Kemin shares insight with poultry industry on lipid nutrition and improving nutritional efficacy

CHENNAI, India – April 4, 2016 – Kemin, a global leader in developing ingredients for animal nutrition and health, shared its expertise with stakeholders and customers through a series of programs called Kemin Kontact. The company invited Professor Ravi Ravindran from Massey University's Institute of Veterinary, Animal and Biomedical Sciences to speak on various unique needs and challenges facing the global poultry industry. Kemin organized Kemin KnowlEDGE day followed by Kemin Kontact in four major poultry hubs including Bengaluru, Pune, Coimbatore and Hyderabad, with the theme, "Performance beyond feed conversion ratio (FCR) - the way forward".

The following is intended to capture the educational, practical and business application highlights provided to the Kemin Kontact attendees.

Improving the nutritional efficiency of various raw materials as well as bird efficiency is the way forward to get the maximum genetic potential. Professor Ravindran discussed the different types of fats and oils used in poultry diets and their economic significance, noting the benefits of formulating fat in the diet go beyond energy. Variation in the nutritional value of oils happens due to various factors like the fat source, fatty acid profile, free fatty acids, fat quality, fat color, fat inclusion levels and other nutrients like calcium, fiber, viscous raw materials, and finally the age of the birds.

He also mentioned that his research on the impact of coccidiosis, necrotic enteritis, and other gut infections will significantly reduce the fat digestibility by 90% and other nutrients by 20-30%. This clearly shows the importance of maintaining optimal gut health in getting maximum utilization of fats, oils and other nutrients.

Professor Ravindran strongly reccomended a tool like biosurfactants, which can help get the most out of fats and oils in all three stages of fat/oil digestion and absorption, namely:

- Emulsification,
- Hydrolysis, and
- Absorption

Based on Professor Ravindran's research, the lysophospholipid product of Kemin – LysoforteTM – could improve FCR by 5-6 points through improving the digestibility and absorption of fats and oils.

He briefly described the need for different types of formulation approaches, according to the local market economics, demand and need. Routine feed evaluation, amino acid profiling, gut health, controlling safety margins in the formulation, nutrient utilization, and management will play a key role in improving the efficiency of feed and birds.

Professor Ravindran said the addition of multiple enzymes not only provides energy but also improves gut health by altering the viscosity, gut integrity, litter quality, nitrogen retention and nutrient absorption.

Following Professor Ravidran's presentation, Dr. Chandrasekar S, Kemin Product Manager, commented on recent research updates from Kemin related to lipid nutrition and feed nutrient utilization. According to research findings, a particular proportion of lysophospholipids (LysoforteTM) can improve all three stages of fat and oil digestion to provide maximum benefit. He shared the new insight on the negative impact of saturated fat, not only on fat absorption but also in protein digestion. Dr. Chandrasekar later discussed different emulsifiers available in the market and their role, especially the use of lecithin and synthetic emulsifiers. Lysophospholipids are significantly more efficient than normal lecithin. Synthetic emulsifiers act only at the emulsification process, leading to a negative performance in hydrolysis due to "steric hindrance" (Dr. Matias – Ph.D., research findings).

Dr. Chandrasekar also shared new findings on feed ingredient digestibility improvement using a concept, patented by Kemin, of slow release amylase (SRA) and multi-protease and patent-pending xylanase potentiating factor (XPF). The new non-starch polysaccharide (NSP) enzyme – KemZYME® XPF – will further improve the NSP breakdown by 28% more compared to normal NSP enzymes.

The patented multi-protease concept uniquely uses multiple protease to improve amino acid digestibility by twice as much compared to a single alkaline protease. To overcome the practical difficulties in using multiple products with different nutritional matrices, Kemin has come up with a brand new concept NutriKEMTM XL PRO – a comprehensive solution for improving the nutritional efficiency of the bird.

Mr. Riaan van Dyk, Kemin Vice President of Global Marketing and Strategy commented that the future of the poultry industry will have enormous opportunity as well as challenges. The increase in population, income

growth, change in food consumption, and expectations from consumers will drive efficiency and increased production of high quality, safe and nutritious food. He discussed the company's collaboration with various universities and institutions in India and globally to transfer research knowledge into improving productivity with less production cost. He also mentioned Kemin is committed to providing value added services as per customer need, and research in new areas such as the Lipid Evaluation Test, which helps evaluate the quality of fat and oils, and Neumentix (from the company's human nutrition and health division) in improving the working memory of people.

Mr. G.S. Ramesh, President of Kemin Industries animal nutrition and health division in South Asia, interacted with customers and nutritionists. Mr. Samraj Jeyachandran, Kemin Senior Vice President, efficiently anchored the event and answered all attendee queries.

Kemin - Inspired Molecular Solutions™

Kemin (www.kemin.com) provides "inspired molecular solutions" specifically developed to provide nutrition and health benefits for humans and animals. Committed to feed and food safety, Kemin maintains top-of-the-line manufacturing facilities were approximately 500 specialty ingredients are made for the global feed and food industries as well as the health, nutrition and beauty markets. A privately held, family-owned and operated company, Kemin has nearly 2,000 employees and operates in more than 90 countries with manufacturing facilities in Belgium, Brazil, China, India, Italy, Singapore, South Africa and the United States.

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