



Pork Industry has Appetite for Feed Options

By Geoff Geddes, for Swine Innovation Porc

Without feed costs, pork production would be highly profitable, but that's like saying "without in-laws, marriage would be stress-free". Just as your spouse's parents are part of the package, so too is the need to keep pigs well-fed from birth to slaughter. Feed is by far the greatest cost of pig production, responsible for 65% - 70% of total expenses, and growing-finishing pigs account for about 80% of feed consumed. Whether it's precision feeding of individual pigs or optimizing feeding strategies for pig herds, feed continues to be a key focus of research projects, as it is in a recent study characterizing the nutritive value of emerging feedstuffs.

"Feed costs remain prominent in producer budgets because the prices of the main ingredients continue to rise," said Dr. Martin Nyachoti, Professor of Swine Nutrition and Management, Department of Animal Science at the University of Manitoba.

Ingredients for success

"Fortunately, there are a lot of co-products that can be used to mitigate feed costs. Our goal for this project was to identify and evaluate alternative ingredients or co-products to see if they can be used effectively in formulating swine diets."

With that goal in mind, researchers obtained samples of various ingredients and determined their digestible energy and nutrient content, two main considerations in proper feed formulation. Looking at a number of aspects of the samples such as proteins, amino acids and phosphorus levels, they calculated the net energy value of the ingredients and gleaned some important insights in the process.



Finisher pigs. Photo: Public domain.

"We now know that pigs can derive quite a bit of energy from ingredients like camelina cake, hemp hulls, canola meal and flaxseed meal. Some of these ingredients can also be a good source of amino acids and phosphorus, which are both important nutrients for swine diets."

The project also examined the effect of phytase enzyme supplementation and found it often improved phosphorus digestibility. This can help pigs better utilize the naturally occurring phosphorus in plant ingredients so that less supplemental phosphorus is required in the diet.

By gathering information and conducting thorough assessments, researchers are giving producers something they often lack: options.

"We feel we are expanding the available ingredient choices for producers and allowing them to have more confidence in using these co-products in swine diets. The fact that we were able to determine the digestible nutrient and net energy values is significant, as these

BY INCORPORATING ALTERNATIVE INGREDIENTS OR CO-PRODUCTS IN SWINE DIETS, IT'S POSSIBLE TO MEET THE NEEDS OF PIGS WHILE REDUCING FEED COSTS.

are important measurements to consider in diet formulation.”

If the price is right, you can't go wrong

Just as “shopping around” helps consumers get the best price, a greater number of options on the feed front could well cut costs for producers.

“Our ultimate goal in offering a wider range of ingredient choices is to minimize feed expense by creating diets that are more cost effective. Some of these co-products are relatively cheap, so their use could both decrease feed costs and improve the efficiency of production.”

Thus far, the project has generated a lot of interest and some very positive feedback from industry. The findings on flaxseed meal were picked up by international feed magazines, and Dr. Nyachoti was recently invited to speak at the Animal Nutrition Association of Canada conference in Edmonton.

“There was a lot of discussion and interest around the project at that conference. We had nutritionists there from across Canada and many people were asking for papers we've published so they could look at our numbers and try to apply them with their clients. We even heard from a local company in the farm-

ing community that deals with some of the co-products we looked at and is using our findings to help them market.”

Of course, just as broccoli can only be good for your child if they eat it, these co-products and their high nutrient values won't benefit producers if they're not consumed. As it turns out, the risk of pigs turning up their snouts at alternative feedstuffs is quite low.

“What's really interesting to me is how accepting pigs are in consuming these co-products. Nutritionists sometimes have a tendency to shy away from certain ingredients, but the pigs don't mind them at all.” 😊

Learn more...

For more information about the work described in this article, please contact Martin Nyachoti at Martin.Nyachoti@umanitoba.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

Publication of this article has been made possible by Swine Innovation Porc within the Swine Cluster 2: Driving Results Through Innovation research program. Funding is provided by Agriculture and Agri-Food Canada's AgriInnovation Program and by provincial producer organizations.

