
SOUTH CAROLINA ANNUAL FERTILIZER REPORT

JULY 1, 1997 - JUNE 30, 1998



CLEMSON[™]
UNIVERSITY

DEPARTMENT OF FERTILIZER AND SEED CERTIFICATION

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INSPECTION AND ANALYSIS OF COMMERCIAL FERTILIZERS AND AGRICULTURAL LIMING MATERIALS

Included in the responsibilities of the Fertilizer and Seed Certification Services is the enforcement of the South Carolina Fertilizer Law, the South Carolina Soil Amendment Regulation and the South Carolina Agricultural Liming Materials Act.

This publication published annually includes information pertaining to each of the above listed laws and regulations and statistical data pertaining to official fertilizer and lime samples taken and analyzed by the Department of Fertilizer and Seed Certification Services.

Statistical data relating to fertilizer and lime tonnage is compiled by Christopher L. Ray and included in the publication each year.

THE SOUTH CAROLINA FERTILIZER LAW

The present South Carolina Fertilizer Law was enacted in 1954, amended in 1970, 1978, and 1988. The last revisions included: (1) Establishment of a registration fee for bulk fertilizer based on amount of tonnage sold in South Carolina rather than individual product registrations (2) Provisions for deficiency penalties to be distributed through the department (3) Civil penalty authority (4) Provision to assess liability to a distributor.

THE SOUTH CAROLINA SOIL AMENDMENT REGULATION

This regulation was promulgated in 1979 and controls the distribution, labeling and sale of "Soil Amendments." Before being offered for sale, all materials classified as "Soil Amendments" must be registered. The major prerequisite for registration approval is recognized research data to substantiate claims made for the product.

THE SOUTH CAROLINA LIMING MATERIALS ACT

The South Carolina Agricultural Liming Materials Act was enacted in 1976. The major provisions of the law are: (1) all liming materials offered for sale for agricultural use in neutralizing soil acidity must be registered; (2) all materials must be labeled as to guarantees in percent (a) calcium carbonate equivalent (neutralizing value), (b) calcium (Ca) and magnesium (Mg) in the elemental expression, and (c) particle size distribution: (3) labels must indicate registrant, weight and type of material and (4) tonnage reports filed by July 30 annually by types of material by county. Regulation provides minimum standards for neutralizing value, particle size distribution and penalties for deficiencies.

REGISTRATION

A registrant may sell as many grades and brands of fertilizer with the payment of **one license fee** based on the amount of tonnage sold in accordance with the following schedule:

0-5000 TONS	FIFTY DOLLARS
5,001-25,000 TONS	ONE HUNDRED DOLLARS
MORE THAN 25,000 TONS	TWO HUNDRED DOLLARS

Fertilizer sold in quantities of **greater than 10 pounds** are subject to an inspection tax of **\$0.25 per ton** due the **15th of the month** following sales. For **individual packages** of commercial fertilizer containing **10 pounds or less** a combined registration fee and inspection tax of **THIRTY dollars per product** is required.

Registrants must furnish a list of sources of ingredients for all grades and brands sold upon registration and must insure that it be kept current to reflect any changes in sources should they occur during the year of registration.

Before being sold or offered for sale, each brand of "Soil Amendment" must be registered with the Department of Fertilizer and Seed Certification Services. Claims and research data must accompany registration request forms.

Before being sold or offered for sale, each brand of agricultural liming materials must be registered with the Department of Fertilizer and Seed Certification Services on provided forms. Registration expires on June 30. Calcium carbonate equivalent, particle size distribution and percent calcium or calcium and magnesium must be guaranteed and shown in the elemental expression.

LABELING

All fertilizers, soil amendments and agricultural liming materials offered for sale, sold or otherwise supplied in South Carolina, are required to be labeled in such a manner that the entire label is easily readable and in compliance with the form as set forth under Section 46-25-410 of the South Carolina Fertilizer Law and Section 46-25-40 of the South Carolina Agricultural Liming Materials Act. Where sold in bags or other containers, the required information may be placed on the container itself or on a tag attached to the container. For fertilizer in bulk, non-containers, the same information is required as to brand name and guaranteed analysis. This must appear on the invoice or delivery ticket and be supplied the purchaser. If secondary or micro-nutrients are mentioned or claimed in any manner whatsoever a guarantee must appear on the container or invoice and be guaranteed in the elemental form.

Guarantees are shown in percent of individual nutrients by weight compared to the total weight. Net weights must be shown on the label or on the invoice. Volume alone for fluid fertilizers is not permissible. The guarantee and the weight must appear on the label so that a consumer can multiply the guarantee by the weight and determine how many pounds of actual plant nutrients are being purchased.

Every purchaser is encouraged to read and understand thoroughly the label and know the claims made for the product he is purchasing.

The Fertilizer-Seed Inspectors of the Department of Fertilizer and Seed Certification Services inspect for proper bag printing, labeling and weight to ensure that label requirements are met.

SOIL AMENDMENTS

Soil amendments are products advertised to increase yields or quality of crops or plants but do not contain recognized plant nutrients. A regulation passed by the General Assembly in 1979 requires such products to be registered. This regulation has prevented consumers from buying some products of very questionable value.

**SUMMARY OF FERTILIZER ACTIVITIES
JULY 1, 1997 - JUNE 30, 1998**

Fertilizer usage data—tons	544,135
Number of fertilizer samples analyzed	2,055
Average overall index value	102.91
Number of deficiencies or excessive chlorine or boron found in fertilizer samples analyzed:	
Nitrogen	79
Water insoluble nitrogen	3
Phosphoric acid	96
Potash	75
Overall index value	79
Excessive in chlorine	11
Deficient in secondary and micro-nutrients	77
Deficient or excessive in boron	35
Total number of fertilizer samples not meeting guarantee	296
Percent of fertilizer samples deficient	14.4
Refunds or value of returned goods on account of deficient analysis	\$33,228.25
Number of fertilizer registrants in 1997-98	310
Number of fertilizer registrants with 10# or less products	95

FERTILIZER MOVEMENT AND QUALITY CONTROL IN 1997-98

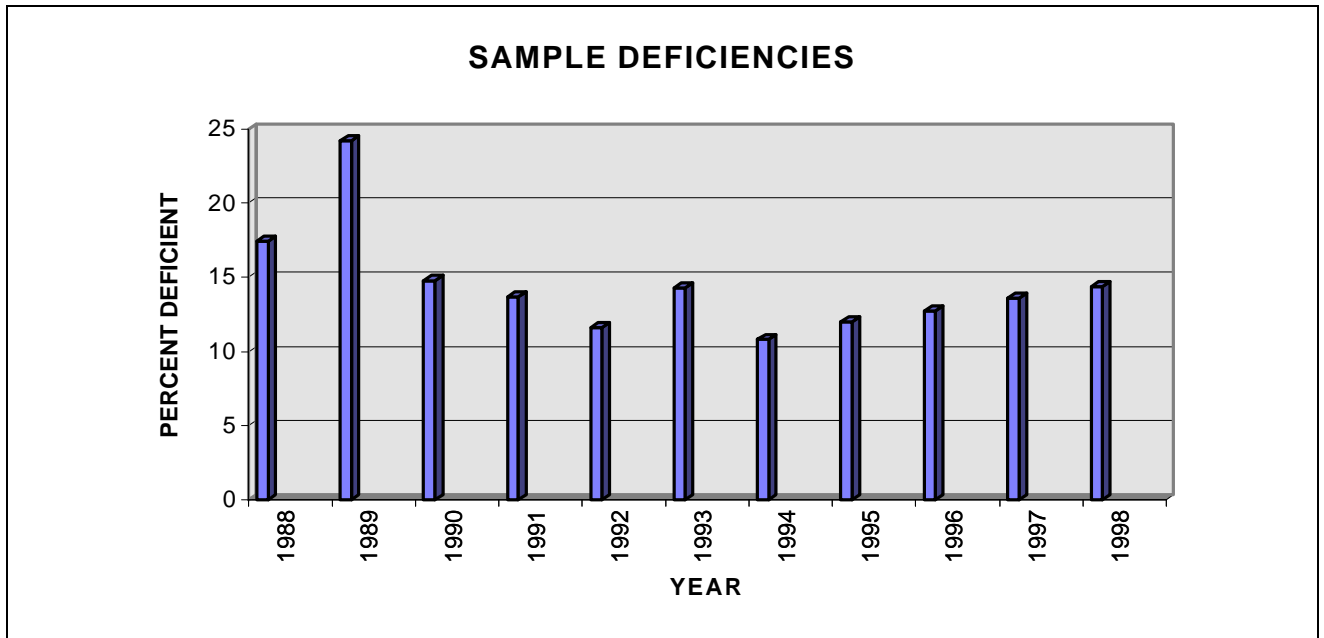
Fertilizer tonnage sold this year was down 15.1 percent from last year with 544,135 tons sold.

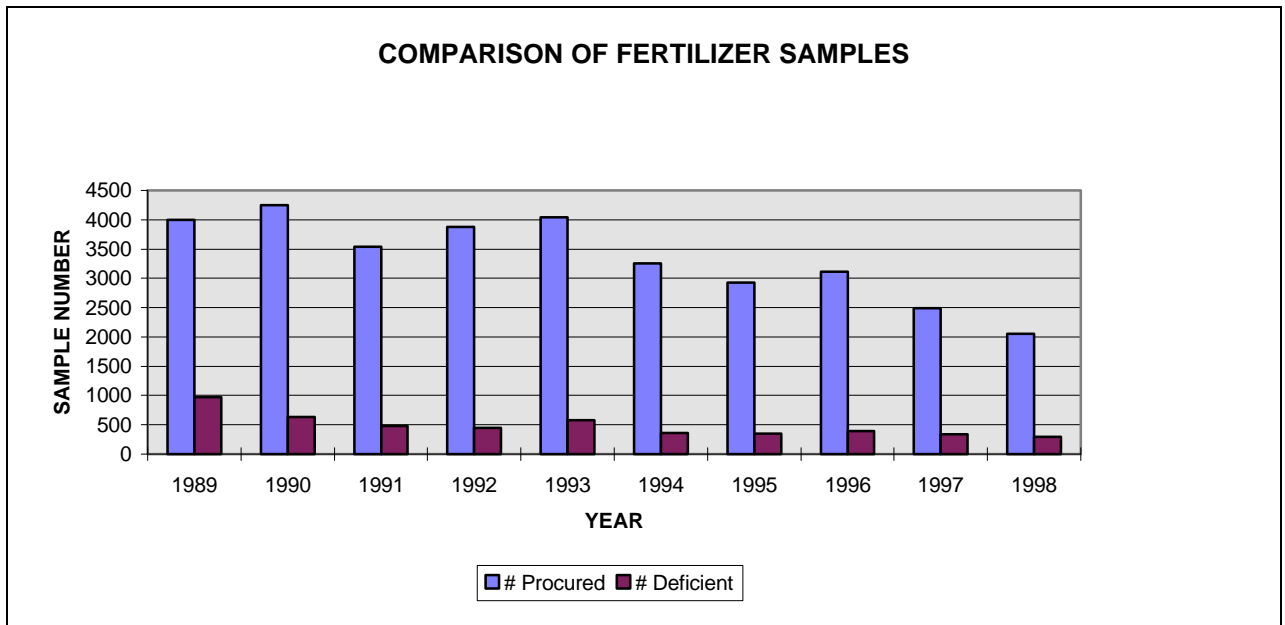
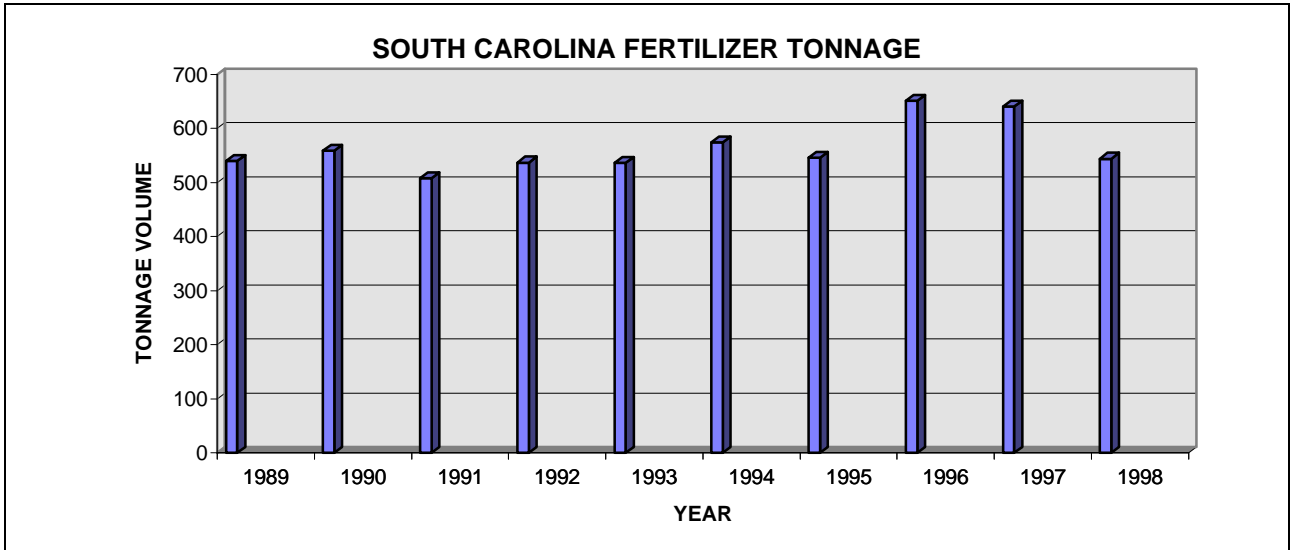
The 2,055 fertilizer samples taken this year were down by 17.6 percent from last year. Of those samples taken, there were 296 deficient samples indicating an overall deficiency rate of 14.40 percent, an increase from last year's 13.63 percent.

During 1997-98, the one (1) fertilizer manufacturing plant on probation lowered their deficiency rate below twenty percent (20%) and maintained a lower rate through the end of the 1997-98 fiscal year and were removed from probation.

Three plants had a deficiency rate greater than twenty (20%) percent for 1997-98, however, one of those plants was able to show that this was the result of unusual circumstances. Subsequently two (2) plants will be placed on probation for 1997-98. This brings the total number of plants on probation for 1997-98 to two (2).

SAMPLE DEFICIENCIES PERCENT DEFICIENT





PENALTIES FOR DEFICIENCIES IN GUARANTEED ANALYSIS

When a fertilizer is found to be deficient beyond the limits allowed under the law and/or regulations, the farmer is entitled to a penalty from the registrant of three times the commercial value of the entire deficiency in the case of nitrogen, phosphoric acid and potash. When the chlorine content of any lot branded for tobacco exceeds the maximum amount guaranteed by more than one-half of one percent, there is a penalty of ten percent of the value of the fertilizer for each additional one-half of one percent of excess or fraction thereof. The analytical tolerances allowed by regulations are:

Plant Nutrients, Guarantees, Tolerances and Penalties.

- A. **Nitrogen, phosphorus, potassium.** A fertilizer guaranteed to contain one or more of the elements, nitrogen, phosphorus, and potassium shall be deemed deficient if the analysis of the nutrient is below the guarantee by an amount exceeding the values in the following schedule. The schedule is the investigational allowances shown in the Association of American Plant Food Control Officials Uniform State Fertilizer Bill (official 1982) plus three (3) percent of the guarantee. The fertilizer is also deemed deficient if the overall index value of the fertilizer is below 98 percent.

Guarantee percent	Nitrogen percent	Available Phosphoric Acid percent	Potash percent
4 or less	0.50	0.79	0.53
5	0.66	0.82	0.58
6	0.70	0.85	0.65
7	0.75	0.89	0.74
8	0.79	0.92	0.84
9	0.84	0.95	0.92
10	0.88	0.99	1.00
12	0.97	1.05	1.15
14	1.05	1.12	1.29
16	1.15	1.18	1.42
18	1.24	1.25	1.55
20	1.33	1.32	1.68
22	1.41	1.39	1.81
24	1.50	1.45	1.93
26	1.59	1.51	2.05
28	1.67	1.58	2.17
30	1.76	1.65	2.29
32 or more	1.84	1.72	2.40

A fertilizer shall not be deemed deficient when the overall index value equals or exceeds 100 percent and no more than one primary nutrient is below the guarantee and if the deficiency does not exceed two units or ten percent of the guarantee.

B. Additional Plant Nutrients.

(1) Registration and Guarantees. When mentioned in any form or manner, said additional plant nutrients, besides nitrogen, phosphorus and potassium shall be registered and guaranteed. The sources of the elements guaranteed shall be shown on the application for registration.

(2) Deficiencies in Plant Nutrients Besides Nitrogen, Phosphorus and Potash.

A deficiency tolerance amounting to 25% of the guarantee shall be allowed for elements not otherwise specified by law or regulation; provided that in no case shall the tolerance exceed 0.50%. (1/2 unit). For each deficiency in secondary or micro-nutrient element, a penalty of \$1.00 per ton, plus four times the commercial value of the shortage shall be paid to the ultimate user of their fertilizer.

(3) Boron (B) When Found Excessive. The following penalties will be assessed when the analysis found exceeds the guarantee by more than .1% boron (B).

- (a) Up to and including .028% boron **\$3.00 per ton**
- (b) Exceeding .028% boron and including .057% boron **\$5.00 per ton**
- (c) Exceeding .057% boron **\$10.00 per ton**

When the number of fertilizer samples taken from fertilizer sold by a registrant or a particular plant operated by a registrant is found to be deficient by more than 20 percent of the total samples taken during a fiscal year, the registrant will be considered for probation. If unusual circumstances contribute to the high incidence of deficiencies, probation may be deferred and a warning will be given. In the year following probation, the registrant will notify the Department of Fertilizer and Seed Certification Services when the plant will be in operation to give inspectors an opportunity to sample no less than 30 lots. If the ownership of a plant where 20 percent or more of the samples has been found to be deficient has been transferred, the plant is still considered to be under probation.

In this trial year, if more than 20 percent of samples taken are found to be deficient beyond the investigational allowance, the registrant will be given a hearing. If the registrant cannot show cause as to why registration should not be revoked or refused, the registrant or plant will not be granted registration or license.

A registrant who has had registration revoked for conditions described in this rule may apply for reinstatement of registration after a period of not less than 90 days by presenting in writing to the Board documentary evidence of corrective action which will reduce the number of deficiencies.

RELATIVE COMMERCIAL VALUES

Listed below are the commercial values used in calculating the payment to the farmer when the analysis indicated a shortage of plant nutrients. These values represent the average of cash values at the ports, as reported by the manufacturers on January 1, 1995. They do not include the price of bagging, handling, and freight. These values are not intended to represent the selling price of fertilizers. They are used only to calculate the payments to farmers when a deficiency is found in analysis.

Materials Per Unit	Price (\$)
Ammonium Nitrate	4.39
Nitrate of Soda	10.05
Calcium Nitrate 15.5%	9.66
Urea Fertilizer Compound	3.87
Nitrogen solutions, 19%-35%	3.42
Sulphate of Ammonia	4.20
Ordinary Super-phosphate	4.38
Concentrated Super-phosphate 45%-46% P ₂ O ₅	2.98
Soft Phosphate with Colloidal Clay	4.31
Muriate of Potash	4.31
Sulfate of Potash	3.81
Sulfate of Potash Magnesia	5.01
Mixed Goods	Price (\$)
Water Soluble Nitrogen	2.90
Water insoluble Nitrogen	15.72
Available Phosphoric Acid	3.06
Soluble Potash	1.97
Calcium	1.28
Magnesium	3.77
Sulfur	1.19
Secondary Elements (Not in Mixed Goods) Per Pound	Price (\$)
Calcium	.20
Magnesium	.24
Sulfur	.16
Micro-nutrients Per Pound	Price (\$)
Boron	1.28
Copper	.86
Iron	.25
Manganese	.34
Molybdenum	32.30
Zinc	.36

TOTAL FERTILIZER TONNAGE IN SOUTH CAROLINA FOR THE 1997-98 YEAR COMPARED TO THE PREVIOUS YEAR

	July - June 1996 -1997	July - June 1997 -1998	Percent (%) Change
Multi-nutrient	390,875	277,956	-28.9
Single-Nutrient			
N	203,763	149,646	-26.6
P	3,588	1,005	-71.9
K	21,085	12,652	-40.0
Organics	8,947	6,785	-24.2
Sec/Micro	11,643	11,749	+0.9
Miscellaneous	983	84,338*	+8479.6*
TOTALS	640,943	544,135	-15.1

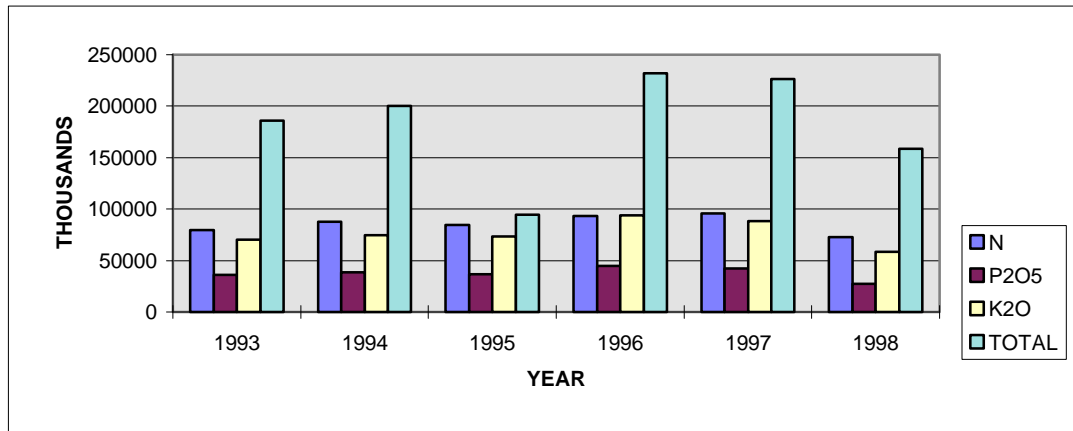
*LARGE INCREASE IN MISCELLANEOUS MATERIALS WAS DUE TO GRADES UNIDENTIFIED ON TONNAGE REPORTS

COMPARISON OF FERTILIZER TONNAGE BY TYPE OF CONTAINER AND USE JULY 1, 1997 - JUNE 30, 1998

	CONTAINER-TONS					USE-TONS				
	BAG	%	BULK-SOLID	%	BULK-FLUID	%	FARM	%	NON-FARM	%
Multi-nutrient	68,053	24.5	174,953	62.9	34,950	12.6	248,540	89.4	29,416	10.6
Single-nutrient										
N	9,837	3.5	23,390	8.4	116,418	41.9	145,200	52.2	4,445	1.6
P	335	0.1	659	0.2	11	.004	952	0.3	52	.01
K	1,117	0.4	10,536	3.8	998	0.4	11,833	4.3	819	0.3
Other*	10,566	3.8	91,846	33.0	458	0.2	93,288	33.6	9583	3.4
Totals	89,910	16.5	301,387	55.4	152,837	28.1	499,817	91.9	44,318	8.1

*INCLUDES SECONDARY/MICRO-NUTRIENT, ORGANIC AND MISCELLANEOUS MATERIALS. EXCLUDES LIME

**COMPARISON OF TOTAL
TONS OF PRIMARY PLANT NUTRIENTS**



**PLANT NUTRIENTS IN MULTI - NUTRIENT AND SINGLE - NUTRIENT FERTILIZERS
CONTAINING N - P - K
JULY 1996 - JUNE 1997 COMPARED TO JULY 1997 - JUNE 1998**

	N		P		K		TOTAL	
	1996-1997	1997-1998	1996-1997	1997-1998	1996-1997	1997-1998	1996-1997	1997-1998
Multi - Nut.	37,537	30,275	40,963	27,001	78,238	51,879	156,735	109,155
Single - Nut.	57,991	42,749	1,592	339	10,245	6,278	67,959	49,366
TOTALS	95,528	73,024	42,555	27,340	88,483	58,157	224,697	158,521

*Includes Organic and Miscellaneous Materials

**SUMMARY OF MULTI - NUTRIENT FERTILIZERS, SINGLE - NUTRIENT FERTILIZERS, AND PRIMARY PLANT NUTRIENTS FOR
FISCAL YEARS 1992-93 THROUGH 1997-98**

Fiscal year	Multi - Nutrient Fertilizer	Single - Nutrient Fertilizer	Total	Total Tons of Primary Plant Nutrients			
				N	P	K	Total
1992-93	336,644	190,396	536,336	79,639	36,102	70,374	186,116
1993-94	349,394	210,968	573,905	87,396	38,607	74,521	200,524
1994-95	338,151	208,657	546,808	84,355	36,416	73,476	194,247
1995-96	412,590	215,377	627,967	93,205	44,735	93,907	231,847
1996-97	390,875	228,489	619,364	95,528	42,555	88,483	226,566
1997-98	277,956	163,304	441,260	73,024	27,340	58,157	158,521

**GRADES OF MULTI - NUTRIENT FERTILIZERS OF HIGHEST TONNAGE
FOR 1997-98 AND COMPARISON WITH 5 PREVIOUS YEARS**

GRADE	1993	1994	1995	1996	1997	1998
0-7-28	---	4,672	4,831	9,004	3,750	4,263
0-9-27	9,875	5,190	4,647	7,392	4,175	2,834
0-10-30	7,297	6,514	9,896	12,793	13,961	8,375
0-18-36	1,921	2,241	2,123	2,373	2,223	1,330
3-5-30	1,401	1,244	1,199	1,270	2,770	1,485
3-9-9	6,321	4,479	3,900	4,740	4,061	2,916
3-9-27	3,715	2,936	2,476	2,407	1,811	1,290
3-15-30	---	---	---	2,239	1,807	1,092
4-0-8	1,924	2,331	1,788	1,884	1,961	2,275
4-8-24	3,890	2,725	2,979	4,777	2,754	2,382
4-8-32	1,813	2,525	2,009	1,424	1,729	1,729
5-5-30	---	---	---	---	1,760	1,410
5-10-10	4,883	3,391	2,963	3,222	2,355	1,647
5-10-15	4,442	4,284	3,455	5,602	2,983	1,634
5-10-30	18,557	21,138	16,568	29,127	22,969	17,432
6-6-18	22,954	19,433	24,385	28,711	27,993	14,759
10-10-10	30,925	33,797	31,967	32,646	28,482	20,095
10-34-0	8,258	8,592	7,531	9,649	10,908	7,456
14-0-44	---	---	---	2,237	6,731	4,862
14-4-14	---	1,412	874	2,181	1,538	1,426
14-7-14	4,209	2,955	2,395	3,777	3,049	2,139
15-0-15	1,005	1,255	1,499	1,787	1,578	1,911
15-15-15	161	1,909	2,240	3,876	2,377	2,112
16-4-8	4,142	4,942	5,426	5,194	4,521	3,639
17-17-0	---	---	---	1,199	---	1,064
17-17-17	17,440	21,942	18,928	16,925	17,154	15,219
18-9-9	3,591	4,292	3,009	5,253	2,845	2,325
18-46-0	1,197	1,489	2,538	2,756	4,182	2,342
19-19-19	3,047	3,727	2,695	2,244	2,406	2,926
20-0-20	2,504	2,882	2,187	---	2,661	2,192
20-10-10	1,316	1,410	920	---	1,589	1,253
20-10-20	2,315	2,740	1,642	1,360	1,846	1,456
21-7-14	---	---	---	10,508	1,134	1,378
24-0-3	---	---	---	1,345	1,715	1,865
28-3-3	---	---	---	---	---	1,133
35-17-0	---	---	---	---	---	1,835
TOTALS	185,628	193,072	179,018	259,220	222,575	145,481

**TONNAGE OF SINGLE-NUTRIENT, ORGANIC AND SECONDARY/MICRONUTRIENT FERTILIZERS
FOR THE FISCAL YEAR ENDING JUNE AS SHOWN**

MATERIALS	1993	1994	1995	1996	1997	1998
Ammonium Sulfate 20.5-21%	1,365	1,767	2,150	2,928	2,627	1,479
Ammonium Nitrate 33.5-34.5%	17,232	22,203	19,666	16,733	16,881	15,309
Anhydrous Ammonia 82%	2,258	1,758	1,248	2,214	1,742	1,398
Calcium Nitrate 15.5%	1,648	1,915	1,097	1,326	1,729	1,183
Nitrate of Soda 16%	3,708	2,642	4,036	2,192	2,292	942
Nitrogen Solution 19%	3,553	4,316	3,945	917	3,370	2,879
Nitrogen Solution 20-25%	63,984	67,375	62,393	70,940	76,004	69,095
Nitrogen Solution 26-28%	301	224	409	2,425	3,501	56
Nitrogen Solution 30%	65,900	72,833	63,985	66,112	69,945	42,494
Nitrogen Solution 32%	255	437	4,376	1,144	2,052	5,796
Misc. Nitrogen Materials	5,689	6,555	19,666	13,183	8,902	10,197
Urea Fert. Comp. 45-46%	2,477	2,715	7,026	4,236	5,701	4,003
Superphosphate 22% or less	318	362	790	497	276	198
Superphosphate 40% or more	2,398	2,081	2,043	2,309	2,221	487
Muriate of Potash 8-18%	1,118	1,939	1,247	1,053	1,198	997
Muriate of Potash 60-62%	8,603	10,283	9,826	12,020	8,771	6,472
Muriate and Sulfate Potash						
Magnesia mixtures	4,754	3,241	2,183	1,684	5,281	3,261
Sulfate of Potash Magnesia	753	1,135	921	885	968	529
Sulfate of Potash 48-50%	198	498	205	762	6,178	2,109
Manure	3,552	4,683	4,943	5,158	6,782	5,578
Landplaster	4,757	7,942	9,699	9,505	9,900	10,815
Miscellaneous	748	1,063	809	21,340	7,833	***
Totals	199,692	224,511	231,801	239,563	236,321	185,277

***Miscellaneous materials were left out because they contained products not considered materials

**SIX LEADING MULTI-NUTRIENT GRADES SOLD IN SOUTH CAROLINA
AS COMPILED FROM GRADE TONNAGE REPORTS, 1959-1998**

Fiscal Year	Total % Tonnage (6grades)	Six leading grades in order of amount used					
1958-59	79.8	4-12-12	4-10-6	3-12-12	4-8-12	3-9-9	5-10-10
1959-60	79.0	4-12-12	4-8-12	4-10-6	5-10-10	3-12-12	3-9-9
1960-61	78.3	4-12-12	4-10-6	4-8-12	5-10-10	3-9-9	3-12-12
1961-62	76.7	4-12-12	4-10-6	5-10-10	4-8-12	3-9-9	3-12-12
1962-63	73.5	4-12-12	5-10-10	4-10-6	4-8-12	3-9-9	3-9-18
1963-64	70.0	4-12-12	5-10-10	4-10-6	3-9-9	4-8-12	3-9-18
1964-65	69.3	4-12-12	5-10-10	10-10-10	3-9-18	3-9-9	4-8-12
1965-66	70.6	4-12-12	3-9-18	5-10-10	10-10-10	3-9-9	0-10-20
1966-67	74.2	4-12-12	3-9-18	10-10-10	5-10-10	0-10-20	3-9-9
1967-68	72.4	4-12-12	3-9-18	10-10-10	5-10-10	0-10-20	3-9-9
1968-69	72.4	4-12-12	3-9-18	10-10-10	5-10-10	0-10-20	3-9-9
1969-70	69.9	4-12-12	3-9-18	10-10-10	5-10-10	3-9-9	0-10-20
1970-71	68.7	4-12-12	10-10-10	3-9-18	5-10-10	3-9-9	0-10-20
1971-72	65.8	10-10-10	4-12-12	3-9-18	5-10-10	3-9-9	0-10-20
1972-73	62.8	3-9-18	10-10-10	4-12-12	5-10-10	3-9-9	0-10-20
1973-74	59.0	3-9-18	10-10-10	5-10-10	3-9-9	4-12-12	0-10-20
1974-75	61.8	3-9-18	10-10-10	5-10-10	3-9-9	0-10-20	4-8-12
1975-76	56.0	3-9-18	10-10-10	5-10-10	5-15-30	3-9-9	0-15-30
1976-77	51.9	3-9-18	10-10-10	5-10-10	5-10-10	0-10-20	0-15-30
1977-78	51.9	10-10-10	3-9-18	3-9-9	5-15-30	5-10-10	0-15-30
1978-79	49.1	10-10-10	3-9-18	0-9-27	3-9-9	5-10-10	5-15-30
1979-80	48.6	10-10-10	3-9-18	0-9-27	5-10-30	3-9-9	5-10-10
1980-81	45.5	10-10-10	3-9-18	0-9-27	0-10-30	5-10-30	5-10-10
1981-82	42.2	10-10-10	3-9-18	5-10-30	0-10-30	0-9-27	5-10-10
1982-83	40.8	10-10-10	3-9-18	0-10-30	0-9-27	5-10-30	3-9-9
1983-84	37.4	10-10-10	3-9-18	0-10-30	5-10-30	0-9-27	5-10-10
1984-85	36.0	10-10-10	3-9-18	5-10-30	0-10-30	5-10-10	6-6-18
1985-86	35.4	10-10-10	5-10-30	3-9-18	0-10-30	6-6-18	17-17-17
1986-87	36.8	10-10-10	6-6-18	17-17-17	3-9-9	5-10-10	0-9-27
1987-88	35.6	10-10-10	0-9-27	17-17-17	5-10-30	5-10-10	3-9-18
1988-89	33.1	10-10-10	6-6-18	0-9-27	5-10-30	17-17-17	3-9-18
1989-90	38.6	10-10-10	6-6-18	0-9-27	5-10-30	17-17-17	13-13-13
1990-91	33.0	10-10-10	6-6-18	17-17-17	0-9-27	5-10-30	0-10-30
1991-92	32.4	10-10-10	6-6-18	0-9-27	17-17-17	5-10-30	10-34-0
1992-93	32.1	10-10-10	6-6-18	5-10-30	17-17-17	0-9-27	10-34-0
1993-94	31.9	10-10-10	17-17-17	5-10-30	6-6-18	10-34-0	0-10-30
1994-95	19.8	10-10-10	6-6-18	17-17-17	5-10-30	0-10-30	10-34-0
1995-96	20.7	10-10-10	5-10-30	6-6-18	17-17-17	0-10-30	20-20-20
1996-97	17.8	10-10-10	6-6-18	5-10-30	17-17-17	10-34-0	14-0-44
1997-98	15.3	10-10-10	5-10-30	17-17-17	6-6-18	10-34-0	14-0-44

**SUMMARY OF TOTAL FERTILIZER AND PLANT NUTRIENTS
JULY 1, 1997 TO JUNE 1998**

COUNTY	TOTAL * FERTILIZER	TOTAL SINGLE	TOTAL MULTI	ALL OTHER	MULTIPLE NUTRIENT			ALL FERTILIZERS		
					TOTAL N	TOTAL P205	TOTAL K2O	TOTAL N	TOTAL P205	TOTAL K2O
ABBEVILLE	11,151	1,578	4,077	5,495	644	495	594	1,108	499	631
AIKEN	12,785	3,600	6,543	2,641	898	644	1,130	1,944	653	1,291
ALLENDALE	17,621	2,673	4,479	10,468	489	451	748	1,128	451	825
ANDERSON	17,690	2,234	6,133	9,322	1,055	785	964	1,761	792	974
BAMBERG	19,892	6,123	5,914	7,854	536	557	1,104	1,984	564	1,499
BARNWELL	14,989	2,809	3,401	8,778	286	375	654	1,000	375	705
BEAUFORT	8,268	1,394	5,088	1,786	521	186	599	726	193	916
BERKELEY	5,032	2,551	1,977	503	240	219	197	768	219	253
CALHOUN	16,936	3,044	11,537	2,354	1,423	843	2,045	2,246	844	2,137
CHARLESTON	15,191	3,613	8,797	2,780	988	526	1,424	1,798	573	1,741
CHEROKEE	5,867	395	1,858	3,613	290	228	270	394	243	271
CHESTER	6,848	1,981	3,927	940	566	509	602	1,019	510	622
CHESTERFIELD	5,998	1,962	2,697	1,338	232	266	538	705	266	678
CLARENDON	20,523	5,290	7,750	7,481	536	843	2,030	1,901	844	2,110
COLLETON	14,068	5,113	7,739	1,214	670	701	1,183	1,912	716	1,615
DARLINGTON	29,604	9,078	15,174	5,350	1,065	1,077	4,411	3,334	1,083	4,799
DILLON	29,274	6,308	8,214	14,751	332	748	1,988	2,047	753	1,997
DORCHESTER	10,239	5,818	4,289	131	294	407	916	1,652	412	1,094
EDGEFIELD	5,649	914	2,206	2,528	336	152	475	605	152	477
FAIRFIELD	248	98	144	5	21	10	16	51	10	16
FLORENCE	34,843	7,047	12,943	14,853	856	1,000	3,109	2,745	1,005	3,136
GEORGETOWN	2,508	789	1,589	129	175	137	275	388	139	279
GREENVILLE	9,921	1,333	6,055	2,533	971	680	832	1,370	687	873
GREENWOOD	2,503	339	1,994	168	325	245	263	437	246	267
HAMPTON	39,344	5,393	8,713	25,237	839	808	1,222	1,911	808	1,985
HORRY	32,167	6,235	11,243	14,689	911	964	2,034	2,379	980	2,491
JASPER	2,151	898	939	313	98	63	111	306	63	145
KERSHAW	3,367	989	2,270	107	289	188	315	586	188	318
LANCASTER	2,312	746	1,413	152	215	199	217	438	201	220
LAURENS	5,395	1,869	3,339	185	647	372	378	1,213	373	380
LEE	17,239	6,771	3,106	7,361	152	457	871	2,003	494	1,166
LEXINGTON	9,383	2,118	6,577	687	1,064	452	1,144	1,613	456	1,219
MC CORMICK	1,677	265	1,244	168	142	129	226	220	129	226
MARION	9,952	3,223	5,495	1,232	362	434	1,127	1,165	440	1,170
MARLBORO	10,137	4,354	3,092	2,689	103	287	895	1,228	287	957
NEWBERRY	9,499	3,525	3,782	2,190	546	461	688	1,616	462	704
OCONEE	5,358	1,477	2,559	1,320	392	303	351	803	305	370
ORANGEBURG	54,074	19,186	26,095	8,792	2,898	2,570	4,907	7,766	2,626	5,798
PICKENS	2,640	226	1,726	687	260	201	232	307	201	270
RICHLAND	12,235	1,298	6,094	4,843	951	561	898	1,551	568	946
SALUDA	13,594	4,510	8,838	245	1,807	1,502	1,108	3,358	1,502	1,353
SPARTANBURG	17,149	4,196	10,251	2,701	1,474	1,188	1,651	2,734	1,217	1,801
SUMTER	25,850	7,439	8,742	9,668	636	1,007	2,066	2,708	1,017	2,165
UNION	1,806	422	1,318	65	199	164	192	335	164	192
WILLIAMSBURG	32,927	8,549	15,471	8,906	877	1,401	3,488	3,163	1,413	3,548
YORK	7,869	1,200	3,995	2,673	598	511	637	970	515	653
UNKNOWN	92,834	2,309	7,105	83,419	1,038	673	732	1,605	683	853
TOTAL *	726,627	163,304	277,956	285,366	30,275	27,001	51,879	73,024	27,340	58,157

*Total fertilizer includes liming materials

SELECT FERTILIZERS BY COUNTY
MULTI-NUTRIENT GRADES OF OVER 1000 TONS
JULY, 1997 THRU JUNE, 1998

	0-7-28	0-9-27	0-10-30	3-5-30	3-9-9	3-9-27	3-10-30	3-15-30	4-0-8	4-8-24
ABBEVILLE	0	0	0	0	0	0	0	0	0	0
AIKEN	0	6	2	0	0	7	0	62	0	0
ALLEDALE	0	0	0	0	0	0	0	0	10	0
ANDERSON	0	0	0	0	0	0	0	0	0	0
BAMBERG	112	105	0	0	0	0	0	11	10	0
BARNWELL	17	261	0	0	0	118	0	0	0	39
BEAUFORT	0	0	0	0	0	0	0	0	836	0
BERKELEY	21	0	62	0	0	0	10	5	0	0
CALHOUN	0	0	0	0	0	3	0	0	4	1
CHARLESTON	0	0	0	0	0	0	0	0	942	0
CHEROKEE	0	0	0	0	0	0	0	0	0	27
CHESTER	0	0	0	0	0	0	0	0	0	0
CHESTERFIELD	333	8	0	0	0	0	0	93	0	273
CLARENDON	47	21	748	0	0	110	87	0	113	0
COLLETON	7	308	0	0	0	0	0	0	334	162
DARLINGTON	2,710	637	76	5	1	79	0	22	19	206
DILLON	0	30	3,038	0	432	82	0	7	0	97
DORCHESTER	24	428	177	0	0	0	0	124	0	264
EDGEFIELD	0	0	0	0	0	0	0	0	0	0
FAIRFIELD	0	0	0	0	0	0	0	0	0	0
FLORENCE	49	62	261	535	68	78	345	20	3	489
GEORGETOWN	0	6	66	138	1	21	0	0	0	0
GREENVILLE	0	0	0	0	0	0	0	0	0	0
GREENWOOD	0	0	0	0	4	0	0	0	0	0
HAMPTON	0	13	184	0	0	0	0	0	0	0
HORRY	0	30	35	23	1,770	163	90	0	0	49
JASPER	0	0	0	0	0	0	0	0	0	0
KERSHAW	133	0	0	0	0	0	0	0	0	23
LANCASTER	0	0	0	0	0	0	0	0	0	0
LAURENS	0	0	0	0	0	0	0	0	0	0
LEE	96	0	0	0	0	5	0	0	0	0
LEXINGTON	0	0	0	0	0	0	0	0	0	0
MC CORMICK	0	0	0	0	-7	0	0	0	0	0
MARION	0	15	13	0	578	19	5	0	0	0
MARLBORO	211	111	362	0	0	24	0	0	0	54
NEWBERRY	0	0	0	0	0	49	0	238	0	98
OCONEE	0	0	0	0	0	0	0	0	0	0
ORANGEBURG	293	357	158	0	0	1	0	0	0	143
PICKENS	0	0	0	0	0	0	0	0	0	0
RICHLAND	0	0	0	0	0	0	0	0	0	0
SALUDA	0	0	0	0	0	1	0	0	0	0
SPARTANBURG	0	21	309	0	0	0	0	0	1	181
SUMTER	0	154	748	214	3	0	0	0	0	89
UNION	0	0	0	0	0	0	0	0	0	0
WILLIAMSBURG	204	253	2,108	567	63	524	608	505	0	180
YORK	0	0	0	0	0	0	0	0	0	0
UNKNOWN	0	0	19	0	0	0	0	0	0	0
TOTAL *	4,263	2,834	8,375	1,486	2,916	1,291	1,147	1,092	2,275	2,382

SELECT FERTILIZERS BY COUNTY
MULTI-NUTRIENT GRADES OF OVER 1000 TONS
JULY, 1997 THRU JUNE, 1998

	0-18-36	4-8-32	5-5-30	5-10-10	6-6-18	5-10-15	10-10-10	12-4-16	14-0-44	14-4-14
ABBEVILLE	0	0	0	0	0	22	439	0	0	0
AIKEN	77	0	0	9	0	122	1,247	0	0	49
ALLENDALE	0	0	0	0	0	46	42	0	1	0
ANDERSON	14	0	0	20	0	16	663	0	0	0
BAMBERG	58	0	7	7	22	5	213	18	0	0
BARNWELL	0	0	8	6	0	74	362	0	0	0
BEAUFORT	0	0	0	93	0	65	287	0	2	12
BERKELEY	0	0	0	5	27	1	145	0	2	0
CALHOUN	0	0	0	3	158	0	47	1,112	3	214
CHARLESTON	0	0	0	120	297	15	1,288	0	775	0
CHEROKEE	0	0	0	5	0	5	419	0	0	91
CHESTER	0	0	0	40	0	5	634	0	0	0
CHESTERFIELD	3	0	0	19	106	11	452	0	0	30
CLARENDON	5	24	5	2	287	2	58	0	1	0
COLLETON	0	0	104	97	152	90	570	0	7	40
DARLINGTON	95	0	0	15	1,231	30	278	0	3,226	133
DILLON	0	42	187	101	1,183	5	250	0	0	0
DORCHESTER	0	0	0	69	120	129	442	0	1	60
EDGEFIELD	0	0	0	0	0	0	19	0	2	0
FAIRFIELD	0	0	0	6	2	3	60	0	0	0
FLORENCE	45	43	0	41	3,809	9	420	0	573	0
GEORGETOWN	0	0	0	45	185	0	273	0	0	0
GREENVILLE	0	0	3	46	0	3	1,079	0	4	3
GREENWOOD	2	0	0	27	0	5	384	0	0	0
HAMPTON	85	0	35	96	0	35	275	0	1	154
HORRY	0	687	59	102	2,085	93	474	0	24	15
JASPER	0	0	0	0	0	75	50	0	0	76
KERSHAW	0	0	7	32	25	18	317	0	0	178
LANCASTER	0	0	0	8	1	4	165	0	0	0
LAURENS	0	0	0	9	0	0	286	0	9	0
LEE	465	0	0	2	275	0	20	0	0	0
LEXINGTON	11	0	0	30	0	2	451	0	0	0
MC CORMICK	0	0	6	14	271	1	96	0	0	0
MARION	0	912	0	62	1,860	0	146	0	0	0
MARLBORO	0	19	469	12	6	0	57	0	0	0
NEWBERRY	0	0	0	12	0	0	245	0	47	0
OCONEE	0	0	3	10	0	13	526	0	0	155
ORANGEBURG	132	0	464	23	44	425	1,272	1,075	96	156
PICKENS	0	0	0	7	0	6	497	0	1	0
RICHLAND	3	0	0	153	0	23	547	0	0	0
SALUDA	0	0	0	5	0	0	267	0	0	0
SPARTANBURG	52	0	2	19	5	9	1,467	0	4	55
SUMTER	274	0	0	31	343	3	139	0	0	0
UNION	0	0	0	0	0	0	185	0	0	0
WILLIAMSBURG	0	0	0	182	2,254	237	1,026	0	57	0
YORK	0	0	6	19	0	3	567	0	13	0
UNKNOWN	3	0	37	22	0	12	916	0	3	0
TOTAL *	1,330	1,729	1,410	1,647	14,759	1,634	20,083	2,205	4,862	1,426

SELECT FERTILIZERS BY COUNTY
MULTI-NUTRIENT GRADES OF OVER 1000 TONS
JULY, 1997 THRU JUNE, 1998

	14-7-14	15-0-5	15-0-15	15-15-15	16-4-8	16-16-0	17-17-0	18-9-9	18-46-0	17-17-17
ABBEVILLE	74	0	3	1,137	53	0	0	785	0	733
AIKEN	0	0	30	10	102	32	0	0	0	82
ALLENDALE	0	38	406	0	6	143	0	0	30	0
ANDERSON	3	0	3	105	94	0	0	0	3	1,570
BAMBERG	0	0	17	0	7	161	22	0	3	213
BARNWELL	0	0	6	0	11	27	45	0	5	0
BEAUFORT	0	0	50	5	71	0	0	0	0	22
BERKELEY	0	0	1	0	9	75	0	0	0	0
CALHOUN	0	0	241	38	3	217	90	0	0	17
CHARLESTON	0	0	179	0	140	0	0	0	15	0
CHEROKEE	0	0	2	25	12	0	0	14	0	751
CHESTER	0	0	2	0	20	0	0	0	0	1,038
CHESTERFIELD	208	0	29	0	22	0	0	0	0	223
CLARENDON	0	0	0	0	6	0	0	0	81	0
COLLETON	622	0	6	20	36	163	0	0	10	0
DARLINGTON	185	0	1	8	48	0	0	0	99	30
DILLON	463	0	17	0	136	0	0	0	0	0
DORCHESTER	0	0	15	6	35	0	0	0	7	10
EDGEFIELD	0	0	0	10	39	0	0	0	4	136
FAIRFIELD	0	0	0	0	6	0	0	0	0	3
FLORENCE	0	0	11	0	49	0	0	0	6	28
GEORGETOWN	0	0	0	0	44	0	0	0	0	5
GREENVILLE	0	0	4	107	324	0	0	53	1	1,202
GREENWOOD	5	0	0	67	129	0	0	3	71	447
HAMPTON	0	1,282	313	0	12	29	87	0	0	0
HORRY	24	0	8	10	138	0	17	0	133	1
JASPER	0	37	74	0	0	0	0	0	0	0
KERSHAW	8	0	17	0	326	0	0	0	0	375
LANCASTER	39	0	0	0	18	0	0	0	0	672
LAURENS	10	0	0	110	17	0	0	227	5	925
LEE	0	0	0	0	6	0	0	0	0	21
LEXINGTON	0	0	154	21	129	95	10	0	17	69
MC CORMICK	0	0	3	0	7	0	0	0	0	151
MARION	0	0	5	25	12	0	0	0	0	0
MARLBORO	0	0	8	0	0	0	0	0	0	0
NEWBERRY	0	0	0	32	19	0	0	250	42	581
OCONEE	0	0	0	231	72	0	0	160	0	783
ORANGEBURG	9	1	9	18	26	182	772	0	25	54
PICKENS	0	0	0	56	47	0	0	1	0	233
RICHLAND	0	0	55	0	505	60	0	0	236	38
SALUDA	20	0	0	16	5	0	0	0	1,352	786
SPARTANBURG	236	0	5	43	85	0	0	699	32	1,707
SUMTER	23	0	6	1	25	0	0	0	0	1
UNION	121	0	0	0	7	0	0	129	0	569
WILLIAMSBURG	81	0	26	0	224	0	0	0	0	38
YORK	0	0	1	0	50	0	0	0	0	1,584
UNKNOWN	0	0	190	1	484	0	18	0	154	102
TOTAL *	2,139	1,359	1,911	2,112	3,639	1,188	1,064	2,325	2,342	15,219

SELECT FERTILIZERS BY COUNTY
MULTI-NUTRIENT GRADES OF OVER 1000 TONS
JULY, 1997 THRU JUNE, 1998

	19-10-19	19-19-19	20-0-20	20-10-10	20-10-20	21-7-14	24-0-3	28-3-3	35-17-0
ABBEVILLE	0	5	0	6	1	192	0	0	0
AIKEN	0	84	110	41	379	0	0	21	0
ALLENDALE	0	0	1	0	0	0	263	0	0
ANDERSON	0	870	0	599	68	3	0	15	0
BAMBERG	2	12	0	15	30	0	0	0	0
BARNWELL	0	44	0	0	36	0	0	0	0
BEAUFORT	0	3	18	0	0	0	0	7	0
BERKELEY	0	0	0	0	0	0	0	17	0
CALHOUN	0	2	6	0	3	0	171	0	0
CHARLESTON	0	4	131	0	0	45	0	32	0
CHEROKEE	39	0	0	0	0	88	0	1	0
CHESTER	0	0	0	11	18	156	0	0	0
CHESTERFIELD	0	0	0	0	0	0	0	0	0
CLARENDON	1,137	0	103	0	0	0	0	0	0
COLLETON	0	0	5	6	0	0	0	5	0
DARLINGTON	0	9	161	0	0	0	0	0	0
DILLON	0	0	116	0	6	0	0	0	0
DORCHESTER	0	0	1	0	0	0	0	6	0
EDGEFIELD	49	46	81	0	0	0	0	0	0
FAIRFIELD	0	0	23	0	0	2	0	12	0
FLORENCE	180	2	353	0	19	6	0	16	0
GEORGETOWN	0	3	1	13	30	0	0	0	0
GREENVILLE	0	393	0	7	7	35	0	39	0
GREENWOOD	5	39	11	23	11	0	0	7	0
HAMPTON	1	0	7	0	6	0	0	0	0
HORRY	0	19	173	0	8	26	0	25	0
JASPER	0	0	28	0	0	0	0	0	0
KERSHAW	0	29	0	0	33	0	0	10	0
LANCASTER	0	0	0	0	0	42	0	7	0
LAURENS	0	215	7	14	0	0	0	643	0
LEE	0	5	8	0	5	0	0	0	0
LEXINGTON	0	139	196	0	29	0	66	40	0
MC CORMICK	0	0	5	5	12	0	0	4	0
MARION	0	0	71	0	0	0	0	0	0
MARLBORO	0	0	50	0	0	0	0	0	0
NEWBERRY	0	97	38	105	306	0	0	3	18
OCONEE	0	68	0	0	6	3	0	0	0
ORANGEBURG	1	22	52	2	35	2	106	11	199
PICKENS	0	201	0	49	0	28	0	10	0
RICHLAND	0	126	255	9	76	0	0	28	0
SALUDA	9	313	78	126	110	12	0	0	1,618
SPARTANBURG	0	32	6	64	0	659	0	16	0
SUMTER	0	0	4	0	9	0	357	10	0
UNION	0	0	0	0	0	10	0	0	0
WILLIAMSBURG	0	109	46	22	174	0	0	0	0
YORK	0	9	6	126	17	60	0	41	0
UNKNOWN	0	13	0	3	2	2	900	95	0
TOTAL *	1,424	2,927	2,164	1,253	1,446	1,378	1,865	1,133	1,835

SELECT FERTILIZERS BY COUNTY
SINGLE-NUTRIENT MATERIALS OVER 500 TONS
JULY, 1997 THRU JUNE, 1998

	ANHYDROUS AMMONIA	AMMONIUM NITRATE	AMMONIUM SULFATE	CALCIUM NITRATE	NITROGEN SOL.<28%	NITROGEN SOL. 30%	NITROGEN SOL. 32%
ABBEVILLE	0	1,182	7	5	113	58	54
AIKEN	0	748	7	25	697	1,080	7
ALLENDALE	0	-1	21	22	1,658	225	73
ANDERSON	0	953	2	9	281	211	494
BAMBERG	213	33	128	3	3,361	610	113
BARNWELL	0	79	0	2	1,662	484	0
BEAUFORT	0	89	35	26	136	313	0
BERKELEY	0	7	10	0	1,536	497	49
CALHOUN	38	91	124	7	1,438	389	6
CHARLESTON	0	190	175	127	724	1,066	0
CHEROKEE	0	169	3	86	0	25	0
CHESTER	0	505	0	1	500	103	0
CHESTERFIELD	0	230	0	5	564	899	0
CLARENDON	0	89	0	36	4,058	811	0
COLLETON	132	207	198	36	1,619	2,013	0
DARLINGTON	0	472	34	24	3,398	3,786	0
DILLON	0	104	0	2	3,573	2,594	0
DORCHESTER	0	62	17	7	2,952	1,240	329
EDGEFIELD	0	286	0	185	106	161	7
FAIRFIELD	0	6	0	0	25	51	0
FLORENCE	0	838	104	32	4,168	1,342	241
GEORGETOWN	0	121	8	2	291	266	0
GREENVILLE	2	341	13	18	70	378	0
GREENWOOD	0	250	0	1	20	24	4
HAMPTON	142	46	21	8	2,432	329	0
HORRY	0	1,113	107	50	1,448	1,909	0
JASPER	0	23	0	0	531	267	0
KERSHAW	0	88	4	1	43	715	97
LANCASTER	0	108	0	0	74	554	0
LAURENS	0	331	0	1	123	1,404	0
LEE	139	126	34	0	3,038	1,249	896
LEXINGTON	0	180	9	24	1,155	426	7
MC CORMICK	0	45	0	0	76	129	0
MARION	0	106	1	33	1,687	1,053	0
MARLBORO	0	60	0	0	2,821	1,323	0
NEWBERRY	0	348	0	0	121	2,864	0
OCONEE	0	420	24	3	555	361	38
ORANGEBURG	168	758	39	6	9,133	1,565	3,224
PICKENS	0	60	0	11	0	0	49
RICHLAND	419	91	9	6	151	205	17
SALUDA	0	1,511	0	78	93	615	2
SPARTANBURG	121	1,056	7	99	427	1,730	0
SUMTER	19	243	18	10	2,965	3,463	79
UNION	0	229	0	1	0	184	0
WILLIAMSBURG	0	688	235	43	4,829	2,408	0
YORK	0	534	0	40	53	287	0
UNKNOWN	0	75	71	90	570	804	0
TOTAL *	1,398	15,309	1,479	1,183	65,298	42,494	5,796

**SELECT FERTILIZERS BY COUNTY
SINGLE-NUTRIENT MATERIALS OVER 500 TONS
JULY, 1997 THRU JUNE, 1998**

	SODIUM NITRATE	UREA	NITROGEN NO CODE	MURIATE POT 60%	SULFATE POT-MAG	POTASH NO CODE	MANURE	GYPSUM
ABBEVILLE	4	0	4	15	122	0	8	2
AIKEN	4	342	395	235	0	4	80	51
ALLENDALE	0	0	528	58	0	7	0	19
ANDERSON	22	149	75	9	0	4	200	239
BAMBERG	1	62	520	355	1	536	6	147
BARNWELL	5	31	356	46	0	135	8	49
BEAUFORT	0	29	58	305	80	259	22	204
BERKELEY	-1	2	20	6	5	396	20	185
CALHOUN	3	105	603	124	0	2	0	1
CHARLESTON	14	96	131	329	30	232	306	2,024
CHEROKEE	0	0	77	2	0	0	38	78
CHESTER	0	7	826	33	0	0	0	0
CHESTERFIELD	19	0	0	230	0	11	0	0
CLARENDON	21	0	128	103	6	34	16	528
COLLETON	9	10	10	442	0	373	18	696
DARLINGTON	45	154	135	506	13	51	4	364
DILLON	7	0	4	6	6	2	613	0
DORCHESTER	17	10	863	287	0	4	57	3
EDGEFIELD	0	114	43	0	8	0	0	0
FAIRFIELD	1	7	5	0	0	0	1	0
FLORENCE	110	18	92	26	5	12	222	1,551
GEORGETOWN	10	1	7	0	6	3	52	47
GREENVILLE	9	159	214	53	1	3	658	331
GREENWOOD	1	15	14	6	0	0	18	1
HAMPTON	0	98	682	56	0	274	0	22
HORRY	281	34	92	424	79	349	239	1,221
JASPER	0	0	0	0	0	76	4	0
KERSHAW	6	7	11	5	0	6	31	0
LANCASTER	0	0	2	3	0	0	25	0
LAURENS	0	1	0	2	0	3	3	3
LEE	33	14	650	420	0	31	3	405
LEXINGTON	2	85	83	80	2	4	277	1
MC CORMICK	0	0	12	0	0	0	10	73
MARION	137	0	4	16	100	7	4	1,107
MARLBORO	3	0	0	24	0	0	0	24
NEWBERRY	0	39	0	25	0	2	19	0
OCONEE	5	2	5	31	0	0	20	31
ORANGEBURG	32	22	2,390	1,158	-6	356	52	722
PICKENS	3	3	26	18	0	0	54	12
RICHLAND	31	169	88	53	5	19	816	103
SALUDA	0	1,723	79	407	0	0	16	46
SPARTANBURG	2	273	148	206	1	10	901	63
SUMTER	36	8	408	157	0	5	138	191
UNION	1	0	5	0	0	0	0	0
WILLIAMSBURG	29	38	71	76	7	16	0	231
YORK	0	37	215	24	0	0	186	20
UNKNOWN	13	124	100	94	51	23	417	2
TOTAL *	932	4,003	10,197	6,472	529	3,261	5,578	10,815

FERTILIZER TONNAGE NUMBER OF SAMPLES PROCURED AND ANALYZED, NUMBER OF SAMPLES FOUND DEFICIENT AND PERCENTAGE FOUND DEFICIENT FOR 1908-1998

YEAR	NO. TONS FERTILIZER SOLD	NO. SAMPLES REPORTED	DEF. IN ONE OR MORE NUTRIENTS OR INDEX VALUE	% DEFICIENT	NUMBER OF SAMPLES DEFICIENT OR EXCESSIVE					
					N	P ₂ O ₅	K ₂ O	OVERALL INDEX VALUE	EXC. CL	EXC. B DEF. SEC MICRO.
1908	688939	713	161	22.58	*NA	*NA	*NA	*NA	*NA	*NA
1909	810965	805	197	24.47	*NA	*NA	*NA	*NA	*NA	*NA
1910	960395	1188	235	19.78	*NA	*NA	*NA	*NA	*NA	*NA
1911	1020329	1605	393	24.49	*NA	*NA	*NA	*NA	*NA	*NA
1912	887998	1689	380	22.50	*NA	*NA	*NA	*NA	*NA	*NA
1913	961793	1922	389	20.24	*NA	*NA	*NA	*NA	*NA	*NA
1914	1064256	2537	534	21.05	*NA	*NA	*NA	*NA	*NA	*NA
1915	649961	1227	333	27.14	*NA	*NA	*NA	*NA	*NA	*NA
1916	725324	1598	378	24.65	*NA	*NA	*NA	*NA	*NA	*NA
1917	975163	1594	477	29.92	*NA	*NA	*NA	*NA	*NA	*NA
1918	1028597	1474	438	29.72	*NA	*NA	*NA	*NA	*NA	*NA
1919	1078325	1301	362	27.82	*NA	*NA	*NA	*NA	*NA	*NA
1920	1106941	1668	519	31.12	*NA	*NA	*NA	*NA	*NA	*NA
1921	602081	763	229	30.01	*NA	*NA	*NA	*NA	*NA	*NA
1922	527954	722	230	31.86	*NA	*NA	*NA	*NA	*NA	*NA
1923	693040	1181	360	30.48	*NA	*NA	*NA	*NA	*NA	*NA
1924	850196	1272	366	28.77	*NA	*NA	*NA	*NA	*NA	*NA
1925	872019	1239	368	29.70	*NA	*NA	*NA	*NA	*NA	*NA
1926	846779	1327	362	27.28	*NA	*NA	*NA	*NA	*NA	*NA
1927	722115	1348	441	32.72	*NA	*NA	*NA	*NA	*NA	*NA
1928	793337	1525	584	38.30	*NA	*NA	*NA	*NA	*NA	*NA
1929	775177	1307	367	28.08	*NA	*NA	*NA	*NA	*NA	*NA
1930	734232	1356	336	24.78	*NA	*NA	*NA	*NA	*NA	*NA
1931	602228	1057	271	25.64	*NA	*NA	*NA	*NA	*NA	*NA
1932	455048	961	252	26.22	*NA	*NA	*NA	*NA	*NA	*NA
1933	547459	1226	343	27.98	*NA	*NA	*NA	*NA	*NA	*NA
1934	583021	1037	94	9.06	*NA	*NA	*NA	*NA	*NA	*NA
1935	613620	1283	61	4.75	*NA	*NA	*NA	*NA	*NA	*NA
1936	614673	1544	136	8.81	*NA	*NA	*NA	*NA	*NA	*NA
1937	776912	1651	124	7.51	*NA	*NA	*NA	*NA	*NA	*NA
1938	666853	4318	279	6.46	*NA	*NA	*NA	*NA	*NA	*NA
1939	667950	4980	376	7.55	*NA	*NA	*NA	*NA	*NA	*NA
1940	982672	5026	226	4.50	*NA	*NA	*NA	*NA	*NA	*NA
1941	713270	5446	324	5.95	*NA	*NA	*NA	*NA	*NA	*NA
1942	658776	4939	266	5.39	*NA	*NA	*NA	*NA	*NA	*NA
1943	802578	4450	295	6.63	*NA	*NA	*NA	*NA	*NA	*NA
1944	813774	3880	242	6.24	*NA	*NA	*NA	*NA	*NA	*NA
1945	837271	3574	324	9.07	*NA	*NA	*NA	*NA	*NA	*NA
1946	839292	4456	456	10.23	*NA	*NA	*NA	*NA	*NA	*NA
1947	894345	5314	243	4.65	*NA	*NA	*NA	*NA	*NA	*NA
1948	987259	5122	161	3.14	*NA	*NA	*NA	*NA	*NA	*NA
1949	998512	5030	223	4.40	27	75	113	*NA	8	*NA
1950	888769	5460	269	4.93	40	94	119	*NA	16	*NA
1951	982916	5311	277	5.22	31	123	103	*NA	20	*NA
1952	1002068	5538	298	5.38	100	80	118	*NA	21	*NA
1953	1000766	5631	229	4.13	58	50	122	*NA	17	*NA
1954	936559	6017	253	4.25	84	48	92	*NA	29	*NA
1955	928715	6413	249	3.93	78	64	93	*NA	14	*NA
1956	863617	6058	249	4.30	64	50	110	*NA	35	*NA
1957	817500	6275	306	4.94	110	48	119	*NA	29	*NA
1958	732607	5091	230	4.59	111	48	60	*NA	11	*NA
1959	890302	5656	241	4.29	110	30	84	*NA	17	*NA
1960	783889	5301	347	6.62	188	34	98	*NA	27	*NA
1961	803261	5630	285	5.13	159	16	81	*NA	29	*NA
1962	813795	5663	179	3.20	73	10	74	*NA	22	*NA
1963	858707	6273	321	5.21	103	14	192	*NA	12	*NA
1964	889281	6984	423	6.20	142	17	243	*NA	21	*NA
1965	826933	6030	745	12.50	368	26	238	*NA	21	*NA
1966	865649	6244	623	9.97	334	30	167	*NA	42	*NA
1967	924307	6412	609	9.49	227	69	252	*NA	57	*NA

FERTILIZER TONNAGE NUMBER OF SAMPLES PROCURED AND ANALYZED, NUMBER OF SAMPLES FOUND DEFICIENT AND PERCENTAGE FOUND DEFICIENT FOR 1908-1998

YEAR	NO. TONS FERTILIZER SOLD	NO. SAMPLES REPORTED	DEF. IN ONE OR MORE NUTRIENTS OR INDEX VALUE	% DEFICIENT	NUMBER OF SAMPLES DEFICIENT OR EXCESSIVE					
					N	P ₂ O ₅	K ₂ O	OVERALL INDEX VALUE	EXC. CL	EXC. B DEF. SEC MICRO.
1968	939707	6396	649	10.10	261	102	267	*NA	31	108
1969	906113	5762	685	11.90	309	108	237	*NA	28	102
1970	855506	5663	805	14.30	369	232	232	*NA	29	73
1971	859665	4212	629	14.93	251	189	218	*NA	21	32
1972	860218	4832	877	18.10	355	211	344	*NA	40	81
1973	899566	4712	699	14.20	264	163	215	*NA	11	135
1974	965043	4807	851	17.70	348	198	228	*NA	50	232
1975	798780	4932	976	19.78	324	205	309	*NA	88	251
1976	912777	5628	1021	18.14	361	156	441	*NA	22	293
1977	985160	5790	1319	22.78	366	274	603	*NA	23	261
1978	842789	5868	1566	26.68	384	416	710	*NA	19	417
1979	820283	6192	1745	28.18	479	566	561	103	27	495
1980	818923	5918	1416	23.90	284	500	373	190	39	347
1981	870861	6606	1409	21.33	283	684	303	637	32	270
1982	698308	5810	1237	21.29	282	574	291	588	15	210
1983	621737	5460	1182	21.65	287	438	386	538	5	170
1984	701822	6138	1148	18.70	296	408	454	534	15	85
1985	693232	6183	1296	20.96	358	421	429	532	39	253
1986	564864	4945	855	17.29	334	205	211	330	19	121
1987	486591	4433	774	17.45	194	97	215	375	16	129
1988	534277	4441	771	17.36	214	196	160	270	44	203
1989	540386	4000	968	24.20	205	221	333	455	18	193
1990	559304	4252	629	14.79	142	151	229	144	17	121
1991	508328	3538	483	13.65	99	157	119	133	8	116
1992	536679	3882	451	11.62	110	114	121	117	7	122
1993	536336	4038	577	14.29	121	155	173	262	12	101
1994	573905	3257	361	10.80	73	96	90	88	10	143
1995	546808	2925	350	12.00	63	125	97	118	5	163
1996	651157	3114	396	12.70	67	99	108	98	10	147
1997	640943	2494	340	13.63	42	76	115	104	12	139
1998	544135	2055	296	14.40	79	96	75	79	11	112

SUMMARY OF FERTILIZER ANALYSIS BY COMPANY

		# Samples Procured	# Overall Deficient	N Def.	P2O5 Def.	K2O Def.	Overall Index Value Def.
AIR PRODUCTS & CHEMICALS, INC	PENSACOLA, FL	1	0	0	0	0	0
ARCADIAN OF AUGUSTA	AUGUSTA, GA	1	0	0	0	0	0
B.B. HOBBS CO./LIBERTY ACRES	DARLINGTON, SC	13	4	1	0	0	1
BULLOCH FERTILIZER CO.	STATESBORO, GA	1	0	0	0	0	0
C-W-S GUANO CO., INC.	CLINTON, SC	1	0	0	0	0	0
CAROLINA EASTERN-AIKEN	AIKEN, SC	14	0	0	0	0	0
CAROLINA EASTERN, INC.	CHARLESTON, SC	10	0	0	0	0	0
CAROLINA EASTERN, INC.	CHESTER, SC	38	7	1	1	3	2
CAROLINA EASTERN, INC.	FAIRFAX, SC	88	23	3	15	5	5
CAROLINA EASTERN OF LYNCHBURG	LYNCHBURG, SC	8	0	0	0	0	0
CAROLINA EASTERN-NICHOLS, INC	NICHOLS, SC	12	3	0	1	0	0
CAROLINA EASTERN, INC.	SPARTANBURG, SC	5	1	0	1	0	0
CAROLINA EASTERN	COLUMBIA, SC	170	32	14	10	5	17
CAROLINA EASTERN	EHRHARDT, SC	9	3	1	1	2	0
CAROLINA EASTERN-HOUCK, INC.	ELLOREE, SC	75	3	0	1	0	0
CAROLINA EASTERN- KINGSTREE	CHARLESTON, SC	5	0	0	0	0	0
CAROLINA EASTERN-MOLONY	RAVENEL, SC	95	13	2	3	2	3
CAROLINA EASTERN-PAMPLICO INC	PAMPLICO, SC	30	4	0	3	1	2
CHILEAN NITRATE, CORP.	NORFOLK, VA	4	0	0	0	0	0
COASTAL CHEM. CORP.(DILLON)	DILLON, SC	8	1	0	0	0	0
COUSINS AG. PRODUCTS INC.	NEWBERRY, SC	2	1	1	1	0	1
DOUGLASS FERT. & CHEM. INC.	ALTAMONTE SPRINGS, FL	17	0	0	0	0	0
FARMERS WHSE. OF MANNING, INC	MANNING, SC	2	0	0	0	0	0
FLOYD'S FERT & FARM SUPPLY	NEW ZION, SC	8	1	0	1	0	0
FREE FLOW FERTILIZER	MAUMEE, OH	1	0	0	0	0	0
G&C FERTILIZER CO	BAXLEY, GA	1	0	0	0	0	0
GOLD KIST, INC.	ALLENDALE, SC	125	29	1	4	26	3
GOLD KIST, INC.	ANDERSON, SC	12	0	0	0	0	0
GOLD KIST, INC.	ATLANTA, GA	2	0	0	0	0	0
GOLD KIST, INC.	BISHOPVILLE, SC	6	0	0	0	0	0
GOLD KIST, INC.	FLORENCE, SC	14	0	0	0	0	0
GOLD KIST, INC.	JOHNSTON, SC	42	6	1	6	0	5
GOLD KIST, INC.	LAKE CITY, SC	23	2	0	1	0	0
GOLD KIST, INC.	LITTLE ROCK, SC	2	1	0	1	0	0
GOLD KIST, INC.	MANNING, SC	3	0	0	0	0	0
GOLD KIST, INC.	NEWBERRY, SC	2	1	0	1	0	0
GOLD KIST, INC.	VANCE, SC	43	9	7	3	1	1
GRIFFIN CORBIN	GREENVILLE, SC	1	0	0	0	0	0
GROW-ALL FERTILIZER	VALE, NC	11	11	11	11	11	11
GROWERS CHEM. CORP. (GROFERT)	MILAN, OH	1	0	0	0	0	0
HELENA CHEMICAL CO.	CAMERON, SC	40	4	1	2	0	1
HELENA CHEMICAL CO.	MEMPHIS, TN	8	0	0	0	0	0
HELENA CHEMICAL CO.	ROWLAND, NC	4	1	0	1	0	1
HOMEWOOD FARM SUPPLY, INC.	CONWAY, SC	2	2	1	0	0	0
HYDRO AGRI NORTH AMERICA, INC	TAMPA, FL	7	0	0	0	0	0
IMC AGRIBUSINESS	ORANGEBURG, SC	134	16	7	6	3	1
IMC AGRIBUSINESS	STARR, SC	8	2	0	1	1	0
IMC AGRICO	COLLINSVILLE, IL	18	3	2	0	0	1
IMC AGRICO COMPANY	NEW WALES, OH	2	0	0	0	0	0
IMC RAINBOW (AUGUSTA)	AMERICUS, GA	5	0	0	0	0	0
IMC RAINBOW	HARTSVILLE, SC	229	14	4	0	1	2
IMC FERTILIZER, (DUNN)	DUNN, NC	5	0	0	0	0	0
IMC GLOBAL OPERATIONS, INC.	WINSTON-SALEM, NC	5	0	0	0	0	0
KEMIRA PIGMENTS, INC.	SAVANNAH, GA	1	0	0	0	0	0
LARODE INDUSTRIES, INC.	ATLANTA, GA	1	0	0	0	0	0
LESCO, INC.	ROCKY RIVER, OH	3	0	0	0	0	0
NATURAL NUTRIENTS	ANDREWS, SC	6	6	0	0	0	0

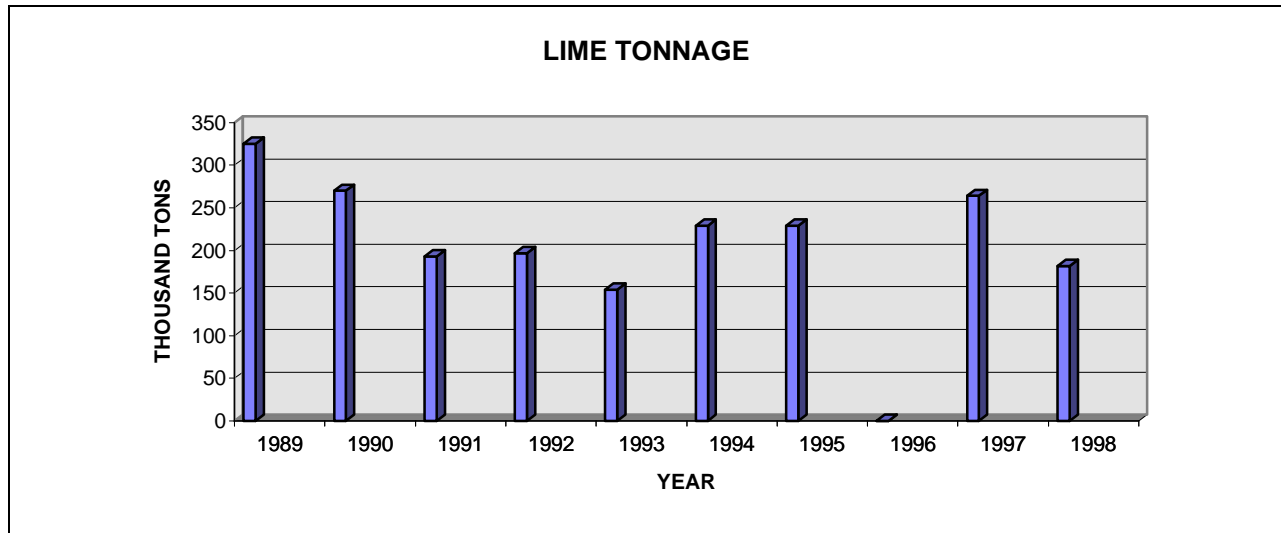
SUMMARY OF FERTILIZER ANALYSIS BY COMPANY

		# Samples Procured	# Overall Deficient	N Def.	P2O5 Def.	K2O Def.	Overall Index Value Def.
NITRAM, INC.	TAMPA, FL	1	0	0	0	0	0
NU-GRO TECHNOLOGIES, INC.	GLOVERSVILLE, OH	1	0	0	0	0	0
PCS NITROGEN	SKOKIE, IL	1	0	0	0	0	0
PENDLETON OIL MILL INC.	PENDLETON, SC	17	6	2	3	1	3
REGAL CHEMICAL COMPANY	ALPHARETTA, GA	2	2	1	0	0	0
RIDGE FARMERS MUTUAL	RIDGE SPRING, SC	29	4	0	1	3	3
RODGERS FERTILIZER CO.	SALUDA, SC	7	1	1	0	0	1
ROYSTER CLARK, INC.	CAMERON, SC	83	5	2	0	2	2
ROYSTER CLARK, INC.	DARLINGTON, SC	4	0	0	0	0	0
ROYSTER CLARK, INC.	EHRHARDT, SC	25	3	1	1	1	0
ROYSTER CLARK, INC.	LAKE CITY, SC	52	10	0	0	0	1
ROYSTER CLARK, INC.	LAURINBURG, NC	1	0	0	0	0	0
ROYSTER CLARK, INC.	SPARTANBURG, SC	24	5	2	1	2	4
ROYSTER CLARK NORFOLK PLANT	NORFOLK, VA	5	1	0	0	0	0
ROYSTER CLARK, (GOLDEN EAGLE)	TARBORO, NC	2	0	0	0	0	0
ROYSTER CLARK, INC.(Wilmington)	WILMINGTON, NC	34	6	0	4	0	1
S & S FARM SUPPLY	RIDGE SPRING, SC	49	0	0	0	0	0
SCOTTS COMPANY	MARYSVILLE, OH	1	0	0	0	0	0
SCOTTS-SIERRA HORTICULTURAL	MARYSVILLE, OH	1	0	0	0	0	0
SHIPYARD RIVER TERMINAL	CHARLESTON, SC	1	0	0	0	0	0
SIMS AG-PRODUCTS, INC.	MT. GILEAD, OH	1	1	0	0	0	0
SOUTHERN AG LIME PRODUCTS	GULF SHORES, AL	1	0	0	0	0	0
SOUTHERN SOYA CORP.	ESTILL, SC	39	2	0	1	1	0
SOUTHERN STATES (GREENCHARGER)	RICHMOND, VA	15	0	0	0	0	0
SOUTHERN STATES PHOS. & FERT.	SAVANNAH, GA	51	3	1	0	0	0
TIGER PRODUCTS	ELIZABETHTOWN, NC	1	0	0	0	0	0
TRI COUNTY FERT. & SPECIALTY	HONEA PATH, SC	14	0	0	0	0	0
UAP/GA AG CHEM (DBA UAP/CAR.)	TAMPA, FL	5	1	0	0	0	0
U.S. GYPSUM CO.	CHICAGO, IL	3	0	0	0	0	0
VARNCO, INC.	EHRHARDT, SC	2	2	2	0	0	0
VEREENS FERTILIZER	KINGSTREE, SC	69	12	6	3	1	6
VIGORO IND. DBA IMC AGRIBUS.	COLLINSVILLE, IL	3	0	0	0	0	0
W. D. EVANS & SON, INC.	KINGSTREE, IL	8	2	0	0	0	2
WILBRO, INC.	NORWAY, SC	15	1	1	1	0	0
WILLIAMSON GINNERY, INC.	DENMARK, SC	23	1	0	1	0	0
WINSTON WEAVER CO., INC.	WINSTON-SALEM, NC	16	7	0	2	0	0
YOUMANS FARMS, INC.	FURMAN, SC	36	0	0	0	0	0

SUMMARY OF LIME ACTIVITIES

Lime Tonnage	182,325
Lime Samples Analyzed	158
Lime Samples Not Meeting Guarantee	8
Lime Samples Deficient in Calcium	0
Lime Samples Deficient in Magnesium	0
Lime Samples Deficient in Calcium Carbonate Equivalent	5
Lime Samples Not Passing Mesh Guarantee	6
Value of Penalties or Returned Fees	\$1128.78
Number of Lime Registrants for 1997-98	57
Number of Lime Products Registered in 1997-98	79
Number of Lime Permit Holders for 1997-98	40

TONNAGE OF LIME IN SOUTH CAROLINA



FERTILIZER-SEED INSPECTORS AND TERRITORY ASSIGNMENTS

BY COUNTY

<p align="center">THOMAS LOWDER 1225 BELL RD. MAYESVILLE, SC 29104 TELEPHONE (803) 469-0021 PAGER 1-800-578-7243 PIN 11319</p> <p>Clarendon Darlington</p> <p align="center">Chesterfield</p> <p align="right">Lee Sumter</p>	<p align="center">CHARLES M. MCRAE 5232 PAPER SHELL COURT MULLINS, SC 29574 TELEPHONE (843) 464-8012 PAGER 1-800-578-7243 PIN 14821</p> <p align="center">JAMES B. ATKINSON 6526 S. HIGHWAY 41 MARION, SC 29571 TELEPHONE (843) 362-1779 PAGER 1-800-578-7243 PIN 18079</p> <p>Georgetown Dillon Florence</p> <p align="center">Marion</p> <p align="right">Williamsburg Horry Marlboro</p>
<p align="center">JOHN L. BELL 10273 COMBAHEE RD. YEMASSEE, SC 29945 TELEPHONE (843) 844-2219 PAGER 1-800-578-7243 PIN 14785</p> <p>Beaufort Berkeley Charleston Jasper</p> <p align="right">Colleton Dorchester Hampton</p>	<p align="center">CHRIS RAY 511 WESTINGHOUSE RD. PENDLETON, SC 29670 TELEPHONE (864) 646-2145 PAGER 1-800-614-5703</p> <p>Abbeville Anderson Cherokee Greenville Greenwood</p> <p align="center">Union</p> <p align="right">Laurens McCormick Oconee Pickens Spartanburg</p>
<p align="center">FRANKLIN HIERS RT. 1, BOX 160, EHRHARDT, SC 29081 TELEPHONE (803) 267-7960 PAGER 1-800-578-7243 PIN 14416</p> <p>Aiken Allendale Bamberg</p> <p align="right">Barnwell Calhoun Orangeburg</p>	<p align="center">MICHAEL BISHOP 3008 HILLDALE RD., W. COLUMBIA, SC 29170 TELEPHONE (803) 796-6165 PAGER 1-800-402-5164</p> <p>Chester Edgefield Fairfield Kershaw Lancaster</p> <p align="right">Lexington Newberry Richland Saluda York</p>

DEPARTMENT OF FERTILIZER AND SEED CERTIFICATION SERVICES

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