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.

RECEIVED/DENR/DWR
MAR 31 2014
Water Quality Regional Operations Section

1. Facility Number: 090183 and Certificate of Coverage Number: AWS090183
2. Facility Name: Singletary Finishing
3. Landowner's name (same as on the Waste Management Plan): Issac Singletary
4. Landowner's mailing address: 777 Richardson Rd
   City/State: Bladenboro NC Zip: 283209265
   Telephone Number (include area code): (910)648-4053 **E-mail:**
5. **Facility's physical address:** 2125 Cabbage Rd
   City: Bladenboro **State**: NC **Zip:** 28320
6. County where facility is located: Bladen
7. Farm Manager's name (If different than the Landowner): Owner
8. Farm Manager's telephone number (include area code): 910-648-4053
9. Integrator's name (if there is not an integrator write "None"): Murphy-Brown LLC
10. Operator in Charge (OIC) name: Isaac Singletary Telephone Number 910-648-4053 OIC # 16307
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 **7920**
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 Statures 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

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: Isaac Singletary Title: Owner, Singletary Finishing

Signature: Isaac Singletary Date: 3-20-14

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

Murphy-Brown, LLC

2/13/2013

2822 Hwy 24 West
P.O. Box 856
Warsaw, NC 28398

NUTRIENT UTILIZATION PLAN

Grower(s):	Isaac Singletary
Farm Name:	Singletary Finishing
County:	Bladen
Farm Capacity:	
Farrow to Wean	
Farrow to Feeder	
Farrow to Finish	
Wean to Feeder	
Feeder to Finish	7920
Storage Structure:	Anaerobic Lagoon
Storage Period:	>180 days
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.

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. 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^3, tons, etc.):

Capacity	Type	Waste Produced per Animal	Total
	Farrow to Wean	3212 gal/yr	gal/yr
	Farrow to Feeder	4015 gal/yr	gal/yr
	Farrow to Finish	10585 gal/yr	gal/yr
	Wean to Feeder	223 gal/yr	gal/yr
7920	Feeder to Finish	986 gal/yr	7,809,120 gal/yr
		Total	**7,809,120 gal/yr**

AMOUNT OF PLANT AVAILABLE NITROGEN PRODUCED PER YEAR (lbs):

Capacity	Type	Nitrogen Produced per Animal	Total
	Farrow to Wean	5.4 lbs/yr	lbs/yr
	Farrow to Feeder	6.5 lbs/yr	lbs/yr
	Farrow to Finish	26 lbs/yr	lbs/yr
	Wean to Feeder	0.48 lbs/yr	lbs/yr
7920	Feeder to Finish	2.3 lbs/yr	18,216 lbs/yr
		Total	**18,216 lbs/yr**

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.

LAND UTILIZATION SUMMARY

The following table describes the nutrient balance and land utilization rate for this facility Note that the Nitrogen Balance for Crops indicates the ratio of the amount of nitrogen produced on this facility to the amount of nitrogen that the crops under irrigation may uptake and utilize in the normal growing season.

Total Irrigated Acreage: 115.6
Total N Required 1st Year: 25089.8125
Total N Required 2nd Year: 33206.9625

Average Annual Nitrogen Requirement of Crops: 29,148.39
Total Nitrogen Produced by Farm: 18,216.00
Nitrogen Balance for Crops: (10,932.39)

The following table describes the specifications of the hydrants and fields that contain the crops designated for utilization of the nitrogen produced on this facility. This chart describes the size, soil characteristics, and uptake rate for each crop in the specified crop rotation schedule for this facility.

Reception Area Specifications

Tract	Field	Irrigated Acreage	Soil Type	1st Crop Code	Time to Apply	1st Crop Yield	1st Crop lbs N/Unit	Lbs N/Ac Residual	Lbs N /Ac	Total lbs N Utilized	2nd Crop Code	Time to Apply	2nd Crop Yield	2nd Crop lbs N/Unit	Lbs N/Ac Residual	Lbs N /Ac	Total lbs N Utilized	Total Lbs N/Ac	Total lbs N Utilized
1068	1	13.6	Rains	Summer Annual	April-July	3.6	50		180	2448	K	Sept-Apr	1	50		50	680	230	3128
	2	16.2	Rains	Fescue	Aug-Jul	4.5	37.5		168.75	2733.75	*					0	0	168.75	2733.75
	3	7.3	Rains	Fescue	Aug-Jul	4.5	37.5		168.75	1231.875	*					0	0	168.75	1231.875
	4	7.9	Rains	Corn	Mar-Jul	125.0	1.25	15	141.25	1115.875	Oats	Sept-Apr	1	75		75	592.5	216.25	1708.375
	5	7.9	Rains	Corn	Mar-Jul	125.0	1.25	15	141.25	1115.875	Oats	Sept-Apr	1	75		75	592.5	216.25	1708.375
	6	13.1	Rains	Corn	Mar-Jul	125.0	1.25	15	141.25	1850.375	Oats	Sept-Apr	1	75		75	982.5	216.25	2832.875
	7	11.6	Rains	Corn	Mar-Jul	125.0	1.25	15	141.25	1638.5	Oats	Sept-Apr	1	75		75	870	216.25	2508.5
	8	7.9	Rains	Corn	Mar-Sept	4.5	37.5	15	153.75	1214.625	Oats	Sept-Apr	1	75		75	592.5	228.75	1807.125
	9	7.3	Rains	Bermuda(G&H)	Mar-Sept	4.5	43.75		196.875	1437.188	Oats	Sept-Apr	1	50		50	365	246.875	1802.188
	10	7.3	Rains	Bermuda(G&H)	Mar-Sept	4.5	43.75		196.875	1437.188	Oats	Sept-Apr	1	50		50	365	246.875	1802.188
	11	15.5	Rains	Bermuda(G&H)	Aug-Jul	4.5	43.75		196.875	3051.563	Oats	Sept-Apr	1	50		50	775	246.875	3826.563
Totals:		*115.6*								*19274.81*							*5815*		*25089.81*

Reception Area Specifications

Tract	Field	Irrigated Acreage	Soil Type	1st Crop Code	Time to Apply	1st Crop Yield	1st Crop lbs N/Unit	Lbs N/Ac Residual	Lbs N /Ac	Total lbs N Utilized	2nd Crop Code	Time to Apply	2nd Crop Yield	2nd Crop lbs N/Unit	Lbs N/Ac Residual	Lbs N /Ac	Total lbs N Utilized	Total Lbs N/Ac
1068	1	13.6	Rains	Summer Annual	April-July	3.6	50		180	2448	K	Sept-Apr	1	50		50	680	230
	2	16.2	Rains	Fescue	Aug-Jul	4.5	37.5		168.75	2733.75	*					0	0	168.75
	3	7.3	Rains	Fescue	Aug-Jul	4.5	37.5		168.75	1231.875	*					0	0	168.75
	4	7.9	Rains	Soybeans	Jun-Sept	44.0	4		176	1390.4	Oats	Sept-Apr	1	75		75	592.5	251
	5	7.9	Rains	Soybeans	Jun-Sept	44.0	4		176	1390.4	Oats	Sept-Apr	1	75		75	592.5	251
	6	13.1	Rains	Soybeans	Jun-Sept	44.0	4		176	2305.6	Oats	Sept-Apr	1	75		75	982.5	251
	7	11.6	Rains	Soybeans	Jun-Sept	44.0	4		176	2041.6	Oats	Sept-Apr	1	75		75	870	251
	8	7.9	Rains	Soybeans	Jun-Sept	44.0	4		176	1390.4	Oats	Sept-Apr	1	75		75	592.5	251
	9	7.3	Rains	Bermuda(G&H)	March-Sept	4.5	43.75		196.875	1437.188	Oats	Sept-Apr	1	50		50	365	246.875
	10	7.3	Rains	Bermuda(G&H)	March-Sept	4.5	43.75		196.875	1437.188	Oats	Sept-Apr	1	50		50	365	246.875
	11	15.5	Rains	Bermuda(G&H)	March-Sept	4.5	43.75		196.875	3051.563	Oats	Sept-Apr	1	50		50	775	246.875
Optional																		
	4	7.9	Rains	Sorghum	Mar15-Aug31	60.0	2.5	15	135	1066.5	*					0	0	135
	5	7.9	Rains	Sorghum	Mar15-Aug31	60.0	2.5	15	135	1066.5	*					0	0	135
	6	13.1	Rains	Sorghum	Mar15-Aug31	60.0	2.5	15	135	1768.5	*					0	0	135
	7	11.6	Rains	Sorghum	Mar15-Aug31	60.0	2.5	15	135	1566	*					0	0	135
	8	7.9	Rains	Sorghum	Mar15-Aug31	60.0	2.5	15	135	1066.5	*					0	0	135
Totals:		*115.6*								*27391.96*							*5815*	

Total lbs N Utilized
3128
2733.75
1231.875
1982.9
1982.9
3288.1
2911.6
1982.9
1802.188
1802.188
3826.563
1066.5
1066.5
1768.5
1566
1066.5
33206.96

Reception Area Specifications

Optional Summer Native Grass

Tract	Field	Irrigated Acreage	Soil Type	1st Crop Code	Time to Apply	1st Crop Yield	1st Crop lbs N/Unit	Lbs N/Ac Residual	Lbs N /Ac	Total lbs N Utilized	2nd Crop Code	Time to Apply	2nd Crop Yield	2nd Crop lbs N/Unit	Lbs N/Ac Residual	Lbs N /Ac	Total lbs N Utilized	Total Lbs N/Ac	Total lbs N Utilized
1068	4	7.9	Rains	Crabgrass	Mar-Sept	2.8	37.5		105	829.5	Oats	Sept-Apr	1	75		75	592.5	180	1422
	5	7.9	Rains	Crabgrass	Mar-Sept	2.8	37.5		105	829.5	Oats	Sept-Apr	1	75		75	592.5	180	1422
	6	13.1	Rains	Crabgrass	Mar-Sept	2.8	37.5		105	1375.5	Oats	Sept-Apr	1	75		75	982.5	180	2358
		If Crabgrass is cut for hay, 140 lbs. of nitrogen may be applied per acre.																	
Totals:		***28.9***								***3034.5***							***2167.5***		***5202***

This plan does not include commercial fertilizer. The farm should produce adequate plant available nitrogen to satisfy the requirements of the crops listed above.

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.

In interplanted fields (i.e. small grain, etc, interseeded in bermuda), 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 reach maturity, especially late in the season (i.e. April or May). Shading may result if small grain gets too high and this will definately 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 the 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 cut to a height of about two inches before drilling for best results.

CROP CODE LEGEND

Crop Code	Crop	Lbs N utilized / unit yield
A	Barley	1.6 lbs N / bushel
B	Hybrid Bermudagrass - Grazed	50 lbs N / ton
C	Hybrid Bermudagrass - Hay	50 lbs N / ton
D	Corn - Grain	1.25 lbs N / bushel
E	Corn - Silage	12 lbs N / ton
F	Cotton	0.12 lbs N / lbs lint
G	Fescue - Grazed	50 lbs N / ton
H	Fescue - Hay	50 lbs N / ton
I	Oats	1.3 lbs N / bushel
J	Rye	2.4 lbs N / bushel
K	Small Grain - Grazed	50 lbs N / acre
L	Small Grain - Hay	50 lbs N / acre
M	Grain Sorghum	2.5 lbs N / cwt
N	Wheat	2.4 lbs N / bushel
O	Soybean	4.0 lbs N / bushel
P	Pine Trees	40 lbs N / acre / yr

Acres shown in the preceding table 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 following table describes the annual nitrogen accumulation rate per animal in the lagoon sludge

Farm Specifications		PAN/yr/animal	Farm Total/yr
	Farrow to Wean	0.84	
	Farrow to Feeder	1	
	Farrow to Finish	4.1	
	Wean to Feeder	0.072	
7920	Feeder to Finish	0.36	2851.2

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 2851.2 pounds of plant available nitrogen per year will accumulate in the lagoon sludge based on the rates of accumulation listed above.

If you remove the sludge every 5 years, you will have approximately 14256 pounds of plant available nitrogen to utilize. Assuming you apply this PAN to hybrid bermuda grass hayland at the rate of 300 pounds of nitrogen per acre, you will need 47 acreas of land. If you apply the sludge to corn at a rate of 125 pounds per acre, you will need 114.048 acres of land. Please note that these are only estimates of the PAN produced and the land required to utilize that PAN. Actual values may only be determined by sampling the sludge for plant available nitrogen content prior to application Actual utilization rates will vary with soil type, crop, and realistic yield expectations for the specific application fields designated for sludge application at time of removal.

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 the preceding table. Failure to apply the recommended rates and amounts of nitrogen shown in the tables may make this plan invalid.

*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 days of temporary storage and the temporary storage must be removed on the average of once every 6 months. In no instance should the volume of the waste 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 the tables. 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 prior to applying the waste.

Application Rate Guide

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

Tract	Hydrant	Soil Type	Crop	Application Rate in/hr	Application Amount * inches
1068	1	Rains	ımmer Annı	0.4	1
	2	Rains	Fescue	0.4	1
	3	Rains	Fescue	0.4	1
	4	Rains	Corn	0.4	1
	5	Rains	Corn	0.4	1
	6	Rains	Corn	0.4	1
	7	Rains	Corn	0.4	1
	8	Rains	Corn	0.4	1
	9	Rains	ɜrmuda(G&	0.4	1
	10	Rains	ɜrmuda(G&	0.4	1
	11	Rains	ɜrmuda(G&	0.4	1

NUTRIENT UTILIZATION PLAN CERTIFICATION

Name of Farm: Singletary Finishing
Owner: Isaac Singletary
Manager:

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 nutrient management plan for the farm named above. I/we know that any expansion to the existing design capacity of the waste treatment and/or storage system, or construction of new facilities, will require a new nutrient management plan and a new certification to be submitted to DWQ before the new animals are stocked.

I/we understand that I must own or have access to equipment, primarily irrigation equipment, to land apply the animal waste described in this nutrient management plan. This equipment must be available at the appropriate pumping time such that no discharge occurs from the lagoon in the event of a 25 year 24 hour storm. I also certify that the waste will be applied on the land according to this plan at the appropriate times and at rates which produce no runoff.

This 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: Isaac Singletary

Signature: Isaac Singletary 2-15-2013
Date

Name of Manager (if different from owner): _____

Signature: _____
Date

Name of Technical Specialist: Toni W. King
Affiliation: Murphy-Brown, LLC.
Address: 2822 Hwy 24 West, PO Drawer 856
Warsaw, NC 28398
Telephone: (910) 293-3434

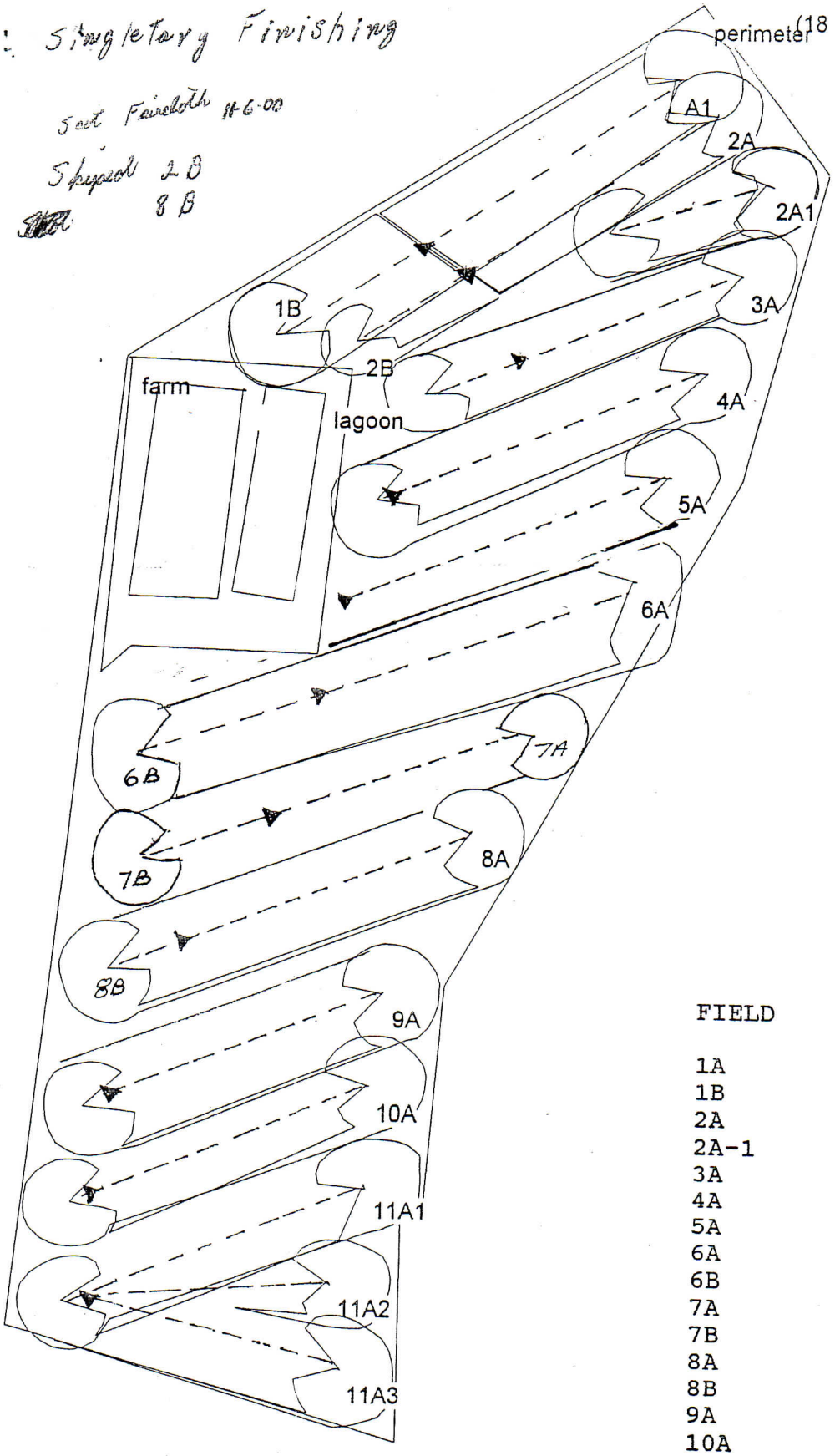
Signature: Toni W. King 2-13-2013
Date

Singletary Finishing

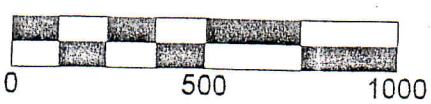
Scot Faircloth 11-6-00

Shipped 2B
8B

09-183



FIELD	ACRES	CROP
1A	8.17	COTTON/OATS
1B	5.38	COTTON/OATS
2A	7.07	CORN/OATS
2A-1	5.40	CORN/OATS
3A	7.34	CORN/OATS
4A	7.87	CORN/OATS
5A	7.87	CORN/OATS
6A	7.87	CORN/OATS
6B	5.20	CORN/OATS
7A	7.87	SOYBEANS/OATS
7B	3.74	SOYBEANS/OATS
8A	7.87	SOYBEANS/OATS
8B	0.48	SOYBEANS/OATS
9A	7.32	SOYBEANS/OATS
10A	7.32	SOYBEANS/OATS
11-A-1	7.60	FESCUE HAY
11-A-2	3.74	FESCUE HAY
11-A-3	4.23	FESCUE HAY



PREPARED BY:Carroll's Foods, Inc.
DATE:01/28/00 TIME:04:29:57 PM PAGE:1

CERTIFIED ANIMAL WASTE MANAGEMENT PLAN
WETTABLE ACRES WORKSHEET

Singletary Finishing

Farm Name: ~~REEDY BRANCH FARM~~ Facility Number: 09 -183

Manager or Producer ISAAC SINGLETARY Phone # (910) 648-4053

Technical Specialist: HOWARD L. HOBSON Phone # (910) 293-3434

Facility Contact: ISAAC SINGLETARY Phone # (910) 648-4053

Mailing Address: 777 RICHARDSON ROAD

BLADEN BORO, N.C. 28328

Was farm sited for animals prior to 10/1/95: (Yes) / No

If No, date farm sited for animals: / /

Irrigation System Type
(Check all that apply)

_____ Stationary sprinkler with permanent pipe

_____ Stationary sprinkler with portable pipe

_____ Stationary gun with permanent pipe

_____ Stationary gun with portable pipe

_____ Center-pivot system

_____ Linear-move system

✓ Hose drag traveler

Acres calculated should correspond to that shown in the Waste Utilization Plan and Form IRR-2.

To the best of my knowledge, this worksheet(s) and map(s) provides an accurate representation of the system used to irrigate the animal waste generated by this operation.

Isaac Singletary
Signature (Manager or Producer)

2/14/00
Date

CAWMP WETTABLE ACRE COMPUTATIONAL WORKSHEET

1. Farm Number ISAAC SINGLETARY ~~REEDY BRANCH FARM~~ Singletary Farms

2. Irrigation System Designation Existing

3. Irrigation System Hard-Hose Traveler

4. # Exterior Lanes 2 # Interior Lanes 12

5. Wetted Diameter 300' - 10% = 270' Total Length of Pull 1100 + 135' = 1235'

6. Spacing 240' 240 ÷ 300 = 80 % (As % of wetted diameter)

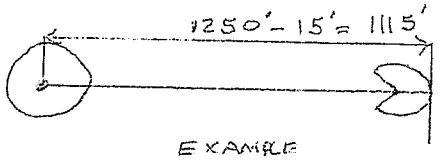
7. Hydrant Layout: _____ Single Hydrant ✓ Multiple Hydrant

FLD #	INT.	EXT.	AC. START	AC. MIDDLE	AC. STOP	TOTAL AC.	TABLE	COL.
1A		✓	0.62	270 x 1135 7.04	0.51	8.17	EE 80	B&C
1B		✓	0.62	270 x 685 4.25	0.51	5.38	EE 80	B&C
2A	✓		0.59	240 x 1085 6.00	0.48	7.07	EI 80	B&C
2A1	✓		0.59	240 x 785 4.33	0.48	5.40	EI 80	B&C
2B	✓		0.59	240 x 485 2.67	0.48	3.74	EI 80	B&C
3A	✓		0.59	240 x 1235 6.80	0.48	7.87	EI 80	B&C
4A	✓		0.59	240 x 1235 6.80	0.48	7.87	EI 80	B&C
5A	✓		0.59	240 x 1235 6.80	0.48	7.87	EI 80	B&C
6A	✓		0.59	240 x 1235 6.80	0.48	7.87	EI 80	B&C
6B	✓		0.59	240 x 750 4.13	0.48	5.20	EI 80	B&C
7A	✓		0.59	240 x 1235 6.80	0.48	7.87	EI 80	B&C
7B	✓		0.59	240 x 485 2.67	0.48	3.74	EI 80	B&C
8A	✓		0.59	240 x 1235 6.80	0.48	7.87	EI 80	B&C
8B	✓		-	-	0.48	0.48	EI 80	B&C

TOTAL WETTABLE ACRES 86.40

Wettable Acre Computational Worksheet Completed by Donald Halcomb

Date: 1/27/00



EXAMPLE

WETTED DIA - 300
r = 150 Less 10% = 150 - 15 = 135'

CAWMP WETTABLE ACRE COMPUTATIONAL WORKSHEET

1. Farm Number ISAAC SINGLETARY - Singletary Finishing

2. Irrigation System Designation Existing

3. Irrigation System Hard-Hose Traveler

4. # Exterior Lanes 2 # Interior Lanes 4

5. Wetted Diameter 300 (270 EFF) Total Length of Pull 1100 + 135 = 1235'

6. Spacing 240 80 (As % of wetted diameter)

7. Hydrant Layout: _____ Single Hydrant ✓ Multiple Hydrant

FLD #	INT.	EXT.	AC. START	AC. MIDDLE	AC. STOP	TOTAL AC.	TABLE	COL.
9A	✓		0.59	240 x 1135 6.25	0.48	7.32	EI80	B&C
10A	✓		0.59	240 x 1135 6.25	0.48	7.32	EI80	B&C
11-A-1	✓		0.59	240 x 1185 6.53	0.48	7.60	EI80	B&C
11-A-2	✓		0.59	240 x 485 2.67	0.48	3.74	EI80	B&C
11-A-3		✓	0.62	135 x 1085 3.36	0.25	4.23	EE80	B&C

TOTAL WETTABLE ACRES 116.6

Wettable Acre Computational Worksheet Completed by: Thomas J. Nelson

Date: 11/27/00