

Greenhouse Gas Mitigation, Land Use and Management

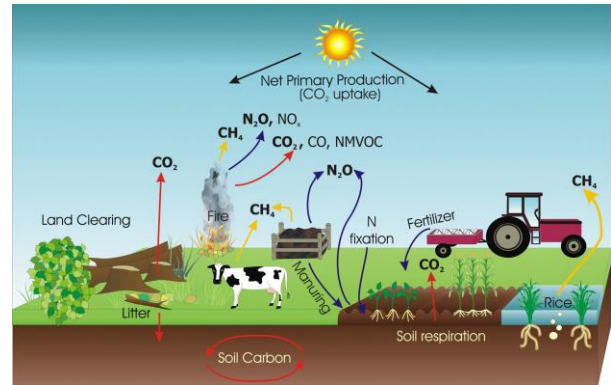
Fall 2013 – 3 Credits

SOCR 401 (CRN # 72679,72680)

Dr. Keith Paustian (keith.paustian@colostate.edu)

Course Description:

This is a new course within a new concentration of 'Soils and Global Change' in the Dept. of Soil and Crop Sciences; however, the course is also available to students not enrolled in the concentration. Students will gain in-depth knowledge of greenhouse gas (GHG) emission sources from land use and management, the significance of land use-related GHG emissions with respect to total anthropogenic emissions and the potential for emission reductions and C sequestration as a climate change mitigation strategy. This class focuses on developing knowledge and skills required for estimating emission rates for GHG sources and developing measurement, monitoring, reporting and verification systems through lectures and hands on laboratories. More specifically students will learn:



- 1) Fundamental concepts of greenhouse gases, radiative forcing and climate change
- 2) Overview of impacts of climate change on agriculture and land use
- 3) Sources and controls on greenhouse gas emissions from land use activities
- 4) Approaches for measurement/estimation of carbon stocks and greenhouse gas emissions, including use of field measurement, empirical models and process-based models
- 5) Use of computer software tools for greenhouse gas accounting
- 6) Compilation of greenhouse gas inventories
- 7) Components of mitigation project design and requirements
- 8) Application and evaluation of best practices in greenhouse gas accounting
- 9) Development of mitigation project proposals



When:

Fall term 2013. Lectures: Wednesday, Friday 10-10:50 am; Lab: Friday 1.00-3.50 pm.

Instructor:

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