

Recording methane and feed intake internationally

Results from Brian Wickham Young Person Exchange Program

Technical Session 8 - From Measurement to Genetics: Methane Emission and Feed Efficiency

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Thank you!



My Tour Objectives

- How similar are protocols and trait definitions for CH₄ and feed intake between countries?
- What are the key features of the data in each country that need to be accounted for?
- Political, IP, and legal issues which need to be overcome to share data? (Technical Session 7)
- Is there sufficient genetic linkage between countries? (Technical Session 7)
- Updating the ICAR wiki for Feed&Gas and Small Ruminants

Methane protocols



Australia, Uruguay, Africa



New Zealand, UK, Ireland, France, Norway*

Methane protocols



Adapting to local conditions and management is a necessity.

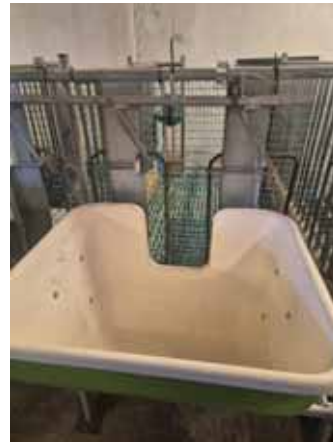
Methane protocols

- Feed differences are likely the largest effect and least likely to be changed
- Minimum of one hour off feed. Most countries can have up to 4 hours off feed
- Animal selection
 - Ewes (Dry or first trimester), Lambs (postweaning, ewes and wethers), Rams
 - Small flocks all animals with preassigned random groups
 - Large flocks based on sire representation and then convenience sampling
- Total durations of 40, 50, or 60 minutes depending on animals and PACs

Methane protocols



Feed intake protocols



Feed intake protocols

- Less alignment than methane
- Infrastructure is purpose built for the facility
- Feed used is dependent on local availability and infrastructure
- Trial durations depend on animal ethics and method of body weight measuring
- What counts as a good feed intake record?

Conclusion

- Protocols are already aligned as much as possible
- What is the most useful data to share and what meta data is needed for international evaluations?
- Opportunity for standardised data processing with Eagle-3
- Knowledge sharing for processing feed intake data
- Recommendations on collaboration will be provided in the proceedings (Technical Session 7)

Thank you!





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