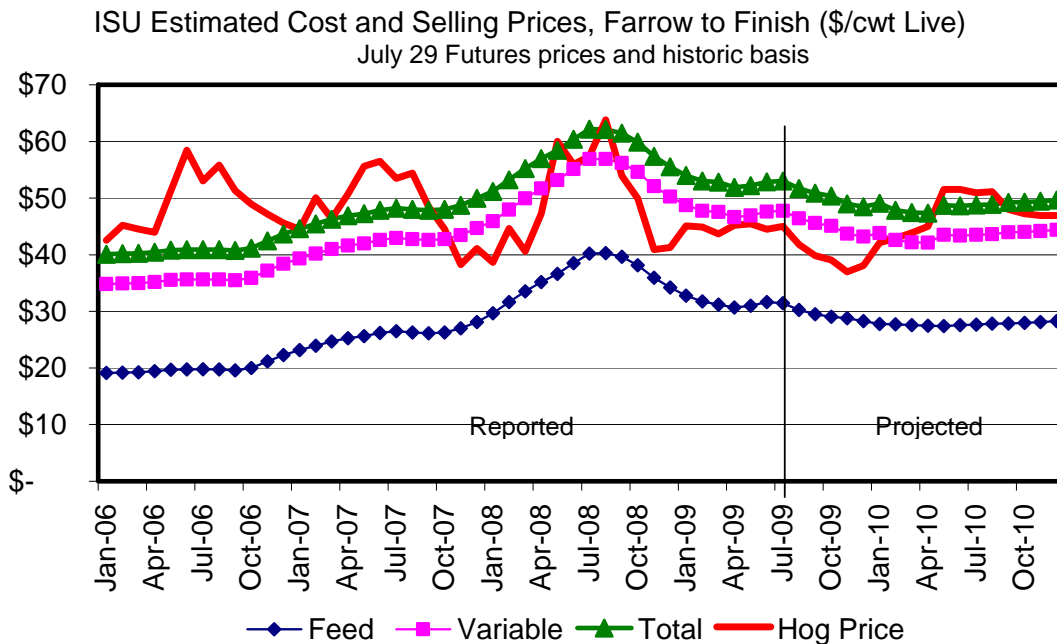


Are Pork Producers Playing Chicken?  
 John D. Lawrence, Extension Livestock Economist  
 Iowa State University

A farmer marketing 1000 hogs a month would have depleted over a half a million dollars of net worth since October 2007, using the Iowa State University Estimated Returns Series as a benchmark. Hog prices have been below breakeven for 20 of the last 22 months (Figure 1). More importantly, prices were below variable cost of production in 17 months including the last 12 in a row. Based on late July futures for feed and hogs it will be another 6 months before variable costs are covered and an additional 3 months to reach breakeven. Yes, feed costs are coming down, but hog prices have fallen faster on weak demand and large supplies.

National pork organizations and USDA will work to expand domestic and export demand, but producers determine supply. Breeding herd inventories are lower, but due to increased productivity, pork supply has not adjusted to economic signals. US pork production through the first 29 weeks of 2009 is down 1.5% from the year before and this reduction can be accounted for by fewer Canadian hogs and pigs being imported. In fact, US sow slaughter has decreased, not increased, more than 15% since the first of the year. US producers appear to be pushing on the accelerator rather than the brake.

While feed price is well below the 2008 levels, it remains higher than the pre-2007 era. Without new demand for pork, supplies will have to decline to support hog prices at the higher cost levels. The record export pace of 2008 has been slower thus far in 2009. Without smaller supplies prices will not recover.



**Will prices respond?**

The relationship between supply and price is not as predictable as it once was. In half of the last 20 quarters prices and supplies moved in the same direction. Not what we would expect and a clear indication that demand changes are important to price. The old

rule-of-thumb was that for each 1% change in supply, price would change approximately 3% in the opposite direction. For example, second quarter 2009 prices averaged \$45/cwt; then with a 1, 3 and 5 percent reduction in supply we would forecast prices to be \$1.35 (3%), \$4.05 (9%) and \$6.75 (15%) higher, respectively for the second quarter of 2010. The sector needs a 15% price increase, a 5% supply reduction, just to breakeven.

Even small, long standing cartels like OPEC have trouble controlling supply and today's consolidated pork industry is no different. An organized effort to reduce the breeding herd was rolled out at Pork Expo, but was later withdrawn. The perennial game of "chicken" continues. Each producer is waiting for the other guy to quit and so prices will be higher for the survivors. What happens when you become the "other guy" rather than the "survivor"?

### **The cost of cuts**

Every producer must understand his or her own cost structure and how reducing the sow inventory within his/her operation will impact the cost of production. Reducing sow inventory will reduce variable costs (less feed, vaccination, etc), but not fixed costs. By definition these costs do not change with output. On a per pound basis, fixed and total costs will increase with fewer pounds produced, but by how much? Consider the ISU Estimated Farrow to Finish Returns as an example. Its costs for buildings, utilities, administration, labor and transportation total \$37.49/head. Reducing pig output by 10% would result in a higher fixed cost per pig ( $\$37.49/0.9 = \$41.66/\text{head}$ ). Cost increase \$4.17/head or about \$1.54/cwt live basis. Given the elasticity example above, a little more than a 1% decrease in total supply would cover this cost increase, all else equal.

This calculation is for economic costs, but it is cash flow that pays the bills. Selling sows increases near term income by the value of the sows and reduces near-to-intermediate expenses by reducing feed and other direct costs. However, eventually, you have fewer hogs to sell and income will go down unless the price has increased.

How will a production cut impact your costs? Can you reduce overhead costs in addition to variable costs? Are there benefits from less crowding, culling marginal sows, etc that may offset some of the increased cost? How is cash flow impacted with sow sales, less feed expense, but less hogs to sell later? Are these permanent or temporary changes?

### **What are the risks?**

What if supplies do not fall? Your costs will go up and as will your losses if prices do not rally. You miss an opportunity if the prices do increase and you have fewer hogs to sell. Do you have the flexibility in your marketing contract to reduce deliveries? If we produce fewer hogs we need less packer capacity and the packer may close a plant where you sell.

### **Bottom line**

Accumulated losses per head in the current crisis for hog producers will surpass that of 1998-99 in September. However, individual farms and the industry are larger and so is the loss of equity. And we are not done yet. We will drain 50% more equity than we have already lost by next summer given the current forecast.

Supplies must come in line with the higher cost structure and, at least currently, the weaker demand. Some producers have already cut production or announced their intentions, but the announced reductions of a few will not lead to profitability for the industry. Inelastic demand for hogs will provide a larger percentage increase in price for a given reduction in supply, all else equal. The productivity of the industry requires a significant cut in farrowings to achieve the supply response needed to return to profitable prices. A 5% pork supply cut is needed to return the sector just to breakeven, but the March-May pig crop was down only 0.4%. More reductions are needed.