VOL. 2· DECEMBER 2022

ANIMAL HEALTH & GREENHOUSE GAS EMISSIONS INTENSITY NETWORK

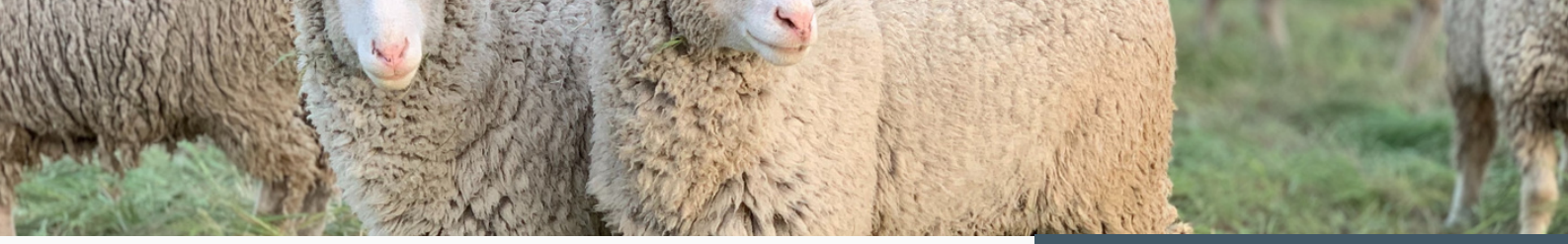
Quarterly Newsletter

ROLE OF ANIMAL HEALTH IN REDUCING GHG EMISSIONS

Climate change can cause detrimental effects on animal health, and this can potentially lead to changing patterns of disease, both exotic and endemic. This can impact on production efficiency and reproductive performance. Less biologically efficient animals will have a greater emissions intensity of greenhouse gases. Additionally, impacts represent a significant economic loss for the farmer. Therefore, we should focus efforts on mitigating the impacts that global warming may have on animal health and welfare. Improvements in the management and control of diseases (for example, vaccination campaigns and sustainable treatment strategies) along with optimal management practices and animal feeding can help moderate and prevent the impact of some infections. However, the adverse effects that climate changes bring are constant and changing. Hence, designing action plans, as well as mechanisms and tools that help prevent and control the outbreak of some diseases in farm animals is an ongoing priority. It is important to remember that livestock represent a fundamental pillar of human nutrition, and food security worldwide. In addition, millions of people in the world depend on livestock for their livelihood, especially in resource-poor settings (FAO, 2020).

The Animal Health and Greenhouse Gas (GHG) Emissions Intensity Network (AHN) is an international network focusing on the interplay between animal health and GHG emissions from a systemic perspective. The network aims study the interrelation of diseases in animals with feeding, breeding, immune response, and the resulting impacts on GHG emissions on farms, both in terms of intensity and absolute emissions.

AHN website
@AHN_GRA



Livestock Research Group Meeting 2022

The annual meeting of the Livestock Research Group took place over 3 days on the 18th-20th October. This year as with last was an online format with the recordings available on Youtube.

On Day 1 we heard from Andy Reisinger the NZ Climate Change Commissioner Keynote on 'Methane, metrics, and mitigation: Insights from IPCC reports and recent literature' before hearing from a number of industry stakeholders; Donald Moore (Global Dairy Platform), Pania King (Kiriroa Station, Māori Farmers from Te Tairāwhiti) and Ruaraidh Petre (Global Round Table on Sustainable Beef) on 'Scientific challenges global organizations are facing to respond to the challenge of climate change'. Day 2 very much focussed on individual networks and GRA Flagship project updates, with Day 3 giving the Network Leads the opportunity to lay out their plans for the upcoming year. So, if you want to know more about the activities of the AHN and the other networks you can access all the recordings below on the LRG website.

The 14th annual meeting of the Livestock Research Group (LRG) of the Global Research Alliance on Agricultural Greenhouse Gases (GRA)

COST application

As mentioned in the previous bulletin the network is working on a COST proposal to be submitted in October 2023. The COST action aims to place GHG as the core of effective animal health priorities the network needs to play a crucial and intermediary role in developing capacity and ensuring priorities for future research development align with societal needs together with farmers, farm advisors, and policymakers.

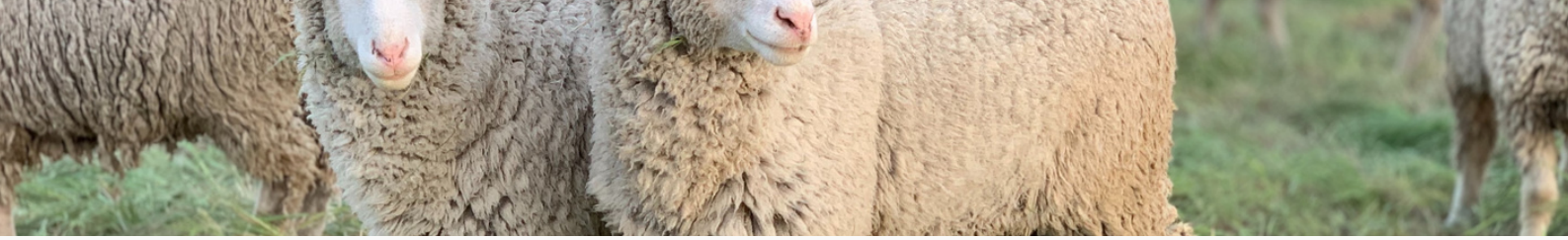
We would like to thank those members who are actively involved in developing the current draft proposal. In recent months we have been in active discussions with a range of partners from the veterinary industry, international research organisations and wider networks including the EMiFa GRA flagship to provide industry relevant support and interdisciplinary expertise.

If you would like to be involved in helping put together the application or acting as a proposer in the active submission, please let us know. The wider and more diverse the International support we can get for the application the better!

Funded Research

In October 2022 a team comprised of staff from SRUC, The Moredun Institute and Edinburgh University started a project for Defra (The UK Department for Environment, Food and Rural Affairs) that will estimate the mitigation achievable by improving livestock health in the UK. It will revisit previous estimates of the total mitigation available from health and undertake three new case studies of specific diseases: bovine viral diarrhoea (BVD) in cattle, porcine respiratory and reproductive syndrome (PRRS) in pigs, and gastrointestinal parasites in sheep.

The project is due to complete in March 2023. For further details contact: michael.macleod@sruc.ac.uk

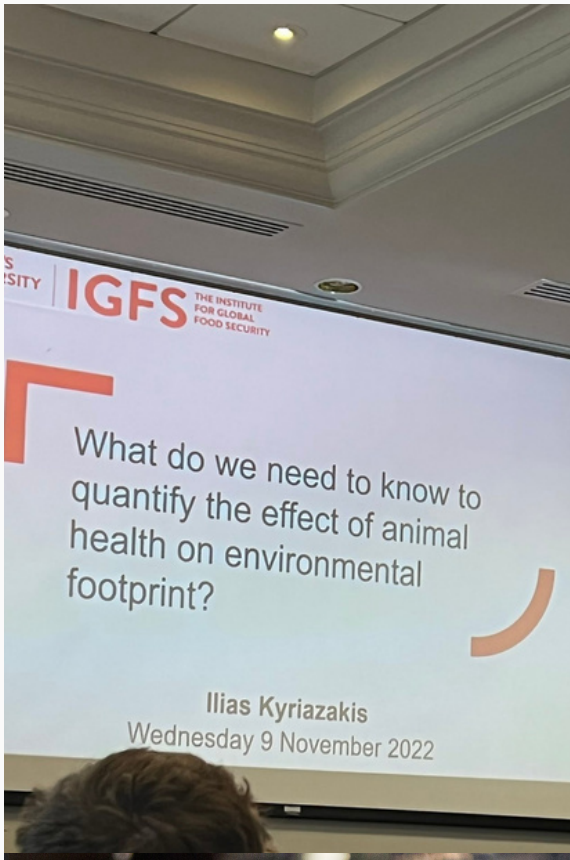


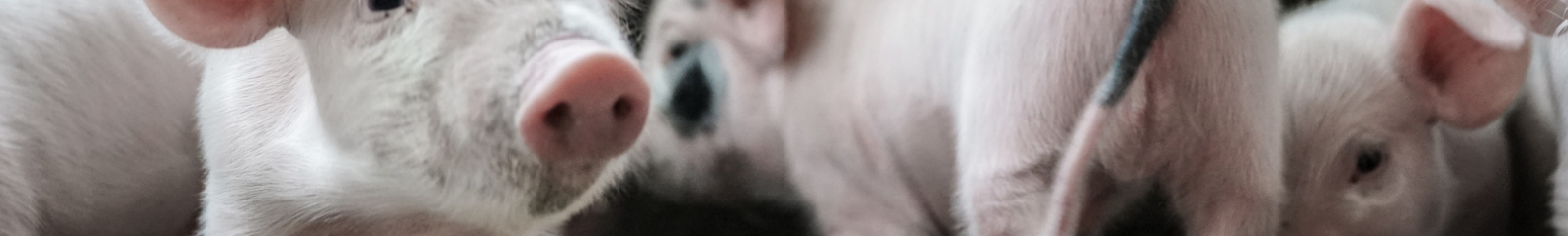
Meetings and Workshops

The Agri-food and Biosciences Institute Science Outlook Conference – Carbon and Beyond was held on Wednesday 9th November at the Hilton Templepatrick. The event proved a huge success with over 200 attendees from academia, industry and government and key areas discussed included innovations to enhance the local agri-food industry, the role of animal health in achieving environmental goals and best practice to optimise ecosystem services from land and seas.

Speaking in 'The role of animal health in achieving our environmental goals' session (Session 2) the keynote was provided by Dr Philip Skuce (Moredun Research Institute), 'Linking animal health to environmental footprint'. Also speaking within the session Prof Ilias Kyriazakis (Queens University, Belfast) provided a fascinating presentation entitled 'What we need to know to quantify the effect of animal health on environmental footprint' and also contributed to the round table discussion.

Recordings of all the presentations are available on the AFBI website.





Recent Publications

Since our last network newsletter the FAO in collaboration with GDP and GRA has published an interesting and valuable report concern to "The role of animal health in national climate commitments".
The report was led by the network co-lead Şeyda Özkan, and co-authored by Félix Teillard, Brian Lindsay, Hayden Montgomery, Antonio Rota, Pierre Gerber, Madhur Dhingra and Anne Mottet. This report talks about the livestock sector in the context of climate action, how animal health can affect GHG emissions, and how animal health is included in climate commitments today. In addition, it summarizes the use of different measures, tools, data systems, and parameters, and what is needed to investigate and show that animal health also influences GHG emissions. Additionally, three case studies were include in this communication.

Upcoming events

From 7 to 9 March 2023, the online Avian Research Symposium 2023 will take place on three consecutive afternoons.

Registration to present and attend is now open and details are on the symposium website.

If there are any events or activities that you would like to see highlighted, we'd love to hear your suggestions so please get in touch.

If you want to know more about the network and its activities, you can access the AHN website and follow us on Twitter AHN_GRA.

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THE ANIMAL HEALTH AND GREENHOUSE GAS EMISSIONS INTENSITY NETWORK IS PART OF THE LIVESTOCK RESEARCH GROUP OF THE **GLOBAL RESEARCH ALLIANCE** ON AGRICULTURAL GREENHOUSE GASES.

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