



## Finisher Nutrition a Growth Industry

By Geoff Geddes, for Swine Innovation Porc

As your pigs grow, so do your profits. Of course, nothing in the pork industry is that easy. Keeping your grower-finisher pigs well fed is critical to success, but high feed costs can quickly eat into your margins. So just as growing families try to stretch their dollars at the supermarket, research is helping producers make their feed dollars go farther with growing pigs.

### Pulse crops

One area where research excels is evaluating alternate uses for known commodities. Such was the case with a recent study that was part of a Canada-wide project on feeding programs for growing-finishing pigs. This study looked at pulse crops and their viability as a food source for pigs. Pulses like faba beans, field peas and lentils are normally grown for humans, but when issues with export markets or quality downgrades occur, these crops can be reasonably priced options for animal feed.

As science has demonstrated, though, just because you can do something doesn't mean you should. Before producers can feel confident about non-traditional feed, they must have information on characteristics like nutritional value and optimal inclusion rates. With that in mind, this research examined the digestibility of nutrients in pulse grains and gleaned some important insights.

For example, starch in pulses differs from starch in cereals in that the former takes longer to digest in the small intestine. Armed with this knowledge, producers and nutritionists are less liable to overestimate the energy content of pulse grains when including them in swine diets.

Researchers also found that field peas perform better for starch digestion than faba beans, an important distinction in picking the perfect pulse

for your animals and determining its inclusion rate.

Notably, the study also confirmed what other research has shown: pigs aren't very picky. With that in mind, producers can safely take a costlier ingredient like soybeans and replace it with a cheaper choice such as pulses. It means more savings for producers and less wasting of crops that don't make the cut for human food.

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### Emerging feedstuffs

Is there anything that underlines the importance of feed research more than this stat?: Feed accounts for 65 – 70 per cent of production costs. How about the fact that growing-finishing pigs consume about 80 per cent of the feed on farm? While studies like the one on pulse crops are part of efforts to address this, other research is exploring additional options for ingredients or co-products.

Since digestive energy and nutrient content are two key criteria when formulating swine diets, researchers used them in evaluating camelina cake, hemp hulls, canola and flax seed. In addition to determining that pigs could

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obtain considerable energy from these ingredients, scientists also found some of them to be a good source of two important nutrients for pigs: phosphorus and amino acids.

Not content to stop there, another study that was part of the Canada-wide project looked at phytase enzyme supplementation and concluded that it could improve phosphorus digestibility. That may open the door to more reliance on naturally occurring phosphorus in plant ingredients and less on supplemental phosphorus.

Given the interest in this research from international feed magazines, it clearly offers producers and industry something to chew on.

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### Enhanced DDGS

From ADG to ROI, the pork business loves its acronyms. One that is growing in prominence is DDGS (distillers dried grains with solubles), a co-product of ethanol production from cereal grains that provides energy and amino acids for pigs while reducing feed costs. Unfortunately, its high fibre content can keep pigs from adequately absorbing that energy, while at the same time subjecting producers to more manure.

Though a new DDGS on the market is generating interest with its combination of low fibre and high protein content, producers need objective proof of its effectiveness before committing. As is often the case, this is where research proves invaluable.

In a third study, based on two sample reviews, scientists found 40 per cent more protein and 30 per cent more lysine in the new DDGS than in the one currently available. Given that lysine deficiency can limit pig growth, it's a vital amino acid for swine diets.

Energy measurement offered more good news for industry, as the sampling revealed energy digestibility of 83% for the new DDGS versus 71% in conventional forms. When you consider that energy and protein/amino acids generate 90 per cent of feed costs, we may be hearing the acronym DDGS more and more in the years ahead.

Just FYI.

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Clearly, like taxes and global temperatures, feed costs for growing-finishing pigs show no signs of leveling off. More than ever, producers must find new ways to reduce costs without impeding production, and researchers are doing their part to make it possible. 🐷

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