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# Quantification and Mitigation Strategies to Reduce Greenhouse Gas Emissions from Livestock Production Systems

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### **Message from the Guest Editors**

Dear Colleagues,

In recent years, the climate change has become a growing international concern. The release of greenhouse gases (GHG) predominantly derived from human activities. The livestock sector, particularly ruminants, contributes approximately 18% of total anthropogenic GHG emissions (Steinfeld et al., 2006). GHG emissions arise from processes both on and off the farm and include methane (CH4), nitrous oxide (N2O) and carbon dioxide (CO2).

Efficient agricultural practices are key to reducing GHG emissions. These practices can be achieved through several aspects of livestock production. For example, livestock genetic improvement, changes in feeding strategies, nutritional improvement, disease control, and animal health improvement, improvement in animal welfare and husbandry.

This Special Issue seeks contributions including reviews and original research in two broad but related areas: 1) measurement techniques and protocols, use of proxies, methodological opportunities and challenges including uncertainty in quantification of GHG emissions from livestock systems; and 2) methods, techniques, and strategies for reducing GHG emissions from livestock production systems.







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# **Editor-in-Chief**

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1. Institute of Veterinary Medicine and Animal Sciences, Estonian University of Life Sciences, Kreutzwaldi 1, 51014 Tartu, Estonia 2. Curtin University Sustainability Policy (CUSP) Institute, Kent St., Bentley 6102, Australia Animals is an on-line open access journal that was first published in 2011. Animals adheres to rigorous peerreview and editorial processes and publishes only high quality manuscripts that address important issues in the many varied disciplines that involve animals, with a focus on animal science, animal welfare and animal ethics. Animals is covered in the Science Citation Index Expanded (SCIE) in Web of Science, with the latest Impact Factor: 2.7 (2023, ranks 10/80 (Q1) in 'Agriculture, Dairy & Animal Science'; 16/167 (Q1) in 'Veterinary Sciences'), 5-Year Impact Factor: 3.0.

**Message from the Editor-in-Chief** 

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