

Special Issue

GHG Mitigation in Forage-Based and Conventional Livestock Production Systems in Tropical and Subtropical Climate Regions of the World

Message from the Guest Editor

Dual-purpose cattle systems are dominant in tropical regions but with low productivity and higher greenhouse emissions. Current research indicates that C4 grasses (dominant forages in tropical and subtropical regions) produce high methane (CH₄) yield when cattle consume them. In contrast, growing evidence suggests that native tropical legume trees used as forage can reduce CH₄ production. There are efforts to adopt agroecological and sustainable practices that help to capture atmospheric CO₂ and increase productivity and resilience. These initiatives are small, with limited progress to mitigate climate change. Therefore, this Special Issue welcomes manuscripts that document the effect of tropical tanniferous and saponiferous plants and other feed additives to mitigate CH₄ production; use of agro-silvopastoral and agroecological systems to reduce GHG emissions; improved husbandry practices to increase animal productivity; intensification of dual-purpose cattle production systems, reduced intensity of emissions; and last but not least, documented efforts conducted to quantify the emissions of GHGs and national inventory preparation of these gases for the warmer regions of the world.

Guest Editor

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