MEDIA RELEASE

Monday 16 September

Reducing cattle burps in the name of climate change

Delegates at an international environmental remediation conference in Adelaide will hear this week how halloysite, a clay mineral found in the arid Australian environment, can be modified and added to livestock feed to reduce the amount of methane emitted from cattle burps.

Methane is a greenhouse gas, more potent than carbon dioxide, contributing to about 30% of global warming to date. While methane is produced through non-renewable energy production and agriculture, livestock are the largest single source of global methane emissions. However, the cost-effective, modified edible clay could be a solution to reduce the amount of methane gas in our atmosphere.

The research is run through the Applied Clay Research group at crcCARE and the Global Centre for Environmental Remediation at the University of Newcastle, led by Dr Bhaba Biswas. Dr Biswas said they recently undertook a successful pilot trial with live cattle.

'Our pilot study showed over 30% decrease in methane production over a 24-hour period, with no harm to the cattle,' Dr Biswas said.

Dr Biswas explained that cattle naturally ingest soil and minerals as they graze. The specially modified clay is edible for cattle. It interacts with their gut microbes and parasites to reduce the amount of methane these organisms produce before being safely passed through the other end!

'Not only does the clay reduce methane production, but it also improves cattle health by reducing the gut acidity and parasites,' Dr Biswas said.

Additionally, the modified clay is a cost-effective solution for farmers. 'The dollars spent on clay as a feed-additive are value for money.'

Dr Biswas and his team are also testing the hypothesis that modified clays may result in increased protein gain across the cattle and, therefore, lead to a greater production yield.

'Further research needs to be conducted, but our pilot study showed promising results, so we are excited to expand our research.'

If successful, this modified clay could be distributed to cattle via pellets, or a paddock spray.

Laureate Professor Ravi Naidu, Managing Director and CEO of crcCARE, was one of the pioneers behind this idea.

'This initiative was developed with climate change in mind, focusing on the potential to reduce methane emissions from livestock. Using naturally occurring clay, the goal is to significantly lower methane from animal burps without harming their health,' said Professor Naidu.

Dr Biswas is speaking at this year's biennial CleanUp conference, hosted by crcCARE.

CleanUp 2024 – the 10th International Contaminated Site Remediation Conference incorporating the 4th International PFAS Conference – is in Adelaide from 16 to 18 September. crcCARE is a partnership of organisations dedicated to developing new ways of dealing with and preventing contamination of soil, water and air.

The conference program is available at: https://adelaide2024cleanupconference.com/program

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Presentation: Dr Bhaba Biswas and his team, Presentation City Room 3 and 4 Monday 16, and Hall N Tuesday 17, Poster Presentation Monday 16-Wednesday 18

Media*:* Accredited media representatives are welcome to attend. Complimentary media passes are available for any media personnel who wish to attend the conference in person.