Organic acids can improve sustainability from field to fork.

Eastman scientist Sabien Vermaut addresses EuroTier 2021

The benefits of organic acids are very broad and can help both outside and inside the animal, also contributing to better sustainability.

That's the message Eastman's Sabien Vermaut stressed in her presentation, "Role of organic acids in improving sustainability from field to fork," which she gave to an online audience of more than 200 people at EuroTier 2021 on February 10. EuroTier, the leading international trade show for modern animal husbandry, is held every two years in Hanover, Germany.

"Outside the animal, it is well known that organic acids such as formic and propionic acid have strong preservative effects," said Vermaut, Eastman's senior application development and technical services manager for animal nutrition. "There is a wide range of needs to control spoiling microbes in feeds, raw materials, compound feeds, and by-products. Good feed hygiene is about protection and prevention of *Salmonella*.

"Also very well known, but sometimes underestimated, are the benefits of organic acids inside the animal," Vermaut continued, adding that organic acids work to promote gut health, a key to maintaining overall swine, poultry health, and performance. Naturally present in nature, a wide range of organic acids can be used as feed additives or via drinking water. They decrease stomach pH for improved protein digestibility, reduce buffer capacity of feed, optimize intestinal microbial balance, and reduce cell and oxidative stress.

"Do not forget that, still today, organic acids are the best and most cost-effective alternative for antimicrobial growth promotors," Vermaut said. "They are a natural acid barrier to prevent pathogens from entering the animal via the gastrointestinal tract, and there are many synergies between different organic acids in blends.

"With sustainability concerns mounting around the globe, Eastman Animal Nutrition is placing greater emphasis on innovative, feed-related sustainable solutions," Vermaut said. "With our organic acid blends, we are able to contribute to better biosecurity worldwide. We can reduce carbon footprint in feed production and farming as well as enhance animal and human health. And we can increase animal resilience and performance efficiency."

Organic acid blends can improve sustainability from field to fork, starting with raw materials and the feed mill and ending with the livestock and final products such as meat, eggs, and milk.

Better biosecurity

Organic acids mean better biosecurity because they improve protection of raw materials against deterioration during storage. They improve bacterial hygiene and safety against recontamination of *Salmonella* at the feed mill. They also minimize the entry and spread of pathogens in animals and reduce bacterial growth in drinking water. This leads to improved food-chain safety and, ultimately, to fewer incidences of zoonoses such as *Salmonella*.

Reducing carbon footprint

Organic acids lead to a smaller carbon footprint because of less silage dry-matter loss and waste of silage residues. The more efficient use of raw materials means less water is needed for crop cultivation. They also offer the opportunity to use more local products, such as biofuel protein by-products to replace soybean meal, leading to a more circular economy. Feed mills save on energy costs because less nonconforming feed must be reprocessed or treated. More efficient use of protein in feeding livestock also means less methane production and higher performance efficiency.

Increasing animal resilience and performance

Organic acid blends improve overall animal and gut health through reduced cell and oxidative stress. They inhibit different types of bacteria, including *E. coli, Clostridium, Streptococcus suis, Salmonella*, and *Lawsonia*. They improve animal resilience by controlling wet litter and reducing footpad lesions and red breast in broilers. They contribute to successful weaning of piglets, more vital piglets, and more robust sows. Animals perform more efficiently with better protein digestion, better gut integrity, and less hindgut fermentation.

Improving human safety and health

"The clearest example of the impact of organic acids on human safety and health is the reduced risk of antibiotic resistance," Vermaut said. "But there's more. There's also less risk of microbial and mycotoxin contamination for the farmer from the dusty molds on grains. Also, the poultry or pig farmers themselves face less pathogen risk."

Eastman offers the widest portfolio of organic acids available. It's a growing portfolio of specialty feed additives with an extensive range of complementary products.

We have developed programs to tackle swine and poultry challenges in preservation and hygiene and in overall health and gut health. For example, for broiler starting and growing phases we offer Eastman Acitra, GBM Enhanced, Eastman Choline Chloride, and Eastman Protaq solutions. Our piglet phase solutions are Eastman Acitra, Eastman Protural, GBM Performant, Eastman Choline Chloride, and Eastman Protaq.

"We are determined to deliver the solutions our customers expect and the world deserves," Vermaut said.

You can check the entire presentation **here**.

Let's talk about how we can best serve your needs!
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