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**FORMULATING MINERALS WILL FOCUS ON PRECISION NUTRITION IN PIGS,  
POULTRY AND AQUACULTURE – INTERNATIONAL PHYTATE SUMMIT**

New research into how essential minerals such as zinc, copper and calcium interact with other feed ingredients could unlock greater efficiencies in animal nutrition, according to feed industry representatives.

Examples of such research were presented yesterday in Florida, USA, when more than 62 delegates from industry and academia joined for the second day of the 3<sup>rd</sup> International Phytate Summit (IPS3), to discuss the role of minerals in feed formulation and precision nutrition.

A particular focal point was the current challenges in accurately predicting digestible phosphorus and how this can impact novel approaches to determine digestible calcium.

Professor Hans Stein, University of Illinois, and Dr Yinka Olukosi, Scottish Rural College, described the nature of calcium and phosphorus metabolism and absorption in pigs and poultry. Professor Markus Rodehutschord of University of Hohenheim then explained that the challenge for phosphorus digestibility assays is the effect that both calcium and phosphorus have on gastrointestinal hydrolysis of phytate.

This was further emphasised by Professor Ravi Ravindran of Massey University who presented recent research evaluating three different assay methods aimed at the development of a suitable method to measure calcium digestibility in poultry.

“Determination of calcium digestibility in feed ingredients for poultry has not received any attention in the past due to the abundance and low cost of limestone and the low calcium concentration in plant feed ingredients. The interest in the determination of phosphorus digestibility in feed ingredients necessitates the measurement of calcium digestibility because of the close relationship between phosphorus and calcium metabolism.”

However, calcium and phosphorus are not the only minerals to be influenced by phytate and phytase and the potential ability of phytase to unlock zinc, iron and copper – was highlighted by Dr Patrick Schlegel of Agroscope. Referring to the aquaculture industry, Dr Eric Peatman from Auburn University presented research evaluating the influence of phytase superdosing on trace minerals in catfish.

Dr Peatman stated: “The high phytate content of some plant-based diets may be a contributing factor to feed-related anaemia on commercial catfish farms in the US and the addition of superdoses of phytase significantly improved mineral absorption by 40-50%, hematological parameters and growth.”

Dr Tara York, AB Vista North American Technical Manager, concluded the session by outlining what role minerals can play in today’s poultry industry and in particular highlighted recent research into the role superdosing phytase could have in reducing the severity of woody breast.

IPS3 concludes today with presentations on amino acids. For more information, visit [www.abvista.com](http://www.abvista.com) contact AB Vista on +44(0)1672 517 650 or [info@abvista.com](mailto: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 £22 billion.

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