

**Agricultural Service Laboratory
2007 Annual Report**

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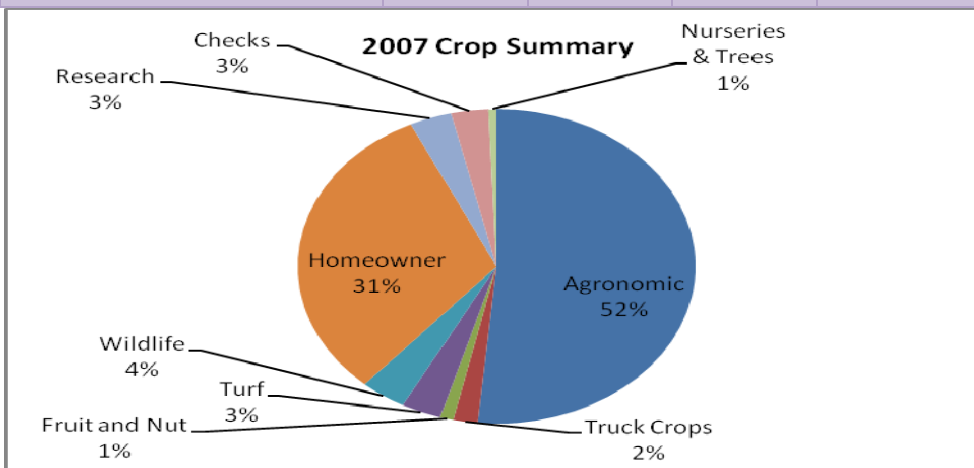
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Soil

Standard Soil Test	Sample Number	Large Area	Small Area	Diagnostic
Counties				
Abbeville	431	213	43	175
Aiken	1101	388	699	14
Allendale	328	309	19	0
Anderson	636	324	312	0
Bamberg	559	509	49	1
Barnwell	338	269	69	0
Beaufort	890	149	739	2
Berkeley	555	188	355	12
Calhoun	493	441	42	10
Charleston	1503	229	1202	72
Cherokee	218	132	86	0
Chester	385	302	83	0
Chesterfield	505	443	57	5
Clarendon	1715	1603	107	5

Colleton	610	428	174	8
Darlington	1181	974	206	1
Dillon	304	238	66	0
Dorchester	196	112	72	12
Edgefield	214	190	24	0
Fairfield	184	134	50	0
Florence	803	457	340	6
Georgetown	897	350	542	5
Greenville	1332	355	976	1
Greenwood	568	206	362	0
Hampton	786	693	93	0
Horry	1594	691	881	22
Jasper	223	113	110	0
Kershaw	1013	739	235	39
Lancaster	254	169	85	0
Laurens	457	361	90	6
Lee	1663	1619	43	1
Lexington	2053	872	1122	59
Marion	341	310	29	2
Marlboro	636	607	29	0
McCormick	74	46	26	2
Newberry	435	313	122	0
Oconee	386	206	178	2
Orangeburg	631	469	160	2
Pickens	329	115	214	0
Richland	1472	320	1150	2
Saluda	478	413	59	6
Spartanburg	730	264	466	0

Sumter	1746	1169	515	62
Union	173	85	87	1
Williamsburg	604	578	25	1
York	550	362	187	1
Prepaid	944	479	446	19
Accounts	3708	870	699	2139
SubTotal	37226	20806	13725	2695
Research	1340	685	184	471
Checks & Blanks	1185	8	3	1174
Total Samples Analyzed	39751	21499	13912	4340

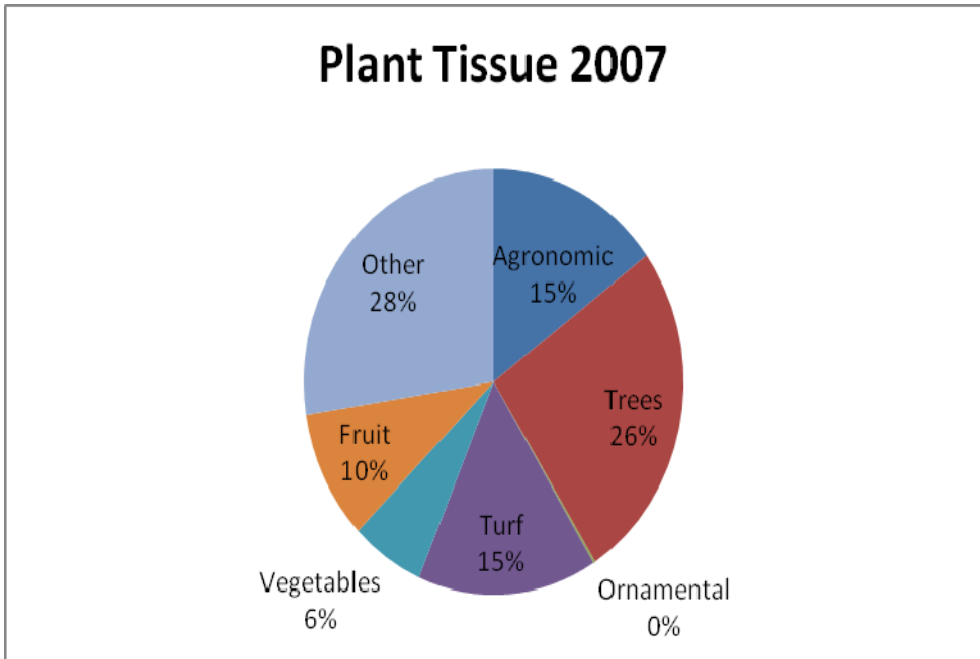


Other Soil Analyses	Total
Organic Matter	700
Nitrate Nitrogen	2976
Soluble Salts	494
Extractable Sulfate Sulfur	134
pH Only	18
Pond Bottom	69
Shrimp Pond	0
Soilless Mixes	56
Bulk Density	2

Plant Tissue

Counties	Total
Aiken	150
Anderson	1
Beaufort	3
Calhoun	1
Charleston	13
Cherokee	200
Chester	2
Clarendon	24
Colleton	5
Darlington	4
Edgefield	8
Florence	13
Georgetown	7
Greenville	5
Hampton	1
Horry	55
Jasper	5
Lee	4
Lexington	129
Marion	5
Newberry	5
Oconee	3
Orangeburg	4
Richland	1
Spartanburg	45

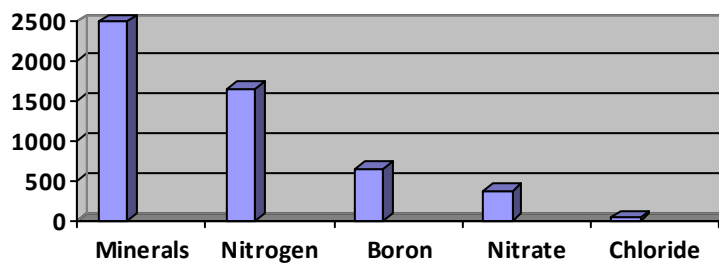
Sumter	1
Williamsburg	5
Sub Total	699
Prepaid	50
Accounts	762
Research	1535
Total Samples Analyzed	3046



Crop	Total
Cotton	274
Soybean	4
Corn Leaf	128
Corn Whole	5
Small Grain	40
Tobacco	3
Total Agronomic	454
Evergreen	1
Pine, Loblolly	39
Pine, Longleaf	1
Deciduous	754
Total Trees	795
Geranium	2

Azeleas	3
Total Ornamental	5
Orchardgrass	1
St Augustine	1
Zoysia	1
Cool Season Grass	17
Bentgrass	428
Bermudagrass	18
Total Turf	466
Brussel Sprouts	8
Cantaloupe	52
Squash	2
Watermelon	31
Eggplant	2
Onions	15
Peppers	42
Tomatoes	7
Tomatoes, Greenhouse	31
Total Vegetables	190
Strawberries	257
Blueberries	7
Grapes	1
Peaches	22
Pecans	13
Fruit	300
Other	836
Total All	3041

Total Number of Plant Tissue Analyses 2007



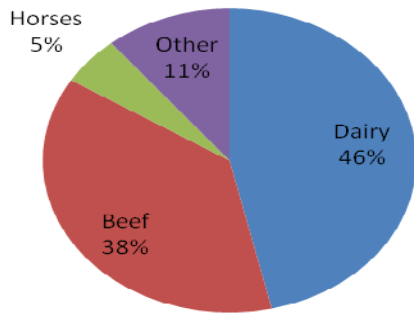
Minerals include phosphorus, potassium, calcium, magnesium, zinc, copper, manganese, iron, sulfur sodium, and aluminum

Feed and Forage

Counties	Total
Abbeville	5
Aiken	11
Allendale	3
Anderson	16
Bamberg	3
Barnwell	3
Calhoun	1
Charleston	1
Cherokee	25
Chester	12
Chesterfield	13
Clarendon	2
Colleton	2
Dillon	1
Dorchester	6
Edgefield	64
Florence	23
Georgetown	3
Greenville	5
Greenwood	43
Horry	3
Jasper	2
Kershaw	7
Lancaster	5

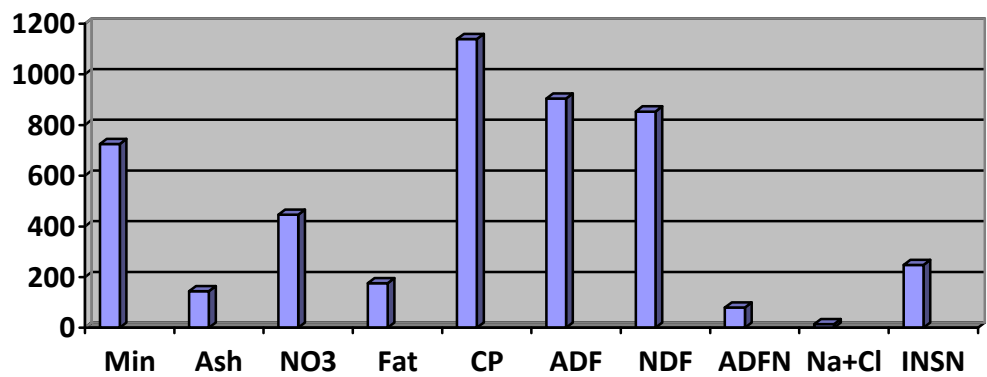
Laurens	30
Lee	1
Lexington	11
Marion	8
Marlboro	1
McCormick	8
Newberry	56
Orangeburg	14
Pickens	4
Saluda	74
Spartanburg	29
Sumter	2
Union	2
Williamsburg	2
York	7
Sub Total	508
Prepaid	44
Accounts	770
Research	70
Total Samples Analyzed	1392

Feed and Forage 2007



Total Number	Feed Type
181	Hay Bermuda
1	Hay Bahia
47	Hay Fescue
42	Hay Legume
50	Hay Sorghum
64	Hay Mixed
125	Hay Small Grain
130	Pasture Grass
5	Earlage
197	Silage Corn
66	Silage Sorghum
20	Silage Legume
129	Silage Small Grain
44	Silage Grass
2	Gluten
2	High Moisture Corn
7	Grain Corn
4	Grain Oats
5	Grain Mixed
27	Mixed Ration-Corn
1	Mixed Ration-Sorghum
5	Mixed Ration-Sm Grain
5	Mixed Ration-Grass
113	Other
120	Complete Feed
2	Cottonseed-Whole
1	Soybean-Whole
2	Soybean Hulls

Total Number of Feed and Forage Analyses 2007



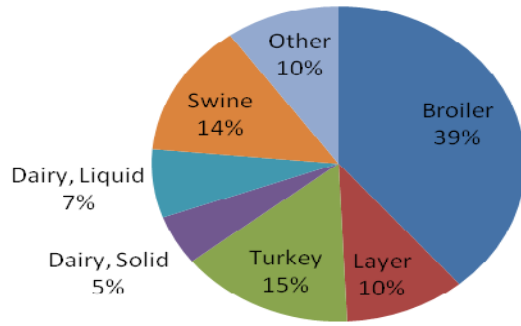
Min includes phosphorus, potassium, calcium, magnesium, zinc, copper, manganese, iron, and sulfur

Animal Waste

Counties	Total
Abbeville	7
Aiken	14
Anderson	7
Bamberg	9
Barnwell	19
Calhoun	9
Cherokee	4
Chester	10
Chesterfield	47
Clarendon	15
Colleton	3
Darlington	17
Dillon	35
Dorchester	10
Edgefield	9
Florence	5
Georgetown	4
Greenville	2
Greenwood	8
Hampton	8
Horry	12
Kershaw	31
Lancaster	11
Laurens	18

Lee	25
Lexington	71
Marion	5
Marlboro	20
McCormick	1
Newberry	59
Oconee	3
Orangeburg	43
Richland	1
Saluda	31
Spartanburg	9
Sumter	7
Union	1
Williamsburg	5
York	7
Sub Total	622
Prepaid	46
Accounts	18
Research	2
Virginia Contract	1249
Total Samples Analyzed	1937

In State Animal Waste 2007



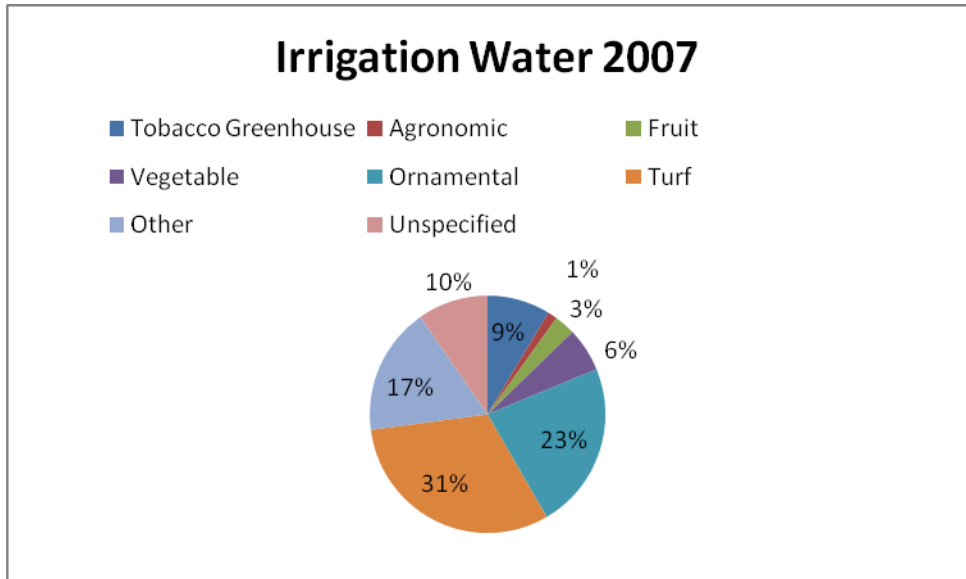
In State Animal Waste Analyses 2007	Total
Routine	669
Nitrate Nitrogen	32
Arsenic	12
CCE	24
pH	43
Soluble P	25

Irrigation Water

Counties	Total
Anderson	3
Beaufort	15
Berkeley	2
Charleston	80
Clarendon	4
Colleton	10
Darlington	2
Dillon	2
Dorchester	1
Edgefield	3
Florence	7
Georgetown	31
Greenville	1
Hampton	1
Horry	55
Jasper	1
Kershaw	1
Laurens	2
Lee	2
Lexington	5
Marion	1
Marlboro	2
Newberry	3
Oconee	2

Orangeburg	1
Richland	3
Saluda	2
Spartanburg	3
Williamsburg	6
Sub Total	251
PrePaid	19
Accounts	114
Total Samples Analyzed	384

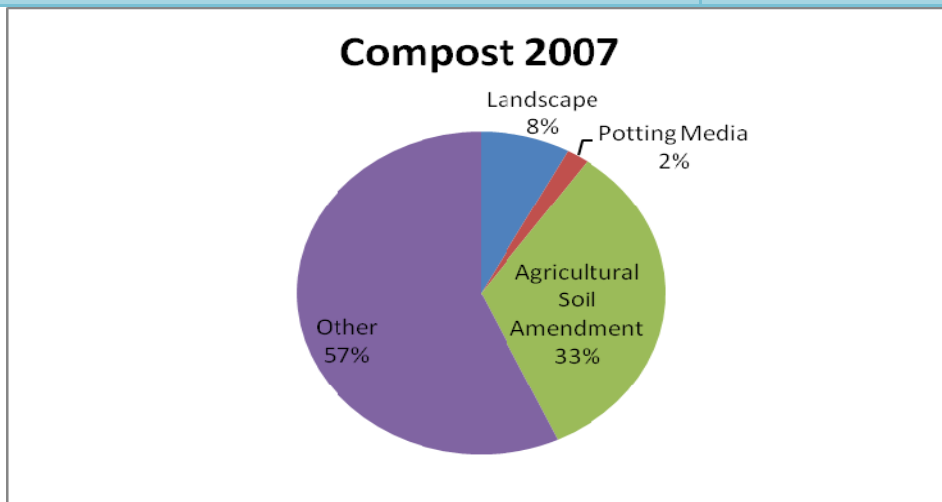
Irrigation Water Analyses 2007	Total
Special (pH, EC, P, K, Ca, Mg, Fe, Zn, Cu, Mn, Na, Cl, B, S, NO3-N, HCO3, and CO3)	345
Standard (pH plus EC)	39



Compost

	Total
PrePaid	1
Accounts	1
County	6
Research	43
Total	51

Compost Analyses 2007	Total
Standard (Moisture, N, C, pH, OM, EC)	7
Special (Moisture, N, C, pH, OM, EC, NH4-N, P, K, Ca, Mg, S, Zn, Cu, Mn, Fe, Na)	20
Carbon/Nitrogen	24
Bulk Density	9
Nitrate Nitrogen	9



Other

Sample Type	Total Samples	Various Analyses
Solutions and other materials	5597	P, K, Ca, Mg, Zn, Cu, Mn, Fe, S, Al, B, Cd, Cr, Se, Mo, Ni, As, Hg, Si, Ag, NH ₄ -N, TKN, other

National Exchange Programs

- A. The National Forage Testing Association (NFTA) submits one sample quarterly for analysis of dry matter, protein, minerals, acid detergent fiber, and neutral detergent fiber. The lab is certified for forage testing through NFTA.
- B. The Association of American Feed Control Officials submits one sample monthly for analysis of protein, minerals, fat, ash, acid detergent fiber and neutral detergent fiber.
- C. The National Manure Analysis Proficiency Program submits samples quarterly for analysis of NH₄-N, total N, minerals, and dry matter. The Ag Service Lab is a certified manure testing lab.
- D. The Agricultural Service Laboratory is a member and certified as a participant of the North American Proficiency Testing Program for Soil, Plant, and Water Analysis Laboratories which provides quarterly exchanges of plant, soil, and water samples.

Publications

“Historical Land Use and Soil Analysis Guiding Corridor Landscape Design.” J. Renee Keydoszius, S. Knight Cox, Jr., Mary B. Haque, Elena Mikhailova, Christopher J. Post, William C. Stringer and Mark A. Schlautman, *Urban Ecosyst.* **2007**, 10, 53-72.

“Influence of Drought and Municipal Sewage Effluents on the Baseflow Water Chemistry of an Upper Piedmont River.” Jin Hur, Mark A. Schlautman, Tanju Karanfil, John Smink, Hocheol Song, Stephen J. Klaine and John C. Hayes, *Environ. Monit. Assess.* **2007**, 132(1-3), 171-187.

Thomas, C.N., W.L. Bauerle, T.O. Owino, J.P. Chastain, and S.J. Klaine. 2007. Influence of brick air scrubber by-product on growth and development of corn and hybrid poplar. *Bioresource Technology*, 98:1085-1094.

Chastain, J.P., P.A. Rollins and M. Riek. 2007. Using Poultry Litter to Fertilize Longleaf Pine Plantations for Enhanced Straw Production. Presented at the 2007 ASABE Annual International Meeting. Paper No. 074062. ASABE, 2950 Niles Rd., St. Joseph, MI 49085-9659.

Nutrient Recovery by Seven Aquatic Garden Plants in a Laboratory-scale Subsurface-constructed Wetland, Robert F. Polomski, Douglas G. Bielenberg, Ted Whitwell, Milton D. Taylor, William C. Bridges, Stephen J. Klaine, *HORTSCIENCE* 42(7):1674–1680. 2007.