



Natural Resources Conservation Service and Climate Change



The Natural Resources Conservation Service is a mission-oriented agency that provides technical and financial assistance to improve air, soil, water, and related natural resources on private lands. Its conservation programs and incentives help mitigate or reduce greenhouse gas emissions. Climate change is an Agency strategic initiative and an important cross-cutting activity.

Conservation Programs, Benefits and Incentives

Greenhouse gas (GHG) emissions reductions and carbon sequestration are achieved as ancillary benefits of the NRCS' current portfolio of beneficial conservation programs. Among these are the Conservation Stewardship Program (CSP), Wetlands Reserve Program (WRP), Wildlife Habitat Incentives Program (WHIP), Environmental Quality Incentives Program (EQIP), Grassland Reserve Program (GRP), and a developmental grants program, Conservation Innovation Grants (CIG). New or revised standards and targets for specific incentives encourage carbon sequestration, reduce direct and indirect use of petroleum-based inputs and GHG emissions reductions <http://www.nrcs.usda.gov>

Climate Change Literacy and Improving Awareness

NRCS has a curriculum devoted to air quality, energy, and climate change to train employees to meet new challenges. NRCS recognizes the inherent links among these three areas and has designed a basic course integrating these three topics that new employees take. The basic course and 5 new discipline-specific courses in the curriculum are online. Additional advanced discipline-specific courses within each area are being developed and will be available in the coming months.

NRCS Climate Change Reference Materials

The NRCS climate change website http://soils.usda.gov/survey/global_climate_change.html describes the relation between the NRCS mission, its conservation programs and climate change issues. NRCS also provides downloadable conservation briefs on related conservation topics including "Opportunities Associated with Managing Carbon Sequestration and Greenhouse Gas Emissions," as well as an Environmental Credit Trading Information Series available from the NRCS climate change website. A handbook on Environmental Credit Trading is awaiting Department release.

Carbon Sequestration Studies and Decision Support Tools

A comprehensive nationwide carbon assessment program is underway to provide quantitative estimates of soil carbon stocks for validation of model estimates and improved model accuracy. The objectives are 1) to evaluate differences in soil carbon associated with differing soil properties, agricultural management systems, ecosystems, and land uses and 2) to develop a scientifically-based and statistically valid baseline inventory of soil carbon stocks for the U.S.

The CarbOn Management Evaluation Tool – Voluntary Reporting (COMET-VR) is an interactive online management tool providing a simple and reliable method for estimating changes in soil carbon sequestration, fuel, and fertilizer use resulting from changes in land management. <http://www.cometvr.colostate.edu>. COMET-VR uses the soil carbon module of the Century model, a generalized ecosystem simulation model. NTT is a Nutrient Trading Tool planned for release in 2011. These and other tools provide producers with unbiased, scientifically-based technical information to help mitigate their greenhouse gas footprint while making informed decisions for their operations. These actions weigh the benefits and costs of participation in voluntary carbon and other environmental credit trading markets as well participation in reporting systems.