

Protease Enzymes Make Lower-Cost Sorghum Viable in Animal Feed

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US - "Could sorghum be the feed ingredient that helps optimise producers' bottom-lines?" asks Novus International.

Could sorghum be the feed ingredient that helps optimise poultry and swine producers' bottom-lines? In terms of global cereal grain production, sorghum ranks fifth behind corn, rice, wheat and barley. It is a hardy crop that can be grown in hot, dry climates around the world, especially where corn or wheat cannot be grown. Because of that, it is a grain that is or could be available globally to most producers. However, nutritionists have discounted using sorghum as an alternative ingredient as it contains proteins that are difficult to digest, causing reduced animal performance.

All hope is not lost though. A fairly simple solution to this digestibility issue is the addition of the proper protease enzymes to sorghum-based diets. These enzymes break down the complex protein structures in sorghum, improving digestibility and amino acid availability of the grain, and as a result making sorghum a more viable feed component. Improving the digestibility of sorghum in animal diets with protease enzymes offer producers another cost-effective alternative protein source.

However, all protease enzymes are not equal. To maximise the positive effects on formulation cost, gut health and dietary anti-nutritional factors, it is important to use a protease with a broad range of activity, which allows more diversity in choosing protein sources.

The best protease should work quickly to rapidly hydrolyse indigestible proteins to minimise the flow of protein into the hind-gut. Non-coated products offer an advantage because it can take between five and 30 minutes for coated products to dissolve in the intestine, which can add up to nearly one-quarter of the total time the feed is in the animal's gastrointestinal tract.

CIBENZA® DP100 is a potent protease enzyme that combines all of these important characteristics – broad-spectrum, heat-stable and non-coated. Protease enzymes improve the digestibility of sorghum over the typical industry averages by as much as 10 per cent. That translates into potential feed cost savings, as well as improved bacteria balance and overall gut health in poultry and swine, adding even more value for producers.

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