

Media Release

New climate technology to solve global livestock methane emissions

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A company developing the next generation of feed supplements to reduce methane emissions from livestock has been launched in Perth, Western Australia.

Rumin8 is an Australian climate technology company designing solutions to radically reduce methane emissions in agriculture. The Company identifies naturally occurring compounds that have anti-methanogenic properties and instead of harvesting and extracting them from plants, is able to reproduce them in a highly efficient, low cost, scalable, and high-quality process to feed to livestock in order to reduce their emissions.

Rumin8 also expects that its products will have significant productivity benefits for farmers as energy normally lost to methane production is instead converted into higher growth rates.

Rumin8's most advanced product reproduces the bioactive contained in red seaweed (*Asparagopsis*) and has been shown to reduce methane production in livestock rumen by up to 95%, whether in liquid, solid or slow-release dose formats.

Rumin8 Managing Director David Messina said the laboratory results of Rumin8's lead product replicated the methane reductions of red seaweed (*Asparagopsis*), but instead of harvesting from the marine ecosystem, the plant's methane busting bioactive was manufactured and transformed into a stable feed supplement in our quality controlled laboratories.

"This breakthrough provides Rumin8 with the ability to develop a scaleable, consistent, cost-effective livestock supplements, which are inspired by nature, but have the potential to decarbonize the global livestock industry while providing productivity benefits," Mr Messina said.

"The identification of *Asparagopsis*'s anti-methanogenic properties was a game changer in terms of reducing methane emissions from ruminants. Rumin8's product will be able to be produced in a consistent, repeatable, manufacturing process which will be effective at reducing methane production and is expected to be significantly cheaper to produce and provide much more reliable dosing and outcomes."

Livestock contribute ~6% of global greenhouse gas emissions through methane created during the food digestion process.

Trials of Rumin8's first product at the University of Western Australia reduced methane production by more than 90% by Day 3, with almost total elimination by Day 5. The trials were also used to identify optimal dosing rates to achieve the required reductions in methane emissions.

“We acknowledge the diversity of farming systems used to grow animals does prove a challenge for methane reduction which has proven difficult to solve. We are developing a range of formulations which can be delivered to both feedlot and grazing animals,” Mr Messina said.

Rumin8 is now partnering with the University of Western Australia, University of Melbourne and the WA Department of Primary Industries and Regional Development to assess the repeatability of the laboratory trials in animal trials in 2022.

“We have every confidence that just as we were able to replicate the success in the lab, we can do the same with our field trials,” Mr Messina said.

“We’re also confident that there will be productivity benefits - increased growth rates or milk production – for farmers who use Rumin8 products. It would be an optimal outcome if Rumin8’s products to reduce methane emissions from livestock and are paid for through productivity gains.”

Rumin8 has also commenced early-stage laboratory trials of several additional, naturally derived, anti-methanogenic products to test their effectiveness. Those trials are continuing.

The Rumin8 board comprises a mix of skills from the agriculture, pharmaceutical and clean technology sector.



Dr Stewart Washer
Chairman

Stewart has 25 years of CEO and Board experience in medical technology, biotech and agri-food. He is currently the Chairman of Emyria and Orthocell



David Messina
Managing Director

David is a successful international executive with experience in commercializing proprietary technology in agriculture, energy and biotechnology sectors.



Samantha Tough
Director

Samantha has a broad and varied career in many sectors including energy, resources, engineering and agriculture. She is currently Pro Vice-Chancellor Industry Engagement at the University of Western Australia, Chair of Horizon Power and Director Clean Energy Finance Corporation.



Elaine Darby
Director

Elaine has overseen the development of various novel IP delivery systems of volatile plant derived compounds for stable, scalable pharmaceutical, food and beverage products.

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About Rumin8

Rumin8 harnesses lessons from nature, to create climate friendly supplements which reduce methane emissions from livestock.

Rumin8's unique strength is in its patent-protected technology and proprietary expertise in synthesising and stabilising otherwise volatile bioactive compounds (compounds that degrade or evaporate when separated from their natural plant-based carrier), which are found in nature.

The Company's technology is applicable to a range of methane reducing compounds found in plants and we are developing a range of feed supplements that can be provided to livestock in feed lot and pasture applications.

