







Special Issue Reprint

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

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Ruminants contribute significantly to human food security. However, the production of ruminants contributes to greenhouse gas (GHG) emissions that are responsible for climate change. GHGs such as methane, carbon dioxide, and nitrous oxide are produced from different processes of ruminant production. Ruminant enteric methane is a substantial component of methane produced by agriculture. This book presents novel and established methods in quantifying and reducing enteric methane emission from ruminants in different production systems. The book covers different types of ruminants including cattle, sheep, and goats. The chapters are contributed by scientists and authors from different parts of the world, demonstrating the importance of this problem and the universal drive for immediate and sustainable solutions. Although, biologically speaking, the production of enteric methane cannot be reduced to zero, high emissions are an indicator of inefficient digestion of feed in the rumen and low utilisation of feed energy. By presenting research that could lead to robust and yet practical quantification methods and mitigation strategies, this book not only contributes to the discourse and new knowledge on the magnitude of the problem but also brings forward potential solutions in different livestock production systems.





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