Feed Cost Indices for Swine Enterprises

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A recent farmdoc daily article (here) discusses the importance of lower soybean meal costs on pork costs. This article documents the impact of lower corn and soybean meal prices on feed cost indices for a farrow-to-finish enterprise and a hog finishing enterprise, and provides projections for both swine enterprises. It is important to note that the hog finishing enterprise assumes the finishing of an early-weaned pig. Rations for both enterprises consist of corn, soybean meal, dry distillers’ grain, and supplements. Corn prices represent averages for Indiana as reported by USDA-NASS. Soybean meal and distillers’ grain prices are obtained from Feed Outlook, published monthly by USDA-ERS. Information from Agricultural Prices, a monthly USDA-NASS publication, was used to compute supplement prices. Future prices for corn and soybean meal are used to project feed indices through 2017. Feed cost indices are reported on a closeout month rather than a placement month basis.

Corn and Soybean Meal Prices

Figures 1 and 2 report monthly corn and soybean meal prices from January 2000 to July 2015. A distinction is made for prices before and after 2007. The period starting in 2007 is often thought to be a new price regime. Corn price averaged $2.18 per bushel from 2000 to 2006, and $4.92 per bushel from 2007 to the current month. Soybean meal price averaged $187 per ton from 2000 to 2006, and $367 per ton from 2007 to the current month. Corn price has been below the $4.92 per bushel average since May 2014. In contrast, soybean meal price, except for a few months this year, has been above the $367 per ton average.
Farrow-to-Finish Enterprise

Figure 3 presents monthly farrow-to-finish feed cost indices from January 2000 to August 2015. The latest full year of indices, 2014, has an index of 100 so all indices outside of this year are expressed in relative terms. As with corn and soybean meal prices, a distinction is made for feed cost indices before and after 2007. The average index from 2000 to 2006 was approximately 45 while the average index
since the beginning of 2007 was approximately 95. The index for August 2015 was 83 so current feed costs are 17 percent below the average for 2014.

Annual farrow-to-finish feed cost indices are presented in Figure 4. The projections for 2015, 2016, and 2017 (red bars) used corn and soybean meal futures prices in mid-September. The projected feed cost indices for 2015, 2016, and 2017 are 84, 82, and 84, respectively.
Hog Finishing Enterprise

Figure 5 illustrates monthly hog finishing feed cost indices for the January 2000 to August 2015 period. As with the indices for farrow-to-finish production, 2014 has index of 100, and a distinction is made between the before and after 2007 periods. The average index for the 2000 to 2006 period was 46 while the average index for the period beginning in 2007 was 95. The index for August 2015 was 85 so current feed costs are 15 percent below the average for 2014.
Annual hog finishing feed cost indices are presented in figure 6. The projections for 2015, 2016, and 2017 (red bars) used futures corn and soybean meal prices in mid-September. The projected feed cost indices for 2015, 2016, and 2017 are 86, 84, and 85.

Regression analysis was used to examine the relationship between hog finishing costs, and corn and soybean meal prices. Results are as follows: each 0.10 increase in corn prices increases feed cost per cwt by $0.48, and each $10 increase in soybean meal prices increases feed cost per cwt. by $0.32. Feed cost per cwt. in August 2015 was $32.85.

Conclusions

This article discussed recent trends in feed costs for hog finishing and farrow-to-finish production. Feed costs have dropped dramatically since the first quarter of 2014. Feed costs are expected to remain at current levels through the end of 2015 and into 2016. Additional information pertaining to feed cost indices for other livestock enterprises can found on the web site for the Center for Commercial Agriculture (here).