

# 2014 Mass Renewal Checklist

Facility No.: \_\_\_\_\_ Reviewer: \_\_\_\_\_ JRJ \_\_\_\_\_ Date: \_\_\_\_\_  
Operation type \_\_\_\_\_ Number \_\_\_\_\_

Permit Type: ☐ State ☐ Verify COC from BIMS  
Application ☐ Signed by Owner – *Not? Add-info*  
WUP ☐ Included – Send e-copy to RO. Any changes in  
print copy to RO  
☐ Not-included - *add-info*

Owner Info: ☐ No corrections ☐ Corrected  
☐ E-mail address

Facility Info: ☐ Ownership – *set aside for Δ*  
☐ Facility Name Change  
☐ Physical Location  
☐ Affiliations- Owner  
☐ Affiliations- Co-owner  
☐ Affiliations- Facility contact / Farm manager  
☐ Affiliations- Integrator contact  
☐ Affiliations- Technical specialist  
☐ Consolidate Person/Owner

Permit Info: ☐ Details 1 – *Check permit type*  
☐ Details 2 – *Signature and title*  
☐ Billing contact  
☐ Classification-OIC – *Changes? Refer to Beth*  
☐ Events- *review, add-info, issue dates*  
☐ Regulated Operations – *----- set aside for Δ*  
☐ Reviewer  
☐ Fields – *----- exist or entered*  
☐ Wells- *set aside for special condition*

Review comments:

☐ Add-info required: \_\_\_\_\_  
☐ Special conditions: \_\_\_\_\_  
☐ Ready to issue



Mailed 3/18/14

North Carolina Department of Environment and Natural Resources

Division of Water Resources  
Water Quality Programs  
Thomas A. Reeder  
Director

John E. Skvarla, III  
Secretary

March 3, 2014

Pat McCrory  
Governor

James Tucker  
T & T Farm  
8405 Martin Tucker Rd  
Monroe, NC 28110

Subject: Application for Renewal of Coverage for Expiring State General Permit

Dear Permittee:

Your facility is currently approved for operation under one of the Animal Waste Operation State Non-Discharge General Permits, which expire on September 30, 2014. Copies of the new animal waste operation State Non-Discharge General Permits are available at <http://www.ncwaterquality.org/web/wq/aps/afo/apps> or by writing or calling:

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

Telephone number: (919) 807-6464

In order to assure your continued coverage under the State Non-Discharge General Permits, you must submit an application for permit coverage to the Division. Enclosed you will find a 'Request for Certificate of Coverage Facility Currently Covered by an Expiring State Non-Discharge General Permit'. The application form must be completed, signed and returned by April 1, 2014. Please note that you must include one (1) copy of your most recent Waste Utilization Plan with the signed application form.

Failure to request renewal of your coverage under a general permit within the time period specified may result in a civil penalty. Operation of your facility without coverage under a valid general permit would constitute a violation of NCGS 143-215.1 and could result in assessments of civil penalties of up to \$25,000 per day.

If you have any questions about the State Non-Discharge General Permits, the enclosed application, or any related matter please feel free to contact the Animal Feeding Operations Branch staff at 919-807-6464.

Sincerely,

S. Jay Zimmerman, P.G., Chief  
Water Quality Regional Operations Section

Enclosures

cc (w/o enclosures): Fayetteville Regional Office, Water Quality Regional Operations Section  
Anson County Soil and Water Conservation District  
WQROS Unit Central Files - AWS040014  
Murphy-Brown LLC

1636 Mail Service Center, Raleigh, North Carolina 27699-1636  
Location: 512 N. Salisbury St. Raleigh, North Carolina 27604  
Phone: 919-807-6464 \ FAX: 919-807-6492  
Internet: [www.ncwaterquality.org](http://www.ncwaterquality.org)

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**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: 040014 and Certificate of Coverage Number: AWS040014
2. Facility Name: T & T Farm
3. Landowner's name (same as on the Waste Management Plan): James Tucker
4. Landowner's mailing address: 8405 Martin Tucker Rd  
City/State: Monroe NC Zip: 28110  
Telephone Number (include area code): (704)242-2495 E-mail: \_\_\_\_\_
5. Facility's physical address: 0358 Beck Rd  
City: Wadesboro State: NC Zip: 28170
6. County where facility is located: Anson
7. Farm Manager's name (If different than the Landowner): \_\_\_\_\_
8. Farm Manager's telephone number (include area code): 704-242-2495 704-363-2935
9. Integrator's name (if there is not an integrator write "None"): Murphy-Brown LLC
10. Operator in Charge (OIC) name: Matthew Tucker Telephone Number (704) 363-2535 OIC # AWA-997742
11. Lessee's name (if there is not a lessee write "None"): \_\_\_\_\_
12. Indicate animal operation type and number:

**Swine**

Wean to Finish  
Wean to Feeder  
Farrow to Finish 880  
Feeder to Finish  
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

RECEIVED/DENR/DWR

MAR 31 2014


Water Quality Regional  
Operations Section

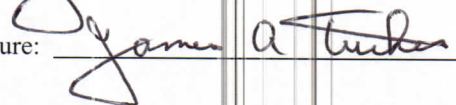
Mail one (1) copy of the most recent Waste Utilization Plan (WUP) along with the field maps for this facility with this completed and signed application as required by NC General Statutes 143-215.10C(d) to the address below. The WUP must be signed by the owner and a certified technical specialist.

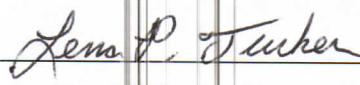
As a second option to mailing paper copies of the application package, you can scan and email one signed copy of the application and the WUP to: [animalpermits@ncdenr.gov](mailto:animalpermits@ncdenr.gov)

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: Matthew Tucker Title: Owner/Operator  
Signature:  Date: 3/13/14

Name: James A. Tucker Title: Owner/Operator  
Signature:  Date: 3/13/14

Name: Lena Tucker Title: Owner  
Signature:  Date: 3/13/14

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)**



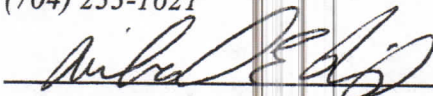
**Nutrient Management Plan For Animal Waste Utilization**  
**05-21-2012**

**This plan has been prepared for:**

*T&T*  
*Jimmy & Lena Tucker*  
*8405 Martin Tucker Rd.*  
*Monroe, NC 28110*  
*704-242-2495*

**This plan has been developed by:**

*Rick Pigg*  
*NRCS*  
*3230-B Presson Rd.*  
*Monroe, NC 28110*  
*(704) 233-1621*

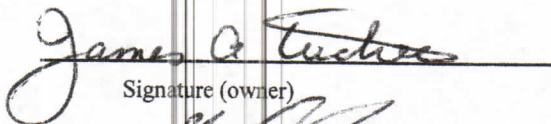
  
Developer Signature

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Operations Section

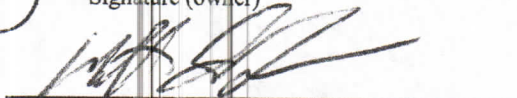
**Type of Plan: Nitrogen Only with Manure Only**

**Owner/Manager/Producer Agreement**

I (we) understand and agree to the specifications and the operation and maintenance procedures established in this nutrient management plan which includes an animal waste utilization plan for the farm named above. I have read and understand the Required Specifications concerning animal waste management that are included with this plan.

  
Signature (owner)

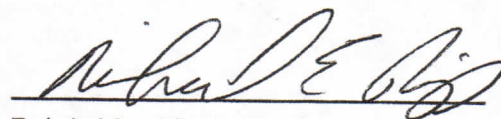
6-28-12  
Date

  
Signature (manager or producer)

6-28-12  
Date

This plan meets the minimum standards and specifications of the U.S. Department of Agriculture - Natural Resources Conservation Service or the standard of practices adopted by the Soil and Water Conservation Commission.

**Plan Approved By:**

  
Technical Specialist Signature

5/21/2012  
Date

**Nutrients applied in accordance with this plan will be supplied from the following source(s):**

Commercial Fertilizer is not included in this plan.

S34	Swine Feeder-Finish Liquid Manure Slurry waste generated 660,880 gals/year by a 880 animal Swine Feeder-Finish Liquid Manure Slurry operation. This production facility has waste storage capacities of approximately 180 days. (Actual = 516 days)				
	Estimated Pounds of Plant Available Nitrogen Generated per Year				
Broadcast	8332				
Incorporated	13413				
Injected	15852				
Irrigated	6910				
	Max Avail. PAN (lbs) *	Actual PAN Applied (lbs)	PAN Surplus/ Deficit (lbs)	Actual Volume Applied (Gallons)	Volume Surplus/ Deficit (Gallons)
Year 1	6,910	12319	-5,409	1,178,228	-517,348
Year 2	6,910	15466	-8,556	1,479,201	-818,321
Year 3	6,910	7747	-837	740,925	-80,045

Note: In source ID, S means standard source, U means user defined source.

\* Max. Available PAN is calculated on the basis of the actual application method(s) identified in the plan for this source.

## **Narrative**

This facility was purchased from Boyd Collins (Facility #040014 / Permit # AWS040014). It was and is a 880 feeder to finish swine operation. Mr/Mrs Tucker of TNT will operate with Mr Collins overseeing the waste management operations until such time as one or both of them obtain proper certifications. The application areas changed to reflect the application of waste to Corn, Wheat, Soybeans, Cotton. The crops will be alternately grown to provide waste uptake from the annual PAN produced by this facility. It will be the owner's responsibility to maintain the adequate crop and acres to allow for agronomic nitrogen applications on a yearly basis.



The table shown below provides a summary of the crops or rotations included in this plan for each field. Realistic Yield estimates are also provided for each crop in the plan. In addition, the Leaching Index for each field is shown, where available.

### Planned Crops Summary

Tract	Field	Total Acres	Useable Acres	Leaching Index (LI)	Soil Series	Crop Sequence	RYE
1402	1	25.50	25.50	0.4	Badin	Corn, Grain	114 bu.
						Wheat, Grain	52 bu.
						Soybeans, Manured, Double Crop	36 bu.
						Cotton	665 lbs.
1402	2	24.80	24.80	0.4	Badin	Corn, Grain	114 bu.
						Wheat, Grain	52 bu.
						Soybeans, Manured, Double Crop	36 bu.
						Cotton	665 lbs.
1402	3	16.80	16.00	0.4	Badin	Corn, Grain	114 bu.
						Wheat, Grain	52 bu.
						Soybeans, Manured, Double Crop	36 bu.
						Cotton	665 lbs.
1402	4	22.50	22.00	0.4	Badin	Corn, Grain	114 bu.
						Wheat, Grain	52 bu.
						Soybeans, Manured, Double Crop	36 bu.
						Cotton	665 lbs.

PLAN TOTALS: 89.60 88.30

LI	Potential Leaching	Technical Guidance
< 2	Low potential to contribute to soluble nutrient leaching below the root zone.	None
>= 2 & <= 10	Moderate potential to contribute to soluble nutrient leaching below the root zone.	Nutrient Management (590) should be planned.
> 10	High potential to contribute to soluble nutrient leaching below the root zone.	Nutrient Management (590) should be planned. Other conservation practices that improve the soils available water holding capacity and improve nutrient use efficiency should be considered. Examples are Cover Crops (340) to scavenge nutrients, Sod-Based Rotations (328), Long-Term No-Till (778), and edge-of-field practices such as Filter Strips (393) and Riparian Forest Buffers (391).



The Waste Utilization table shown below summarizes the waste utilization plan for this operation. This plan provides an estimate of the number of acres of cropland needed to use the nutrients being produced. The plan requires consideration of the realistic yields of the crops to be grown, their nutrient requirements, and proper timing of applications to maximize nutrient uptake.

This table provides an estimate of the amount of nitrogen required by the crop being grown and an estimate of the nitrogen amount being supplied by manure or other by-products, commercial fertilizer and residual from previous crops. An estimate of the quantity of solid and liquid waste that will be applied on each field in order to supply the indicated quantity of nitrogen from each source is also included. A balance of the total manure produced and the total manure applied is included in the table to ensure that the plan adequately provides for the utilization of the manure generated by the operation.

Waste Utilization Table

Year 1

Tract	Field	Source ID	Soil Series	Total Acres	Use. Acres	Crop	RYE	Applic. Period	Nitrogen PA	Comm. Fert.	Res.	Applic. Method	Manure PA	Liquid Manure	Solid Manure	Liquid Manure	Solid Manure
									Nutrient Req'd (lbs/A)	Nutrient Applied (lbs/A)	(lbs/A)		Nutrient Applied (lbs/A)	Applied (acre)	Applied (acre)	Applied (Field)	Applied (Field)
									N	N	N		N	1000 gal/A	Tons	1000 gals	tons
1402	1	S34	Badin	25.50	25.50	Corn, Grain	114 bu.	2/15-6/30	123	0	0	Irrig.	123	11.76	0.00	299.99	0.00
1402	1	S34	Badin	25.50	25.50	Wheat, Grain	52 bu.	9/1-4/30	100	0	0	Irrig.	100	9.56	0.00	243.89	0.00
1402	2	S34	Badin	24.80	24.80	Corn, Grain	114 bu.	2/15-6/30	123	0	0	Irrig.	123	11.76	0.00	291.75	0.00
1402	2	S34	Badin	24.80	24.80	Wheat, Grain	52 bu.	9/1-4/30	100	0	0	Irrig.	100	9.56	0.00	237.20	0.00
1402	3	S34	Badin	16.80	16.00	Cotton	665 lbs.	3/15-7/31	49	0	20	Irrig.	29	2.77	0.00	44.38	0.00
1402	4	S34	Badin	22.50	22.00	Cotton	665 lbs.	3/15-7/31	49	0	20	Irrig.	29	2.77	0.00	61.02	0.00
Total Applied, 1000 gallons																1,178.23	
Total Produced, 1000 gallons																660.88	
Balance, 1000 gallons																-517.35	
Total Applied, tons																	0.00
Total Produced, tons																	0.00
Balance, tons																	0.00

Notes: 1. In the tract column, ~ symbol means leased, otherwise, owned. 2. Symbol \* means user entered data.

Waste Utilization Table

Waste Utilization Table										Year 2									
Tract	Field	Source ID	Soil Series	Total Acres	Use. Acres	Crop	RYE	Applic. Period	Nitrogen PA Nutrient Req'd (lbs/A)	Comm. Fert. Nutrient Applied (lbs/A)	Res. (lbs/A)	Applic. Method	Manure PA Nutrient Applied (lbs/A)	Liquid Manure Applied (acre)	Solid Manure Applied (acre)	Liquid Manure Applied (Field)	Solid Manure Applied (Field)		
									N	N	N		N	1000 gal/A	Tons	1000 gals	tons		
1402	1	S34	Badin	25.50	25.50	Wheat, Grain	52 bu.	9/1-4/30	100	0	0	Irrig.	0	0.00	0.00	0.00	0.00		
1402	1	S34	Badin	25.50	25.50	Soybeans, Manured, Double Crop	36 bu.	4/1-9/15	139	0	0	Irrig.	139	13.30	0.00	339.01	0.00		
1402	2	S34	Badin	24.80	24.80	Wheat, Grain	52 bu.	9/1-4/30	100	0	0	Irrig.	0	0.00	0.00	0.00	0.00		
1402	2	S34	Badin	24.80	24.80	Soybeans, Manured, Double Crop	36 bu.	4/1-9/15	139	0	0	Irrig.	139	13.30	0.00	329.70	0.00		
1402	2	S34	Badin	24.80	24.80	Soybeans, Manured, Double Crop	114 bu.	2/15-6/30	123	0	0	Irrig.	123	11.76	0.00	188.23	0.00		
1402	3	S34	Badin	16.80	16.00	Corn, Grain	52 bu.	9/1-4/30	100	0	0	Irrig.	100	9.56	0.00	153.03	0.00		
1402	3	S34	Badin	16.80	16.00	Wheat, Grain	114 bu.	2/15-6/30	123	0	0	Irrig.	123	11.76	0.00	258.81	0.00		
1402	4	S34	Badin	22.50	22.00	Corn, Grain	52 bu.	9/1-4/30	100	0	0	Irrig.	100	9.56	0.00	210.42	0.00		
1402	4	S34	Badin	22.50	22.00	Wheat, Grain													
																Total Applied, 1000 gallons		1,479.20	
																Total Produced, 1000 gallons		660.88	
																Balance, 1000 gallons		-818.32	
																Total Applied, tons			0.00
																Total Produced, tons			0.00
																Balance, tons			0.00

Symbol means leased, otherwise, owned.

2. Symbol \* means user entered data.

Notes: 1. In the tract column, ~ symbol means leased, otherwise, owned. 2. Symbol \* means user entered data.



## Waste Utilization Table

Year 3

Tract	Field	Source ID	Soil Series	Total Acres	Use Acres	Crop	RYE	Applic. Period	Nitrogen PA Nutrient Req'd (lbs/A)	Comm. Fert. Nutrient Applied (lbs/A)	Res. (lbs/A)	Applic. Method	Manure PA Nutrient Applied (lbs/A)	Liquid Manure Applied (acre)	Solid Manure Applied (acre)	Liquid Manure Applied (Field)	Solid Manure Applied (Field)
									N	N	N		N	1000 gal/A	Tons	1000 gals	tons
1402	1	S34	Badin	25.50	25.50	Cotton	665 lbs.	3/15-7/31	49	-60	*60	Irrig.	49	4.69	0.00	119.51	0.00
1402	2	S34	Badin	24.80	24.80	Cotton	665 lbs.	3/15-7/31	49	-100	*100	Irrig.	49	4.69	0.00	116.23	0.00
1402	3	S34	Badin	16.80	16.00	Wheat, Grain	52 bu.	9/1-4/30	100	0	0	Irrig.	0	0.00	0.00	0.00	0.00
1402	3	S34	Badin	16.80	16.00	Soybeans, Manured, Double Crop	36 bu.	4/1-9/15	139	0	0	Irrig.	139	13.30	0.00	212.71	0.00
1402	4	S34	Badin	22.50	22.00	Wheat, Grain	52 bu.	9/1-4/30	100	0	0	Irrig.	0	0.00	0.00	0.00	0.00
1402	4	S34	Badin	22.50	22.00	Soybeans, Manured, Double Crop	36 bu.	4/1-9/15	139	0	0	Irrig.	139	13.30	0.00	292.48	0.00
Total Applied, 1000 gallons																740.93	
Total Produced, 1000 gallons																660.88	
Balance, 1000 gallons																-80.05	
Total Applied, tons																	0.00
Total Produced, tons																	0.00
Balance, tons																	0.00

Notes: 1. In the tract column, ~ symbol means leased, otherwise, owned. 2. Symbol \* means user entered data.

The Irrigation Application Factors for each field in this plan are shown in the following table. Infiltration rate varies with soils. If applying waste nutrients through an irrigation system, you must apply at a rate that will not result in runoff. This table provides the maximum application rate per hour that may be applied to each field selected to receive wastewater. It also lists the maximum application amount that each field may receive in any one application event.

#### Irrigation Application Factors

Tract	Field	Soil Series	Application Rate (inches/hour)	Application Amount (inches)
1402	1	Badin	*0.40	1.0
1402	2	Badin	*0.40	1.0
1402	3	Badin	*0.40	1.0
1402	4	Badin	0.30	1.0



The Available Waste Storage Capacity table provides an estimate of the number of days of storage capacity available at the end of each month of the plan. Available storage capacity is calculated as the design storage capacity in days minus the number of days of net storage volume accumulated. The start date is a value entered by the user and is defined as the date prior to applying nutrients to the first crop in the plan at which storage volume in the lagoon or holding pond is equal to zero.

Available storage capacity should be greater than or equal to zero and less than or equal to the design storage capacity of the facility. If the available storage capacity is greater than the design storage capacity, this indicates that the plan calls for the application of nutrients that have not yet accumulated. If available storage capacity is negative, the estimated volume of accumulated waste exceeds the design storage volume of the structure. Either of these situations indicates that the planned application interval in the waste utilization plan is inconsistent with the structure's temporary storage capacity.

#### Available Waste Storage Capacity

Source Name	Swine Feeder-Finish Liquid Manure Slurry		Design Storage Capacity (Days)
Start Date	9/1		180
Plan Year		Month	Available Storage Capacity (Days) *
	1	1	28
	1	2	180
	1	3	180
	1	4	150
	1	5	119
	1	6	89
	1	7	58
	1	8	27
	1	9	180
	1	10	149
	1	11	119
	1	12	88
	2	1	57
	2	2	180
	2	3	149
	2	4	180
	2	5	149
	2	6	119
	2	7	88
	2	8	57
	2	9	180
	2	10	149
	2	11	119
	2	12	88
	3	1	57
	3	2	29
	3	3	128

# Available Waste Storage Capacity

Source Name	Swine Feeder-Finish Liquid Manure Slurry		Design Storage Capacity (Days)
Start Date	9/1		180
Plan Year	Month		Available Storage Capacity (Days) *
	3	4	180
	3	5	149
	3	6	119
	3	7	88
	3	8	57
	3	9	27
	3	10	-4
	3	11	-34
	3	12	-65

\* Available Storage Capacity is calculated as of the end of each month.



## Crop Notes

The following crop note applies to field(s): 1, 2, 3, 4

### Corn Piedmont

In the Piedmont, corn is normally planted when soil temperatures reach 52 to 55 degrees fahrenheit. Review the Official Variety "green book" and information from private companies to select a high yielding variety with the characteristics needed for your area and conditions. Plant 1-2" deep. Plant populations should be determined by the hybrid being planted. Increase the seeding rate by 10% when planting no-till. Phosphorus and potassium recommended by a soil test can be broadcast or banded at planting. When planting early in cool, wet soil, banded phosphorus will be more available to the young plants. An accepted practice is to apply 20-30 lbs/acre N and 20-30 lbs/acre phosphorus banded as a starter and the remaining N behind the planter. The total amount of N is dependent on soil type. When including a starter in the fertilizer program, the recommended potassium and any additional phosphorus is normally broadcast at planting. Plant samples can be analyzed during the growing season to monitor the overall nutrient status of the corn. Timely management of weeds and insects are essential for corn production.

The following crop note applies to field(s): 1, 2, 3, 4

### Cotton Piedmont

In the Piedmont, cotton is normally planted from April 15-May 5 when warm(above 65 F) temperatures and dry weather are present and predicted to remain for at least 5 to 7 days after planting. Avoid planting after May 20 if at all possible. Review the NCSU Official Variety "green book" and information from private companies to select a high yielding variety with characteristics needed for your area and conditions. Plant 4-6 seed/row foot at a depth of 1/2-1". Adequate depth control is essential. Phosphorus and potash recommended from a soil test can be broadcast or banded at planting. When planting early in cool, wet soils, banded phosphorus will be more available to the young plants. Apply 20-25 lbs/acre N as a starter and the remaining recommended N as a sidedress application 2 to 3 weeks after first square. An option is to apply the 20-25 lbs/acre N as a starter and the remainder of the total N behind the planter. When cotton is drilled(UNR) all the N is broadcast before planting. The total N needed is dependent on soil type. Apply 1.0 lb/acre actual boron either at planting or at sidedress; or, foliar apply 1/2 lb/acre actual boron with 1/4 lb/acre applied at early bloom and the other 1/4 lb/acre about 2 weeks later. The boron needs to be available to the cotton during fruiting. Tissue samples can be analyzed during the growing season to monitor the nutrient status of the cotton. Timely management of insects, weeds, and excessive vegetative growth are essential for profitable cotton production.



The following crop note applies to field(s): 1, 2, 3, 4

#### Wheat: Piedmont

In the Piedmont, wheat should be planted from October 10-November 3. Plant 22 seed/drill row foot at 1-1 1/2" deep and increase the seeding rate by 5% for each week seeding is delayed beyond the optimum time. See the seeding rates table for applicable seeding rate modifications in the current NCSU "Small Grain Production Guide". Also, increase the initial seeding rate by at least 10% when planting no-till. Adequate depth control when planting the wheat is essential. Review the NCSU Official Variety "green book" and information from private companies to select a high yielding variety with the characteristics needed for your area and conditions. Apply no more than 30 lbs/acre N at planting. Increase the N at planting to 40 lbs/acre in no-till wheat. Apply phosphorus and potash according to soil test recommendations at this time. The remaining N should be applied during the months of February-March. The total N is dependent on the soil type. Plant samples can be analyzed during the growing season to monitor the nutrient status of the wheat. Timely management of diseases, insects and weeds are essential for profitable wheat production.

The following crop note applies to field(s): 1, 2, 3, 4

#### Double-Crop Soybeans, Piedmont

Double-crop soybeans should be planted as early in June as possible with planting completed by July 4th. When no-tilling soybeans in small grain straw, it is essential to manage the straw to achieve adequate plant populations. Review the NCSU Official Variety "green book" and information from private companies to select a high yielding variety with the characteristics needed for your area and conditions. Plant 4-6 seed/row foot for 7-8" drills and 6-8 seed/row foot for 15" rows. Seeding depth should be 1-1 1/2" and adequate depth control is essential. Phosphorus and potash recommended for the soybeans can be applied to the wheat in the Fall. Soybeans produce their own nitrogen and are normally grown without additions of nitrogen. However, applications of 20-30 lbs/acre N are sometimes made at planting to promote early growth and vigor. Tissue samples can be analyzed during the growing season to monitor the overall nutrient status of the soybeans. Timely management of weeds and insects is essential for profitable double crop soybean production.



# EMERGENCY ACTION PLAN

## PHONE NUMBERS

DWQ 704-663-1699  
EMERGENCY MANAGEMENT SYSTEM 919-733-3867  
SWCD 704-233-1621  
NRCS 704-233-1621

This plan will be implemented in the event that wastes from your operation are leaking, overflowing, or running off site. You should not wait until wastes reach surface waters or leave your property to consider that you have a problem. You should make every effort to ensure that this does not happen. This plan should be posted in an accessible location for all employees at the facility. The following are some action items you should take.

1. Stop the release of wastes. Depending on the situation, this may or may not be possible. Suggested responses to some possible problems are listed below.

A. Lagoon overflow-possible solutions are:

- a. Add soil to berm to increase elevation of dam.
- b. Pump wastes to fields at an acceptable rate.
- c. Stop all flows to the lagoon immediately.
- d. Call a pumping contractor.
- e. Make sure no surface water is entering lagoon.

B. Runoff from waste application field-actions include:

- a. Immediately stop waste application.
- b. Create a temporary diversion to contain waste.
- c. Incorporate waste to reduce runoff.
- d. Evaluate and eliminate the reason(s) that caused the runoff.
- e. Evaluate the application rates for the fields where runoff occurred.

C. Leakage from the waste pipes and sprinklers-action include:

- a. Stop recycle pump.
- b. Stop irrigation pump.
- c. Close valves to eliminate further discharge.
- d. Repair all leaks prior to restarting pumps.

D. Leakage from flush systems, houses, solid separators-action include:

- a. Stop recycle pump.
  - b. Stop irrigation pump.
  - c. Make sure no siphon occurs.
  - d. Stop all flows in the house, flush systems, or solid separators.
  - e. Repair all leaks prior to restarting pumps.
- E. Leakage from base or sidewall of lagoon. Often this is seepage as opposed to
- a. Dig a small sump or ditch away from the embankment to catch all seepage, put in a submersible pump, and pump back to the lagoon.
  - b. If holes are caused by burrowing animals, trap or remove animals and fill holes and compact with a clay type soil.
  - c. Have a professional evaluate the condition of the side walls and lagoon bottom as soon as possible.
2. Assess the extent of the spill and note any obvious damages.
- a. Did the waste reach any surface waters?
  - b. Approximately how much was released and for what duration?
  - c. Any damage noted, such as employee injury, fish kills, or property damage?
  - d. Did the spill leave the property?
  - e. Does the spill have the potential to reach surface waters?
  - f. Could a future rain event cause the spill to reach surface waters?
  - g. Are potable water wells in danger (either on or off of the property)?
  - h. How much reached surface waters?
3. Contact appropriate agencies.
- a. During normal business hours, call your DWQ (Division of Water Quality) regional office; Phone - - -. After hours, emergency number: 919-733-3942. Your phone call should include: your name, facility, telephone number, the details of the incident from item 2 above, the exact location of the facility, the location or direction of movement of the spill, weather and wind conditions. The corrective measures that have been under taken, and the seriousness of the situation.
  - b. If spill leaves property or enters surface waters, call local EMS phone number - - -.
  - c. Instruct EMS to contact local Health Department.
  - d. Contact CES, phone number - - -, local SWCD office phone number - - -, and local NRCS office for advice/technical assistance phone number - - -.
4. If none of the above works call 911 or the Sheriff's Department and explain your problem to them and ask that person to contact the proper agencies for you.
5. Contact the contractor of your choice to begin repair of problem to minimize off-site

damage.

- a. Contractors Name: \_\_\_\_\_
- b. Contractors Address: \_\_\_\_\_
- c. Contractors Phone: \_\_\_\_\_

6. Contact the technical specialist who certified the lagoon (NRCS, Consulting Engineer, etc.

- a. Name: NRCS(?)
- b. Phone: see pg 1

7. Implement procedures as advised by DWQ and technical assistance agencies to rectify the damage, repair the system, and reassess the waste management plan to keep problems with release of wastes from happening again.



## Swine Farm Waste Management Odor Control Checklist

Source	Cause	BMPs to Minimize Odor	Site Specific Practices
Farmstead	● Swine Production	<input type="checkbox"/> Vegetative or wooded buffers; <input type="checkbox"/> Recommended best management practices; <input type="checkbox"/> Good judgement and common sense	
Animal body surfaces	● Dirty manure-covered animals	<input type="checkbox"/> Dry floors	
Floor surfaces	● Wet manure-covered floors	<input type="checkbox"/> Slotted floors; <input type="checkbox"/> Waterers located over slotted floors; <input type="checkbox"/> Feeders at high end of solid floors; <input type="checkbox"/> Scrape manure buildup from floors; <input type="checkbox"/> Underfloor ventilation for drying	
Manure collection pits	● Urine; ● Partial microbial decomposition	<input type="checkbox"/> Frequent manure removal by flush, pit recharge, or scrape; <input type="checkbox"/> Underfloor ventilation	
Ventilation exhaust fans	● Volatile gases; ● Dust	<input type="checkbox"/> Fan maintenance; <input type="checkbox"/> Efficient air movement	
Indoor surfaces	● Dust	<input type="checkbox"/> Washdown between groups of animals; <input type="checkbox"/> Feed additives; <input type="checkbox"/> Feed covers; <input type="checkbox"/> Feed delivery downspout extenders to feeder covers	
Flush tanks	● Agitation of recycled lagoon liquid while tanks are filling	<input type="checkbox"/> Flush tank covers; <input type="checkbox"/> Extend fill to near bottom of tanks with anti-siphon vents	
Flush alleys	● Agitation during wastewater conveyance	<input type="checkbox"/> Underfloor flush with underfloor ventilation	
Pit recharge points	● Agitation of recycled lagoon liquid while pits are filling	<input type="checkbox"/> Extend recharge lines to near bottom of pits with anti-siphon vents	
Lift stations	● Agitation during sump tank filling and drawdown	<input type="checkbox"/> Sump tank covers	
Outside drain collection or junction boxes	● Agitation during wastewater conveyance	<input type="checkbox"/> Box covers	



Source	Cause	BMPs to Minimize Odor	Site Specific Practices
End of drainpipes at lagoon	<ul style="list-style-type: none"> <li>● Agitation during wastewater conveyance</li> </ul>	<input type="checkbox"/> Extend discharge point of pipes underneath lagoon liquid level	
Lagoon surfaces	<ul style="list-style-type: none"> <li>● Volatile gas emission;</li> <li>● Biological mixing;</li> <li>● Agitation</li> </ul>	<input type="checkbox"/> Proper lagoon liquid capacity; <input type="checkbox"/> Correct lagoon startup procedures; <input type="checkbox"/> Minimum surface area-to-volume ratio; <input type="checkbox"/> Minimum agitation when pumping; <input type="checkbox"/> Mechanical aeration; <input type="checkbox"/> Proven biological additives	
Irrigation sprinkler nozzles	<ul style="list-style-type: none"> <li>● High pressure agitation;</li> <li>● Wind drift</li> </ul>	<input type="checkbox"/> Irrigate on dry days with little or no wind; <input type="checkbox"/> Minimum recommended operating pressure; <input type="checkbox"/> Pump intake near lagoon liquid surface; <input type="checkbox"/> Pump from second stage lagoon	
Storage tank or basin surface	<ul style="list-style-type: none"> <li>● Partial microbial decomposition;</li> <li>● Mixing while filling;</li> <li>● Agitation when emptying</li> </ul>	<input type="checkbox"/> Bottom or midlevel loading; <input type="checkbox"/> Tank covers; <input type="checkbox"/> Basin surface mats of solids; <input type="checkbox"/> Proven biological additives or oxidants	
Settling basin surface	<ul style="list-style-type: none"> <li>● Partial microbial decomposition;</li> <li>● Mixing while filling;</li> <li>● Agitation when emptying</li> </ul>	<input type="checkbox"/> Extend drainpipe outlets underneath liquid level; <input type="checkbox"/> Remove settled solids regularly	
Manure, slurry or sludge spreader outlets	<ul style="list-style-type: none"> <li>● Agitation when spreading;</li> <li>● Volatile gas emissions</li> </ul>	<input type="checkbox"/> Soil injection of slurry/sludges; <input type="checkbox"/> Wash residual manure from spreader after use; <input type="checkbox"/> Proven biological additives or oxidants	
Uncovered manure, slurry or sludge on field surfaces	<ul style="list-style-type: none"> <li>● Volatile gas emissions while drying</li> </ul>	<input type="checkbox"/> Soil injection of slurry/sludges; <input type="checkbox"/> Soil incorporation within 48 hrs.; <input type="checkbox"/> Spread in thin uniform layers for rapid drying; <input type="checkbox"/> Proven biological additives or oxidants	
Dead animals	<ul style="list-style-type: none"> <li>● Carcass decomposition</li> </ul>	<input type="checkbox"/> Proper disposition of carcasses	
Dead animal disposal pits	<ul style="list-style-type: none"> <li>● Carcass decomposition</li> </ul>	<input type="checkbox"/> Complete covering of carcasses in burial pits; <input type="checkbox"/> Proper location/construction of disposal pits	
Incinerators	<ul style="list-style-type: none"> <li>● Incomplete combustion</li> </ul>	<input type="checkbox"/> Secondary stack burners	

Source	Cause	BMPs to Minimize Odor	Site Specific Practices
Standing water around facilities	<ul style="list-style-type: none"> <li>● Improper drainage;</li> <li>● Microbial decomposition of organic matter</li> </ul>	<input type="checkbox"/> Grade and landscape such that water drains away from facilities	
Mud tracked onto public roads from farm access	<ul style="list-style-type: none"> <li>● Poorly maintained access roads</li> </ul>	<input type="checkbox"/> Farm access road maintenance	

#### Additional Information:

Swine Manure Management; .0200 Rule/BMP Packet  
 Swine Production Farm Potential Odor Sources and Remedies; EBAE Fact Sheet  
 Swine Production Facility Manure Management: Pit Recharge - Lagoon Treatment; EBAE 128-88  
 Swine Production Facility Manure Management: Underfloor Flush - Lagoon Treatment; EBAE 129-88  
 Lagoon Design and Management for Livestock Manure Treatment and Storage; EBAE 103-88  
 Calibration of Manure and Wastewater Application Equipment; EBAE Fact Sheet  
 Controlling Odors from Swine Buildings; PIH-33  
 Environmental Assurance Program: NPPC Manual  
 Options for Managing Odor; a report from the Swine Odor Task Force  
 Nuisance Concerns in Animal Manure Management: Odors and Flies; PRO107, 1995 Conference Proceedings

#### Available From:

NCSU, County Extension Center  
 NCSU - BAE  
 NCSU - BAE  
 NCSU - BAE  
 NCSU - BAE  
 NCSU - BAE  
 NCSU - Swine Extension  
 NC Pork Producers Assoc.  
 NCSU - Agri Communications  
 Florida Cooperative Extension



## Insect Control Checklist for Animal Operations

Source	Cause	BMPs to Minimize Insects	Site Specific Practices
<b>Liquid Systems</b>			
Flush Gutters	● Accumulation of Solids	<input type="checkbox"/> Flush system is designed and operated sufficiently to remove accumulated solids from gutters as designed;	
		<input type="checkbox"/> Remove bridging of accumulated solids at discharge	
Lagoons and Pits	● Crusted Solids	<input type="checkbox"/> Maintain lagoons, settling basins and pits where pest breeding is apparent to minimize the crusting of solids to a depth of no more than 6 - 8 inches over more than 30% of surface.	
Excessive Vegetative Growth	● Decaying vegetation	<input type="checkbox"/> Maintain vegetative control along banks of lagoons and other impoundments to prevent accumulation of decaying vegetative matter along water's edge on impoundment's perimeter.	
<b>Dry Systems</b>			
Feeders	● Feed Spillage	<input type="checkbox"/> Design, operate and maintain feed systems (e.g., bunkers and troughs) to minimize the accumulation of decaying wastage.	
		<input type="checkbox"/> Clean up spillage on a routine basis (e.g., 7 - 10 day interval during summer; 15-30 day interval during winter).	
Feed Storage	● Accumulation of feed residues	<input type="checkbox"/> Reduce moisture accumulation within and around immediate perimeter of feed storage areas by insuring drainage away from site and/or providing adequate containment (e.g., covered bin for brewer's grain and similar high moisture grain products).	
		<input type="checkbox"/> Inspect for and remove or break up accumulated solids in filter strips around feed storage as needed.	
Animal Holding Areas	● Accumulations of animal wastes and feed wastage	<input type="checkbox"/> Eliminate low areas that trap moisture along fences and other locations where waste accumulates and disturbance by animals is minimal.	
		<input type="checkbox"/> Maintain fence rows and filter strips around animal holding areas to minimize accumulations of wastes (i.e. inspect for and remove or break up accumulated solids as needed.	

Source	Cause	BMPs to Minimize Insects	Site Specific Practices
Dry Manure Handling Systems	● Accumulations of animal wastes	<input type="checkbox"/> Remove spillage on a routine basis (e.g., 7-10 day interval during summer; 15-30 day interval during winter) where manure is loaded for land application or disposal. <input type="checkbox"/> Provide for adequate drainage around manure stockpiles. <input type="checkbox"/> Inspect for and remove or break up accumulated wastes in filter strips around stockpiles and manure handling areas as needed.	

For more information contact the Cooperative Extension Service, Department of Entomology, Box 7613, North Carolina State University, Raleigh, NC 27695-7613



**Mortality Management Methods**  
(check which method(s) are being implemented)

- ☐ Burial three feet beneath the surface of the ground within 24 hours after knowledge of the death. The burial must be at least 300 feet from any flowing stream or public body of water.
- ☒ Rendering at a rendering plant licensed under G.S. 106-168.7.
- ☒ Complete incineration
- ☐ In the case of dead poultry only, placing in a disposal pit of a size and design approved by the Department of Agriculture.
- ☐ Any method which in the professional opinion of the State Veterinarian would make possible the salvage of part of a dead animal's value without endangering human or animal health. (Written approval of the State Veterinarian must be attached)

December 18, 1996

**Form SLUR-1**

## Slurry and Sludge Application Field Record

For Recording Slurry and Lagoon Sludge Application Events on Different Fields

Farm Owner  
Spreader Operator

Facility Number

[illegible]

(1) SI = soil incorporated (disked); BR = broadcast (surface applied)

<sup>1</sup> Can be found in operators manual for spreader. Contact a local dealer if you do not have your owner's manual.



# Slurry and Sludge Application Field Record

Recommended PAN	Loading (lb/acre) = (B)

Operator's Signature \_\_\_\_\_

Operator Certification # \_\_\_\_\_

\_\_\_\_\_  
Certified Operator (Print)

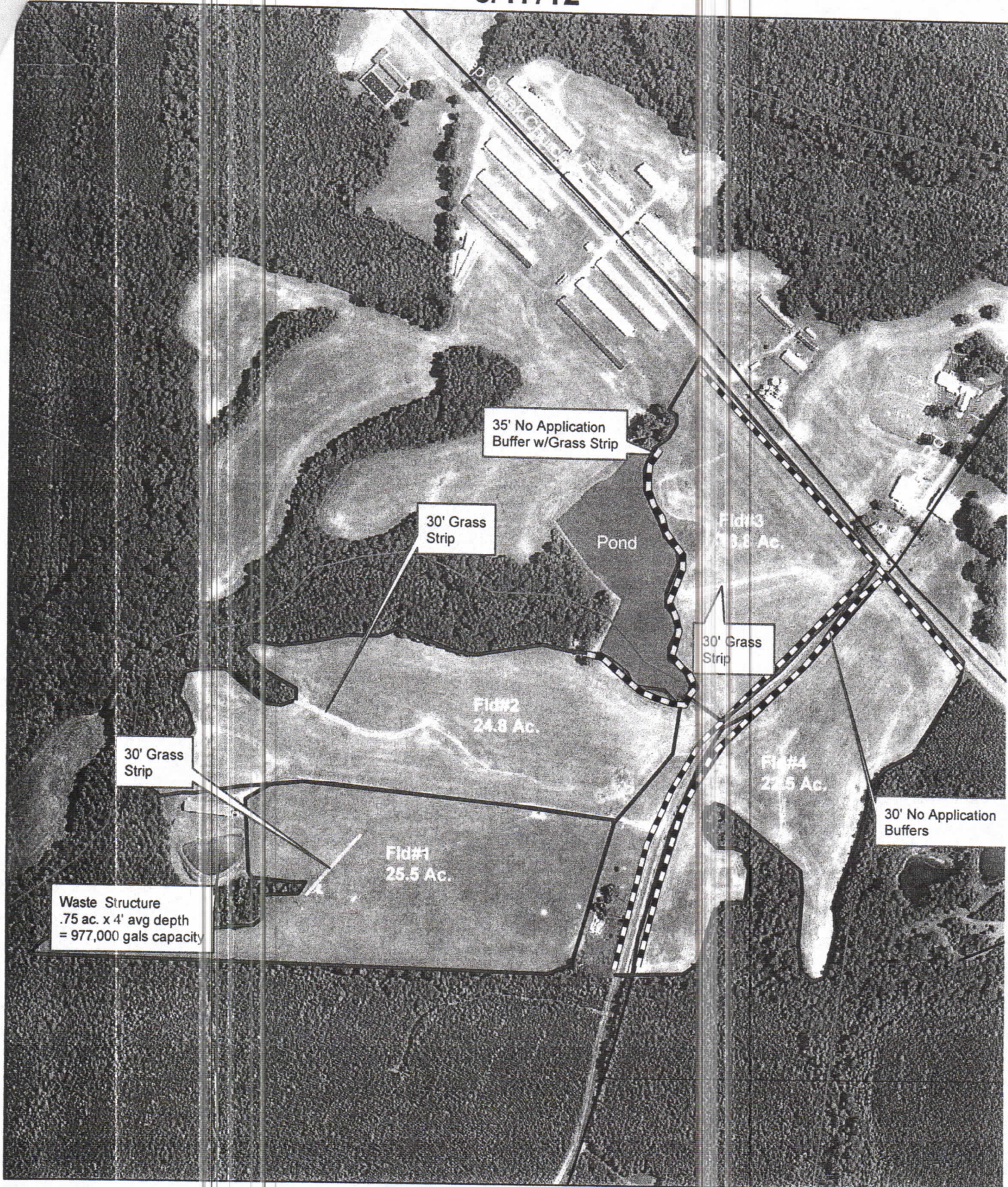
(1) Can be found in operator's manual for the spreader. Contact a local dealer if you do not have your owner's manual.

(2) See your animal waste management plan for sampling frequency. At a minimum, waste analysis is required within 60 days of land application events.

(3) Enter the value received by subtracting column (7) from (B). Continue subtracting column (7) from column (8) following each application event.

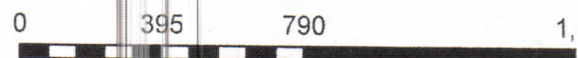


# Waste Application Map 5/17/12



## Legend

- Roads
- County Boundary
- Streams





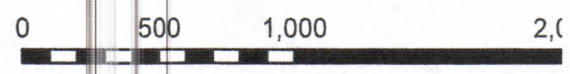
# Soils Map

5/17/12



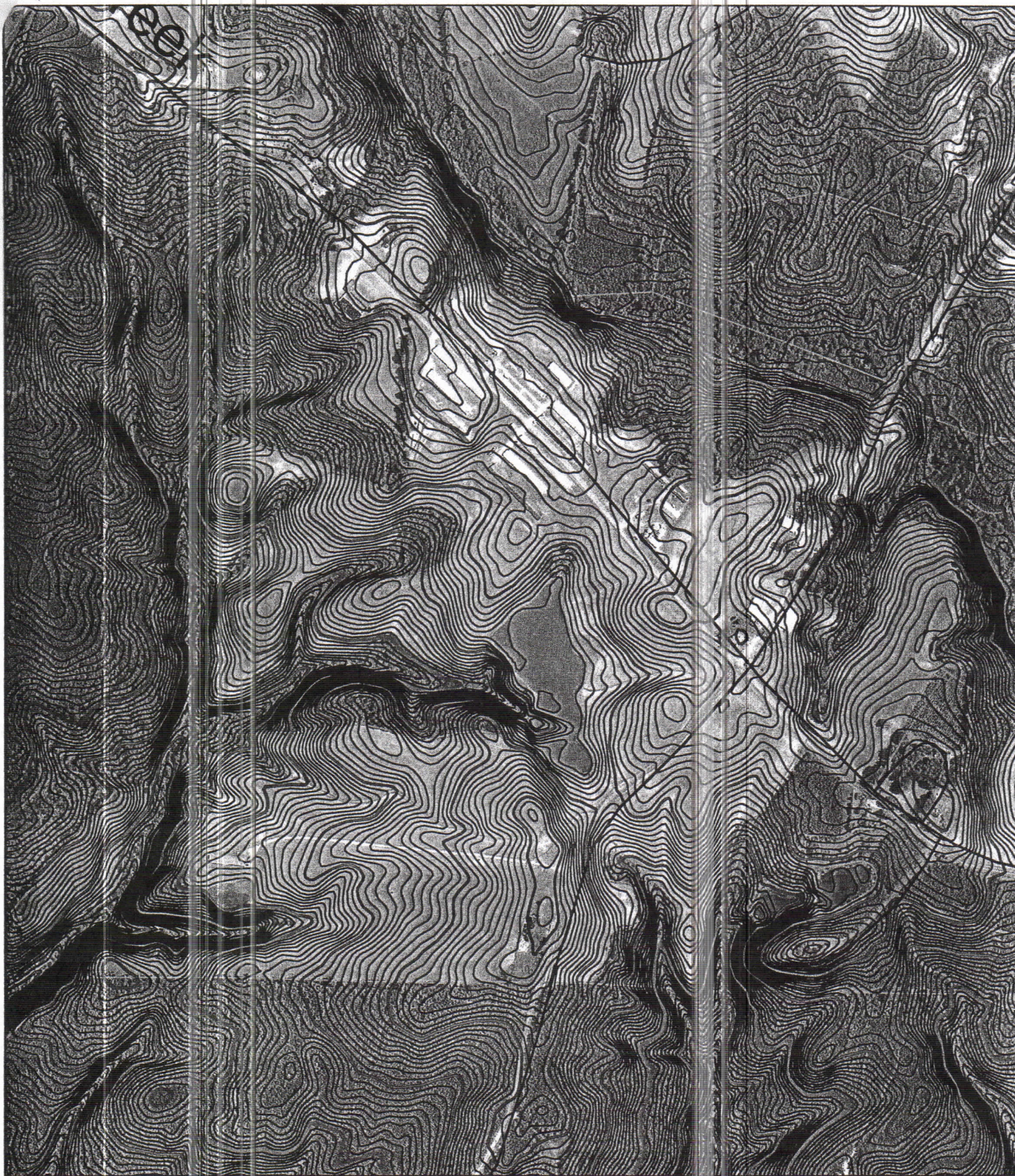
## Legend

- Roads
- County Boundary
- Soils
- Fsa Clu





Topo Map  
5/17/12

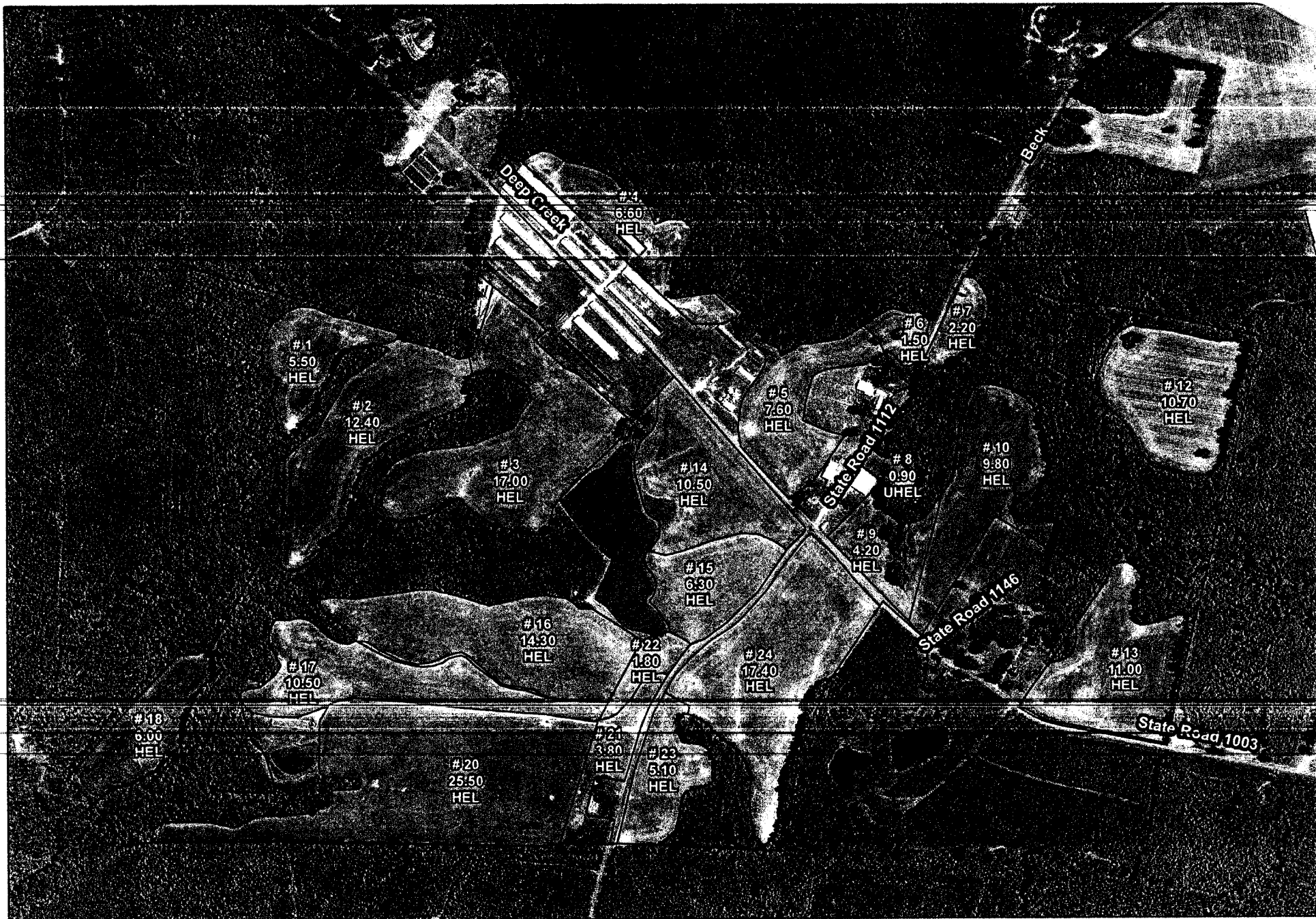


Legend

- Roads
- County Boundary
- 2' Contour
- 4' Contour
- 20' Contours
- 100' Contours
- Fsa Clu

0 500 1,000 2,000





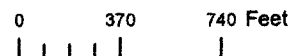
USDA Farm: 4040  
 FSA Tract: 1402  
 Anson County

**Wetland Determination Identifiers**

- Restricted Use
- Limited Restrictions
- Exempt from Conservation Compliance Provisions

Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-025 and attached maps) for exact wetland boundaries and labels, or contact NRCS.

Farmland Ac.: 353.27  
 Cropland Ac.: 190.60



Crop Year: 2012

Map Created: 05/17/2012





# Waste Analysis Report

Grower: **Tucker, James A**  
8405 Martin Tucker Rd  
Monroe, NC 28110

Farm: TNT

Anson County

Received: 03/28/2012

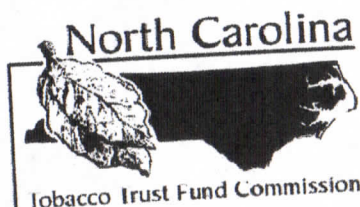
Completed: 04/04/2012

[Links to Helpful Information](#)

Received: 03/28/2012		Completed:																
Sample Information		Laboratory Results (parts per million unless otherwise noted)																
Sample ID: 32312	Waste Code: ALS	Description: Swine Lagoon Liq.																
Recommendations:	Application Method Irrigation		Nutrients Available for First Crop										lbs/1000 gallons			Other Elements		
			lbs/1000 gallons										Other Elements					

\*\*\*\*\*NOTICE\*\*\*\*\*  
Your sample arrived to the Agronomic Division addressed to the Soil Testing lab. They were almost placed in a soil cart. In addition to the appropriate address, please write to the attention of the Waste Analysis Lab or the PWSM Analysis Lab on your package when submitting waste samples. This will provide a much better turnaround time on the requested analysis. If you have questions, please give me a call at 919/733-2655.

Brenda R. Cleveland, Agronomist  
Completed: April 3, 2012



Reprogramming of the laboratory-information-management system that makes this report possible is being funded through a grant from the North Carolina Tobacco Trust Fund Commission.

Thank you for using agronomic services to manage nutrients and safeguard environmental quality.  
- Steve Troxler, Commissioner of Agriculture



# Soil Test Report

SERVING N.C. RESIDENTS FOR OVER 60 YEARS

Grower: Tucker, James A  
8405 Martin Tucker Rd  
Monroe, NC 28110

Copies To:

Farm: 3708

Received: 04/03/2012

Completed: 04/13/2012

[Links to Helpful Information](#)

Anson County

Agronomist Comments

FH #'s

Field Information		Applied Lime			Recommendations												
Sample No.	Last Crop	Mo	Yr	T/A	Crop or Year		Lime	N	P2O5	K2O	Mg	S	Cu	Zn	B	Mn	See Note
AL 14&15		2	2012	1.0	1st Crop:	Soybeans	0	0	0	0	0	0	0	0		0	3
					2nd Crop:	Cotton	0	50-70	0	0	0	0	0	0	0	1.0	0

## Test Results

Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-Al(1)	Mn-Al(2)	Zn-I	Zn-Al	Cu-I	S-I	SS-I	NO <sub>3</sub> -N	NH <sub>4</sub> -N	Na
MIN	0.60	0.90	9.1	87.0	1.2	5.5	126	101	65.0	17.0	293	193	193	411	411	302	52				0.2

Field Information		Applied Lime			Recommendations												
Sample No.	Last Crop	Mo	Yr	T/A	Crop or Year		Lime	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Mg	S	Cu	Zn	B	Mn	See Note
Fd 23&24		2	2012	1.0	1st Crop:	Soybeans	0	0	0	0	0	0	0	0		0	3
					2nd Crop:	Cotton	0	50-70	0	0	0	0	0	0	1.0	0	3

## Test Results

Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-Al(1)	Mn-Al(2)	Zn-I	Zn-Al	Cu-I	S-I	SS-I	NO <sub>3</sub> -N	NH <sub>4</sub> -N	Na
MIN	0.51	0.88	10.9	88.0	1.3	5.6	203	113	69.0	14.0	336	218	218	512	512	485	43				0.2

Field Information		Applied Lime			Recommendations												
Sample No.	Last Crop	Mo	Yr	T/A	Crop or Year		Lime	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Mg	S	Cu	Zn	B	Mn	See Note
16		2	2012	1.0	1st Crop:	Soybeans	0	0	0	0	0	0	0	0		0	3
					2nd Crop:	Corn Grain	0	120-160	0	0	0	0	0	0	.0	0	3

## Test Results

Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-Al(1)	Mn-Al(2)	Zn-I	Zn-Al	Cu-I	S-I	SS-I	NO <sub>3</sub> -N	NH <sub>4</sub> -N	Na
MIN	0.60	0.90	14.3	94.0	0.8	6.3	214	197	70.0	18.0	313	193	200	703	703	518	47				0.2

Field Information		Applied Lime			Recommendations												
Sample No.	Last Crop	Mo	Yr	T/A	Crop or Year		Lime	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Mg	S	Cu	Zn	B	Mn	See Note
17		2	2012	1.0	1st Crop:	Soybeans	0	0	0	0	0	0	0	0		0	3
					2nd Crop:	Corn Grain	0	120-160	0	0	0	0	0	0	.0	0	3

## Test Results

Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-Al(1)	Mn-Al(2)	Zn-I	Zn-Al	Cu-I	S-I	SS-I	NO <sub>3</sub> -N	NH <sub>4</sub> -N	Na
MIN	0.60	0.87	13.5	92.0	1.1	6.1	226	132	70.0	17.0	200	128	135	595	595	445	47				0.2



# Soil Test Report

SERVING N.C. RESIDENTS FOR OVER 60 YEARS

Grower: **Tucker, James A**  
8405 Martin Tucker Rd  
Monroe, NC 28110

Copies To:

Farm: 3708

Received: 04/03/2012

Completed: 04/13/2012

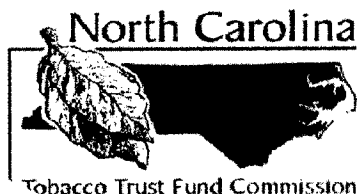
[Links to Helpful Information](#)

Anson County

## Agronomist Comments

12.3

Field Information			Applied Lime			Recommendations																
Sample No.	Last Crop		Mo	Yr	T/A	Crop or Year				Lime	N	P2O5	K2O	Mg	S	Cu	Zn	B	Mn	See Note		
20	South End					1st Crop:	C. Berm/Bahia			0	100-150	0	0	0	0	0	0		0	12		
						2nd Crop:	Corn Grain			0	120-160	0	0	0	0	0	0	.0	0	3		
Test Results																						
Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-Al(1)	Mn-Al(2)	Zn-I	Zn-Al	Cu-I	S-I	SS-I	NO3-N	NH4-N	Na	
MIN	0.46	0.88	13.2	95.0	0.7	6.3	189	269	67.0	18.0	435	273	273	402	402	428	43				0.2	
Field Information			Applied Lime			Recommendations																
Sample No.	Last Crop		Mo	Yr	T/A	Crop or Year				Lime	N	P2O5	K2O	Mg	S	Cu	Zn	B	Mn	See Note		
20L	North End					1st Crop:	C. Berm/Bahia			0	100-150	0	0	0	0	0	0		0	12		
						2nd Crop:	Corn Grain			0	120-160	0	0	0	0	0	0	.0	0	3		
Test Results																						
Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	Mn-I	Mn-Al(1)	Mn-Al(2)	Zn-I	Zn-Al	Cu-I	S-I	SS-I	NO3-N	NH4-N	Na	
MIN	0.51	0.86	14.5	94.0	0.9	6.2	222	512	56.0	20.0	378	241	241	487	487	322	59				0.4	



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Thank you for using agronomic services to manage nutrients and safeguard environmental quality.

- Steve Troxler, Commissioner of Agriculture



## ANIMAL WASTE LAND APPLICATION SETBACKS\*

### UPDATED SEPTEMBER 20, 2006

### SB 1217 INTERAGENCY GROUP

Setbacks for swine waste land application areas vary according to permit, the date of facility siting and/or the date the waste application field is placed in use. Setbacks for other types of operations with coverage under State General Permits and as defined in G.S. 143-215.10B, have a single setback requirement. The following outline provides setback requirements by time periods and legislation.

- I. All operations meeting the G.S. 143-215.10B definitions (formerly 2H.0200 thresholds), including swine farms sited or expanded before September 30, 1995 are required to have from the outer perimeter of the waste application area the following:

- A. A 25-foot vegetative buffer from perennial water (2H.0217 (h)(iii))
- B. A 200-foot distance to dwelling not owned by the producer (NRCS Standard Code 633)
- C. A 100-foot distance to a well (NRCS Standard Code 633 Standard)

For swine farms with a waste application field put in place after August 27, 1997 category IV applies:

- II. Swine farms sited after September 30, 1995 and constructed or expanded before August 27, 1997 must meet items I A, B, and C and have from the outer perimeter of the waste application area the following:

- A. A 50-foot distance to perennial stream/river other than an irrigation ditch or canal (Senate Bill 1080)
- B. A 50-foot distance to a residential property boundary (Senate Bill 1080)

For waste application fields put in place after August 27, 1997 category IV applies:

- III. Swine farms sited or expanded after August 27, 1997 must meet the requirements of items I A, B, and C and must have from the outer perimeter of the waste application area the following:

- A. A 75-foot distance to a perennial stream/river other than an irrigation ditch or canal (House Bill 515)
- B. A 75-foot distance to a residential property boundary (House Bill 515)

- IV. Any swine farm regardless of siting date must meet the 75-foot requirements of item III for any new waste application field put in use after August 27, 1997 which:

- A. As of August 27, 1997, the waste application field was not within the property boundary where the waste was generated or
- B. As of August 27, 1997, the waste application field was not within the property boundary where waste was previously applied from the operation.

Other new waste application fields within the property boundary where the waste is generated or has been previously applied are not required to meet the 75-foot buffer, but must comply with items I and II.

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\* Guidance does not reflect Neuse, Tar-Pam and Jordan Lake Rule requirements

- V. All farms renewing NPDES permits after that date must implement one or a combination of the following waste application setbacks from surface waters including streams, lakes, and other surface waters, and conduits to those waters (40 CFR 412.4):
- A. 100-foot setback (no closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters);
  - B. 35-foot wide vegetated buffer can be substituted for the 100-foot setback specified in A;
  - C. 20-foot wide vegetated setback with water table control structures to trap particulate nutrient losses, or any other compliance alternative approved by the Director of DWQ that provides pollutant reductions equivalent or better than reductions achieved by the 100-foot setback specified in A.