

Commercial Fertilizers in Kentucky, 1962

Including a Report on Official Fertilizer
Samples Analyzed

July-December, 1962



University of Kentucky
Agricultural Experiment Station
Lexington

FEED AND FERTILIZER DEPARTMENT
KENTUCKY AGRICULTURAL EXPERIMENT STATION

Bruce Poundstone, Head of Department
Robert Mathews, Assistant Administrator & Chief Inspector

Guy P. Zickefoose, Auditor-Inspector
W. J. Huffman, Registration Inspector

FIELD INSPECTORS

M. M. Davis
O. R. Wheeler*

Neville Huette

Noel J. Howard
W. M. Routt

LABORATORY STAFF

Harry R. Allen
Valva Midkiff
J. T. Adair
Paul R. Caudill

J. A. Shrader
John H. Ellis
Dewey H. Newman, Jr.
Clarence Lowery, Jr.

Lelah Gault
Norma Holbrook
Robert N. Price
Clyde Bradway

CONTENTS

	Page
Explanation of Tables	3
Tonnage of Fertilizer Sold	4
Number of Grades Needed in Kentucky	4
Information Given for Samples Where the words "See Note" Appear	4
Companies Represented by Samples Reported in This Bulletin	5
TABLE A - Fertilizer Used in Kentucky - 1918 - 1962	6
TABLE 1 - Analyses of Inspection Samples of Mixed Dry Fertilizers	7
TABLE 2 - Analyses of Inspection Samples of Mixed Liquid Fertilizers	32
TABLE 3 - Analyses of Straight Materials	34
TABLE 4 - Results of analyses of Boron in Fertilizers Reported in Table 1	39

*Died August 4, 1962

This report compiled and prepared by Bruce Poundstone and W. J. Huffman
Analytical data by the Laboratory Staff

This bulletin contains results of analyses of 642 official samples of commercial fertilizers made during the period July 1 through December 31, 1962.

Separate tables are provided for the results of analyses of mixed dry fertilizers, mixed liquid fertilizers, straight materials and boron. Table A shows the amount of fertilizer used in Kentucky from 1918 to 1962.

EXPLANATION OF TABLES

The information given should be useful to farmers, agricultural workers, and company representatives in determining how closely a given manufacturer or plant is meeting the chemical guarantee printed on the bag or tag for all or specific fertilizers. This may be done by comparing the guarantee shown at the beginning of each listing of samples with the actual analysis in the columns at the right in terms of nitrogen, available phosphoric acid and potash.

An additional means of comparing guarantees with the analyses of samples is in the percent of relative value found, shown in the extreme right-hand column. The following examples illustrate how this relative value is calculated:

A 5-10-15 sulfate fertilizer is guaranteed to contain 5 units of Nitrogen, 10 units of Available Phosphoric Acid and 15 units of Potash. Factors for computing the relative value of these plant foods are: 3 for Nitrogen, 2 for Available Phosphoric Acid and 1 for Potash. Thus the combined guaranteed value of the product represented is calculated:

5.0 Units of Nitrogen	x 3 = 15.0
10.0 Units of Available Phosphoric Acid	x 2 = 20.0
15.0 Units of Potash	x 1 = <u>15.0</u>
Total computed guaranteed value	50.0

The same procedure is followed for "found values." Assuming a sample of 5-10-15 was found to contain 5.1 units of Nitrogen, 10.2 units of Available Phosphoric Acid and 15.1 units of Potash, the relative found value is computed:

5.1 Units of Nitrogen	x 3 = 15.3
10.2 Units of Available Phosphoric Acid	x 2 = 20.4
15.1 Units of Potash	x 1 = <u>15.1</u>
Total computed value	50.8

50.8 (computed found value of sample) divided by 50.0 (computed guaranteed value) times 100 (to arrive at percentage) gives 101.6 as the percent of the relative value found.

In some samples a deficiency in one nutrient is accompanied by an overrun in another nutrient. This may be evidence of improper mixing or weighing by the manufacturer. Extreme variations of this kind cannot be attributed to separation of materials (segregation) after the product is bagged 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 guarantee of all nutrients as expressed by the manufacturer's guaranteed analysis.

The results of analyses of all inspection samples are given in tables 1, 2, 3, and 4. If an analysis shows a deficiency of more than the tolerance, the amount claimed for Nitrogen, Phosphoric Acid or Potash, or if the percent of the relative value is 97 or less, the result is indicated by an asterisk.

TONNAGE OF FERTILIZER SOLD

The tonnage of fertilizer sold in 1962 was about 632,000 tons. This represents an increase of about 62,000 tons over 1961. There was an increase of about 39,000 tons in total mixed fertilizer sold and an increase of about 23,000 tons of fertilizer materials.

NUMBER OF GRADES NEEDED IN KENTUCKY

The Departments of Agronomy and Horticulture of the Kentucky Agricultural Experiment Station consider that eleven 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 eleven ratios and minimum grades and corresponding higher analysis grades, except 4-16-4, recommended for field crops are shown below.

<u>Ratio</u>	<u>Minimum Grade</u>	<u>Higher Analysis Grade</u>
0-1-1	0-20-20	0-24-24, 0-30-30
0-1-2	0-10-20	0-12-24, 0-15-30, 0-20-40
0-1-3	0-10-30	0-12-36, 0-15-45
1-1-1	10-10-10	12-12-12, 14-14-14
1-1-3	6- 6-18	8- 8-24
1-2-2	5-10-10	6-12-12, 8-16-16, 10-20-20
1-2-3	5-10-15	6-12-18, 9-18-27
1-3-2	4-12- 8	5-15-10, 6-18-12
1-4-1	4-16- 4	For Plant Beds Only
1-4-4	5-20-20	6-24-24, 8-32-32
2-1-1	12- 6- 6	16- 8- 8, 32-16-16

Higher grades of any ratio, except 4-16-4, are both recommended and encouraged. None of the recommended minimum grades of mixed fertilizer contain less than 24 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 is also 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: 1-1-3, 1-2-2, 1-2-3. 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 10B from this Station.

INFORMATION IS GIVEN FOR SAMPLES WHERE THE WORDS "SEE NOTE" IS SHOWN AS FOLLOWS:

- Note 1. See Table 4 for results of analyses of boron in fertilizer.
- Note 2. Fertilizer represented by this sample returned to plant and re-worked.
- Note 3. Purchaser received refund based upon this analysis.
- Note 4. Product sold according to laboratory finding.
- Note 5. Refund based upon this analysis made to charity.

COMPANIES REPRESENTED BY SAMPLES REPORTED IN THIS BULLETIN

American Agricultural Chemical Co.
100 Church Street
New York, New York

American Cyanamid Co., Agr. Div.
P. O. Box 400
Princeton, New Jersey

Armour Agricultural Chemical Co.
350 Hurt Building
Atlanta, Georgia

Associated Cooperatives, Inc.
750 W. 20th Avenue
Sheffield, Alabama

Bale Fertilizer Co.
Horse Cave, Kentucky

Bartlett & O'Bryan Fertilizer Co.
108 River Road
Owensboro, Kentucky

Bluegrass Plant Foods, Inc.
Cynthiana, Kentucky

Burley Belt Plant Food Works, Inc.
Route 4
Lexington, Kentucky

California Chemical Co.
Lucas & Ortho Way
Richmond, California

Cecil Farm Supply Co.
Star Route
Owensboro, Kentucky

Commonwealth Fertilizer Co., Inc.
Morgantown Road
Russellville, Kentucky

Cooperative Fertilizer Service, Inc.
Southern States Building
Richmond, Virginia

Darling & Co.
4201 S. Ashland Avenue
Chicago, Illinois

E-town Fertilizer Co.
Cecilia, Kentucky

Federal Chemical Co.
646 Starks Building
Louisville, Kentucky

Glasgow Fertilizer Co.
Glasgow, Kentucky

W. R. Grace & Co., Davison Chem. Div.
101 N. Charles Street
Baltimore, Maryland

Gro-Green Chemical Co.
Shelbyville, Kentucky

Hutson Chemical Co.
Railroad Avenue
Murray, Kentucky

International Min. & Chem. Corp.
P. O. Box 15067, Lockland Sta.
Cincinnati 15, Ohio

Kentucky Fertilizer Works
Winchester, Kentucky

Land-O-Nan Warehouse
Sturgis, Kentucky

North American Fertilizer Co.
1419 South Preston Street
Louisville, Kentucky

Ohio Valley Fertilizer, Inc.
Maysville, Kentucky

Olin Mathieson Chemical Corp.
Little Rock, Arkansas

Robin Jones Phosphate Co.
204-23rd Avenue, North
Nashville, Tennessee

F. S. Royster Guano Co.
Price Chemical Division
Norfolk, Virginia

O. M. Scott & Sons Co.
Marysville, Ohio

Spencer Chemical Co.
610 Dwight Building
Kansas City, Missouri

Swift & Co.
Agricultural Chemical Division
National Stock Yards, Illinois

Tennessee Corp.
Lockland Station
Cincinnati 15, Ohio

Tri-State Chemical Co.
Henderson, Kentucky

Valley Counties of Kentucky Coop.
Benton, Kentucky

Virginia-Carolina Chemical Corp.
401 East Main Street
Richmond, Kentucky

West Ky. Liquid Fertilizer Corp.
Hopkinsville
Kentucky

TABLE A - FERTILIZER USED IN KENTUCKY - 1918-1962

Year	Fertilizer purchased ^a	AAA & ACP 20% superphosphate or equivalent	Total Fertilizer
	Tons	Tons	Tons
1918	134,000	-----	134,000
1919	102,000	-----	102,000
1920	88,000	-----	88,000
1921	62,131	-----	62,131
1922	85,203	-----	85,203
1923	90,958	-----	90,958
1924	85,000	-----	85,000
1925	93,000	-----	93,000
1926	91,500	-----	91,500
1927	70,000	-----	70,000
1928	92,000	-----	92,000
1929	93,000	-----	93,000
1930	114,000	-----	114,000
1931	105,000	-----	105,000
1932	55,000	-----	55,000
1933	58,000	-----	58,000
1934	62,000	-----	62,000
1935	73,000	-----	73,000
1936	89,000	-----	89,000
1937	117,078	18,000	135,078
1938	110,201	33,000	143,201
1939	119,400	37,000	156,400
1940	117,351	41,500	158,851
1941	116,341	187,481 ^b	303,822
1942	141,711	221,171 ^b	362,882
1943	154,356	105,272	259,628
1944	227,832	67,000	294,832
1945	270,479	119,820 ^c	390,299
1946	323,278	44,205	367,483
1947	404,791	36,515	441,306
1948	460,855	38,580	499,435
1949	479,549	36,293	515,842
1950	565,161	11,872	577,033
1951	569,907	5,320	575,227
1952	617,311	2,040	619,351
1953	563,228	-----	563,228
1954	580,410	-----	580,410
1955	519,143	-----	519,143
1956	531,765	-----	531,765
1957	539,854	-----	539,854
1958	534,483	-----	534,483
1959	602,113	-----	602,113
1960	563,978	-----	563,978
1961	570,703	-----	570,703
1962	632,000	-----	632,000

^aCalculated from stamp receipts 1918-1939. Reports from manufacturers 1940-1962.

^bIncludes 58,000 tons of 47% triple superphosphate in 1941, and 12,367 tons in 1942.

^cThe AAA also distributed 8,800 tons of rock phosphate in 1945.

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962
 Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
	(Percent)	(Percent)	(Percent)	
<u>THE AMERICAN AGRI CHEM CO CINCINNATI</u>				
4 12 8M				
3838	4.1	12.1	8.2	102
5948	4.0	12.1	8.1	101
6945	4.0	11.9	8.5	101
6949	4.0	11.7	9.2	101
6954	4.1	12.1	8.2	102
8022	4.5	11.9	8.7	105
8083	4.4	12.1	8.6	105
5 20 20M				
5949	5.1	19.6	21.2	101
6934	4.8	20.5	20.0	101
6955	5.9	19.2*	18.6*	100
8047	5.3	18.7*	20.0	98
6 12 12M				
6921	6.0	12.8	12.2	103
6948	5.8	12.5	12.5	102
6956	5.9	12.8	11.7	102
12 12 12M				
6957	11.5*	13.1	11.7	101
<u>THE AMERICAN AGRI CHEM CO DANVILLE ILL</u>				
10 10 10M				
5952	10.0	10.7	10.5	103
<u>THE AMERICAN AGRI CHEM CO KNOXVILLE</u>				
3 9 6M				
7703	3.2	9.1	6.1	103
6 12 12M				
7701	6.1	12.0	12.0	101
10 10 10M				
7702	8.6*	10.3	12.9	99

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>THE AMERICAN AGRI CHEM CO LONDON</u>				
	(Percent)	(Percent)	(Percent)	
4 12 8M				
3828	4.2	12.0	8.1	102
3829	4.1	12.0	7.9	100
3945	4.2	11.9	8.3	102
5953	4.0	12.0	8.1	100
7723	4.1	12.1	8.3	102
6 12 12M				
3947	5.9	12.1	11.9	100
10 10 10M				
3946	10.0	10.0	10.1	100
12 12 12M				
3944	11.6*	12.6	11.7	100
<u>THE AMERICAN AGRI CHEM CO NEW YORK</u>				
10 6 4M				
6958	10.0	6.9	4.5	105
20 20 5M				
6933	20.5	22.0	5.5	106
<u>THE AMERICAN AGRI CHEM CO SEYMOUR</u>				
5 20 20M				
6884	5.2	19.2*	21.5	101
10 10 10M				
6882	10.3	10.4	10.6	104
8085	10.4	10.4	10.2	104
12 12 12M				
6935	12.3	12.6	13.2	105
<u>ARMOUR AGRICULTURAL CHEM CO ATLANTA</u>				
15 15 15M				
9007	14.7	15.9	14.0*	100

TABLE 1.— Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
	(Percent)	(Percent)	(Percent)	
<u>ARMOUR AGRICULTURAL CHEM CO CINCINNATI</u>				
20 20M				
3840		19.7	20.5	100
6946		18.9*	20.2	97*
3 12 12M				
6951	3.2	12.5	12.0	104
4 12 8M				
8038	4.3	12.8	9.0	108
8040	4.2	12.8	7.6*	104
5 10 10M				
3846	5.0	11.6	9.7	106
5 20 20M				
3839	5.0	19.6	19.9	99
3845	5.2	19.9	19.1*	99
8039 SEE NOTE 2	4.6*	18.6*	20.2	95*
5 20 20M WITH 5 LBS BORAX				
7680 SEE NOTE 1	4.9	19.3*	19.2*	97*
6 12 12M				
3842	5.6*	12.0	12.4	99
10 10 10M				
6952	10.4	10.8	10.0	105
6959	10.2	10.5	10.8	104
<u>ARMOUR AGRICULTURAL CHEM CO JEFFERSONVILLE</u>				
10 30M				
3917		11.2	29.4*	104
20 20M WITH 5 LBS BORAX				
3921 SEE NOTE 1		19.6	20.9	100
3 12 12M				
6941	3.1	12.3	13.7	106
7693	3.2	11.7	13.0	102
4 12 8M				
3919	3.9	12.5	8.2	102
7694	4.1	12.8	8.2	105
8023	4.0	12.7	8.9	105
8125	4.0	11.6*	8.6	100

TABLE 1.— Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
	(Percent)	(Percent)	(Percent)	
<u>ARMOUR AGRICULTURAL CHEM CO JEFFERSONVILLE CONT</u>				
5 20 20M				
3923	4.7*	20.0	20.0	99
3933	5.2	18.1*	21.5	98
7742	5.2	20.1	20.1	101
8024	4.9	20.3	20.9	102
8126	5.0	20.0	20.0	100
6 12 12M				
3920	5.6*	12.6	13.7	103
3932	5.7*	12.8	12.4	102
6896	5.6*	12.8	14.0	104
7692	6.3	12.6	14.4	108
8025	5.9	13.0	12.0	103
6 18 12M				
6867 SEE NOTE 2	6.5	16.4*	11.5*	97*
10 10 10M				
3918	9.6*	10.6	12.5	104
3934	10.0	10.6	11.1	104
9011	10.2	10.7	11.2	105
10 20 20M				
8127	9.9	20.0	21.0	101
12 12 12M				
6908	11.4*	13.5	13.0	103
<u>ARMOUR AGRICULTURAL CHEM CO MEMPHIS</u>				
4 12 8M				
6860	4.1	12.4	8.5	104
12 12 12M				
9003	12.1	12.2	12.0	101
<u>ARMOUR AGRICULTURAL CHEM CO NASHVILLE</u>				
20 20M				
3892		19.0*	20.7	98
6871 SEE NOTE 2		18.4*	20.8	96*
8086		19.1*	20.0	97*
3 12 12M				
8087	4.3	13.0	12.4	114

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Percent of Relative Value Found	Manufacturer Grade Sample Number	Nitrogen (Percent)	Available Phosphoric Acid (Percent)	Potash (Percent)	Percent of Relative Value Found
ARMOUR AGRI CHEM CO NASHVILLE CONTINUED					
	4 12 8M				
99	3875	4.2	11.9	7.8	100
98	3890	4.2	12.6	7.8	104
101	6868	4.2	12.0	9.0	104
102	6870	4.2	12.0	8.6	103
100	6909	4.1	12.0	8.0	101
	6979	4.2	12.0	8.1	102
	6988	4.0	12.1	7.7*	100
	7724	4.1	12.1	8.0	101
103	8088	4.1	11.7	8.4	100
102	8095	4.3	11.8	8.6	103
104	9005	5.2	12.1	9.5	112
108					
103	4 16 16M				
	8089 SEE NOTE 2	3.5*	15.5*	14.1*	93*
97*					
	5 10 10M				
	6986	5.1	10.3	10.0	102
	7753	5.1	10.4	10.0	102
104	8090	5.2	10.5	10.2	104
104					
105					
	5 20 20M				
	3873	5.0	21.8	19.5*	104
	3887	5.1	19.7	21.2	101
	5969	5.1	19.9	20.1	100
101	6863	5.2	18.8*	20.7	99
	7768	5.0	19.9	21.5	102
	8091	4.8	21.7	19.0*	102
103					
	5 20 20M WITH 5 LBS BORAX				
	3927 SEE NOTE 1	5.1	18.9*	20.6	98
	6 12 12M				
	3872	6.1	12.0	12.9	102
	3877	6.2	12.0	12.0	101
104	3889	6.4	13.1	12.9	108
	3891	6.2	12.1	12.7	103
	5979	6.0	12.5	12.5	103
	6859	5.5*	12.3	13.0	100
101	6983	5.9	12.0	13.5	102
	8092	5.8	12.0	12.7	100
	9008	6.0	12.0	12.6	101
	6 24 12M				
	3876	6.0	24.0	12.1	100
	10 10 10M				
98	3871	9.1*	10.3	10.7	98
96*	3874	9.7	10.4	11.5	102
97*	6862	9.7	10.0	10.4	99
	6910	9.9	9.6*	11.0	100
	6984	9.9	10.1	10.0	100
	6985	10.1	10.1	10.1	101
114	7752	9.9	10.0	12.0	103
	8093	9.8	10.7	10.6	102
	8096	9.7	10.4	10.1	100
	9002	9.8	10.4	10.1	101

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962
Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
	(Percent)	(Percent)	(Percent)	
<u>BALE FERTILIZER COMPANY</u>				
5 20 20M 7697	5.0	20.0	20.5	101
<u>BARTLETT & O BRYAN FERTILIZER COMPANY</u>				
4 12 8M 8076	4.6	11.5*	9.6	105
5 20 20M 8079 SEE NOTE 2 8080	4.8 5.0	19.2* 18.9*	18.8* 20.5	95* 98
6 12 12M 8081	5.7*	12.0	13.7	101
12 12 12M 8082	12.0	13.1	12.7	104
<u>BLUEGRASS PLANT FOODS INC CYNTHIANA</u>				
10 30M WITH 5 LBS BORAX 7654 SEE NOTE 1		10.3	29.8	101
12 12 12M 7653	11.6*	12.6	12.5	101
<u>BLUEGRASS PLANT FOODS INC DANVILLE</u>				
4 12 8M 7655	4.0	12.2	7.9	101
5 10 10M 7695	5.1	10.0	10.0	101
5 20 20M 7696	5.2	19.3*	21.5	101

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Percent of Relative Value Found	Manufacturer Grade Sample Number	Nitrogen (Percent)	Available Phosphoric Acid (Percent)	Potash (Percent)	Percent of Relative Value Found
	<u>BURLEY BELT PLANT FOOD WORKS INC</u>				
101	20 20M 6963		18.7*	20.0	96*
	10 10 10M 6964	9.1*	10.2	9.8	96*
105	<u>CALIFORNIA CHEMICAL COMPANY</u>				
95* 98	10 20 20M 8107	10.6	20.0	19.3*	101
101	14 14 14M 7659	14.5	14.0	14.2	102
	8108	14.0	15.0	14.7	103
104	20 10 10M 7660	20.0	9.9	10.4	100
	8109	19.9	10.1	10.1	100
	<u>CECIL FARM SUPPLY COMPANY</u>				
101	10 40M 8059		9.1*	44.0	104
101	5 20 20M 5960	4.2*	19.2*	19.5*	95*
	12 12 12M 5961 SEE NOTE 2	9.9*	12.0	12.0	91*
101	<u>COMMONWEALTH FERTILIZER COMPANY INC</u>				
101	20 20M 8017		20.3	20.5	102
101	4 12 8M 3864	4.3	11.4*	9.0	102
	7716	4.3	11.4*	9.1	102
	8018	4.4	11.6*	8.5	102
	8133	4.4	12.0	8.5	104

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962
Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>COMMONWEALTH FERTILIZER CO INC CONTINUED</u>				
5 20 20M				
3863	5.2	19.9	20.0	101
7718	5.4	19.6	20.0	101
7769	5.1	19.1*	20.5	99
8019	5.4	20.0	21.0	103
6 12 12M				
3862	6.0	12.0	12.2	100
7717	6.0	11.8	12.0	99
10 10 10M				
7715	9.8	10.4	10.3	101
7770	9.6*	10.4	11.1	101
8020	9.8	10.8	11.0	103
<u>COOPERATIVE FERTILIZER SERVICE BALTIMORE</u>				
5 10 10M				
8029	5.4	10.6	10.3	106
<u>COOPERATIVE FERTILIZER SERVICE BRISTOL</u>				
2 12 12M WITH 3 LBS BORAX				
5954 SEE NOTE 1	2.2	12.8	12.0	105
5 10 10M				
5955	5.2	10.3	10.2	103
8146	5.1	10.2	10.4	102
10 10 10M				
5956	10.0	10.2	10.5	102
8147	10.0	10.4	10.0	101
10 20 20M				
5957	10.0	20.1	20.5	101
<u>COOPERATIVE FERTILIZER SERVICE LOUISVILLE</u>				
30 30M				
8001		29.8	30.0	100
8137		29.9	30.0	100
3 12 12M				
6891	3.1	12.1	12.7	103
7682	3.3	12.1	12.1	103
7733	3.2	12.4	11.8	103

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>COOPERATIVE FERT SER LOUISVILLE CONTINUED</u>				
	(Percent)	(Percent)	(Percent)	
4 12 8M				
101 3822	4.2	12.3	9.9	107
101 6960	4.2	12.0	8.1	102
99 6997	4.2	11.7	8.5	101
103 7681	4.3	12.4	8.7	105
5 20 20M				
100 6880	5.0	20.5	19.3*	100
99 6892	5.1	20.0	20.2	101
6929	5.1	20.9	19.8	103
6942	5.1	19.8	20.3	100
101 7683	5.0	20.3	20.0	101
101 7732	5.3	20.0	20.4	102
103 8004	5.3	20.4	20.0	102
5 20 20M WITH 2 LBS BORAX				
3824 SEE NOTE 1 & 2	5.4	17.9*	17.4*	93*
6936 SEE NOTE 1	5.1	19.6	19.6	99
7672 SEE NOTE 1	5.1	19.4*	20.1	99
6 12 12M				
106 6937	6.3	12.5	12.2	104
6940	6.3	12.4	12.1	103
8005	6.1	12.7	12.5	104
10 10 10M				
3827	10.5	10.5	10.5	105
6881	10.3	10.3	10.0	103
7734	10.1	10.9	10.7	105
105 8006	10.2	10.4	10.2	103
<u>COOPERATIVE FERTILIZER SERVICE RUSSELLVILL</u>				
19 38M WITH 4 LBS BORAX				
102 8138 SEE NOTE 1		17.5*	40.0	99
30 30M				
101 3886 SEE NOTE 2		27.8*	33.3	99
5973		28.9*	31.0	99
4 12 8M				
3879	4.5	11.7	8.7	104
3883	4.4	11.8	7.4*	100
3914	4.5	11.9	8.6	104
5972	4.6	11.6*	8.6	104
6879	4.2	12.2	8.0	102
6914	4.2	12.3	8.0	103
6970	4.4	11.4*	8.5	101
6978	4.4	11.4*	7.4*	99
6989	4.7	12.0	9.3	108
8009	4.5	11.7	8.5	103
103 8139	4.4	11.2*	10.0	104

TABLE 1.— Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
COOPERATIVE FERT SERV RUSSELLVILLE CONT	(Percent)	(Percent)	(Percent)	
5 20 20M				
3882 SEE NOTE 2	5.6	23.1	13.5*	102
3915	5.0	19.9	20.0	100
5967	5.2	20.0	20.9	102
5974	4.9	20.0	20.7	101
6916 SEE NOTE 4	5.3	22.3	15.7*	102
6971 SEE NOTE 2	5.4	22.4	14.5*	101
7658	5.9	19.2*	21.2	103
7746	4.9	18.5*	23.4	100
7749	5.2	21.6	17.9*	102
8100	5.1	19.4*	20.1	99
8111	5.1	20.0	20.0	100
8140	5.2	20.0	19.2*	100
9006 SEE NOTE 4	5.2	21.0	17.0*	99
6 12 12M				
3880	5.5*	11.9	12.2	97*
3884	6.0	11.9	12.7	101
5990	6.3	12.0	13.5	104
6898	6.1	11.9	13.2	102
6913	6.5	12.1	13.7	106
6968	5.7*	12.4	13.2	102
6991	6.0	12.1	12.0	100
7663	5.4*	12.3	11.2*	96*
7704	5.7*	11.9	11.6*	97*
8010	6.2	12.1	12.9	103
8112	6.0	12.3	12.4	102
8141	6.1	11.9	12.5	101
6 18 12M				
6873	6.0	18.4	12.1	101
6990	6.1	18.0	10.6*	98
8142	6.6	16.6*	12.6	99
10 10 10M				
3881	10.3	10.3	10.6	104
3885	10.4	10.7	10.0	104
3916	10.6	10.5	11.0	106
5975	10.1	11.3	10.0	105
6878	10.4	10.7	9.8	104
6969	10.0	10.5	10.0	102
7750	10.5	10.4	10.6	105
8143	10.3	10.0	11.0	103
10 20 20M				
5991	9.9	18.8*	19.6	97*
6995 SEE NOTE 4	9.8	18.5*	19.2*	95*
8035	9.9	18.5*	19.7	96*
8144	10.0	19.0*	19.6	97*
12 12 12M				
5968	11.8	11.9	12.5	100
5992	11.6*	12.7	12.2	101
6915	12.0	12.5	12.9	103
7740	12.0	12.2	12.3	101
8011	12.0	12.1	12.5	101
8052	12.1	12.9	12.0	103
8113	12.3	12.6	12.2	103
8145	11.9	12.0	13.0	101

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962
Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>COOPERATIVE FERTILIZER SERVICE WINCHESTER</u>				
	(Percent)	(Percent)	(Percent)	
19 38M WITH 4 LBS BORAX				
6889 SEE NOTE 1		18.5*	39.2	100
7651 SEE NOTE 1		20.2	38.2	103
7673 SEE NOTE 1		19.2	40.5	104
30 30M				
3834		30.9	30.0	102
6992		29.6	30.0	99
8037		30.9	27.9*	100
4 12 8M				
3825	4.2	12.2	9.2	105
3832	4.3	12.6	9.0	107
3835	4.1	12.1	9.4	104
5959	4.2	12.0	8.7	103
8028	4.2	12.2	9.3	105
8033	4.3	12.0	8.9	104
8042	4.0	12.1	10.7	107
8049	4.0	11.6*	8.9	100
8122	3.8	12.0	9.5	102
5 20 20M				
3823	4.8	21.4	18.4*	101
3833	5.0	19.3*	19.4*	97*
3843	5.0	19.4*	20.5	99
6993	4.9	19.5*	20.1	98
7671	4.9	19.5*	20.7	99
7741	5.2	19.9	20.0	101
8045	5.0	18.5*	19.6	95*
8053	5.0	19.6	19.8	99
8123	4.8	19.7	20.0	98
5 20 20M WITH 2 LBS BORAX				
7652 SEE NOTE 1	5.2	20.0	20.2	101
6 12 12M				
5958	5.7*	11.5*	15.0	102
8050	5.9	11.5*	12.2	98
10 10 10M				
6888	9.9	10.2	10.0	100
6996	9.6*	10.0	10.5	99
8051	10.0	10.0	10.2	100
8124	10.0	10.0	10.4	101
8149	9.9	9.7	10.4	99
30 10 0				
3826	30.0	10.9		102

TABLE 1.— Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>DARLING & COMPANY CAIRO ILLINOIS</u>				
	(Percent)	(Percent)	(Percent)	
6 12 12M 5983 6922	6.1 6.4	11.2* 12.2	13.5 12.0	101 103
<u>E TOWN FERTILIZER COMPANY</u>				
20 20M 7728		20.0	19.5*	99
3 12 12M 7731	3.9	13.0	11.3*	109
4 12 8M 7729	4.4	13.0	9.4	110
5 20 20M 7727 SEE NOTE 2 7736 SEE NOTE 3 7758	5.7 6.0 5.4	23.0 24.5 18.2*	14.8* 14.4* 23.0	104 109 101
10 10 10M 7730 7735	10.2 11.2	11.3 9.7	9.6* 10.7	105 106
<u>FEDERAL CHEMICAL COMPANY HUMBOLDT</u>				
4 12 8M 6918	3.9	12.2	8.7	102
5 20 20M 6923 SEE NOTE 3	5.0	17.9*	20.4	95*
6 12 12M 6917 6924 8118	5.6* 5.8 5.9	12.0 11.4* 11.3*	12.0 11.5* 12.7	98 96* 98
12 12 12M 8119	11.5*	11.7	13.6	99

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>FEDERAL CHEMICAL COMPANY LOUISVILLE</u>				
	(Percent)	(Percent)	(Percent)	
20 20M 5950		19.5*	20.1	99
6885		18.8*	20.0	96*
8130		18.5*	21.2	97*
20 20M WITH 5 LBS BORAX 6927 SEE NOTE 1 & 2		21.6	14.8*	97*
3 12 12M 6886	3.4	13.5	12.0	109
6925	3.9	12.0	11.2*	104
7691	3.3	12.4	11.1*	102
4 12 8M 5976	4.6	12.2	9.4	108
7684	3.9	12.0	9.0	102
7743	4.2	11.8	9.0	103
8013	3.9	11.9	7.6*	98
8131	4.0	12.2	8.5	102
5 10 10M 7690	5.4	11.1	8.7*	107
5 20 20M 5951	4.7*	19.5*	20.7	98
6 12 12M 6928	5.7*	12.1	12.2	99
6 24 12M 8069	6.8	23.3*	12.0	101
10 10 10M 5977	10.4	10.8	10.8	106
6883	10.2	10.7	11.0	105
6890	10.0	10.1	10.9	102
6926	10.1	10.8	10.4	104
6938	10.7	10.4	11.0	107
6953	10.0	10.7	11.4	105
<u>FEDERAL CHEMICAL COMPANY NASHVILLE</u>				
9 27M WITH 5 LBS BORAX 3853 SEE NOTE 1		9.4	27.0	102

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962
Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
FEDERAL CHEMICAL CO NASHVILLE CONTINUED	(Percent)	(Percent)	(Percent)	
9 27M WITH 4 LBS BORAX 3868 SEE NOTE 1		9.3	27.1	102
20 20M 3856		19.8	19.9	99
7766		19.3*	21.5	100
8070		21.7	17.9*	102
3 12 12M 8071	3.6	12.4	10.7*	103
4 12 8M 3851	4.1	12.2	7.8	101
3912	4.3	12.0	8.6	103
3931	4.3	12.4	8.9	106
6875	4.0	12.0	8.0	100
7700	4.6	12.5	8.5	108
5 20 20M 3855	5.0	20.1	20.0	100
3929 SEE NOTE 2	4.9	20.0	17.1*	96*
6877	4.8	20.4	22.0	103
6967	4.8	19.6	20.5	99
7662	4.2*	20.0	22.0	99
7668	4.6*	20.4	20.0	99
8072	3.8*	20.3	20.0	96*
6 12 12M 3850	6.4	12.1	13.0	104
3858	6.2	13.0	11.2*	103
3869	6.0	12.0	13.2	102
3911	6.1	12.0	12.2	101
3930	6.2	12.5	11.5*	102
7667	6.0	12.0	12.1	100
7699	6.3	12.2	12.0	102
7765	6.3	11.9	11.9	101
8073	6.2	12.3	11.5*	101
6 18 12M 3848	5.5*	17.4*	14.2	99
3857	5.9	17.1*	13.1	98
6 24 24M 7664 SEE NOTE 2	5.1*	22.0*	24.2	93*
7754 SEE NOTE 2	5.6*	22.0*	23.2*	93*
10 10 10M 3849	9.1*	10.0	10.7	97*
3854	9.2*	10.1	10.7	98
3913	10.0	11.2	9.3*	103
6876	9.0*	10.3	10.7	97*
6965	9.2*	10.2	10.6	98
7665	9.2*	10.0	10.6	97*
7698	10.2	10.6	10.7	104
8074	9.5*	10.0	11.1	99

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>FEDERAL CHEMICAL CO NASHVILLE CONTINUED</u>				
	(Percent)	(Percent)	(Percent)	
12 12 12M 3852	11.3*	12.6	11.4*	98
6874 SEE NOTE 2	10.1*	12.7	11.3*	93*
6966	11.1*	12.2	12.7	98
8075	12.2	12.1	12.4	102
<u>GLASGOW FERTILIZER COMPANY</u>				
10 30M 3905		10.2	30.5	102
4 12 8M 3901	4.5	11.4*	11.0	108
5 20 20M 3898	5.7	18.4*	20.7	99
3902 SEE NOTE 2	5.4	23.6	15.4*	105
6 12 12M 3899	6.3	10.9*	14.8	103
3900	6.1	12.0	12.5	101
10 10 10M 3903	10.5	10.0	10.4	103
3904	10.0	11.1	8.8*	102
<u>W R GRACE & CO DAVISON CHEM DIV NASHVILLE</u>				
20 20M 5997		20.0	18.3*	97*
6857 SEE NOTE 2		18.4*	18.8*	93*
20 20M WITH 5 LBS BORAX 3909 SEE NOTE 1		19.1*	20.0	97*
4 12 8M 3906	4.0	11.9	8.5	101
6854	3.7*	12.0	9.1	100
6855	4.0	12.6	9.0	105
6897	4.0	12.0	9.1	103
6980	3.9	11.6*	8.4	98
6982	4.0	11.7	9.2	101
7685	4.0	12.0	8.1	100
7707 SEE NOTE 3	3.6*	11.2*	7.5*	93*
7764	4.0	12.1	8.3	101
7767	3.7*	11.7	8.0	97*

TABLE 1.— Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962
Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
	(Percent)	(Percent)	(Percent)	
<u>WR GRACE DAVISON CHEM DIV NASHVILLE CONT</u>				
5 20 20M				
3910	5.8	18.6*	20.0	99
3924	5.4	18.7*	20.9	99
6973	5.2	19.7	19.2*	99
7000	5.1	19.6	19.6	99
7669	5.6	20.0	20.1	103
7705	5.4	19.1*	19.6	99
7762	5.0	19.6	19.6	98
5 20 20M WITH 5 LBS BORAX 3907 SEE NOTE 1	4.9	19.9	18.5*	97*
6 12 12M				
3908	6.0	11.9	12.5	101
3925	6.5	11.9	12.4	103
6920	5.6*	12.1	12.0	98
6972	5.7*	12.1	12.2	99
7670	5.9	12.0	12.5	100
7708	5.7*	11.7	12.5	98
7763	5.7*	12.0	12.0	98
9001	5.6*	12.2	12.0	99
6 18 12M				
6869	5.9	17.0*	12.2	97*
10 10 10M				
5982	9.2*	11.1	10.0	100
6858	9.3*	11.0	10.1	100
6919	9.7	10.4	10.4	101
6981	9.4*	10.7	10.2	100
7706	9.7	10.3	10.0	100
8120	9.0*	10.6	10.0	97*
<u>W R GRACE & CO DAVISON CHEM DIV NEW ALBANY</u>				
3 12 12M				
6853	2.9	12.0	12.8	101
6931	3.6	12.4	12.0	106
8027	2.9	12.1	13.2	102
4 12 8M				
5995	4.0	12.5	8.6	104
8014	4.0	12.2	8.5	102
8128	4.0	12.0	8.7*	102
5 20 20M				
6930 SEE NOTE 5	5.0	19.7	19.4*	98
8134	4.8	19.9	19.7	99
6 18 12M				
6856	5.5*	17.5*	12.0	96*

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
WR GRACE DAVISON CHEM DIV NEW ALBANY CONT	(Percent)	(Percent)	(Percent)	
10 10 10M 6939	10.2	10.5	10.4	103
8015	9.7	10.3	10.2	100
8135	10.6	9.7	10.1	102
15 15 15M 6999	14.1*	15.3	14.2*	97*
GRO GREEN CHEMICAL COMPANY INC				
10 30M WITH 7 LBS BORAX 6851 SEE NOTE 1		9.4*	28.0*	94*
HUSTON CHEMICAL COMPANY				
4 12 8M 6906	4.1	13.1	9.4	109
5 20 20M 6907	5.3	20.3	18.7*	100
6 12 12M 6905	6.0	12.1	12.1	101
8150	5.8	12.3	12.7	101
14 14 14M 6904	14.8	14.0	13.2*	102
INTERNATIONAL MIN & CHEM CORP CLARKSVILLE				
20 20M 7722		18.3*	21.0	96*
4 12 8M 3861	4.0	11.5*	8.1	98
8132	4.1	12.1	7.1*	99
6 12 12M 3859	5.6*	11.4*	11.9	95*

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>INTL MIN & CHEM CORP CLARKSVILLE CONTINUED</u>				
6 18 12M 8136	6.1	16.7*	12.4	97*
10 10 10M 3860	9.7	10.3	10.2	100
<u>INTERNATIONAL MIN & CHEM CORP SOMERSET</u>				
5 10 10M 3830	3.6*	12.3	11.6	104
5 20 20M WITH 5 LBS BORAX 3831 SEE NOTE 1 & 2	4.5*	17.6*	19.3*	91*
<u>KENTUCKY FERTILIZER WORKS INC</u>				
4 12 8M 8048	4.2	11.5*	8.8	101
5 20 20M 8054	5.2	20.0	19.8	101
<u>LAND O NAN WAREHOUSE STURGIS</u>				
5 20 20M 7661	4.4*	19.3*	22.8	99
7755 SEE NOTE 2	3.3*	13.3*	21.2	77*
10 20 20M 7666	10.0	22.0	18.1*	102
12 12 12M 7756	11.1*	12.5	12.1	98
<u>NORTH AMERICAN FERTILIZER CO LOUISVILLE</u>				
5 20 20M 6852	5.0	20.0	20.5	101

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
	(Percent)	(Percent)	(Percent)	
<u>OHIO VALLEY FERTILIZER INC</u>				
97* 5 10 15S 7677	4.3*	10.0	15.9	98
100 5 10 20S 7676	4.9	10.1	20.0	100
5 20 20M 7679 SEE NOTE 2	4.8	18.4*	21.7	97*
104 8 10 15S 7675	7.8	9.9	15.5	100
91* 10 10 10M 7678	9.9	10.0	11.2	102
12 12 12M 7674	11.5*	11.5*	12.5	97*
<u>OLIN MATHIESON CHEMICAL CORP HOUSTON</u>				
101 101 13 13 13M 8101	13.0	13.7	12.9	102
<u>ROBIN JONES PHOSPHATE COMPANY</u>				
99 77* 17 10M 3958		17.5	10.0	102
102 18 8M 3966		16.5*	9.3	96*
98 30 15M 3968		32.0	13.3*	103
3 12 12M 3969	3.9	12.2	14.3	112
5 20 10M 3962	5.9	22.8	9.0*	111

TABLE 1.— Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
	(Percent)	(Percent)	(Percent)	
<u>ROBIN JONES PHOSPHATE CO CONTINUED</u>				
5 20 20M 3971	5.0	20.0	21.8	102
6 12 12M 3964	5.3*	12.2	14.8	102
3967	5.4*	14.1	15.0	110
6 18 6M 3970	6.1	19.1	6.7	105
6 18 12M 3959	5.1*	19.9	13.2	103
3960	6.4	20.0	14.5	112
3961	6.9	17.1*	14.2	105
3963	6.2	18.9	13.5	106
8 24 16M 3965	6.5*	27.4	16.1	103
<u>F S ROYSTER GUANO CO PRICE CHEMICAL DIV</u>				
3 12 12M 7739	3.9	12.2	12.0	107
4 12 8M 5978	4.3	12.2	8.2	103
7686	4.3	12.6	8.0	105
5 20 20M 8012	4.9	19.6	20.0	99
9009	5.0	20.0	20.1	100
9010	5.0	19.1*	21.0	99
10 10 10M 7738	10.2	10.6	10.2	103
<u>O M SCOTT & SONS COMPANY</u>				
20 10 5M 8032	20.0	11.0	5.4	103

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
	(Percent)	(Percent)	(Percent)	
<u>SWIFT & COMPANY CHICAGO ILLINOIS</u>				
8 12 6M 8030	8.1	13.2	7.2	107
12 5 7M 8031	12.4	5.4	6.6*	103
<u>SWIFT & COMPANY NATIONAL STOCK YARDS</u>				
5 20 20M 7656	4.8	19.6	20.5	99
7747	5.0	19.6	19.6	98
6 24 24M 7748	6.2	24.0	22.3*	99
10 10 10M 7657	10.0	10.0	10.9	102
<u>TENNESSEE CORPORATION CINCINNATI</u>				
5 20 20M 6950	4.8	19.9	21.3	101
<u>TENNESSEE CORPORATION NEW ALBANY</u>				
20 20M 6895		20.0	21.2	102
4 12 8M 7687	4.4	12.9	9.5	110
5 20 20M 7688	4.7*	20.4	20.0	100
10 10 10M 6894	9.2*	11.6	11.0	103
7737	10.4	10.6	10.2	104

TABLE 1.— Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
TRI STATE CHEMICAL COMPANY	(Percent)	(Percent)	(Percent)	
3 12 12M 8060	3.7	12.0	13.0	107
4 12 8M 8061 SEE NOTE 2	4.2	9.9*	8.4	93*
8097 SEE NOTE 2	5.5	9.6*	10.0	104
4 16 16M 5964	4.1	17.1	16.1	104
8062	3.9	16.0	16.0	100
5 20 20M 5965	4.9	22.0	18.1*	102
8063	5.0	19.7	20.3	99
8098	5.0	19.4*	20.7	99
5 20 30M 8064 SEE NOTE 2	5.6	21.0	27.8*	102
6 12 12M 8065	6.0	12.0	13.7	103
7 28 14M 8066	6.8	27.3*	15.0	99
8 24 16M 5962 SEE NOTE 3	5.6*	19.3*	19.8	85*
10 10 10M 5966	10.0	11.4	10.4	105
8067	10.0	10.9	10.2	103
8099	10.2	11.0	10.1	105
12 12 12M 5963	11.7	13.0	12.2	102
8068	11.6	12.1	13.2	100
<u>VALLEY COUNTIES OF KY COOP INC BENTON</u>				
5 20 20M 8114	5.6	19.6	19.9	101
6 12 12M 8115	6.4	12.2	11.9	103

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962
 Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
	(Percent)	(Percent)	(Percent)	
<u>VALLEY COUNTIES OF KY COOP BENTON CONT</u>				
15 15 15M 8116	15.6	15.7	14.6*	103
21 53 0 5988	21.0	53.9		101
30 10 0 5981	30.0	11.1		102
5989	30.1	11.1		102
<u>VALLEY COUNTIES OF KY COOP INC MURRAY</u>				
14 14 14M 6901	14.5	14.0	13.5*	101
30 10 0 6899	30.1	10.4		101
<u>VIRGINIA CAROLINA CHEM CORP CINCINNATI</u>				
4 12 8M 6962	4.0	11.6*	8.1	98
7745	4.1	12.3	8.0	102
5 10 10M 8055	4.9	10.1	10.2	100
5 20 20M 7744	5.0	19.4*	20.0	98
8056	5.0	20.1	19.3*	99
10 10 10M 6961	10.1	10.2	10.0	101
8057	9.4*	11.1	10.3	101
12 12 12M 8058	12.0	12.3	12.3	101

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962
Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
VIRGINIA CAROLINA CHEM CORP HOPKINSVILLE	(Percent)	(Percent)	(Percent)	
20 20M 3895		20.1	18.2*	97*
4 12 8M 3928	4.3	12.2	7.6*	102
6865	4.4	13.8	8.7	113
6903	3.8	13.8	8.5	108
6974	4.1	12.0	8.6	102
7719	4.3	12.5	8.5	105
5 20 20M 3865	5.2	21.0	20.5	104
3896	5.0	20.7	19.5*	101
3926	5.4	20.4	20.7	104
6977	5.1	20.3	20.0	101
7721	5.2	19.1*	20.5	99
7757	5.7	19.4*	19.7	101
6 12 12M 3866	6.1	12.2	12.0	101
3894	6.5	12.1	12.6	104
6902	5.9	13.3	12.0	104
6 18 12M 3867	6.5	17.3*	12.2	100
3897	6.1	17.1*	12.0	98
6866	6.4	18.5	11.7	101
6976	6.2	17.6*	12.0	100
10 10 10M 6864	9.6*	10.9	10.3	102
6975	10.0	11.5	10.7	106
7720	9.6*	10.9	10.7	102
VIRGINIA CAROLINA CHEM CORP MEMPHIS				
3 12 12M 8103	4.3	13.0	13.0	115
5 20 20M 8104	4.8	19.0*	19.5*	96*
10 10 10M 8105	9.7	10.1	11.2	101
12 12 12M 8106	12.1	11.5*	12.7	100

TABLE 1.—Analyses of Inspection Samples of Mixed Dry Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>VIRGINIA CAROLINA CHEM CORP MT PLEASANT</u>				
	(Percent)	(Percent)	(Percent)	
20 20M WITH 5 LBS BORAX 7709 SEE NOTE 1		18.9*	20.0	96*
3 12 12M 7713	4.6	12.0	10.9*	108
4 12 8M 7711	4.4	12.7	7.6*	105
4 12 12M 7714	4.0	12.1	12.2	101
5 20 20M WITH 5 LBS BORAX 7710 SEE NOTE 1 & 2	5.2	17.2*	18.0*	91*
6 12 12M 7712	6.0	12.7	10.0*	99
<u>VIRGINIA CAROLINA CHEM CORP NICHOLS FLA</u>				
18 46 0 3893	18.1	46.5		101

TABLE 2.— Analyses of Inspection Samples of Mixed Liquid Fertilizers, July-December, 1962
Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>BARTLETT & O BRYAN FERTILIZER COMPANY</u>				
	(Percent)	(Percent)	(Percent)	
4 12 8M LIQUID 8077	4.1	12.1	8.6	103
<u>COMMONWEALTH FERTILIZER COMPANY INC</u>				
4 12 8M LIQUID 7725	4.2	12.4	8.1	103
7774	4.2	11.5*	8.4	100
7776	4.2	12.1	8.1	102
5 10 10M LIQUID 7773	5.5	10.4	10.0	105
6 12 12M LIQUID 7775	6.1	12.6	10.7*	100
8 24 0 LIQUID 7726	8.5	24.6		104
10 10 10M LIQUID 7650	9.9	8.8*	10.7	97*
7772	9.9	10.3	9.3*	99
<u>LAND O NAN WAREHOUSE MORGANFIELD</u>				
8 6 12M LIQUID 7759	8.0	6.6	11.6*	102
9 9 9M LIQUID 7760	9.0	9.0	9.5	101
7761	9.1	9.0	9.3	101
<u>WEST KENTUCKY LIQUID FERT CO BOWLING GREEN</u>				
8 24 0 LIQUID 7771	8.2	23.9		101

TABLE 2.— Analyses of Inspection Samples of Mixed Liquid Fertilizers, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
	(Percent)	(Percent)	(Percent)	
<u>WEST KENTUCKY LIQUID FERT CO GUTHRIE</u>				
4 12 8M LIQUID 3950	4.2	12.0	8.0	101
3952	4.2	12.0	8.1	102
3956	4.3	12.1	8.0	103
3957	4.2	12.0	8.2	102
6 18 6M LIQUID 3942	6.3	18.0	5.9	101
3955	6.2	17.7	6.0	100
6 18 8M LIQUID 3949	5.9	19.4	8.2	104
3951	6.0	17.5*	8.0	98
8 12 8M LIQUID 3943	9.3	10.8*	8.0	103
3953	8.1	12.2	8.0	101
10 20 0 LIQUID 3954	10.2	19.7		100
<u>WEST KENTUCKY LIQUID FERT CO HOPKINSVILLE</u>				
4 12 8M LIQUID 3939	4.6	12.2	8.5	106
5 10 10M LIQUID 3936	5.2	10.3	10.0	103
5 15 10M LIQUID 3937	5.2	14.7	10.0	100
6 18 6M LIQUID 3940	6.2	17.9	6.4	101
6 18 8M LIQUID 3941 SEE NOTE 3	6.5	19.4	7.2*	106
8 16 8M LIQUID 3935	8.3	15.8	7.9	101
10 10 10M LIQUID 3938 SEE NOTE 3	9.0*	10.4	10.3	97*

TABLE 3.—Analyses of Straight Materials, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
	(Percent)	(Percent)	(Percent)	
<u>AMERICAN AGRI CHEM CO LONDON</u>				
SUPERPHOSPHATE 3948		20.0		100
<u>AMERICAN AGRI CHEM CO NEW YORK</u>				
SUPERPHOSPHATE 8084		20.1		100
46 TRIPLE SUPERPHOSPHATE 8148		46.0		100
<u>AMERICAN CYANAMID COMPANY</u>				
CALCIUM CYANAMID 6932	20.5			98
8003	21.9			104
<u>ARMOUR AGRICULTURAL CHEMICAL CO ATLANTA</u>				
AMMONIUM NITRATE 5970	33.7			101
5998	33.5			100
8044	33.6			100
<u>ARMOUR AGRICULTURAL CHEMICAL CO BARTOW</u>				
45 TRIPLE SUPERPHOSPHATE 3870		45.5		101
6872		44.5		99
<u>ARMOUR AGRICULTURAL CHEMICAL CO CINCINNATI</u>				
SUPERPHOSPHATE 3841		20.8		104
3847		20.9		105
6947		20.9		105
8041		20.5		103

TABLE 3.—Analyses of Straight Materials, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>ARMOUR AGRICULTURAL CHEM CO JEFFERSONVILLE</u>				
	(Percent)	(Percent)	(Percent)	
SUPERPHOSPHATE				
3922		20.0		100
6861		23.2		116
<u>ARMOUR AGRICULTURAL CHEMICAL CO NASHVILLE</u>				
SUPERPHOSPHATE				
6987		19.6		98
8094		20.0		100
MURIATE OF POTASH				
3888			60.8	101
<u>ASSOCIATED COOPERATIVES INC</u>				
AMMONIUM NITRATE				
5994	33.7			100
63 CALCIUM METAPHOSPHATE				
5999		64.1		102
8121		63.0		100
<u>CALIFORNIA CHEMICAL COMPANY</u>				
AMMONIUM NITRATE				
8110	33.6			100
<u>COMMONWEALTH FERTILIZER COMPANY INC</u>				
SUPERPHOSPHATE				
8021		20.2		101

TABLE 3.—Analyses of Straight Materials, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
<u>COOPERATIVE FERTILIZER SERVICE LOUISVILLE</u>				
	(Percent)	(Percent)	(Percent)	
SUPERPHOSPHATE				
6000		20.1		100
6998		20.1		100
8007		20.5		103
57 TRIPLE SUPERPHOSPHATE				
8008		56.5		99
<u>COOPERATIVE FERTILIZER SERVICE RUSSELLVILL</u>				
60 TRIPLE SUPERPHOSPHATE				
3878		59.3		99
7751		59.4		99
MURIATE OF POTASH				
5993			60.0	100
<u>COOPERATIVE FERTILIZER SERVICE WINCHESTER</u>				
SUPERPHOSPHATE				
3836		20.4		102
6943		19.2*		96*
6994		19.5*		98
8034		19.5*		98
8043		19.3*		97*
8046		20.0		100
62 CALCIUM METAPHOSPHATE				
3844		63.4		102
MURIATE OF POTASH				
6944			60.4	101
<u>DARLING & COMPANY CAIRO ILLINOIS</u>				
MURIATE OF POTASH				
5984			60.0	100

TABLE 3.—Analyses of Straight Materials, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen (Percent)	Available Phosphoric Acid (Percent)	Potash (Percent)	Percent of Relative Value Found
<u>W R GRACE & CO DAVISON CHEM DIV BARTOW</u>				
46 TRIPLE SUPERPHOSPHATE 8036		43.6*		95*
<u>W R GRACE & CO DAVISON CHEM DIV NASHVILLE</u>				
SUPERPHOSPHATE 5996		18.5*		93*
<u>W R GRACE & CO DAVISON CHEM DIV NEW ALBANY</u>				
SUPERPHOSPHATE 8016 SEE NOTE 5		18.2*		91*
8026 SEE NOTE 5		19.1*		95*
8129 SEE NOTE 5		18.6*		93*
<u>HUSTON CHEMICAL COMPANY</u>				
57 TRIPLE SUPERPHOSPHATE 6911		56.7		99
<u>SPENCER CHEMICAL COMPANY KANSAS CITY</u>				
AMMONIUM NITRATE 5971	33.7			101
<u>TENNESSEE CORPORATION NEW ALBANY</u>				
SUPERPHOSPHATE 6893		20.7		103
7689		20.4		102

Percent of
Relative
Value Found

100
100
103

99

99
99
100

102
96*
98
98
97*
100

102

101

100

TABLE 3.—Analyses of Straight Materials, July-December, 1962

Analyses deficient more than tolerance and relative values of 97 percent or less indicated by asterisk.

Manufacturer Grade Sample Number	Nitrogen	Available Phosphoric Acid	Potash	Percent of Relative Value Found
	(Percent)	(Percent)	(Percent)	
<u>VALLEY COUNTIES OF KY COOP INC BENTON</u>				
56 TRIPLE SUPERPHOSPHATE 5985		56.6		101
60 TRIPLE SUPERPHOSPHATE 5980		58.7*		99
5986		60.4		101
9004		58.5*		98
MURIATE OF POTASH 5987			60.0	100
8117			60.0	100
<u>VALLEY COUNTIES OF KY COOP INC MURRAY</u>				
56 TRIPLE SUPERPHOSPHATE 6900		56.3		101
60 TRIPLE SUPERPHOSPHATE 6912		60.1		100

TABLE 4 - Results of Analyses of boron in fertilizers reported in Table 1

	COMPANY	Sample Number	Guaranteed %	Found %
	Armour Agricultural Chemical Company Cincinnati, Ohio	7680	0.57	0.57
	Armour Agricultural Chemical Company Jeffersonville, Indiana	3921	0.57	<u>0.48</u>
01	Armour Agricultural Chemical Company Nashville, Tennessee	3927	0.57	0.61
99 01 98	Bluegrass Plant Foods, Inc. Cynthiana, Kentucky	7654	0.56	0.64
	Cooperative Fertilizer Service Bristol, Virginia	5954	0.34	0.48
00 00	Cooperative Fertilizer Service Louisville, Kentucky	3824 6936 7672	0.22 0.22 0.22	0.40 0.34 0.37
	Cooperative Fertilizer Service Russellville, Kentucky	8138	0.45	0.50
	Cooperative Fertilizer Service Winchester, Kentucky	6889 7651 7652 7673	0.45 0.45 0.22 0.45	0.47 0.47 0.50 0.54
101	Federal Chemical Company Louisville, Kentucky	6927	0.57	0.54
100	Federal Chemical Company Nashville, Tennessee	3853 3868	0.56 0.45	0.57 <u>0.34</u>
	W. R. Grace & Co., Davison Chemical Division Nashville, Tennessee	3907 3909	0.57 0.57	0.51 <u>0.35</u>
	Gro-Green Chemical Company, Inc. Shelbyville, Kentucky	6851	0.79	<u>0.63</u>
	International Minerals & Chemical Corporation Somerset, Kentucky	3831	0.51	1.00
	Virginia-Carolina Chemical Corporation Mount Pleasant, Tennessee	7709 7710	0.56 0.56	<u>0.47</u> 0.58

4M--4-63