# Delaware Animal WasteManagement Plan

A copy of this completed document should be kept on the farm and available for review by the Delaware Department of Agriculture if requested. The Animal Waste Management should be updated anytime there is an increase in capacity of 25% or more. All poultry and livestock should be included in this Animal Waste Management Plan.

Operation Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date prepared: \_\_\_\_\_\_\_\_\_\_\_\_\_

Date reviewed: \_\_\_\_\_\_\_\_\_\_\_\_\_

Date reviewed: \_\_\_\_\_\_\_\_\_\_\_\_\_

Date reviewed: \_\_\_\_\_\_\_\_\_\_\_\_\_

Date reviewed: \_\_\_\_\_\_\_\_\_\_\_\_\_

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Animal Waste Management Plan Template

## Who Needs an Animal Waste Management Planin Delaware?

This template is available for poultry and livestock operations to write a Delaware Animal Waste Management Plan. Animal Waste Management Plans are required by the Delaware Nutrient Management Law for any operation that has 8 or more animal units; an animal unit is 1,000 lbs. of live weight. Individuals who are certified as a Nutrient Generator can write their own Animal Waste Management Plan, unless they meet the criteria to become a permitted CAFO (see below). Operations that apply manure or fertilizer to 10 or more acres should not use this template; these operations must have a Nutrient Management Plan written by a certified Nutrient Consultant.

The main purpose of an Animal Waste Management Plan is to estimate the amount of manure generated on an annual basis. This template will help individuals estimate the amount of manure generated by poultry, cattle, equines, swine, sheep, and goats. In addition to estimating manure production, this Animal Waste Management Plan Template will help growers with record keeping. The records outlined in this template serve many purposes, such as aiding individuals in filling out the Delaware Nutrient Management Annual Report, which is due to Delaware Department of Agriculture on March 1st of each calendar year. Animal Waste Management Plans are required to be updated when the number of animals at an operation increases by 25% or more. Updating an animal waste management plan is also strongly encouraged if there are changes made to best management practices related to manure or mortality management.

This Animal Waste Management Plan does not take the place of a Concentrated Animal Feeding Operation (CAFO) permit and related documents. Delaware CAFOs have unique requirements that do not apply to other animal operations. Requirements for CAFOs are outlined in Title 7 Delaware Code, Chapter 60 and Title 3 Delaware Code, Chapter 22. **Any operation meeting the criteria to become a permitted CAFO will need a Nutrient Management Plan written by a certified Delaware Nutrient Management Consultant.** A complete list of the criteria for CAFOs can be found on the Delaware Department of Agriculture website in the [CAFO Fact Sheet](https://agriculture.delaware.gov/wp-content/uploads/sites/108/2019/02/CAFO-Fact-Sheet.pdf)*.* For guidance on all things related to CAFO permits, contact the Nutrient Management Program at the Delaware Department of Agriculture at 302-698-4458 or nutrient.management@delaware.gov.

## Quick Reference

This Animal Waste Management Plan template is arranged in several sections. Use Table 1 to determine which sections of this template must be completed based on the type of poultry and/or livestock on the operation. Operations with more than one species of animal will need to use each section that applies to their operation. Note: It may not be necessary to complete one or more sections of this template.

**Table 1. Animal Waste Management Plan sections that should be completed based on the type of animals on the operation.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Section | Page # | Poultry | Equine | Cattle | Sheep/Goats | Swine |
| Participant Information | 4 - 5 | X | X | X | X | X |
| Crust and Litter Estimation for Commercial Poultry Operation | 6-10 | X |  |  |  |  |
| Manure Estimation for an Equine Operation | 11-14 |  | X |  |  |  |
| Manure Estimation for a Cattle Operation | 15-18 |  |  | X |  |  |
| Manure Estimation for Sheep and/or Goat Operation | 19-22 |  |  |  | X |  |

## Participant Information

The information in this section is required for **ALL** operations that need an Animal Waste Management Plan. The participant information will also be helpful when it comes time to complete the Delaware Nutrient Annual Report. The watershed number can be found at the [Delaware Watershed Search](http://delaware.maps.arcgis.com/apps/webappviewer/index.html?id=955c5e9053c046748e32d275c14e4df7) website by entering the physical location address of the operation and clicking in close proximity to the location on the map. It may be necessary to zoom out of the map to identify the correct watershed outline. Upon clicking on the map within the appropriate watershed, record the number next to the label “HUC-10”.

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Applicant Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mailing Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Phone Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Operation Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Operation Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Operation Name (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Operation Address (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Delaware Nutrient Management
Certification Holder for Operation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Delaware Nutrient Management Certification Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Level of Certification (Please check one)

[ ]  Nutrient Generator [ ]  Private Nutrient Handler

[ ]  Commercial Nutrient Handler **[ ]** Nutrient Consultant

## Watershed

Your watershed code can be found at the [Delaware Watershed Search](http://delaware.maps.arcgis.com/apps/webappviewer/index.html?id=955c5e9053c046748e32d275c14e4df7).

Watershed Number: \_\_\_\_\_\_\_\_\_\_\_\_\_

Percentage of Operation in Watershed: \_\_\_\_\_\_

Watershed Number (if in more than one watershed): \_\_\_\_\_\_\_\_\_\_\_\_\_

Percentage of Operation in Watershed: \_\_\_\_\_\_

## Crust and Litter Estimation for a Commercial Poultry Operation

Only non-CAFO poultry operations should complete this section. **If your operation has a current CAFO Permit or you have submitted a Notice of Intent (NOI) to be covered under a CAFO permit, then you must have a plan prepared by a Delaware Certified Nutrient Consultant**. The volume of poultry manure generated on an operation is estimated in this section. Important information such as best management practices utilized, mortality management, and the destination of manure generated on the operation are also recorded in this section.

Type of Poultry Grown: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Total Operation Capacity/Placement (Birds) Per Flock: \_\_\_\_\_\_\_\_

Number of Flocks per Year: \_\_\_\_\_\_\_\_

### Crust and Litter Estimation

Select one of the following methods to estimate the amount of crust and litter generated on your operation. The methods are listed in order of accuracy; select the most accurate method possible for your operation.

1. Weighed Crust Out, Center Cut or Total Clean Out (most accurate) – Select this method if you contract with someone who removes crust or litter from your operation, and they provide you with the weight of that crust or litter. You may input crust or litter weights from a previous year if flock management and number of flocks were the same as current practice.

Year Weight was Taken: \_\_\_\_\_\_\_\_

Tons of Crust Annually: \_\_\_\_\_\_\_\_

Tons of Center Cut Annually: \_\_\_\_\_\_\_\_

Tons of Total Clean Out Removed (if a total clean out year): \_\_\_\_\_\_\_\_

Year of Total Clean Out (if a total clean out year): \_\_\_\_\_\_\_\_

1. Estimate Volume Capacity – Select this method to estimate the crust and litter production on your operation when you crust out or clean out by determining the volume of the truck or spreader you are loading into and then converting that volume to weight. This estimate can be from a previous year, if the flocks were managed in a similar way to the current year and you had the same number of flocks. You can use the following figures to convert volume to the weight of litter (Rynk et al., 992):

1 cubic foot = 30 pounds (average)

1 bushel = 35 pound (average)

Tons of Crust Annually: \_\_\_\_\_\_\_\_

Tons of Center Cut Annually: \_\_\_\_\_\_\_\_

Tons of Total Clean out Removed (if a total clean out year): \_\_\_\_\_\_\_\_

Year of Total Clean out (if a total clean out year): \_\_\_\_\_\_\_\_

1. Manure Generation Spreadsheet (**least accurate)**– Select this method if you do not have the information necessary to estimate manure by the other methods. Open the University of Maryland spreadsheet and fill in the blue cells to estimate the crust and litter generation on your operation. <https://go.umd.edu/PoultryLitterQuantity>

Tons of Crust Annually: \_\_\_\_\_\_\_\_

Tons of Center Cut Annually: \_\_\_\_\_\_\_\_

Tons of Total Clean Out Removed: \_\_\_\_\_\_\_\_

Year Material was Removed: \_\_\_\_\_\_\_\_

### **Poultry Manure Storage**

Document the dimensions of any poultry litter storage structures on the farm. Operations who worked with NRCS or the Conservation Districts to build a manure shed can contact them to obtain the exact storage capacity of a manure storage structure.

Permanent Structure Size (length, width & height): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Permanent Structure Size (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Permanent Structure Size (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Temporary Structure Size (length, width & height): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Temporary Structure Size (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Temporary Structure Size (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### **Manure Receiver**

Please list the contact and other information related to the receiver(s) of crust, center cut, or total clean out from your operation.

1. Receiver Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Date Material Received: \_\_\_\_\_\_\_\_\_\_\_\_\_
Crust Amount : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Center Cut Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Total Clean Out Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Receiver Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Date Material Received: \_\_\_\_\_\_\_\_\_\_\_\_\_
Crust Amount : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Center Cut Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Total Clean Out Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Receiver Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Date Material Received: \_\_\_\_\_\_\_\_\_\_\_\_\_
Crust Amount : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Center Cut Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Total Clean Out Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Receiver Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Date Material Received: \_\_\_\_\_\_\_\_\_\_\_\_\_
Crust Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Center Cut Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Total Clean Out Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### **Manure Storage Best Management Practices (BMPs)**

Please check all manure storage BMPs that you use on your operation.

[ ]  Manure is kept dry in a manure shed

[ ]  Manure is stockpiled by following Delaware Nutrient Management Commission guidelines

[ ]  Manure stockpile is 100 feet from any body of water or drainage ditch

[ ]  Manure stockpile is 100 feet from any public road

[ ]  Manure stockpile is 200 feet from any residence not located on your property

[ ]  Manure stockpile is 200 feet from any domestic well

[ ]  Manure stockpile is 300 feet from a public water supply

### Poultry Mortality Management

Please check all mortality management methods that you use on your operation but do not check off a BMP not currently on the farm.

[ ]  Channel composter Date Installed: \_\_\_\_\_\_\_\_\_\_\_\_\_

[ ]  Bin composter Date Installed: \_\_\_\_\_\_\_\_\_\_\_\_\_

[ ]  Temporary channel Date Installed: \_\_\_\_\_\_\_\_\_\_\_\_\_
composter; waiting for
permanent structure construction

[ ]  Temporary bin Date Installed: \_\_\_\_\_\_\_\_\_\_\_\_\_
composter; waiting for
permanent structure construction

[ ]  In-vessel composter Date Installed: \_\_\_\_\_\_\_\_\_\_\_\_\_

[ ]  Mortality freezers Date Installed: \_\_\_\_\_\_\_\_\_\_\_\_\_

[ ]  Other (please list) Date Installed: \_\_\_\_\_\_\_\_\_\_\_\_\_

### Best Management Practices

Please check all Best Management Practices (BMPs) that you use on your operation.

[ ]  Heavy Use Area Pads

[ ]  Storm Water Pond

[ ]  Grassed Swales

[ ]  Constructed Wetland

[ ]  Vegetative Planting (grasses or trees) within 10 to 12” of tunnel fans

[ ]  Pollinator Plantings

[ ]  Other (please list)**:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Notes

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Manure Estimation for an Equine Operation

Equine operations should complete this section. The amount of manure and bedding that is generated on the operation is estimated in this section. Information about best management practices (BMPs) used, mortality management, and the destination of manure generated on the operation is also recorded in this section. Note: Manure that is directly deposited on pasture is not considered a nutrient application.

### Animal Capacity

Total Number of Equine**:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
(this includes horses, ponies, donkeys, and mules):

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Horse Weight (approx.) | Name | Horse Weight (approx.) |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | 8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | 9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | 10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | 11. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| 5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | 12. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| 6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | 13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| 7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | 14. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |

### **Manure Generation**

 Select one of the following methods to estimate the amount of manure produced and bedding used annually on your operation. The methods are listed in order of accuracy; select the most accurate method possible for your operation.

1. Weighed (most accurate) – Select this method if you contract with someone or remove manure and bedding from your operation, and you have the weight of moved manure. Enter the weight of manure (with bedding) for your operation. The values used here can be from a previous year if the number, weight, and management of the equines did not change since this weight was determined.

Year Weight was Taken: \_\_\_\_\_\_\_\_

Tons of Manure and Bedding: \_\_\_\_\_\_\_\_

2. Manure Generation Spreadsheet – Select this method if you do not have the information necessary to estimate manure by the other methods. Open the University of Maryland spreadsheet and fill in the blue cells to estimate the manure generation and bedding use on your operation. <https://go.umd.edu/SolidManureQuantity>

Tons of Bedding Used Annually: \_\_\_\_\_\_\_\_

Tons of Uncollected Manure Deposited on Pasture Annually: \_\_\_\_\_\_\_\_

Tons of Collected Manure and Bedding Annually: \_\_\_\_\_\_\_\_

### **Manure Storage**

Document the dimensions of any manure storage structures on the farm. Operations who worked with NRCS or the Conservation Districts to build a manure shed can contact them to obtain the exact storage capacity of a manure storage structure.

Permanent Structure Size (length, width & height): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Permanent Structure Size (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Permanent Structure Size (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Temporary Structure Size (length, width & height): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Temporary Structure Size (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Temporary Structure Size (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### **Manure Storage Best Management Practices (BMPs)**

Please check all manure storage BMPs that you use on your operation.

[ ]  No manure is collected. All manure is deposited on pasture by the horses.

[ ]  Manure is kept dry under a roof or tarp

[ ]  Manure is kept on an impervious pad (concrete or clay)

[ ]  Manure is kept in a dumpster for pick-up

[ ]  Manure is stockpiled on high ground with a vegetative buffer surrounding it

[ ]  Manure is stockpiled by following Delaware Nutrient Management Commission guidelines

[ ]  Manure stockpile is 100 feet from any body of water or drainage ditch

[ ]  Manure stockpile is 100 feet from any public road

[ ]  Manure stockpile is 200 feet from any residence not located on your property

[ ]  Manure stockpile is 200 feet from any domestic well

[ ]  Manure stockpile is 300 feet from a public water supply

### **Manure Receiver(s)**

Please list the contact and other information related to the receiver(s) of manure from your operation.

1. Receiver Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Date Material Received: \_\_\_\_\_\_\_\_\_\_\_\_\_
Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Receiver Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Date Material Received: \_\_\_\_\_\_\_\_\_\_\_\_\_
Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Receiver Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Date Material Received: \_\_\_\_\_\_\_\_\_\_\_\_\_
Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### **Mortality Management**

Please check all mortality management methods that you use on your operation.

[ ]  Cremation

[ ]  Renderer

[ ]  Composting

[ ]  Other (please list)**:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Other Best Management Practices

Please check all the other BMPs that you use on your operation.

[ ]  Rotational grazing

[ ]  Streamside/ditch fencing

[ ]  Sacrifice lot

[ ]  Reseed bare ground

[ ]  Soil test pasture

[ ]  Control weeds

[ ]  Other (please list): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Notes

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Manure Estimation for a Cattle Operation

Cattle (beef and dairy) operations should complete this section. The amount of manure and bedding that is generated on the operation is estimated in this section. Information about best management practices (BMPs) used, mortality management, and the destination of manure generated on the operation is also recorded in this section. Note: Manure that is directly deposited on pasture is not considered a nutrient application.

### Animal Capacity

Total Number of Cattle \_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| Cattle Description | Total of Each |
| Feeder Yearling (750-1100 lbs.) – High Forage Diet | \_\_\_\_\_\_\_\_ |
| Feeder Yearling (750-1100 lbs.) – High Energy Diet | \_\_\_\_\_\_\_\_ |
| Calf (450-750 lbs.) | \_\_\_\_\_\_\_\_ |
| Cow | \_\_\_\_\_\_\_\_ |
| Bull | \_\_\_\_\_\_\_\_ |

### Manure Generation

Select one of the following methods to estimate the amount of manure generated on your operation. The methods are listed in order of accuracy; select the most accurate method possible for your operation.

1. Weighed (most accurate) – Select this method if you contract with someone or remove manure from your operation, and you have the weight of moved manure. Enter the weight of manure (with bedding) for your operation. You may obtain this weight personally or from someone who removes manure and bedding from your operation. The values used here can be from a previous year if the number, weight, and management of the cattle did not change since this weight was determined.

Year Weight was Taken \_\_\_\_\_\_\_\_

Tons of Manure and Bedding: \_\_\_\_\_\_\_\_

1. Manure Spreadsheet (least accurate)– Select this method if you do not have the information necessary to estimate manure by the other methods. Open the University of Maryland spreadsheet and fill in the blue cells to estimate the manure generation and bedding use on your operation. <https://go.umd.edu/SolidManureQuantity>

Tons of Bedding Used Annually: \_\_\_\_\_\_\_\_

Tons of Uncollected Manure Deposited on Pasture Annually: \_\_\_\_\_\_\_\_

Tons of Collected Manure and Bedding Annually: \_\_\_\_\_\_\_\_

### Manure Storage

Document the dimensions of any manure storage structures on the farm. Operations who worked with NRCS or the Conservation Districts to build a manure shed can contact them to obtain the exact storage capacity of a manure storage structure.

Permanent Structure Size (length, width & height): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Permanent Structure Size (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Permanent Structure Size (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Temporary Structure Size (length, width & height): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Temporary Structure Size (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Temporary Structure Size (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Manure Storage Best Management Practices

Please check all manure storage BMPs that you use on your operation.

[ ]  No manure is collected. All manure is deposited on pasture by cattle.

[ ]  Manure is kept dry under roof or tarp

[ ]  Manure is kept on an impervious pad (concrete or clay)

[ ]  Manure is kept in a dumpster for pick-up

[ ]  Manure is stockpiled by following Delaware Nutrient Management Commission guidelines

[ ]  Manure stockpile is 100 feet from any body of water or drainage ditch

[ ]  Manure stockpile is 100 feet from any public road

[ ]  Manure stockpile is 200 feet from any residence not located on your property

[ ]  Manure stockpile is 200 feet from any domestic well

[ ]  Manure stockpile is 300 feet from a public water supply

### Manure Receiver

Please list the contact and other information related to the receiver(s) of manure from your operation.

1. Receiver Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Date Material Received: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Receiver Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Date Material Received: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Receiver Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Date Material Received: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Mortality Management

Please check all mortality management methods that you use on your operation.

[ ]  Renderer

[ ]  Composting

[ ]  Cremation

[ ]  Other (please list): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Best Management Practices

Please check all the other BMPs that you use on your operation.

[ ]  Rotational grazing

[ ]  Streamside/ditch fencing

[ ]  Sacrifice lot

[ ]  Reseed bare ground

[ ]  Soil test pasture

[ ]  Grow annual forages or cover crops

[ ]  Control weeds

[ ]  Other (please list): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Notes

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Manure Estimation for a Small Ruminant Operation

Small ruminant (sheep or goat) operations should complete this section. The amount of manure and bedding that is generated on the operation is estimated in this section. Information about best management practices (BMPs) used, mortality management, and the destination of manure generated on the operation is also recorded in this section. Note: Manure that is directly deposited on pasture is not considered a nutrient application.

### Animal Capacity

Total Number of Goats: \_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| Goats | Total Number | Average Weight | Days on Operation |
| Kid | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| Yearling | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| Mature Doe | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| Mature Wether  | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| Mature Buck | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |

Total Number of Sheep: \_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| Sheep | Total Number | Average Weight | Days on Operation |
| Lamb | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| Yearling | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| Mature Ewe | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| Mature Wether  | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| Mature Ram | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |

### Manure Generation

Select one of the following methods to estimate the amount of crust and litter generated on your operation. The methods are listed in order of accuracy; select the most accurate method possible for your operation.

1. Weighed (most accurate) – Select this method if you contract with someone or remove manure from your operation, and you have the weight of moved manure. Enter the weight of manure (with bedding) for your operation. You may obtain this weight personally or from someone who removes manure and bedding from your operation. The values used here can be from a previous year if the number, weight, and management of the horses, ponies, or donkeys did not change since this weight was determined.

Year Weight was Taken \_\_\_\_\_\_\_\_

Tons of Manure and Bedding (if applicable): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Manure Generation Spreadsheet (least accurate**)** – Select this method if you do not have the information necessary to estimate manure by the other methods. Open the University of Maryland spreadsheet and fill in the blue cells to estimate the manure generation and bedding use on your operation. <https://go.umd.edu/SolidManureQuantity>

Tons of Bedding Used Annually: \_\_\_\_\_\_\_\_

Tons of Uncollected Manure Deposited on Pasture Annually: \_\_\_\_\_\_\_\_

Tons of Collected Manure and Bedding Annually: \_\_\_\_\_\_\_\_

### Manure Storage

Document the dimensions of any manure storage structures on the farm. Operations who worked with NRCS or the Conservation Districts to build a manure shed can contact them to obtain the exact storage capacity of a manure storage structure.

Permanent Structure Size (length, width & height): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Permanent Structure Size (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Permanent Structure Size (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Temporary Structure Size (length, width & height): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Temporary Structure Size (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Temporary Structure Size (if multiple): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Manure Storage Best Management Practices (BMPs)

Please check all manure storage BMPs that you use on your operation.

[ ]  No manure is collected. All manure is deposited on pasture by the horses.

[ ]  Manure is kept dry under a roof or tarp

[ ]  Manure is kept on an impervious pad (concrete or clay)

[ ]  Manure is kept in a dumpster for pick-up

[ ]  Manure is stockpiled on high ground with a vegetative buffer surrounding it

[ ]  Manure is stockpiled by following Delaware Nutrient Management Commission guidelines

[ ]  Manure stockpile is 100 feet from any body of water or drainage ditch

[ ]  Manure stockpile is 100 feet from any public road

[ ]  Manure stockpile is 200 feet from any residence not located on your property

[ ]  Manure stockpile is 200 feet from any domestic well

[ ]  Manure stockpile is 300 feet from a public water supply

**Manure Receiver(s):** Please list the contact and other information related to the receiver(s) of manure from your operation.

1. Receiver Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Date Material Received: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Receiver Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Date Material Received: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Receiver Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Date Material Received: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Mortality Management

Please check all mortality management methods that you use on your operation.

[ ]  Renderer

[ ]  Composting

[ ]  Cremation

[ ]  Other (please list): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Best Management Practices

Please check all the other BMPs that you use on your operation.

[ ]  Rotational grazing

[ ]  Streamside/ditch fencing

[ ]  Sacrifice lot

[ ]  Reseed bare ground

[ ]  Soil test pasture

[ ]  Control weeds

[ ]  Other (please list): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Notes

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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*Document Prepared by: S.Y. Riggi and A.L. Shober,* *University of Delaware Cooperative Extension*

*Reviewed by: Susan T. Garey, University of Delaware Cooperative Extension*