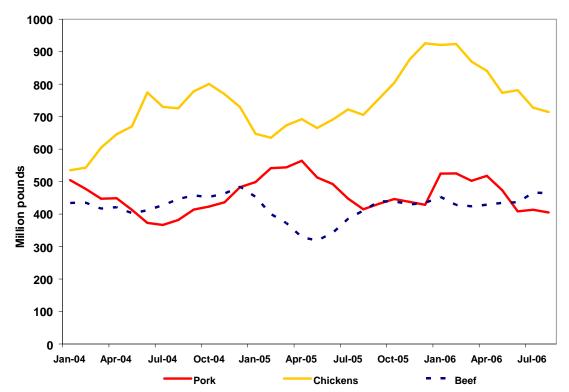
Figure 1. Monthly Wholesale Meat Prices, 2004-Present



Consumers may not have noticed dramatic changes at the meat counter, as retail meat prices remain relatively constant. Retailers try to satisfy consumer demand for quantity while maintaining a constant profit trend. As meat sales increase, retailers pay higher wholesale prices for a limited supply of meat to satisfy the greater sale volumes. If the retailer profit margin per unit sold is narrowed, increased sales volume usually more than balances out the extra cost of product acquisition. Consumer preference between pork and poultry is not likely to be effected by changes in wholesale prices, because retail prices have remained relatively constant. Consumer perception of meat safety, quality and popular appeal tend to impact direct demand more quickly than wholesale value.

Earlier in the year, poultry sales and exports were hindered by concerns of bird flu, and poultry cold storage stockpiled surplus supplies, see Figure 2. That build up has since been utilized, and frozen chicken stocks are nearly equal to the levels of a year ago. Pork cold storage stocks in August were up only 0.6 percent from a year ago. Consumption, both domestic and foreign, has absorbed most of the increased pork production. This year's Pork exports through the month of July were up 12.4 percent.

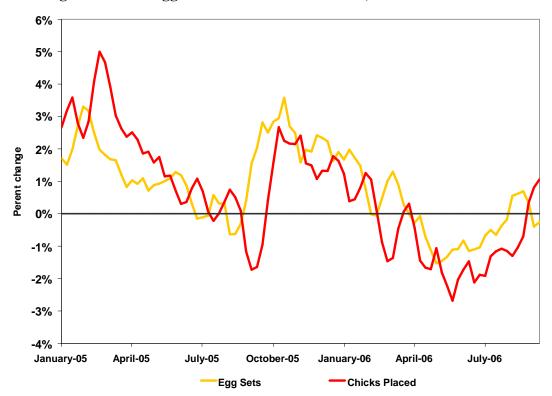
Figure 2. Monthly Cold Storage Meat Stocks, 2004-Present



Source: USDA, NASS

Poultry, primarily chicken, is the most competitive substitute for pork. Poultry production has in the past increased at a fairly constant rate. Figure 3 is a graph of the year to year percentage change in the rolling three week average egg sets and chick placements. Poultry production seems to be following its usual seasonality with a decline in late year egg sets and chick placements. In the past two years, three week average chick placements have been increasing, 2.7 percent in 2004 and 1.6 percent in 2005. However, because of worldwide public concern over bird flu, demand was weakened, and producers have since reduced chick placements for the first time in recent years. With the prospect of less chicken being produced in the next quarter, there will be less competition with pork at the meat counter. If demand for poultry recovers in the coming months, pork prices could see some positive pressure from increasing chicken prices. For right now consumer preference will insulate the competition between the two "white" meats.

Figure 3. Change in 3 Week Egg Sets and Chick Placements, 2005-Present

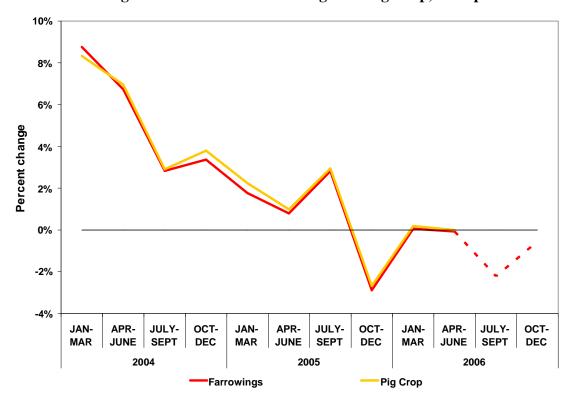


#### **Canadian Situation**

Feeder pig imports from Canada this year have been up 14.7 percent over the same period last year. However, this increase would have actually been larger if corn tariffs had remained. There was a four month period at the beginning of 2006 when a hefty \$1.65/bu tariff was placed on US corn. Sixteen percent more feeder pigs were imported during the January to April period than during the same period in 2005. However in the past five months since that tariff was removed the number of feeder pig imports has been down 12 percent and slaughter hog imports have been up 9.5 percent from the same May to Sept period last year. Most of the feeder pigs that were imported earlier in the year have been processed or soon will be.

What are the Canadian swine industry's intentions for the future then? Figure 4 is a graph of the percent change in sow farrowings and pig crop for 2004 to 2006. Farrowings were increasing until the last quarter of 2005. Farrowings have since remained level in 2006 but are expected to decrease in the last half of this year.

Figure 4. Percent Change in Canada Sows Farrowings and Pig Crop, 2004-present



In summary, the US breeding herd continues to grow and market hog numbers have increased from additional pigs produced and imported. Hog marketing in the next quarter of 2006 will increase and the market will pass through its usual year end softening. Producers, however, should continue to see profitable prices into the next year, pending affordable corn. Chicken supplies will be lower, which help support prices, and Canadian pig production will remain steady to slightly lower. Pork exports will continue to grow into the next year. A common wild card will be consumer perception, both foreign and domestic, of meat quality and safety.

Shane Ellis

# Old-Crop Soybean Stocks Lower than Expected, Corn Market Focuses on Yield Uncertainty and Expanding Demand

News from USDA's September 29 grain stocks report was slightly constructive for soybean prices. The September 1 U.S. soybean stocks in all positions were placed at 449 million bushels. That's 32 million bushels below average trade expectations and down from the World Agricultural Outlook Board projection of 485 million bushels in mid-September. The lower stocks number reflects strong August domestic crushings and a downward revision of 30 million bushels in the U.S. 2005 soybean crop. The smaller 2005 crop reflected slight reductions in both harvested acreage and the average yield. Despite a slightly positive stocks report, the dominant influences on soybean prices in the next few weeks will be weather, harvest progress, and the next USDA crop forecast on October 12. A well-known private crop forecast released just before the stocks report placed potential U.S. soybean production 5.6% or 173 million bushels above the USDA September forecast. If final production is near this forecast, U.S. soybean carryover stocks would be expected to increase sharply by August 31, 2007 unless South America has serious crop problems.

USDA's grain stocks report placed September 1 U.S. corn stocks of 1.971 billion bushels. That was almost exactly the average of trade expectations, but was 41 million bushels below the USDA World Board projection on September 12 *and down 143 million bushels from a year earlier*. In other words, last year's corn crop was 143 million bushels below market demand. USDA's September crop report and demand projections indicated this year's crop will fall about 800 million bushels below expected use. The private crop forecasting firm noted above lowered its late September corn production forecast 42 million bushels from the latest USDA forecast.

As with soybeans, corn price trends for the next several weeks will be strongly influenced by weather and harvest progress, as well as the final crop size. If yields are at or above the September USDA forecast, storage space would likely be tight in sizeable areas again this year. That in turn has the potential to weaken corn prices and the basis as Midwestern harvesting accelerates. In Iowa, storage space appears likely to be relatively tight in the central, north central, eastern, and southwestern parts of the state. Storage space may not be quite as tight as last year in the west central and northwest parts of the state because of weather stress on crops in late June and July in those areas.

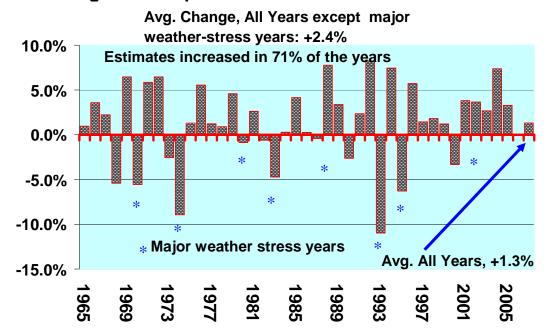
Recent corn price strength reflected limited farmer marketings as well as grain trade uneasiness that corn yields may possibly be below the September crop forecast. Export sales for both corn and soybeans are much stronger than at this time last year. That also has been a constructive influence on corn prices.

Another influence behind the recent strength in corn prices has been the increased focus of some traders on next year's needed corn acreage and the potential 2007-08 supply demand balance.

#### Historical Changes in USDA Corn Crop Forecasts, September to Season Final

Figure 1 below shows historical changes in USDA's crop estimates from the September 1 forecast to the season final in December or January. Except for years of widespread weather stress across a sizeable part of the Corn Belt, there has been a strong tendency for the U.S. corn yield estimates to increase from September to the season final estimate.

Figure 1. USDA Corn Yield Forecasts, Percent Change from September to Season Final Estimate

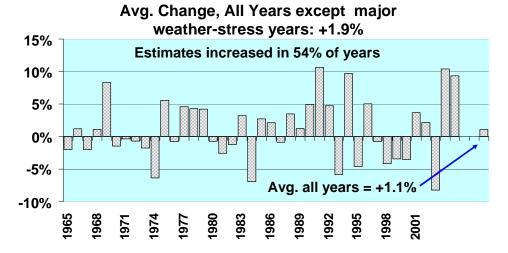


It is uncertain whether weather stresses in parts of the western Corn Belt this year were extensive enough to cause deviation from the general pattern of increasing yield estimates. Areas seriously affected included the Dakotas, parts of western Minnesota, western and extreme southeastern Iowa, and non-irrigated areas of Nebraska and Kansas. Weather was favorable for corn and soybeans in much of the eastern Corn Belt.

#### **Historical Changes in USDA Soybean Crop Forecasts**

Figure 2 shows historical changes in USDA soybean crop estimates from the September forecast to the season final estimate. The pattern is similar to corn except that the average increase in non weather stress years is considerably smaller than for corn. Also, the corn estimates had a stronger tendency to increase from September to January than for soybeans, with 70% of the past 41 years showing an increase vs. 54% for soybeans.

Figure 2. USDA Soybean Yield Forecasts, Percent Change September to Season Final, 1965-2004



#### **Brazil-Argentina Soybean Update**

Our contacts in Brazil expect a 6% to 8% reduction in Brazil's soybean plantings this fall and early winter, with a potential small increase in the Brazilian average yield. Prospects for reduced soybean plantings for the second consecutive year reflect the high costs of spraying for Asian soybean rust and an unfavorable exchange rate. The Brazilian Real has strengthened about 3.2% from a year ago but is slightly weaker than last spring during the peak Brazilian harvest season. The reduction in acreage is expected to be greater in Mato Grosso than in other Brazilian states. That is partly due to the severity of rust problems in the region, where climate is ideally suited for the spread of Asian rust. Profitable alternative crops are limited in many areas. However, in areas where a large number of sugar cane processing plants exist, there are reports of significant amounts of soybean acres being shifted to sugar cane. Brazil is building an ethanol export terminal and is considering building a pipeline to move ethanol from producing areas to the ports. Sugar cane is a perennial crop and is the feedstock for its extensive ethanol fuels program. Sugar cane needs to be replanted only after 5 or 6 years of production.

Our Argentine contacts indicate soybean plantings are likely to increase by 2 to 3 percent there, continuing the long-term upward trend. Farmers, agronomists, and agribusiness managers from a large group of Argentine visitors to Iowa this summer indicated Asian soybean rust has not been a serious problem there, except in the extreme northern part of its Soybean Belt. Much of its soybean area has frosts that help control winter host plants for the rust, and rainfall and humidity are less favorable for rust than in Brazil. This same group indicated that with corn yields typically in the 80 to 90 bushel per acre range, farmers will not be enthusiastic about expanding corn plantings – unless the price gets substantially higher than it has been in recent years.

#### Natural Gas Prices and 2007 U.S. Corn Plantings

Natural gas is the major ingredient required in manufacturing nitrogen fertilizer. Last year, beginning at the end of August, severe hurricanes extensively damaged natural gas infrastructure and some production facilities in the Gulf of Mexico. The result was a very sharp increase in the cost of natural gas and nitrogen fertilizer. Figure 3 shows the sharp drop in natural gas futures in recent months as infrastructure has been restored. *The drop in natural gas prices offers some hope that nitrogen fertilizer prices will be significantly lower next spring than a year earlier.* High fertilizer prices were a major factor behind the 2.4 million acre decline in this year's U.S. corn plantings. Lower fertilizer prices and sharply higher corn prices than a year ago that are being offered for 2007 and 2008 crops may encourage corn growers to expand plantings next spring. A recent survey of farmers by a major market advisory firm indicated its members plan to increase corn plantings sharply in 2007. Whether these plans are carried out will of course also depend on weather, and corn and soybean price trends next spring. As we noted in the last issue of *Iowa Farm Outlook*, a substantial increase in U.S. corn planted acres almost certainly will be needed next year to supply the growing demand for corn for ethanol fuel.



Figure 3. Weekly Natural Gas Near-by Futures Through 9/29/06

#### **Updated Balance Sheets**

Out latest corn and soybean balance sheet projections for the 2006-07 marketing year are available on our web site, <a href="http://www.econ.iastate.edu/faculty/wisner/">http://www.econ.iastate.edu/faculty/wisner/</a>, in the right-hand column. We also show early and very tentative projections for the 2007-08 and 2008-09 marketing years, assuming final 2006 corn and soybean yields are near the September 12 USDA forecasts.

Robert Wisner