About COMET-Planner

NRCS conservation practices provide a wide range of ecosystem services, such as soil erosion control, soil quality enhancement, reduction of non-point source pollution and a number of other co-benefits to farms, ranches, and surrounding lands. Adoption of these practices can also have significant *atmospheric benefits*, by sequestering carbon in soils and biomass, and/or reducing greenhouse gas emissions. Carbon stored in healthy soils originates from carbon dioxide in the atmosphere, providing benefits to soils and the atmosphere.

COMET-Planner provides land owners and conservation planners with an easy-to-use, web-based tool to evaluate potential carbon sequestration and greenhouse gas reductions from adopting NRCS conservation practices.

COMET-Planner evaluates NRCS conservation practice standards within 5 broad practice categories:

- Cropland Management
- Grazing Lands
- Cropland to Herbaceous Cover
- Woody Plantings
- Restoration of Disturbed Lands

Recommended use of COMET-Planner

This evaluation tool is designed to provide generalized estimates of the greenhouse gas and carbon sequestration benefits of conservation practices and is intended for initial conservation planning purposes. Site-specific conditions that require more detailed assessments of greenhouse gas and carbon/nitrogen dynamics on your specific farm can be found in the comet-farm tool. Please visit www.comet-farm.com if you would like to conduct a more detailed, site-specific analysis.

Colorado State University

USDA United States Department of Agriculture
Natural Resources Conservation Service

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COMET-Planner

FOR QUESTIONS CONTACT:
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Version Notes

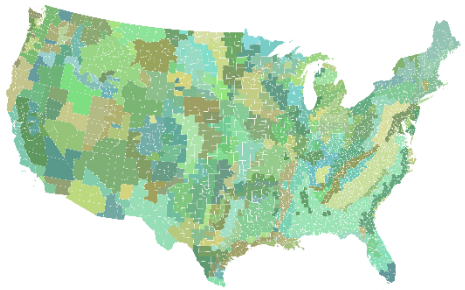
COMET-Planner originally launched in January 2015 and estimated emission reductions at the sub-national scale from meta-analyses and IPCC Tier 1/2 methods. The current version follows a similar approach, but improves spatial resolution to multi-county regions and aligns quantification methods with the advanced methods in COMET-Farm and the USDA entity scale inventory methods.

COMET Planner

Carbon and greenhouse gas evaluation for NRCS conservation planning

Key Features /Science

- Advanced quantification methods align with COMET-Farm and the USDA entity-scale GHG inventory methods
- Carbon sequestration and greenhouse gas benefits estimated for multi-county regions
- Designed around NRCS Conservation Practice Standards
- Allows users to evaluate the impacts of adopting more than one conservation practice, by providing estimates for common combinations of practices



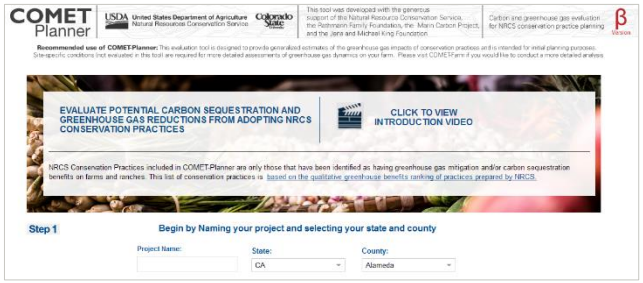
How are your carbon sequestration and greenhouse gas emission reduction estimates calculated?

Carbon sequestration and greenhouse gas emission reductions estimates compare adoption of a conservation practice to a "business-as-usual" practice. Conservation scenarios were evaluated in COMET-Farm, which utilizes the USDA entity-scale greenhouse gas inventory methods, and estimates were generalized by multi-county regions defined by USDA Major Land Resource Areas. COMET-Planner estimates represent field activities only, including those associated with soils and woody biomass as appropriate, and do not include off-site emissions, such as those from transportation, manufacturing, processing, etc.

How to Use COMET-Planner

COMET-Planner is web-based, and can be accessed anywhere that you have an internet connection. To begin go to www.comet-planner.com. Users can generate estimates for their farm or ranch in just 4 steps:

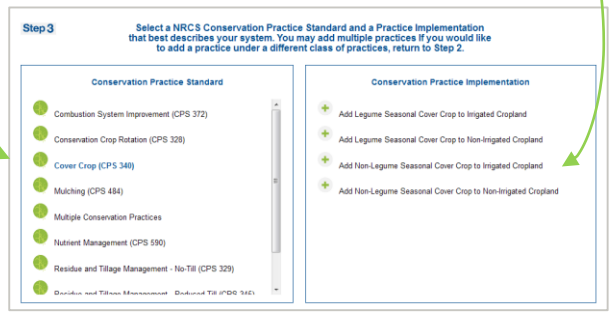
Step 1: Name your project and select State and County:



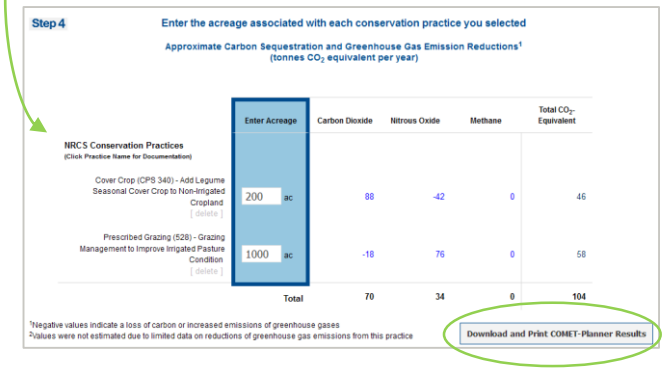
Step 2: Select the category of conservation practices of interest:

For many NRCS Conservation Practice Standards (CPS) in COMET-Planner, the tool provides multiple options for implementation of the practice standard. The user first selects a NRCS Conservation Practice Standard on the left, which populates different implementation options in the box on the right.

Step 3: Select a NRCS Conservation Practice Standard on the left, then choose the practice implementation from the box on the right, that best matches the practice you would like to evaluate:



Step 4: When a practice is selected in Step 3, it is automatically added to a results table. Users may select multiple practices in Step 3 and can step back to Step 2, to select a different class of practices. In Step 4, users enter the acreage planned for each practice:



Results can be downloaded and saved in a PDF, by clicking the "Download and Print COMET-Planner Results" button.