

# **McGUIRE FARM**

VIRGINIA POLLUTION ABATEMENT APPLICATION

FORM D

MUNICIPAL EFFLUENT AND BIOSOLIDS

PART D-VI BIOSOLIDS APPLICATION AGREEMENT

This biosolids application agreement is made on \_\_\_\_\_ between \_\_\_\_\_ referred to here as "landowner", and \_\_\_\_\_, referred to here as the "Permittee".

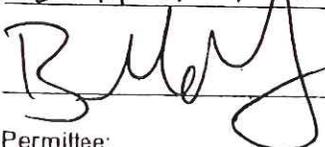
Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as \_\_\_\_\_ ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of biosolids on landowner's land in amounts and in a manner authorized by (VPA) (VPDES) permit number \_\_\_\_\_ which is held by the Permittee.

Landowner acknowledges that the appropriate application of biosolids will be beneficial in providing fertilizer and soil conditioning to the property and consents to the application of biosolids on his property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health:

1. Public access to landowner's land upon which biosolids have been applied should be controlled for at least 30 days following any application of biosolids and no biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
2. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil, or 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation. Other food crops, feed crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
3. Following biosolids application to pasture or hayland sites, meat producing livestock should not be grazed or fed chopped foliage for 30 days and lactating dairy animals should be similarly restricted for a minimum of 60 days. Other animals should be restricted from grazing for 30 days;
4. Supplemental commercial fertilizer or manure applications should be coordinated with the biosolids applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia to be supplied to the landowner by the permittee at the time of application of biosolids to a specific permitted site;
5. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of biosolids borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).
6. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority.

Permittee agrees to notify landowner or landowner designee of the proposed schedule for biosolids application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Landowner:

Brian W. McGuire  
 434-239-4801

Mailing Address:

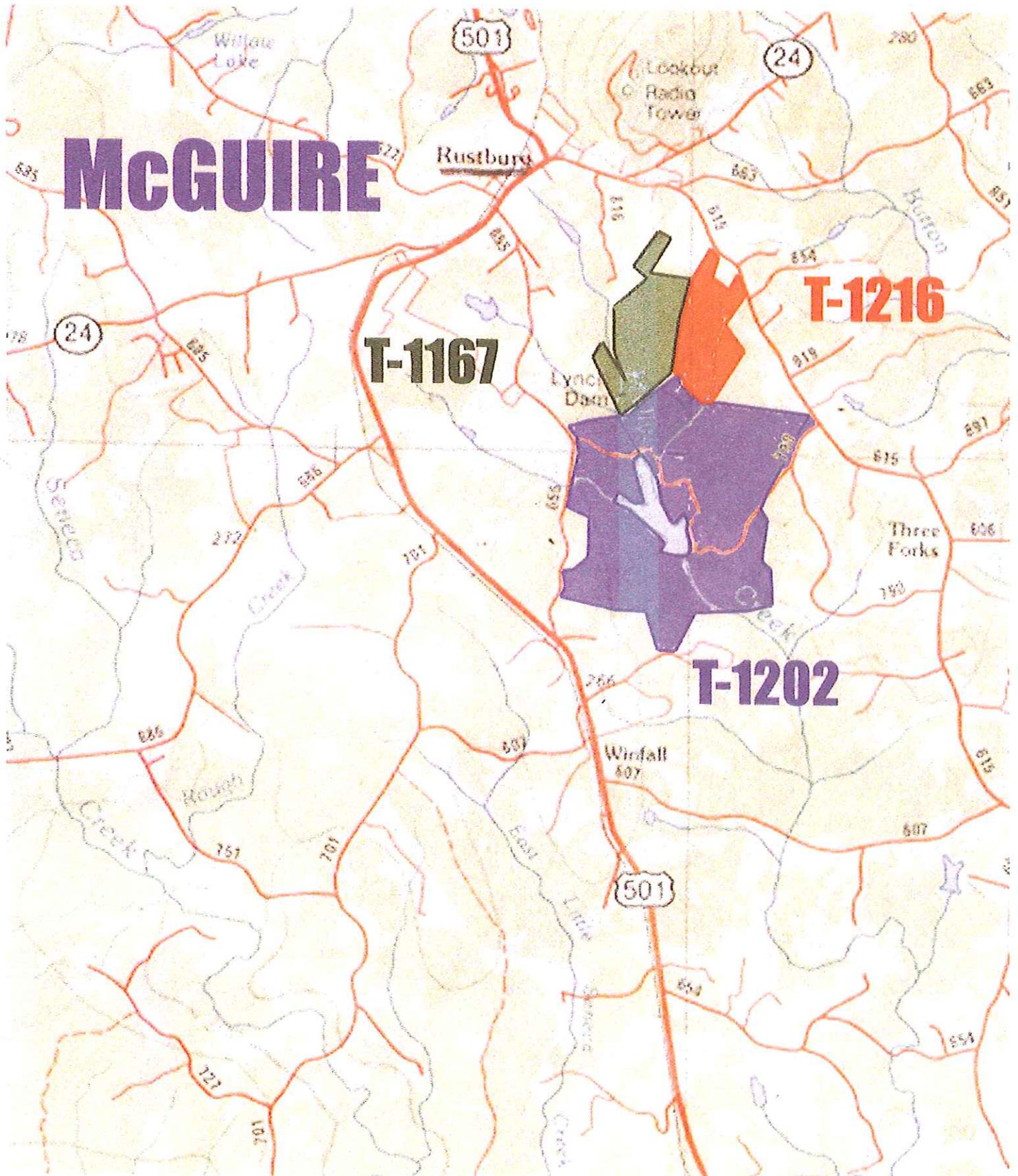
1822 Rocky Rd  
Rustburg VA 24588

Permittee:

Mailing Address:

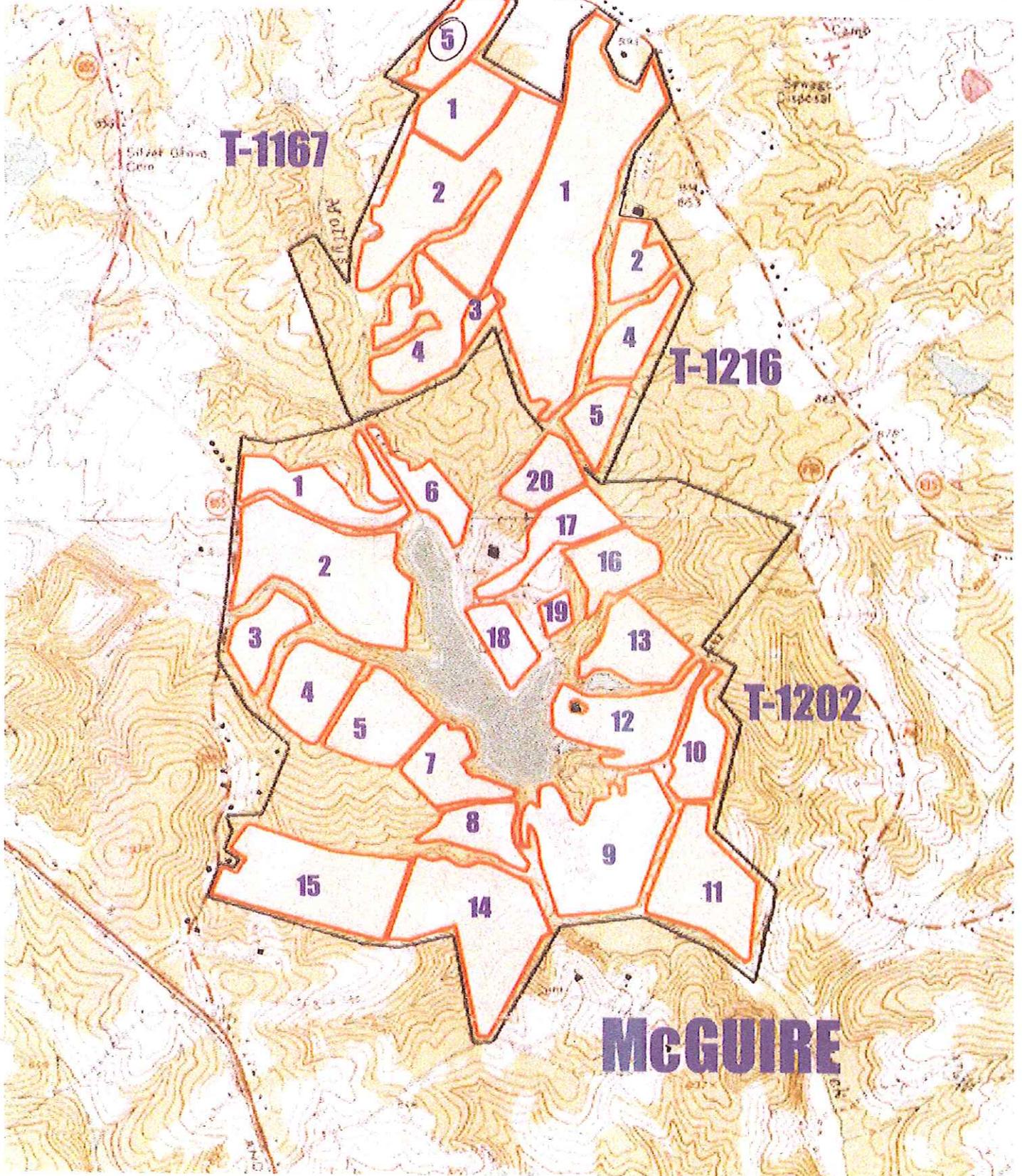
# Nutri Blend

BIO SOLIDS LAND APPLICATION



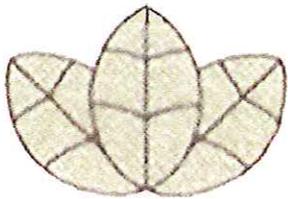
# Nutri Blend

## BIOSOLIDS LAND APPLICATION

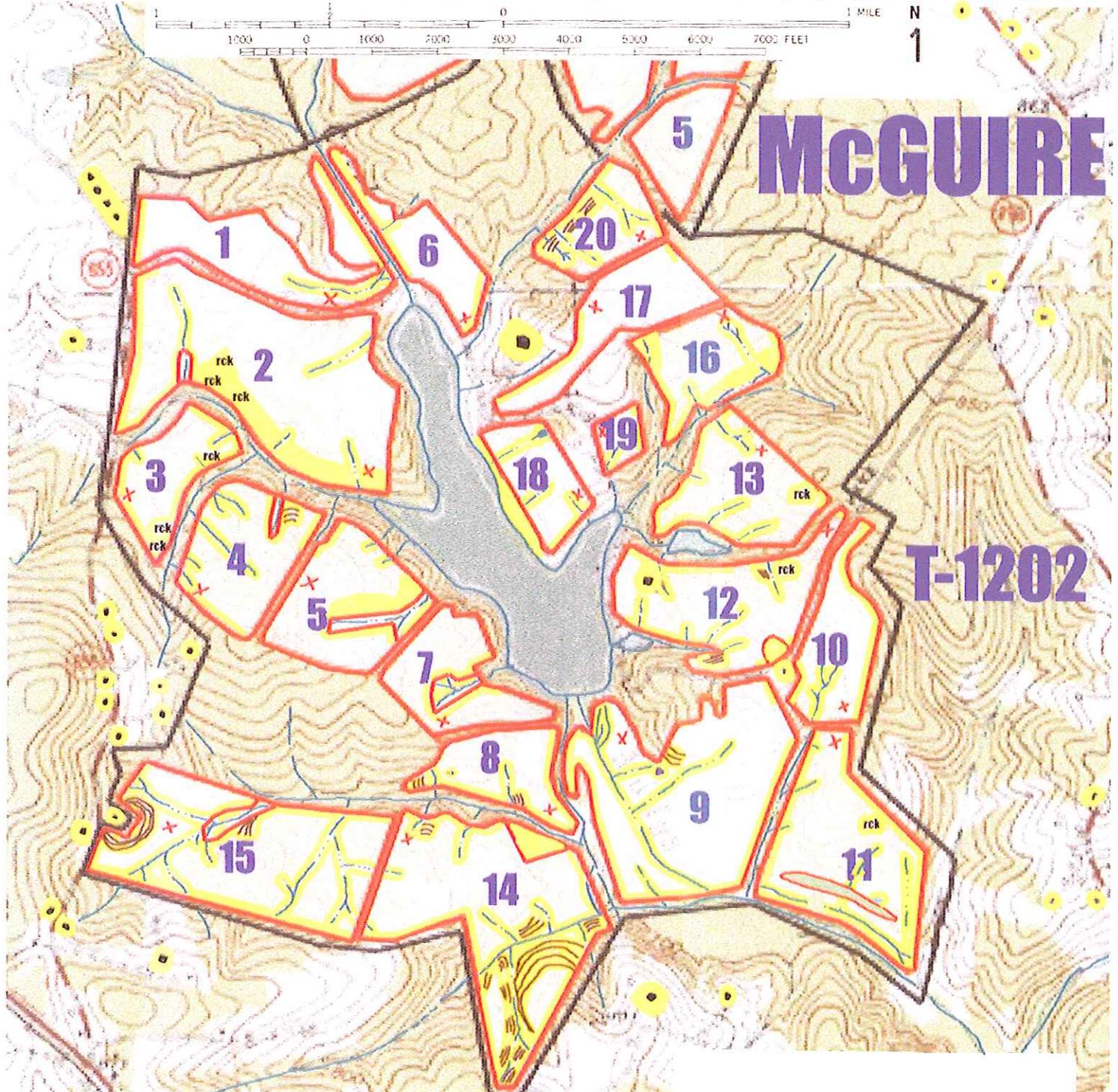
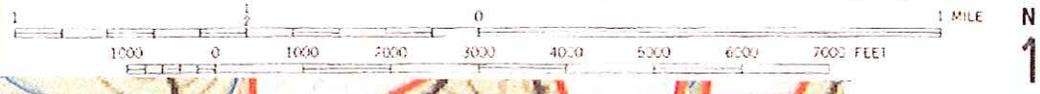


**McGUIRE FARM**  
**TRACTS T-1167, T-1202, T-1216**

# Nutri Blend



## BIO SOLIDS LAND APPLICATION

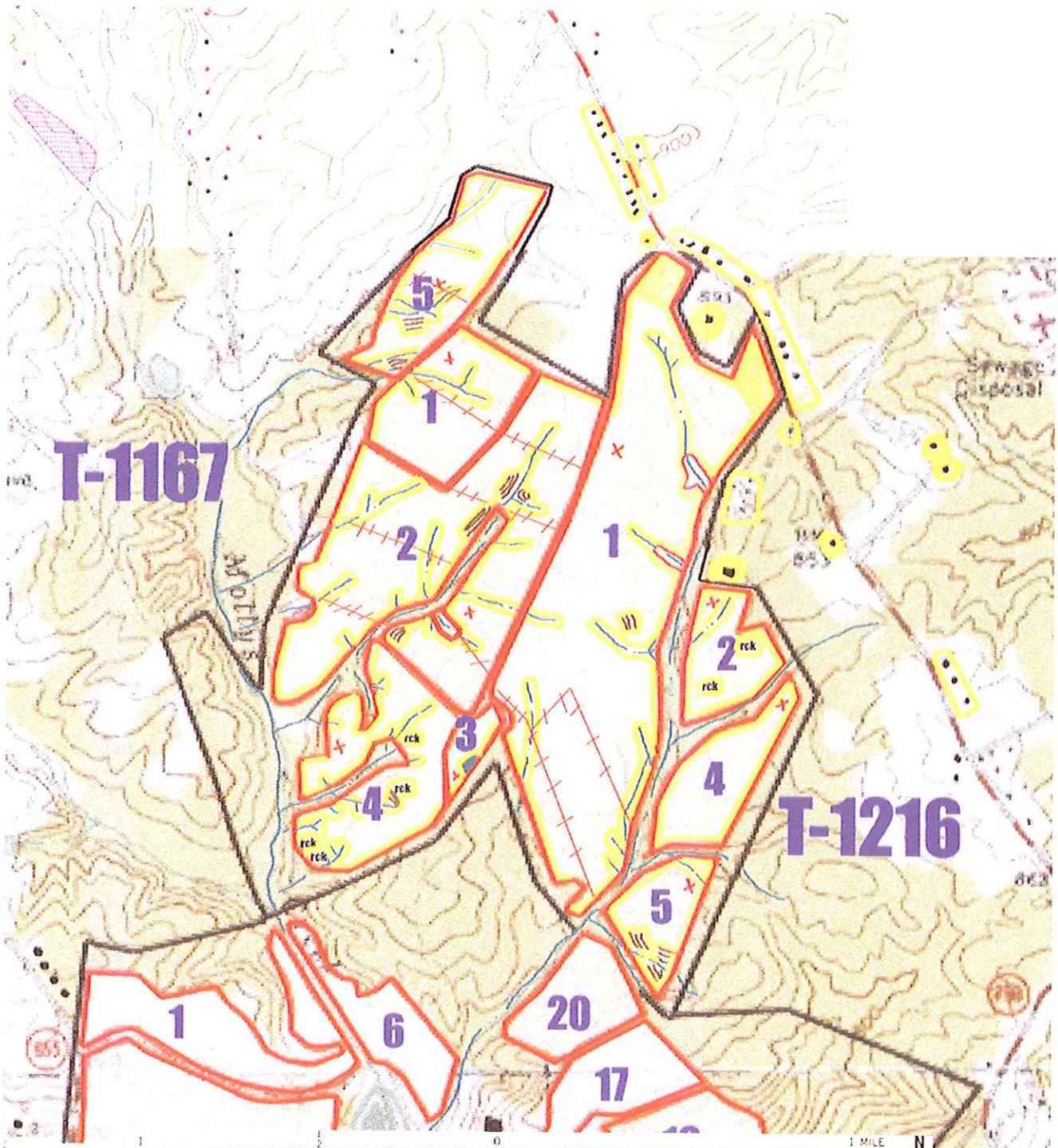


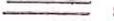
Map not to scale

- |                           |                     |               |
|---------------------------|---------------------|---------------|
| Buffer Area               | Road                | Property Line |
| OR  Dwelling/Structure    | Intermittent stream | Water         |
| Field Coordinate Location | Undeveloped Road    | Wooded Area   |
| Spring                    | Fence               | Rock Outcrop  |

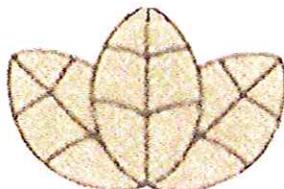
# Nutri Blend

## BIOSOLIDS LAND APPLICATION

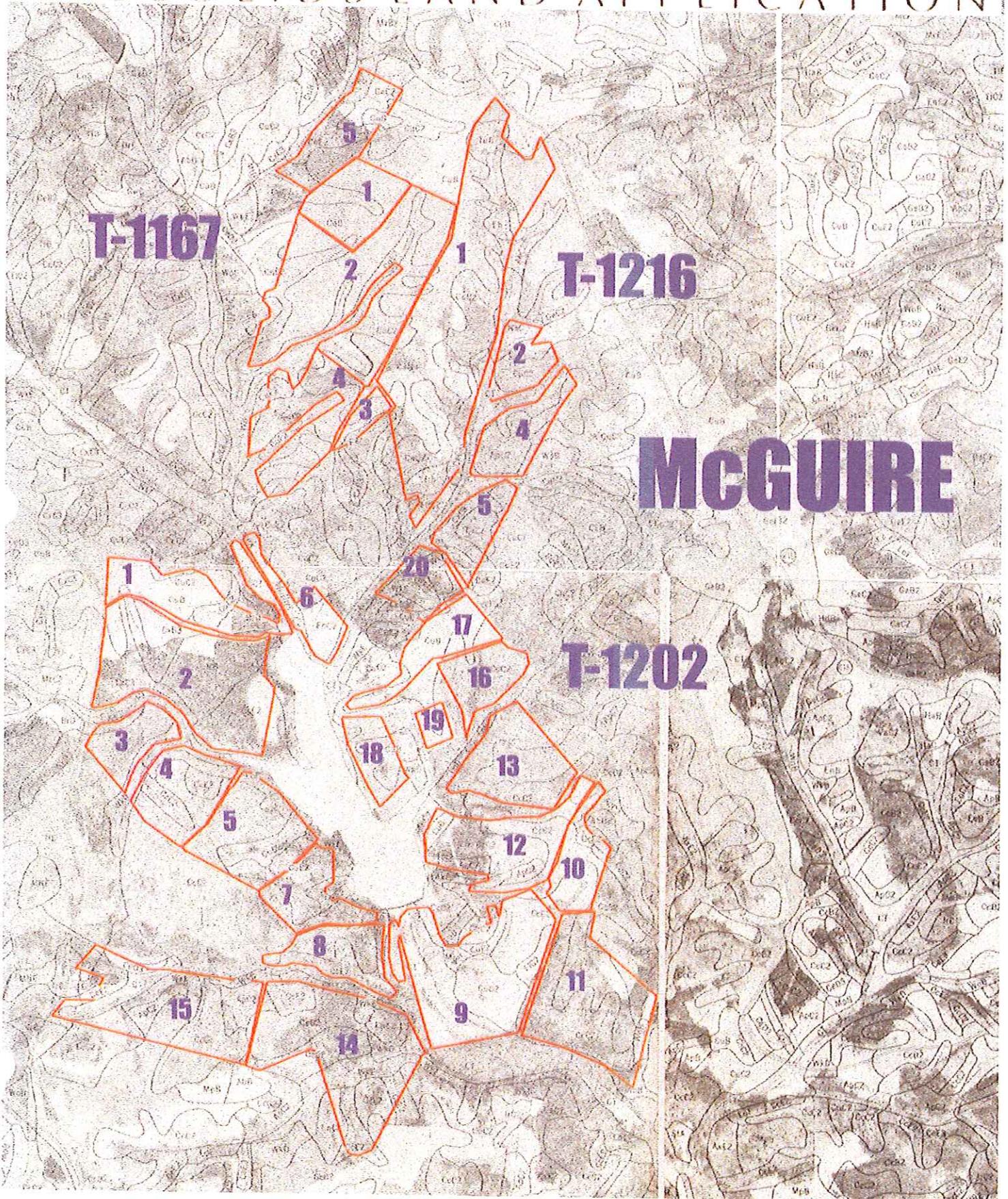


- |                                                                                                                                                                                               |                                                                                                         |                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
|  Buffer Area                                                                                               |  Road                |  Property Line |
|  OR  Dwelling/Structure |  Intermittent stream |  Water         |
|  Field Coordinate Location                                                                                 |  Undeveloped Road    |  Wooded Area   |
|  Fence                                                                                                     |  rck               |  Rock Outcrop  |

# NutriBlend



## BIOSOLIDS LAND APPLICATION



**McGUIRE FARM  
TRACT T-1167  
FIELD DATA SHEET**

Field	Total Acres	Net Acres	Soil Series	Productivity	
				Corn	Hay
1	22.4	21.1	CuB* Cullen loam, 2-6% slopes CuC2 Cullen loam, 6-15% slopes	IIb	II
2	83.5	78.0	CuB* Cullen loam, 2-6% slopes CuC2 Cullen loam, 6-15% slopes Eb Elbert loam CuE2 Cullen loam, 15-25% slopes	IIb	II
3	4.6	4.3	CuC2* Cullen loam, 6-15% slopes CuB Cullen loam, 2-6% slopes EnC2 Enon fine sandy loam, 6-10% slopes CxE3 Cullen clay loam, 15-25% slopes	IIb	II
4	36.9	32.0	CuC2* Cullen loam, 6-15% slopes CuB Cullen loam, 2-6% slopes CuE2 Cullen loam, 15-25% slopes WoB Worsham soils, 0-4% slopes	IIb	II
5	23.1	19.1	CuB* Cullen loam, 2-6% slopes CuC2 Cullen loam, 6-15% slopes CuE2 Cullen loam, 15-25% slopes GeC2 Georgeville loam, 6-15% slopes Eb Elbert loam	IIb	II
<b>SUM</b>	<b>170.5</b>	<b>154.5</b>			

FIELD	LATITUDE	LONGITUDE
1	37°15'99"	79°05'14"
2	37°15'62"	79°05'09"
3	37°15'38"	79°05'16"
4	37°15'48"	79°05'36"
5	37°16'10"	79°05'15"

Report Number:  
R06290-0120  
Account Number:  
73874

**A&L Eastern Laboratories, Inc.**  
7621 Whitepine Road Richmond, Virginia 23237 (804) 743-9401  
Fax No. (804) 271-6446 Email: office@al-labs-eastern.com



Send To: NUTRI-BLEND INC  
POB 38060  
RICHMOND, VA 23231

Grower: PO#8660 MCGUIRE  
T-1167

Submitted By: TIM C

Farm ID: Field ID:

**SOIL ANALYSIS REPORT**

Page: 1 Date Received: 10/16/2006 Date of Analysis: 10/17/2006 Date of Report: 10/18/2006 Analytical Method(s): Mehlich III

Sample Number	Lab Number	Organic Matter		Phosphorus		Potassium	Magnesium	Calcium	Sodium	pH		Acidity	C.E.C.			
		ENR	%	Available	Reserve					K	MG			CA	NA	Soil
		lbs/A	%	ppm	ppm	ppm	ppm	ppm	ppm	Rate	Rate	Rate	Rate			
1	5957	131	4.6	18	L	138	H	1020	M	6.1	6.8	1.1	7.9			
2	5958	132	4.7	19	L	115	H	1130	M	6.1	6.8	1.2	8.5			
3	5959	95	2.7	12	VL	54	L	990	H	6.6	6.9	0.4	6.6			
4	5960	128	4.6	58	H	226	VH	1290	M	6.4	6.8	0.9	9.9			
5	5961	108	3.5	24	L	95	M	1220	H	6.4	6.9	0.8	8.5			
Sample Number	Percent Base Saturation						Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts	Chloride	Aluminum
	K	Mg	Ca	Na	H	%										
	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	Rate	Rate	Rate
1	4.5	17.4	64.4		13.7											
2	3.5	16.6	66.2		13.7											
3	2.1	16.5	75.5		5.9											
4	5.8	20.2	65.1		8.9											
5	2.9	16.6	71.6		8.9											

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by: A & L EASTERN LABORATORIES, INC.

by: *Paul Chu* Paul Chu, Ph.D.

Report Number: R06290-0120  
 Account Number: 73874

# A&L Eastern Laboratories, Inc.

7621 Whitepine Road Richmond, Virginia (804) 743-9401  
 Fax No. (804) 271-6446 Email: office@al-labs-eastern.com



To: NUTRI-BLEND INC  
 POB 38060  
 RICHMOND, VA 23231

For: PO#8660 MCGUIRE  
 T-1167

Copy To: TIMC

Date Received: 10/16/2006  
 Date Reported: 10/18/2006

## SOIL FERTILITY RECOMMENDATIONS

Page: 1

Sample ID	Intended Crop	Yield Goal	Lime Tons/A	Nitrogen N lb/A	Phosphate P2O5 lb/A	Potash K2O lb/A	Magnesium Mg lb/A	Sulfur S lb/A	Zinc Zn lb/A	Manganese Mn lb/A	Iron Fe lb/A	Copper Cu lb/A	Boron B lb/A
1	Adj pH To 6.8		1.3	0	0	0	0	0					
2	Adj pH To 6.8		1.3	0	0	0	0	0					
3	Adj pH To 6.8		1.0	0	0	0	0	0					
4	Adj pH To 6.8		1.0	0	0	0	0	0					
5	Adj pH To 6.8		1.0	0	0	0	0	0					

ALE:Rec

"The recommendations are based on research data and experience, but NO GUARANTEE or WARRANTY expressed or implied, concerning crop performance is made." Our reports and letters are for the exclusive and confidential use of our clients, and may not be reproduced in whole or in part, nor may any reference be made to the work, the results, or the company in any advertising, news release, or other public announcements without obtaining our prior written authorization. Copyright 1977.

*Paul Chu*  
 Paul Chu, Ph.D.

**McGUIRE FARM  
TRACT T-1202  
FIELD DATA SHEET**

Field	Total Acres	Net Acres	Soil Series	Productivity	
				Corn	Hay
1	33.8	31.3	CuB* Cullen loam, 2-6% slopes CuC2 Cullen loam, 6-15% slopes Cx3 Cullen clay loam, 6-15% slopes CT Chewacla-Toccoa complex BrD Bremono loam, 6-15% slopes IrB Iredell loam, 2-6% slopes	IIb	II
2	68.8	61.2	IrB* Iredell loam, 2-6% slopes Cc2 Cecil fine sandy loam, 6-15% slopes Cx3 Cullen clay loam, 6-15% slopes CuB Cullen loam, 2-6% slopes Cu2 Cullen loam, 6-15% slopes Cx3 Cullen clay loam, 2-6% slopes WkF Wilkes loam, 25-60% slopes	V	IV
3	17.0	14.5	IrC* Iredell loam, 6-10% slopes WkD Wilkes loam, 6-15% slopes CT Chewacla-Toccoa complex BrD Bremono loam, 6-15% slopes	V	IV
4	28.3	25.9	Cc2* Cecil fine sandy loam, 6-15% slopes Cc2 Cecil fine sandy loam, 15-25% slopes LoF Louisburg fine sandy loam, 25-60% slopes CT Chewacla-Toccoa complex WkD Wilkes loam, 6-15% slopes	IVa	II
5	24.3	22.0	Cc2* Cecil fine sandy loam, 6-15% slopes LoF Louisburg fine sandy loam, 25-60% slopes CuE2 Cullen loam, 15-25% slopes Cu2 Cullen loam, 6-15% slopes WkE Wilkes loam, 15-25% slopes	IVa	II
6	15.2	14.2	EnC2* Enon fine sandy loam, 6-10% slopes Cu2 Cullen loam, 6-15% slopes CT Chewacla-Toccoa complex	IVa	III
7	22.8	19.3	Cu2* Cullen loam, 6-15% slopes WkE Wilkes loam, 15-25% slopes Cc2 Cecil fine sandy loam, 6-15% slopes CuE2 Cullen loam, 15-25% slopes	IIb	II
8	21.0	18.5	Cc2* Cecil fine sandy loam, 6-15% slopes Cc2 Cecil fine sandy loam, 15-25% slopes WkF Wilkes loam, 25-60% slopes CT Chewacla-Toccoa complex	IVa	II
9	63.0	56.0	CT* Chewacla-Toccoa complex Cc2 Cecil fine sandy loam, 6-15% slopes Cu2 Cullen loam, 6-15% slopes LoD Louisburg fine sandy loam, 6-15% slopes MpC Masada fine sandy loam, 6-15% slopes CuE2 Cullen loam, 15-25% slopes Cc2 Cecil fine sandy loam, 2-6% slopes FIC2 Fluvanna fine sandy loam, 6-15% slopes	IIa	I

10	13.7	11.9	CcC2* Cecil fine sandy loam, 6-15% slopes CcB2 Cecil fine sandy loam, 2-6% slopes ApC2 Appling fine sandy loam, 6-15% slopes CcE2 Cecil fine sandy loam, 15-25% slopes CuC2 Cullen loam, 6-15% slopes	IVa	II
11	31.7	23.0	CcC2* Cecil fine sandy loam, 6-15% slopes CcB2 Cecil fine sandy loam, 2-6% slopes WoB Worsham soils, 0-4% slopes CcE2 Cecil fine sandy loam, 15-25% slopes AbB Abell fine sandy loam, 0-4% slopes CT Chewacla-Toccoa complex	IVa	II
12	34.0	29.3	CcC2* Cecil fine sandy loam, 6-15% slopes CcB2 Cecil fine sandy loam, 2-6% slopes ApC2 Appling fine sandy loam, 6-15% slopes AxE2 Appling-Wedowee fine sandy loam, 15-25% CuB Cullen loam, 2-6% slopes	IVa	II
13	26.5	24.7	CcC2* Cecil fine sandy loam, 6-15% slopes CcB2 Cecil fine sandy loam, 2-6% slopes LoD Louisburg fine sandy loam, 6-15% slopes LoE Louisburg fine sandy loam, 15-25% slopes	IVa	II
14	60.1	40.6	CcB2* Cecil fine sandy loam, 2-6% slopes CcC2 Cecil fine sandy loam, 6-15% slopes WkD Wilkes loam, 6-15% slopes CcE2 Cecil fine sandy loam, 15-25% slopes ApC2 Appling fine sandy loam, 6-15% slopes AbB Abell fine sandy loam, 0-4% slopes WkE Wilkes loam, 15-25% slopes EnC2 Enon fine sandy loam, 6-10% slopes CT Chewacla-Toccoa complex	IVa	II
15	53.7	44.7	CcC2* Cecil fine sandy loam, 6-15% slopes CcB2 Cecil fine sandy loam, 2-6% slopes AbB Abell fine sandy loam, 0-4% slopes ApC2 Appling fine sandy loam, 6-15% slopes WkD Wilkes loam, 6-15% slopes CT Chewacla-Toccoa complex CcE2 Cecil fine sandy loam, 15-25% slopes IrC Iredell loam, 6-10% slopes CeD3 Cecil clay loam, 6-15% slopes	IVa	II
16	17.1	14.4	CuC2* Cullen loam, 6-15% slopes CuB Cullen loam, 2-6% slopes	IIb	II
17	23.1	22.6	CuB* Cullen loam, 2-6% slopes CuC2 Cullen loam, 6-15% slopes	IIb	II
18	21.0	18.0	CuC2* Cullen loam, 6-15% slopes CuB Cullen loam, 2-6% slopes WkD Wilkes loam, 6-15% slopes CT Chewacla-Toccoa complex	IIb	II
19	4.5	3.8	CuC2* Cullen loam, 6-15% slopes CuB Cullen loam, 2-6% slopes	IIb	II
20	16.8	10.3	WkE* Wilkes loam, 15-25% slopes WkD Wilkes loam, 6-15% slopes Cx3 Cullen clay loam, 6-15% slopes CuC2 Cullen loam, 6-15% slopes CuB Cullen loam, 2-6% slopes CuE2 Cullen loam, 15-25% slopes	V	IV
<b>SUM</b>	<b>596.4</b>	<b>506.2</b>			

FIELD	LATITUDE	LONGITUDE
1	37°15'02"	79°05'34"
2	37°14'76"	79°05'39"
3	37°14'73"	79°05'83"
4	37°14'63"	79°05'71"
5	37°14'57"	79°05'54"
6	37°14'97"	79°05'18"
7	37°14'37"	79°05'27"
8	37°14'26"	79°05'06"
9	37°14'38"	79°04'93"
10	37°14'45"	79°04'54"
11	37°14'35"	79°04'51"
12	37°14'67"	79°04'52"
13	37°14'77"	79°04'67"
14	37°14'25"	79°05'32"
15	37°14'25"	79°05'76"
16	37°14'97"	79°04'73"
17	37°14'96"	79°04'98"
18	37°14'73"	79°04'99"
19	37°14'81"	79°04'96"
20	37°15'14"	79°04'85"

Report Number:  
R06290-0121

Account Number:  
73874

**A&L Eastern Laboratories, Inc.**  
7621 Whitepine Road Richmond, Virginia 23237 (804) 743-9401  
Fax No. (804) 271-6446 Email: office@al-labs-eastern.com



Send To: NUTRI-BLEND INC  
POB 38060  
RICHMOND, VA 23231

Grower: PO#8660 MCGUIRE  
T-1202

Submitted By: TIM C

Farm I D: Field I D:

**SOIL ANALYSIS REPORT**

Page: 1 Date Received: 10/16/2006 Date of Analysis: 10/17/2006 Date of Report: 10/18/2006

Analytical Method(s):  
Mehlich III

Sample Number	Lab Number	Organic Matter		Phosphorus		Potassium		Magnesium		Calcium		Sodium		pH		Acidity H meq/100g	C.E.C. meq/100g						
		%	ENR lbs/A	Available ppm	Rate	Reserve ppm	Rate	K ppm	Rate	MG ppm	Rate	CA ppm	Rate	NA ppm	Rate			Soil pH	Buffer Index				
1	5964	2.3	84	L	21	L	88	M	235	H	1280	H			7.0		8.6						
2	5965	2.6	89	M	19	L	111	M	255	H	1340	H			7.0		9.1						
3	5966	3.1	93	M	17	L	39	VL	610	VH	1590	M			7.0		13.1						
4	5967	2.8	94	M	34	M	116	H	195	H	1250	H			7.0		8.2						
5	5968	3.6	113	M	22	L	121	H	160	H	920	H			6.8	6.9	0.2	6.4					
Sample Number	Percent Base Saturation			Nitrate		Sulfur		Zinc		Manganese		Iron		Copper		Boron		Soluble Salts		Chloride		Aluminum	
	K %	Mg %	Ca %	Na %	H %	NO3-N ppm	SO4-S ppm	ZN ppm	MN ppm	FE ppm	CU ppm	B ppm	Rate ppm	Rate ppm	Rate ppm	Rate ppm	Rate ppm	Rate ppm	ms/cm	ms/cm	Rate ppm	Rate ppm	AL ppm
1	2.6	22.8	74.6																				
2	3.1	23.3	73.5																				
3	0.8	38.7	60.5																				
4	3.6	19.9	76.5																				
5	4.8	20.7	71.5		2.9																		

Values on this report represent the plant available nutrients in the soil.  
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).  
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre),  
ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).  
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by:  
A & L EASTERN LABORATORIES, INC.  
by: *Paul Chu*  
Paul Chu, Ph.D.

Report Number:  
R06290-0121  
Account Number:  
73874

**A&L Eastern Laboratories, Inc.**  
7621 Whitepine Road Richmond, Virginia 23237 (804) 743-9401  
Fax No. (804) 271-6446 Email: office@al-labs-eastern.com



Send To: NUTRI-BLEND INC  
POB 38060  
RICHMOND, VA 23231

Grower: PO#8660 MCGUIRE  
T-1202

Submitted By: TIM C

Farm ID: Field ID:

**SOIL ANALYSIS REPORT**

Page: 2 Date Received: 10/16/2006 Date of Analysis: 10/17/2006 Date of Report: 10/18/2006

Analytical Method(s):  
Mehlich III

Sample Number	Lab Number	Organic Matter		Phosphorus		Potassium		Magnesium		Calcium		Sodium		pH		Acidity H meq/100g	C.E.C. meq/100g					
		%	ENR lbs/A	Available ppm	Reserve ppm	Rate	Rate	K ppm	Rate	MG ppm	Rate	CA ppm	Rate	NA ppm	Rate			Soil pH	Buffer Index			
6	5969	2.3	84	L	20	L	79	L	215	H	1240	H			7.0		8.2					
7	5970	3.6	110	M	26	L	132	H	210	H	1260	H			7.0		8.4					
8	5971	3.2	105	M	13	VL	63	L	140	H	1020	H			7.0		6.4					
9	5972	3.9	114	M	31	M	140	H	235	H	1300	M			6.4	6.8	0.9	9.7				
10	5973	3.5	108	M	39	M	85	M	200	H	1220	H			6.7	6.9	0.4	8.4				
Sample Number	Percent Base Saturation						Nitrate		Sulfur		Iron		Copper		Boron		Soluble Salts		Chloride		Aluminum	
	K %	Mg %	Ca %	Na %	H %	NO3-N ppm	SO4-S ppm	FE ppm	CU ppm	B ppm	ms/cm	Rate	ms/cm	Rate	CL ppm	AL ppm						
6	2.5	21.9	75.7																			
7	4.0	20.9	75.1																			
8	2.5	18.1	79.3																			
9	3.7	20.2	67.1		8.9																	
10	2.6	19.9	73.0		4.5																	

Values on this report represent the plant available nutrients in the soil.  
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).  
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre),  
ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).  
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by:  
A & L EASTERN LABORATORIES, INC.

by: *Paul Chu*  
Paul Chu, Ph.D.

Report Number:  
R06290-0121  
Account Number:  
73874

**A&L Eastern Laboratories, Inc.**  
7621 Whitepine Road Richmond, Virginia 23237 (804) 743-9401  
Fax No. (804) 271-6446 Email: office@al-labs-eastern.com



Send To: NUTRI-BLEND INC  
POB 38060  
RICHMOND, VA 23231

Grower: PO#8660 MCGUIRE  
T-1202

Submitted By: TIM C

Farm ID: Field ID:

**SOIL ANALYSIS REPORT**

Page: 3 Date Received: 10/16/2006 Date of Analysis: 10/17/2006 Date of Report: 10/18/2006 Analytical Method(s): Mehlich III

Sample Number	Lab Number	Organic Matter		Phosphorus		Potassium K ppm	Magnesium MG ppm	Calcium CA ppm	Sodium NA ppm	pH		Acidity H meq/100g	C.E.C. meq/100g				
		%	ENR lbs/A	Available ppm	Reserve ppm					Rate	Rate			Rate	Rate	Soil pH	Buffer Index
11	5974	3.0	102	M	13	VL	73	L	120	H	650	M	5.8	6.8	1.0	5.5	
12	5975	2.7	94	M	18	L	107	H	150	H	1010	H	6.8	6.9	0.2	6.8	
13	5976	3.6	110	M	50	M	181	H	205	H	1130	M	6.4	6.9	0.8	8.6	
14	5977	5.0	138	H	20	L	108	M	170	H	1270	H	6.5	6.9	0.6	8.7	
15	5978	3.6	111	M	28	L	70	L	150	H	1160	H	6.5	6.9	0.6	7.8	
Sample Number	Percent Base Saturation						Nitrate NO3-N ppm	Sulfur SO4-S ppm	Zinc ZN ppm	Manganese MN ppm	Iron FE ppm	Copper CU ppm	Boron B ppm	Soluble Salts		Chloride CL ppm	Aluminum AL ppm
	K %	Mg %	Ca %	Na %	H %	Rate								Rate	Rate		
11	3.4	18.2	59.3		19.0												
12	4.1	18.5	74.6		2.9												
13	5.4	19.9	65.8		8.9												
14	3.2	16.3	73.1		7.4												
15	2.3	16.0	74.3		7.4												

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by: A & L EASTERN LABORATORIES, INC.

by: *Paul Chu*  
Paul Chu, Ph.D.

Report Number:  
R06290-0121  
Account Number:  
73874

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RICHMOND, VA 23231

Grower: PO#8660 MCGUIRE  
T-1202

Submitted By: TIM C

Farm ID: Field ID:

**SOIL ANALYSIS REPORT**

Analytical Method(s):  
Mehlich III

Page: 4 Date Received: 10/16/2006 Date of Analysis: 10/17/2006 Date of Report: 10/18/2006

Sample Number	Lab Number	Organic Matter		Phosphorus		Potassium K	Magnesium MG	Calcium CA	Sodium NA	pH	Acidity H	C.E.C.					
		%	ENR lbs/A	Available ppm	Reserve ppm								ppm	Rate	ppm	Rate	ppm
16	5979	3.6	112	M	23	L	98	M	165	H	900	M	6.2	6.9	0.8	7.0	
17	5980	3.5	108	M	34	M	174	H	215	H	1230	H	6.8	6.9	0.3	8.6	
18	5981	4.1	115	M	148	VH	308	VH	330	H	1570	M	6.9	6.9	0.2	11.5	
19	5982	4.2	116	M	221	VH	546	VH	355	H	1620	M	7.2			12.5	
20	5983	3.4	105	M	35	M	147	H	235	H	1180	M	6.3	6.8	1.0	9.2	
Sample Number	Percent Base Saturation						Nitrate NO3-N	Sulfur SO4-S	Zinc ZN	Manganese MN	Iron FE	Copper CU	Boron B	Soluble Salts		Chloride CL	Aluminum AL
	K %	Mg %	Ca %	Na %	H %									ppm	Rate		
16	3.6	19.7	64.5		12.1												
17	5.2	20.7	71.2		2.9												
18	6.8	23.8	68.0		1.4												
19	11.2	23.7	65.0														
20	4.1	21.3	64.1		10.6												

Values on this report represent the plant available nutrients in the soil.  
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).  
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre),  
ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).  
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by:  
A & L EASTERN LABORATORIES, INC.

by: *Paul Chu*  
Paul Chu, Ph.D.

Report Number: R06290-0121  
 Account Number: 73874

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To: NUTRI-BLEND INC  
 POB 38060  
 RICHMOND, VA 23231

For: PO#8660 MCGUIRE  
 T-1202

Copy To: TIM C

Date Received: 10/16/2006  
 Date Reported: 10/18/2006

## SOIL FERTILITY RECOMMENDATIONS

Page: 1

Sample ID	Intended Crop	Yield Goal	Lime Tons/A	Nitrogen N lb/A	Phosphate P2O5 lb/A	Potash K2O lb/A	Magnesium Mg lb/A	Sulfur S lb/A	Zinc Zn lb/A	Manganese Mn lb/A	Iron Fe lb/A	Copper Cu lb/A	Boron B lb/A
1	Adj pH To 6.8		0.0	0	0	0	0						
2	Adj pH To 6.8		0.0	0	0	0	0						
3	Adj pH To 6.8		0.0	0	0	0	0						
4	Adj pH To 6.8		0.0	0	0	0	0						
5	Adj pH To 6.8		0.0	0	0	0	0						

ALB/HC

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*Paul Chu*  
 Paul Chu, Ph.D.

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## SOIL FERTILITY RECOMMENDATIONS

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Sample ID	Intended Crop	Yield Goal	Lime Tons/A	Nitrogen N lb/A	Phosphate P2O5 lb/A	Potash K2O lb/A	Magnesium Mg lb/A	Sulfur S lb/A	Zinc Zn lb/A	Manganese Mn lb/A	Iron Fe lb/A	Copper Cu lb/A	Boron B lb/A
6	Adj pH To 6.8		0.0	0	0	0	0						
7	Adj pH To 6.8		0.0	0	0	0	0						
8	Adj pH To 6.8		0.0	0	0	0	0						
9	Adj pH To 6.8		1.0	0	0	0	0						
10	Adj pH To 6.8		0.0	0	0	0	0						

AL-E-046

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Paul Chu, Ph.D.

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## SOIL FERTILITY RECOMMENDATIONS

Page: 3

Sample ID	Intended Crop	Yield Goal	Lime Tons/A	Nitrogen N lb/A	Phosphate P2O5 lb/A	Potash K2O lb/A	Magnesium Mg lb/A	Sulfur S lb/A	Zinc Zn lb/A	Manganese Mn lb/A	Iron Fe lb/A	Copper Cu lb/A	Boron B lb/A
11	Adj pH To 6.8		1.5	0	0	0	0						
12	Adj pH To 6.8		0.0	0	0	0	0						
13	Adj pH To 6.8		1.0	0	0	0	0						
14	Adj pH To 6.8		1.0	0	0	0	0						
15	Adj pH To 6.8		1.0	0	0	0	0						

**Sample 11:** Apply dolomitic lime to raise pH and improve the magnesium level.

ALC/REC

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 Paul Chu, Ph.D.

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## SOIL FERTILITY RECOMMENDATIONS

Page: 4

Sample ID	Intended Crop	Yield Goal	Lime Tons/A	Nitrogen N lb/A	Phosphate P2O5 lb/A	Potash K2O lb/A	Magnesium Mg lb/A	Sulfur S lb/A	Zinc Zn lb/A	Manganese Mn lb/A	Iron Fe lb/A	Copper Cu lb/A	Boron B lb/A
16	Adj pH To 6.8		1.3	0	0	0	0						
17	Adj pH To 6.8		0.0	0	0	0	0						
18	Adj pH To 6.8		0.0	0	0	0	0						
19	Adj pH To 6.8		0.0	0	0	0	0						
20	Adj pH To 6.8		1.0	0	0	0	0						

AL-REC

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*Paul Chu*  
 Paul Chu, Ph.D.

**McGUIRE FARM  
TRACT T-1216  
FIELD DATA SHEET**

Field	Total Acres	Net Acres	Soil Series	Productivity	
				Corn	Hay
1	119.1	108.0	CuB* Cullen loam, 2-6% slopes TuB Turbeville fine sandy loam, 2-6% slopes Eb Elbert loam GeC2 Georgeville loam, 6-15% slopes GeB2 Georgeville loam, 2-6% slopes ApC2 Appling fine sandy loam, 6-15% slopes CT Chewacla-Toccoa complex CuC2 Cullen loam, 6-15% slopes Cx3 Cullen clay loam, 6-15% slopes CuE2 Cullen loam, 15-25% slopes	IIb	II
2	17.3	15.8	CuC2* Cullen loam, 6-15% slopes GeB2 Georgeville loam, 2-6% slopes CT Chewacla-Toccoa complex NaC Nason loam, 6-15% slopes	IIb	II
4	17.2	15.7	EnC2* Enon fine sandy loam, 6-10% slopes CT Chewacla-Toccoa complex WoB Worsham soils, 0-4% slopes CuC2 Cullen loam, 6-15% slopes CuB Cullen loam, 2-6% slopes	IVa	III
5	13.2	9.0	Cx3* Cullen clay loam, 6-15% slopes, svrly erdd Cx3 Cullen clay loam, 15-25% slopes CuC2 Cullen loam, 6-15% slopes CT Chewacla-Toccoa complex CuE2 Cullen loam, 15-25% slopes WkE Wilkes loam, 15-25% slopes	IIIb**	III**
<b>SUM</b>	<b>166.8</b>	<b>148.5</b>			

\*\* - Severe Erosion, 25% Yield Reduction

FIELD	LATITUDE	LONGITUDE
1	37°15'86"	79°04'86"
2	37°15'65"	79°04'70"
4	37°15'52"	79°04'58"
5	37°15'29"	79°04'72"

Report Number:  
R06290-0119  
Account Number:  
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Grower: PO#8660 MCGUIRE  
T-1216

Submitted By: TIM C.

Farm I D: Field I D:

**SOIL ANALYSIS REPORT**

Analytical Method(s):  
Mehlich III

Page: 1 Date Received: 10/16/2006 Date of Analysis: 10/17/2006 Date of Report: 10/18/2006

Sample Number	Lab Number	Organic Matter		Phosphorus		Potassium		Magnesium		Calcium		Sodium		pH		Acidity		C.E.C.
		%	ENR lbs/A	Available ppm	Reserve ppm	K ppm	Rate	Mg ppm	Rate	CA ppm	Rate	NA ppm	Rate	Soil pH	Buffer Index	H meq/100g	Rate	
1	5953	3.3	106	M	14	L	124	H	135	H	870	M			6.1	6.8	0.9	6.7
2	5954	3.0	99	M	11	VL	83	M	145	H	1010	M			6.2	6.8	0.9	7.4
4	5955	2.8	95	M	9	VL	35	VL	185	H	1080	H			6.7	6.9	0.3	7.4
5	5956	3.6	110	M	15	L	128	H	180	H	1310	H			7.1			8.4
Sample Number	Percent Base Saturation						Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts		Chloride		Aluminum
	K %	Mg %	Ca %	Na %	H %	SO4-S ppm								ZN ppm	MN ppm	FE ppm	CU ppm	
1	4.7	16.8	64.8		13.7													
2	2.9	16.4	68.6		12.1													
4	1.2	20.9	73.4		4.5													
5	3.9	17.9	78.2															

Values on this report represent the plant available nutrients in the soil.  
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).  
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre),  
ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).  
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by:  
A & L EASTERN LABORATORIES, INC.  
by: *Paul Chu*  
Paul Chu, Ph.D.

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## SOIL FERTILITY RECOMMENDATIONS

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Sample ID	Intended Crop	Yield Goal	Lime Tons/A	Nitrogen N lb/A	Phosphate P2O5 lb/A	Potash K2O lb/A	Magnesium Mg lb/A	Sulfur S lb/A	Zinc Zn lb/A	Manganese Mn lb/A	Iron Fe lb/A	Copper Cu lb/A	Boron B lb/A
1	Adj pH To 6.8		1.3	0	0	0	0						
2	Adj pH To 6.8		1.3	0	0	0	0						
4	Adj pH To 6.8		0.0	0	0	0	0						
5	Adj pH To 6.8		0.0	0	0	0	0						

ALL-REC

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