



Fed Up With High Feed Costs? Chew On This

By Geoff Geddes, for Swine Innovation Porc

Producers view feed costs as most Canadians view winter: something to complain about that never goes away. While we do get a short break from winter each year, feed costs are a constant, which explains the abundance of research on how to reduce that expense. What makes a recent study unique is that it looked at feed in relation to other factors on farm, with some surprising results.

“We have previously shown that feeding low, constant net energy (NE) diets to grow out hogs resulted in greater revenue than feeding higher NE levels,” said Dr. Miranda Smit, Technical Writer/Research Assistant in the Livestock Research Section at Alberta Agriculture and Forestry.



Grower pigs. Image: Public domain.

Feed fights

The catch is that pigs must be able to increase feed intake to compensate for the lower dietary energy density. That can be easier said than done in a setting where they may face crowded pens and/or less feeder access that could affect feed intake. Is there a relationship among dietary NE level, stocking density, feeder space and sex? If so, what is it? The only thing researchers love more than questions are answers, so they went seeking some with a study of 960 barrows and 960 gilts.

“Pigs were housed in 96 pens by sex - 18 or 22 pigs per pen – and fed either a low NE (2.2 Mcal) diet based on wheat/barley or a high NE (2.35 Mcal) diet based on wheat and field peas with some canola oil. Half the pens had two feeder spaces and the other half had three. Pen body weight and feed disappearance were measured for each growth phase.”

Though the results confirmed previous findings on some fronts, they also offered new insights of interest to producers.

Eat more, grow the same?

“Once again, we found pigs on the low NE diet consumed more feed than those on the high NE regimen, without really changing growth rate. For stocking density, the 18 pigs per pen ate a bit more than those

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with 22 per pen and also had better growth rates, as overcrowding means pigs have fewer chances to eat and generally don't grow as well.”

Adding an extra feeder in a pen did result in pigs eating more, yet the difference in average daily gain was negligible.

“My best guess is that the added feeder raised the chance of feed being spilled. When you look at feed efficiency, it went down a bit with the third feeder as there were now three places where feed could be spilled. Pigs in those pens probably ate a bit more but spilled more feed as well.”

For Dr. Smit, the biggest surprise in their findings was what didn't happen.

“I expected to see interactions for feed intake among three different things: stocking density, feeders and diet. In actuality, we saw no relationship between those parameters. What was neat to see is that regardless of whether you overcrowd your pigs or give them an extra feeder, you can use low NE diets and the pigs will do quite well with it. That was an interesting take away, as when we saw in previous trials that low NE diets worked and lowered feed costs,

we assumed all the other factors had to be right for that to happen; but this study suggests otherwise.”

Though this project is further confirmation that diets based on low net energy value can save on feed costs, it's important that the ratio of amino acids to energy isn't substantially altered or results will not meet producer expectations. For those considering such a diet, Dr. Smit urges them to consult a nutritionist before taking the plunge. 😊

Learn more...

For more information about the work described in this article, please contact Dr. Miranda Smit at miranda.smit@gov.ab.ca.

This research was part a larger national project titled *Feeding programs for growing - finishing pigs to enhance global competitiveness: opportunities across Canada*.

You may find additional resources related to the project by consulting our website:

www.swineinnovationporc.ca/research-animal-nutrition

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