From the Office of the Minister of Agriculture, Environment and Rural Affairs

Department of Agriculture, Environment and Rural Affairs
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To ask the Minister of Agriculture, Environment and Rural Affairs, for his assessment on the potential merits of introducing seaweed into cows' diets to cut methane emissions.

My Department is working in partnership with the Agri-Food and Bioscience Institute (AFBI) who have been conducting their own research into the use of seaweed as a mitigation for methane emissions caused by the process of fermentation within ruminants.

AFBI are currently working closely with several EU partners on a project to investigate local seaweeds for feed additives for cattle and sheep under Northern Ireland farming conditions. These projects focus not only on the methane mitigation capacity arising from modification of rumen microbial activity, but also the potential to improve animal health, production efficiency and milk and meat quality.

AFBI are aware of a range of local commercial companies that produce seaweed of which some may have capacity to supply seaweeds as animal feeds.

Officials are aware of the findings from the research carried out at the University of California, Davis which was mentioned in a news article published recently by the Guardian (Annex A). While the findings look very positive in terms of seaweeds (specifically Asparagopsis taxiformis) ability to partially counteract methane emissions from cows, more work is required to establish if there would be enough supply of seaweed available to make this a viable option for mitigating methane emissions.

One other potential downside is that research shows that seaweeds contain inorganic elements and heavy metals such as iodine, bromine, arsenic and other bioactive organic compounds. At high levels these may cause toxicity in animals and humans. Chronic excess iodine intake from consumption of kelp meal in dairy cows can lead to iodine-enriched milk, and this may lead to excess iodine consumption in humans where iodine intake is already sufficient. There is also safety concerns regarding trihalomethanes such as bromoform the main active ingredient in the methane-inhibiting Asparagopsis species.

My officials will continue to work in partnership with the agri-food industry to minimise the sectors' environmental impact. My department will also continue to support the work of the Agriculture and Forestry Greenhouse Gas Implementation Partnership as they implement their current 'Efficient Farming Cuts Greenhouse Gases Implementation Plan and work to develop a follow-on plan that steers industry towards a fair and equitable contribution towards UK net zero targets.

EDWIN POOTS MLA
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