



Predictive

Soil Report

[Links to Helpful Information](#)

Mehlich-3 Extraction

Sampled: 05/16/2018
 Received: 05/21/2018
 Completed: 05/25/2018

Client: R M Hayes
 1646 Stricklands Crossroads Rd
 Four Oaks, NC 27524

Sampled County : Johnston

Client ID: 151011

Advisor: Miller Jonathan
 Agriment Services Inc.
 PO Box 1096
 Beulaville, NC 28518

Advisor ID: 402553

Farm: 51-34

Sample ID: RM-A	Recommendations: Crop	Lime (tons/acre)	Nutrients (lb/acre)										More Information Note: 12 Note: \$ Note: 3 Note: \$							
			N	P ₂ O ₅	K ₂ O	Mg	S	Mn	Zn	Cu	B									
Lime History:	1 - Bermuda hay/past., M	0.0	180-220	0	80	0	0	pH\$	0	0	0									
	2 - Small Grain (SG)	0.0	80-100	0	20	0	0	pH\$	0	0	0									

Test Results [units - W/V in g/cm³; CEC and Na in meq/100 cm³; NO₃-N in mg/dm³]:

Soil Class: Mineral

HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	S-I	Mn-I	Mn-AI1	Mn-AI2	Zn-I	Zn-AI	Cu-I	Na	ESP	SS-I	NO ₃ -N
0.56	1.31	5.4	90	0.6	6.5	230	67	59	24	31	85	60	53	520	520	222	0.2	4		

Sample ID: RM-B	Recommendations: Crop	Lime (tons/acre)	Nutrients (lb/acre)										More Information Note: 12 Note: 3 Note: \$							
			N	P ₂ O ₅	K ₂ O	Mg	S	Mn	Zn	Cu	B									
Lime History:	1 - Bermuda hay/past., M	0.5	180-220	0	180	25	25	0	0	0	0									
	2 - Small Grain (SG)	0.0	80-100	0	90	\$	25	0	0	0										

Test Results [units - W/V in g/cm³; CEC and Na in meq/100 cm³; NO₃-N in mg/dm³]:

Soil Class: Mineral

HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	S-I	Mn-I	Mn-AI1	Mn-AI2	Zn-I	Zn-AI	Cu-I	Na	ESP	SS-I	NO ₃ -N
0.51	1.45	3.2	64	1.2	5.5	153	25	51	9	25	75	62	55	93	93	63	0.1	3		

Sample ID: RM-C	Recommendations: Crop	Lime (tons/acre)	Nutrients (lb/acre)										More Information Note: 12 Note: 3 Note: \$							
			N	P ₂ O ₅	K ₂ O	Mg	S	Mn	Zn	Cu	B									
Lime History:	1 - Bermuda hay/past., M	0.5	180-220	0	160	25	25	0	0	0										
	2 - Small Grain (SG)	0.0	80-100	0	80	\$	25	0	0	0										

Test Results [units - W/V in g/cm³; CEC and Na in meq/100 cm³; NO₃-N in mg/dm³]:

Soil Class: Mineral

HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	S-I	Mn-I	Mn-AI1	Mn-AI2	Zn-I	Zn-AI	Cu-I	Na	ESP	SS-I	NO ₃ -N
0.60	1.49	3.2	62	1.2	5.5	170	30	49	8	22	65	56	49	83	83	71	0.1	3		



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

Sample ID: RM-D	Recommendations:	Nutrients (lb/acre)										More Information
		Lime (tons/acre)	N	P₂O₅	K₂O	Mg	S	Mn	Zn	Cu	B	
		Crop	180-220	0	110	0	0	pH\$	0	0	0	
Lime History:	1 - Bermuda hay/past., M	0.0	80-100	0	40	0	0	pH\$	0	0	0	0
	2 - Small Grain (SG)	0.0	80-100	0	40	0	0	pH\$	0	0	0	0

Test Results [units - W/V in g/cm³; CEC and Na in meq/100 cm³; NO₃-N in mg/dm³]:										Soil Class: Mineral										
HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	S-I	Mn-I	Mn-AI1	Mn-AI2	Zn-I	Zn-AI	Cu-I	Na	ESP	SS-I	NO₃-N
0.22	1.31	5.9	93	0.4	6.7	230	51	62	26	27	139	89	82	1094	1094	285	0.2	3		

Sample ID: RM-E	Recommendations:	Nutrients (lb/acre)										More Information								
		Lime (tons/acre)	N	P₂O₅	K₂O	Mg	S	Mn	Zn	Cu	B									
		Crop	180-220	0	0	0	0	0	0	0	0									
Lime History:	1 - Bermuda hay/past., M	0.0	80-100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2 - Small Grain (SG)	0.0	80-100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Test Results [units - W/V in g/cm³; CEC and Na in meq/100 cm³; NO₃-N in mg/dm³]:										Soil Class: Mineral										
HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	S-I	Mn-I	Mn-AI1	Mn-AI2	Zn-I	Zn-AI	Cu-I	Na	ESP	SS-I	NO₃-N
0.51	1.28	5.7	87	0.7	6.3	219	153	57	17	30	122	86	79	436	436	175	0.5	9		

Sample ID: RM-F	Recommendations:	Nutrients (lb/acre)										More Information								
		Lime (tons/acre)	N	P₂O₅	K₂O	Mg	S	Mn	Zn	Cu	B									
		Crop	140-180	0	20	0	0	0	0	0	0									
Lime History:	1 - Millet, pearl	0.0	80-100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2 - Small Grain (SG)	0.0	80-100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Test Results [units - W/V in g/cm³; CEC and Na in meq/100 cm³; NO₃-N in mg/dm³]:										Soil Class: Mineral										
HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	S-I	Mn-I	Mn-AI1	Mn-AI2	Zn-I	Zn-AI	Cu-I	Na	ESP	SS-I	NO₃-N
0.32	1.28	5.5	91	0.5	6.4	123	89	60	23	109	79	58	51	265	265	125	0.2	4		

Sample ID: RM-G	Recommendations:	Nutrients (lb/acre)										More Information								
		Lime (tons/acre)	N	P₂O₅	K₂O	Mg	S	Mn	Zn	Cu	B									
		Crop	0	0	0	0	0	pH\$	0	0	0									
Lime History:	1 - Soybean	0.0	120 - 160	0	0	0	0	0	0	pH\$	0	0	0	0	0	0	0	0	0	0
	2 - Corn, grain	0.0	120 - 160	0	0	0	0	0	0	pH\$	0	0	0	0	0	0	0	0	0	0

Test Results [units - W/V in g/cm³; CEC and Na in meq/100 cm³; NO₃-N in mg/dm³]:										Soil Class: Mineral										
HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	S-I	Mn-I	Mn-AI1	Mn-AI2	Zn-I	Zn-AI	Cu-I	Na	ESP	SS-I	NO₃-N
0.22	1.28	4.6	91	0.4	6.7	186	83	58	24	32	97	58	65	427	427	193	0.4	9		

R M Hayes

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Sample ID: RM-H	Recommendations:	Lime (tons/acre)	Nutrients (lb/acre)									More Information
			N	P ₂ O ₅	K ₂ O	Mg	S	Mn	Zn	Cu	B	
Lime History:	1 - Bermuda hay/past., M	0.0	180-220	0	70	0	0	pH\$	0	0	0	Note: 12 Note: \$ Note: 3 Note: \$
	2 - Small Grain (SG)	0.0	80-100	0	10	0	0	pH\$	0	0	0	

Test Results [units - W/V in g/cm ³ ; CEC and Na in meq/100 cm ³ ; NO ₃ -N in mg/dm ³]:													Soil Class: Mineral							
HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	S-I	Mn-I	Mn-Al1	Mn-Al2	Zn-I	Zn-Al	Cu-I	Na	ESP	SS-I	NO ₃ -N
0.41	1.29	7.1	94	0.4	6.8	238	70	64	26	29	107	68	61	877	877	245	0.2	3		

Understanding the Soil Report: explanation of measurements, abbreviations and units

Recommendations

Lime

If testing finds that soil pH is too low for the crop(s) indicated, a **lime recommendation** will be given in units of either ton/acre or lb/1000 sq ft. For best results, mix the lime into the top 6 to 8 inches of soil several months before planting. For no-till or established plantings where this is not possible, apply no more than 1 to 1.5 ton/acre (50 lb/1000 sq ft) at one time, even if the report recommends more. You can apply the rest in similar increments every six months until the full rate is applied. If MG is recommended and lime is needed, use dolomitic lime.

Fertilizer

Recommendations **for field crops or other large areas** are listed separately for each nutrient to be added (in units of lb/acre unless otherwise specified). Recommendations for N (and sometimes for B) are based on research/field studies for the crop being grown, not on soil test results. K-I and P-I values are based on test results and should be > 50. If they are not, follow the fertilizer recommendations given. If Mg is needed and no lime is recommended, 0-0-22 (11.5% Mg) is an excellent source; 175 to 250 lb per acre alone or in a fertilizer blend will usually satisfy crop needs, SS-I levels appear only on reports for greenhouse soil or problem samples.

Farmers and other commercial producers should pay special attention to **micronutrient levels**. If \$, pH\$, \$pH, C or Z notations appear on the soil report, refer to Note: Secondary Nutrients and Micronutrients. In general, homeowners do not need to be concerned about micronutrients. Various crop notes also address lime fertilizer needs; visit ncagr.gov/agronomi/pubs.htm.

Recommendations **for small areas, such as home lawns/gardens**, are listed in units of lb/1000 sq ft. If you cannot find the exact fertilizer grade recommended on the report, visit www.ncagr.gov/agronomi/obpart4.htm for information that may help you choose a comparable alternate. For more information, read A Homeowner's Guide to Fertilizer.

Test Results

The first seven values [soil class, HM%, W/V, CEC, BS%, Ac and pH] describe the soil and its degree of acidity. The remaining 16 [P-I, K-I, Ca%, Mg%, Mn-I, Mn-AI1, Mn-AI2, Zn-I, Zn-AI, Cu-I, S-I, SS-I, Na, ESP, SS-I, NO3-N (not routinely available)] indicate levels of plant nutrients or other fertility measurement. Visit www.ncagr.gov/agronomi/uyrst.htm

Report Abbreviations

Ac	exchangeable acidity
B	boron
BS%	% CEC occupied by basic cations
Ca%	% CEC occupied by calcium
CEC	cation exchange capacity
Cu-I	copper index
ESP	exchangeable sodium percent
HM%	percent humic matter
K-I	potassium index
K2O	potash
Mg%	% CEC occupied by magnesium
MIN	mineral soil class
Mn	manganese
Mn-AI1	Mn-availability index for crop 1
Mn-AI2	Mn-availability index for crop 2
Mn-I	manganese index
M-O	mineral-organic soil class
N	nitrogen
Na	sodium
NO3-N	nitrate nitrogen
ORG	organic soil class
pH	current soil pH
P-I	phosphorus index
P2O5	phosphate
S-I	sulfur index
SS-I	soluble salt index
W/V	weight per volume
Zn-AI	zinc availability index
Zn-I	zinc index



Predictive

Waste Report

Client: R M Hayes
 1646 Stricklands Crossroads Rd
 Four Oaks, NC 27524
 Johnston County

Advisor: Agriment Services Inc. Jonathan
 Miller Ronnie Kennedy
 PO Box 1096
 Beulaville, NC 28518

[Links to Helpful Information](#)

Sampled: 12/18/2019

Received: 12/20/2019

Completed: 01/06/2020

PALS #: 151011

PALS #: 402553

Farm: 51-34

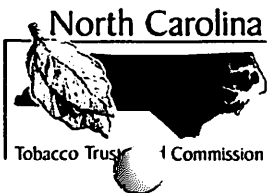
Sample Information	Nutrient Measurements are given in units of parts per million (ppm), unless otherwise specified.												Other Results			
	Nitrogen (N)	P	K	Ca	Mg	S	Fe	Mn	Zn	Cu	B	Mo	C	Al	Na	Cl
ID: RM1	Total N:	8.96	562	90.6	57.2	29.2	2.17	0.21	0.36	0.43	0.99	-	-	0.20	499	-
Code: ALS	Total Kjeldahl N: 261															
Description: Swine Lagoon Liq.	Inorganic:															
Grower Comments: Not Provided	NH ₄ -N	SS	EC	pH	BD	CCE	ALE	C:N	DM							
	NO ₃ -N	(10 ⁻⁵ S/cm)	(mS/cm)	(Unitless)	(lb/yd ³)	(%)	(1000 gal)	(Unitless)	(%)							
		-	-	7.77	-	-	-	-	-							

Application Method:	Estimate of Nutrients Available for First Year (lb/1000 gal)												Other Results (lb/1000 gal)		
	N	P ₂ O ₅	K ₂ O	Ca	Mg	S	Fe	Mn	Zn	Cu	B	Mo	Al	Na	Cl
Irrigation	1.09	0.17	5.62	0.76	0.48	0.24	0.02	0.00	0.00	0.00	0.01	-	0.00	4.17	-

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

- Steve Troxler, Commissioner of Agriculture.



Understanding the Waste Report

Nutrient concentrations and other data on this report are provided so that waste materials can be applied at agronomic rates, thereby supplementing or reducing fertilizer application and preventing environmental contamination. In reading the **Laboratory Results** section, remember that materials with < 15% dry matter (generally liquids) are analyzed as received; all other wastes are dried first. Values in the **Estimate of Nutrients Available for First Crop** section are based on the type of waste and method of application you specify and reflects the fact that only 40-60% of the nitrogen becomes available within one year of application. The remainder *may or may not* ever become available.

ALE is Agricultural Lime Equivalence. The ALE indicates the amount of the waste material that provides a limiting effect equivalent to one ton of agricultural grade limestone.
BD is Bulk Density in lb/yd³.
CCE is Calcium Carbonate Equivalence and is used to determine ALE.
C:N ratio is the Carbon:Nitrogen ratio.

DM% is percent Dry Matter [for semi-solid and solid waste, this value facilitates conversion of dry-basis concentrations (ppm) back to wet-basis of original sample].
EC (Electrical Conductivity) measures salinity, or soluble salts (SS).
pH measures basicity/acidity.

Al = Aluminum
As = Arsenic
B = Boron
Ca = Calcium
Cd = Cadmium
Cl = Chloride
Cr = Chromium

Cu = Copper
Fe = Iron
K = Potassium
Mg = Magnesium
Mn = Manganese
Mo = Molybdenum
N = Nitrogen
Na = Sodium

NH₄-N = Ammonium -N
Ni = Nickel
NO₃-N = Nitrate -N
P = Phosphorus
Pb = Lead
S = Sulfur
Se = Selenium

meq/L = milliequivalent per liter;

mS = millisiemens;

ppm = parts per million or mg/L;

S = siemens;

T = trace (<0.005 lb/unit)

Additional information: www.ncagr.gov/agronomi/pdffiles/uwaste.pdf & www.ncagr.gov/agronomi/pdffiles/wasteguide.pdf



Predictive

Waste Report

Client: RM Hayes
 1646 Stricklands Crossroads Road
 Davis, NC 28524
 Johnston County

Advisor: Agriment Services Inc. Jonathan
 Miller Ronnie Kennedy
 PO Box 1096
 Beulaville, NC 28518

[Links to Helpful Information](#)

Sampled: 08/22/2019
 Received: 08/29/2019
 Completed: 09/02/2019

PALS #: 497967

PALS #: 402553

Farm: 51-34

Sample Information	Nutrient Measurements are given in units of parts per million (ppm), unless otherwise specified.												Other Results			
	Nitrogen (N)	P	K	Ca	Mg	S	Fe	Mn	Zn	Cu	B	Mo	C	Al	Na	Cl
ID: RM1	Total N:	17.1	484	80.6	51.5	25.9	2.11	0.35	0.54	0.95	0.88	-	-	0.28	369	-
Code: ALS	Total Kjeldahl N: 343															
Description: Swine Lagoon Liq.	Inorganic:															
Grower Comments: Not Provided	NH ₄ -N	SS	EC	pH	BD	CCE	ALE	C:N	DM							
	NO ₃ -N	(10 ⁻⁵ S/cm)	(mS/cm)	(Unitless)	(lb/yd ³)	(%)	(1000 gal)	(Unitless)	(%)							
		-	-	7.70	-	-	-	-	-							

Application Method:	Estimate of Nutrients Available for First Year (lb/1000 gal)												Other Results (lb/1000 gal)			
	N	P ₂ O ₅	K ₂ O	Ca	Mg	S	Fe	Mn	Zn	Cu	B	Mo	Al	Na	Cl	
Irrigation	1.43	0.33	4.84	0.67	0.43	0.22	0.02	0.00	0.00	0.01	0.01	-	0.00	3.08	-	

Handwritten note: 1.43 - 1.43



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