

## **DSM introduces Bovaer<sup>®</sup>, the feed additive that enables farmers to achieve consistent methane reduction from cows by ~30%**

Royal DSM, a global science-based company active in health, nutrition and sustainable living, today announced during an update webinar that its new feed additive which enables farmers to consistently and conveniently reduce methane emissions from dairy, beef and other ruminant herds, will be named Bovaer<sup>®</sup>. DSM also shared that it is currently working with authorities, scientific, and private partners from across the value chain and in multiple geographies, on the application of Bovaer<sup>®</sup> in various farming systems and development of solutions to demonstrate usage and measure the impact of Bovaer<sup>®</sup>. The latter will ensure the efforts of farmers and dairy companies can be recognized for the positive contribution they make.

Bovaer<sup>®</sup> is a first result of DSM's Project Clean Cow, a 10-year journey of research and development. It is the most extensively studied and scientifically proven solution to the challenge of burped methane to date. Over the past 10 years, 35 on-farm beef and dairy trials across the globe and in various feeding systems were conducted. They showed that an enteric methane reduction of ~30% can be consistently achieved. Some trials went up as high as 80% reduction. In addition, more than 25 peer-reviewed studies have been published which fully clarify and prove the mode of action. Bovaer<sup>®</sup> is a firm proof point of DSM's purpose-led, performance-driven strategy, building on decades of heritage delivering science-based, sustainable and scalable solutions that respond to the challenges our world faces. The solution has recently also been featured by the World Resources Institute as one of the ten global break-through technologies that can help to feed the world sustainably.

Across the globe DSM is working with partners from the dairy value chain to prepare for market introduction of Bovaer<sup>®</sup>. These activities include trials to confirm effectiveness in local farming systems and further build up practical farm experience. In Denmark, Norway, United Kingdom and Ireland trials are planned with local scientific institutes and partners from the dairy chain commencing in 2020. In the Netherlands, DSM in cooperation with a consortium from across the Dutch dairy value chain is taking the next step towards implementation by setting up a trial at the Dairy Campus Leeuwarden that aims to gather all information necessary for accreditation by the Climate Module of the "Kringloopwijzer". These results will also form the foundation for accreditation systems in other geographies.

In Australia and New Zealand DSM is working closely with industry and research institutes to develop a pasture-based application model for Bovaer<sup>®</sup>. Work conducted at the AgResearch and CSIRO has successfully investigated a number of forms and feeding models of Bovaer<sup>®</sup> for different pasture feeding systems common in both New Zealand and Australia. Trials are planned through 2020 with customers to validate these application models in commercial settings.

Methane is a natural byproduct of digestion in cows and other ruminants, released into the atmosphere through burping. Just a quarter teaspoon of Bovaer® per cow per day suppresses the enzyme that triggers methane production in a cow's rumen. It takes effect immediately and it's safely broken down in the cow's normal digestive system. As soon as the additive is not fed anymore, full methane production resumes and there are no lasting effects in the cow. The feed additive Bovaer® therefore contributes to a significant and immediate reduction of the environmental footprint of meat, milk and dairy products, key sources of high quality and affordable protein around the world.

Methane is a greenhouse gas which, like carbon dioxide, contributes to climate change. Methane is a short-lived, but much more potent greenhouse gas than CO<sub>2</sub> and ruminants (mainly cows) emit about 20% of all methane gasses globally. Reducing global methane emissions from cows will thus result in immediate impact and therewith help slow the pace of global warming in the next decade already, to facilitate society taking longer-term action on CO<sub>2</sub> reduction. Bovaer® could therefore significantly contribute to various UN Sustainable Development Goals, including Climate Action.

Bovaer® has recently been filed for registration in Europe where it will be available as soon as market authorization is granted with a launch in the region anticipated in late 2020/early 2021. Registrations of the feed additive in other regions will follow.