

Press Release

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## Central Queensland University invitro trial yields promising results for Rumin8

A Central Queensland University laboratory trial of 13 methane-reducing feed compounds (MRCs) delivered by water has found that one almost eliminated methane production without impacting dry matter digestibility, Rumin8's product.

"Of the 12 soluble and stable MRCs, one containing synthetic tribromomethane (Rumin8 Investigational Veterinary Product) reduced methane production by 99% (P = 0.001) when delivered aqueously *in vitro*, without a reduction in *in vitro* dry matter digestibility (IVDMD)," the study's authors concluded.

The study noted that most methane-reducing compounds to date have been developed and tested in dairy or feedlot applications, yet most of the global cattle population is grass-fed. The objective of the study was to identify methane-reducing compounds that could be delivered via drinking water, which is more applicable to most global livestock farming systems.

The study first analysed each MRC for solubility and stability in an aqueous solution. The aqueous solutions containing the MRCs were then subjected to temperature variations and starting pH to assess their solubility and stability in simulated water trough conditions.

*In vitro* batch culture fermentations were then undertaken using a medium-quality tropical grass feed substrate to simulate pastures consumed by cattle in extensive grazing systems. Subsequently, measurements were taken to assess total gas and methane production, *in vitro* dry matter digestibility, and volatile fatty acid (VFA) concentration.

"The clear standout compounds in terms of methane reduction were sodium monensin (64% methane reduction) and the Rumin8 IVP (99% methane reduction), delivering significant methane production reductions without impacting IVDMD," the study concluded.

Rumin8 CEO David Messina said the CQU trial results were consistent with the trial results from other *invitro* and *in vivo* (animal) studies. The impact on IVDMD is important, as negative IVDMD is viewed as a proxy for productivity losses, as animals can't convert the feed's dry matter into energy.

"This trial indicated almost total methane elimination in a laboratory setting, which was really pleasing for Rumin8," Mr Messina said.

"The zero impact on dry matter digestibility is broadly consistent with the positive animal productivity results Rumin8 is achieving in animal trials globally."

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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. Our patented process delivers a nature inspired pharmaceutical ingredient to interrupt methane production, as well as boost animal performance. We're perfecting various formulations for diverse livestock feeding systems, including grass-fed cattle, aiming to decarbonize 100 million cattle by 2030.

To learn more please visit: <http://www.rumin8.com>

