



Enhanced DDGS Aims to Perk Up the Pigs

By Geoff Geddes, for Swine Innovation Porc

If you think your spouse is grouchy before their morning coffee, try dealing with thousands of low-energy pigs. Neither one is a pretty picture, but the latter can be ugly for your bottom line, which is where DDGS (distillers dried grains with solubles) comes in. This co-product of ethanol production from cereal grains is used to provide energy and amino acids for pigs while reducing feed costs.

Like everything in pork production, though, there's a trade-off. While DDGS offers much-needed fat and protein, it has a high fibre content which prevents pigs from properly absorbing the energy it supplies. And as producers know only too well, more fibre means more manure to deal with.

Compounding interest

That's why a new low fibre, high protein DDGS from an Ontario company is drawing interest, and why researchers are taking a closer look.

"We wanted to know how much amino acids and energy pigs could digest from this new DDGS," said Dr. Elijah Kiarie, Assistant Professor, McIntosh Family Professorship in Poultry Nutrition in the Department of Animal Biosciences at the University of Guelph.

In examining two samples from the company, Dr. Kiarie found they contained 40 per cent more protein and 30 per cent more lysine than the DDGS currently on the market.



Finisher pigs. Image: Pexels.com

A growth industry

"Lysine was critical to measure as it's the most important amino acid for pigs. Because a lack of lysine can limit growth, we must ensure it is present and highly digestible in pig feed, and we found that was the case with the new DDGS."

The next question for researchers was how much digestible energy the company's DDGS samples contained.

"Feed accounts for 60-70 per cent of pig production costs, and the most expensive nutrient is energy, followed by protein/amino acids. Together, those two nutrients comprise 90 per cent of feed costs, so reducing your expenses means focusing on energy and amino acids."

WHILE CORN AND SOY ARE FAIRLY INEXPENSIVE RIGHT NOW, A PRICE INCREASE COULD PROMPT PRODUCERS TO SEEK ALTERNATIVE FEED INGREDIENTS, MAKING THE NEW DDGS AN INTRIGUING OPTION.

The values for the new DDGS were impressive, with energy digestibility of 83% compared to 71% in the conventional DDGS.

Crunch time

Given the importance of feed costs to producers, the higher content of digestible protein/amino acids and energy compared to conventional DDGS holds promise pending a crunching of the numbers.

“We need to understand the economics of feeding this DDGS to pigs: What will it cost? What does it mean when you put it in a practical diet in terms of growth performance, feed conversion, optimal yield, lean yield and backfat? You may find the new DDGS costs 20 per cent more than the current version, but if it benefits some or all of these areas, along with reducing manure production, it may be worth it.”

The findings thus far have already sparked some interest from industry. While corn and soy are fairly inexpensive right now, an increase could prompt producers to seek alternative feed ingredients, making the new DDGS an intriguing option.

Meanwhile, Dr. Kiarie and his colleagues are exploring other avenues of inquiry, looking at how they can apply their findings to all classes of pigs, including sows, and evaluating the potential of using the new DDGS in liquid feeding systems to provide even more value for producers.

So maybe you'll never see a pig at a Tim Horton's drive-through. But if further research on the potential of DDGS to boost energy bears fruit, it could go a long way to perking up your animals and your business.

Learn more...

For more information about the work described in this article, please contact Dr. Elijah Kiarie at ekiarie@uoguelph.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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