

Commercial Fertilizers in Kentucky, 1956

Including a Report on Official Fertilizer
Samples Analyzed

July-December, 1956



University of Kentucky
Agricultural Experiment Station
Lexington

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This bulletin contains analyses of commercial fertilizers made between July 1 and December 31, 1956. Analyses of samples made between January 1, 1956 and June 30, 1956 were published in Regulatory Bulletin 133.

TONNAGE OF FERTILIZER SOLD

Manufacturers reported that more than 531,000 tons of commercial fertilizer were sold in Kentucky during 1956. This was 6% more than in 1955.

The tonnage of commercial fertilizer sold during 1956, as reported by manufacturers, is given in tables A, B, and C.

PLANT FOODS OR NUTRIENTS

The minimum percentages of guaranteed plant foods, or nutrients, present in commercial fertilizer are printed on the bag as nitrogen, available phosphoric acid, and potash. These are the nutrients needed by plants in largest amounts and also those in which the soil is most likely deficient. The element corresponding to phosphoric acid is phosphorus and the element corresponding to potash is potassium. Boron may also be guaranteed.

FERTILIZER GRADE

Grade designates the minimum percentage of nitrogen, available phosphoric acid, and potash, in the fertilizer. A 5-10-15 grade means that the fertilizer contains 5 percent nitrogen, 10 percent available phosphoric acid, and 15 percent potash. The nutrients are always listed in this order. A 0-20-0 grade refers to a superphosphate fertilizer containing 20 percent available phosphoric acid. A 0-0-60 grade refers to a potash fertilizer containing 60 percent potash.

NUMBER OF GRADES NEEDED IN KENTUCKY

The Departments of Agronomy and Horticulture of the Kentucky Agricultural Experiment Station consider that nine ratios and minimum grades of mixed fertilizer, together with superphosphate, nitrogen and potash salts will answer the present needs of Kentucky agriculture.

A list of the nine ratios and minimum grades and corresponding higher analysis grades recommended by the Agronomy Department for field crops are shown below:

<u>Ratio</u>	<u>Minimum Grades</u>	<u>Higher Analysis Grades</u>
0-1-1	0-12-12	0-14-14, 0-20-20, 0-24-24, 0-30-30
0-1-2	0-10-20	
0-2-1	0-14-7	0-16-8
1-1-1	8-8-8	10-10-10, 12-12-12, 14-14-14
1-1-3	6-6-18	
1-2-2	5-10-10	6-12-12, 8-16-16
1-2-3	5-10-15	6-12-18
1-3-2	4-12-6	6-18-12
1-4-4	3-12-12	4-16-16, 5-20-20

Higher grades of any ratio also are both recommended and encouraged. None of the recommended minimum grades of mixed fertilizer contain less than 20 units of plant food. Low grade fertilizers are less economical because costs of mixing, bags, freight and other incidental costs are the same per bag regardless of analysis.

There also is a distinct advantage to the manufacturer to hold the number of grades to a minimum, since a smaller number of grades can be mixed and distributed more economically.

The Agronomy Department suggests grades in the following ratios for tobacco: 1-2-3, 1-2-2, 1-1-3. Apply needed potash as sulfate of potash for tobacco. The other ratios listed are for general field crops, meadows and pastures.

More detailed suggestions for fertilizing field crops, using the above ratios and grades, are contained in Miscellaneous Circular 10 from this Station.

REFUNDS

When a sample of fertilizer is below the guaranteed analysis more than 0.8 units of nitrogen, 1.0 units of available phosphoric acid or 1.5 units of potash, or the combined relative value index shows the product deficient more than \$2.00 per ton, the manufacturer of the fertilizer and the dealer from whom the sample was obtained are given a special notice.

It is suggested to the manufacturer that a proportionate refund be made to all purchasers of the stock of fertilizer whose names can be obtained from the dealer. If names of purchasers cannot be obtained, the refund may be made to charity in the county where the fertilizer was sold.

If the shipment has not been sold at the time the notice is received, it must be either relabeled so as to show the correct analysis or returned to the manufacturer for reworking. A deficiency in one element as outlined above may not be offset by an overage in another element in determining whether or not a refund, re-labeling or reworking is required.

FARMERS' SAMPLES

Anyone in Kentucky who buys a commercial fertilizer for his own use may submit samples for free analysis to the Department of Feed and Fertilizer, Agricultural Experiment Station, Lexington 29, Kentucky.

1. Samples taken according to provisions of K. R. S. No. 250, 360 through No. 250, 480 (Kentucky Fertilizer Law). - To make the sample official it should be taken according to Section No. 250.440 of the statute referred to above. This section of the statute requires that witnesses be present when the sample is taken. Copies of the statute may be obtained from the Department of Feed and Fertilizer.

2. Unofficial samples. - If an analysis is wanted for the purchaser's information only, samples of fertilizer may be taken in the following manner:

Take portions (each about a handful) from 10 percent of the bags, unless this requires portions from more than 20 bags. If there are less than 10 bags, sample all. Take samples from as far down in the bags as possible. Place all portions on a clean paper and mix well. Place about one quart in a tight container, mark the container with name and address of the sender and send to the Department of Feed and Fertilizer, Agricultural Experiment Station, University of Kentucky, Lexington 29, Kentucky.

State in a letter the amount of fertilizer on hand, the number of bags sampled, and the reason for wanting analysis. If analysis is materially below guaranty, a representative of the Feed and Fertilizer Department may be sent to take an inspector's sample.

FERTILIZER GUARANTY

The statute regulating the sale of commercial fertilizers in Kentucky was amended at the 1952 session of the Kentucky Legislature. In accord with the amendment to the statute, the official tag formerly issued by this Department to be attached to each bag of fertilizer is no longer required.

Before a manufacturer can sell fertilizer in Kentucky, he must register each brand or grade he proposed to sell with the Kentucky Agricultural Experiment Station in a manner prescribed by the Director. This registration is the guaranty of the manufacturer. This information must be printed on each bag of fertilizer offered for sale in Kentucky or on a label attached to each bag supplied by the manufacturer. The information is as follows:

Brand name of fertilizer
Name and address of manufacturer
Guaranteed analysis showing:
 Nitrogen, percent
 Available phosphoric acid, percent
 Potash, from muriate or sulfate, percent

Total phosphoric acid is guaranteed in bone, dried manures and basic slag. Both total and available phosphoric acid are guaranteed in rock phosphate and in fused tricalcium phosphate.

PENALTIES FOR VIOLATING THE FERTILIZER LAW

Any manufacturer, firm, dealer, or vendor who sells or exposes for sale in Kentucky commercial fertilizer without complying with the provisions of the fertilizer law is subject to a fine of from \$100.00 to \$500.00 for each offense. Furthermore, if a fertilizer is short in net weight or short in the essential plant-food nutrients, a manufacturer, firm or dealer may not only be fined \$100.00 to \$500.00 for violating the fertilizer law, but "shall be liable for reasonable damages sustained by the purchaser of such fertilizer."

DISTRIBUTION OF FERTILIZER SALES IN KENTUCKY BY COUNTIES

Reports showing sales of fertilizer by grades by counties are now available for six month periods beginning July 1, 1954. These data were compiled from copies of invoices supplied by shippers of fertilizer. Copies may be had by writing to the Department of Feed and Fertilizer, Kentucky Agricultural Experiment Station.

TABLE A. - Mixed Fertilizer Sales by Grades, January 1, 1956 thru December 31, 1956,
(Calendar Year) Kentucky

Grade	January 1 thru	July 1 thru	Total**
	June 30, 1956	December 31, 1956**	
	(Tons)	(Tons)	(Tons)
0-10-20	255	155	410
0-12-12	1,167	281	1,448
0-14- 7	194	17	211
0-14-14	565	155	720
0-20-20	6,533	2,277	8,810
0-30-30	2,092	737	2,829
2-12- 6	18,054	3,329	21,383
3- 9- 6	16,012	722	16,734
3- 9-18	926	59	985
3-12- 6	9,575	893	10,468
3-12-12	37,140	10,312	47,452
4- 8-12	907	33	940
4-12- 4	1,222	87	1,309
4-12- 8	67,161	27,558	94,719
4-16-16	5,143	1,423	6,566
5-10- 5	1,712	149	1,861
5-10-10	19,452	1,073	20,525
5-10-15	81,379	2,087	83,466
5-20-20	5,904	3,828	9,732
6- 6-18	8,824	172	8,996
6- 8- 6	29,605	963	30,568
6-10- 4	704	56	760
6-12-12	15,724	4,390	20,114
6-12-18	2,539	49	2,588
8- 8- 8	2,019	665	2,684
10-10-10	20,497	2,969	23,466
10-20-20	136	106	242
12-12-12	5,635	1,097	6,732
Miscellaneous*	9,679	3,158	12,837
Total, Mixed	370,755	68,800	439,555
Total, Materials	70,726	21,419	92,145
Total Tons Sold	441,481	90,219	531,700

* Grades registered by fewer than 3 companies and miscellaneous grades with low tonnage

** Preliminary

COMMERCIAL FERTILIZER IN KENTUCKY, FALL SEASON, 1956

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TABLE B. - Fertilizer Sold as Straight Material and Miscellaneous Products by Types, January 1, 1956 thru December 31, 1956. (Calendar Year) Kentucky

Material	January 1 thru June 30, 1956	July 1 thru December 31, 1956*	Total*
	(Tons)	(Tons)	(Tons)
Nitrate of Soda, 16%	1,327	147	1,474
Ammonium Nitrate Lime, 20.5%	54	1	55
Ammonium Sulfate, 20-21%	313	40	353
Cyanamid, 20-21%	203	1,231	1,434
Nitrogen Solutions, 24-41%	306	163	469
Ammonium Nitrate, 32.5-33.5%	21,179	5,133	26,312
Anhydrous Ammonia, 82%	1,314	943	2,257
Urea	140	25	165
Total Nitrogen Material	24,836	7,683	32,519
Soft Phosphate, 20% Total	797	512	1,309
Ground Rock Phosphate, 30-33% Total	6,086	5,386	11,472
Basic Slag, 8% Total	190	52	242
Superphosphate, 18-20% Available	19,573	3,186	22,759
Triple Superphosphate, 45-50% Avail.	1,764	272	2,036
Calcium Metaphosphate, 60-62% Avail.	3,950	1,795	5,745
Total Phosphate Material	32,360	11,203	43,563
Sulfate of Potash Magnesia, 21-22%	484	179	663
Sulfate of Potash, 48-52%	5,687	113	5,800
Muriate of Potash, 60-61%	6,952	2,035	8,987
Total Potash Material	13,123	2,327	15,450
Dried Manures	207	61	268
Bone Meal	52	9	61
Sewage Sludge	80	80	160
Miscellaneous	68	56	124
Total Miscellaneous	407	206	613
Total Materials	70,726	21,419	92,145

* Preliminary

EXPLANATION OF "STANDING OF MANUFACTURERS"

The standings of manufacturers as determined by the results of analysis of official samples are given on pages 10 and 11. Purchasers of fertilizer can learn through a study of this how well any manufacturer met his guarantee on the samples analyzed.

It should be noted that the first 3 columns of figures refer to number of samples and that the last 3 columns refer to number of analysis of nitrogen, phosphoric acid and potash. Attention is directed to the third column of figures which gives for each manufacturer, the percentage of samples which are equal to guaranty in all respects, and to column 6, which gives the percentage of analyses which are equal to guarantee or within the tolerance of 1/4 of 1 percent (the tolerance of the Kentucky Fertilizer Law).

EXPLANATION OF TABLES 1, 2 & 3

In some samples a deficiency in one nutrient is accompanied by an overrun in another nutrient. This is evidence of improper mixing or weighing by the manufacturer. Extreme variations of this kind cannot be attributed to separation of materials (segregation) though this may be a minor factor. Excess of one nutrient cannot compensate for deficiency of another nutrient. The purchaser is entitled to receive the full guaranty in all nutrients as expressed by the manufacturer's guaranty.

The results of analyses of all inspection samples are given in Tables 1, 2 and 3. If an analysis shows a deficiency of more than one-fourth of 1 percent below the amount claimed for nitrogen, phosphoric acid, or potash, or if the percent of the relative value is 98 or less, the result is indicated in the tables by an asterisk by the figures.

COMPANIES REPRESENTED BY SAMPLES REPORTED IN THIS BULLETIN

- Allied Chemical & Dye Corporation
Nitrogen Division
40 Rector St., New York, N. Y.
- American Agricultural Chemical Co.
50 Church St., New York, N. Y.
- American Cyanamid Company
30 Rockefeller Plaza, New York, N. Y.
- Armour Fertilizer Works
350 Hart Bldg., Atlanta, Georgia
- Associated Cooperative, Inc.
312 Montgomery Ave., Sheffield, Ala.
- Bartlett & O'Bryan Fertilizer Company
108 River Road, Owensboro, Kentucky
- Bluegrass Plant Foods, Inc.
Cynthiana, Kentucky
- Buhner Fertilizer Company, Inc.
Louisville, Kentucky
- Burley Belt Plant Food Works
Lexington, Kentucky
- Chilean Nitrate Sales Corporation
120 Broadway, New York, N. Y.
- Commonwealth Fertilizer Company, Inc.
Morgantown Rd., Russellville, Ky.
- Cooperative Fertilizer Service
S. S. Bldg., Richmond, Virginia
- Darling & Company
Chicago, Illinois
- Davison Chemical Corporation
Baltimore, Maryland
- E'Town Fertilizer Company
716 East Dixie Avenue
Elizabethtown, Kentucky
- Farmers Fertilizer Company
Smiths Grove, Kentucky
- Federal Chemical Company
Starks Bldg., Louisville, Ky.
- Hutson Chemical Company
Murray, Kentucky
- International Minerals & Chemical Corp.
Lockland Station, Cincinnati, Ohio
- Kentucky Fertilizer Works
222 Cook Ave., Winchester, Ky.
- Knoxville Fertilizer Company
Knoxville, Tennessee
- Land O Nan Warehouse
Sturgis, Kentucky
- Lion Oil Company
Lion Oil Bldg., Eldorado, Ark.
- Louisville Fertilizer Company
Box 1088, Nashville, Tennessee
(See Armour Fertilizer Works)
- Mississippi River Chemical Corporation
Selma, Missouri
- Missouri Plant Food Company, Inc.
Sikeston, Missouri
- North American Fertilizer Company
Preston St. at Bergman
Louisville, Kentucky
- Price Chemical Company
Miller's Lane, Louisville, Kentucky
- Rigo Manufacturing Company
638 Benton Avenue, P. O. Box 1188
Nashville, Tennessee
- Robin Jones Phosphate Company
804 Church St., Nashville, Tennessee
- Ruhm Phosphate & Chemical Company
813 Garden St., Columbia, Tennessee
- O. M. Scott & Sons Company
Marysville, Ohio
- Schrock Fertilizer Service
Congerville, Illinois
- Smith Agricultural Chemical Company
185 Kentucky Avenue
Indianapolis, Indiana
- Spencer Chemical Company
Box 604, Pittsburg, Kansas
- Swift & Company
Union Stock Yards, Chicago, Illinois
- Tennessee Chemical Company
Box 1088, Nashville, Tennessee
(See Armour Fertilizer Works)
- Tennessee Coal & Iron, Div. of U. S. Steel Co.
Fairfield, Alabama
- Tennessee Corporation
Lockland Station, Cincinnati, Ohio
- Tri-State Chemical Company
Henderson, Kentucky
- Valley Counties of Kentucky Cooperative
Box 351
Murray, Kentucky
- Virginia-Carolina Chemical Corporation
Richmond, Virginia

Standing of Manufacturers Based On Samples Equal to Guaranty in All Respects and
Analyses Within Tolerance - 1956

COMPANY	Samples			Analyses of nitrogen, phosphoric acid and potash		
	Total Number	Equal to guaranty in all respects		Total Number	Equal to guaranty or within tolerance**	
		Number	Percent*		Number	Percent*
A. D. Adair & McCarthy Bros.	1	1	--	3	3	--
Allied Chemical & Dye Corp.	11	11	100	31	31	100
American Agric. Chem. Co.	92	50	54	263	225	86
American Cyanamid Co.	10	10	100	11	11	100
Armour Fertilizer Works	540	272	50	1,499	1,265	84
Louisville Fertilizer Co.	21	8	38	57	50	88
Tennessee Chemical Co.	25	13	52	66	56	85
Associated Cooperative, Inc.	37	33	89	59	56	95
Bartlett & O'Bryan Fert. Co.	37	13	35	95	70	74
Bluegrass Plant Foods	91	55	60	240	199	83
The Buhner Fertilizer Co.	47	20	43	135	111	82
Bunton Seed Company	2	1	--	6	5	--
Burley Belt Plant Food Works	41	13	32	120	92	77
Chilean Nitrate Sales Corp.	4	4	--	4	4	--
Commercial Solvents Corp.	2	2	--	2	2	--
Commonwealth Fertilizer Co.	46	27	59	123	105	85
Consolidated Chemical Co. (See Price Chemical Co.)						
Cooperative Fertilizer Ser.	386	295	76	1,023	95	94
Darling & Company	38	27	71	102	94	92
Davison Chemical Corp.	223	105	47	623	514	83
E. I. DuPont De Nem. & Co.	1	1	--	1	1	--
J. H. Erbrich Products Co.	1	1	--	3	3	--
E'Town Fertilizer Company	15	10	67	44	38	86
Farmers Fertilizer Company	14	6	43	41	32	78
Federal Chemical Company	327	141	43	926	727	79
Fert-O-Granic Corporation	1	1	--	2	2	--
Grace Chemical Company	4	4	--	4	4	--
Green Thumb Products Co.	1	--	--	3	2	--
Hutson Chemical Company	24	11	46	70	61	87
International Min. & Chem. Corp.	173	97	56	477	392	82
Kentucky Fertilizer Works	35	13	37	89	66	74
Knoxville Fertilizer Company	189	118	62	507	447	88
Land O'Nan Warehouse	30	18	60	78	66	85
Lion Oil Company	4	4	--	4	4	--
Louisville Fertilizer Company (See Armour Fertilizer Works)						
Mathieson Chemical Corp.	3	3	--	9	9	--
Midsouth Chemical Co.	9	9	100	9	9	100
Mississippi Chemical Corp.	2	2	--	2	2	--
Mississippi River Chem. Corp.	5	5	100	5	5	100
Missouri Plant Food Co., Inc.	21	11	52	55	45	82
North American Fertilizer Co.	99	57	58	267	227	85
Ohio Valley Fertilizer Corp.	29	9	31	82	61	74
Owens Agricultural Phos. Corp.	5	3	60	10	8	80
Price Chemical Company (Consolidated Chemical Co.)	60	40	67	161	140	87
	3	3	--	7	7	--

* Percent is not indicated when number of samples is less than 5

** "Tolerance" is 1/4 of 1 percent

Standing of Manufacturers Based On Samples Equal to Guaranty in All Respects and Analyses Within Tolerance - 1956

COMPANY	Samples			Analyses of nitrogen, phosphoric acid and potash		
	Total Number	Equal to guaranty in all respects		Total Number	Equal to guaranty or within tolerance**	
		Number	Percent*		Number	Percent*
Rigo Manufacturing Co.	1	1	--	3	3	--
Robin Jones Phosphate Co.	6	2	--	12	7	--
Ruhm Phosphate & Chem. Co.	4	2	--	7	5	--
Schrock Fertilizer Service	7	7	100	10	10	100
O. M. Scott & Sons Co.	3	2	--	9	8	--
Sewerage Comm. of Milwaukee	4	4	--	8	7	--
Smith Agricultural Chem. Co.	2	1	--	6	5	--
Southern States (See Cooperative Fertilizer)						
Southwest Vir. Farmers Coop.	1	--	--	3	2	--
Spencer Chemical Company	5	5	100	5	5	100
Swift & Company	46	19	41	135	108	80
Tennessee Chemical Co. (See Armour Fertilizer Works)						
Tennessee Coal & Iron	1	1	--	1	1	--
Tennessee Corporation	66	31	47	185	156	84
Thompson Sales Co.	1	1	--	2	2	--
Tri-State Chemical Co.	27	15	56	69	54	78
Valley Counties of Ky. Coop.	39	25	64	82	66	80
Virginia-Carolina Chemical Co.	160	115	72	446	410	92
TOTAL	3,082	1,758	57	8,295	7,057	85

* Percent is not indicated when number of samples is less than 5

** "Tolerance" is 1/4 of 1 percent

TABLE 1.— Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

(Analyses deficient more than one-fourth of one percent and relative values of 98 percent or less indicated by asterisk. Footnotes show amount of excess muriate when sulfate guaranty not met. Boron analyses are in footnotes also).

Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
	<u>ALLIED CHEM & DYE CORP NIT DIV</u>	(Percent)	(Percent)	(Percent)	
2517	12 12 12M HUDSON FEED MILL	12.1	12.5	12.6	103
	<u>AMERICAN AGRICULTURAL CHEMICAL CO</u>				
1514	3 12 12M LEBANON CARRIAGE & IMPLEMENT COMPANY	3.2	12.8	12.9	107
1576	WALTERS AND THOMPSON	3.0	12.6	11.9	102
1513	4 12 8M LEBANON CARRIAGE & IMPLEMENT COMPANY	4.1	11.6*	8.1	99
1575	WALTERS AND THOMPSON	3.9	12.2	8.4	101
3349	JOHN A SHEEHAN	4.0	11.9	8.3	100
1512	18 SUPERPHOSPHATE LEBANON CARRIAGE & IMPLEMENT COMPANY		18.2		101
	<u>AMERICAN CYANAMID COMPANY</u>				
2487	21 CALCIUM CYANAMID WOODSON LEWIS	21.1			100
4471	C S MCCULLY	21.3			101
4631	33 5 AMMONIUM NITRATE FARMERS COOPERATIVE STORE OWENSBORO	33.7			101
	<u>ARMOUR FERTILIZER WORKS</u>				
1548	0 20 20M T F KEENE & SONS		19.3*	20.4	98*
2524	FARMERS MILL & SUPPLY BROWNSVILLE		18.8*	18.7*	94*
2659	GLASGOW TRADING CENTER		19.3*	21.6	100
4490	CADIZ HARDWARE COMPANY		19.8	20.5	100
4547	A C BUTTS & SON		19.9	19.6*	99
4658	AUSTIN & AUSTIN SEED COMPANY		18.4*	17.1*	90*
2493	0 20 20M WITH 5 LB BORAX PER 100 (1) GLASGOW TRADING CENTER		20.1	20.0	100
2525	G M HAYCRAFT & SON		19.9	20.0	100
2466	2 12 6M N T NUCKOLS	2.3	12.0	6.1	103
2465	3 12 6M N T NUCKOLS	3.9	11.7*	6.8	107
2596	HATTER HARDWARE	3.0	12.2	6.4	102
2618	ALLENS COAL SERVICE	3.0	11.9	6.5	101
4473	SLAUGHTERS MERCANTILE COMPANY	3.2	12.2	6.8	105
4477	WALLACES HARDWARE	3.5	12.1	6.9	107
314	3 12 12M JASPER PRODUCE COMPANY	3.2	12.0	11.9	101
327	F R KELSEY	3.2	11.9	11.6*	100
330	GIBSON PRODUCE COMPANY	2.9	12.2	11.1*	98*
1508	T F KEENE & SONS	2.9	11.9	11.6*	98*
1587	T F KEENE & SONS	2.9	12.0	11.5*	98*
2439	NUMAN BLACKWELL	3.0	11.6*	12.8	100
2464	LILLY BROS SEED COMPANY	3.0	11.5*	12.0	98*
2512	TRUMAN HOLLINSWORTH & COMPANY	3.0	11.9	12.2	100
2535	FARMERS SUPPLY COMPANY HODGENVILLE	3.0	12.0	11.0*	98*

(1) SEE BORON TABLE - PAGE 32

TABLE 1.— Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

(Analyses deficient more than one-fourth of one percent and relative values of 98 percent or less indicated by asterisk. Footnotes show amount of excess muriate when sulfate guaranty not met. Boron analyses are in footnotes also).

Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
		(Percent)	(Percent)	(Percent)	
<u>ARMOUR FERTILIZER WORKS CONTINUED</u>					
<u>3 12 12M CONTINUED</u>					
2560	LILLY BROTHERS SEED COMPANY	3.1	11.5*	12.2	99
2617	ALLENS COAL SERVICE	3.0	12.5	12.5	103
2655	NUMAN BLACKWELL	3.8	12.2	12.1	106
2660	GLASGOW TRADING CENTER	2.9	12.2	12.0	100
3373	SAM RYLE	3.1	11.7*	12.5	100
3376	UNION GROCERY COMPANY	3.1	11.7*	12.4	100
4478	WALLACES HARDWARE	3.3	11.8	11.8	101
4540	BIRMINGHAM MILLING COMPANY	3.1	11.9	12.4	101
4660	GALLOWAY SEED COMPANY	2.9	12.4	12.2	102
<u>3 12 12M WITH 3 LB BORAX PER 100 (1)</u>					
4661	GALLOWAY SEED COMPANY	3.2	11.1*	12.6	99
<u>4 12 4M</u>					
2673	TRUMAN HOLLINSWORTH & COMPANY	3.9	11.9	4.9	101
<u>4 12 8M</u>					
322	MCHORTER PRODUCE COMPANY	4.3	12.3	8.0	103
328	F R KELSEY	4.5	12.5	8.1	106
329	GIBSON PRODUCE COMPANY	4.2	12.5	8.0	104
334	W C BLAIR	4.1	12.1	8.1	101
2426	ALLENS COAL SERVICE	3.6*	12.3	8.7	100
2456	W G ALDRIDGE	4.3	12.0	8.1	102
2495	GLASGOW TRADING CENTER	3.2*	12.0	8.4	95*
2511	TRUMAN HOLLINSWORTH & COMPANY	3.8	11.7*	9.2	100
2526	G M HAYCRAFT & SON	3.7*	12.0	8.6	99
2595	HATTER HARDWARE	3.8	11.9	8.2	99
2607	PEOPLES FARM SUPPLY COMPANY	4.0	12.4	8.0	102
2616	ALLENS COAL SERVICE	3.3*	12.0	8.1	95*
2639	FARMERS MILL & SUPPLY CO BROWNSVILLE	4.0	11.8	8.4	100
2644	LILLY BROTHERS SEED COMPANY	3.9	12.1	7.6*	99
2658	GLASGOW TRADING CENTER	3.6*	12.6	8.5	101
2670	SEWELL & COMPANY	4.1	11.9	8.4	101
2672	TRUMAN HOLLINSWORTH & COMPANY	4.2	12.9	7.5*	104
2681	ADAIR MILLING COMPANY	3.7*	12.0	8.8	100
3347	VIRGIL STALLARD	4.1	11.6*	8.5	100
3350	BI COUNTY FARM BUREAU COOP ASSO	4.2	11.7*	8.7	102
3374	SAM RYLE	4.0	11.8	8.9	101
4440	HENDERSON FEED & COMMISSION COMPANY	3.6*	12.0	8.1	98*
4454	KUTTAWA MILLING COMPANY	3.9	11.4*	8.0	97*
4465	NEBO MILL	4.1	11.9	8.1	100
4479	WALLACES HARDWARE	4.3	12.3	8.0	103
4538	FELTY PRODUCE COMPANY	3.5*	12.0	8.0	97*
4539	FELTY PRODUCE COMPANY	4.0	12.1	8.0	100
4542	BIRMINGHAM MILLING COMPANY	4.3	12.0	8.4	103
4580	HUNT BROTHERS	3.9	12.1	8.0	100
<u>4 16 16M</u>					
2472	PEOPLES FARM SUPPLY CO SMITH GROVE	3.6*	15.3*	15.3*	95*
2608	PEOPLES FARM SUPPLY CO SMITH GROVE	3.7*	16.6	15.4*	100
2667	PEOPLES FARM SUPPLY CO SMITH GROVE	3.9	15.4*	16.2	98*
4441	HENDERSON FEED & COMMISSION COMPANY	4.0	16.7	15.7*	102
<u>5 10 10M</u>					
303	MCHORTER PRODUCE COMPANY	4.4*	11.1	11.4	104
1545	J A BENNETT HARDWARE	4.6*	11.0	10.0	102
2542	S E HALE & SON	5.0	9.9	10.6	101
3377	UNION GROCERY COMPANY	4.9	10.8	10.6	104
4548	A C BUTTS & SON	5.3	10.6	10.0	127
4666	HAL SMITH	4.8	10.3	10.2	100
<u>5 20 20M</u>					
326	F R KELSEY	4.5*	17.5*	18.1*	89*
2523	FARMERS MILL & SUPPLY CO BROWNSVILLE	4.2*	21.3	19.8	100
2638	FARMERS MILL & SUPPLY CO BROWNSVILLE	4.6*	19.9	20.1	98*
<u>6 12 12M</u>					
1509	T F KEENE & SONS	5.3*	11.7*	12.4	96*
1547	T F KEENE & SONS	5.7*	11.7*	12.0	97*
2527	G M HAYCRAFT & SON	5.7*	11.9	12.6	99
2543	S E HALE & SON	5.7*	12.5	12.4	101
4491	CADIZ HARDWARE COMPANY	6.3*	11.9	12.3	102
4541	BIRMINGHAM MILLING COMPANY	6.0	12.6	12.4	103
4549	A C BUTTS & SON	5.8	12.9	11.6*	101
4550	AUSTIN & AUSTIN SEED COMPANY	5.6*	12.6	12.2	101
4551	AUSTIN & AUSTIN SEED COMPANY	6.4	11.7*	12.0	101

(1) SEE BORON TABLE - PAGE 32

TABLE 1.— Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

(Analyses deficient more than one-fourth of one percent and relative values of 98 percent or less indicated by asterisk. Footnotes show amount of excess muriate when sulfate guaranty not met. Boron analyses are in footnotes also).

Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
		(Percent)	(Percent)	(Percent)	
<u>ARMOUR FERTILIZER WORKS CONTINUED</u>					
	8 16 16M				
4552	AUSTIN & AUSTIN SEED COMPANY	9.0	14.9*	15.1*	100
4603	YOPP SEED COMPANY	7.8	16.0	15.8	99
	10 6 4M				
4604	YOPP SEED COMPANY	10.2	6.2	4.1	102
	10 10 10M				
304	MCWHORTER PRODUCE COMPANY	9.9	10.7	10.4	103
2494	GLASGOW TRADING CENTER	9.8	10.1	10.3	100
2536	FARMERS SUPPLY COMPANY HODGENVILLE	9.9	9.8	10.4	100
2654	NUMAN BLACKWELL	10.0	10.1	10.2	101
3378	UNION GROCERY COMPANY	9.1*	11.0	10.4	100
	12 12 12M				
4605	YOPP SEED COMPANY	11.9	12.5	12.4	102
	20 SUPERPHOSPHATE				
2615	ALLENS COAL SERVICE		21.3		107
2671	SEWELL & COMPANY		19.9		100
4579	HUNT BROTHERS		20.9		105
4659	GALLOWAY SEED COMPANY		19.9		100
	45 TRIPLE SUPERPHOSPHATE				
2606	PEOPLES FARM SUPPLY CO SMITH GROVE		39.7*		88*
	60 MURIATE OF POTASH				
1546	J A BENNETT HARDWARE			53.2*	89*
1579	J A BENNETT HARDWARE			55.4*	92*
<u>ASSOCIATED COOPERATIVE INC</u>					
	14 14 14M				
2537	MORRISON & WALLACE	14.5	15.1	14.2	105
2684	SOUTHERN STATES CAMPBELLSVILLE COOP	14.4	15.1	14.6	105
4544	MARSHALL CO SOIL IMPROVEMENT ASSO	14.6	16.1	14.4	108
4649	GRAVES COUNTY SOIL ASSOCIATION	15.0	16.1	14.0	109
	33 5 AMMONIUM NITRATE				
4593	HANCOCK COUNTY FARM SUPPLY	33.7			101
	62 CALCIUM METAPHOSPHATE				
2467	N T NUCKOLS		63.4		102
4561	CLINTON HATCHERY		63.6		103
4583	S S CRITTENDEN COOPERATIVE		62.2		100
4592	HANCOCK COUNTY FARM SUPPLY		62.9		101
<u>BARTLETT & O BRYAN FERTILIZER CO</u>					
	0 20 20M				
4529	BARTLETT & O BRYAN FERTILIZER CO		18.1*	17.8*	90*
4669	BARTLETT & O BRYAN FERTILIZER CO		19.8	22.1	103
	3 12 12M				
4530	BARTLETT & O BRYAN FERTILIZER CO	3.4	12.3	13.2	107
	4 12 8M				
4531	BARTLETT & O BRYAN FERTILIZER CO	3.6*	11.7*	10.0	100
4668	BARTLETT & O BRYAN FERTILIZER CO	3.6*	13.0	10.3	107
	4 16 16M				
4532	BARTLETT & O BRYAN FERTILIZER CO	4.3	15.1*	17.4	101

TABLE 1.— Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

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Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen (Percent)	Available Phosphoric Acid (Percent)	Potash (Percent)	Percent of Relative Value Found
<u>BARTLETT & O BRYAN FERT CO CONTINUED</u>					
4533	5 20 20M BARTLETT & O BRYAN FERTILIZER CO	5.0	192*	192*	97*
4534	6 12 12M BARTLETT & O BRYAN FERTILIZER CO	4.4*	11.9	13.6	94*
4535	10 10 10M BARTLETT & O BRYAN FERTILIZER CO	9.1*	11.3	10.4	101
4642	JAMES A LOGSDON	9.0*	11.4	10.9	101
<u>BLUEGRASS PLANT FOODS INC</u>					
2474	0 20 20M I K MILLER & SON		18.8*	21.4	98*
2686	I K MILLER		18.1*	18.4*	94*
2687	2 12 6M I K MILLER	2.0	12.3	6.9	104
325	3 12 12M W C HORTON	3.5	12.7	12.9	108
1563	BLUEGRASS PLANT FOODS INC DANVILLE	3.1	12.4	12.2	103
2685	I K MILLER	3.1	12.7	12.3	104
1517	4 12 8M BLUEGRASS PLANT FOODS INC DANVILLE	4.4	12.7	8.6	107
1560	BLUEGRASS PLANT FOODS INC DANVILLE	3.7*	12.1	8.6	100
1561	5 10 10M BLUEGRASS PLANT FOODS INC DANVILLE	4.9	11.1	10.4	105
1562	5 20 20M BLUEGRASS PLANT FOODS INC DANVILLE	4.8	20.6	19.3*	100
1518	12 12 12M BLUEGRASS PLANT FOODS INC DANVILLE	11.1*	12.3	12.0	97*
1516	20 SUPERPHOSPHATE BARNETT SULLIVAN & COMPANY		21.1		106
1559	BLUEGRASS PLANT FOODS INC DANVILLE		19.3*		96*
1557	60 MURIATE OF POTASH BARNETT SULLIVAN & COMPANY			60.1	100
<u>BUHNER FERTILIZER COMPANY INC</u>					
2624	2 12 6M NALLS FEED STORE	2.3	13.4	6.1	111
1531	3 12 12M BUHNER & COMPANY	2.8	12.9	11.6*	102
1515	4 12 8M SPRINGFIELD FEED & GRAIN COMPANY	3.6*	12.4	7.9	99
1555	SPRINGFIELD FEED & GRAIN COMPANY	3.8	12.7	8.8	104
2528	CANN BROTHERS	3.4*	13.6	8.6	105
4442	MACKEYS GENERAL STORE	3.3*	12.1	7.9	95*
1532	5 20 20M BUHNER & COMPANY	4.3*	19.9	21.3	99
1556	SPRINGFIELD FEED & GRAIN COMPANY	4.2*	20.1	20.8	98*

TABLE 1.— Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

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Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>BUHNER FERTILIZER COMPANY CONTINUED</u>		(Percent)	(Percent)	(Percent)	
1533	6 8 6M BUHNER & COMPANY	5.6*	9.5	6.1	105
2623	20 SUPERPHOSPHATE NALLS FEED STORE		20.9		105
<u>BURLEY BELT PLANT FOOD WORKS</u>					
3365	0 20 20M BURLEY BELT PLANT FOOD WORKS		19.1*	22.4	101
3362	0 20 20M WITH 2 LB BORAX PER BURLEY BELT PLANT FOOD WORKS	100 (1)	20.2	20.3	101
3364	4 12 8M BURLEY BELT PLANT FOOD WORKS	4.0	11.4*	8.7	99
3363	5 10 10M BURLEY BELT PLANT FOOD WORKS	4.8	9.6*	10.4	98*
3366	5 20 20M BURLEY BELT PLANT FOOD WORKS	4.7*	18.1*	19.5*	93*
3360	6 8 6S BURLEY BELT PLANT FOOD WORKS	6.4	8.1	7.3	107
1564	12 12 12M MCCAULEY BROTHERS SEED COMPANY	11.5*	12.8	12.4	101
3361	BURLEY BELT PLANT FOOD WORKS	11.7*	12.8	12.6	102
<u>CHILEAN NITRATE SALES CORPORATION</u>					
4654	16 NITRATE OF SODA YOUNGBLOOD BROTHERS	16.2			102
<u>COMMONWEALTH FERTILIZER COMPANY</u>					
2582	0 20 20M COMMONWEALTH FERTILIZER COMPANY		20.6	21.2	104
2650	COMMONWEALTH FERTILIZER COMPANY		20.7	20.3	103
4623	C C HARDWARE FEED & SEED COMPANY		21.3	19.3*	103
2502	3 9 6M EDMONTON FARM CENTER	3.2	9.5	6.6	107
4664	MCKNIGHTS FARM STORE	3.2	9.1	6.6	104
2503	3 12 6M EDMONTON FARM CENTER	3.3	12.0	7.4	106
2578	3 12 12M W R PEARSON	3.2	10.9*	13.6	100
2583	COMMONWEALTH FERTILIZER COMPANY	3.0	11.9	12.6	101
2436	4 12 8M COMMONWEALTH FERTILIZER COMPANY	4.2	11.0*	8.9	99
2579	TAYLOR FUGUA	3.9	11.2*	8.8	98*
2580	W H MENG	4.0	11.4*	8.8	99
2581	COMMONWEALTH FERTILIZER COMPANY	4.1	11.0*	8.6	98*
2651	GREENS FEED STORE	3.9	11.0*	8.8	97*
4624	C C HARDWARE FEED & SEED COMPANY	4.1	11.5*	8.4	99

(1) SEE BORON TABLE - PAGE 32

TABLE 1.— Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

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Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>COMMONWEALTH FERT CO CONTINUED</u>		(Percent)	(Percent)	(Percent)	
4665	6 8 6M MCKNIGHTS FARM STORE	6.0	8.4	6.4	103
2437	6 12 12M COMMONWEALTH FERTILIZER COMPANY	5.7*	11.9	12.0	98*
4622	20 SUPERPHOSPHATE C C HARDWARE FEED & SEED COMPANY		20.1		100
<u>COOPERATIVE FERTILIZER SERVICE</u>					
306	0 14 14M WITH 3 LB BORAX PER 100 (1) MCWHORTER BROTHERS		14.2	15.9	105
307	FARMERS SUPPLY COMPANY MONTICELLO		14.3	14.8	103
315	SOUTHERN STATES COOP SOMERSET		14.1	15.5	104
1537	S S FRANKFORT COOPERATIVE		15.0	14.5	106
321	0 20 20M HARLAN FARMERS SUPPLY		20.8	20.0	103
333	0 20 40M WITH 4 LB BORAX PER 100 (2) FARMERS SUPPLY COMPANY MONTICELLO		18.4*	43.0	100
353	LINCOLN FARM SERVICE		19.8	40.6	100
1528	SOUTHERN STATES LOUISVILLE COOP		20.8	38.9*	101
2446	SOUTHERN STATES BOWLING GREEN COOP		21.6	38.5*	102
2485	S S CAMPBELLSVILLE COOPERATIVE		20.5	38.8*	100
2521	SOUTHERN STATES BOWLING GREEN COOP		20.4	39.2*	100
2538	MORRISON & WALLACE		18.7*	38.1*	94*
2556	S S HOPKINSVILLE COOPERATIVE		21.8	38.5*	103
2663	SOUTHERN STATES GLASGOW COOP		21.2	39.0*	102
4599	K R MCKINNEY & SON		24.3	35.3*	105
345	0 30 30M WHITLEY COUNTY FARM SUPPLY		28.8*	33.5	101
357	DEATON BROTHERS		29.1*	32.5	101
1510	S S BARDSTOWN COOPERATIVE		29.6*	30.2	99
1522	CARROLL COUNTY FARM BUREAU COOP		29.7	30.5	100
1524	SOUTHERN STATES LAGRANGE COOP		29.9	29.5	99
1554	SOUTHERN STATES BARDSTOWN COOP		30.3	30.8	102
2432	SOUTHERN STATES HARDIN COOP		30.0	29.8	100
2497	S S GLASGOW COOPERATIVE		29.9	30.0	100
2555	S S HOPKINSVILLE COOPERATIVE		30.6	29.8	101
2621	S S HARDIN COOPERATIVE		30.4	29.6	100
4607	PHELPS BROTHERS FARM SERVICE		30.3	28.8*	99
1570	2 12 6M TRIMBLE COUNTY FARM BUREAU COOP	2.1	11.9	6.6	102
2622	S S HARDIN COOPERATIVE	2.0	11.7*	6.5	100
308	3 12 12M FARMERS SUPPLY COMPANY MONTICELLO	3.2	12.0	12.1	102
335	SOUTHERN STATES COOP SOMERSET	3.1	11.5*	13.3	101
350	MURPHY & PHILLIPS	3.1	11.5*	12.8	100
1520	TRIMBLE COUNTY FARM BUREAU COOP	3.1	12.1	12.6	102
1558	S S BOYLE COOPERATIVE	3.0	12.9	13.0	106
1572	TRIMBLE COUNTY FARM BUREAU COOP	3.2	11.8	13.2	103
1574	S S SHELBYVILLE COOPERATIVE	3.1	11.8	12.8	102
2429	FARMERS SERVICE STORE HARDINSBURG	3.1	11.9	12.8	102
2496	S S GLASGOW COOPERATIVE	3.1	12.0	12.1	101
2564	ELKTON FARM SUPPLY	3.1	12.0	12.0	101
2592	S S SIMPSON COOPERATIVE	3.1	12.1	11.9	101
2620	FARMERS SERVICE STORE HARDINSBURG	3.0	11.6*	12.6	100
2669	FARMERS EXCHANGE COMPANY BURKSVILLE	3.2	12.0	12.6	103
2682	ADAIR FARMERS SERVICE	3.2	12.3	12.3	103
3346	FARMERS SUPPLY COMPANY PAINTSVILLE	3.0	12.0	12.0	100
4474	SLAUGHTERS MERCANTILE COMPANY	3.1	12.1	12.7	103
4480	HICKORY BILLS FARM STORE	3.2	11.9	13.0	103

(1) SEE BORON TABLE - PAGE 32

(2) SEE BORON TABLE - PAGE 32

TABLE 1.—Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

(Analyses deficient more than one-fourth of one percent and relative values of 98 percent or less indicated by asterisk. Footnotes show amount of excess muriate when sulfate guaranty not met. Boron analyses are in footnotes also).

Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
		(Percent)	(Percent)	(Percent)	
<i>COOPERATIVE FERT SERVICE CONTINUED</i>					
<i>4 12 8M</i>					
309	FARMERS SUPPLY COMPANY MONTICELLO	4.0	11.9	8.3	100
319	SOUTHERN STATES LONDON COOP	4.0	12.9	8.7	106
348	JACKSON COUNTY FARM SERVICE	4.1	12.2	8.8	103
351	TEATER & CASSITY	4.1	13.1	8.0	106
358	DEATON BROTHERS	4.1	12.5	9.3	106
1521	TRIMBLE COUNTY FARM BUREAU COOP	4.1	12.2	8.9	104
1527	SHEPHERDSVILLE FEED MILLS	4.1	12.3	9.1	105
1541	SOUTHERN STATES LAGRANGE COOP	4.1	12.4	8.6	104
1571	TRIMBLE COUNTY FARM BUREAU COOP	4.1	12.1	8.2	102
2428	FARMERS SERVICE STORE HARDINSBURG	4.2	11.9	8.8	103
2445	SOUTHERN STATES BOWLING GREEN COOP	3.9	11.9	8.5	100
2471	ALLEN COUNTY FARMERS SERVICE	4.0	12.0	8.4	101
2492	FARMERS EXCHANGE COMPANY BURKSVILLE	4.1	11.8	8.3	100
2507	FARMERS SERVICE TOMPKINSVILLE	4.0	12.0	8.6	101
2520	FARMERS SUPPLY COMPANY MORGANTOWN	4.1	11.9	9.0	103
2553	S S HOPKINSVILLE COOPERATIVE	4.1	11.9	8.6	102
2584	STINSON FARM SUPPLY	4.1	12.0	9.0	103
2590	S S SIMPSON COOPERATIVE	4.1	12.4	8.7	104
2614	MORRISON & WALLACE	3.9	12.2	8.9	102
2619	MEADE FARMERS SUPPLY	4.0	11.9	8.7	101
2668	FARMERS EXCHANGE COMPANY BURKSVILLE	4.1	12.6	8.3	104
2680	METCALFE COUNTY FARMERS SUPPLY	3.9	12.2	8.7	102
2683	SOUTHERN STATES CAMPBELLSVILLE COOP	4.0	12.1	8.4	101
3370	CAMARGO FARMERS SUPPLY	4.0	12.8	9.5	107
3371	AMBURGEYS FARM SUPPLY	4.0	12.8	8.7	105
4447	T R AKRIDGE	4.1	12.8	8.5	105
4468	C S MCCULLY	4.0	11.9	8.0	100
4475	SLAUGHTERS MERCANTILE COMPANY	4.1	11.8	8.2	100
4594	HANCOCK COUNTY FARM SUPPLY	4.1	12.0	8.6	102
<i>5 10 10M</i>					
320	MCCARTY FARM SERVICE	4.9	9.0*	10.4	96*
<i>5 10 15S</i>					
356	DEATON BROTHERS	5.0	10.2	15.6	102
1538	S S FRANKFORT COOPERATIVE	4.9	10.6	14.9 (1)	102
4470	C S MCCULLY	4.6*	10.7	15.0	100
<i>5 20 20M</i>					
323	MCWHORTER BROTHERS	4.9	20.0	20.5	100
336	SOUTHERN STATES COOP SOMERSET	4.9	19.2*	21.8	100
354	LINCOLN FARM SERVICE	5.2	20.0	20.8	102
1523	SOUTHERN STATES SHELBYVILLE COOP	5.3	18.1*	21.8	99
1529	SOUTHERN STATES LOUISVILLE COOP	5.0	19.5*	21.1	100
1540	SOUTHERN STATES SHELBYVILLE COOP	5.0	20.8	20.4	103
1552	SOUTHERN STATES BARDSTOWN COOP	5.1	19.7*	20.8	101
2435	SOUTHERN STATES RUSSELLVILLE COOP	5.0	20.1	20.7	101
2501	STINSON FARM SUPPLY	5.0	20.1	19.8	100
2522	SOUTHERN STATES BOWLING GREEN COOP	5.0	20.2	20.4	101
2539	MORRISON & WALLACE	5.0	19.4*	21.4	100
2554	S S HOPKINSVILLE COOPERATIVE	5.4	20.0	20.4	102
2591	S S SIMPSON COOPERATIVE	4.9	20.2	20.0	100
4469	C S MCCULLY	5.0	20.1	20.4	101
4600	K R MCKINNEY & SON	5.0	20.7	19.6*	101
<i>6 12 12M</i>					
305	MCWHORTER BROTHERS	5.6*	12.5	12.1	100
310	FARMERS SUPPLY COMPANY MONTICELLO	5.9	11.9	12.6	100
318	SOUTHERN STATES LONDON COOP	5.8	12.9	11.9	102
355	FARM & HOME SUPPLY IRVINE	5.9	13.4	12.5	106
1553	SOUTHERN STATES BARDSTOWN COOP	6.2	11.7*	12.4	101
2508	FARMERS SERVICE TOMPKINSVILLE	6.0	12.1	12.2	101
2540	MAJORS FARM STORE	6.0	12.0	12.6	101
2593	S S SIMPSON COOPERATIVE	5.9	11.9	12.8	101
2613	MORRISON & WALLACE	6.0	12.4	12.5	102
2662	SOUTHERN STATES GLASGOW COOP	6.0	12.4	11.8	101
3375	S S CAMPBELL COOPERATIVE	5.9	12.6	12.3	102
4476	SLAUGHTERS MERCANTILE COMPANY	6.3	11.5*	12.0	100
4481	HICKORY BILLS FARM STORE	6.2	11.8	12.8	102
<i>20 SUPER PHOSPHATE</i>					
1569	TRIMBLE COUNTY FARM BUREAU COOP		20.2		101

(1) EXCESS MURIATE EQUIVALENT TO 0.5% POTASH

TABLE 1.— Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

(Analyses deficient more than one-fourth of one percent and relative values of 98 percent or less indicated by asterisk. Footnotes show amount of excess muriate when sulfate guaranty not met. Boron analyses are in footnotes also).

Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
		(Percent)	(Percent)	(Percent)	
<u>COOPERATIVE FERT SERVICE CONTINUED</u>					
2661	48 TRIPLE SUPERPHOSPHATE SOUTHERN STATES GLASGOW COOP		48.3		101
352	50 SULFATE OF POTASH TEATER & CASSITY			51.5	103
1539	60 MURIATE OF POTASH S S OWENTON COOPERATIVE			59.3*	99
2541	MAJORS FARM STORE			60.4	101
3359	SOUTHERN STATES LEXINGTON COOP			57.7*	96*
4582	S S CRITTENDEN COOPERATIVE			61.2	102
4591	HANCOCK COUNTY FARM SUPPLY			61.5	103
<u>DARLING & COMPANY</u>					
4620	3 12 12M T C EDWARDS	3.5	12.1	12.5	105
4493	4 12 8M LYNN GROVE FEED & SEED COMPANY	4.5	11.8	8.5	104
4608	BALLARD COUNTY COOPERATIVES INC	4.3	12.0	8.3	103
4615	MILBURN MILL	4.4	12.5	13.0	116
4617	T C EDWARDS	4.2	12.1	9.1	104
4621	5 10 15S T C EDWARDS	5.3	10.5	15.1	104
4494	6 12 12M LYNN GROVE FEED & SEED COMPANY	5.9	11.9	12.1	99
4500	CALLOWAY CO SOIL IMPROVEMENT ASSO	5.9	12.0	12.6	101
4543	MARSHALL CO SOIL IMPROVEMENT ASSO	5.9	11.7*	12.8	100
4616	MILBURN MILL	6.0	12.0	12.3	101
4618	T C EDWARDS	6.0	12.4	12.1	102
4619	12 12 12M T C EDWARDS	11.2*	12.4	12.4	98*
4553	60 MURIATE OF POTASH BUGG BROTHERS FEED & SUPPLY			60.7	101
4560	CLINTON HATCHERY			60.7	101
4563	MOORE SEED & GRAIN COMPANY			60.7	101
<u>DAVISON CHEMICAL COMPANY</u>					
2588	0 20 20M SIMPSON COUNTY SEED COMPANY		20.4	20.1	102
2441	0 20 20M WITH 6 5 LB BORAX PER 100 (1) GILLISPIE SEED COMPANY		20.3	19.5*	100
2500	2 12 6M GRAYS & BISHOP	3.1	11.8	8.4	115
2634	FULKERSON BROTHERS	3.1	12.8	9.0	122
2677	ALLEN COUNTY FARMERS SERVICE	2.2	11.9	6.3	102
1511	3 12 12M JEWELL & HAYDON COMPANY	3.1	13.1	11.1*	104
1525	DUNCAN HUGHES & COMPANY	3.1	12.4	13.0	105
1549	JEWELL & HAYDON HARDWARE	3.0	13.3	10.7*	103
2475	I K MILLER & SON	3.1	12.4	13.0	105
2499	GRAYS & BISHOP	2.8	12.8	11.6*	101
2585	SIMPSON COUNTY SEED COMPANY	3.0	12.2	12.3	102
2653	JOHNSON & ASHLY HARDWARE	3.3	12.8	12.1	106
3357	C S BRENT SEED COMPANY	3.0	12.6	12.8	104
4443	WABASH ELEVATOR COMPANY	3.1	12.8	12.0	104
4456	FARMERS COOPERATIVE MADISONVILLE	3.1	12.7	12.0	104

(1) SEE BORON TABLE - PAGE 32

TABLE 1.—Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

(Analyses deficient more than one-fourth of one percent and relative values of 98 percent or less indicated by asterisk. Footnotes show amount of excess muriate when sulfate guaranty not met. Boron analyses are in footnotes also).

Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
		(Percent)	(Percent)	(Percent)	
<u>DAVISON CHEM CORP CONTINUED</u>					
	4 12 8M				
1584	HALL SEED COMPANY	4.9	13.2	7.5*	110
1589	JEWELL & HAYDON HARDWARE	4.8	13.1	9.4	114
2440	GILLISPIE SEED COMPANY	3.9	12.1	8.9	102
2518	MORGANTOWN FEED MILL	4.1	12.2	8.6	103
2519	FRANK SNODGRASS HARDWARE	3.9	12.0	8.8	101
2586	SIMPSON COUNTY SEED COMPANY	4.2	12.2	8.6	104
2636	LESLIE TENNYSON	3.7*	12.5	8.8	102
2652	JOHNSON & ASHLY HARDWARE	3.8	11.8	8.1	98*
2678	ALLEN COUNTY FARMERS SERVICE	4.1	11.9	9.3	103
4457	FARMERS COOPERATIVE MADISONVILLE	4.0	12.2	8.1	101
4486	EAST CADIZ FARM STORE	3.6*	11.9	8.6	98*
4495	LYNN GROVE FEED & SEED COMPANY	4.0	11.8	8.9	101
	5 20 20M				
2587	SIMPSON COUNTY SEED COMPANY	4.9	18.9*	18.4*	95*
2657	SIMPSON COUNTY SEED COMPANY	5.0	20.9	18.4*	100
4444	WABASH ELEVATOR COMPANY	4.6*	21.0	18.9*	100
4458	FARMERS COOPERATIVE MADISONVILLE	4.5*	17.9*	18.3*	90*
4528	CRAFTON DUNCAN & SINKHORN	4.8	20.1	19.9	99
4575	GEORGE PATMOR & SON	4.8	20.3	17.4*	97*
	6 8 6M				
1507	BUECHEL PRODUCE EXCHANGE	5.5*	8.2	7.6	101
1581	BUECHEL PRODUCE EXCHANGE	5.4*	8.6	6.9	101
3356	C S BRENT SEED COMPANY	5.1*	8.7	7.5	101
	6 12 12M				
2470	ALLEN COUNTY FARMERS SERVICE	5.9	12.3	12.7	102
2589	SIMPSON COUNTY SEED COMPANY	5.9	12.8	11.4*	101
4445	WABASH ELEVATOR COMPANY	5.8	12.6	11.9	101
4459	FARMERS COOPERATIVE MADISONVILLE	6.2	12.6	12.0	103
4562	MOORE SEED & GRAIN COMPANY	5.8	12.3	12.8	101
	8 8 8M				
4467	BENNETT FARM SUPPLY	7.3*	8.7	8.2	99
	10 10 10M				
2656	SIMPSON COUNTY SEED COMPANY	9.4*	10.3	10.3	99
4446	WABASH ELEVATOR COMPANY	9.2*	11.1	10.6	101
4460	FARMERS COOPERATIVE MADISONVILLE	8.1*	11.0	9.2*	93*
	12 12 12M				
1580	BUECHEL PRODUCE EXCHANGE	10.7*	13.1	14.2	101
1588	JEWELL & HAYDON HARDWARE	11.9	12.5	12.1	101
	15 15 15M				
1582	BUECHEL PRODUCE EXCHANGE	12.4*	15.3	16.3	93*
	20 6 CALCIUM CYANAMID				
2598	HAYS FEED MILL	21.2			103
	20 SUPERPHOSPHATE				
2676	ALLEN COUNTY FARMERS SERVICE		20.7		103
4527	CRAFTON DUNCAN & SINKHORN		20.5		103
	60 MURIATE OF POTASH				
3358	C S BRENT SEED COMPANY			57.9*	97*
4455	FARMERS COOPERATIVE MADISONVILLE			60.7*	101
4576	GEORGE PATMOR & SON			59.8	100
<u>E TOWN FERTILIZER COMPANY</u>					
	0 20 20M				
2629	E TOWN FERTILIZER COMPANY		21.0	21.4	106
	3 12 12M				
2628	E TOWN FERTILIZER COMPANY	35	11.6*	12.8	103

TABLE 1.— Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

(Analyses deficient more than one-fourth of one percent and relative values of 98 percent or less indicated by asterisk. Footnotes show amount of excess muriate when sulfate guaranty not met. Boron analyses are in footnotes also).

Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
		(Percent)	(Percent)	(Percent)	
<u>E TOWN FERTILIZER CO CONTINUED</u>					
2625	4 12 8M E TOWN FERTILIZER COMPANY	4.3	11.6*	85	101
2627	4 16 16M E TOWN FERTILIZER COMPANY	4.0	17.0	163	104
2430	4 24 12M J CLIFFORD TODD	4.2	23.5*	12.6	100
2631	5 10 10M E TOWN FERTILIZER COMPANY	5.3	11.6	11.4	112
2630	5 20 20M E TOWN FERTILIZER COMPANY	5.0	21.2	195*	103
2626	10 10 10M E TOWN FERTILIZER COMPANY	9.9	11.4	10.8	106
2431	MIXED TO ORDER E TOWN FERTILIZER COMPANY	2.5	19.6*	19.3*	100
<u>FARMERS FERTILIZER COMPANY</u>					
2611	3 12 12M CHARLES MEISEL	3.2	11.7*	12.1	100
2609	4 12 8M DAVID PERKINS	4.3	12.0	9.3	105
2612	4 16 16M E B LOWE & SON	3.9	15.5*	17.6	101
2610	5 10 10M P H BUTLER	5.4	10.8	10.1	106
<u>FEDERAL CHEMICAL COMPANY</u>					
2447	0 9 27 WITH 5 LB BORAX PER 100 (1) GABBARD FEED MARKET		9.7	26.8	103
2451	ARVIN MCCAIN		9.7	26.5*	102
3351	FEDERAL CHEMICAL CO WHSE LEXINGTON		9.7	26.8	103
2569	0 20 10M WARREN ELEVATORS		19.0*	20.0	116
2450	0 20 20M ARVIN MCCAIN		19.1*	19.6*	96*
2552	ARVIN MCCAIN		21.1	21.2	106
2567	WARREN ELEVATORS		19.4*	20.2	98*
2649	WARREN ELEVATORS		18.0*	17.7*	90*
2666	THOMERSON MILLING COMPANY		17.9*	16.2*	87*
3352	FEDERAL CHEMICAL CO WHSE LEXINGTON		20.0	20.0	100
4651	YOUNGBLOOD BROTHERS		16.0*	17.2*	82*
2516	2 12 6M JOHNSON & HARRISON	3.0	10.6*	7.2	104
1543	3 9 27M LYNN FLOOD FEED STORE	3.1	9.2	26.4*	100

(1) SEE BORON TABLE - PAGE 32

TABLE 1.— Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

(Analyses deficient more than one-fourth of one percent and relative values of 98 percent or less indicated by asterisk. Footnotes show amount of excess muriate when sulfate guaranty not met. Boron analyses are in footnotes also.)

Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
		(Percent)	(Percent)	(Percent)	
<i>FEDERAL CHEMICAL COMPANY CONTINUED</i>					
<i>3 12 12M</i>					
1519	DUNCANS FARM SERVICE	4.2	11.5*	11.0*	104
2449	GABBARD FEED MARKET	3.4	11.6*	11.8	100
2454	ARVIN MCCAIN	3.2	10.9*	9.2*	90*
2550	ARVIN MCCAIN	2.4*	12.4	11.6*	97*
2565	WARREN ELEVATORS	2.5*	11.9	11.6*	95*
2647	WARREN ELEVATORS	3.5	11.3*	11.2*	98*
3379	MEADE & COMPANY	3.2	11.9	11.9	101
3380	FEDERAL CHEMICAL CO WHSE LEXINGTON	3.3	11.6*	12.3	101
<i>4 12 4M</i>					
2642	ARVIN MCCAIN	3.9	11.4*	4.6	98*
<i>4 12 8M</i>					
2488	FLOYD DIDGEON	3.8	19.6	11.7	142
2510	A J MOORE	4.2	11.1*	8.8	99
2548	ARVIN MCCAIN	4.0	11.8	8.4	100
2599	J W EDWARDS & SON	3.9	11.7*	7.7*	97*
2601	BOBBY COX GROCERY	4.1	11.3*	8.0	98*
2640	ARVIN MCCAIN	4.3	12.0	8.1	102
2645	WARREN ELEVATORS	4.1	11.9	8.9	102
2665	THOMERSON MILLING COMPANY	3.8	12.2	8.5	101
2674	A J MOORE	3.7*	11.7*	8.8	98*
3345	FARMERS FEED & SUPPLY CO PIKEVILLE	4.6	11.5*	8.6	103
4462	W C BROOKS	4.2	11.1*	8.7	99
4496	FARMINGTON SWEET FEED MILL	4.0	11.9	8.8	101
4557	CLINTON HATCHERY	4.0	12.2	8.2	101
4625	EVERETT WOODSLEY GENERAL STORE	4.5	13.0	8.1	108
4626	CARLISLE & ABNER	4.1	11.6*	8.0	99
4628	BROOKS BROTHERS	3.8	11.4*	8.2	96*
4652	YOUNGBLOOD BROTHERS	4.0	12.4	8.8	104
4662	FARMERS & BUYERS STORE INC	4.2	11.5*	8.0	99
4667	J B JORDAN & SON	4.3	12.1	8.9	105
<i>4 16 16M</i>					
2448	GABBARD FEED MARKET	4.5	15.0*	14.6*	97*
2568	WARREN ELEVATORS	3.8	14.7*	16.6	96*
4558	CLINTON HATCHERY	4.3	13.7*	14.1*	91*
<i>5 10 10M</i>					
2469	PARIS PRODUCE	5.3	10.4	11.5	107
2509	A J MOORE	5.1	11.4	10.8	109
2600	BOBBY COX GROCERY	5.3	11.6	12.0	114
<i>5 20 20M</i>					
2549	ARVIN MCCAIN	5.6	15.8*	22.0	94*
3353	FEDERAL CHEMICAL CO WHSE LEXINGTON	5.3	19.9	20.0	101
4463	W C BROOKS	5.3	19.3*	20.6	100
<i>6 8 6M</i>					
3355	FEDERAL CHEMICAL CO WHSE LEXINGTON	6.2	8.3	6.5	104
<i>6 12 12M</i>					
2452	ARVIN MCCAIN	5.5*	11.7*	12.3	97*
2566	WARREN ELEVATORS	5.0*	12.4	12.0	96*
2641	ARVIN MCCAIN	6.2	12.2	11.7*	101
2646	WARREN ELEVATORS	6.3	11.8	12.0	101
4497	STELLA FEED & SEED STORE	5.9	11.5*	12.3	98*
4559	CLINTON HATCHERY	6.2	11.9	12.2	101
4653	YOUNGBLOOD BROTHERS	6.1	12.2	11.8	101
<i>10 10 10M</i>					
1535	HALL SEED COMPANY	9.6*	11.5	10.0	103
2453	ARVIN MCCAIN	9.4*	10.4	10.9	100
2551	ARVIN MCCAIN	8.7*	11.1	11.0	99
2570	WARREN ELEVATORS	8.5*	11.1	10.8	98*
2648	WARREN ELEVATORS	8.8*	10.8	10.2	97*
3354	FEDERAL CHEMICAL CO WHSE LEXINGTON	9.8	11.2	10.6	104
3381	FEDERAL CHEMICAL CO WHSE LEXINGTON	10.0	9.6*	11.2	101
4464	W C BROOKS	8.9*	10.6	10.7	98*
<i>12 12 12M</i>					
3382	FEDERAL CHEMICAL CO WHSE LEXINGTON	10.1*	12.9	12.6	95*

TABLE 1.— Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

(Analyses deficient more than one-fourth of one percent and relative values of 98 percent or less indicated by asterisk. Footnotes show amount of excess muriate when sulfate guaranty not met. Boron analyses are in footnotes also).

Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>FEDERAL CHEMICAL COMPANY CONTINUED</u>		(Percent)	(Percent)	(Percent)	
2635	60 MURIATE OF POTASH UPTON SWEET FEED MILL			60.6	101
4650	YOUNGBLOOD BROTHERS			60.4	101
<u>HUTSON CHEMICAL COMPANY</u>					
4644	3 12 12M V G SMITH	3.1	12.8	12.9	106
4487	4 12 8M TRIGG CO SOIL IMPROVEMENT ASSO	4.3	12.4	8.8	106
4498	HUTSON CHEMICAL COMPANY	4.2	12.0	9.3	104
4645	V G SMITH	4.1	12.1	8.2	102
4656	WINGO FEED & SUPPLY	4.2	12.1	8.4	103
4670	HUTSON CHEMICAL COMPANY	4.4	11.7*	8.8	103
4499	6 12 12M HUTSON CHEMICAL COMPANY	6.0	11.7*	12.8	100
4657	WINGO FEED & SUPPLY	5.4*	12.6	12.5	100
<u>INTERNATIONAL MINERALS & CHEM CORP</u>					
340	0 20 20M FARMERS SUPPLY COMPANY SOMERSET		20.0	20.4	101
343	2 12 6M G M SANDIDGE	1.9	12.2	6.2	101
2444	J W EDWARDS & SON	2.1	12.0	6.1	101
2505	ESTES FARM SUPPLY	2.0	12.1	6.4	102
337	3 9 6M SOMERSET SEED SERVICE	2.9	9.6	7.3	107
324	3 12 12M ALBANY PRODUCE COMPANY	3.1	12.2	12.6	103
4632	FARMERS COOPERATIVE STORE OWENSBORO	2.8	12.3	11.7*	99
313	4 12 8M W S ALLEN	3.8	12.2	8.1	100
2486	WOODSON LEWIS	3.9	12.0	8.3	100
2504	ESTES FARM SUPPLY	3.9	11.9	8.4	100
4492	CADIZ HARDWARE COMPANY	3.6*	12.6	8.6	101
4503	ROSS FEED COMPANY	4.1	11.9	8.8	102
4537	R D SANDERFUR	3.7*	12.6	8.0	101
4572	PRINCETON MILLS	3.7*	12.9	8.5	103
4627	R D SANDERFUR	4.0	12.4	8.4	103
311	5 20 20M DUNNINGTON MILLING COMPANY	4.6*	19.5*	20.8	98*
312	RALPH HOVIOUS	4.5*	19.3*	19.2*	95*
4568	PRINCETON MILLS	4.3*	20.3	20.7	99
4569	6 8 6M PRINCETON MILLS	5.5*	9.4	5.5*	102
344	6 12 12M G M SANDIDGE	5.8	11.4*	12.6	98*
4570	PRINCETON MILLS	4.9*	11.6*	13.5	95*
4571	10 10 10M PRINCETON MILLS	9.7*	10.3	10.2	100
4581	HUNT BROTHERS	10.1	10.1	10.5	102

TABLE 1.— Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

(Analyses deficient more than one-fourth of one percent and relative values of 98 percent or less indicated by asterisk. Footnotes show amount of excess muriate when sulfate guaranty not met. Boron analyses are in footnotes also).

Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>INTER MINERAL & CHEM CORP CONTINUED</u>		(Percent)	(Percent)	(Percent)	
2506	20 SUPERPHOSPHATE ESTES FARM SUPPLY		20.6		103
2545	47 TRIPLE SUPERPHOSPHATE FARMERS FEED STORE CENTRAL CITY		44.2*		94*
2544	60 MURIATE OF POTASH FARMERS FEED STORE CENTRAL CITY			59.3*	99
3368	WOODFORD SPEARS & SONS			57.9*	97*
4573	PRINCETON MILLS			54.9*	92*
<u>KENTUCKY FERTILIZER WORKS</u>					
3343	3 12 12M L F WELLMAN HARDWARE	3.5	11.0*	12.6	100
349	4 12 8M ROBINSON & TURLEY	4.2	11.0*	8.8	99
3348	6 12 12M L F WELLMAN HARDWARE	5.9	11.6*	12.6	99
<u>KNOXVILLE FERTILIZER COMPANY</u>					
2605	0 20 20M FARMERS FEED & HDWE BOWLING GREEN		18.6*	19.9	95*
2604	2 12 16M FARMERS FEED & HDWE BOWLING GREEN	2.5	11.5*	7.1	104
2443	2 12 12M WITH 3 LB BORAX PER 100 (1) HARRIS FEED COMPANY	2.7	11.6*	11.9	103
2576	3 9 6M STATTON IMPLEMENT COMPANY	2.9	9.9	6.8	107
316	3 12 12M JACKSON COUNTY FARM SERVICE	2.8	10.8*	9.7*	88*
332	HOBART & MILTON ROBERTS	3.0	12.0	12.2	100
338	ROSCOE MORRIS	2.9	12.6	12.5	103
2473	SHIPP SEED HOUSE	3.0	12.1	11.9	100
346	3 12 12M WITH 3 LB BORAX PER 100 (2) MT VERNON PRODUCE COMPANY	3.2	12.5	12.8	105
317	4 12 8M JACKSON COUNTY FARM SERVICE	4.1	12.1	8.7	103
331	HOBART & MILTON ROBERTS	3.8	12.2	8.8	101
339	ROSCOE MORRIS	4.1	11.9	7.9	100
347	MT VERNON PRODUCE COMPANY	4.2	11.6*	9.0	102
2442	HARRIS FEED COMPANY	4.0	12.1	8.7	102
2498	G H BOWLES & SON	4.1	12.1	8.7	103
2577	STATTON IMPLEMENT COMPANY	4.0	12.1	8.8	102
2597	HARRIS FEED COMPANY	3.8	12.1	8.6	100
2602	ALLEN COUNTY MILLS	4.1	11.9	8.4	101
4466	NEBO MILL	4.1	12.1	8.5	102
4554	BUGG BROTHERS FEED & SUPPLY COMPANY	4.0	12.4	8.8	104
4585	YOUNG FEED & GRAIN COMPANY	3.8	12.6	8.7	110
4640	5 10 5M WYNDALLS FARM STORE	5.3	10.6	9.2	116

(1) SEE BORON TABLE - PAGE 32

(2) SEE BORON TABLE - PAGE 32

TABLE 1.— Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

(Analyses deficient more than one-fourth of one percent and relative values of 98 percent or less indicated by asterisk. Footnotes show amount of excess muriate when sulfate guaranty not met. Boron analyses are in footnotes also).

Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>KNOXVILLE FERTILIZER CO CONTINUED</u>		(Percent)	(Percent)	(Percent)	
4586	5 10 10M YOUNG FEED & GRAIN COMPANY	4.8	10.2	10.6	101
4641	6 8 4M WYNDALLS FARM STORE	5.9	8.8	5.2	107
4588	33 5 AMMONIUM NITRATE YOUNG FEED & GRAIN COMPANY	33.6			100
4613	COOPER SEED & FEED STORE	33.3			99
4556	62 CALCIUM METAPHOSPHATE BUGG BROTHERS FEED & SUPPLY COMPANY		63.6		103
4589	YOUNG FEED & GRAIN COMPANY		62.7		101
4614	COOPER SEED & FEED STORE		63.7		103
1536	60 MURIATE OF POTASH G M TAYLOR SEED COMPANY			61.2	102
4587	YOUNG FEED & GRAIN COMPANY			61.2	102
<u>LAND O NAN WAREHOUSE</u>					
4510	0 20 20M LAND O NAN WAREHOUSE		19.9	20.0	100
4511	0 30 30M LAND O NAN WAREHOUSE		27.1*	30.4	94*
4512	3 12 12M LAND O NAN WAREHOUSE	3.3	14.1	14.6	117
4514	4 16 16M LAND O NAN WAREHOUSE	4.1	15.0*	18.7	102
4513	6 12 12M STURGIS MILLING COMPANY	5.9	13.7	12.6	107
4564	10 30 20M KUTTAWA FEED & SEED COMPANY	8.6*	27.3*	21.2	92*
4482	60 MURIATE OF POTASH HICKORY BILLS FARM STORE			61.2	102
4515	LAND O NAN WAREHOUSE			60.0	100
<u>LION OIL COMPANY</u>					
2455	33 5 AMMONIUM NITRATE ARVIN MCCAIN	34.1			102
<u>LOUISVILLE FERTILIZER COMPANY</u>					
4601	3 12 12M YOPP SEED COMPANY	3.2	11.7*	12.4	101
2664	4 12 8M H D JONES	3.7*	11.8	8.4	98*
4602	10 10 10M YOPP SEED COMPANY	9.7*	11.0	9.9	102

TABLE 1.— Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

(Analyses deficient more than one-fourth of one percent and relative values of 98 percent or less indicated by asterisk. Footnotes show amount of excess muriate when sulfate guaranty not met. Boron analyses are in footnotes also).

Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>MISSISSIPPI RIVER CHEMICAL COMPANY</u>		(Percent)	(Percent)	(Percent)	
1544	33 5 AMMONIUM NITRATE J A BENNETT HARDWARE	34.3			102
4655	YOUNGBLOOD BROTHERS	33.7			101
<u>MISSOURI PLANT FOOD COMPANY INC</u>					
4612	3 12 12M COOPER SEED & FEED STORE	3.4	12.6	11.6*	104
4611	60 MURIATE OF POTASH COOPER SEED & FEED STORE			61.1	102
<u>NORTH AMERICAN FERTILIZER COMPANY</u>					
1542	0 20 20M C J ROEDERER		18.8*	21.2	98*
2637	2 12 6M APPLEBY GROCERY	2.3	12.4	6.8	107
2489	3 12 12M SIMPSON BROTHERS FEED MILL	3.1	12.0	12.5	102
2515	HAGAN & STONE	3.1	12.3	12.2	102
2675	HAGAN & STONE	3.3	10.8*	15.8	105
1577	4 12 8M LOUISVILLEJEFFERSON CO CHILDREN HOME	4.1	13.0	8.3	106
2514	HAGAN & STONE	4.2	11.7*	8.8	102
2427	4 16 16M C W BASHAM	4.1	16.5	15.9	102
1566	5 10 10M RAINBOW COAL COMPANY	5.1	12.3	12.0	115
2513	HAGAN & STONE	5.0	10.4	10.4	103
1526	5 20 20M WITH 5 LB BORAX PER 100 (1) LOUISVILLEJEFFERSON CO CHILDREN HOME	4.9	19.5*	17.8*	95*
1534	6 8 6M BUNTON SEED COMPANY	4.9*	8.0	13.1	110
1578	HANCOCKS FEED STORE	5.7*	8.6	6.3	102
1583	F L HANCOCKS FEED STORE	6.1	8.2	6.1	102
1585	BUNTON SEED COMPANY	5.0*	8.3	13.7	113
1565	6 8 6S RAINBOW COAL COMPANY	5.1*	10.6	9.1 (2)	114
1573	10 10 10M DAVIS BROTHERS	10.0	10.3	10.2	101
1568	50 SULFATE OF POTASH RAINBOW COAL COMPANY			50.8	102
1567	60 MURIATE OF POTASH RAINBOW COAL COMPANY			60.4	101
3367	WOODFORD SPEARS & SONS			60.0	100

(1) SEE BORON TABLE - PAGE 32

(2) EXCESS MURIATE EQUIVALENT TO 4.7% POTASH

TABLE 1.— Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

(Analyses deficient more than one-fourth of one percent and relative values of 98 percent or less indicated by asterisk. Footnotes show amount of excess muriate when sulfate guaranty not met. Boron analyses are in footnotes also).

Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
		(Percent)	(Percent)	(Percent)	
<u>PRICE CHEMICAL COMPANY</u>					
	0 20 20M				
2433	HARDIN COUNTY MILLING COMPANY		20.3	21.4	103
2530	HARDIN COUNTY MILLING COMPANY		21.4	16.5*	99
	3 12 12M				
2434	HARDIN COUNTY MILLING COMPANY	3.6	11.7*	14.2	108
2531	HARDIN COUNTY MILLING COMPANY	3.6	13.0	13.0	111
	20 SUPERPHOSPHATE				
2529	HARDIN COUNTY MILLING COMPANY		20.3		102
	60 MURIATE OF POTASH				
3372	MONARCH MILLING COMPANY			59.3*	99
<u>RIGO MANUFACTURING COMPANY</u>					
	20 20 20M				
3344	GREENES FOOD MARKET	20.3	21.1	19.9	103
<u>RUHM PHOSPHATE & CHEMICAL COMPANY</u>					
	0 20 14M				
4629	BROOKS BROTHERS		21.6	11.8*	102
<u>O M SCOTT & SONS COMPANY</u>					
	9 7 4M				
1530	JACK DAYTON & SONS	8.9	6.4*	4.4	98*
4663	AUSENBAUGH HATCHERY	10.9	7.2	4.1	114
<u>THE SMITH AGRICULTURAL CHEMICAL CO</u>					
	10 6 4M				
1586	BUNTON SEED COMPANY	10.0	6.9	4.7	105
<u>SOUTHERN STATES SEE COOP FERT SER</u>					
<u>SPENCER CHEMICAL COMPANY</u>					
	33 5 AMMONIUM NITRATE				
4590	YOUNG FEED & GRAIN COMPANY	33.9			101
<u>SWIFT & COMPANY</u>					
	0 20 20M				
4504	MORGANFIELD HARDWARE COMPANY		20.0	20.6	101
	3 12 12M				
4505	MORGANFIELD HARDWARE COMPANY	3.4	12.5	11.4*	104
	4 16 16M				
4506	MORGANFIELD HARDWARE COMPANY	4.2	15.4*	15.4*	98*

TABLE 1.— Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

(Analyses deficient more than one-fourth of one percent and relative values of 98 percent or less indicated by asterisk. Footnotes show amount of excess muriate when sulfate guaranty not met. Boron analyses are in footnotes also).

Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
		(Percent)	(Percent)	(Percent)	
<u>SWIFT & COMPANY CONTINUED</u>					
4507	5 20 20M MORGANFIELD HARDWARE COMPANY	4.9	20.9	19.6*	101
4500	10 10 10M MORGANFIELD HARDWARE COMPANY	7.7*	12.2	10.8	97*
4509	12 12 12M MORGANFIELD HARDWARE COMPANY	12.0	13.0	12.2	103
<u>TENNESSEE CHEMICAL COMPANY</u>					
4630	0 20 20M BROOKS BROTHERS		20.1	19.4*	99
4634	HARRALSON SEED COMPANY		19.7*	19.8	99
4635	3 12 12M HARRALSON SEED COMPANY	3.3	12.7	11.7*	104
4636	5 20 20 WITH 3 LB BORAX PER 100 (1) HARRALSON SEED COMPANY	4.6*	20.9	19.6*	100
4637	6 8 6M HARRALSON SEED COMPANY	5.6*	8.6	6.2	101
4638	6 12 12M HARRALSON SEED COMPANY	5.9	13.1	12.3	104
4639	10 10 10M HARRALSON SEED COMPANY	10.0	10.7	9.9	102
4633	20 SUPERPHOSPHATE HARRALSON SEED COMPANY		21.0		105
<u>TENNESSEE CORPORATION</u>					
2632	2 12 6M COOPER BROTHERS	2.0	12.3	6.2	102
2532	3 12 12M COOPER BROTHERS	2.9	12.3	11.9	100
2633	COOPER BROTHERS	2.9	11.6*	12.8	99
2533	10 10 10M COOPER BROTHERS	9.6*	11.1	10.6	103
2534	20 SUPERPHOSPHATE COOPER BROTHERS		20.8		104
<u>TRI STATE CHEMICAL COMPANY</u>					
4520	3 12 12M TRI STATE CHEMICAL COMPANY	3.5	12.5	12.8	107
4519	4 12 8M TOM BLANFORD	4.2	12.7	8.4	105
4517	4 16 16M TRI STATE CHEMICAL COMPANY	4.2	15.5*	16.4	100

(1) SEE BORON TABLE - PAGE 32

TABLE 1.—Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

(Analyses deficient more than one-fourth of one percent and relative values of 98 percent or less indicated by asterisk. Footnotes show amount of excess muriate when sulfate guaranty not met. Boron analyses are in footnotes also).

Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
		(Percent)	(Percent)	(Percent)	
<u>TRI STATE CHEMICAL CO CONTINUED</u>					
4521	5 15 10M TRI STATE CHEMICAL COMPANY	4.7*	15.1	10.8	100
4518	5 20 20M TRI STATE CHEMICAL COMPANY	5.5	19.2*	19.3*	99
4448	6 8 6M KENTUCKY STATE PENITENTIARY	6.1	9.5	6.5	110
4516	KENTUCKY STATE PENITENTIARY	5.9	8.2	6.2	101
4522	10 10 10M TRI STATE CHEMICAL COMPANY	9.2*	10.7	10.4	99
4449	60 MURIATE OF POTASH KENTUCKY STATE PENITENTIARY			60.4	101
4523	TRI STATE CHEMICAL COMPANY			60.4	101
<u>VALLEY COUNTIES OF KENTUCKY COOP INC</u>					
4609	0 30 30M BALLARD COUNTY COOPERATIVE INC		33.7	26.6*	104
4501	4 12 8M CALLOWAY CO SOIL IMPROVEMENT ASSO	4.6	11.9	8.3	104
4646	GRAVES COUNTY SOIL ASSOCIATION	4.2	12.1	7.9	102
4502	8 24 16M CALLOWAY CO SOIL IMPROVEMENT ASSO	8.5	25.3	15.0*	104
4545	MARSHALL CO SOIL IMPROVEMENT ASSO	7.8	23.9	16.4	100
4610	BALLARD COUNTY COOPERATIVE INC	8.3	25.0	15.9	103
4647	GRAVES COUNTY SOIL ASSOCIATION	7.6*	24.0	16.8	100
4453	10 30 20M LYON CO SOIL IMPROVEMENT ASSOCIATION	9.5*	28.2*	20.7	96*
4461	FARMERS COOPERATIVE MADISONVILLE	10.5	32.1	19.1*	104
4488	TRIGG CO SOIL IMPROVEMENT ASSO	10.1	30.5	18.7*	100
4546	MARSHALL CO SOIL IMPROVEMENT ASSO	9.9	29.1*	18.0*	96*
4578	GEORGE PATMOR & SON	10.2	29.6*	18.0*	98*
4584	S S CRITTENDEN COOPERATIVE	9.5*	29.1*	20.0	97*
4648	GRAVES COUNTY SOIL ASSOCIATION	9.9	30.2	19.9	100
4450	33 5 AMMONIUM NITRATE LYON CO SOIL IMPROVEMENT ASSOCIATION	33.4			100
4596	LIVINGSTON CO COOP SOIL IMPROV ASSO	33.8			101
4598	49 TRIPLE SUPERPHOSPHATE LIVINGSTON CO COOP SOIL IMPROV ASSO		49.2		100
4451	62 CALCIUM METAPHOSPHATE LYON CO SOIL IMPROVEMENT ASSOCIATION		63.0		102
4577	GEORGE PATMOR & SON		61.9		100
4489	TRIGG CO SOIL IMPROVEMENT ASSO		63.6		103
4595	LIVINGSTON CO COOP SOIL IMPROV ASSO		63.2		102
4452	60 MURIATE OF POTASH LYON CO SOIL IMPROVEMENT ASSOCIATION			59.8	100
4555	BUGG BROTHERS FEED & SUPPLY COMPANY			61.4	102
4597	LIVINGSTON CO COOP SOIL IMPROV ASSO			60.4	101

TABLE 1.— Analyses of Inspection Samples of Mixed Fertilizers, Superphosphate, and Fertilizer Salts, July-December, 1956

(Analyses deficient more than one-fourth of one percent and relative values of 98 percent or less indicated by asterisk. Footnotes show amount of excess muriate when sulfate guaranty not met. Boron analyses are in footnotes also).

Sample Number	Manufacturer, Grade, From Whom Obtained	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
		(Percent)	(Percent)	(Percent)	
<u>VIRGINIA CAROLINA CHEMICAL CORP</u>					
2571	0 12 12M AGNES DAVIS		12.8	12.8	107
2460	0 12 12M WITH 5 LB BORAX PER 100 (1) VIRGINIA CAROLINA CHEMICAL CORP		12.4	12.2	103
2479	E G LAMOTTE		12.6	12.7	105
2557	0 20 20M VIRGINIA CAROLINA CHEMICAL CORP		17.1*	17.6*	86*
2575	AGNES DAVIS		21.4	20.2	105
3369	WOODFORD SPEARS & SONS		20.7	21.5	105
2462	0 20 20M WITH 5 LB BORAX PER 100 (2) VIRGINIA CAROLINA CHEMICAL CORP		18.0*	18.0*	90*
2476	I H FENTRESS		19.9	20.6	101
2459	2 12 6M VIRGINIA CAROLINA CHEMICAL CORP	2.2	12.1	6.1	103
2547	HOWARD ELI	2.2	11.9	6.4	102
2603	BIG FOUR FEED & IMPLEMENT COMPANY	1.8	12.7	5.9	102
2679	BIG FOUR FEED & IMPLEMENT COMPANY	1.9	12.4	6.8	104
4484	TRIGG COUNTY TRADING COMPANY	2.1	11.7*	6.3	100
1551	3 12 12M GRIGSBY & COMPANY	3.1	12.1	12.6	102
2458	VIRGINIA CAROLINA CHEMICAL CORP	3.3	11.9	12.2	102
2490	U L ROGERS & SON	3.2	12.7	12.5	106
2559	VIRGINIA CAROLINA CHEMICAL CORP	3.1	12.3	12.4	103
2574	AGNES DAVIS	3.2	12.4	12.2	104
341	4 12 8M CUNDIFF SEED COMPANY	4.1	12.2	8.0	102
2438	AGNES DAVIS	3.9	12.0	8.3	100
2463	VIRGINIA CAROLINA CHEMICAL CORP	4.0	11.9	8.0	100
2468	BIG FOUR FEED & IMPLEMENT COMPANY	4.0	12.2	7.9	101
2478	I H FENTRESS	4.2	11.5*	8.5	100
2480	C T THOMAS	4.1	12.2	8.5	103
2481	C T THOMAS	4.2	12.0	8.2	102
2482	H M BURGESS	4.2	11.4*	8.4	100
2483	A G SHELBY	4.2	11.2*	8.5	99
2484	I H FENTRESS	4.1	11.9	8.2	101
2491	U L ROGERS & SON	4.1	12.4	7.9	102
2546	HOWARD ELI	3.9	11.9	8.2	99
2561	T B JACKSON	4.0	12.0	8.2	100
2562	LUTHER HOLSAAPPLE	3.9	12.4	8.2	102
2563	I S PLOWSE	4.0	12.3	8.2	102
2573	AGNES DAVIS	4.2	12.3	8.2	103
4472	SMITH & REYNOLDS COMPANY	4.1	12.0	8.2	101
4485	TRIGG COUNTY TRADING COMPANY	4.0	11.9	8.3	100
4536	R D SANDERFUR	4.1	11.6*	8.4	100
4565	RATLIFF HARDWARE COMPANY	4.1	11.4*	8.3	99
4567	ROBINSON IMPLEMENT & MOTOR COMPANY	4.2	12.1	8.1	102
4574	E L BARNES & SON	4.2	11.6*	8.7	101
1550	5 10 10M GRIGSBY & COMPANY	4.7*	11.0	10.6	104
2461	6 12 12M VIRGINIA CAROLINA CHEMICAL CORP	6.1	12.0	12.5	101
2477	STEGER CATO	5.9	12.3	12.2	101
2558	VIRGINIA CAROLINA CHEMICAL CORP	6.0	12.4	12.0	101
2572	AGNES DAVIS	6.0	13.1	12.0	104
342	10 10 10M CUNDIFF SEED COMPANY	10.4	10.1	10.1	103
2457	VIRGINIA CAROLINA CHEMICAL CORP	10.2	10.6	10.2	103
2643	20 SUPERPHOSPHATE VIRGINIA CAROLINA CHEMICAL CORP		20.5		103
4483	TRIGG COUNTY TRADING COMPANY		20.5		103
4566	ROBINSON IMPLEMENT & MOTOR COMPANY		17.9*		90*

(1) SEE BORON TABLE - PAGE 32

(2) SEE BORON TABLE - PAGE 32

TABLE 2 - Analyses of Inspection Samples of Rock Phosphate, Basic Slag, Fused Tricalcium Phosphate, July-December, 1956

(Analyses deficient more than one-fourth of one percent indicated by asterisk).

Station Number	Manufacturer, Brand Name, and From Whom Obtained	Phosphoric Acid				Percent of Relative Value Found
		Available		Total		
		Guar. (Percent)	Found	Guar. (Percent)	Found	
<u>TENNESSEE COAL & IRON</u>						
Basic Slag						
2594	Gillispie Seed Company	---	---	8.0	9.1	11
<u>ROBIN JONES PHOSPHATE COMPANY</u>						
Rock Phosphate						
4524	Tri State Chemical Company	3.0	2.5*	30.0	29.3*	98*
4525	TriState Chemical Company	3.0	2.5*	31.0	29.6	96*
<u>SCHROCK FERTILIZER SERVICE</u>						
Rock Phosphate						
4526	Crafton, Duncan & Sinkhorn	----	----	33.0	33.1	101
4643	James A. Logsdon	----	----	33.0	33.3	101

TABLE 3 - Analyses of Inspection Samples of Bones, Dried Manures, etc., July-December, 1956

Station Number	Manufacturer, Brand Name and From Whom Obtained	Nitrogen Percent	Total Phosphoric Acid	Potash Percent	Percent of Relative Value Found
			Percent		
<u>THE SEWERAGE COMMISSION OF THE CITY OF MILWAUKEE</u>					
5.5-4-0 Milorganite					
4606	Yopp Seed Company	5.9	4.0		106

TABLE 4 - Boron Analysis of Samples reported as shown on previous pages

Page	Sample	Boron Guaranteed	Boron Found
12	2493	0.56	0.50
	2525	0.57	0.46
13	4661	0.34	0.38
16	3362	0.23	0.23
17	306	0.34	0.38
	307	0.34	0.37
	315	0.34	0.39
	1537	0.34	0.35
	333	0.45	0.41
	353	0.45	0.43
	1528	0.45	0.46
	2446	0.45	0.47
	2485	0.45	0.49
	2521	0.45	0.45
	2538	0.45	0.44
	2556	0.45	0.45
	2663	0.45	0.46
	4599	0.45	0.55
	19	2441	0.74
21	2447	0.57	0.46
	2451	0.56	0.54
	3351	0.57	0.49
24	2443	0.34	0.41
	346	0.34	0.41
26	1526	0.57	0.72
28	4636	0.34	0.40
30	2460	0.57	0.50
	2479	0.57	0.49
	2462	0.57	0.34
	2476	0.57	0.41