

Comments received on Methodology for the Reduction of Enteric Methane Emissions from Ruminants through the Use of 100% Natural Feed Supplement

This comment was received via email by the VCS.

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- **Clause No 1** – the methodology cites an Alberta protocol: “Quantification Protocol” approved by the Alberta Offset System: *Quantification protocol for reducing days on feed for beef cattle*”. That is not the correct title and version of the current Alberta Protocol. It should read: **“Quantification protocol for reducing greenhouse gas emissions from fed cattle” (version 3.0), February 2016.**
- **Clause 4.2d** – For a public review, it would be advisable to have some substantiation of why there is a cut-off at 17% emission reductions. Citing a manufacturer’s claims on enteric methane emissions reduction as acceptable seems questionable as to the validity of the claim. The validity of the additive needs to be based on peer reviewed science proving the performance of the additive with live animals over a sufficient time period (dosaging, predictability under certain conditions, proof of intake, species, durability of effect over time).
- **Clause 4.3** - This clause eliminates the use of feed supplements that have a similar mode of action and uses the general definition of ‘those that do not inhibit methanogenesis’. This statement needs to be more detailed in what exactly the mode of action of the supplement is. In other words, the scientific basis of the mode of action (enzyme destabilization; surface area activation (eg. Biochar addition to feed; protozoan immobilization) needs to be firmly described in order to be considered ‘complementary’ and allowed to be also used under this protocol. Otherwise, remove it and if there is a synergistic effect on enteric methane emissions, then why be concerned about it?
- **General Comment** - As far as I know, Verra bases their methodologies on project-based accounting (WRI GHG Project-Based Protocol or ISO 14064:2. This methodology does not give the reviewer the logic behind the emissions intensity of the feed additive product to ensure the production of this product does not constitute a ‘relevant’ source of emissions (ISO 14064:2 streamlined life cycle assessment approach) or has significant ‘out of project boundary’ emissions that need to be taken into account (WRI GHG Project-Based Protocol – so called secondary effects). Natural, plant-based feed additives will need to be grown/processed in significant quantities and it is uncertain what the GHG emissions associated with the growing/processing of these products are. This work needs to be demonstrated.
- **General Comment** – related to the above, focusing only on methane emissions from enteric fermentation, and not potential effects of other gases such as N₂O or CO₂ isn’t sufficient. The protocol should at least demonstrate that they are not affected. To be credible, the process of reviewing controlled, related and affected sources and sinks (ISO 14064:2) for their ‘relevance’ to the accounting process, or demonstrating that secondary effects outside the project boundary (WRI GHG Project-based Protocol) are minimal or need to have a discount applied is important; even in the production of the feed additive. This needs to be demonstrated to the reviewer.
- **Table 5 – IPCC Tier 1** - The methodology speaks of ruminants only. The listing of animals in Table 5 includes non-ruminants (horses for example). Since the protocol doesn’t speak to having a scientific basis for the testing of the feed additive across other species, I think this is an unjustified

extension to say it can be applied to these species when it has not been through a peer-review publication stage.

- **Clause 9.1, Page 15** – re-check the GEI equation. I think GE is multiplied by DMI not divided by. Also, As per the Alberta Protocol, if added lipids are fed, the fat content of the diet is altered to suppress enteric methane, a higher energy density figure can be used (refer to the Alberta protocol for the value of a 'safe' lipid content of the diet (19.10 MJ kg⁻¹).