



## Natural Resources Conservation Service and Climate Change



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The Natural Resources Conservation Service (NRCS) is a mission-oriented agency whose role it is to provide technical and financial assistance to help producers care for the land through the application of conservation systems. NRCS provides products and services that enable people to be better stewards of the air, soil, water, and related natural resources on private agricultural lands. The NRCS provides programs and incentives that potentially mitigate and help reduce greenhouse gas emissions, a climate change issue. In 2007, an internal team examined the present structure of air quality, energy concerns, and climate change within the framework of the Agency's strategic plan. Recommendations were developed for a report on these issues, and this report was presented to agency leadership in April, 2008. A team will meet in December 2008 to develop an integrated Agency policy. Climate change was clearly identified as very important to the Agency and an overarching theme that cuts across Agency programs and activities.

### **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 Conservation Stewardship Program (CSP), Wetlands Reserve Program (WRP), Wildlife Habitat Incentives Program (WHIP), Environmental Quality Incentives Program (EQIP), Grassland Reserve Program (GRP), and Conservation Innovation Grants (CIG), a developmental grants program. New or systematically revised standards and targets for specific incentives encourage carbon sequestration, reduce direct and indirect use of fossil fuel-based inputs and GHG emissions reductions. <http://www.nrcs.usda.gov>

### **Climate Change Literacy and Improving Awareness**

The NRCS is developing a curricula devoted to air quality, energy, and climate change. NRCS recognizes the inherent links among these three areas and has designed a basic course integrating these three topics that all new employees, at a minimum, will be required to take. The basic course should be online and available through AgLearn this spring. In addition, several more advanced discipline-specific courses within each of the three discipline areas of air quality, energy concerns and climate change are being developed and will be available online in the coming months.

### **NRCS Climate Change Reference Materials**

NRCS has a climate change website that describes the relation between the NRCS mission and climate change issues including conservation practices and NRCS programs that potentially mitigate climate change. 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. Both are available through the NRCS climate change website: [http://soils.usda.gov/survey/global\\_climate\\_change.html](http://soils.usda.gov/survey/global_climate_change.html)

### **Decision Support Tools for Carbon Sequestration and Emerging Environmental Services Market**

The CarbOn Management Evaluation Tool – Voluntary Reporting (COMET-VR) is an online interactive management tool providing a simple and reliable method for estimating changes in soil carbon sequestration, and fuel and fertilizer use resulting from changes in land management. COMET-VR uses the soil carbon module of the Century model, a vetted generalized ecosystem simulation model, to provide estimated soil carbon differences resulting from changes in land management. Visit: <http://www.cometvr.colostate.edu>. Equipped with an uncertainty estimator, COMET-VR is positioned for future use in a cap-and-trade or other regulated environment. This and other tools provide producers with unbiased, scientifically-based technical information to make informed decisions for their operations, and for a number of other actions. These actions include weighing the benefits and costs of participation in carbon and other environmental credit trading markets as well participation in reporting systems such as the Department of Energy-sponsored 1605(b) Voluntary Greenhouse Gas Reporting Registry.

### **Research Agenda**

NRCS actively participates in the US Climate Change Science Program that shapes federally-funded research in climate change.