

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Expanding COMET-VR: Agroforestry and Comprehensive agricultural systems
Type of Project: Research
Project Discipline: Interdisciplinary
Funding Agency: NRCS
Other Partners/Cooperators:
Effective Dates: July 1, 2006 - June 30, 2008
Funding Amount: \$250,878
Investigators and Agency Representative: PI: Keith Paustian, Professor, Natural Resource Ecology Laboratory, Colorado State University, Fort Collins, CO 80523, (970) 491-1547; keithp@nrel Agency Representative: Carolyn Olson, USDA-NRCS, Washington D.C. 202-720-1821, Carolyn.olson@wdc.usda.gov; Roel Vining, USDA-NRCS, Portland, OR roel.vining@por.usda.gov
Project Abstract: The COMET-VR system was initially designed with the focus on estimating carbon stock changes for the predominant field crop and management systems (on an area basis) in the US. Annual cropland (dominated by cereals and feed grains) and pasture systems comprise the bulk of the agricultural land area of the US and the most well studied system from the standpoint of management effects on soil C. However, to be truly comprehensive, the system should encompass other types of agricultural systems which do make up a significant portion of the agricultural land area within particular regions and are also typically crops with a high economic value. We propose to extend the applicability of COMET-VR to include horticultural, vegetable, and agroforestry-related management systems and to interface with the model-based system that has been developed by the US Forest Service to estimate biomass C stock changes for managed forests. This will provide a “on-stop-shop” for managers of cropland, grassland, or forest land to report greenhouse emission reductions under the 1605B program. Substantial effort will be needed to collect new data, parameterize and test the Century model for these new management systems, to ensure the information produced is as reliable as possible. Additional work will be needed to implement and test new systems in COMET-VR.
Outcomes with completion dates:
Keywords: COMET-VR, specialty crops, agroforestry