PRESS RELEASE

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What is phytase superdosing? AB Vista's Dr. Mike Bedford explains the science

In a recently released technical video, Mike Bedford, Research Director at AB Vista, highlights new research that more precisely identifies how phytases work in the animal. This helps explain where the performance benefits of phytase superdosing are really coming from and why important differences can be seen between commercial phytases.

Many end-users have now adopted the practice of superdosing, using higher phytase doses in feed to reduce the anti-nutritional effects of phytate (IP6) in pigs and poultry. This has proven to give additional animal performance benefits beyond standard phytases doses.

Recent publications have shown that it is not just phytate that has anti-nutritive effects; the breakdown products of phytate - IP5, IP4 and IP3 – can also have an anti-nutritive effect in the animal. These lower phytate esters have been shown to correlate with poor digestion of protein, energy and minerals, indicating that they have an anti-nutritive effect in the animal. The key point is that, with standard phytase dosing, we may be degrading one anti-nutrient and simply replacing with another.

Despite this, confusion still exists in the market as to what superdosing is and how this should be defined. Ongoing research and customer experience has helped AB Vista go a step further in defining superdosing as; 'feeding

enough of an effective phytase to prevent the build-up of lower phytate esters such as IP3 and IP4 in the gut of the animal'.

"When we think about phytases, we should think about them as enzymes to effectively breakdown IP5, IP4, and IP3 as well as IP6. We want phytases not only to release the P we need, but to eliminate all inhibitors of digestion, and enable the animal to grow more efficiently. Superdosing phytase does exactly that."

This also sheds light on why we see differences between commercial phytases, which differ significantly in their ability to break down phytate and the lower esters IP5, IP4, IP3, even when fed at high levels. For animal producers to see a greater return from their phytase programme, they need to select an effective phytase, such as Quantum Blue which, when applied at superdosed levels, can break down IP6 and continue to destroy the anti-nutritive lower phytate esters, even at low concentrations of phytate, Dr. Bedford says.

"Choosing a phytase simply by determining how much phosphorus it releases does not give the full picture. Scientific data now allows us to better understand exactly what effect phytases have in the gut, and thus maximise the performance benefits that can be made through effective superdosing."

The new video featuring Dr. Mike Bedford (*'Superdosing – where are the benefits coming from? Part one: complete phytate destruction'*) can be viewed on the AB Vista website - www.abvista.com. It is the first in a new technical video series from AB Vista, titled "*Extraordinary Science Brought to Life*".

For more information, contact AB Vista on +44(0)1672 517 650 or info@abvista.com.

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Notes to editor:

AB Vista is an animal nutrition technology company offering pioneering products and technical services to the global animal feed industry. Since its establishment in 2004, AB Vista has grown to be a top-three player in feed enzymes and is also one of the largest suppliers of natural betaine to the global animal nutrition industry. The company invests heavily in research and development and has a growing portfolio of products and services spanning the poultry, swine, ruminant and aquaculture sectors. AB Vista is headquartered in the UK, with regional offices located in the USA, Brazil, Singapore, Spain, India, China, Germany and Finland.

AB Vista is part of AB Agri, the agricultural division of Associated British Foods, one of Europe's largest food & retail companies with a market capitalisation of £26 billion.

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