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The Changing Hog Industry

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Pork producers dodged the worst possibilities of the fourth quarter of 2002 by marketing hogs earlier in the third quarter. By November, the action rekindled a rally in Summer 2003 prices, originally started in July of 2002 on confirmation that producers were reducing the breeding herd in the U.S. Price expectations for 2003, as represented by June Lean Hog Carcass Futures contract prices, were strong through the end of 2002. Continued adequate supplies of pork stalled advances at the beginning of this year (Figure 1).

The March 2003 Hog and Pigs Report confirmed that pork producers continue to reduce the breeding herd in the United States. The question that remains is, “How much reduction in the sow herd will be required to significantly raise live hog prices?” Last year Glen Grimes1 suggested it would take a ten percent (10%) reduction in the U.S. breeding herd to return pork production to profitable levels for average producers.

Often we calculate cost of production as if all producers produced the same number of pigs. Each producer’s cost is treated equally when averaging across the pork industry. If a larger portion of the hogs are supplied by producers with a lower cost of production, the average price that needs to be paid by packer/processors to acquire adequate supplies of hogs may be lower than the simple average cost of production for all producers. This implies that producers with a higher cost of production are less likely to receive prices above their cost of production.

In the past we’ve used record keeping systems2 and compared cost of production using simple averages across producers. This isn’t a problem when all producers are relatively similar. Now, this comparative measure may give a false indicator of our competitiveness because producer’s operations differ greatly. If the least cost producers produce a disproportionately large number of the available hogs, the markets may not need or want to pay the average of all producers’ costs.

1Professor Emeritus at University of Missouri.  
2Nebraska Swine Enterprise Records and Analysis – used in Nebraska from 1988 thru 1997
Another factor that is increasingly important in this discussion is the level at which the supply of hogs is adequate to keep most packer/processor plants operating efficiently. Incremental increases in supply costs reduce the operating margin of the packer/processor, assuming all else remains equal. To make up for the loss of total dollars of profit, a packer/processor may try to increase the total volume through the plant. However, at some point it becomes better to not bid higher for hogs and optimize the supply cost and the flow through the plant, perhaps to the point of shutting down the plant.

When the supply of hogs remains high in relationship to total plant capacity, the ability of an individual packer buyer to optimize the plant capacity versus the economics of supply cost will be improved. The likelihood that aggressive bidding will be needed to maintain the flow of hogs through the plant at the minimum level necessary to maintain profit is lessened.

Given the price of live hogs in Nebraska for the past four years ($40.15), and the four year average for the top cash live hog price in at least one region of Nebraska ($38.08), it appears that the average Nebraska producer, with a cost of production of $40.74 would not receive enough for the hogs to remain in business.

Using data supplied by the National Agricultural Statistics Service, (NASS), the changes in the numbers of producers in each size category from 1995 to 2002 would confirm that many producers are leaving the industry. Further, producers in the smallest categories are leaving at the highest rate, implying that they have a relatively high cost of production (Figure 2). However, there may be another dynamic to explain these numbers. This dynamic may help explain why producers in the mid-size groups become hard pressed to capitalize their operations.

Producers in the smallest categories can make use of many facilities that have a very low capital cost. When using older or paid-off facilities, they give a great deal of attention to detail management and produce at a low cost per unit, to the envy of any producer. They may have been, in fact, some of the most profitable producers in the record keeping systems of the past. However, to compete with them newer operators would have to find ways to decrease their cost of capitalization to match that of producers who had either long ago paid out their capital requirement, or were using added management to make less capital intensive systems work. To meet that challenge, operations looked to spreading both capital and labor cost as efficiently across as many pigs as possible. (Likely the same thing goes on when managing machinery and labor in current row crop operations).

As margins are reduced because a larger number of available pigs are being produced by the lowest cost producers, in any of the size categories, those producers with the fewest pigs see the least actual cash from the enterprise. As an example: consider a producer produces 2,000 pigs per year and his cost of production is equal to the lowest cost in the industry. The margin is $5.00 per head above all cost. He earns $10,000 per year in addition to the labor value included in production cost. There was a time when this may have been a major contribution to the family income. But with today’s family living cost over $44,000, this enterprise’s contribution is less.

To continue the enterprise a producer must consider finding alternate means to market livestock at a higher margin through some type of value-added efforts or consider increasing the number of units produced. Either alternative requires that the management activities and the number of business relationships will increase. These are additional challenges in a continually changing hog industry.

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3. Nebraska Ag Statistics and Livestock Marketing Information Center
4. Regional Cash Live Hog Market from 01-1999 to 12-2002
5. Nebraska Swine Enterprise Records and Analysis Program, updated inflation adjustment and with current feed cost
6. Nebraska Farm Business Association 2001 Data