Defra Call for evidence on methane suppressing feed products – 2022

AHDB Response – November 2022

Questions		Response	
7	Do you currently incorporate feed additives (e.g. for nutritional, productivity or health reasons) as part of the usual feeding regime of your farm and/or supplying farms?	No	AHDB have a lead role in supporting our levy payers (including livestock farmers across the UK) with robust and independent evidence to support best practice guidance and on farm-decision making. In 2015, AHDB funded research to understand the long-term effects of two commercially available additives on methane emissions, cattle performance and meat quality when fed with different finishing rations to a range of cattle breeds. The full report and summary findings are applicable to this consultation and can be found here: https://ahdb.org.uk/nutri-beef Of the two products tested, one was not financially attractive and without incentives could not be recommended on commercial beef farms. The other could be recommended provided its use was economically competitive and diets could be modified to ensure oil levels remained below 6%. AHDB recognises a role for these products if they are demonstrated to provide safe, cost-effective, long-term reductions of methane in livestock. However, the use of these products may not be suitable in all cases. The industry may require a range of products to be licensed to meet different production and life-stage requirements for their farm system. Not all products are equal and there should be transparency in regard to their benefits. The level of environmental benefit (reduced methane) and cost to use will differ between products, transparency will enable farmers to make informed decisions on use. For example, in the 2015 study one product reduced methane by 9-17% and the other 4-7.5%. It is important that products do not compromise other global one health priorities, such as responsible antimicrobial goals or reduce domestic and international consumer confidence in animal products. We note there is also some interest within industry actors that may favour supporting 'natural' products (possibly also for reasons of competition and trade).

			Through engagement with key sector stakeholders, we have experienced interest in these developments. This technology has the potential to contribute towards enabling our levy payers to meet both contractual and voluntary targets in a cost-effective way. However, through this work, we recognise that a range of mitigation measures will be required in pursuit of carbon and GHG reduction targets. This includes measures such as improving animal health, reducing livestock disease and improvements through genetics.
8	Were you previously aware of methane suppressing feed products?	Yes	*No option on form therefore this text moved into the above section*
9	If yes, which of the following methane suppressing feed products are you are aware of? (Please tick all that apply): • Methanogenesis Inhibitors (e.g., 3-NOP, Nitrate) • Probiotics • Plant secondary metabolites (e.g., Essential Oils, Tannins, Saponins) • Propionate Precursors (e.g., Fumaric Acid, Malate, Aspartate) • Seaweeds (e.g., Asparagopsis) • Antimicrobials or Ionophores • None of the above • Other (please state)	All	AHDB is aware of all of the products listed. However, we have some significant concerns about the long-term efficacy and health / welfare impacts for some of these products. For example, seaweed has been known to have an adverse impact on the rumen for cows/sheep. We favour the use of products that are derived from natural sources or co-products from the food chain. We do not recommend the use of antimicrobials, ionophores or growth promotors (and routine use is controlled). We would see the easing of such controls as a retrograde step that would limit the UK's ability to export beef and lamb to key markets within the EU. The use of antimicrobials as feed additives contradicts global one health priorities with regard to responsible antimicrobial use. Their use could undo existing industry advances in this area and potentially lead to increased antimicrobial resistance, reputational damage to the livestock sector and reduce the effectiveness of antimicrobials used for animal (and human) health.
10	Are you planning to or already trialling the use of any of methane suppressing feed products on your	*Not planning to trial*	We would recommend and support on-farm trials to understand the long-term benefits or risks of using these products, and to work with our levy payers to understand some of the barriers, enablers, benefits and practical limitations associated with their use.

	farm or within your supply chain?		
11	How would you describe your current perception of using methane suppressing feed products in livestock diets? • Very positive • Mainly positive • Neither positive nor negative • Mainly negative • Very negative • Don't know • Prefer not to say	Mainly Positive	AHDB recognises that methane suppressing feed products can contribute to the sustainability and low emission transition for UK livestock farming. However, we do also have a number of specific concerns and please note these are outlined in the response to Q7, Q9 and others. These products form part of a suite of tools to reduce methane and need to be considered alongside other global priorities such as responsible antimicrobial use, genetics, food security, economic issues, and animal health and welfare.
12	Which of the following attributes are important to you when considering methane suppressing feed products? (Please tick all that apply): • The effectiveness (efficacy) of reducing greenhouse gas emissions from livestock farming • Wider environmental impact • Animal health and welfare • Livestock productivity • Food safety and consumer protection • Consumer perception • Certification • Naturalness • Cost • Ease of use	All listed	Other important considerations will include; 1. Unintended consequences 2. Other global one health priorities[1] and 3. consumer willingness to pay

[1] One Health - WOAH - World Organisation for Animal Health

	• Other (please state.) None of the above Please give reasons for your answer below.		
13	If given the choice, would you have any preference for natural or synthetic methane suppressing feed products? • Natural • Synthetic • Either / no preference • Neither • Don't know	Either / no preference	~~However please also note responses above regarding concerns. Also acknowledgement that certain industry stakeholders may see an opportunity / potential competition advantage.~~ *No space for comments available*
14	Do you think consumers would be willing to purchase meat or dairy products produced by cattle and sheep which are regularly fed methane suppressing feed products? • Yes definitely • Maybe • Uncertain • Not likely • Definitely not • Don't know 14 of 18 • Prefer not to say	Maybe / Uncertain	Potentially, providing the safety of the product is explained and that it is protecting the health, welfare of the animals as well as delivering the wider environmental benefits. Generally the consumer wants to know that what they are buying is sustainable and it's the responsibility of both Government and the food industry to ensure this.
15	How would you describe the current feeding regime on your farm or in your supplying farms? (Please tick all that apply): • Outdoor all year round	Other	AHDB leads and supports practice developments with farmers and levy payers across all of the stated feeding regimes in Q15 (plus others). If measures are progressed following this CFE, then AHDB would welcome early engagement with Defra on next phase developments. Winter housing, and the use of home grown feed and concentrates are notably absent from listed options. Typical feeding regimes will have been impacted this year by the 2022 drought, therefore AHDB suggest

	• Grazed with silage-based winter ration • Grazed with buffer feeding and silage-based winter ration • Housed all year • Some yard /barn finishing • All yard/barn finishing • Other (please state.)		caution with interpretation of responses to this question.
16	In order to introduce methane suppressing feed products to your farm, or supplying farm did you (if adopted already) or would you (if not already) need to make changes to your feeding regime? • Yes substantial changes • Yes significant changes • No major changes • Already use • Don't know • Prefer not to say Please give reasons for your answer below.	Don't Know	Each farm will make decisions on whether feed additives are an appropriate investment based on their individual farm circumstances. Some farms may be able to incorporate feed products with little adjustment to feeding regimes others may need to make significant changes. The ease and costs associated with changes and anticipated return on investment is likely to influence individual decisions on whether or not to adopt this practice.
17	Do you envisage any of the following presenting a barrier to introducing methane suppressing feed products on your farm, or supplying farms? (Please tick all that apply) • Current farm practice or feeding regime (e.g. Organic)	All potentially	Research would be valuable to better understand barriers to the uptake of measures and the key considerations to support improvements and changes. Other plausible suggestions would include ease of implementation, frequency of feeding required, busy calendar periods, cost of implementation, evidence of return on investment, other methane reducing measures may be preferred, have greater GHG reduction or bring other benefits e.g. improving health and reducing disease burdens.

	• Price • Consumer perception • No method for monitoring or measuring efficacy • Other (please state) • None of the above Please give reasons for your answer below.		
18	Which of the following options do you believe would be effective at increasing the use of methane suppressing feed products? • Financial incentives • Regulatory requirements • Supplier contracts • Standards, accreditations and certifications (e.g. Red Tractor) • Voluntary commitments (e.g. Industry led targets or roadmaps) • Independent advice (e.g. consultants, feed advisors). • Do nothing • Other (please state) Please give reasons for your answer below.	Incentives and independent advice (potentially others)	Initially the voluntary use of additives should be promoted. Then consideration should be given to the use of voluntary accreditation standards. AHDB recognises that the supply chain may seek to require use of these products based on consumer acceptance. Farmers should be supported to use these products (either using public or private finance) to ensure their use can be scaled and the costs remain reasonable until mass adoption by the industry brings down the unit cost. Evidence based research from the social sciences into human behaviour suggests that a range of options may be necessary and should be developed with the end user. AHDB recommends research to obtain the evidence base required to understand the drivers and barriers and develop a specific targeted plan to promote uptake of the behaviour required.
19	which of the following options would help to assure you of the efficacy of methane suppressing feed products? • Mandatory verification of	OTHER – (Combination - verification + standards)	It is likely that a mixture of supportive approaches will be required including verification and standards and ensuring good integration with relevant legislation (likely to require some development)

	product claims 17 of 18 • Independent standards for product efficacy • On-pack labels backed by trade description legislation • Other (please state)		
20	Who do you feel is best placed to verify the efficacy of these products?	Government Agency	Efficacy needs to take a broad view - not just the environmental outcome but also relevant safety and wider concerns for both animals being fed products and from potential residues in products for human consumption.
21	Do you have any additional views on methane suppressing feed products that you wish to share?		Multiple issues will need addressing in preparation for measures to be adopted in practice. These include financial compensation for farmers if mandated to a measure that damages performance. Animal Health and Welfare should be addressed in this process and not overlooked (i.e. not left to later phase). There are a range of key considerations that will take time to evaluate and will be critical to adoption. It is critical that robust independent evidence is gathered and there may be negative unintended consequences. AHDB are currently funding a project to update feed equations used to calculate nutritional requirements for beef animals. This is likely to lead to changes in animal diets and may in turn effect methane and ammonia emissions. The project is due to complete in Spring 2023. https://ahdb.org.uk/feed-into-beef