

CUTTING-EDGE FEED INNOVATION

Monogastric Nutritionist Ade Adebisi outlines how ForFarmers and Trouw Nutrition have developed Nutripower+



up by investigating the rate of digestion of other key nutrients, such as protein and starch, so as to ultimately produce a matrix with not just total nutrient values, but also information showing the rate of digestion.

The research also looked at how a given material reacts at a specific pH in the gut. Getting the balance right within the gut is critical to achieving overall gut health, which is a major priority in pig production.

Mr Adebisi added: “The findings from this research mean we have the knowledge to formulate diets and feed even more accurately. This more precise feeding will help improve the overall health of the piglet, as well as improving performance in terms of daily liveweight gain.

“We have named this technology NutriPower+. It is exclusive to ForFarmers VIDA piglet diets and replaces outdated traditional formulations methodology used extensively throughout the feed industry.

“We are proud of this latest innovation – it’s a great example of what ForFarmers’ Nutrition Innovation Centre is driving, turning complex studies and concepts into practical, workable solutions for our customers which drive feed conversion efficiency and overall performance.”

Nutrient consumption varies between animals but ultimately, for the best overall performance in piglets, a balance of highly digestible and slow release nutrients is what is needed.

In collaboration with the research and development team at Trouw Nutrition, feed manufacturer ForFarmers has led research to determine how the different nutrients within individual raw materials behave during the digestion process.

Studies to date have demonstrated a clear headline finding that the speed of nutrient digestion does affect pig performance and the composition of the intestinal microflora.

However, the number of experimental diets and raw materials analysed had previously been insufficient to apply the concept to diet formulation.

This latest collaborative research from ForFarmers

and Trouw Nutrition has taken this concept one step further, resulting in a deep understanding of key materials and the development of a complete matrix to formulate piglet diets.

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ForFarmers’ UK monogastric nutritionist Ade Adebisi said:

“This analysis is more in-depth than previous research and offers an alternative perspective into how we value raw materials.

“It looks beyond simply how much of a nutrient a material contains, and instead looks at the rate of digestion. Using modern analytical techniques, we initially determined the

soluble and insoluble non-starch polysaccharides and fibre fractions that are resistant for digestion by enzymes or microbial fermentation.”

ForFarmers analysed more than 140 raw materials and over 350 samples to build a database for applying this concept to its piglet diet formulation. This was followed

The major innovations are:

- A refined method to classify fibres, with an improved accuracy to predict pig performance and their effect on stomach and intestinal health.
- Moving from static to dynamic feed evaluation = implementation of speed of protein and starch digestion of raw materials in ForFarmers’ formulations of piglet diets.
- Large number of analyses to develop a complete matrix, filling the NutriPower+ nutrients for all raw materials that are needed to formulate piglet diets.
- Robust validation of the NutriPower+ technology before introduction in VIDA piglet diets