

Issue note

Bovaer® feed additive

December 6th, 2024

OVERVIEW

Bovaer® (otherwise known as 3-Nitrooxypropanol/3-NOP) is a feed additive for cows (and other ruminants, such as sheep, goats, and deer) researched and developed over 10 years by DSM-Firmenich.

Bovaer is a feed additive that works by suppressing the enzyme in a cow's stomach that produces methane. By doing so, less methane is produced in a cow's stomach. The additive is authorised and available for sale in 55+ countries including the EU, Australia, Brazil, Canada, Chile, Mexico, Pakistan, Switzerland, Turkey and the United Kingdom.


Current Situation

On November 26, Arla Foods Group announced a new project that involves 30 of Arla's farmers – alongside several retail partners – trialing the use of Bovaer, which reduces the enteric methane emissions from cows. If successful, it is expected more UK farmers will start to use the feed additives.

Following the announcement, a 'boycott Arla' campaign was initiated in the UK. Through social media, this campaign gained international attention and led to Australian consumers discovering a Coles media release from November 2023 – 'Coles boosts sustainability in beef production with expanded use of supplement', [available here](#).

The below graphic has been shared extensively across social media, combining the Coles media headline and the US FDA dairy label instructions ([available here](#)).

Coles boosts sustainability in beef production with expanded use of supplement



Three beef suppliers **now using Bovaer** that is proven to reduce cattle emissions by at least 50%

Bovaer® 10 <https://www.fda.gov/media/178913/download>
 (3-Nitrooxypropanol)
 For further manufacture of feed for reduction of methane gas emissions per pound of dry matter intake in lactating dairy cows.

GUARANTEED ANALYSIS:
 3-nitrooxypropanol, minimum.....10% (w/w)
 Silicon dioxide, maximum.....60% (w/w)

Ingredients: Silicon dioxide, propylene glycol, 3-nitrooxypropanol

Caution:
 Do not feed undiluted. For use in feed for lactating dairy cows only. Not for use in dry dairy cows, bulls, replacement heifers or bulls, growing cattle, or other ruminant species **because safety and effectiveness have not been evaluated in these animals.** Silicon dioxide from all sources cannot exceed 2 percent by weight of the complete feed.

A decrease in dry matter intake may be observed in some animals.

Warning:
 Not for human use. Caution should be exercised when handling this product. 3-nitrooxypropanol may damage male fertility and reproductive organs, is potentially harmful when inhaled, and is a skin and eye irritant. Personal protective gear, including eye wear, a dust mask, and impervious gloves, should be worn when handling this product. Operators should wash hands after handling. If accidental eye exposure occurs, rinse eyes thoroughly with water. The safety data sheet contains more detailed occupational safety information.

From 4 December, online discussions shifted from Bovaer to Rumin8, which was inaccurately characterised as the 'Australian version' of the Bovaer product. Rumin8 is an Australian-based company focused on developing synthetic methane-reducing feed additives derived from bioactive compounds found in nature. The product is still in its research and development phase and has not yet been commercialised.

Bovaer in Australia

- Bovaer (3-NOP), developed by DSM-Firmenich, is a feed additive designed to reduce methane emissions from ruminants. While it has regulatory approval in several countries including Australia, its supply in Australia is limited, and **there are no known instances of Bovaer being used on Australian dairy farms**.
- Adoption is currently constrained by high costs and logistical challenges related to its distribution.

Beef industry initiatives

- Coles has collaborated to trial Bovaer in beef feedlots. The initiative, involving nearly 10,000 cattle, is part of Coles' broader commitment to sustainability and reducing supply chain emissions. The trial has been positioned as a step toward improving environmental outcomes in the beef sector.
- Meat and Livestock Australia (MLA) has released a statement on Bovaer, [available here](#).

Consumer and Stakeholder Sentiment

- The Coles trial and use of Bovaer has sparked discussions among farmers and consumers, with some expressing concerns about the cost, effectiveness, and potential food safety implications of using feed additives like Bovaer.
- These concerns are compounded by misinformation circulating online, particularly in farming and consumer groups.

Regulatory oversight

- The food safety of dairy supply chains in Australia is regulated by food safety regulatory authorities, which ensure that the milk and dairy products produced from Australian cows for domestic consumption and export are safe to eat.
- Bovaer has been assessed as safe for consumers by overseas regulatory agencies who assess animal feed additives.
 - The UK Food Standards Agency concluded that the additive Bovaer under the conditions of use proposed can be considered safe for consumers.
 - The European Food Standards Agency concluded that the use of Bovaer in animal nutrition under the conditions of use proposed was of no concern for consumer safety and for the environment.

Manufacturer statement

A statement released by DSM-Firmenich addresses misinformation about Bovaer. It highlights over 15 years of research, 150 trials across 28 countries, and regulatory approvals by multiple authorities.

DSM-Firmenich has released an updated statement, [available here](#).

Dairy Food Safety Victoria (DFSV) Statement

All food businesses in Victoria are required to produce food that is safe and suitable. New technologies, such as stockfeed additives, need to be assessed to ensure that food safety is not compromised. Dairy Food Safety Victoria (DFSV) is aware of recent news items and international risk assessments in relation to stockfeed additives and remain well placed to assist the dairy industry in Victoria. DFSV does not directly regulate any stockfeed, questions may also be directed to the Australian Pesticides and Veterinary Medicines Authority or Food Standards Australia New Zealand. However, animal stockfeed additives, including those used for emission reduction, must achieve the same outcome of safe and suitable food destined for the human supply chain.

KEY MESSAGES

Topline messaging:

- Currently, there are no known instances of Bovaer being used on Australian dairy farms.
- **Rumin8 remains under development and is not yet commercially available for use in Australia.**
- The dairy industry operates under strict regulations to protect public health.
- **Australia's dairy industry supports the development of technologies that help address carbon emissions whilst**

also maintaining Australia's stringent standards for animal welfare and human safety.

Further background messaging if required:

Commitment to Safety

- Transparency about what goes into our food is of the utmost importance.
- Australian dairy products adhere to the highest safety and quality standards, ensuring consumer confidence in every product.

Regulatory Compliance

- Stringent safety protocols are in place across all stages of the production chain, from farm to consumer.
- All additives, processes, and technologies used in dairy production are thoroughly assessed and approved by regulatory authorities.

Science and Transparency

- Scientific research and evidence underpin every innovation in the dairy industry, ensuring that safety and nutrition remain top priorities.
- The industry is committed to transparency, providing clear information to consumers about products and production practices.

Consumer Confidence

- Milk and dairy products undergo rigorous testing for contaminants and pathogens, ensuring they meet or exceed safety standards before reaching the market.

Australian Dairy Industry Council (ADIC) Statement

The Australian Dairy Industry Council (ADIC) has released a statement, [available here](#).

This will be the last Issue Note circulated on this topic, unless significant changes in the situation warrant a further industry update.

CONTACTS

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