

Cropland Demo Project



How to Use Demo Projects



Each demo project helps
users navigate:

- COMET Farm data entry pages
- Help tools and windows with information on the site or the management practices that have been selected.

CROP DEMO DESCRIPTION:

Crop management impacts on greenhouse gas emissions



HEAVY TILLAGE



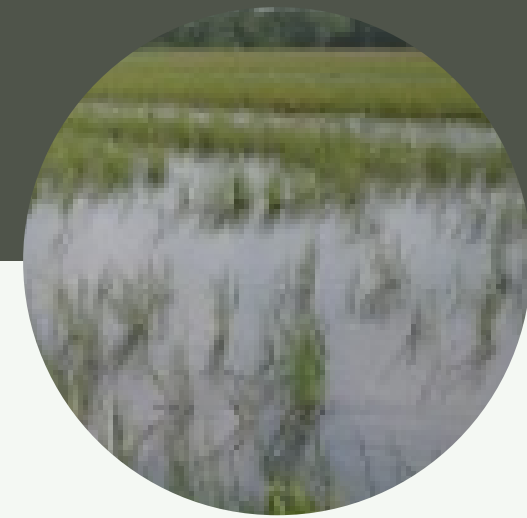
Breaks up soil structure
and decomposes soil
organic matter into CO₂



SYNTHETIC FERTILIZER



Large Nitrous Oxide (N₂O)
emissions



WETLAND RICE PRODUCTION



Methane (CH₄) emission
from anaerobic soil
conditions

CROP DEMO DESCRIPTION:

Conservation practices applied

Conservation practices can sequester (store) carbon as organic matter in soils and reduce these and other cropland emissions, improving the overall greenhouse gas balance of farming practices.



REDUCED TILLAGE



Sequesters carbon and maintains soil structure



IMPROVED NITROGEN FERTILIZER MANAGEMENT



Using enhanced efficiency fertilizers to reduce nitrous oxide emissions

New Project

Croplands Demo Project

Select a demo project to create: 

- ☒ Cropland, Pasture, Range, Orchards/Vineyard
- ☐ Animal Agriculture
- ☐ Animal Agriculture - Beef
- ☐ Agroforestry
- ☐ Forestry

Cancel

Create

Cropland Demo Project

The practices described in this demonstration were selected to represent average management practices from the Des Moines lobe region in northwest Iowa. The field shown is on the Allee Demonstration Farm, operated by Iowa State University.

To Select Cropland Demo Project

On the Tool page,
select “Create
Demo Project”



Select a Project
Existing Projects

► **Project 1**
[delete] [rename]

Create New Project **Export Projects**

[Create Demo Project]

Select
“Cropland, Pasture, Range,
Orchards/Vineyards” and
“Create”



New Project

Croplands Demo Project

Select a demo project to create: ?

☒ Cropland, Pasture, Range, Orchards/Vineyard

☐ Animal Agriculture

☐ Animal Agriculture - Beef

☐ Agroforestry

☐ Forestry

Cancel **Create**



Selected Activities for the Current Project:
Croplands Demo Project

☐ All Categories - Full Accounting

☒ Cropland, Pasture, Range, Orchards/Vineyards ?

☐ Animal Agriculture ?

☐ Agroforestry ?

☐ Forestry ?

Define Activities >>

Defining Parcels:

Navigation Bars

COMET Farm



USDA United States Department of Agriculture Natural Resources Conservation Service

Colorado State University

Whole Farm and Ranch Carbon and Greenhouse Gas Accounting System.

HOME TOOL INFO HELP

Welcome Haley Nagle
Current Project: Croplands Demo Project
[sign out](#) | [change password](#)



Step 1 Activities

Step 2 Field Management

Step 3 Report

Parcel Locations

Historic Management

Baseline Management

Scenario Management

I am done defining parcels

Find Location

Add Parcel by Point

Add Parcel by Polygon

Add Parcel by Circle

Modify Parcel

Drag Parcel

Delete Parcel

Delete All Parcels

ESRI Shape File Upload

View Soil by Click

Export Soil Information

How do I?

200thAve

200thAve

F1 (60 acres)

Soils Hybrid Aerial

Parcel

Help

Parcel Help

Defining Parcels:

COMET Farm

USDA United States Department of Agriculture
Natural Resources Conservation Service

Colorado State University

Whole Farm and Ranch
Carbon and Greenhouse Gas
Accounting System.

HOME TOOL INFO HELP

Welcome Haley Nagle
Current Project: Croplands Demo Project
[sign out](#) | [change password](#)

Step 1
Activities

Step 2
Field Management

Step 3
Report

Parcel Locations

Historic Management
Pre-2000

Baseline Management
2000-2018

Scenario Management
Scenarios for 10 year period

I am done
defining parcels

Find Location

Add Parcel
by Point

Add Parcel
by Polygon

Add Parcel
by Circle

Modify Parcel

Drag Parcel

Delete Parcel

Delete All
Parcels

ESRI Shape
File Upload

View Soil
by Click

Export Soil
Information

How do I?

Soils

Hybrid

Aerial

F1 (60 acres)

200thAve

200thAve

Additional
Help Tools

Help

Demo Parcel:

The Parcel location for the demo project is located at the Allee Farm in Iowa. The parcel that has been selected is a 60-acre field.

Soil information can be viewed or downloaded

To continue to Historic Management click on the “I am done defining parcels” highlighted in orange.

The screenshot displays the COMET Farm web application interface. At the top, the header includes the COMET Farm logo, USDA United States Department of Agriculture Natural Resources Conservation Service, Colorado State University, and the text "Whole Farm and Ranch Carbon and Greenhouse Gas Accounting System." Navigation links for HOME, TOOL, INFO, and HELP are present. A user welcome message for Haley Nagle is shown in the top right corner.

The main navigation bar features three steps: Step 1 Activities, Step 2 Field Management (highlighted with a blue arrow), and Step 3 Report. Below this, a sub-navigation bar shows "Parcel Locations" (highlighted with a blue arrow), "Historic Management" (Pre-2000), "Baseline Management" (2000-2018), and "Scenario Management" (Scenarios for 10 year period).



The left sidebar contains a list of actions: "I am done defining parcels" (highlighted in orange), "Find Location", "Add Parcel by Point", "Add Parcel by Polygon", "Add Parcel by Circle", "Modify Parcel", "Drag Parcel", "Delete Parcel", "Delete All Parcels", "ESRI Shape File Upload", "View Soil by Click", "Export Soil Information", and "How do I?".

The main map area shows a satellite view of a field. A large yellow rectangle highlights a specific area labeled "F1 (60 acres)". A yellow arrow points from the text "Generates soil map for location" to the "Soils" button in the top right corner of the map area. Another yellow arrow points from the text "Parcel" to the highlighted 60-acre area.

At the bottom right, there is a "Help" button.

Historic Management

Historic Management for this demonstration was defined based on regional management practices. The blue question marks found next to 1980-2000 management/tillage will provide explanation to help users select the best fitting options for their project.

COMET Farm  **USDA** United States Department of Agriculture
Natural Resources Conservation Service  **Colorado State** University
Whole Farm and Ranch Carbon and Greenhouse Gas Accounting System. [HOME](#) [TOOL](#) [INFO](#) [HELP](#)

Step 1
Activities


Step 2
Field Management

Step 3
Report




Parcel Locations → **Historic Management** → Baseline Management → Scenario Management

Pre-2000 2000-2018 Scenarios for 10 year period

Select a parcel: F1 ▼



F1 (60 acres)

 Data complete  Data incomplete  Selected

For parcel F1 (selected at left) what was its historic management?

Pre-1980 Management Upland Non-Irrigated (Pre 1980s) ▼

Was this parcel enrolled in Conservation Reserve Program(CRP) at anytime before 2000? ☒ No ☐ Yes

1980-2000 Management Non-Irrigated: Annual Crops in Rotation ▼ ?

1980-2000 Tillage Intensive Tillage ▼ ?

<< Back

Copy

Next >>

Set Baseline Period

Parcel
Selector

Defining
Historic
Managment

Historic Management

To minimize data entry, users can copy historic management data from one parcel to another. Users can also modify the baseline period if necessary for specific projects.

Click "Next" To continue to Baseline (Business as Usual) Management.

COMET Farm | **USDA** United States Department of Agriculture Natural Resources Conservation Service | **Colorado State University** | Whole Farm and Ranch Carbon and Greenhouse Gas Accounting System. | [HOME](#) [TOOL](#) [INFO](#) [HELP](#)

Step 1 Activities | **Step 2 Field Management** | Step 3 Report

Parcel Locations → **Historic Management** (Pre-2000) → Baseline Management (2000-2018) → Scenario Management (Scenarios for 10 year period)

Select a parcel: **F1** ▼

F1 (60 acres)

☒ Data complete ☐ Data incomplete ☒ Selected

For parcel F1 (selected at left) what was its historic management?

Pre-1980 Management: Upland Non-Irrigated (Pre 1980s) ▼

Was this parcel enrolled in Conservation Reserve Program(CRP) at anytime before 2000? ☒ No ☐ Yes

1980-2000 Management: Non-Irrigated: Annual Crops in Rotation ▼ ?

1980-2000 Tillage: Intensive Tillage ▼ ?

<< Back

Copy **Next >>**

Set Baseline Period

Copy Historic Management to Other Parcels

Continue to Baseline Management

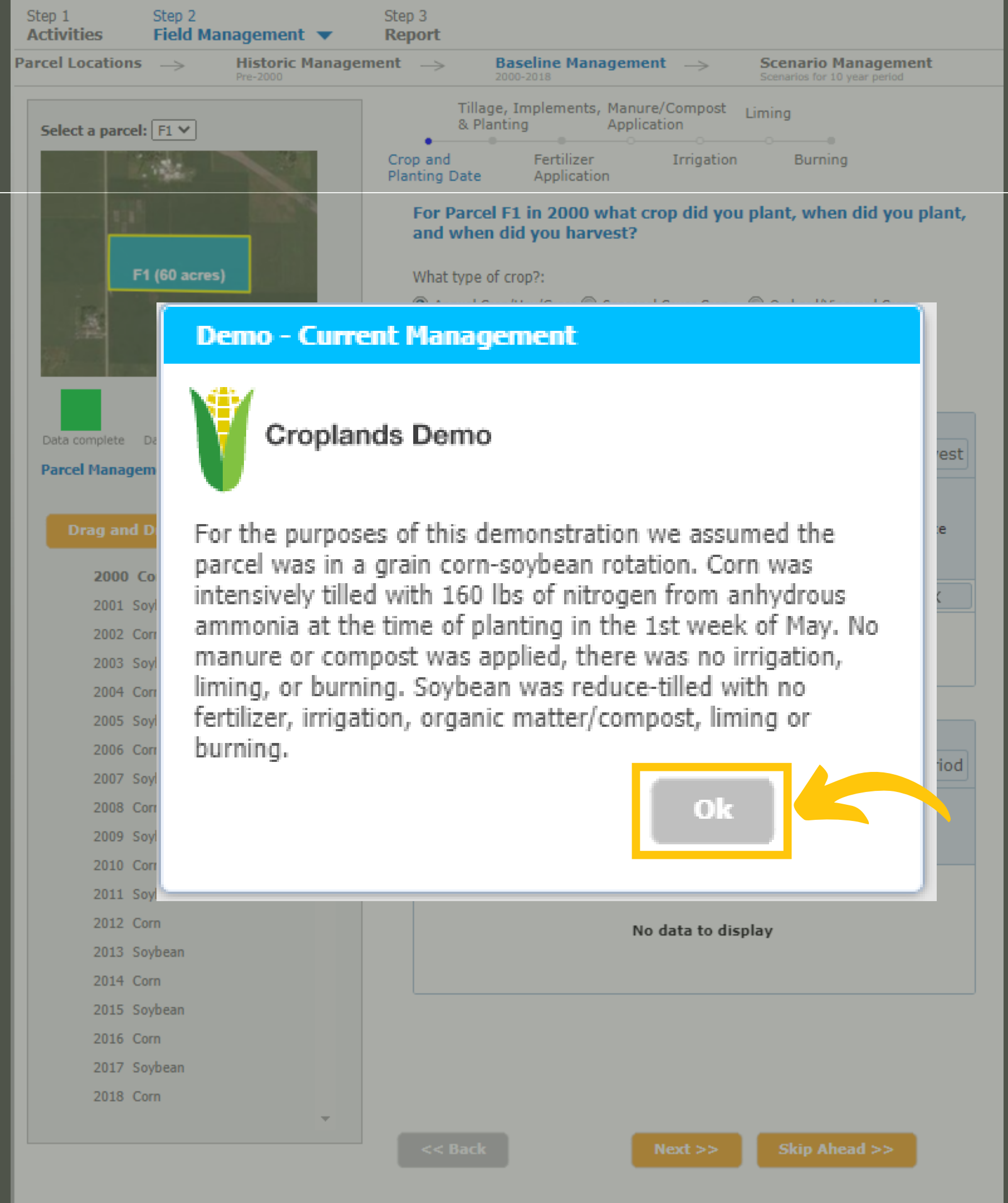
Modify Baseline Period (if needed)

Current Management

A window will appear when the Baseline Management page opens.

This window describes the "business as usual" plan for the Cropland Demo Farm.

After reading the scenario, click "Ok"



Current Management

The selected management practices for this site are automatically filled in for the Cropland Demo Project.

Crop years: Management is defined for years 2000 through the current year (unless the user modifies baseline period)

Step 1
Activities

Step 2
Field Management

Step 3
Report


Parcel Locations

Historic Management
Pre-2000

Baseline Management
2000-2018

Scenario Management
Scenarios for 10 year period

Select a parcel: F1



Data completeData incompleteSelected

Parcel Management Summary
[Delete Selected Crop]

Drag and Drop Crop Rotation

2000 Corn

2001 Soybean

2002 Corn

2003 Soybean

2004 Corn

2005 Soybean

2006 Corn

2007 Soybean

2008 Corn

2009 Soybean

2010 Corn

2011 Soybean

2012 Corn

2013 Soybean

2014 Corn

2015 Soybean

2016 Corn

2017 Soybean

2018 Corn

Tillage, Implements, Manure/Compost & Planting Application

Fertilizer Application

Irrigation

Liming

Burning

For Parcel F1 in 2000 what crop did you plant, when did you plant, and when did you harvest?

What type of crop?:
☒ Annual Crop/Hay/Grass ☐ Seasonal Cover Crop ☐ Orchard/Vineyard Crop

Crop: Corn

Planting Date: 05/07/2000

Harvest Table

Add New Harvest

Harvest Date	Grain / Fruit / Seed / Root / Tuber?	Yield (bu/ac)	Straw / Stover / Hay / Residue Removal (%)	Delete
10/31/2000	<input checked="" type="checkbox"/>	160	0	X

Grazing Table

Add New Grazing Period

Start Dates	End Dates	Rest Period (days)	Daily Utilization %	Delete
No data to display				

<< Back

Next >>

Skip Ahead >>

Management Activity Panel

Default values are added to the harvest table, but can be modified

Move to Next Management Activity

Current Management

The Drag and Drop Crop Rotation feature allows users to create a crop rotation for the baseline period.

The crop rotation for the Croplands Demo Project is pre-populated for users, so no changes will need to be added.

Step 1
Activities

Step 2
Field Management

Step 3
Report


Parcel Locations

Historic Management

Baseline Management

Scenario Management

Select a parcel: F1



Data complete

Data incomplete

Selected

Parcel Management Summary

[Delete Selected C

Drag and Drop Crop Rotation

2000 Corn

2001 Soybean

2002 Corn

2003 Soybean

2004 Corn

2005 Soybean

2006 Corn

2007 Soybean

2008 Corn

2009 Soybean

2010 Corn

2011 Soybean

2012 Corn

2013 Soybean

2014 Corn

2015 Soybean

2016 Corn

2017 Soybean

2018 Corn

Create Crop Template

Alfalfa

Barley, Spring

Barley, Fall

Clover

Corn Silage

Corn

Cotton

Dry Field Beans

Fallow

Grass

Grass-Legume

Millet

Oats, Spring

Oats, Fall

Peanut

Potatoes

Rye, Winter

Sorghum

Sorghum Silage

Soybean

Sugar Beets

Sunflower


Switchgrass

Wheat, Spring

Wheat, Winter

Crop Rotation for F1

Crop	Irri?	Tillage	
Corn		Intensive	
Soybean		Reduced	



Irrigation & Tillage can be modified here or on those management pages

Cancel

Create Rotation

<< Back

Next >>

Skip Ahead >>

Move to Next Management Activity

Current Management

The tillage events for the Croplands Demo Project is pre-populated for users, so no changes will need to be made.

Step 1
Activities

Step 2
Field Management

Step 3
Report


Parcel Locations

Historic Management
Pre-2000

Baseline Management
2000-2018

Scenario Management
Scenarios for 10 year period

Select a parcel: F1



Data complete

Data incomplete

Selected

Parcel Management Summary

[Delete Selected Crop]

Drag and Drop Crop Rotation

2000 Corn

2001 Soybean

2002 Corn

2003 Soybean

2004 Corn

2005 Soybean

2006 Corn

2007 Soybean

2008 Corn

2009 Soybean

2010 Corn

2011 Soybean

2012 Corn

2013 Soybean

2014 Corn

2015 Soybean

2016 Corn

2017 Soybean

2018 Corn

Tillage, Implements, & Planting

Manure/Compost Application

Liming

Crop and Planting Date

Fertilizer Application

Irrigation

Burning

For Parcel F1 in 2000 what were the tillage practices?

Implement Table

Add New Tillage Application Practice

Date Applied	Implement Pass	Delete
5/5/2000	Intensive Tillage	X

↑

Date Applied & Implementation pass can be modified by clicking on the cell

<< Back

Next >>

Skip Ahead >>

Move to Next Management Activity

Current Management

The fertilizer data for the Croplands Demo Project is pre-populated for users, so no changes will need to be added.

Step 1
Activities

Step 2
Field Management

Step 3
Report


Parcel Locations

Historic Management
Pre-2000

Baseline Management
2000-2018

Scenario Management
Scenarios for 10 year period

Select a parcel: F1



Data complete

Data incomplete

Selected

Parcel Management Summary

[Delete Selected Crop]

Drag and Drop Crop Rotation

2000 Corn

2001 Soybean

2002 Corn

2003 Soybean

2004 Corn

2005 Soybean

2006 Corn

2007 Soybean

2008 Corn

2009 Soybean

2010 Corn

2011 Soybean

2012 Corn

2013 Soybean

2014 Corn

2015 Soybean

2016 Corn

2017 Soybean

2018 Corn

Tillage, Implements, Manure/Compost Application

Liming

Crop and Planting Date

Fertilizer Application

Irrigation

Burning

For Parcel F1 in 2000 what were the fertilizer application practices?

Fertilizer Application Table

+ Add New Fertilizer Application Practice

Date Applied	Fertilizer Type	Total Fertilizer Applied (lbs Fertilizer/acre)	Total N Applied (lbs N/acre)	EEP	Ammonium % (i)	Delete
05/06/2000	Ammonium Nitrate (34-0-0)	394.12	134	None	24	X

Fertilizer Information can be modified by clicking on the cells

<< Back

Next >>

Skip Ahead >>

User can add new fertilizer applications

Move to Next Management Activity

Current Management

No manure or compost was applied to the fields for the Croplands Demo Project, so no changes will need to be added.

Step 1
Activities

Step 2
Field Management

Step 3
Report

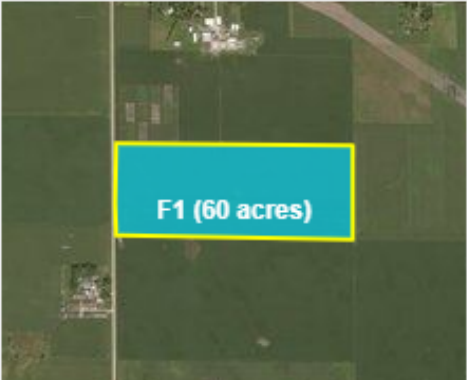
Parcel Locations

Historic Management
Pre-2000

Baseline Management
2000-2018

Scenario Management
Scenarios for 10 year period

Select a parcel: F1



Data complete

Data incomplete

Selected

Parcel Management Summary
[Delete Selected Crop]

Drag and Drop Crop Rotation

2000 Corn

2001 Soybean

2002 Corn

2003 Soybean

2004 Corn

2005 Soybean

2006 Corn

2007 Soybean

2008 Corn

2009 Soybean

2010 Corn

2011 Soybean

2012 Corn

2013 Soybean

2014 Corn

2015 Soybean

2016 Corn

2017 Soybean

2018 Corn

Tillage, Implements, & Planting

Fertilizer Application

Manure/Compost Application

Irrigation

Liming

Burning

Crop and Planting Date

For Parcel F1 in 2000 what were the manure application practices?

Manure Table

NEW!

+

Add New Manure Application Practice

Date Applied	Manure Type	Amount Applied	Moisture (%)	Total Nitrogen (%)	Ammonium Nitrogen (%)	C/N Ratio	Delete
No data to display							

<< Back

Next >>


Skip Ahead >>

User can add Manure or Compost Applications

Move to Next Management Activity

Current Management

Select a parcel: F1



Data complete

Data incomplete

Selected

Parcel Management Summary

[Delete Selected Crop]

Drag and Drop Crop Rotation

2000 Corn

2001 Soybean

2002 Corn

2003 Soybean

2004 Corn

2005 Soybean

2006 Corn

2007 Soybean

2008 Corn

2009 Soybean

2010 Corn

2011 Soybean

2012 Corn

2013 Soybean

2014 Corn

2015 Soybean

2016 Corn

2017 Soybean

2018 Corn

Tillage, Implements, Manure/Compost Application

Liming

Crop and Planting Date

Fertilizer Application

Irrigation

Burning

For Parcel F1 in 2000 what were the irrigation practices?

Irrigation Table

+ Add New Irrigation Application Practice

Date Applied	Inches Per Application	Delete
No data to display		

<< Back

Next >>

Skip Ahead >>

Tillage, Implements, Manure/Compost Application

Liming

Crop and Planting Date

Fertilizer Application

Irrigation

Burning

For Parcel F1 in 2000 what were the liming practices?

Liming Date

05/06/2000

Liming Material

None

Amount Applied (tons/acre)

0

Fields for the Croplands Demo Project were not irrigated or burned, and lime was not applied. No changes will need to be added.

<< Back

Next >>

Skip Ahead >>

Tillage, Implements, Manure/Compost Application

Liming

Crop and Planting Date

Fertilizer Application

Irrigation

Burning

For Parcel F1 in 2000 did you burn crop residue (not including orchards and vineyards)?

No burning

Move to Future Scenario Management

<< Back

Next >>

Skip Ahead >>

Current Management

Once all the management practices have been selected for a year, a window will appear offering the user the option to add an additional crop (cash or cover) for the same year.

This option is used for winter wheat or other crops whose growing season spans a calendar year.

No additional crops were added to the fields for the Croplands Demo Project, so click “No thanks, Continue”

Select a parcel: F1 ▼

F1 (60 acres)

Data complete Data incomplete Selected

Parcel Management Summary

Tillage, Implements, Manure/Compost Application Liming

Crop and Planting Date Fertilizer Application Irrigation Burning

For Parcel F1 in 2000 did you burn crop residue (not including orchards and vineyards)?

No burning ▼

Add Additional Crop?

Would you like to add an additional crop for the same year?

If you have a second crop that spans between calendar years (i.e. **winter wheat**), add it as an additional crop this year and set its harvest date to be in the following year.

Yes, add additional crop for the same year. No Thanks, Continue >>

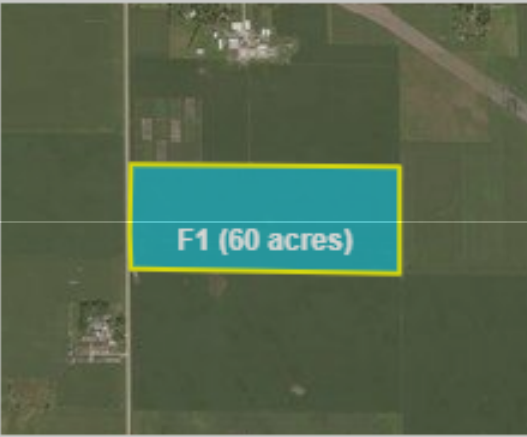
2009 Soybean
2010 Corn
2011 Soybean
2012 Corn
2013 Soybean
2014 Corn
2015 Soybean
2016 Corn
2017 Soybean
2018 Corn

Add Manure or Compost Applications

<< Back Next >> Skip Ahead >>

Current Management

Select a parcel: F1



Tillage, Implements, Manure/Compost Application

Liming

Crop and Planting Date

Fertilizer Application

Irrigation

Burning

For Parcel F1 in 2000 did you burn crop residue (not including orchards and vineyards)?

No burning

Copy Crop?

Management for parcel F1 for 2000 is complete.

If you would like to copy the management details to other parcels and/or years, select those parcel-years and click the Copy button.

2000 select

2001 select

2002 select

2003 select

2004 select

2005 select

2006 select

2007 select

2008 select

2009 select

2010 select

2011 select

2012 select

2013 select

2014 select

2015 select

2016 select

2017 select

2018 select

F1 select

✓

✓ Crop-Year to be copied

□ Crop-Year has data

No, thanks>>

Copy & Continue >>

Data is entered for all of the baseline years for the Cropland Demo Project. Click "No, Thanks" to continue to Future Management.

At this point, the user's data entry is completed. the "Copy Crop?" window will appear giving the user the opportunity to copy the crop and management information from the current to subsequent years to avoid re-entering data. If the crop years are not highlighted in red, there is no data for that year.

2011 Soybean

2012 Corn

2013 Soybean

2014 Corn

2015 Soybean

2016 Corn

2017 Soybean

2018 Corn

Add Manure or Compost Applications

<< Back

Next >>

Skip Ahead >>

Future Management

The Demo-Future Management window will appear that describes the new scenario.

This feature of COMET-Farm allows users to see how changes in management can impact greenhouse gas emissions and carbon sequestration.

The screenshot shows the COMET-Farm Future Management interface. At the top, there are tabs for "Parcel Locations", "Historic Management", "Baseline Management", and "Scenario Management". The "Scenario Management" tab is active, showing a timeline for "Scenarios for 10 year period" with stages: "Tillage, Implements, Manure/Compost Application", "Liming", "Crop and Planting Date", "Fertilizer Application", "Irrigation", and "Burning". A "Selected Scenario" dropdown shows "no till". Below this, a "Select a parcel:" dropdown shows "F1". A map shows a green field with a yellow box labeled "F1 (60 acres)". To the right, a question asks: "For Parcel F1 in 2019 what crop will you plant, when will you plant, and when will you harvest?". Below this, a "What type of crop?:" section has three radio buttons: "Annual Crop/Hay/Grass" (selected), "Seasonal Cover Crop", and "Orchard/Vineyard Crop". A "Crop" dropdown shows "Corn".

Overlaid on the interface is a "Demo - Future Management" window. It features the "Croplands Demo" logo (a green corn cob) and the text: "The hypothetical future scenario developed for this demonstration depicts a conversion from conventional tillage to no-tillage. Both the grain corn and soybeans were converted to a no-tillage system. Everything else stayed the same." Below this text, there is a button labeled "Ok" with a yellow border. To the left of the "Ok" button, the text "Move to Future Management" is followed by a yellow arrow pointing towards the button.

At the bottom of the interface, there are three buttons: "<< Back", "Next >>", and "Skip Ahead >>".

Future Management

The crop and management practices defined in the user's "Current Management" is automatically used as the baseline that all future scenarios are compared to.

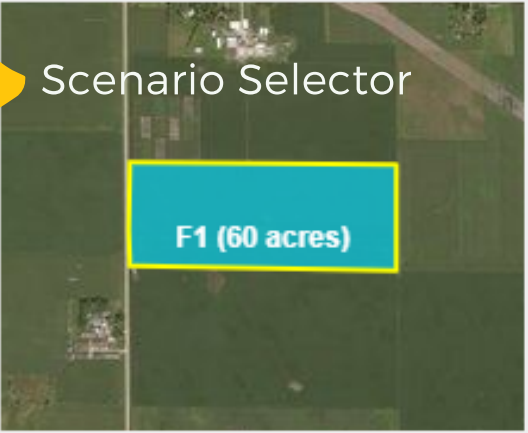
Any management practices that have been defined in the current management can be modified in this Future Scenario section.

Parcel Locations → Historic Management →

Scenario Selector

Selected Scenario [new]
▶ no till [delete] [rename]

Select a parcel: F1 ▼ [CNA]



Data complete Data incomplete Selected

Parcel Management Summary
[Delete Selected Crop]

Drag and Drop Crop Rotation

2019 Corn

2020 Soybean

2021 Corn

2022 Soybean

2023 Corn

2024 Soybean

2025 Corn

2026 Soybean

2027 Corn

2028 Soybean

Baseline Management → Scenario Management
2000-2018
Scenarios for 10 year period

Tillage, Implements, Manure/Compost Application
Crop and Planting Date Fertilizer Application Irrigation Liming Burning

For Parcel F1 in 2019 what crop will you plant, when will you plant, and when will you harvest?

What type of crop?:
☒ Annual Crop/Hay/Grass ☐ Seasonal Cover Crop ☐ Orchard/Vineyard Crop

Crop

Corn

Planting Date

05/07/2019

Harvest Table

+ Add New Harvest

Harvest Date	Grain / Fruit / Seed / Root / Tuber?	Projected Yield (bu/ac)	Straw / Stover / Hay / Residue Removal (%)	Delete
10/31/2019	<input checked="" type="checkbox"/>	160	0	X

Grazing Table ?

+ Add New Grazing Period

Start Dates	End Dates	Rest Period (days)	Daily Utilization %	Delete
No data to display				

<< BackNext >>Skip Ahead >>

Crop-Year Selector;
Note that the time sequence is 10 years.

Future Management


The Future Scenario Management pages have the same functionality as the Current Management page, however users can modify their management choices they wish to compare to their baseline for up to 10 Future Scenarios.

Changes to the Future Management for the Cropland Demo Project have already been made to the Tillage, Implements, & Planting page. No additional changes need to be made.

Parcel Locations → Historic Management Pre-2000 → Baseline Management → Scenario Management

Selected Scenario [new]
▶ no till [delete] [rename]

Select a parcel: F1 [CPA]



Data complete Data incomplete Selected

Parcel Management Summary [Delete Selected Crop]

Drag and Drop Crop Rotation

- 2019 Corn
- 2020 Soybean
- 2021 Corn
- 2022 Soybean
- 2023 Corn
- 2024 Soybean
- 2025 Corn
- 2026 Soybean
- 2027 Corn
- 2028 Soybean

Tillage, Implements, Manure/Compost Application

Crop and Planting Date Fertilizer Application Irrigation Liming Burning

For Parcel F1 in 2019 what will be your tillage practices?

Same as Current Management

Implement Table ?

+ Add New Tillage Application Practice

Date Applied	Implement Pass	Delete
5/1/2019	No Tillage	X

Cropland Demo Future Scenario change to No Tillage

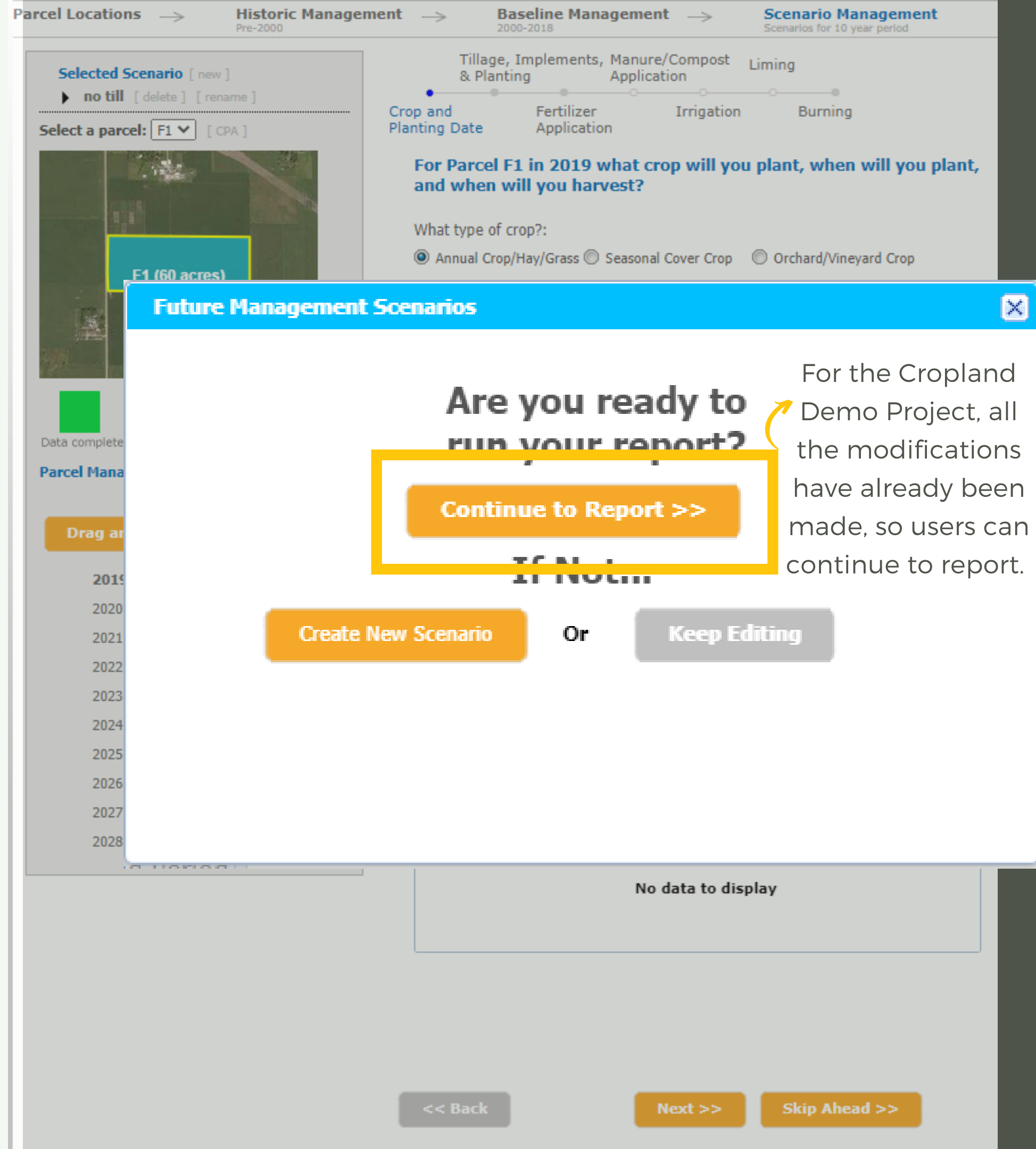
<< Back Next >> Skip Ahead >>

Move to next management scenario

Future Management

Users can click the "Next" button to continue through the Future Scenario Management Practices, similar to the Current Management pages.

A window will appear giving the option to create a new scenario, keep editing, or continue to the report.



COMET-Farm Report

Cropland, Pasture, Range, Orchards/Vineyards

Cropland Graphical Report

Available Water Holding Capacity

Report is running: 00:01:14 0% Complete

NAME: Haley Nagle

PROJECT: Croplands Demo Project

Daycent Status: Running at 100%

REPORTING YEARS: 2019 - 2028

JOBID: 17868_35277_148671

Time: Fri Jul 10 2020 11:12:54 GMT-0600 (Mountain Daylight Time)

Version: Cloud deployment version 2.3.3, build 3.2.7488.17990 (02-Jul-2020)

USDA

United States Department of Agriculture

Natural Resources Conservation Service

Colorado State University

DayCent Portal

Data Offramp

☐ Show uncertainty as percentage

Source	Baseline Emissions		no till			
	Emissions	+/-	Emissions	+/-	Change	+/-
F1 (60 acres - Corn, Soybean) Checking status...						
Running step 3 of 3 for F1. Calling DayCent and computing empirical calculations						
Total	0.0		0.0			

Demo - Crops Reports



Croplands Demo

The results for this 60 acre field show an estimated carbon sequestration and reduced soil nitrous oxide emissions from conversion to no-tillage.

Ok

[†]Uncertainty of the soil carbon and woody biomass carbon stock change model estimate is currently in development. N2O sub-source emission uncertainty is available by double clicking the N2O source category.

COMET-Farm Report

Step 1
Activities

Step 2
Field Management

Step 3
Report ▼

Cropland, Pasture, Range, Orchards/Vineyards

Cropland Graphical Report

Available Water Holding Capacity

Report finished: 00:02:40 100% Complete

NAME: Haley Nagle
PROJECT: Croplands Demo Project
Daycent Status: Running at 100%
REPORTING YEARS: 2019 - 2028

JOBID: 17868_35277_148683
Time: Fri Jul 10 2020 11:20:57 GMT-0600 (Mountain Daylight Time)
Version: Cloud deployment version 2.3.3, build 3.2.7488.17990 (02-Jul-2020)

USDA United States Department of Agriculture
Natural Resources Conservation Service

Colorado State University

DayCent Portal Data Offramp

☐ Show uncertainty as percentage

Source	Baseline Emissions		no till			
	Emissions	+/-	Emissions	+/-	Change	+/-
F1 (60 acres - Corn, Soybean)						
C (tonnes CO ₂ equiv./yr.)	-7.0	NR [†]	-47.6	NR [†]	-40.6	NR [†]
CO ₂ (tonnes/yr.)	0.0	+0/-0	0.0	+0/-0	0.0	+0/-0
CO (tonnes CO ₂ equiv./yr.)	0.0	+0/-0	0.0	+0/-0	0.0	+0/-0
N ₂ O (tonnes CO ₂ equiv./yr.)	31.5	NR [†]	33.6	NR [†]	+2.1	NR [†]
CH ₄ (tonnes CO ₂ equiv./yr.)	0.0	+0/-0	0.0	+0/-0	0.0	+0/-0
Total	24.5	NR [†]	-14.0	NR [†]	-38.5	NR [†]

Source Categories

Baseline "Business as Usual" results

Future Management Scenario Results

Change in emissions

Total (all parcels)

24.5

NR[†]

-14.0

NR[†]

-38.5

NR[†]

While different practices impact different greenhouse gas fluxes, the results are simplified in terms of Metric Tonnes of CO₂ eq.

Negative results indicate emissions reductions OR carbon sequestration

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[GHG Equivalencies Calculator](#)

†Uncertainty of the soil carbon and woody biomass carbon stock change model estimate is currently in development. N2O sub-source emission uncertainty is available by double clicking the N2O source category.

COMET-Farm Report

Step 1
Activities

Step 2
Field Management

Step 3
Report

Cropland, Pasture, Range, Orchards/Vineyards

Cropland Graphical Report

Available Water Holding Capacity

Report finished: 00:02:36 100% Complete

NAME: Haley Nagle
PROJECT: Croplands Demo Project
Daycent Status: Running at 100%
REPORTING YEARS: 2019 - 2028

JOBID: 17868_35277_148671
Time: Fri Jul 10 2020 11:14:12 GMT-0600 (Mountain Daylight Time)
Version: Cloud deployment version 2.3.3, build 3.2.7488.17990 (02-Jul-2020)

Source	Baseline Emissions		Emissions
	Emissions	+/-	
F1 (60 acres - Corn, Soybean)			
C (tonnes CO ₂ equiv./yr.)	-7.0	NR [†]	-47.6
CO ₂ (tonnes/yr.)	0.0	+0/-0	0.0
CO (tonnes CO ₂ equiv./yr.)	0.0	+0/-0	0.0
N ₂ O (tonnes CO ₂ equiv./yr.)	31.5	NR [†]	33.6
CH ₄ (tonnes CO ₂ equiv./yr.)	0.0	+0/-0	0.0
Total	24.5	NR [†]	-14.0

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Source	Baseline Emissions		no till			
	Emissions	+/-	Emissions	+/-	Change	+/-
F1 (60 acres - Corn, Soybean)						
C (tonnes CO ₂ equiv./yr.)	-7.0	NR [†]	-47.6	NR [†]	-40.6	NR [†]
Soil	-7.0	NR [†]	-47.6	NR [†]	-40.6	NR [†]
Woody Biomass	0.0	NR [†]	0.0	NR [†]	0.0	NR [†]
CO ₂ (tonnes/yr.)	0.0	+0/-0	0.0	+0/-0	0.0	+0/-0
Liming	0.0	+0/-0	0.0	+0/-0	0.0	+0/-0
Urea Fertilization	0.0	+0/-0	0.0	+0/-0	0.0	+0/-0
Drained Organic Soils	0.0	+0/-0	0.0	+0/-0	0.0	+0/-0
CO (tonnes CO ₂ equiv./yr.)	0.0	+0/-0	0.0	+0/-0	0.0	+0/-0
Biomass Burning	0.0	+0/-0	0.0	+0/-0	0.0	+0/-0
N ₂ O (tonnes CO ₂ equiv./yr.)	31.5	NR [†]	33.6	NR [†]	+2.1	NR [†]
Direct N ₂ O Emissions	24.7	+11/-8.5	26.1	+12.1/-9.4	+1.4	+1.1/-0.9
Direct - Soil	24.7	+11/-8.5	26.1	+12.1/-9.4	+1.4	+1.1/-0.9
Direct - Biomass Burning	0.0	+0/-0	0.0	+0/-0	0.0	+0/-0
Direct - Drained Organic Soil	0.0	+0/-0	0.0	+0/-0	0.0	+0/-0
Indirect N ₂ O Emissions	6.8	+7.3/-4.6	7.5	+8/-5.1	+0.7	+0.8/-0.5
Indirect - Volatilization	2.7	+4.5/-2.2	3.0	+5/-2.5	+0.3	+0.5/-0.2
Indirect - Leaching and Runoff	4.1	+6.5/-3.4	4.5	+7.1/-3.7	+0.4	+0.7/-0.3
CH ₄ (tonnes CO ₂ equiv./yr.)	0.0	+0/-0	0.0	+0/-0	0.0	+0/-0
Biomass Burning	0.0	+0/-0	0.0	+0/-0	0.0	+0/-0
Total	24.5	NR [†]	-14.0	NR [†]	-38.5	NR [†]
Total (all parcels)	24.5	NR [†]	-14.0	NR [†]	-38.5	NR [†]

By clicking on the source categories for each emission type, the sub-source categories appear.

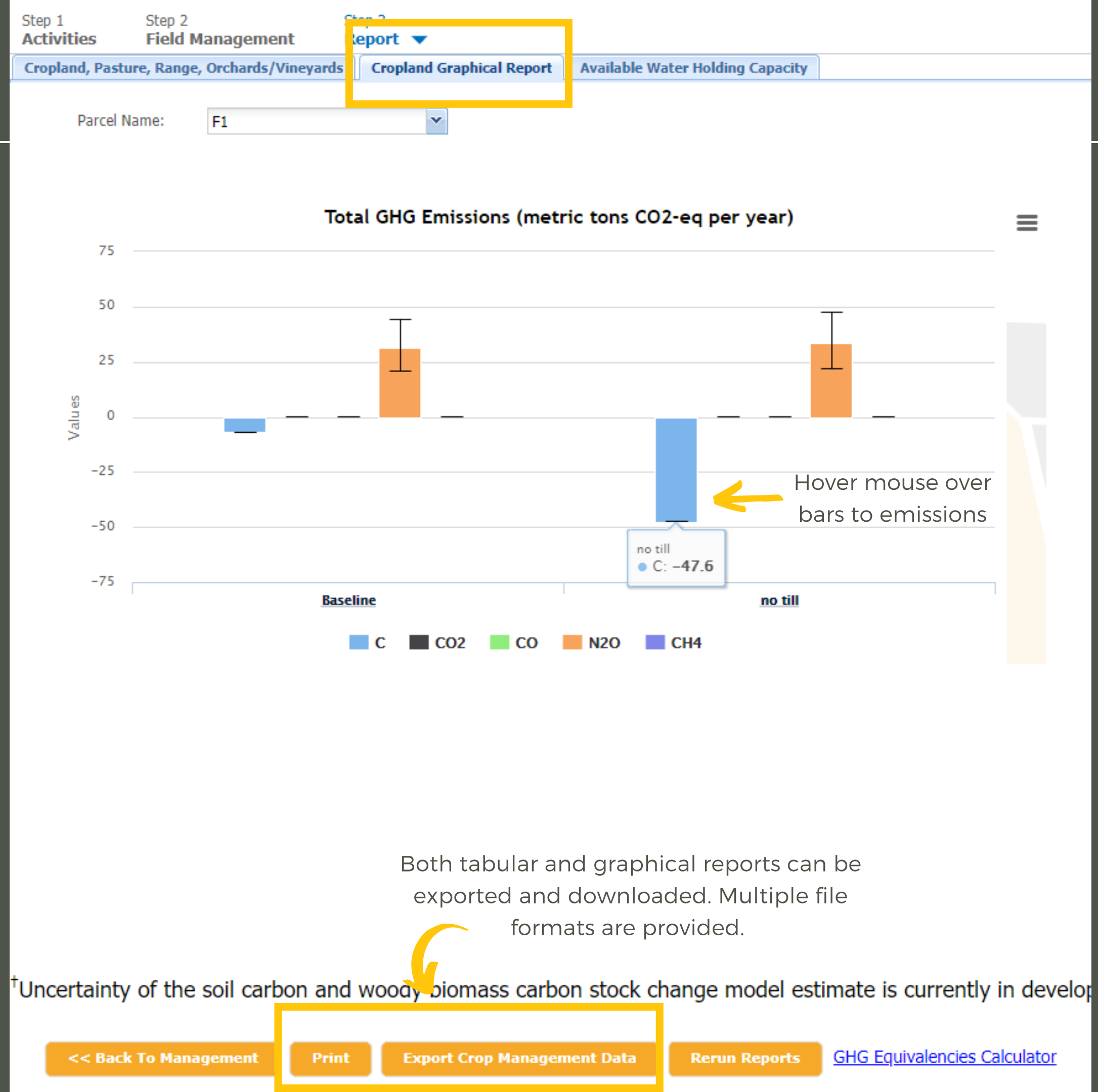


COMET-Farm Report

The graphical report can be found in the tab at the top of the reports page.

Reports will be available to registered users when they return late to the tool and open the same project.

The user may navigate away from this page as the information entered has been saved.



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Final Notes

COMET Farm USDA United States Department of Agriculture Natural Resources Conservation Service Colorado State University Whole Farm and Ranch Carbon and Greenhouse Gas Accounting System.

HOME TOOL INFO HELP (Sign in or Register)

What is COMET-Farm?

COMET-Farm is a whole farm and ranch carbon and greenhouse gas accounting system.

The tool guides you through describing your farm and ranch management practices including alternative future management scenarios. Once complete, a report is generated comparing the carbon changes and greenhouse gas emissions between your current management practices and future scenarios.

[Start Using COMET-Farm](#)

Related Tools

COMET-Energy Tool [Go to COMET-Energy Tool >>](#)

COMET-Energy is a stand-alone tool that allows you to calculate reductions in greenhouse gas emissions based on anticipated fuel savings. You can use COMET-Energy by itself or in conjunction with your COMET-Farm user account.

COMET-Planner Tool [Go to COMET-Planner Tools>>](#)

Carbon and greenhouse gas evaluation for NRCS conservation practice planning. Evaluate potential carbon sequestration and greenhouse gas reductions from adopting NRCS conservation practices.

[Help](#)

– Search for solutions to common questions or submit a help-desk ticket for COMET support.

–Blue question mark icons provide information on categories and what can be evaluated 

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Suggested articles

- Crops with overlapping calendar years
- Entity grows in size over time
- Case of multiple cover crops

Contact us

by Freshworks

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