



Internal

Soil Report

Mehlich-3 Extraction

Client: Horticultural Crops Research Station /
Clinton
2450 Faison Hwy
Clinton, NC 28328

Advisor:

Sampled County : Sampson

Client ID: 403047**Advisor ID:**

Sampled: 12/01/2018 Received: 02/07/2019 Completed: 02/13/2019 Farm: Resstation

Sample ID: K01	Recommendations:		Lime		Nutrients (lb/acre)												More Information Note: 6 Note: 6				
	Crop	(tons/acre)	N	P2O5	K2O	Mg	S	Mn	Zn	Cu	B										
	1 - Vegetables, other	0.0	80-100	0	100	0	25	0	0	0	0	0									
Lime History:	2 - Sweetpotato		0.0	60-90	0	40	0	25	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-Al1	Mn-Al2	Zn-I	Zn-Al	Cu-I	Na	ESP	SS-I	NO3-N	
0.18	1.35	2.4	71	0.7	5.6	146	56	43	17	22	78	57	64	53	53	64	0.1	4			
Sample ID: K02	Recommendations:		Lime		Nutrients (lb/acre)												More Information Note: 3 Note: 6				
	Crop	(tons/acre)	N	P2O5	K2O	Mg	S	Mn	Zn	Cu	B										
	1 - Corn, grain	0.3	120 - 160	0	40	0	25	0	0	0	0	0									
Lime History:	2 - Vegetables, other		0.0	80-100	0	110	0	25	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-Al1	Mn-Al2	Zn-I	Zn-Al	Cu-I	Na	ESP	SS-I	NO3-N	
0.32	1.33	3.1	69	1.0	5.7	181	49	44	17	24	130	95	88	60	60	92	0.1	3			
Sample ID: K03	Recommendations:		Lime		Nutrients (lb/acre)												More Information Note: 3 Note: 6				
	Crop	(tons/acre)	N	P2O5	K2O	Mg	S	Mn	Zn	Cu	B										
	1 - Corn, grain	0.0	120 - 160	0	40	0	25	0	0	0	0	0									
Lime History:	2 - Vegetables, other		0.0	80-100	0	110	0	25	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-Al1	Mn-Al2	Zn-I	Zn-Al	Cu-I	Na	ESP	SS-I	NO3-N	
0.22	1.33	2.6	77	0.6	5.9	148	52	47	20	22	77	63	56	61	61	63	0.1	4			

NCDA&CS Agronomic Division				Phone: (919) 733-2655				Website: www.ncagr.gov/agronomi/								Report No.				FY19-SL023896			
Page 2 of 11																							
Sample ID: K04		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 6							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Vegetables, other		0.0		80-100		60		40		0		20				0		0		0	
		2 - Sweetpotato		0.0		60-90		0		0		0		20				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			
0.13	1.19	3.1	87	0.4	6.4	76	86	48	25	21	57	38	45	52	52	88	0.1	3					
Sample ID: K05		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 6							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Vegetables, other		0.0		80-100		0		60		0		25				0		0		0	
		2 - Sweetpotato		0.0		60-90		0		0		0		25				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			
0.27	1.34	3.1	77	0.7	5.9	132	74	49	15	25	95	67	74	82	82	158	0.1	3					
Sample ID: K06		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 6							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Vegetables, other		0.0		80-100		0		80		0		0				0		0		0	
		2 - Sweetpotato		0.0		60-90		0		30		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			
0.41	1.26	3.7	78	0.8	5.9	229	63	54	15	27	142	95	102	130	130	162	0.1	3					
Sample ID: K07		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 6							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Vegetables, other		0.0		80-100		0		90		0		0				0		0		0	
		2 - Sweetpotato		0.0		60-90		0		40		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	1.37	3.1	79	0.6	6.0	226	59	53	17	28	112	77	84	129	129	62	0.1	3					

NCDA&CS Agronomic Division				Phone: (919) 733-2655				Website: www.ncagr.gov/agronomi/								Report No.				FY19-SL023896			
Page 3 of 11																							
Sample ID: K08		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 6							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Vegetables, other		0.0		80-100		0		80		0		0				0		0		0	
		2 - Sweetpotato		0.0		60-90		0		20		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	1.39	2.9	78	0.6	6.0	200	65	49	17	29	83	60	67	119	119	53	0.1	3					
Sample ID: K09		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 6							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Vegetables, other		0.0		80-100		40		50		0		25				0		0		0	
		2 - Sweetpotato		0.0		60-90		0		0		0		25		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			
0.18	1.31	3.1	80	0.6	6.1	91	83	48	19	23	55	42	49	57	57	56	0.1	3					
Sample ID: L01		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 3							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Vegetables, other		0.0		80-100		0		120		0		25				0		0		0	
0.50 tons/acre; 3/2018		2 - Soybean		0.0		0		0		50		0		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	NO3-N			
0.18	1.43	2.0	65	0.7	5.7	188	47	40	13	15	81	59	59	65	65	45	0.1	5					
Sample ID: L02		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 3							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Vegetables, other		0.0		80-100		0		160		0		25				0		0		0	
0.40 tons/acre; 3/2018		2 - Soybean		0.0		0		0		80		0		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	NO3-N			
0.13	1.46	1.8	64	0.6	5.6	217	31	41	15	15	74	54	54	60	60	50	0.1	6					

NCDA&CS Agronomic Division				Phone: (919) 733-2655				Website: www.ncagr.gov/agronomi/				Report No.				FY19-SL023896							
Page 4 of 11																							
Sample ID: L4A		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 3							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Vegetables, other		0.0		80-100		110		40		0		20				0		0		0	
0.50 tons/acre; 3/2018		2 - Soybean		0.0		0		20		0		0		20		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			
0.09	1.28	4.6	90	0.4	6.4	51	92	49	31	20	45	31	31	55	55	44	0.1	2					
Sample ID: L4B		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 3							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Vegetables, other		0.0		80-100		0		150		0		25				0		0		0	
		2 - Soybean		0.0		0		0		70		0		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	NO3-N			
0.13	1.48	2.3	86	0.3	6.3	141	33	60	19	18	74	50	50	58	58	44	0.1	4					
Sample ID: M08		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 6							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Sweetpotato		0.0		60-90		0		50		0		25				0		0		0.5	
		2 - Vegetables, other		0.0		80-100		0		100		0		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	NO3-N			
0.22	1.41	2.0	72	0.6	5.8	151	54	43	15	17	92	72	65	112	112	69	0.1	5					
Sample ID: M09		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 6							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Sweetpotato		0.0		60-90		0		30		0		25				0		0		0.5	
		2 - Vegetables, other		0.0		80-100		0		90		0		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	NO3-N			
0.18	1.42	2.2	72	0.6	5.8	132	61	41	17	18	73	61	54	86	86	48	0.1	5					

NCDA&CS Agronomic Division				Phone: (919) 733-2655				Website: www.ncagr.gov/agronomi/								Report No.				FY19-SL023896			
Page 5 of 11																							
Sample ID: M11		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 6							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Sweetpotato		0.0		60-90		0		0		0		25				0		0		0.5	
		2 - Vegetables, other		0.0		80-100		0		30		0		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	NO3-N			
0.27	1.36	2.9	78	0.6	6.0	136	94	44	18	20	74	61	54	69	69	68	0.1	3					
Sample ID: M12		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 6							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Sweetpotato		0.0		60-90		0		0		0		25				0		0		0.5	
		2 - Vegetables, other		0.0		80-100		10		50		0		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	NO3-N			
0.18	1.38	2.4	74	0.6	5.7	114	84	39	17	18	64	55	48	70	70	58	0.1	4					
Sample ID: M14		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 6							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Sweetpotato		0.0		60-90		0		0		0		0				0		0		0.5	
		2 - Vegetables, other		0.0		80-100		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			
1.02	1.31	5.6	81	1.1	6.0	208	148	51	17	28	117	87	80	81	81	90	0.1	2					
Sample ID: M15		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 6							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Sweetpotato		0.0		60-90		0		0		0		25				0		0		0.5	
		2 - Vegetables, other		0.0		80-100		20		70		0		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	NO3-N			
0.22	1.39	2.5	71	0.7	5.7	107	73	40	17	18	69	58	51	63	63	55	0.1	4					

NCDA&CS Agronomic Division				Phone: (919) 733-2655				Website: www.ncagr.gov/agronomi/				Report No.				FY19-SL023896									
Page 6 of 11																									
Sample ID: N02		Recommendations:		Lime		Nutrients (lb/acre)												More Information Note: 6 Note: \$ Note: 6 Note: \$							
		Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
		1 - Sweetpotato		0.0		60-90		60		0		0		0		0				\$		0		0.5	
Lime History:		2 - Vegetables, other		0.0		80-100		130		30		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					
0.09	1.28	3.2	81	0.6	6.1	42	94	42	25	41	49	45	38	24	24	60	0.1	3							
Sample ID: N03		Recommendations:		Lime		Nutrients (lb/acre)												More Information Note: 6 Note: 6							
		Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
		1 - Cucumber		0.4		80-140		0		70		0		0		0				0		0		0	
Lime History:		2 - Vegetables, other		0.0		80-100		0		70		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					
0.36	1.38	2.6	67	0.8	5.5	209	70	39	14	32	91	65	65	94	94	101	0.1	4							
Sample ID: N04		Recommendations:		Lime		Nutrients (lb/acre)												More Information Note: 6 Note: 6							
		Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
		1 - Cucumber		0.4		80-140		0		140		0		0		0				0		0		0	
Lime History:		2 - Vegetables, other		0.0		80-100		0		140		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					
0.27	1.36	2.5	66	0.8	5.4	238	38	45	13	33	84	60	60	77	77	123	0.1	4							
Sample ID: N05		Recommendations:		Lime		Nutrients (lb/acre)												More Information Note: 6 Note: 6							
		Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
		1 - Vegetables, other		0.0		80-100		0		70		0		0		0				0		0		0	
Lime History:		2 - Vegetables, other		0.0		80-100		0		70		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					
0.13	1.42	2.6	75	0.6	5.8	148	70	43	19	39	58	45	45	88	88	84	0.1	4							

NCDA&CS Agronomic Division				Phone: (919) 733-2655				Website: www.ncagr.gov/agronomi/								Report No.				FY19-SL023896			
Page 7 of 11																							
Sample ID: N06		Recommendations:		Lime		Nutrients (lb/acre)												More					
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn		Zn		Cu		B		Information	
Lime History:		1 - Vegetables, other		0.0		80-100		0		80		0		0		0		0		0		Note: 6	
		2 - Vegetables, other		0.0		80-100		0		80		0		0		0		0		0		Note: 6	
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			
0.18	1.44	2.7	76	0.6	5.8	155	68	46	17	30	78	57	57	69	69	109	0.1	4					
Sample ID: N07		Recommendations:		Lime		Nutrients (lb/acre)												More					
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn		Zn		Cu		B		Information	
Lime History:		1 - Vegetables, other		0.0		80-100		0		30		0		0		0		0		0		Note: 6	
		2 - Corn, grain		0.0		120 - 160		0		0		0		0		0		0		0		Note: 3	
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			
0.36	1.31	4.0	77	0.9	5.8	130	93	46	19	28	75	55	62	90	90	102	0.1	3					
Sample ID: N10		Recommendations:		Lime		Nutrients (lb/acre)												More					
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn		Zn		Cu		B		Information	
Lime History:		1 - Sweetpotato		0.0		60-90		0		80		0		25		0		0		0.5		Note: 6	
		2 - Vegetables, other		0.0		80-100		0		130		0		25		0		0		0		Note: 6	
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			
0.13	1.44	2.0	72	0.6	5.7	159	44	46	16	14	67	57	50	72	72	131	0.1	5					
Sample ID: N11		Recommendations:		Lime		Nutrients (lb/acre)												More					
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn		Zn		Cu		B		Information	
Lime History:		1 - Cucumber		0.0		80-140		0		80		0		25		0		0		0		Note: 6	
		2 - Vegetables, other		0.0		80-100		0		80		0		25		0		0		0		Note: 6	
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	1.38	3.2	76	0.8	5.8	221	68	49	16	18	100	70	70	97	97	189	0.1	3					

NCDA&CS Agronomic Division				Phone: (919) 733-2655				Website: www.ncagr.gov/agronomi/								Report No.				FY19-SL023896					
Page 8 of 11																									
Sample ID: N12		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 6									
		Crop		(tons/acre)		N		P2O5		K2O		Mg		S				Mn		Zn		Cu		B	
		1 - Cucumber		0.0		80-140		0		80		0		25				0		0		0		0	
Lime History:		2 - Vegetables, other		0.0		80-100		0		80		0		25		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					
0.13	1.38	2.6	74	0.7	5.7	157	65	43	18	24	115	79	79	59	59	106	0.1	4							
Sample ID: N13		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 6									
		Crop		(tons/acre)		N		P2O5		K2O		Mg		S				Mn		Zn		Cu		B	
		1 - Sweetpotato		0.0		60-90		30		0		0		0				0		0		0.5			
Lime History:		2 - Vegetables, other		0.0		80-100		100		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					
0.09	1.29	4.3	78	0.9	5.9	54	153	39	22	43	44	43	36	26	26	73	0.1	2							
Sample ID: N14		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 6									
		Crop		(tons/acre)		N		P2O5		K2O		Mg		S				Mn		Zn		Cu		B	
		1 - Sweetpotato		0.3		60-90		0		0		0		25				0		0		0.5			
Lime History:		2 - Vegetables, other		0.0		80-100		0		10		0		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	NO3-N					
0.22	1.37	3.5	73	1.0	5.7	149	110	40	18	25	66	57	50	53	53	83	0.1	3							
Sample ID: N15		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 3									
		Crop		(tons/acre)		N		P2O5		K2O		Mg		S				Mn		Zn		Cu		B	
		1 - Vegetables, other		0.3		80-100		0		60		0		0				0		0		0			
Lime History:		2 - Soybean		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					
0.56	1.34	4.0	73	1.1	5.8	151	79	45	19	32	56	44	44	55	55	93	0.2	5							

NCDA&CS Agronomic Division				Phone: (919) 733-2655				Website: www.ncagr.gov/agronomi/				Report No.				FY19-SL023896							
Page 9 of 11																							
Sample ID: N17		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 3							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Vegetables, other		0.3		80-100		90		30		0		25				0		0		0	
		2 - Soybean		0.0		0		10		0		0		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	NO3-N			
0.13	1.30	3.2	75	0.8	5.7	60	100	37	23	24	41	35	35	27	27	48	0.1	3					
Sample ID: N18		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 3							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Vegetables, other		0.3		80-100		0		70		0		25				0		0		0	
0.30 tons/acre; 2/2018		2 - Corn, grain		0.0		120 - 160		0		10		0		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	NO3-N			
0.22	1.31	2.9	70	0.9	5.7	145	71	40	18	20	66	50	57	51	51	69	0.1	3					
Sample ID: N19		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: 3							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Vegetables, other		0.0		80-100		20		30		0		0				0		0		0	
0.30 tons/acre; 3/2018		2 - Corn, grain		0.0		120 - 160		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			
0.13	1.40	3.2	77	0.8	5.9	101	98	41	21	31	68	51	58	26	26	69	0.1	3					
Sample ID: N20		Recommendations:		Lime		Nutrients (lb/acre)										More Information Note: 6 Note: \$ Note: 3							
Crop		(tons/acre)		N		P2O5		K2O		Mg		S		Mn				Zn		Cu		B	
Lime History:		1 - Sweetpotato		0.0		60-90		0		0		0		0				\$		0		0.5	
0.40 tons/acre; 3/2018		2 - Corn, grain		0.0		120 - 160		0		0		0		0				6		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			
0.13	1.31	4.1	76	1.0	5.8	70	136	38	21	35	52	48	48	24	24	71	0.1	2					

Sample ID: N21	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:	Crop											
	1 - Sweetpotato	0.3	60-90	20	0	0	0	0	0	0	0.5	Note: 6
	2 - Corn, grain	0.0	120 - 160	10	0	0	0	0	0	0	0	Note: 3

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
0.27	1.28	4.4	76	1.0	5.8	57	116	44	19	32	99	76	76	33	33	80	0.1	2		

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 to find 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