

PRESS RELEASE

November 13, 2024

Eminex® almost completely reduces methane, CO₂ and nitrous oxide emissions from liquid manure

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Climate protection plus improved manure properties: The reduction of methane, CO_2 and nitrous oxide emissions from liquid manure by 90–100%, as demonstrated in trials in Germany, Belgium, Luxembourg, the Netherlands, the UK, Ireland and Austria proves the reliable effect of Eminex[®].

Convincing results from research and practice on the application and effect of Eminex $^{\circ}$ from the last three years are the focus of Alzchem's presentation at this year's EuroTier: emissions of methane, CO₂ and nitrous oxide are reduced by 90–100%, a more homogeneous slurry with a better fertilizing effect, no foaming and hardly any floating layer, better utilisation of slurry storage capacities and a CO₂ footprint of milk production in total reduced by around 11–12% due to the reduction of emissions during slurry storage. The benefits of Eminex $^{\circ}$ are as varied as they are clear.

The effectiveness and reliable effect have already been confirmed by many different tests and users. "The result was convincing," reports farmer Christian Braun from Riedlingen-Neufra, for example:" There was no foaming in the treated manure pit, the floating cover was significantly lower and the slurry could be stirred up better than in the untreated manure pit. We also noticed a better climate in this part of the barn."

Scientific tests confirm its effectiveness

Trials with Eminex® at research institutions in the Netherlands, Austria, the US, Germany and Ireland, among others, have produced comparable results. The team led by Professor Frank M. Mitloehner (UC Davis) came to the conclusion that "(...) Eminex® is a promising tool for mitigating the negative environmental effects of manure management". The positive effects are already achieved with very low application rates: With only 2 kg Eminex®/m³ of available manure at the beginning of the cold season, nearly all methane emissions during the winter storage period can be prevented with just one application.

Various dairies are already showing great interest in Eminex[®] due to its ease of use and high effectiveness. Friesland Campina, Agrifirm, Agravis and Alzchem have started a one-year pilot project with the manure additive Eminex[®] to reduce methane emissions during the storage of

AGILE SCIENCE PURE RESULTS



Seite 2 von 3

manure. Ten dairy cow farmers in the Netherlands and Germany who are members of FrieslandCampina are taking part in the project: they are gaining practical experience in integrating innovation into their operations. Eminex® has also been used on Mario Frese's "Climate Milk Farm" in northern Hesse since July 2023. Here, the manure from 111 lactating dairy cows is treated with the manure additive. If used all year round, this alone results in a potential saving of 144 tons of CO₂eq per year for the dairy herd.

In addition to the drastic reduction in greenhouse gas emissions, exact tests also confirm the improved fertilizing effect of slurry treated with Eminex[®]. This is due to the higher N efficiency resulting from the higher ammonium content, more homogeneity and the more even nutrient content across the entire slurry quantity. The higher carbon content also has the same effect when fertilizing with treated liquid manure, as over 200 kg/ha more carbon is added to the soil with a liquid manure application of 30 m³ per hectare.

Opportunities for biogas production as well

Avoiding greenhouse gas emissions during storage of slurry also opens up new possibilities for biogas production. As Eminex® prevents methane emissions during slurry storage, the full methane potential of the slurry can be utilized in the biogas plant. A three-year research project launched in 2021 by ATB Potsdam, FNR and Alzchem is currently investigating not only the storage of liquid manure and its subsequent use in the biogas plant, but also the greenhouse gas emissions after liquid manure application in the field. This approach enables the holistic evaluation of the effect of Eminex® along the "life cycle" of the manure.

"Interested visitors to EuroTier are welcome to visit our booth to see how a better CO₂ footprint of liquid manure and improved liquid manure properties are linked. It is not without reason that several thousand farms in Europe have already used Eminex® since its introduction," reports Benedikt Kappelsberger, Product Manager Agriculture at Alzchem.

Further information on Eminex® as a slurry additive can also be found at https://www.alzchem.com/en/brands/eminex/

About Alzchem

Alzchem is a globally active specialty chemicals company that is one of the market leaders in most of its fields of activity. Alzchem offers answers to various global developments such as climate change, population growth and increasing life expectancy. We deliver solutions through brands and products of the highest quality and through a sustainable vision to help shape global developments.

The company sees interesting growth prospects for itself in the areas of human and animal nutrition and agriculture in particular. As a result of population growth, it is necessary to achieve efficient food production. Pharmaceutical raw materials and creatine products can contribute to a healthy old age as life expectancy increases. Alzchem is facing up to the goal of sustainability arising from climate change in the field of renewable energies and across the entire company. The fields of fine chemicals and metallurgy offer just as great a perspective.



Seite 3 von 3

Alzchem Group AG's broad product range includes dietary supplements, precursors for PCR tests and pharmaceutical raw materials. These offerings are the company's response to global trends and developments. Alzchem is ideally positioned in this respect and considers itself well prepared for an environmental future and global developments.

The company employs around 1,690 people at four production sites in Germany and a plant in Sweden, as well as three sales companies in the USA, China and England. Alzchem generated Group sales of EUR 540.6 million and EBITDA of EUR 81.4 million in 2023.

Das Unternehmen beschäftigt rund 1.690 Mitarbeiterinnen und Mitarbeiter an vier Produktionsstandorten in Deutschland und einem Werk in Schweden sowie in drei Vertriebsgesellschaften in den USA, China und England. Im Jahr 2023 erwirtschaftete Alzchem einen Konzernumsatz von 540,6 Mio. Euro und ein EBITDA von rund 81,4 Mio. Euro.