COMET QUARTERLY

COMET-Farm Newsletter

CSU Photo by John Eisele

In This Issue

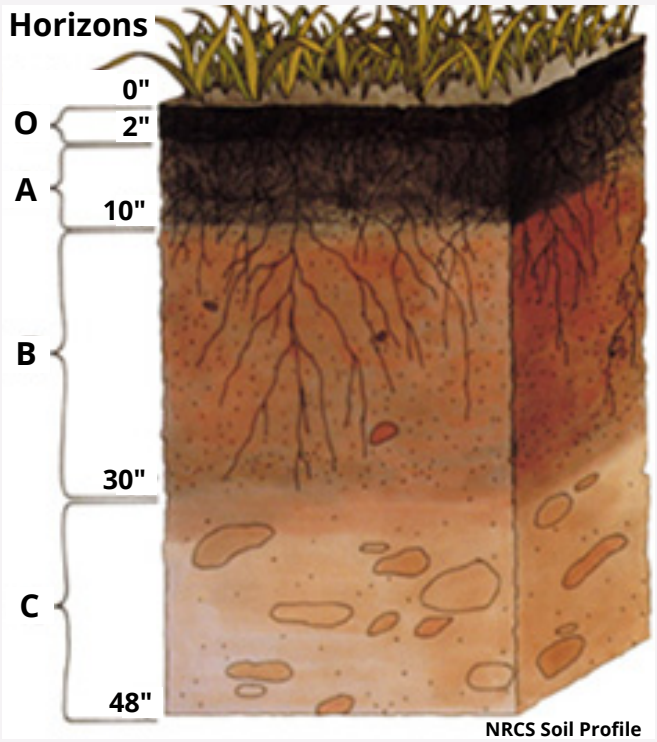
USDA Partnerships for Climate-Smart Commodities

In Sept 2022, USDA announced the Partnership for Climate-Smart Commodities recipients for "pilot projects to create market opportunities for commodities produced using climate-smart practices." Where applicable, USDA encourages use of the COMET-Tools to determine estimates of greenhouse gas impacts of commodity production activities. For more information on the program, visit USDA's program information page.

- For more information on COMET's role in projects, check out USDA's FAQ page and COMET's FAQ page.
- For COMET trainings available, view page 3 of this newsletter.

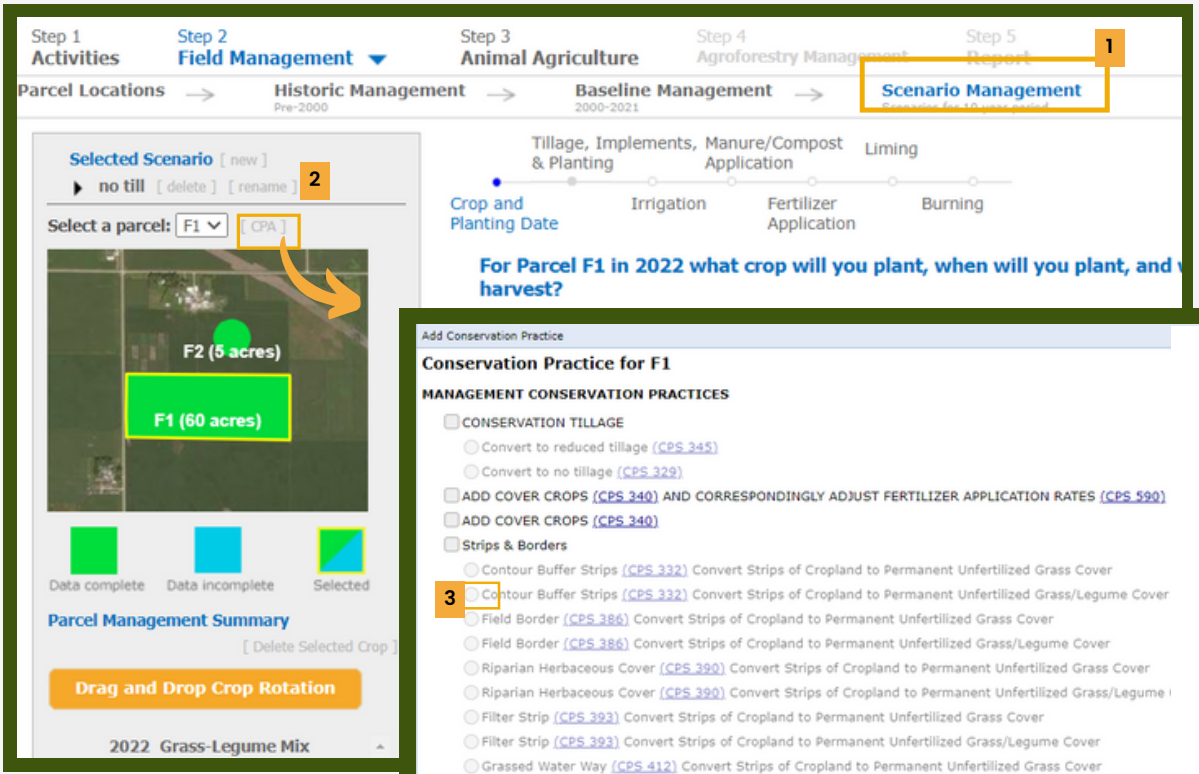
DayCent Model Updates in COMET

In Fall 2022, COMET-Farm will run the latest and most up-to-date version of the process-based simulation ecosystem model DayCent to align with the most recent Environmental Protection Agency's (EPA) Inventory of U.S. Greenhouse as Emissions and Sinks (read more). While the previous version of the DayCent model used by COMET-Farm provided soil organic carbon (SOC) estimates at 20cm soil depth, the latest versions provide estimates at **30cm** soil depth aligned with the Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories (read more). For an in depth description of the model changes and respective uncertainty analyses, please visit THIS ARTICLE.



Conservation Practice Advisor (CPA) Updates

Want to quickly assess frequently used conservation practices in your future scenario? Use the CPA to modify practices on a parcel without manually adjusting the management every year. New practices for field borders/strips and conservation cover have been added to the CPA in the September 2022 update.



1. Complete all *Baseline Management* and navigate to *Scenario Management*.

2. Select *CPA* next to "select a parcel".

3. Select which CPS to apply to your parcel.

4. Select *Add*.

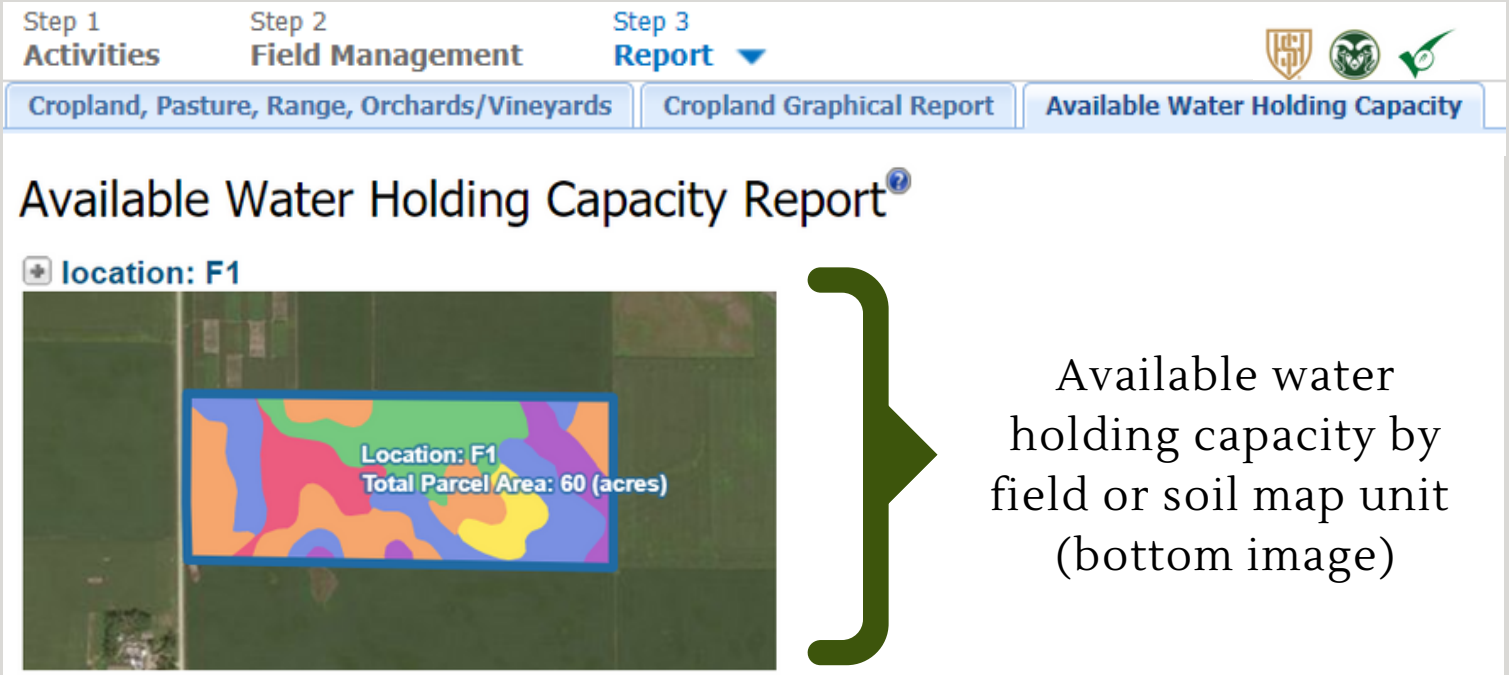
CPA Example:

If a user opts to convert a corn-soybean baseline management to a *contour buffer strip with grass/legume (CPS 332),* they could use the CPA tool. By selecting a practice from the CPA window, all future years will convert from corn-soybean to continuous grass/legume management consistent with CPS 332 without the user manually adjusting each year's management.

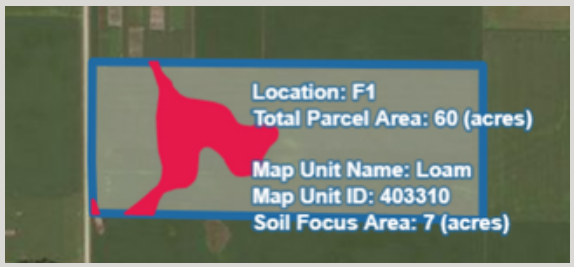
WATER HOLDING CAPACITY REPORT

NEW COMET-Farm Feature...Coming September 2022

The Soil Water Holding Capacity Table will be available for users when using the COMET-Farm Cropland, Pasture, Range, Orchard/Vineyard accounting activity. Users will enter management details as usual, and the available water holding capacity report will generate as an additional tab on the report page. Each defined parcel will have a separate table with scenarios listed vertically in the table. For assistance on interpreting the water holding capacity report and methods used in generating the report, a help document will be available when the report is publicly available.



Available water holding capacity by field or soil map unit (bottom image)



Soil Map Unit: Loam - 403310

Project Scenario(s)	Estimated AWHC in Top 6 inches of Soil (gallons/acre)	Estimated Absolute AWHC in Top 6 inches of Soil (inches water)
Baseline	30,422	1.12
no till	+580	+0.021

Upcoming Trainings

- COMET Overview & Cropland Project Demo
  Thursday, Oct. 6th at 10am MST: Register HERE
- COMET Overview & Animal Ag Project Demo
  Thursday, Oct. 13th at 10am MST: Register HERE
- COMET Multi-Accounting Project Demo
  Thursday, Oct. 20th at 10am MST: Register HERE

Can't make these trainings? Check out the training calendar on the help page.

"Sen. Michael Bennet tours ARDEC research stations to learn how agriculture is working on climate change solutions"

Read about Senator Bennet's experience at CSU with COMET-Farm, agrovoltics, the Soil Carbon Solution and more!

READ

"Dirt First- Carbon farming sounds as all-American as apple pie. But does it work?"

Embark on a journey with a commodity farmer who has "nothing to lose" as he experiments with carbon farming, COMET, and carbon markets.

READ

"CSU and USDA scientists identify gap in U.S. greenhouse gas reporting"

Explore how accounting for spring thaw could improve the DayCent model and how mitigation practices can reduce GHG emissions.

READ

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