

COMET-Farm Step-by-Step Animal Ag (Swine) Guide

Single Year Accounting

Tasks:

1. Navigate to COMET-Farm.com and Create an account

- a. Navigate to www.comet-farm.com
- b. Using the Navigating COMET-Farm document [HERE](#), familiarize yourself with the COMET-Farm user interface.
- c. Using the Creating a COMET-Farm Account document [HERE](#), create a COMET-Farm account (if you have not already done so).
 - i. While you can use any component of COMET-Farm *without* creating an account, creating an account has many benefits. Review how COMET stores your project information and the benefits of creating an account [HERE](#).

2. Create new project

- a. Select *Tool* in the upper right corner of the COMET-Farm web page.
- b. Follow the instructions on [Creating a New Project](#) help document to begin your project.
 - i. For users new to COMET Animal Agriculture accounting, we would recommend just selecting *Animal Agriculture* as your accounting activity. You can always add other accounting activities later.
 - ii. Select *define activities* to proceed to the next task.

3. Information collection:

- a. Data required for COMET-Farm: property location, animal types, animal characteristics, and your change in management for the scenario comparison.
- b. Due to the layout of the interface, it may be useful to collect your management information ahead of time and simply transfer to the user interface. This can aid in data organization and also provides a simple way viewing all inputs together.
 - i. We do have a [Animal Ag \(Swine\) Data Entry Spreadsheet](#) to assist in data collection prior to going through the user interface and outlines every data point COMET-Farm will ask for. Unfortunately, you cannot upload that spreadsheet to COMET. It is simply a tool to gather all of your management information before using the COMET-Farm interface.

4. Select Property Location

- a. COMET-Farm allows for zip code and animal specific greenhouse gas (GHG) accounting. When entering management details on the baseline and scenario management pages, you are tying the management details to that *specific zip code and animal*.

- b. Using the navigation window that appears after you defined your accounting activity, enter the zip code of the general area of your property. Zip code will be used to determine temperatures for manure and housing related calculations.

Select Property Location

Enter your Zip code

What are your preferred units of measure? English ▾

Please enter all data in Pounds except where noted

<< Back
Save & Continue >>

- c. Once you've entered your zip code, select the orange button, *Save & Continue*.

5. Select Animal Types

Step 1
Activities
Step 2
Animal Agriculture ▾
Step 3
Report

Property Location →
Animal Types →
Animal Characteristics

Current Step

Select Animal Types

Select Animal Types ?

Cattle

Beef-Heifer Replacements ☐
Beef-Mature Cows/Cow-Calf ☐
Bulls ☐
Dairy-Dry Cows ☐
Feedlot Cattle ☐

Beef-Heifer Stockers ☐
Beef-Steer Stockers ☐
Dairy-Heifer Replacements ☐
Dairy-Lactating Cows ☐

Poultry

Broilers ☐
Laying Hens ☐

Ducks ☐
Turkeys ☐

Sheep

Feeder Sheep ☐

Flock Sheep ☐

Swine

Gestating Sows ☐
Lactating Sows ☐

Grow-Finish Pigs ☐
Weaning Pigs ☐

Other

American Bison ☐

Goats ☐

<< Back
Save & Continue >>
Set Baseline Period >>

- a. The Animal Types pane allows COMET-Farm users to define different animals within their operation.
- i. Check all of the animal types for which you want to include in your project. Once you have entered management data for these animals, you *cannot* go back and add or remove animal types to your project.

- ii. Proceed to animal characteristics for *single-year accounting*. Single year accounting is recommended for:
 1. New COMET-Farm users
 2. Users looking to assess a single year of animal agriculture management
 3. When management is uniform across multiple years. For example, a producer manages their beef cattle the same year to year.
- iii. For multi year accounting, see our [Step by Step Animal Ag \(Beef\) Multi Year](#)
- iv. Click *Save & Continue*

6. **Enter Baseline Management Details:** In this section you will be asked to define your management practices for your Baseline Scenario (“business as usual,” current management, or how your animals are currently managed.).

The screenshot shows the 'Management Details' section of the COMET-Farm tool. It is divided into three steps: Step 1 Activities, Step 2 Animal Agriculture, and Step 3 Report. The current step is Step 2, which includes 'Animal Types' and 'Animal Characteristics'. The 'Animal Characteristics' section is highlighted with an orange box. A green checkmark indicates that the 'Gestating Sows' category is selected. A navigation pane on the left allows users to move through their management inputs. A green box notes that the green check specifies which animal type and herd they are currently entering data for. The 'Scenario List' on the left shows 'Baseline' and 'Swine Scenario Test'. The main form is titled 'Enter Animal Characteristics - Gestating Sows' and asks 'How many Gestating Sows do you have, on average, per month?'. It includes a table with columns for months (Jan to Dec) and rows for 'Average Daily Feed Intake (lbs)', 'Percentage of Crude Protein', 'Gestation Length (days)', and 'Litter Size (head)'. A green box notes that these inputs will be different depending on which animal category you're working on. At the bottom, there are buttons for '<< Back' and 'Save & Continue >>'.

7. Animal Details

- a. Input how many swine you have from each type (gestating sows, grow-finish pigs, lactating sows, and weaning pigs), on average, per month. If your number is the same across all months, you can use the 🔄 icon to copy your January value to all months.
 - i. For all animal types, enter the average daily feed intake (lbs) and percent of crude protein
- b. If your operation includes *Gestating Sows*, also enter:
 - i. Gestation Length (days)
 - ii. Litter Size (head)
- c. If your operation includes *Grow-Finish Pigs*, also enter
 - i. Days on Feed

- ii. Dressing Percent
 - iii. Fat Free Lean Percent
 - iv. Initial Body Weight (lbs)
 - v. Final Body Weight
- d. If your operation includes *Lactating Sows*, also enter:
- i. Lactation Length (days)
 - ii. Litter Weight at Birth (whole litter) (lbs)
 - iii. Litter Weight at Weaning (whole litter) (lbs)
- e. If your operation includes *Weaning Sows*, also enter:
- i. Days on Feed
 - ii. Initial Body Weight (lbs)
 - iii. Final Body Weight
 - iv. Growth Capacity (High, High-Moderate, Moderate)

Enter Animal Characteristics - Gestating Sows

How many Gestating Sows do you have, on average, per month?

| | | | | | | | | | | | |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

Average Daily Feed Intake (*lbs*)

Percentage of Crude Protein

Gestation Length (*days*)

Litter Size (*head*)

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Save & Continue >>

8. Housing Details

- a. Select *how manure is handled within your housing type* (roofed facility or dry lot). For roofed facilities also enter is manure is handled using:
- i. Pit Storage:
 - 1. Select whether the pit is deep or shallow
 - 2. Enter the number of days manure is in housing
 - ii. Bedded Pack:
 - 1. Select whether you use an active mix or no mix

2. Enter the number of days manure is in housing

iii. Flushed or Scraped

9. Manure System Types

a. Select which *manure management systems are currently in use*. Begin by entering whether or not you use a solid/liquid separator.

i. If you do use a solid/liquid separator, select from the drop-down menus:

1. The separator type (e.g., roller press, vibrating screen, etc.)

2. The percentage of solids removed

a. Depending on the separator type selected, COMET provides default values on the percent solids removed. Users can modify this default value.


3. The primary solid treatment method

4. The primary liquid treatment method

ii. If you do *not* use a solid/liquid separator, select from the drop-down menu:

1. The final or end treatment/outdoor storage method (e.g., composting, daily spread, etc.)

Enter Animal Characteristics - Grow-Finish Pigs

For **Grow-Finish Pigs** which manure management systems are currently in use? 

Do you use a solid/liquid separator? ☒ Yes ☐ No

What is the separator type? Roller press

Percentage of Solids Removed? 17

What is the primary solid treatment method? Composting

What is the primary liquid treatment method? Anaerobic Digester with Biogas Utilization o

<< Back

Save & Continue >>

10. Manure System Details. Depending on your selections, you might be asked to provide more details about your manure system.

a. If you *selected temporary stack and long-term stockpile*, enter:


i. The system cover type

ii. If the manure is stored short term (less than six months) or long term (more than six months)

b. If you selected *composting*, select the composting method.

- c. If you selected *aerobic lagoon*, enter:
 - i. The total volume of the lagoon (cubic feet)
 - ii. If the system aeration is natural or forced
- d. If you selected *anaerobic digester*, select the digester type
- e. If you selected *aerobic treatment*, enter:
 - i. The system cover type
 - ii. The exposed surface area (square feet)

11. Manure Details - based on what you have entered in the previous panel, COMET will provide default values for total dry manure produced and percent nitrogen content of manure each month. Users can modify any of these default values.

- a. Enter the total dry manure produced per head per day (lbs). Use the  icon to copy your animal count to every month.
- b. Enter the average percent nitrogen content of the manure each month. COMET-Farm will provide default values if you do not have a lab report.
- c. Click *Save & Continue*

12. Repeat these steps

- a. If you have *multiple animal types* in your baseline scenario, you will have to repeat these steps for each type before moving on to your future scenario.

13. Enter Future Management Details: Once baseline scenario is completed, you will be able to define new scenarios for future management. You can either copy your entire baseline scenario and then modify only the necessary fields or start a completely new future scenario (using the same animal type).

- a. COMET-Farm allows for a maximum of 10 scenarios.

14. A small window will appear where you will be given the option to run a report, create a new scenario, or continue editing your baseline scenario. If you choose to *create a new scenario*:

- a. We would recommend a short (25 characters), descriptive title. This will help when interpreting reports.
- b. If making small changes to the future scenario (ex. Installing an anaerobic digester), **select the box *Copy management information from Baseline*** to minimize the data entry process for the future scenario.
 - If you would like to start from scratch for your future scenario, Add the descriptive title and select *Start or Create new scenario*.

- b. If you only want to report on your current management practices, you will still need to create a new scenario. You can select copy management from baseline, and click Continue to Report. There should be no change between the two scenarios.

15. If you copied the management information from your baseline to the future scenario, your future scenario will now look *identical* to the *baseline scenario*.
16. Management details can be added, modified, or deleted in the *exact* same manner as the *baseline management* you completed in steps 7-12. The only thing you cannot change is animal type.
17. When you have completed modifying and checking all management for your first scenario, click *Save & Continue* until you're prompted to either *Continue to the report, add another scenario*, or keep editing.
 - a. *Create a new scenario*- Each project can accommodate up to 10 future scenarios.
 - i. If you have more than one scenario, you can only proceed to the report if all management data in all scenarios are completed.
 - b. *Keep editing* if you need to review your changes
18. **Continue to Report Page.** You will be taken to the report page. If you have created an account, you can navigate away from the browser and the system will keep your report active.
19. For a detailed breakdown of the report, please visit this page on [Interpreting Animal Agriculture Report](#).

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