

Annual Highlights

2026

**For the Global Research Alliance
on Agricultural Greenhouse Gases (GRA)**



Outgoing message from 2025 Council Chair

Dr. Karl Walsh



Dear GRA Members and Partners,

As Ireland concludes its term as Chair of the Global Research Alliance for Agricultural Greenhouse Gases (GRA) for 2025–2026, I would like to reflect on what has been a highly productive and collaborative period for the Alliance and one that has been a deeply rewarding experience.

Ireland's objectives for its period as Chair were to strengthen international collaboration, drive scientific innovation, and support global efforts toward more sustainable and climate-resilient food systems. More specifically, we aimed to further enhance the GRA's profile and leadership, by advancing research priorities to address both climate mitigation and food security, while continuing to build the momentum and resourcing of the GRA.

A key focus for us as Chair, in partnership with the Secretariat, was the development of a new strategic plan for the period 2026-2030, and a comprehensive review of the structure of the GRA. The establishment of dedicated working groups, supported by extensive consultation and analysis, enabled strong progress on both initiatives.

These efforts culminated in the endorsement of the new Strategic Plan and the re-structuring of the research groups, networks and flagships at the Council Meeting in Dublin in June 2025. Over the course of four days, we welcomed GRA Members and Partners to our capital city where we had very productive discussions, alongside a large scientific and policy conference on agriculture and climate change, and field trips showcasing Irish research and farming systems, along with our Irish hospitality. These four days in Dublin represented a real highlight for us during our period as Chair.



Field trips alongside the 2025 GRA Council Meeting in Dublin, Ireland.



GRA Council Meeting in Dublin, Ireland

It was also a privilege to welcome the GRA family to Dublin, providing an opportunity to meet our colleagues from across the world in-person, and to collectively shape the future progress of the GRA. Building on this progress, we are leading the work on developing a Strategic Research Agenda (SRA) for the Alliance, one of the key commitments of the new Strategy. The development of an SRA will provide clear direction to the GRA's research groups, who are the heart of the Alliance, while strengthening communication of our research areas and priorities to external stakeholders.



As we finish our term as Chair, we are confident that the re-structuring will support greater focus and alignment across research groups and cross-cutting initiatives, enabling a more cohesive and impactful programme of work. These efforts are essential as the global agri-food sector responds to the growing urgency of climate challenges.

Looking ahead, I am confident that the GRA is well positioned to continue to build on this momentum. As Costa Rica assumes the Chair, I extend my full support and best wishes for their term. This transition presents an opportunity to bring fresh perspectives and renewed energy to our shared mission.

Finally, I want to thank you, the Members and Partners, for your enthusiastic and supportive collaboration, and extend a particular 'kia ora' (thanks) to the Secretariat for their hard work, dedication, and guidance throughout this past year and a half.



Karl Walsh
GRA Council Chair 2025/2026
Ireland





Strategic Plan *2026-2030*

The Strategic Plan for 2026-2030 is a non-binding document that tracks the GRA's continued effectiveness and ensures progress towards the implementation of the GRA Charter. The Strategic Plan will serve as a bridge between the day-to-day work of the GRA Council, and its Research Groups, Special Representative, Secretariat and Partners.

Our Vision

The GRA will be the leading global initiative advancing research to reduce agricultural GHG emissions as part of a sustainable, climate-resilient global agri-food system.

Our Mission

To develop, advance, coordinate and disseminate international research to contribute to emissions reductions and increase agricultural carbon sequestration and storage from agriculture, without compromising other aspects of environmental sustainability, while maintaining or improving productivity, resilience, and food security.

Our 4 Strategic Priorities

1 Advance Science and Innovation

Goal:

Develop and advance impactful research that reduces agricultural GHG emissions through global collaboration.

2 Strengthen Capacity and Knowledge Sharing

Goal:

Build research and technical capacity in the area of agricultural GHGs and foster knowledge sharing and information exchange.

Our Launch

Our Strategic Plan was launched in March 2026 in New Zealand by Ireland's Minister of State at the Department of Agriculture, Food and the Marine with responsibility for Food Promotion, New Markets, Research and Development, Noel Grealish TD and New Zealand's Minister for Agriculture, Forestry, Trade and Investment, Hon. Todd McClay.



"The GRA aims to deepen and broaden research efforts in cropping, livestock, and rice. It has brought together researchers from around the globe to collaborate on science and breakthrough solutions to reduce greenhouse gas emissions. I am delighted to launch the new Strategic Plan during Ireland's period as Chair of the GRA with Minister McClay and GRA Special Representative Peter Ettema." - Minister Grealish

3

Build Effective Collaboration and Partnerships

Goal:

Build new, and strengthen existing, global partnerships and collaboration to accelerate the development and impact of agricultural GHG research.

4

Leverage Financial and Other Resources

Goal:

Leverage financial and other resources to deliver on its research priorities.

Introducing the 2026 Council Chair

Roberto Camacho



Costa Rica is honoured to take on the role of incoming Chair of the Global Research Alliance on Agricultural Greenhouse Gases (GRA). As Chair, we look forward to strengthening collaboration across the Latin American and Caribbean research community, while fostering stronger connections with partners and researchers around the world.

Costa Rica's Role and Objectives

Costa Rica believes there is a unique opportunity to bring together traditional agricultural knowledge, scientific research, and sustainability-focused innovation to address the challenges of climate change. We hope to encourage greater engagement from the Latin American and Caribbean region across the GRA's Research Groups and Flagship projects, while strengthening communication and collaboration between countries and communities facing similar challenges.

Over the years, Costa Rica has benefited from GRA-supported climate change projects and partnerships. During our Chair year, we would like to showcase how these opportunities and resources have contributed to meaningful progress within our country and region, and how collaboration through the GRA can continue to create lasting impact.

Climate resilience remains a key priority for Costa Rica. We are committed to learning from the experiences of other GRA members and partners, while also sharing our own experiences and research. In particular, we see strong opportunities to work alongside existing GRA Flagship projects and explore new collaborations, whether by scaling up successful initiatives already underway or developing new joint projects together.

Costa Rica is also committed to supporting research that advances sustainable livestock production and strengthens resilience across agricultural systems. Through our climate change research initiatives, we are continuing to build stronger international connections and overcome barriers, including language, to ensure broader participation and knowledge exchange.

As we begin our Chair year, we look forward to engaging with members across the Alliance to collectively shape how we can contribute to the GRA's shared goals and continue advancing sustainable and climate-resilient agriculture together



Roberto Camacho
GRA Council Chair 2026/2027
Costa Rica

A message from the new Special Representative

Peter Ettema



It is an honour to be writing this message as the new Special Representative for the Global Research Alliance on Agricultural Greenhouse Gases. I would like to thank the GRA Council members for their support and to acknowledge Dr. Harry Clark's significant contribution to the GRA and global efforts to reduce agricultural emissions.

Since starting in the role, I have had the pleasure to meet with the new and existing Chairs of the three Research Groups and the other networks. This has been very helpful for me to build my understanding of the GRA and get a better sense of the areas of work the Groups are looking to focus on. I have also had some very useful conversations with key partners such as the Global Methane Hub and ILRI and we have supported activities with the World Bank as part of their Next Gen Rice programme.

There have been several additional highlights over the past few months. This includes attending the International Strategic Meeting on Scientific Pathways for Sustainable Livestock Industry Transformation in Indonesia which was a great opportunity to meet several GRA members and partners. I also met with a delegation from Germany and Karl Walsh, Ireland's representative as GRA Council Chair, when they were visiting New Zealand earlier this year. I also had the opportunity to attend the Livestock Research Group's meeting in Nairobi prior to officially taking on the SR role which was an excellent introduction into the breadth of work being undertaken by GRA members and partners.

Other important initiatives include utilising the GRA's GHG Inventory expertise, through the NZ-funded Climate Smart Agriculture Initiative, to support GRA members and other countries to move from Tier 1 to Tier 2 accounting protocols for agriculture as well on-going work with the Global Methane Hub and the Environmental Defence Fund on the role of animal health interventions in reducing GHG emissions.

The world is facing many challenges so the GRA's role of bringing countries together to balance the need to grow more food without growing greenhouse gas emissions remains as critical as ever. The 2026 Council meeting, therefore, comes at a key time for the GRA. Following the 2025 Council meeting, work is now underway to develop a Strategic Research Agenda to guide future activities and act as a key tool for communicating with Partners and funding organisations. This will form an important part of the Council agenda, so I urge all Members to participate in these discussions to help ensure that the GRA remains relevant to you as well as the wider global agricultural community.





Livestock Research Group

Focused on reducing the emissions intensity of livestock production systems and increasing the quantity of carbon stored in soils supporting these systems.

LRG Networks

- Animal Health & GHG intensity
- Animal Slection, Genetics & Genomics
- Feed & Nutrition
- Manure Management
- Rumen Microbial Genomics



Crop and Land Use Research Group

Focused on reducing greenhouse gas intensity and improving overall production efficiency of cropland systems.

C&LURG Networks

- Soil Carbon
- Nutrient Management
- Farming Systems



Rice Research Group

Focused on reducing the emissions intensity of rice cultivation systems, while improving its overall production efficiency for growers. The Rice Research Group will strengthen its membership and foster new partnerships through information sharing to identify the best practices in global rice systems to expand methodologies applicable across regions.



Independent Networks

These networks each have a broad focus and can contribute to all Research Groups and its networks.

Ag GHG
Inventories
Network

Indigenous
Research
Network

Circular
Food
Systems
Network

Welcome our new

Co-Chairs



Rice Research Group



Dr. Yasuhito Shirato, Japan

*Director, Division of Climate Change Mitigation Research,
Institute for Agro-Environmental Sciences, National Agriculture
and Food Research organisation*

As a co-chair of the Rice Research Group, I wish to commit to promoting the exchange of information and sharing of experiences on Rice among various countries and regions, with the aim of helping each region achieve sustainable agriculture by balancing greenhouse gas mitigation with food production.



Dr. Nomsa Chizhande, Zimbabwe

Rice Research Officer, Crop Breeding Institute

As Co-Chair of the Rice Research Group, I hope to strengthen international collaboration and support practical, science-based solutions that reduce greenhouse gas emissions while sustaining rice productivity and farmer livelihoods. I applied for this role because I value the opportunity to connect researchers, policymakers, and partners across regions to accelerate knowledge exchange and innovation. During 2026–2027, I aim to help expand participation within the group, encourage collaborative research initiatives, and contribute to building a strong and inclusive platform that advances sustainable rice systems globally.



Dr. Adriano Castro, Brazil

*Head of Department at Brazilian Agricultural Research
Corporation (EMBRAPA)*

As co-chair of the Rice Research Group, I propose identifying the best cultivation practices that promote greater production efficiency, climate resilience, lower environmental impact, reduced greenhouse gas emissions, and enhanced sustainability. Understanding, disseminating, and adapting these practices across different countries will result in significant reductions in greenhouse gas emissions.



Crop and Land Research Group

Peter Grace, Australia

Professor of Global Change, School of Biology and Environmental Science, Queensland University of Technology



Peter Grace is Professor of Global Change at Queensland University of Technology in Brisbane, Australia. As a soil biogeochemist specialising in the interaction of soil carbon and nitrogen and the impact on greenhouse gas emissions and productivity. Peter has a wealth of international experience having worked in the North and South America, Sub-Saharan Africa, South Asia and Oceania. Peter's goal is to optimise the 4Rs (the right product, rate, timing and placement) to increase nitrogen use efficiency, reduce nitrous oxide emissions and maximise production.

Thierry Caquet, France

Vice-president International of the French National Research Institute for Agriculture, Food and Environment (INRAE)



As an ecologist involved in coordinating INRAE's research into agroecology and the interactions between agriculture and climate change, I want to work with my two co-chairs to help establish this new Research Group. I intend to support efforts to raise the profile of the activities of the relevant networks and to work towards fostering better dialogue between research on carbon and nitrogen, in order to break down thematic silos. I also wish to work towards better integrating the adaptation dimension by analysing its interactions with mitigation practices within a systemic framework.

María Rosa Mosquera Losada, Spain

Professor at Universidad Santiago de Compostela (USC)



María Rosa Mosquera Losada is full profesor at the over 500 years old University of Santiago de Compostela. As Co-Chair of the Crop and Land Use Research Group she would like to develop new carbon sequestration certification schemes linked to land use change and land management linked to agroforestry and agroecology management , the development of advisory services and business models DSS thanks to the collaboration of over 20 countries across the globe including America, Asia, Africa and Europe acknowledged by the coordination of 3 EU projects: AF4EU, SUS-SOIL and GREENCOOP and the collaboration of certification bodies and governments. Moreover, she leads the USC doctorate programme on "Agriculture and Forest Research" with the participation of doctorate students from four continents. The coordination of the AF4EU project whose platform where

advisory, business models and knowledge is integrated is her last innovation achievement in collaboration with dozens of researchers together with the AF alive handbook receiving over 100000 visitors.



Livestock Research Group



Sinead Leahy, New Zealand

Principal Scientist, AgEmissions Centre

I was privileged to join the LRG Co-Chairs team in July 2023. Throughout my research career, I have seen the value of strong global scientific collaboration and the progress achieved when researchers are connected across countries and disciplines. The GRA and its partners play a pivotal role in linking science, policy, and real-world impact. If we are serious about producing more food without increasing greenhouse gas emissions, we need the brightest minds working together globally. International scientific networks are a powerful way to accelerate innovation, share knowledge, and drive meaningful change. It is an honour to serve on the LRG Co-Chairs team and contribute to strengthening engagement across its comprehensive research network. I am looking forward to organising our annual LRG meeting in the last quarter of 2026. This year we plan to run the meeting online to enable broader participation and greater accessibility across the network.



Tommy Boland, Ireland

Professor of Ruminant Nutrition, School of Agriculture and Food Science UCD.

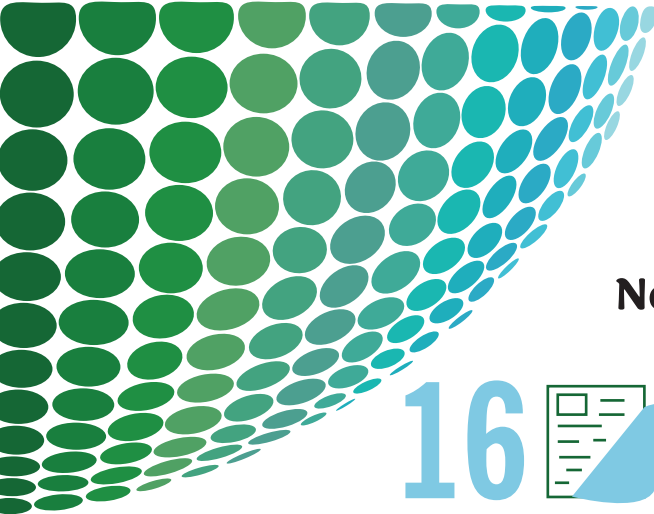
I became Co-Chair of the LRG in 2023, on the back of my research and stakeholder engagement activity to enhance the sustainability of livestock production systems, with a specific focus on enteric methane mitigation. My participation in the GRA and LRG is supported by DAFM in Ireland and I work closely with the Feed and Nutrition Network. One of the key benefits of the LRG is the bringing together of leading experts from across the globe to produce solutions that are locally relevant to address common global challenges. Over the course of my time as co-chair I hope to facilitate the generation of knowledge and development of interventions that will deliver tangible results for primary producers and global citizens alike.



Illias Kyriazakis, United Kingdom

Professor of Animal and Veterinary Science at Queen's University Belfast

I am the newest Co-Chair of the LRG, appointed in February 2026. I sought this role because I strongly support the GRA's mission and have seen first-hand how its coordinated activities drive reductions in GHG emissions from livestock. As my position is funded by Defra, it also enables closer alignment with national priorities in this area. As one of three Co-Chairs, I oversee the Animal Health and GHG Emissions and Manure Management Networks. I look forward to working closely with their members to expand activities and strengthen global coordination toward our shared objectives.



1 

New member
country

2026
Updates

16 

Publications

40 

Fellowships

20 

Webinars

1 

Research Group
meeting

LRG Annual Meeting

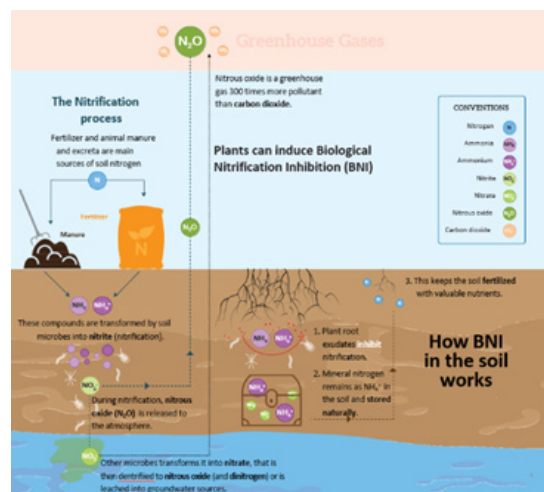
The 15th annual meeting of the Livestock Research Group (LRG) of the Global Research Alliance on Agricultural Greenhouse Gases (GRA) was held in Nairobi, Kenya on the margins of the 2025 International Greenhouse Gas & Animal Agriculture Conference. This in-person meeting was attended by approximately 44 participants, representing at least 29 member countries of the GRA. The session aimed to identify priorities for research, communication, and strategic direction within the LRG and its networks. Participants were invited to share ideas, focusing on what is achievable within the voluntary structure of the GRA while considering long-term aspirations.

Flagship Spotlight: BNI

N₂O Mitigation Strategy

This flagship is led by New Zealand's AgResearch, CIAT in Colombia, and Université Libre de Bruxelles in Belgium. Its overarching goal is to deepen the understanding of how plants with biological nitrification inhibition (BNI) capacity can be used to reduce N₂O emissions from agricultural soils. The project will connect existing BNI research projects and researchers to compare BNI from different plant species, environmental and management conditions.

The project will also come up with guidelines on best practice methodologies to evaluate BNI and provide capacity building on the topic. Finally, the project will identify research gaps and facilitate international collaborative projects. Global agriculture contributes with approximately half of the anthropogenic N₂O emissions, and one third of agricultural N₂O emissions being derived from livestock manure. Nitrous oxide is produced by denitrifying bacteria, transforming nitrate to N₂O. Before N₂O is produced, nitrogen in livestock manure and urine first have to go through several transformations. An important step is nitrification, i.e. conversion of ammonium to nitrate. Synthetic nitrification inhibitors have showed to be effective in preventing nitrification in the short term, but high prices and concerns about residues in food products has contributed to the need of finding alternatives.





Research priorities

1

Global South:

Create awareness about GHG emissions from livestock production in Africa

2

Models:

Need improved predictive models describing CH₄ and N₂O emissions

3

Measuring methods:

Different measuring methods do not always give comparable results. We may learn why from Intercalibration studies

4

Webinars:

Network participants are invited to present results of project studies or from institutional focus research areas

Network highlight: Manure Management

Led by Denmark's Aarhus University and the Chinese Academy of Agricultural Sciences (CAAS), the Manure Management Network (MMN) is a global forum for scientists focused on reducing greenhouse gas emissions from livestock through the improvement of manure management.

Manure management is the handling, storage and disposal of urine and faeces from livestock, other than the manure deposited directly onto pastures by grazing animals.

Sound manure management not only contributes to reducing greenhouse gas emissions but also offers important benefits for reducing nutrient losses and other environmental impacts of livestock production, such as air and water pollution.

The Manure Management Network is currently working on:

- extending the current DATAMAN database
- a compilation of mitigation methods and strategies
- meta-data reporting requirements for different greenhouse gas sources
- harmonizing protocols for greenhouse gas measurements from the different stages of the manure management chain.

Check out recent webinars

Measuring gas emissions from farming with micrometeorological measuring techniques

In this webinar, experts in measuring gas emissions from farming presented the great potential in the use of the micrometeorological methodology method, and pitfalls, understanding, and application of the use of it.

Methods to calculate methane emissions from stored liquid manure

In this webinar, experts in developing models to calculate methane emissions from livestock farming presented new improvements of the tier 2 method as well as alternative approaches for calculating the emission. The intention of the webinar was to stimulate new initiatives to investigate the calculation of methane emissions from manure management, with the aim to develop a new generation of methods.

Traditional pathways towards Circular Food Futures

New Zealand and Germany (through the AgriDENZ project), co-hosted a side event at the New Zealand Agricultural and Climate Change Conference on 29 April, 2026.

A highly engaging performance by the Ko Tau Rourou Kapa Haka Group, led by the Indigenous Research Network's Shiloh Babbington, set a positive tone for the event, creating a strong link for participants to receive and engage in discussions through an indigenous lens.



The event explored topics of particular interest to Pacific Nations related to circular food systems, and how these might be collectively and collaboratively addressed through support of existing indigenous knowledge. Addressing these issues will have a clear impact on reducing Food Loss and Waste in the region, as well as enhancing regional food security and helping these countries meet their NDCs.



Key topics identified during the side event included strengthening regional knowledge and capacity to address post-harvest crop losses, as well as improving regional knowledge in sustainable soil and waste management practices.

The event was well-attended in-person and online by countries and organisations from the Pacific, Australasia, Europe, Latin America and the Caribbean and generated considerable thoughtful discussion.

Key themes

1 Traditional Knowledge

2 Building on local & regional initiatives

3 Information sharing

As a result, a subsequent workshop is planned to be held in Samoa in the first week of September 2026 to advance the ideas explored at the event and potentially develop a multi-country GRA Flagship project.

Launching a Flagship will be a significant milestone for the IRN and will advance the recognition of traditional knowledge, and the importance of this being led by the communities that hold that knowledge. Samoa and New Zealand, as co-leads of the IRN, welcome interest from other member countries and partners.



Round 7



CLIFF-GRADS

Growing global talent in early career scientists

The Climate, Food and Farming, Global Research Alliance Development Scholarships Programme (CLIFF-GRADS) is a joint initiative of the Global Research Alliance on Agricultural Greenhouse Gases (GRA), CGIAR Climate Action Science Program, and the Global Methane Hub (GMH). CLIFF-GRADS builds capability in early career scientists from low- and middle-income countries to conduct applied research in agriculture greenhouse gas emission quantification and mitigation. During short research stays of up to 6 months, CLIFF-GRADS awardees are exposed to expertise and scientific training at their host institute that they would not otherwise receive during their PhD in their home country.

During 2026 and 2027, these fellows will undertake applied research focused on quantifying and mitigating agricultural greenhouse gas emissions, contributing to more sustainable food systems.

We are proud to announce Round 7 awardees!

40 recipients including **17 Women & 22 Men**

representing **21** countries from Asia, Africa, and Latin America who

will carry out research placements at **32** host institutions worldwide.

Increasing women's participation

"Over the years, we've noticed that while women make up only about 25% of applicants, they're accepted at much higher rates into our programme (around 50% compared to 28% for men). In simple terms, that tells us the women who do apply are submitting very strong applications.

For a while, we wondered if the lower number of women applicants simply reflected a smaller pool of qualified candidates in the field of agricultural greenhouse gas science. But as we've worked to encourage more women to apply—by spotlighting successful alumnae, engaging host supervisors, and offering targeted support through our alumni network—we're seeing that that may not be the case. With 17 out of 40 scholars being women this round, up from 12 last time, it's encouraging evidence that there are plenty of highly capable women scientists in this field, we just need to make sure they're stepping forward." - Chista Keramati, CLIFF-GRADS programme lead



Check out our new Publications

CLIFF-GRADS

Gebremedhin H, Salgado P, Fassinou C & S Taugourdeau S (2025). Using a low-cost drone to assess herbaceous biomass and quality in the Sahelian Rangeland ecosystems. *African Journal of Range and Forage Science*, Volume 42, 2025 Issue 3

Akinropo TF, Ricci P, Faverin C, Ciganda V, Muñoz C, Ungerfeld E, Urrutia N, Rodriguez R, Morgavi DP, Eugène M (2025). Improved prediction by enteric methane emission models in ruminant production systems by integrating climate classification. *Animal*, Volume 19, Issue 11, 101665

Soares S, Fernández-Soler C, Carrillo-López E, Martínez-Mena M (2025). Soil organic matter fractions in the topsoil and subsoil of woody crop systems: Impact of reduced tillage plus cover crops under rainfed semi-arid Mediterranean conditions. *Agriculture, Ecosystems & Environment*, Volume 393, 1, 109821

Hernández O, López A, Ceron-Cucchi ME, Adégbéla Alabi CD, Loza C, Juárez Sequeira AV, Fissolo HM, García EM, Gere JI (2025). Whole Cottonseed as an Effective Strategy to Mitigate Enteric Methane Emissions in Cattle Fed Low-Quality Forages. *Animals*, 15(6):819

Cerón-Cucchi ME, Gere JI, Chavarria N, Ramos NE, Takahashi LS, Montiel MD, Acuña F, Ortiz-Chura A, Cravero SLP (2025). Dietary supplementation improves animal performance and reduces methane emission intensity in young llamas grazing natural forages. *Small Ruminant Research*, Volume 245, 107466

Feyissa AA, Tolera A, Senbeta F, Diriba D (2025). Adoption decisions for climate-smart dairy farming practices: Evidence from smallholder farmers in the Salale highlands of Ethiopia. *Climate Smart Agriculture*, Volume 2, Issue 1, 100039

Alasinrin SY, Salako FK, Busari MA, Sainju UM, Badmus BS, Isimikalu TO (2025). Greenhouse gas emissions in response to tillage, nitrogen fertilization, and manure application in the tropics. *Soil and Tillage Research*, Volume 245, 106296

Rumen Microbial Genomics Network

Lin, L., Popova, M., Tapio, I. et al. Harnessing the early-life gut microbiome for sustainable ruminant production. *anim microbiome* 8, 42 (2026). <https://doi.org/10.1186/s42523-026-00549-6>

Our Partners

Rebolledo MC, Saito K, Adam M, Bartholomé J, Castro A, Clerget B, Cordero K, Singh Dhillon B, Dixit S, Fernandez R, Grenier C, Grondin A, Henry A, Katiyar S, Mencos Contreras E, Orn C, Peramaiyan P, Perin C, Pradal C, Staiger Rivas S, Senthilkumar K, Valdivia R and Alvarez MF (2026) Aerobic rice: a system-based genetic innovation for low water use and methane mitigation. *Front. Sustain. Food Syst.* 10:1841086. doi: 10.3389/fsufs.2026.1841086

AgMIP-IRRI Greenhouse Gas Fluxes and Modeling For Rice Workshop Report: <https://agmip.org/wp-content/uploads/2026/05/Screenshot-2026-05-26-140715.png>

AgMIP10 Workshop Report (Mitigation and Adaptation Co-Benefits was one of the key themes): https://agmip.org/wp-content/uploads/2025/11/AgMIP10-Workshop-Report_cover-scaled.png

Rosenzweig, C., Valdivia R., McDermid, S., et al. 2026. Modeling Mitigation and Adaptation Co-Benefits in Rice Systems in Bangladesh. *Environmental Research: Food Systems*. <https://doi.org/10.1088/2976-601X/ae7e8e>

<https://www.ifad.org/en/w/publications/reducing-greenhouse-gas-emissions-from-the-livestock-sector-in-kyrgyzstan-tajikistan-and-uzbekistan>

<https://livestockdata.org/publications/bending-emissions-curve-livestock-production>

<https://www.ccacoalition.org/resources/role-digital-extension-services-livestock-tackling-methane-emissions>

<https://livestockdata.org/DigitalServices>



About us

The Global Research Alliance on Agricultural Greenhouse Gases (GRA) is an international cooperation that brings countries together to find ways to grow more food without growing greenhouse gas emissions.

Contact us

secretariat@globalresearchalliance.org

<https://globalresearchalliance.org/>

A decorative graphic in the bottom-left corner consisting of a grid of overlapping circles in various shades of green, arranged in a pattern that tapers off towards the right.