



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.



Prospects for Swine Finishing Costs in 2018

Michael Langemeier

Center for Commercial Agriculture
Purdue University

March 9, 2018

farmdoc daily (8):42

Recommended citation format: Langemeier, M. "Prospects for Swine Finishing Costs in 2018." *farmdoc daily* (8):42, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, March 9, 2018.

Permalink: <http://farmdocdaily.illinois.edu/2018/03/prospects-for-swine-finishing-costs-in-2018.html>

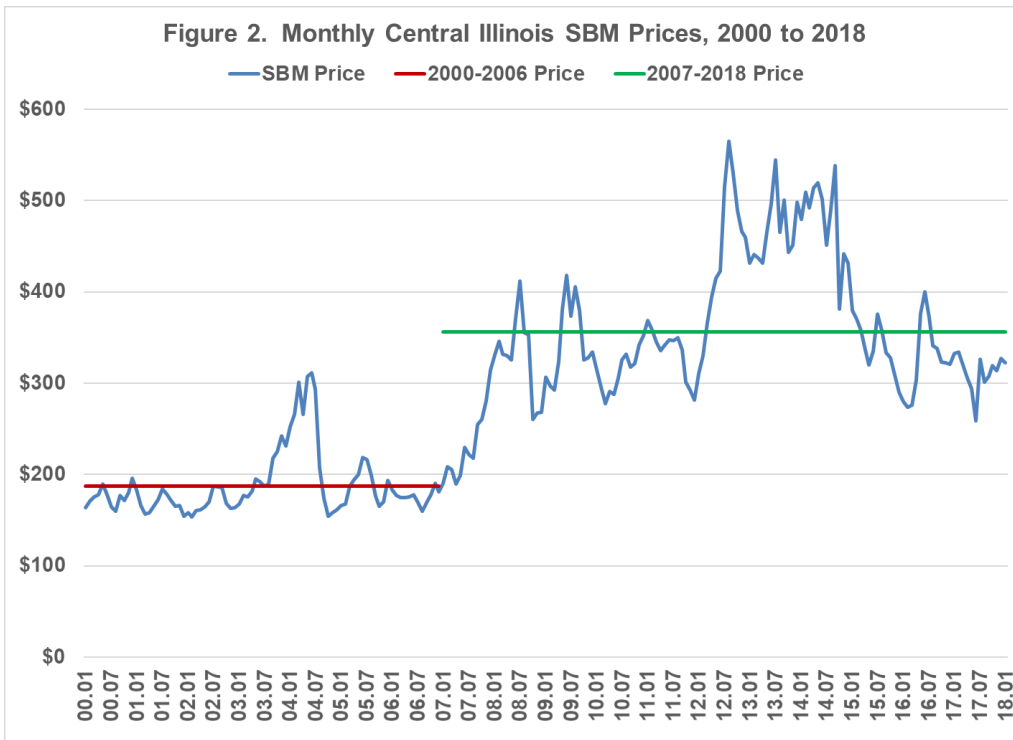
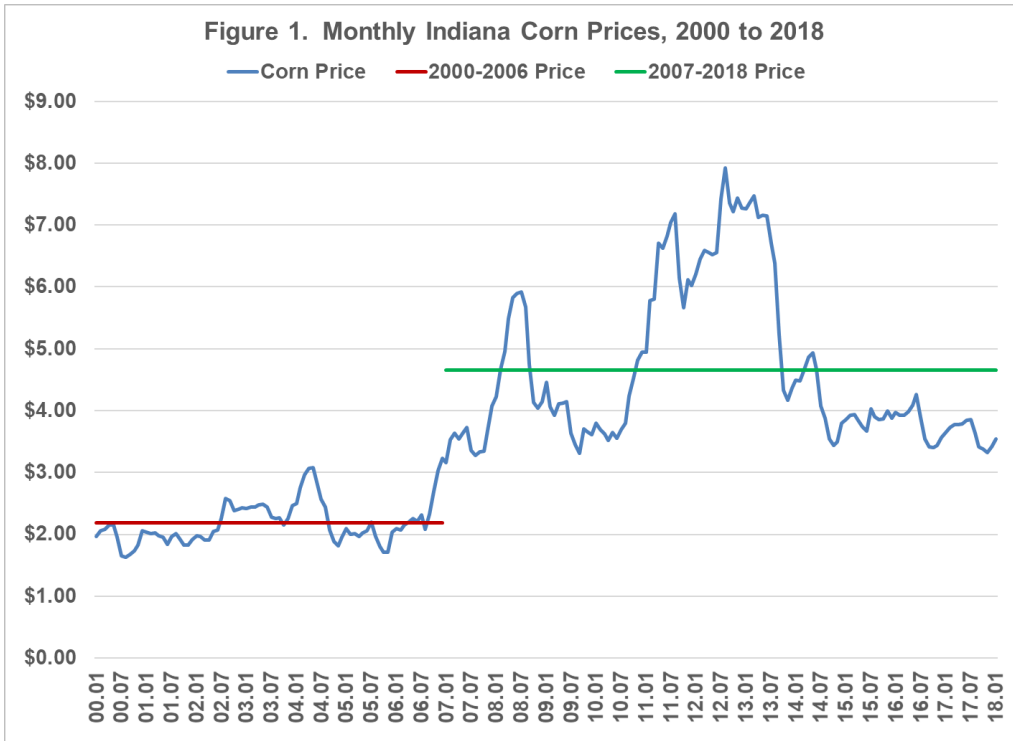
Hurt (*farmdoc daily* February 26, 2018) notes that a new threat to profit margins for swine producers is being driven by dry weather in Argentina pushing up feed costs, particularly those for soybean meal. Soybean meal futures increased from \$330 in early February to \$390 in early March. Though not at the rate of soybean meal prices, corn futures prices have also increased in the last few weeks. What do these increases imply about feed costs in 2018?

This article examines trends in feed costs as well as the impact of corn and soybean meal prices on swine finishing feed costs. It is important to note that the swine finishing enterprise represented in this article assumes the finishing of an early-weaned pig. The ration for this enterprise consists 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. Early March future prices for corn and soybean meal were used to project feed indices through 2018. Feed cost indices are reported on a closeout month rather than a placement month basis.

Corn and Soybean Meal Prices

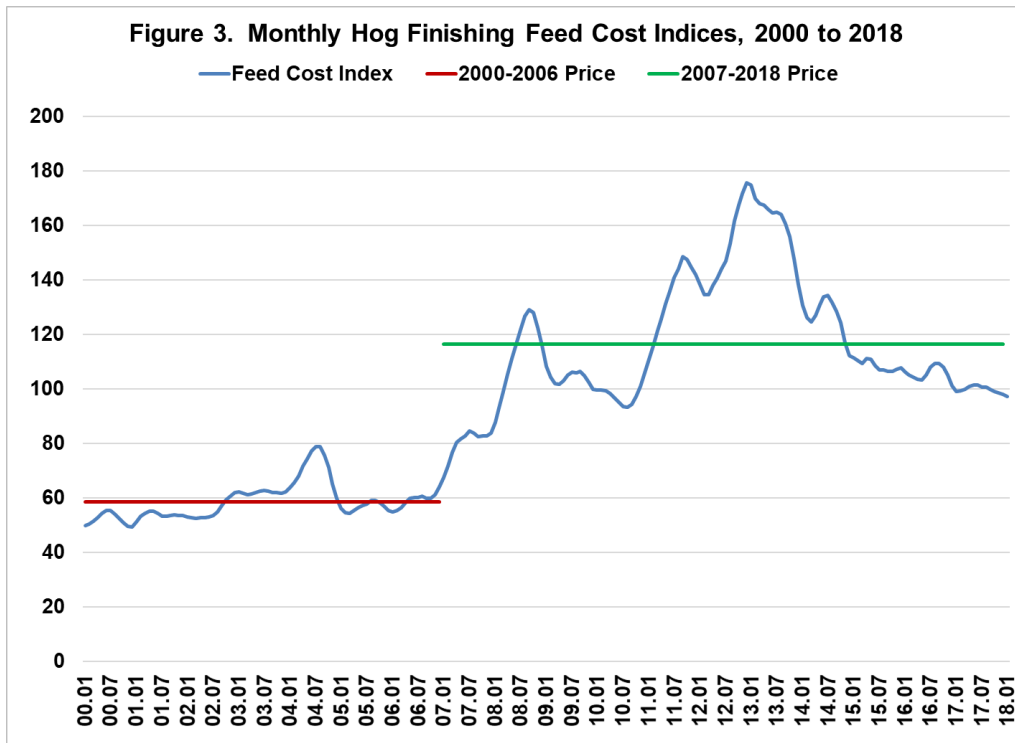
Figures 1 and 2 report monthly corn and soybean meal prices from January 2000 to January 2018. A distinction is made for prices before and after 2007. The period starting in 2007 is often thought to be a new price regime. Corn price averaged \$2.18 per bushel from 2000 to 2006, and \$4.65 per bushel from 2007 to the current month. Soybean meal price averaged \$187 per ton from 2000 to 2006, and \$356 per ton from 2007 to the current month. Corn price was above \$4.65 from February 2008 to September 2008, from November 2010 to September 2013, and from March 2014 to June 2014. Since July 2014, corn price has been below \$4.65 per bushel. Soybean meal price was above \$356 per ton in June and July of 2008, from May 2009 to September 2009, in January 2011, from March 2012 to March 2015, in July and August of 2015, and from May to July in 2016. Moreover, soybean meal prices are expected to above \$356 for the rest of 2018.

We request all readers, electronic media and others follow our citation guidelines when re-posting articles from *farmdoc daily*. Guidelines are available [here](#). The *farmdoc daily* website falls under University of Illinois copyright and intellectual property rights. For a detailed statement, please see the University of Illinois Copyright Information and Policies [here](#).

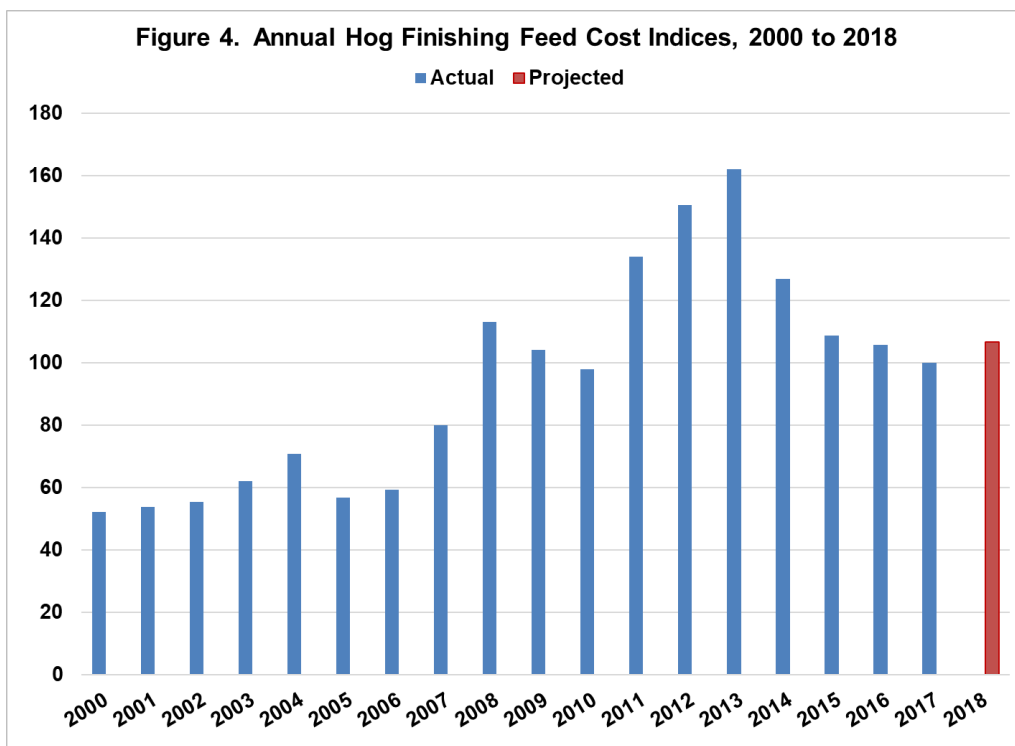


Swine Finishing Enterprise

Figure 3 illustrates monthly swine finishing feed cost indices for the January 2000 to January 2018 period. The latest full year of indices, 2017, 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 between the before and after 2007 periods. The average index for the 2000 to 2006 period was 59 while the average index for the period beginning in 2007 was 117. The index for January 2018 was 97, so current feed costs are 3 percent below the average for 2017. However, projected monthly indices range from 103 to 108 for the second quarter and from 110 to 112 for the last two quarters of 2018.



Annual swine finishing feed cost indices are presented in figure 4. The projections for 2018 (red bars) used corn and soybean meal futures prices in early March. The projected feed cost index is 107. Thus, swine finishing feed costs for 2018 are expected to be 7 percent above those experienced in 2017.



Sensitivity Analysis for Swine Feed Cost

Feed costs are very sensitive to changes in corn and soybean meal prices. 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 \$0.46, and each \$10 increase in soybean meal prices increases feed cost per cwt. by \$0.34. Feed cost per cwt. in

January was approximately \$29.75. The recent \$60 increase in soybean meal prices increased feed cost by approximately \$2.05 per cwt. Using expected corn and soybean meal prices, feed cost per cwt. is expected to range from \$31.25 to \$33.25 in the second quarter and from \$33.50 to \$34.50 for the last two quarters of 2018.

Table 1 presents feed cost per cwt. for corn prices ranging from \$3.50 to \$4.50 per bushel, and soybean meal prices ranging from \$325 to \$425 per ton. At the lower range of prices, feed cost per cwt. would be approximately \$29.25. At the higher range of prices, feed cost per cwt. would be approximately \$37.25.

Table 1. Sensitivity of Swine Finishing Feed Cost to Changes in Corn and Soybean Prices

		Soybean Meal Price				
		325	350	375	400	425
Corn Price	3.50	29.22	30.07	30.93	31.78	32.64
	3.75	30.37	31.23	32.08	32.94	33.79
	4.00	31.53	32.39	33.24	34.10	34.95
	4.25	32.69	33.54	34.40	35.26	36.11
	4.50	33.85	34.70	35.56	36.41	37.27

Conclusions

This article discussed recent trends in feed costs for a swine finishing enterprise, and provided projections for 2018. Feed cost is expected to be approximately 7 percent higher for 2018 than it was for 2017. Given the recent volatility of corn and soybean meal prices, it is important to gauge the impact of changes in these prices on feed cost. Each \$0.10 per bushel change in corn price, changes feed cost by \$0.46 per cwt. Similarly, each \$10 per ton change in soybean meal price, changes feed cost by \$0.34 per cwt.

References

Hurt, C. "Weekly Outlook: Hog Prices Increase, But So Do Feed Costs." *farmdoc daily* (8):33, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, February 26, 2018.

USDA, National Agricultural Statistics Service. *Agricultural Prices* (release monthly). <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1002>

USDA, Economic Research Service. *Feed Outlook* (release monthly). <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1273>