



Tropentag, September 9-11, 2020, virtual conference

“Food and nutrition security and its resilience
to global crises”

Strategies to Achieve the GHG Mitigation Goals of the Livestock Sector in Latin America

ALEJANDRO RUDEN¹, JACOBO ARANGO¹, DEISSY MARTINEZ-BARON¹, ANA MARIA LOBOGUERRERO¹, ALEXANDRE BERNDT², MAURICIO CHACON³, CARLOS FELIPE TORRES⁴, WALTER OYHANTCABAL⁵, JUAN A. GOMEZ⁶, PATRICIA RICCI⁷, JUAN KU-VERA⁸, STEFAN BURKART¹, JON M MOORBY⁹, NGONIDZASHE CHIRINDA¹

¹*International Center for Tropical Agriculture (CIAT), Colombia*

²*Empresa Brasileira de Pesquisa Agropecuária (EMBRAPA), Research and Development, Brazil*

³*Ministry of Agriculture and y Livestock, San Jose, Costa Rica., Costa Rica*

⁴*Clima Soluciones S.A.S, Colombia*

⁵*Ministry of Livestock, Agriculture and Fishing, Uruguay*

⁶*Universidad Nacional Agraria La Molina, Peru*

⁷*Instituto Nacional de Tecnología Agropecuaria INTA, Animal Production, Argentina*

⁸*University of Yucatan, Faculty of Veterinary Medicine and Animal Science, Mexico*

⁹*Aberystwyth University, Institute of Biological, Environmental and Rural Sciences, United Kingdom*

Abstract

Livestock production is a fundamental source of income and greenhouse gas (GHG) emissions in Latin American countries. 20 percent of the region's emissions come from agriculture, 70 percent of which comes from livestock. There are several management and technology options with enteric methane mitigation potential that have been evaluated and their scale is expected to contribute to achieving the GHG emission reduction targets under the Paris Agreement. These technologies include management of the animal diet, reproductive control, administration of supplements, and reduction of the age at slaughter, among others. However, widespread adoption of promising mitigation options remains limited, raising questions about whether the planned emission reduction targets are achievable. Using the results of local studies, we have explored the mitigation potentials of currently proposed management technologies and practices to mitigate enteric methane emissions from livestock production systems in Latin American countries with the highest emissions. We then discuss the barriers to adopting innovations that significantly reduce enteric methane emissions from livestock and the main changes in policies and practices necessary to raise national ambitions in high-emission countries. Drawing on today's latest science and thought, we take our perspective to an inclusive approach and reimagine how the academic, research, business and public policy sectors can support and incentivize the changes necessary to raise the level of ambition and achieve goals of sustainable development, taking into account actions from the farm to the national scale. Some improvements identified and that need to be made are improving access to information through effective technology transfer plans, access to financial products by small producers, and establishing seed multiplication systems for fodder materials.

Keywords: Enteric methane, Latin America, NDC, Paris agreement (COP 21), SDG targets

Contact Address: Alejandro Ruden, International Center for Tropical Agriculture (CIAT), Tropical Forages Program, Km17 recta Cali - Palmira, Cali, Colombia, e-mail: d.ruden@cgiar.org