Minutes of the 14th Methane Phenotype Working Group (MPWG)

By Phone 2100 GMT 1st Oct 2013


Apologies: Jan Lassen, Steve Miller, Cesar Pinares.

Action points from last meeting:

Finish section on methodology for measuring methane to further genetic gain and how it would be deployed by GS and be linked to a breeding objective.

- John McEwan apology that not done his bit. Hutton has started it off.
- John McEwan to send the section to Natalie and Hutton by 4pm Friday 4th NZ time. And 12pm NZ time Tuesday 8th John to ring Hutton.

The timeline to get this document finished.

1. **Mid-end October** stop point for the White paper.
2. **End October**
   - a. Tick what we want to keep for the review paper
   - b. Collapse the other bits.
3. By mid-December, 2 rounds of additions edits
4. Submission of review paper to Animal by February 2014.

Additional actions from this meeting:

**John Basarab:** to run a simulation model for gross CH₄ yield and intensity, by changing Ym for high and low efficiency animals and put in differing values for FI

General discussion:

What can be chucked out for the review paper:

- Core of the review paper, seems to be the two big tables
- The introduction is very detailed and could be scaled back
- FI bit could be scaled right back or taken out.
- Utilise supplementary material. May struggle to use the White paper as a reference as non peer-reviewed. However should try.

Gerry Taylor, US RFI experiment on cattle measure high and low for methane. Confirms results presented at PAG, LRFI produced less CH₄. If look at MY RFI produced more exact size of the effect has been an issue. Eat more going to have less MY. Possibly comes from the paper by Freetly (J Ani Sci 2013, 91: 4826-4831), who actually only measures CH₄ for 6 hours a day and times by 4 to get 24hr measurement. A bit suspect.
This brings up the **Core issue** we need to make sure the paper addresses: the tripartite between CH₄, RFI and production, and between gross methane, methane yield and methane intensity. Hence, the below diagram.

Don’t think we can say what the answer is but we need to flag the conundrum.

**John Basarab:** to run a simulation model for gross CH₄, yield and intensity, by changing Ym for high and low efficiency animals and put in differing values for FI