



A balanced view on methane inhibitors

Lowering Carbon Footprint in a Profitable Way

What is methane (CH₄) and why is it produced?

In ruminants, methane is produced mostly by enteric fermentation where microbes decompose and ferment plant materials, such as celluloses, fibre, starches, and sugars, in their digestive tract or rumen. When H⁺ is produced through fermentation this joins with C to produce CH₄. Enteric methane is one by-product of this digestive process and is expelled by the animal through burping.

Why do we need an inhibitor?

A holistic approach to reducing carbon footprint per kg FPCM is required which includes reducing the methane emissions produced because of enteric fermentation. This can be done in several ways such as reducing AFC and reducing replacement rates to reduce total amount of feed required and therefore enteric emissions, and by including a methane inhibitor in the diet to block or reduce methane production.

8 Key points for consideration when choosing a methane reducing additive:

Will this bring you more profit?

From milk payments or from sustainability incentives – it is important to ensure that any additive is profitable to your business!

Are there additional benefits?

Increased milk production, reduced inflammatory response, increased feed efficiency

Does the additive have a proven lifecycle assessment showing the effect on carbon footprint per kg FPCM?

It is important that methane reducing effects can be verified according to IPCC rules and that these effects can be proven under specified conditions; not all products have a proven benefits

Can the effects be captured in carbon footprinting models?

It will be important that the effect of these additives are captured and demonstrated and be can be taken into account in the end footprint to ensure farmers are rewarded for a reduction in carbon footprint

What are the long-term effects of feeding an additive?

Double check that long term studies when feeding an additive have been carried out to ensure we know the effects of methane inhibition or conversion over time

Are you pollution swapping?

Did you know nitrate is a methane inhibitor, but it diverts H⁺ from methanogenesis and creates extra ammonia which is also a pollutant?

Does this have an effect on DMI?

DMI and time of day can have a big impact on methane produced per cow per day

How can the product be fed? Does it work in your current system?

Some methane inhibitors or reducing additives are required to be fed continually in every mouthful to have an effect. Others can be fed in compound feed once or twice daily!!



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