Comments on Methane and Agriculture

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ARB text in plain

**Comments in bold.**

p. 112-113 presents three major agricultural strategies:

1. Methane from dairy and livestock has a reduction target of -40% and is covered in the SLCP strategy. **However, the reduction target of -40% should be treated as a floor and not a ceiling. There are many ways to reduce methane from manure and enteric emissions.**

**Methane from manure can be economically and effectively eliminated by allowing animals to graze in pastures where the manure naturally aerobically decomposes with zero methane emissions.**

**Enteric emissions can be reduced in both dairy and livestock** **by over 90% by the addition to the feed of only 2% Asparagopsis seaweed, as described in several publications**.[[1]](#footnote-1)

2. Nitrous oxide resulting from nitrogen fertilizer applications. **Must be quantified.**

3. Increased carbon sequestration in soil. **The methods (such as no till agriculture) must be specified and the outcome quantified.**

Appendix D Pathways says the only reductions in the agriculture sector are “electric and natural gas efficiency improvements assumed in the Reference Scenario, consistent with the 2015 IEPR AAEE building efficiency assumptions described in the section above. These measures result in a 7% to 15% efficiency improvement.”

**This tiny reduction is far too small, there are many other ways to reduce GHG emissions in the agriculture sector, which should be specified and quantified.**

1. The red macroalgae Asparagopsis taxiformis is a potent natural antimethanogenic that reduces methane production during in vitro fermentation with rumen fluid. Robert D. Kinley, Rocky de Nys, Matthew J. Vucko, Lorenna Machado and Nigel W. Tomkins. *Animal Production Science*, 2016, **56**, 282–289

   http://dx.doi.org/10.1071/AN15576

   Identification of bioactives from the red seaweed Asparagopsis taxiformis that promote antimethanogenic activity in vitro. Lorenna Machado & Marie Magnusson & Nicholas A. Paul & Robert Kinley & Rocky de Nys & Nigel Tomkins. J Appl Phycol. 2016. DOI 10.1007/s10811-016-0830-7 [↑](#footnote-ref-1)