

Animal feed as the key to sustainable meat production

The Evonik Sustainability Symposium 2014, held during the most recent EuroTier tradeshow in Hannover, Germany, addressed the topic of sustainable meat production. As the leading manufacturer of feed amino acids, Evonik had invited representatives of a wide range of interest groups to examine fundamental connections in the supply chain as well as their social and ecological implications in a panel discussion.

Speakers at the Evonik symposium were in agreement that there is a clear trend, even though it has not yet reached all consumers, trading companies, meat producers, and feed manufacturers: The future belongs to sustainable food items produced in ways that do not overtax natural resources. It is the only way to ensure healthy nutrition for the nine to ten billion people that will live on earth by 2050.

Eat less, but better meat

Neither the representative of the Club of Rome, Prof. Dr. Dr. Radermacher, nor the speaker of the WWF (World Wide Fund for Nature), Markus Wolter, disputed that animal protein is part of a healthy diet. From Radermacher's point of view, the food supply is currently sufficient. He states that the problem is political and results from many people's lack of buying power. Nevertheless, he anticipates that in future land use problems will arise from conflicts between grain farming, feed farming and the harvest of raw materials for biofuels. He advocated intelligent land use – for example with cattle grazing and re-forestation, consumer prices that "tell the truth," and global management of these processes.

WWF Germany is focusing on animal nutrition since the intensive use of soy as a protein source is perceived as an ecological problem. As Mr. Wolter explained, soy farming in South America leads to the destruction of enormous forest areas. The approach favored by WWF Germany is to push for more sustainable production of soy and to replace it with other protein sources. The environmental organization therefore is working closely with the industry to develop the corresponding solutions. In cooperation with trade companies, WWF is also attempting to advance

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consumer information. Wolter's recommendation: "Eat less, but better meat."

Efficiency increases benefit the environment

Jose R. Villalon, Corporate Sustainability Director at Nutreco, demonstrated how efficiency increases in feed production and feed processing enable the optimization of milk and meat production while preserving resources. "A single cow producing 9,000 liters of milk per year is better for the environment than ten cows producing 900 liters each," said Villalon. He also pointed out the increasing use of byproducts in feed manufacturing such as residues from oilseed in biofuel production. Some forty percent of animal feed already consist of byproducts from other industries, he explained, calling it a "true success story."

Kurlab Kimsri of Charoen Pokphand Foods PCL (CPF) spoke for the meat industry on the panel. CPF was the first enterprise worldwide to generate eco balances for chicken meat and to label its products accordingly. Between 2008 and 2011 the company managed to reduce energy consumption, emissions, employee illnesses, as well as resource and land consumption by up to ten percent. The feed processing ratio of the chickens was also reduced from 1.8 to 1.65 over the course of a decade. "For 100 million chickens, this saves 36,000 metric tons of feed and reduces CO₂ emissions by 18,000 metric tons," explained the speaker from Thailand.

Amino acids allow for reduction of raw protein

Dr. Thomas Kaufmann from the Evonik Health & Nutrition Business Unit presented the importance of feed amino acids for sustainable animal nutrition. He explained that one kilogram of DL-methionine replaces up to 260 kilograms of soy meal. "The more amino acids we use, the more we can reduce the protein content of the feed to reduce resource consumption and nitrogen emissions", said Kaufmann. Evonik has developed the AMINOFootprint® calculator as a tool to design animal feed that is balanced in terms of nutritional physiology, economy, and ecology. The "low-emission farm" concept points even further into the future. It involves the energy conversion of plant-based waste materials, using the

SEPURAN® Green membrane technology of Evonik for biogas purification.

In his introductory message, Dr. Reiner Beste, the head of the Evonik Health & Nutrition Business Unit, called for "uncoupling our growth from resource consumption and environmental pollution." As the symposium discussion revealed, many meat production companies are already committed to this concept.

Evonik is the only company worldwide to produce and market the four most important essential amino acids for modern animal nutrition including MetAMINO® (DL-methionine), Biolys® (source of L-lysine), ThreAMINO® (L-threonine) and TrypAMINO® (L-tryptophan). Evonik provides innovative services and products in over 100 countries, making a valuable contribution to the profitability of its customers while contributing to healthy, environmentally friendly, and sustainable animal nutrition.

Company information

Evonik, the creative industrial group from Germany, is one of the world leaders in specialty chemicals. Profitable growth and a sustained increase in the value of the company form the heart of Evonik's corporate strategy. Its activities focus on the key megatrends health, nutrition, resource efficiency and globalization. Evonik benefits specifically from its innovative prowess and integrated technology platforms.

Evonik is active in over 100 countries around the world. In fiscal 2013 more than 33,500 employees generated sales of around €12.7 billion and an operating profit (adjusted EBITDA) of about €2.0 billion.

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