

Minerva Foods and Rumin8 announce results of groundbreaking methane reduction study in Brazilian cattle

Research conducted with ESALQ/USP shows significant emissions reduction and improved feed efficiency in Nelore cattle

São Paulo, April 21, 2026 – Minerva Foods, a global food company and South America’s leading beef exporter, and Rumin8, an Australian climate technology company developing feed additives to reduce livestock methane emissions, today announced the results of a study demonstrating significant reductions in methane emissions from cattle alongside improved feed efficiency.

The research was conducted in partnership with the University of São Paulo through the Luiz de Queiroz College of Agriculture (ESALQ/USP), one of Brazil’s leading agricultural research institutions.

The 120-day study evaluated the impact of Rumin8’s feed additive on enteric methane emissions and productive performance in Nelore cattle under conditions simulating commercial Brazilian feedlot operations. Animals receiving the additive in a total mixed ration (TMR) showed a 50.4% reduction in methane emissions and a statistically significant 5% improvement in feed conversion efficiency compared with cattle fed the same diet without the additive.

Rumin8 CEO David Messina said the collaboration represents an important step toward scaling methane-reducing technologies in one of the world’s largest cattle markets.

“We were pleased to partner with Minerva and ESALQ/USP to assess Rumin8’s ability to mitigate methane and its impact on animal performance in an environment that simulates a commercial Brazilian feedlot setting.”

“Minerva and Rumin8 are both committed to reducing methane emissions from the agriculture and food sector, and it was excellent to have this work validated by one of Brazil’s most respected academic institutions. The results of this study were significant and will form part of our data package as we move toward commercialization in Brazil, home to the world’s largest commercial cattle herd.”

The study also found that methane intensity per kilogram of liveweight gain decreased from 77.2 g/kg to 39.6 g/kg when comparing cattle fed only a TMR with those receiving the additive.

In total, the trial achieved an estimated reduction of 29.8 tonnes of CO₂ equivalent in greenhouse gas emissions, while also delivering productivity gains and lower feed consumption. Independent verification of these results is currently underway by companies specializing in agricultural carbon certification, including Athian and FoodChain ID.

“This study highlights the potential of innovation and collaboration between industry, science and technology to address one of the most pressing challenges on the livestock sector’s climate agenda,” said a Minerva Foods spokesperson. “Reducing methane emissions is a strategic priority for advancing more sustainable cattle production, and initiatives like this help accelerate solutions that combine productivity and environmental responsibility.”

The experiment involved two groups of Nelore bulls. The first group included 80 animals housed in individual pens to allow precise measurement of feed intake and methane emissions. These

were divided into a control group receiving only a total mixed ration and a group receiving the diet supplemented with the additive.

A second group of 200 Nelore bulls was fed the additive in collective pens to simulate commercial-scale operational conditions.

Throughout the study period, cattle were fed a typical Brazilian feedlot finishing diet consisting of 12% roughage and 88% concentrate, with ground corn as the primary ingredient. Feed intake was monitored daily and productive performance was assessed through liveweight measurements during the trial.

According to the researchers involved, the results position the tested additive among the most promising methane mitigation strategies evaluated by the institution, with potential to reduce the environmental footprint of beef production while improving production efficiency.

The initiative reinforces Minerva Foods' commitment to advancing innovative solutions that support the sustainable development of the livestock value chain through partnerships with technology companies and leading research institutions.

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About Rumin8

Rumin8 is an agriculture-focused climate tech company, using pharmaceutical technology to create affordable feed and water supplements that reduce methane emissions from livestock. Rumin8's patented process delivers a nature inspired and derived pharmaceutical ingredients to interrupt methane production, as well as boost animal performance. Rumin8 is perfecting various formulations for diverse livestock feeding systems, including grass-fed cattle. To learn more please visit: <http://www.rumin8.com>

About Minerva Foods

Minerva Foods is a global food company and the leading exporter of beef in South America. The company owns internationally recognized brands such as Cabaña Las Lilas, Estância 92 and PUL and serves customers in more than 100 countries.

Minerva Foods is part of Minerva S.A., which also includes Minerva Energy, Minerva Biodiesel, Minerva Ingredients, Minerva Casings, Minerva Leather and MyCarbon.

With operations in Brazil, Paraguay, Argentina, Uruguay, Colombia, Chile and Australia, the group employs more than 30,000 people and operates 46 industrial facilities, 18 international offices and 23 distribution centers, supplying beef, lamb and processed products to customers across five continents.