



GLOBAL
RESEARCH
ALLIANCE

ON AGRICULTURAL GREENHOUSE GASES

GRA Council meeting, webcast from Australia

23 - 25 March 2021



**Livestock Research
Group report**

Harry Clark, Richard Dewhurst and Sinéad Waters

LIVESTOCK RESEARCH GROUP

RECENT ACHIEVEMENTS

12th Annual Livestock Research Group Meeting

18-19 September 2020 (virtual)

On-demand presentations available

<https://www.lrg2020.com/>

Co-Chairs

Jeroen Dijkman (New Zealand),
Sinéad Waters (Ireland), and Richard
Dewhurst (United Kingdom)

Participants

93 participants, from 42 member
countries and 7 partner organisations

LRG network coordinators

Provided updates

Science priorities identified

Carbon sequestration and land use,
adoption of technologies, data
collection for inventories.

A need to develop closer
collaboration with the Integrative
Research Group (IRG)

18 & 19 September

LRG2020
A GRA Web Event

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Delivery from Networks

Animal Selection Genetics and Genomics Network

Activities of the group shared on social media (Twitter - @ASGGN_GRA and <http://www.asggn.org/>)

Enteric Fermentation Flagship

GRA wide analysis of bovine microbiomes from animals measured for GHG emissions, feed intake and feed efficiency' moving forward.

Animal Health Network

Published a **review**: Associations between dairy cow health and GHG.

Virtual Network meeting was held on 1 September 2020.

Rumen Microbial Genomics Network

Launch of new journal 'Animal Microbiome'

Contributed to book 'Improving Rumen Function'.

Funded collaborative projects – RumenPredict, and MASTER and **HoloRuminant** (Horizon 2020)

Publication of a review article covering the past, present and future of the rumen microbiome



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RECENT ACHIEVEMENTS

Delivery from Networks

Feed and Nutrition Network

New chair Andre Bannink, Wageningen University, Netherlands

Two major review papers published in Animal Feed Science & Technology

A **symposium review**: Journal of Dairy Science 'Uncertainties in enteric methane inventories, measurement techniques and prediction models.

Projects

Global Network and Capturing Effects of Diet on Emissions from Ruminant Systems (CEDERS).

Development of two enteric methane mitigation databases.

Manure Management Network

DataMan

GRA Nitrogen flagship project (2018-2021). DataMan GHG Database is publicly available and contains over 5600 emission factors; from 184 studies conducted in 25 countries
<https://globalresearchalliance.org/research/livestock/collaborative-activities/dataman/>

Network webinar

2nd February 2021 History of establishing the Network, the scope, deliverables, and relationship with international projects (e.g. DataMan, MELS) and future priorities



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MAIN AMBITIONS

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Networks

Continued Support of networks

Significant support (regular meetings) to revitalise the MMN and AHN

Programme of webinars

Planned quarterly for networks

Animal health network webinar
Early May

Refreshing leadership

Possibility of every 2-3 years

Funding

Identify funding support for the networks (e.g HoloRuminant EU H2020)

Network Activity

Facilitate **dialogue among scientists** from different GRA member nations to increase membership and involvement in networks



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Capacity Building, inventory and mitigation support

Increased collaboration with key organisations working on capability development and improved livestock inventories (e.g. CCAFS, CCAC, FAO, World Bank)

Establish 'roster' of countries and organizations offering to share relevant GHG inventory, MRV and NDC expertise

Identify appropriate roster mechanism/processes & secure funding

Complete & publish a paper on **livestock and sustainable agri-food** system futures: Consortium established, publisher identified & first draft completed.

Work with FAO & the **Global Dairy Platform** to develop a roadmap for 'net zero' dairy production.

Implement **Tier 2 inventory development & mitigation research support** in East Africa (6 countries) & ASEAN region (6 countries) – NZ Government funding secured.

Undertake **strategic literature reviews & horizon scans** to identify priority science areas for LRG collaborative mitigation activities

LRG annual meeting 2021 – virtual due to Covid-19

Plans to schedule an LRG meeting 2022 in Florida at GGAA Conference