

DANISCO SEMINAR:

Could enzymes and betaine be the EU answer?

Enzymes and betaine may be the answer Asia's poultry export industries seek as they attempt to produce drug-free chickens for the European and global market.

The Thai broiler industry suffered a setback recently when European Union (EU) food authorities traced antibiotics in some consignments of chicken meat imported from Thailand. The message that followed was clear - Thai chicken producers had to stop using feed containing antibiotic growth promoter (AGP). The stand is tough but uncompromising.

Dr Andrew Harker, Director of Marketing for Danisco Animal Nutrition, (formerly known as Finnfeeds) told a seminar in Thailand that research in the EU has shown that the removal of AGPs result in up to a 4% loss in the feed conversion ratio and weight gain of broilers.

"The absence of AGPs also increases the risks of disease, such as necrotic enteritis (NE) in broiler flocks," adds Dr Harker. "Producers in Europe have considered a range of approaches to reduce the negative impact of AGP removal. They have tried using higher quality feed ingredients and coarse ground grain, sterilising feed by using high processing temperatures or using organic acids, reducing feed nitrogen content, and using enzymes, betaine, probiotics and prebiotics."

All these measures are aimed at minimising the risk of bacteria proliferating in the bird's gastrointestinal (GI) tract; especially



From left: Dr Peel H. Holroyd, Peel Holroyd & Associates, UK and Dr Andrew Harker, Director of Marketing, Danisco Animal Nutrition, UK.

those that are pathogenic and would previously have been controlled by the presence of AGPs in the feed.

Danisco's current focus lies with providing solutions to the challenge of AGP-free animal production. Its products, Avizyme 1500 and Betafin, help replace AGPs either alone or in combination, by boosting feed efficiency and gut health.

Avizyme 1500 is a combination of xylanase, amylase and protease enzymes designed specifically for improving the digestibility and performance of corn-based poultry feeds.

Betafin is betaine, a natural extract from sugar beet. Betafin helps the bird to maintain the water balance of its cells, leading particularly to improvements in the integrity of the intestine. Betafin has been shown to

act synergistically with coccidiostats, to improve gut health in birds exposed to subclinical coccidiosis. Coccidiosis is commonly linked with necrotic enteritis.

"Both products have a positive influence on the bird's intestinal environment. They maximise digestive efficiency and gut health, particularly in the absence of AGPs" says Dr Harker.

He adds that the economic benefit of Avizyme and Betafin to the broiler producer is evident as it reduces feed cost per kilogramme of chicken live weight and increases bird uniformity. Avizyme has also been shown to promote an intestinal environment in birds that does not favour the growth of food-poisoning bacteria such as salmonella and campylobacter.

Dr Harker and a technical team from Danisco recently organised a series of seminars on "Broiler Nutrition and the Food Chain" in Bangkok. The seminars were aimed at transferring knowledge on Danisco's nutritional solutions for the production of chicken that meets the demands and standards of customers in Europe and other discerning markets worldwide.

Other experts from Danisco presented the latest detailed technical information about Avizyme and Betafin at the seminar.

Dr Thomas H. D'Alfonso, Danisco's Animal Nutrition Poultry R&D Director, presented in-depth information about variations in feed ingredients, especially corn. He said the current lack of an accurate and rapid measurement of corn quality has led to variation in bird performance and body weight uniformity.

"An accurate measurement of corn quality will help companies lower feed cost by managing this variable well. Feed enzymes such as Avizyme have been proven to be an effective tool for managing corn variability," he said.

He presented data showing that Avizyme increases the nutritive value of poorer quality corn and this ultimately improves the average bird performance and body weight uniformity.

Danisco Animal Nutrition's research has identified wide variations in the starch quality of different batches of corn from the



From left: Ketmas Ruengpragal, Danisco Animal Nutrition, Thailand; Dr Jowaman Khajarern, Department of Animal Science, Khon Kaen University, Thailand and Anuchai Juangsaman, Mittraphap Group, Thailand.

Asia Pacific region. These variations result in variable bird performance.

"Our work is now focused on identifying an accurate laboratory predictor of corn nutritive value to help nutritionists manage corn variability and extract even more value from using feed enzymes," he said.

Dr Gene L.Z. Jin, Danisco's Technical Services Manager - Asia Pacific, presented evidence from broiler trials that proved Avizyme could influence the bird's intestinal environment. This has implications on the presence of food-borne pathogens such as campylobacter and salmonella in the gut of broilers.

"Residue-free, salmonella-free, uniformity, and long shelf life are examples of quality attributes that the consumers in Europe look for in poultry meat," said Peel Holroyd, a consultant and expert in the poultry

meat food chain.

He presented a paper titled "Chicken from Farm to Consumer - Current and Future Challenges" that included a jigsaw of the broiler meat chain from the hatchery to processing and to the consumer.

He shared insights and experiences from his previous work as a senior poultry meat technologist for a leading UK supermarket chain. He stressed the importance of traceability and food safety in meeting the demands of the European market.

While, the EU is set to ban all AGPs in feed by 2006, feed additive suppliers are vying to launch products deemed as "alternatives".

Asked how Danisco Animal Nutrition strives to be the leader amid fierce competition in Thailand, Southeast Asia's biggest broiler exporter, T.C. Tan, Danisco's Regional Director, said that credibility is the company's main strategy in marketing their products.

Danisco Animal Nutrition holds high credibility in Europe where they pioneered the use of enzymes and betaine in poultry and pig feeds. Today the majority of Europe's broiler feed is supplemented with feed enzymes, and betafin is rapidly becoming an important component in European broiler feeds.

"We do not just sell technically proven products, but also help our customers with support services and advice to help them compete in an increasingly competitive global marketplace," said Mr Tan. |



From left: Dr Gene L. Z. Jin, Danisco Animal Nutrition, Singapore and Dr Vichien Srithayarat, Saha Farms Co.

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