

# analyzed for weanling pigs

web-based application offering valuable information to hog producers.

The troubleshooting and management guide, built in a user-friendly and intuitive format, contains

extensive information and support for pork producers, including more than 1,000 fact sheets and references, the center said.

"This guide is designed to help

producers identify the source of the reproductive problem they are experiencing and, through research-based fields, provide information directly related to that problem," said Chris Hostetler, animal science director at the National Pork Board.

The guide uses a reproductive decision tree that begins with three categories: gilts, sows and boars (semen). After selecting a category, a list of potential issues are available from which to choose, such as "low farrowing

rate" or "too small of a gilt pool."

Once the topic is selected, the decision tree helps narrow the search on the issue through a series of available questions. After choosing the question that best fits the original problem, an answer is provided in the form of a fact sheet with viewable references.

The guide is available only as a web application via [www.usporkcenter.org](http://www.usporkcenter.org) and may be accessed through personal computers, smartphones and tablets. ■

## Swine Barn Analysis

# Finishing pig closeout performance improves

By TOM STEIN\*

**S**TARTING with this issue, I will be reporting closeout performance for nursery, finishing and wean-to-finish groups and showing how it compares with the same period a year ago.

Data come from pork producers using the MetaFarms software system and represent more than 500 pork production companies in the U.S. and Canada. The data were scrubbed and made anonymous to protect the confidentiality of the software users.

For the third quarter of 2013, nursery growth and conversion performance — average daily gain (ADG), feed conversion ratio (FCR), average daily feed intake (ADFI) and days on feed (DOF) — showed no change from a year ago (Table). However, nursery mortality was up 10.4% in relative terms, or 0.25% in absolute numbers. Perhaps this reflects the effects of porcine epidemic diarrhea disease virus?

Growth performance in finishing closeouts was up

significantly in 2013. In the third quarter, the average finishing pig needed 16 lb. less feed to reach market weight, grew 4.3% faster, converted 3.7% better and needed four fewer days to market. This was in the face of a not insignificant increase of 2.4% (relative) in finishing mortality.

Wean-to-finish closeout performance was in between nursery and finishing results. The average pig in wean-to-finish barns grew 2.2% faster, converted 2.4% better and needed about two fewer days to market.

Mortality followed the same pattern and was up slightly, but keep in mind that wean-to-finish mortality should be compared with the combined nursery and finishing mortality numbers. The relevant comparison is 6.69% in wean-to-finish barns versus 7.04% in standard nursery finishing systems, i.e., pigs move from a nursery site to a finishing site. That's 5% less mortality (relatively) in wean-to-finish barns than the typical nursery finishing system.

I've seen the same relationship in other benchmarking analyses over the past three years. Maybe there's something protective about placing pigs in wean-to-finish barns compared with nursery move-to-finishing systems.

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## Closeout performance

	Q3		% change
	2012	2013	
<b>Nursery</b>			
Closeouts	1,459	1,444	
Total pigs started	2,492,956	2,845,430	
Avg. initial weight, lb.	12.8	12.8	
Mortality, %	2.49	2.75	10.4
Avg. out weight, lb.	55.1	55.4	
Total feed, lb./head	68.2	68.0	
ADG, lb./day	0.85	0.85	
FCR	1.63	1.61	
ADFI, lb./day	1.39	1.38	
Avg. DOF	49.1	49.3	
<b>Finishing</b>			
Closeouts	1,578	1,882	
Total pigs started	3,062,429	3,345,426	
Avg. initial weight, lb.	53.2	53.0	
Mortality, %	4.19	4.29	2.4
Avg. out weight, lb.	267.0	269.1	
Total feed, lb./head	622.3	605.9	-2.6
ADG, lb./day	1.70	1.77	4.3
FCR	2.94	2.84	-3.7
ADFI, lb./day	5.00	5.02	
Avg. DOF	124.3	120.4	-3.1
Days to first market sale	108.7	104.7	-3.6
<b>Wean-to-finish</b>			
Closeouts	283	396	
Total pigs started	594,430	913,662	
Avg. initial weight, lb.	13.2	13.3	
Mortality, %	6.55	6.69	2.0
Avg. out weight, lb.	265.8	268.6	1.1
Total feed, lb./head	670.7	661.8	-1.3
ADG, lb.	1.50	1.54	2.2
FCR	2.67	2.60	-2.4
ADFI, lb.	4.01	3.99	
Avg. DOF	167.2	165.4	-1.0
Days to first market sale	153.1	152.2	-0.6



## PROBLEM

Small amounts of  $\beta$ -mannans in soybean meal can waste valuable energy in swine.

A few facts you should know about  $\beta$ -mannans in feed and how it affects swine:

**FACT:**  $\beta$ -mannans (beta-galactomannans) are an antinutritive fiber found in soybean meal.

**FACT:** The animal's innate immune system recognizes  $\beta$ -mannans as an invading pathogen and initiates a protective action called the Feed-Induced Immune Response (FIIR).<sup>1</sup>

**FACT:** This innate immune response diverts energy away from growth and performance.<sup>2,3</sup>

The label contains complete use information, including cautions and warnings. Always read, understand and follow the label and use directions.

1. Spurlock, M., 1997. "Regulation of metabolism and growth during immune challenge: an overview of cytokine function." *J Anim Sci.* 75:1773-1783.
2. Gabler, N. and Spurlock, M., 2008. "Integrating the immune system with the regulation of growth and efficiency." *J. Anim. Sci.* 88: E94-E74.
3. Korver, D., 2006. "Overview of the Immune Dynamics of the Digestive System." *J. Appl. Poultry Res.* 15: 123-135.
4. Pettey, L., Carter, S., Senne, B. and Shriver, J., 2002. "Effects of  $\beta$ -mannanase addition to corn-soybean meal diets on growth performance, carcass traits, and nutrient digestibility of weaning and growing-finishing pig." *J. Anim. Sci.* 80: 1012-1019.

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## SOLVED

By breaking down  $\beta$ -mannans, Hemicell® minimizes the Feed-Induced Immune Response (FIIR) to spare more energy for performance.

Hemicell is a unique and patented energy-sparing enzyme for your animals' diet:

**FACT:** Hemicell breaks down  $\beta$ -mannans in soybean meal.<sup>4</sup>

**FACT:** Once broken down,  $\beta$ -mannans no longer trigger the Feed-Induced Immune Response (FIIR).

**FACT:** Hemicell allows more energy to be available for growth and performance.

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