

**State of North Carolina**  
**Department of Environment and Natural Resources**  
**Division of Water Resources**

**Animal Waste Management Systems**

Request for Certificate of Coverage

Facility Currently Covered by an Expiring State Non-Discharge General Permit

On September 30, 2014, the North Carolina State Non-Discharge General Permits for Animal Waste Management Systems will expire. As required by these permits, facilities that have been issued Certificates of Coverage to operate under these State Non-Discharge General Permits must apply for renewal at least 180 days prior to their expiration date. Therefore, all applications must be received by the Division of Water Resources by no later than **April 1, 2014**.

*Please do not leave any question unanswered. Please verify all information and make any necessary corrections below.*

*Application must be signed and dated by the Permittee.*

1. Facility Number: 310045 and Certificate of Coverage Number: AWS310045
2. Facility Name: Family Farms Inc
3. Landowner's name (same as on the Waste Management Plan): Michael Aldridge
4. Landowner's mailing address: 454 N NC 11 Hwy  
City/State: Pink Hill NC Zip: 285727658  
Telephone Number (include area code): (919)568-6206 E-mail: MIKEALDRIDGE02@HOTMAIL.COM
5. Facility's physical address: 454 N NC 11 Hwy  
City: Pink Hill State: NC Zip: 28572
6. County where facility is located: Duplin
7. Farm Manager's name (If different than the Landowner):
8. Farm Manager's telephone number (include area code): 252-568-3914
9. Integrator's name (if there is not an integrator write "None"): Murphy-Brown LLC
10. Operator in Charge (OIC) name: James Aldridge Telephone Number 252-568-6206 OIC # 17153
11. Lessee's name (if there is not a lessee write "None"): NONE
12. Indicate animal operation type and number:

**Swine**

Wean to Finish  
Wean to Feeder  
~~Farrow to Finish~~  
Feeder to Finish 5760  
~~Farrow to Wean~~  
Farrow to Feeder  
Boar/Stud  
Gilts  
Other

Horses - Horses  
Horses - Other

**Cattle**

Dairy Calf  
Dairy Heifer  
Milk Cow  
Dry Cow  
Beef Stocker Calf  
Beef Feeder  
Beef Brood Cow  
Other

Sheep - Sheep  
Sheep - Other

**Dry Poultry**

Non Laying Chickens  
Laying Chickens  
Turkeys  
Other  
Pullets  
Turkey Poults

**Wet Poultry**

Non Laying Pullets  
Layers

Mail one (1) copy of the most recent Waste Utilization Plan (WUP) along with the field maps for this facility with this completed and signed application as required by NC General Statutes 143-215.10C(d) to the address below. The WUP must be signed by the owner and a certified technical specialist.

As a second option to mailing paper copies of the application package, you can scan and email one signed copy of the application and the WUP to: [animalpermits@ncdenr.gov](mailto:animalpermits@ncdenr.gov)

I attest that this application has been reviewed by me and is accurate and complete to the best of my knowledge. I understand that, if all required parts of this application are not completed and that if all required supporting information and attachments are not included, this application package will be returned to me as incomplete. **Note:** In accordance with NC General Statutes 143-215.6A and 143-215.6B, any person who knowingly makes any false statement, representation, or certification in any application may be subject to civil penalties up to \$25,000 per violation. (18 U.S.C. Section 1001 provides a punishment by a fine of not more than \$10,000 or imprisonment of not more than 5 years, or both for a similar offense.)

Printed Name of Signing Official (Landowner, or if multiple Landowners all landowners should sign. If Landowner is a corporation, signature should be by a principal executive officer of the corporation):

Name: Jonathan Michael Aldridge Title: Pres. Family Farms, Inc  
Signature: J. MICHAEL ALDRIDGE Date: 4-1-14

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

THE COMPLETED APPLICATION SHOULD BE SENT TO THE FOLLOWING ADDRESS:

**NCDENR-DWR**  
**Animal Feeding Operations Branch**  
**1636 Mail Service Center**  
**Raleigh, North Carolina 27699-1636**

**Telephone number: (919) 807-6464**  
**E-mail: [animalpermits@ncdenr.gov](mailto:animalpermits@ncdenr.gov)**

## ANIMAL WASTE UTILIZATION PLAN

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Producer: MICHAEL ALDRIDGE  
Location: 454 NC 11 E  
PINK HILL NC 28572  
Telephone: 919-568-3914  
Type Operation: Existing Feeder to Finish Swine  
Number of Animals: 5760.00 hogs  
(Design Capacity)  
STORAGE STRUCTURE: Anaerobic Waste Treatment Lagoon  
APPLICATION METHOD: Irrigation

The waste from your animal facility must be land applied at a specified rate to prevent pollution of surface water and/or groundwater. The plant nutrients in the animal waste should be used to reduce the amount of commercial fertilizer required for the crops in the fields where the waste is to be applied.

This waste utilization plan uses nitrogen as the limiting nutrient. Waste should be analyzed before each application cycle. Annual soil tests are strongly encouraged so that all plant nutrients can be balanced for realistic yields of the crop to be grown.

Several factors are important in implementing your waste utilization plan in order to maximize the fertilizer value of the waste and to ensure that it is applied in an environmentally safe manner:

1. Always apply waste based on the needs of the crop to be grown and the nutrient content of the waste. Do not apply more nitrogen than the crop can utilize.
2. Soil types are important as they have different infiltration rates, leaching potentials, cation exchange capacities, and available water holding capacities.
3. Normally waste shall be applied to land eroding at less than 5 tons per acre per year. Waste may be applied to land eroding at 5 or more tons per acre annually, but less than 10 tons per acre per year providing that adequate filter strips are established.
4. Do not apply waste on saturated soils, when it is raining, or when the surface is frozen. Either of these conditions may result in runoff to surface waters which is not allowed under DWQ regulations.

## ANIMAL WASTE UTILIZATION PLAN

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5. Wind conditions should also be considered to avoid drift and downwind odor problems.
6. To maximize the value of the nutrients for crop production and to reduce the potential for pollution, the waste should be applied to a growing crop or applied not more than 30 days prior to planting a crop or forages breaking dormancy. Injecting the waste or disking will conserve nutrients and reduce odor problems.

This plan is based on the waste application method shown above. If you choose to change methods in the future, you need to revise this plan. Nutrient levels for different application methods are not the same.

The estimated acres needed to apply the animal waste is based on typical nutrient content for this type of facility. Acreage requirements should be based on the waste analysis report from your waste management facility. In some cases you may want to have plant analysis made, which could allow additional waste to be applied. Provisions shall be made for the area receiving waste to be flexible so as to accommodate changing waste analysis content and crop type. Lime must be applied to maintain pH in the optimum range for specific crop production.

This waste utilization plan, if carried out, meets the requirements for compliance with 15A NCAC 2H .0217 adopted by the Environmental Management Commission.

### AMOUNT OF WASTE PRODUCED PER YEAR (gallons, ft<sup>3</sup>, tons, etc.)

5760 hogs x 1.9 tons waste/hogs/year = 10944 tons

### AMOUNT OF PLANT AVAILABLE NITROGEN (PAN) PRODUCED PER YEAR

5760 hogs x 2.3 lbs PAN/hogs/year = 13248 lbs. PAN/year

Applying the above amount of waste is a big job. You should plan time and have appropriate equipment to apply the waste in a timely manner.

The following acreage will be needed for waste application based on the crop to be grown, soil type and surface application.

**ANIMAL WASTE UTILIZATION PLAN**

**TABLE 1: ACRES OWNED BY PRODUCER**

TRACT	FIELD	SOIL TYPE & CLASS- DETERMINING PHASE	CROP CODE  ----- APPLY METH	YIELD	LBS AW N PER AC	COMM N PER AC or RESID. N	** ACRES	* LBS AW N USED  ----- APPLIC TIME
5649 OCT	1A	NOB	BH I	6.1	305	0	2.742	836.31 +APR-
5649 APR	~1A		SG I	1	50	0	2.742	137.1 +SEP-
5649 OCT	1B	NOB	BH I	6.1	305	0	4.36	1329.8 +APR-
5649 APR	~1B		SG I	1	50	0	4.36	218 +SEP-
5649 OCT	2A	NOB	BH I	6.1	305	0	4.182	1275.51 +APR-
5649 APR	~2A		SG I	1	50	0	4.182	209.1 +SEP-
5649 OCT	2B	NOA	BH I	6.1	305	0	4.83	1473.15 +APR-
5649 APR	~2B		SG I	1	50	0	4.83	241.5 +SEP-
5649 OCT.	3	NOA	BH I	6.1	305	0	.572	174.46 +APR-
5649	~3		SG I	1	50	0	.572	28.6 +SEP-

# ANIMAL WASTE UTILIZATION PLAN

5649	4A	NOA	BH	6.1	305	0	3.872	1180.96
OCT			I					+APR-
5649	~4A		SG	1	50	0	3.872	193.6
APR			I					+SEP-
5649	4B	NOA	BH	6.1	305	0	5.25	1601.25
OCT			I					+APR-
5649	~4B		SG	1	50	0	5.25	262.5
APR			I					+SEP-
5649	4C	NOA	BH	6.1	305	0	4.682	1428.01
OCT			I					+APR-
5649	~4C		SG	1	50	0	4.682	234.1
APR			I					+SEP-
549	4D	NOA	BH	6.1	305	0	5.50	1677.5
OCT			I					+APR-
5649	~4D		SG	1	50	0	5.50	275
APR			I					+SEP-
5649	5	NOA	BH	6.1	305	0	1.03	314.15
OCT			I					+APR-
5649	~5		SG	1	50	0	1.03	51.5
APR			I					+SEP-
5649	6	NOA	BH	6.1	305	0	.4666	142.313
OCT			I					+APR-
5649	~6		SG	1	50	0	.4666	23.33
APR			I					+SEP-
		END	I					

## ANIMAL WASTE UTILIZATION PLAN

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TOTAL|13307.7

- ~ - Indicates that this field is being overseeded (i.e. interplanted) or winter annuals follow summer annuals.
- + - Dates shown reflect optimum uptake periods for nutrients. Waste application may begin up to thirty(30) days prior to planting or green-up of forages, and extend past optimum dates shown if plant growth, pumping conditions, and PAN loading rates permit.

NOTE: The applicator is cautioned that P and K may be over applied while meeting the N requirements. In the future, regulations may require farmers in some parts of North Carolina to have a nutrient management plan that addresses all nutrients. This plan only addresses nitrogen.

# ANIMAL WASTE UTILIZATION PLAN

**TABLE 2: ACRES WITH NOTARIZED AGREEMENT OR LONG TERM LEASE**

(Agreement with adjacent landowners must be attached.)

(Required only if operator does not own adequate land.

See required specification 2.)

TRACT	FIELD	SOIL TYPE & CLASS- DETERMINING PHASE	CROP CODE	YIELD	LBS AW N PER AC	COMM N PER AC or RESID. N	** ACRES	* LBS AW N USED
			----- APPLY METH					----- APPLIC TIME
		END						

TOTAL | 0

~ - Indicates that this field is being overseeded (i.e. interplanted) or winter annuals follow summer annuals.

+ - Dates shown reflect optimum uptake periods for nutrients. Waste application may begin up to thirty(30) days prior to planting or green-up of forages, and extend past optimum dates shown if plant growth, pumping conditions, and PAN loading rates permit.

In interplanted fields (i.e. small grain, etc, interseeded in bermudagrass), forage must be removed through grazing, hay and/or silage. Where grazing, plants should be grazed when they reach a height of six to nine inches. Cattle should be removed when plants are grazed to a height of four inches. In fields where small grain, etc, is to be removed for hay or silage, care should be exercised not to let small grain to reach maturity, especially late in the season (i.e. April or May). Shading may result if small grain gets too high and this will definitely interfere with stand of bermudagrass. This loss of stand will result in reduced yields and less nitrogen being utilized. Rather than cutting small grain for hay or silage just before heading as is the normal situation, you are encouraged to cut the small grain earlier. You may want to consider harvesting hay or silage two to three times during the season, depending on time small grain is planted in the fall.

The ideal time to interplant small grain, etc, is late September or early October. Drilling is recommended over broadcasting. Bermudagrass should be grazed or mowed to a height of about two inches before drilling for best results.



# ANIMAL WASTE UTILIZATION PLAN

\*\* Acreage figures may exceed total acreage in fields due to overseeding.

\* lbs AW N (animal waste nitrogen) equals total required nitrogen less any commercial nitrogen (COMM N) supplied.

The following legend explains the crop codes used in tables 1 and 2 above:

CROP CODE	CROP	UNITS	PER UNIT
BH SG	HYBRID BERMUDAGRASS-HAY SMALL GRAIN OVERSEEDED	TONS AC	50 50

## TOTALS FROM TABLES 1 AND 2

	WETTABLE ACRES	LBS AW N USED
TABLE 1	37.4866	13307.74
TABLE 2	0	0
TOTAL	37.4866	13307.74
*** BALANCE		-59.743

\*\*\* This number must be less than or equal to 0 in order to fully utilize the animal waste N produced.

## ANIMAL WASTE UTILIZATION PLAN

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\*\*\* This number must be less than or equal to 0 in order to fully utilize the animal waste N produced.

Acres shown in each of the preceding tables are considered to be the usable acres excluding required buffers, filter strips along ditches, odd areas unable to be irrigated, and perimeter areas not receiving full application rates due to equipment limitations. Actual total acres in the fields listed may, and most likely will be, more than the acres shown in the tables.

See attached map showing the fields to be used for the utilization of animal waste.

### SLUDGE APPLICATION:

The waste utilization plan must contain provisions for periodic land application of sludge at agronomic rates. The sludge will be nutrient rich and will require precautionary measures to prevent over application of nutrients or other elements. Your production facility will produce approximately 2131.2 pounds of plant available nitrogen per year in the sludge.

If you remove the sludge every 5 years, you will have approximately 10656 pounds of PAN to utilize. Assuming you apply this PAN to hybrid bermudagrass hayland at the rate of 300 pounds of nitrogen per acre, you will need 35.52 acres of land. If you apply the sludge to corn at the rate of 125 pounds of nitrogen per acre, you will need 85.248 acres of land. Please be aware that these are only estimates of the PAN and land needed. Actual requirements could vary by 25% depending on your sludge waste analysis, soil types, realistic yields, and application methods.

### APPLICATION OF WASTE BY IRRIGATION

The irrigation application rate should not exceed the intake rate of the soil at the time of irrigation such that runoff or ponding occurs. This rate is limited by initial soil moisture content, soil structure, soil texture, water droplet size, and organic solids. The application amount should not exceed the available water holding capacity of the soil at the time of irrigation nor should the plant available nitrogen applied exceed the nitrogen needs of the crop.

If surface irrigation is the method of land application for this plan, it is the responsibility of the producer and irrigation designer to ensure that an irrigation system is installed to properly irrigate the acres shown in Tables 1 and 2. Failure to apply the recommended rates and

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amounts of nitrogen shown in the tables may make this plan invalid.

The following table is provided as a guide for establishing application rates and amounts.

Tract	Field	Soil Type	Crop	Application Rate (in/hr)	Applic. Amount (inches)
					*
5649	1A	NOB	BH	.50	*1.0
5649	1B	NOB	BH	.50	*1.0
5649	2A	NOB	BH	.50	*1.0
5649	2B	NOA	BH	.50	*1.0
5649	3	NOA	BH	.50	*1.0
5649	4A	NOA	BH	.50	*1.0
5649	4B	NOA	BH	.50	*1.0
5649	4C	NOA	BH	.50	*1.0
49	4D	NOA	BH	.50	*1.0

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5649	5	NOA	BH	.50	*1.0
5649	6	NOA	BH	.50	*1.0
5649	~1A		SG	.5	*1
5649	~1B		SG	.5	*1
5649	~2A		SG	.5	*1
5649	~2B		SG	.5	*1
5649	~3		SG	.5	*1
5649	~4A		SG	.5	*1
5649	~4B		SG	.5	*1
5649	~4C		SG	.5	*1
5649	~4D		SG	.5	*1
5649	~5		SG	.5	*1

## ANIMAL WASTE UTILIZATION PLAN

5649	~6		SG	.5	*1

- \* This is the maximum application amount allowed for the soil assuming the amount of nitrogen allowed for the crop is not over applied. In many situations, the application amount shown cannot be applied because of the nitrogen limitation. The maximum application amount shown can be applied under optimum soil conditions.

Your facility is designed for 180.00 days of temporary storage and the temporary storage must be removed on the average of once every 6.00 months. In no instance should the volume of the waste be stored in your structure be within the 25 year 24 hour storm storage or one foot of freeboard except in the event of the 25 year 24 hour storm.

It is the responsibility of the producer and waste applicator to ensure that the spreader equipment is operated properly to apply the correct rates to the acres shown in Tables 1 and 2. Failure to apply the recommended rates and amounts of nitrogen shown in the tables may make this plan invalid.

Call your technical specialist after you receive the waste analysis report for assistance in determining the amount of waste per acre and the proper application rate prior to applying the waste.

### NARRATIVE OF OPERATION

THIS PLAN IS WRITTEN ON AN WETTED ACRE FOOTPRINT.

REQUIRED SPECIFICATIONS

1. Animal waste shall not reach surface waters of the state by runoff, drift, manmade conveyances, direct application, or direct discharge during operation or land application. Any discharge of waste which reaches surface water is prohibited.
2. There must be documentation in the design folder that the producer either owns or has an agreement for use of adequate land on which to properly apply the waste. If the producer does not own adequate land to properly dispose of waste, he/she shall provide a copy of an agreement with a landowner who is within a reasonable proximity, allowing him/her the use of the land for waste application. It is the responsibility of the owner of the facility to secure an update of the Waste Utilization Plan when there is a change in the operation, increase in the number of animals, method of utilization, or available land.
3. Animal waste shall be applied to meet, but not exceed, the nitrogen needs for realistic crop yields based on soil type, available moisture, historical data, climatic conditions, and level of management, unless there are regulations that restrict the rate of application for other nutrients.
4. Animal waste shall be applied to land eroding less than 5 tons per acre per year. Waste may be applied to land that is eroding at 5 or more tons, but less than 10 tons per acre per year providing grass filter strips are installed where runoff leaves the field. (See FOTG Standard 393 -Filter Strip)
5. Odors can be reduced by injecting the waste or disking after waste application. Waste should not be applied when there is danger of drift from the irrigation field.
6. When animal waste is to be applied on acres subject to flooding, it will be soil incorporated on conventionally tilled cropland. When applied to conservation tilled crops or grassland, the waste may be broadcast provided the application does not occur during a season prone to flooding. (See "Weather and Climate in North Carolina" for guidance.)
7. Liquid waste shall be applied at rates not to exceed the soil infiltration rate such that runoff does not occur offsite or to surface waters and in a method which does not cause drift from the site during application. No ponding should occur in order to control odor or flies.
8. Animal waste shall not be applied to saturated soils, during rainfall events, or when the surface is frozen.
9. Animal waste shall be applied on actively growing crops in such a manner that the crop is not covered with waste to a depth that would inhibit growth. The potential for salt damage from animal waste should also be considered.

REQUIRED SPECIFICATIONS

10. Waste nutrients shall not be applied in fall or winter for spring planted crops on soils with a high potential for leaching. Waste nutrient loading rates on these soils should be held to a minimum and a suitable winter cover crop planted to take up released nutrients. Waste shall not be applied more than 30 days prior to planting of the crop or forages breaking dormancy.
11. Any new swine facility sited on or after October 1, 1995 shall comply with the following: The outer perimeter of the land area onto which waste is applied from a lagoon that is a component of a swine farm shall be at least 50 feet from any residential property boundary and from any perennial stream or river (other than an irrigation ditch or canal. Animal waste other than swine waste from facilities sited on or after October 1, 1995), shall not be applied closer than 25 feet to perennial waters. (See Standard 393 - Filter Strips).
12. Animal waste shall not be applied closer than 100 feet to wells.
13. Animal waste shall not be applied closer than 200 feet of dwellings other than those owned by the landowner.
14. Waste shall be applied in a manner not to reach other property and public right-of-ways.
15. Animal waste shall not be discharged into surface waters, drainageways, or wetlands by a discharge or by over-spraying. Animal waste may be applied to prior converted cropland provided they have been approved as a land application site by a "technical specialist". Animal waste shall not be applied on grassed waterways that discharges directly into water courses, and on other grassed waterways, waste shall be applied at agronomic rates in a manner that causes no runoff or drift from the site.
16. Domestic and industrial waste from washdown facilities, showers, toilets, sinks, etc., shall not be discharged into the animal waste management system.
17. A protective cover of appropriate vegetation will be established on all disturbed areas (lagoon embankments, berms, pipe runs, etc.). Areas shall be fenced, as necessary, to protect the vegetation. Vegetation such as trees, shrubs, and other woody species, etc., are limited to areas where considered appropriate. Lagoon areas should be kept mowed and accessible. Berms and structures should be inspected regularly for evidence of erosion, leakage or discharge.

REQUIRED SPECIFICATIONS

18. If animal production at the facility is to be suspended or terminated, the owner is responsible for obtaining and implementing a "closure plan" which will eliminate the possibility of an illegal discharge, pollution and erosion.
19. Waste handling structures, piping, pumps, reels, etc., should be inspected on a regular basis to prevent breakdowns, leaks, and spills. A regular maintenance checklist should be kept on site.
20. Animal waste can be used in a rotation that includes vegetables and other crops for direct human consumption. However, if animal waste is used on crops for direct human consumption it should only be applied preplant with no further applications of animal waste during the crop season.
21. Highly visible markers shall be installed to mark the top and bottom elevations of the temporary storage (pumping volume) of all waste treatment lagoons. Pumping shall be managed to maintain the liquid level between the markers. A marker will be required to mark the maximum storage volume for waste storage ponds.
22. Waste shall be tested within 60 days of utilization and soil shall be tested at least annually at crop sites where waste products are applied. Nitrogen shall be the rate - determining element. Zinc and copper levels in the soils shall be monitored and alternative crop sites shall be used when these metals approach excessive levels. pH shall be adjusted for optimum crop production and maintained. Soil and waste analysis records shall be kept for five years. Poultry dry waste application records shall be maintained for three (3) years. Waste application records for all other waste shall be maintained for five (5) years.
23. Dead animals will be disposed of in a manner that meets North Carolina regulations.



ANIMAL WASTE UTILIZATION PLAN

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WASTE UTILIZATION PLAN AGREEMENT

Name of Farm: FAMILY FARMS INC

**Owner/Manager Agreement**

I (we) understand and will follow and implement the specifications and the operation and maintenance procedures established in the approved animal waste utilization plan for the farm named above. I (we) know that any expansion to the existing design capacity of the waste treatment and storage system or construction of new facilities will require a new certification to be submitted to the North Carolina Division of Water Quality (NCDWQ) before the new animals are stocked. I (we) also understand that there must be no discharge of animal waste from this system to surface waters of the state from a storm event less severe than the 25-year, 24-hour storm. The approved plan will be filed on-site at the farm office and at the office of the local Soil and Water Conservation District and will be available for review by NCDWQ upon request.

Name of Facility Owner: MICHAEL ALDRIDGE  
(Please print)

Signature: Michael Aldridge Date: 5-22-01

Name of Manager (If different from owner): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name of Person Preparing Plan: (Please print) JOHNNY L. LANIER

Affiliation: DUPLIN SOIL AND WATER CONSERVATION DISTRICT  
Phone No. 910-296-2120

Address (Agency): PO BOX 277

KENANSVILLE NC 28349

Signature: Johnny Lanier Date: 5/22/01