

Certified sustainability

A new comparative life cycle assessment by Evonik affirms the positive environmental effects of amino acids in animal feed.

Farmers who add Evonik's amino acids to poultry or pig feed not only ensure proper animal nutrition, but also help to protect resources and the environment. This is the conclusion reached by the Animal Nutrition Business Line in a current comparative life cycle assessment (LCA), which was recently certified by the German standardization body, TÜV Rheinland.

Evonik Nutrition & Care is the only manufacturer of amino acids for animal feed to have conducted a life cycle assessment of its products – MetAMINO®, Biolys®, ThreAMINO®, TrypAMINO® and L-Valine – for comparison with alternative raw materials such as soy meal or rape seed. LCAs record and evaluate environmental impacts along with energy and raw materials consumption over the entire lifecycle—ranging from the extraction of raw materials to the production of amino acids and the agricultural use of the animals' manure. Since the first LCA for DL-Methionine in 2002, the data has been repeatedly updated and has now been expanded to include all five essential amino acids for animal nutrition by Evonik (DL-Methionine, L-Lysine, L-Threonin, L-Tryptophan, L-Valine).

"The certificate by TÜV Rheinland is further proof of our effort to carefully evaluate all environmental impacts without bias, including with consideration for new products," said Dr. Thomas Kaufmann, Senior Vice President Sustainability Development of the Nutrition & Care Segment. "The results are unequivocal—adding our amino acids to animal feed, combined with the associated consistent decrease of raw protein in the feed, is an extremely sustainable method to ensure healthy animal nutrition while providing eggs and meat to a growing world population and leaving minimal traces in the environment."

If an amino acid mixture is added to feed instead of supplementary soy or rape seed, the greenhouse effect in poultry farming decreases by a factor of 27. In pig farming, the reduction factor is

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a respectable 13. Over-fertilization potential is decreased by a factor of 39 for poultry and by a factor of 16 for pigs. The effect on acidification potential was determined as a factor 35 for poultry farming and a factor of 19 for pig farming.

These effects result from the fact that the added amino acids utilize domestic wheat rather than imported soy seed as a source of nutrition. This in turn eliminates the energy-intensive processing of soy beans as well as imports from the main producer countries USA, Brazil and Argentina, where crops consume increasing amount of farmland and frequently cause the destruction of rainforest in the process.

These aspects of environmental policy will gain further significance in the future, considering that the world population has already reached 7 billion people. The FAO (Food and Agriculture Organization) as well as the WHO (World Health Organization) project that the global meat consumption will increase from currently 41.3 kg per capita and year to 45.3 kg per capita and year in 2030. That makes highly effective and resource-efficient production on small areas of farmland an even greater priority.

"Sustainable nutrition for the growing world population means that we must use the existing resources with the greatest possible efficiency," says Kaufmann. "Our certified comparative LCA is regular proof that our amino acids are making an important contribution. At the same time, we create transparency so that customers can see exactly how the purchased products affect the environment."

Evonik is the only company in the world that produces and markets all four essential amino acids used in advanced animal nutrition: MetAMINO® (DL-methionine), Biolys® (L-lysine source), ThreAMINO® (L-threonine) and TrypAMINO® (L-tryptophan). Mepron®, a rumen-stable DL-methionine for high-performance dairy cows, and CreAMINO®, a creatine source for broilers complement the product portfolio. The company markets innovative products and services in more than one hundred countries and thus makes a valuable contribution to the cost-efficiency of its customers and to healthy and environment-friendly 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 2014 more than 33,000 employees generated sales of around €12.9 billion and an operating profit (adjusted EBITDA) of about €1.9 billion.

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