



Role of Organic Amendments on the Emission and Mitigation of Greenhouse Gases (CO₂, N₂O, and CH₄)

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Global warming is one of the major consequences of human activities associated with increasing concentrations of atmospheric greenhouse gas (GHG) emissions, such as carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) (Paustian et al., 2006). Among anthropogenic activities, agriculture was seen as the first evidence of increased human-made GHGs in the atmosphere (Shakoor et al., 2021; Paustian et al., 2016) and it contributes almost 10-14% of total global GHG emissions, which includes 50 to 60% of N₂O and CH₄, which are directly linked with agricultural soil and its inputs like synthetic fertilizers (Shakoor et al., 2020). Therefore, organic amendments such as animal manure and biochar have been widely adopted to increase soil organic matter (SOM) stocks and to mitigate GHGs emissions (Clough et al., 2010; Lal, 2004). However, the effect of animal manure and biochar on the mitigation of GHG emissions remains inconsistent and suggests areas for further scientific investigation. This Special Issue aims to gather high-quality papers related to the role of organic amendments on the emission and mitigation of GHGs from agricultural soils.





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