



MARTIN-LUTHER-UNIVERSITÄT
HALLE-WITTENBERG



Soil Science Colloquium - Halle

Prof. Dr. Heinz Flessa

Thünen Institute of Climate-Smart Agriculture, Germany

30. Mai 2024 - 5pm

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Agricultural soils in the German greenhouse gas reporting

Abstract:

The role of agricultural soils in the German greenhouse gas reporting is explained and their importance for climate protection is discussed. The presentation provides results on the magnitude and development of greenhouse gas exchange on agricultural soils in Germany. The current methods and challenges to quantify soil derived greenhouse gas fluxes at the national scale are presented and options to mitigate emissions or increase net uptake of greenhouse gases are addressed. The focal points of the presentation are: Direct and indirect nitrous oxide (N₂O) emissions, mineral soils a source of carbon dioxide (CO₂) and/or a potential sink for CO₂-C, and greenhouse gas emissions from cultivated organic soils (CO₂, N₂O, and methane CH₄).