

UNIVERSITY OF MISSOURI      COLLEGE OF AGRICULTURE  
AGRICULTURAL EXPERIMENT STATION

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# Fertilizer Inspection and Analysis; Spring 1947

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COLUMBIA, MISSOURI



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Fertilizer inspection, analysis, and use in Missouri for 1947 will be reported in three separate publications. This bulletin covers inspection and analysis for the period from January 1 to June 30. Inspection and analysis for the remainder of the year will be covered in a second report, while a third will be devoted to fertilizer use in Missouri for 1947.

### INSPECTION

The fertilizer inspection work during this period included every county in the state. A total of 377 dealers and farmers were visited and 614 samples were collected for analysis. This work was done in 239 cities, towns and communities, necessitating a total travel of 7,660 miles.

### VIOLATIONS OF THE MISSOURI FERTILIZER LAW

The more common violations of the state fertilizer law fall under three general headings. They are: (1) violations with respect to registration, or the sale of fertilizers not registered; (2) violations with respect to registration tags, or the sale of fertilizers without tags, with tags certifying registration in another year, or with tags obtained from another state; and, (3) violations with respect to labeling, or the sale of fertilizer in bags or packages not properly labeled as to manufacturer, brand name, or guaranteed analysis. Listed below are the violations found during the spring, 1947, inspection season.

#### 1. SALE OF NON-REGISTERED FERTILIZERS:

**Stim U-Plant.**—Manufactured by Agricultural Laboratories, Inc., Columbus, Ohio; on sale at Westover Nursery, St. Louis, and Chesmore Seed Co., St. Joseph.

**Arnold Vita-Vim Tablets.**—Manufactured by Garden Hose Spray Co., Cambridge, Mass.; on sale at Westover Nursery, St. Louis.

**Concentrated Triple Superphosphate.**—Guaranteed by Central Farmers Fertilizer Co., Chicago, Ill.; on sale at Boone County Farm Bureau Service Co., Columbia; Liberty Marketing Co., Liberty; Consumers Cooperative Retail, Brookfield; and Cole County Farm Bureau Service Co., Jefferson City.

**G. and O. Rose Food.**—Manufactured by Goulard and Olena, Skillman, N. J.; on sale at Sears Roebuck and Co., St. Louis.

**Kell-Phos Raw Rock Phosphate.**—Manufactured by The Kellogg Co., Ocala, Fla.; on sale at Pearson Ferguson Chemical Co., Kansas City.

**Aeroprills.**—Manufactured by North American Cyanamid Lt'd., Niagara Falls, Canada; sold to Oscar Meyer, Florissant.

**Standard 0-14-7.**—Manufactured by Standard Wholesale Phosphate and Acid Works, Inc., Baltimore, Md.; on sale at Bethany Ice and Produce Co., Bethany.

**Quapaw 0-10-20.**—Manufactured by Temple Cotton Oil Co., North Little Rock, Ark.; on sale at R. M. Hart Store, Holcomb.

**V C Victory Garden Fertilizer 4-12-4.**—Manufactured by Virginia-Carolina Chemical Corp., East St. Louis, Ill.; on sale at E. H. Ruessler Feed Store, Old Appleton.

**Lawnagro.**—Manufactured by Westover Nursery, St. Louis, Mo.; on sale at Westover Nursery, St. Louis.

## 2. VIOLATIONS WITH RESPECT TO REGISTRATION TAGS:

The stocks of fertilizers listed below were not tagged, or else bore tags issued by another state. The manufacturers are listed in decreasing order of number of violations found.

### Armour Fertilizer Works, East St. Louis, Ill.:

Big Crop 2-12-6, 125 Bags at Beumel Bros., Westphalia; no tags.

Big Crop 2-12-6, 125 bags at A. W. Baker, Linn; no tags.

Big Crop 20% Superphosphate, 60 bags at Boonville Mill, Boonville; no tags.

Big Crop 20% Superphosphate, 250 bags, at Wise Bros., Stephens; no tags.

Big Crop 4-12-4, 750 bags at Wise Bros., Stephens; no tags.

Big Crop 20% Superphosphate, 130 bags at Phil Ratliff, Neosho; no tags.

Big Crop 4-12-4, 170 bags at Phil Ratliff, Neosho; no tags.

Armour's Bone Meal Fertilizer, 60 bags at Northern Feed Co., Springfield; no tags.

Armour's Lawn and Garden Fertilizer, 25 bags at Northern Feed

- Co., Springfield; no tags.
- Armour's Pulverized Sheep Manure, 40 bags, at Northern Feed Co., Springfield; no tags.
- Big Crop 4-12-4, 330 bags at Saline County Seed House, Marshall; no tags.
- Big Crop 0-14-7, 130 bags at Saline County Seed House, Marshall; no tags.
- Big Crop 0-14-7, 72 bags at Hixsen's Store, Belleview, no tags.
- Big Crop 2-12-6, 45 bags at Rolla Feed Mills, Rolla; no tags.
- Armour's Special Ornamental Fertilizer, 13 bags at Palmer Seed Co., St. Louis; no tags.
- Armour's Pulverized Sheep Manure, 940 bags at Ed. F. Mangelsdorf and Bros., Inc., St. Louis; no tags.
- Big Crop 20% Superphosphate, 80 bags at Owensville Roller Mills, Owensville; no tags.
- Big Crop 2-12-6, 53 bags at Owensville Roller Mills, Owensville; no tags.
- Big Crop 20% Superphosphate, 180 bags at Carters Feed Store, Chillicothe; no tags.
- Big Crop 4-16-0, 200 bags at Langfitt's Seed Farms and Elevators, Bethany; no tags.
- Big Crop 20% Superphosphate, 200 bags at Prairie Milling Co., Montgomery City; no tags.
- Big Crop 4-12-4, 70 bags at Prairie Milling Co., Montgomery City; no tags.
- Big Crop 4-12-8, 93 bags at P. O. Foristell, Foristell; no tags.
- Big Crop 4-12-4, 175 bags at Engendorf Truck Service, Lewistown; no tags.
- Big Crop 4-12-4, 77 bags at Wilson's Produce, Queen City, no tags.
- Big Crop 10-6-4, 250 bags at Leslie Taylor, Armstrong; no tags.
- Big Crop 8-8-8, 175 bags at Leslie Taylor, Armstrong; no tags.
- Big Crop 4-12-4, 90 bags at H. E. Stone, Centralia; no tags.
- Big Crop 4-12-4, 40 bags at Julius Peterson Co., St. Louis; no tags.
- Big Crop 0-14-7, 22 bags at Julius Peterson Co., St. Louis; no tags.
- Big Crop 10-6-4, 60 bags at Julius Peterson Co., St. Louis; no tags.
- Big Crop 20% Superphosphate, 250 bags, at Julius Peterson Co., St. Louis; no tags.
- Big Crop 4-12-8, 40 bags at Julius Peterson Co., St. Louis; Illinois tags.
- Big Crop 4-12-4, 8-8-8, and 10-8-6, 575 bags at Wahlbrinck Implement Co., Keytesville; Illinois and Kansas tags.

Big Crop 20% Superphosphate, 30 bags at T. R. Legg, Monticello; Illinois tags.

**American Agricultural Chemical Co., National Stock Yards, Ill.:**  
AA Quality Fertilizer 4-12-4, 42 bags, at Kelso Milling Co., Kelso; no tags.

Agrico For Truck 4-12-8, 120 bags, at Beckman Bros., Inc., Olivette; no tags.

Agrico For Corn 2-12-6, 5 bags, at Farmers Elevator and Supply Co., Chesterfield; no tags.

Agrico For Truck 4-12-8, 15 bags, at Farmers Elevator and Supply Co., Chesterfield; no tags.

Agrico For Lawns, Trees, and Shrubs 6-10-4, 6 bags, at Farmers Elevator and Supply Co., Chesterfield; no tags.

AA Quality Fertilizer 0-14-7, 48 bags, at Eagle Mill and Elevator Co., Higginsville; no tags.

Agrico Phosphate and Potash 0-14-7, 64 bags, at Farmers Exchange, Hardin; no tags.

AA Quality Fertilizer 4-12-4, 40 bags, at Farmers Elevator, Salisbury; no tags.

Agrico Phosphate and Potash 0-14-7, 63 bags, at H. T. Ranson, Metz; Illinois tags.

Agrico For Corn 2-12-6, 20 bags, at Milne Produce, Paris; Illinois tags.

Agrico For Corn 2-12-6, 87 bags, at Henderson Produce, Shelbina; Illinois tags.

**Swift and Co., Plant Food Division, National Stock Yards, Ill.:**  
Red Steer 2-12-6, 150 bags, at Boonville Mill, Boonville; no tags.  
Red Steer 4-12-4, 180 bags, at Boonville Mill, Boonville; no tags.  
Red Steer 4-12-4, 34 bags, at Smith Bros., Licking; no tags.  
Red Steer 4-12-4, 125 bags, at St. Clair Feed Co., St. Clair; no tags.

Vigoro, 38 bags, at St. Clair Feed Co., St. Clair; no tags.

Brimm, 20 bags, at Hahn Feed Store, Union; no tags.

Red Steer 2-12-6, 13 bags, at Hahn Feed Store, Union; no tags.

Red Steer 2-12-6, 31 bags, at Lincoln County Farm Bureau Service Co., Troy; no tags.

Red Steer 4-12-4, 750 bags, at Clay County Cotton Co., Charleston; some bags with no tags and some with Arkansas tags.

Red Steer 4-12-4, 110 bags, at Farmers Elevator, Silex; Illinois tags.

Red Steer 4-12-4, 105 bags, at Farmers Elevator and Exchange, Palmyra; Illinois tags.

**Lange Bros., St. Louis, Mo.:**

- LB 10-6-4, 5 bags, at Julius Peterson Co., St. Louis; no tags.  
 LB 3-12-12, 14 bags, at Schroff Bros., Montgomery City; no tags.  
 LB 4-12-4, 15 bags, at Engendorf Truck Service, Lewistown; no tags.  
 LB 3-12-12, 14 bags, at Clem Jacobsmeyer, Florissant, no tags.  
 LB 20% Superphosphate and LB 2-12-6, 135 bags, at Upchurch Feed and Flour, Lutesville; Illinois tags.  
 LB 2-12-6, 200 bags, at Beumel Bros., Westphalia; Illinois tags.  
 LB 8-8-8, 125 bags, at J. M. Kline Farm, Sikeston; Illinois tags.

**Darling and Co., East St. Louis, Ill.:**

- Darling's 3-12-8, 200 bags, at MFA Elevator and Cooperative Assn., Boonville; no tags.  
 Crop King 2-12-6, 750 bags, at H. L. Emery and Sons, Milo; no tags on one-half the bags.  
 Field Marshal 4-12-4, 12 bags, at Producers Exchange, Truesdale, no tags.  
 Darling's 3-12-8, 300 bags at Knobnoster Elevator Co., Knobnoster; Illinois tags.  
 Crop King 2-12-6, 90 bags, at Farmers Exchange No. 27, Union; Illinois tags.

**Milwaukee Sewerage Commission, Milwaukee, Wis.:**

- Milorganite, 123 bags, at St. Louis Seed Co., St. Louis; no tags.  
 Milorganite, 81 bags, at A. H. Hummert Seed Co., St. Louis; no tags.  
 Milorganite, 77 bags, at Ed. F. Mangelsdorf and Bros., Inc., St. Louis; no tags.

**Spencer Chemical Co., Pittsburg, Kan.:**

- Spencer Ammonium Nitrate, 27 bags, at Madison County Farmer's Warehouse Assn., Fredericktown; no tags.  
 Spencer Ammonium Nitrate, 128 bags, at Benton Feed Store, St. Joseph; no tags.  
 Spencer Ammonium Nitrate, 90 bags, at Schroff Bros., Montgomery City; no tags.

**Associated Cooperatives, Inc., Sheffield, Ala.:**

- Ammonium Nitrate, 27 bags, at MFA Central Cooperative, Perryville; no tags.

**Missouri Chemical Co., Joplin, Mo.:**

- Merco 20% Superphosphate, 74 bags, at May Milling Co., Grandview; Kansas tags.

**Southern Acid and Sulphur Co., Pasadena, Texas:**

Sasco-Phos 16-20-0, 30 bags, at Pearce Produce Co., Fairfax;  
Kansas tags.

**Stockdale Fertilizer Co., Morris, Ill.:**

Ovene, 40 5-oz. packages, at S. S. Kresge Store Co., St. Joseph;  
no tags.

**Virginia-Carolina Chemical Corp., East St. Louis, Ill.:**

VC 4-12-4, 85 bags, at Peabody Produce, Bowling Green; no tags.

**Westover Nursery, St. Louis, Mo.:**

Wesgro Brand Cattle Manure, 20 bags, at Westover Nursery,  
St. Louis; no tags.

**3. VIOLATIONS WITH RESPECT TO LABELING**

The fertilizers listed below were not labeled in conformity with the Missouri Fertilizer Law.

**Red Seal Brand Ruhm's Phosphate Rock 30%**

This material is registered by Ruhm Phosphate and Chemical Co., Mt. Pleasant, Tenn. The fertilizer law plainly states that the guaranteed analysis must include the percent *available* phosphoric acid in all phosphatic fertilizers with the exception of undissolved animal bone. The registry statement of this brand guaranteed 3% available, and 27% insoluble phosphoric acid, while it was sold in bags on which the only guarantee was 30% total phosphoric acid. There are two violations involved here; one in failing to guarantee available phosphoric acid on the bag labels, and another in failing to make the labels agree with the registry statement.

**Sasco-Phos 16-20-0.**—This fertilizer was registered by the Southern Acid and Sulphur Co., Pasadena, Texas. It was *registered* under the brand name of Ammonium Phosphate Sulphate 16-20-0, and sold under the brand name of Sasco-Phos 16-20-0. Section 12591 of the Missouri Fertilizer Law clearly states that the brand name under which the fertilizer is sold must agree with the brand name used in the registry statement.

**Rosegro.**—This material was registered by Westover Nursery, St. Louis, Mo. It was described in the registry statement as a blood and bone mixture and was guaranteed to have 3.3% nitrogen and 25% phosphoric acid from bone. It was found on sale at Westover Nursery, St. Louis, with a guaranteed analysis of 3% nitrogen and 23% *insoluble* phosphoric acid. The only way in which the guaranteed analysis of a fertilizer can legally be changed is by having the registry statement amended, or by re-registering the brand.



### ANALYSIS OF SAMPLES

During the spring 1947 inspection season 614 official samples were taken for analysis. Tables 1, 2, and 3 are based on the results of these analyses. Table 1 uses an index number to compare the percentages of plant food as found in the analyses with the guaranteed analyses. These comparisons of the found values with the guaranteed values are made in four ways: for each fertilizer nutrient by manufacturer, for the total of all fertilizer nutrients by manufacturer, for each fertilizer nutrient by all manufacturers, and for the total of all fertilizer nutrients by all manufacturers. An index number of 100 indicates that the guarantee was exactly met, an index number of above 100 that more plant food was found than was guaranteed, while an index number of below 100 indicates a deficiency of plant food. A careful study of this table might be beneficial to users of fertilizers since it is obvious that not every one who bought fertilizer got all the plant food he paid for.

Table 2 compares the number of deficient samples with the total number analyzed for each manufacturer. The deficient samples are expressed as a percentage of the total samples. In this table each plant nutrient that is determined is considered a sample, so the totals will be much greater than the actual number of samples collected. Those manufacturers whose goods were represented by only one sample were not included in Tables 1 and 2.

Table 3 gives the complete results of the analysis of each sample collected. Those results given are: total nitrogen, water soluble to total nitrogen, total, insoluble, and available phosphoric acid, and water soluble potash, all as percentages. Since the percent water soluble to total nitrogen is not guaranteed some questions might arise as to the proper interpretation of the results of this determination. In the mixed fertilizers, which carry most of their nitrogen in the inorganic form, the water soluble nitrogen is usually more than 90 per cent of the total. However, if the water soluble nitrogen is 67 per cent or above, it is considered satisfactory in this respect. In the dried animal manures, sewerage residue, and bone meal fertilizers the water soluble nitrogen varies from below 10 per cent to above 30 per cent of the total. These low percentages should not be interpreted as indicating that the nitrogen in these organic fertilizers is of poor quality as plant food.

### FERTILIZERS REGISTERED FOR SALE IN MISSOURI IN 1948

Table 4 lists the fertilizers which are registered for sale in Missouri for 1948. The table includes the manufacturer, brand name, and guaranteed analysis.

Table 1.--SUMMARY OF AVERAGE VARIATIONS FROM MANUFACTURERS' GUARANTEE, SPRING, 1947

Manufacturer	Superphosphate		Mixed Fertilizer				Miscellaneous Material Including Bone					All Fertilizer	
	No. Samples	Avail. Phos. Acid	No. Samples	Nitrogen	Avail. Phos. Acid	Potash	No. Samples	Nitrogen	Total Phos. Acid From Bone	Avail. Phos. Acid	Potash	No. Samples	All Nutrients
		Index No. of Found Value			Index No. of Found Value				Index No. of Found Value	Index No. of Found Value	Index No. of Found Value		Index No. of Found Value
American Agricultural Chem. Co. . . . .	6	104.1	49	100.4	101.2	104.7	--	--	--	--	--	55	102.4
Armstrong Fertilizer Works. . . . .	31	105.7	83	97.6	102.6	103.0	3	115.4	105.0	107.5	130.8	117	102.9
Associated Cooperatives Inc. . . . .	4	106.1	--	--	--	--	3	101.9	--	--	--	7	104.6
Central Farmers Fertilizer Co. . . . .	4	105.9	--	--	--	--	--	--	--	--	--	4	105.9
Darling and Co. . . . .	--	--	154	97.1	100.3	99.6	--	--	--	--	--	154	99.7
Davison Chemical Corp. . . . .	4	99.9	2	108.8	107.1	103.6	--	--	--	--	--	6	102.3
Farm Bureau Service Co. of Mo. Inc. . . . .	3	106.5	--	--	--	--	--	--	--	--	--	3	106.5
Farm Bureau Cooperative Assn. . . . .	--	--	4	107.1	105.0	104.3	--	--	--	--	--	4	105.1
A. H. Hoffman Inc. . . . .	--	--	--	--	--	--	4	108.3	--	178.5	182.2	4	149.4
Hydroponic Chemical Co. . . . .	--	--	3	107.2	117.1	108.6	--	--	--	--	--	3	109.9
Lange Bros. . . . .	2	101.9	16	100.5	99.9	98.9	--	--	--	--	--	18	100.0
Milwaukee Sewerage Commission . . . . .	--	--	--	--	--	--	4	101.5	--	131.6	--	4	109.1
Missouri Chemical Co. . . . .	18	105.7	61	100.2	101.2	98.7	--	--	--	--	--	79	101.6
The Pulverized Manure Co. . . . .	--	--	--	--	--	--	4	93.6	--	118.5	151.3	4	114.6
Ruhm Phosphate and Chemical Co. . . . .	--	--	--	--	--	--	2	--	--	155.0	--	2	155.0
Sears, Roebuck and Co. . . . .	--	--	2	99.4	103.6	99.1	--	--	--	--	--	2	101.9
Southern Acid and Sulphur Co. . . . .	--	--	7	103.5	114.6	--	--	--	--	--	--	7	109.7
Spencer Chemical Co. . . . .	--	--	--	--	--	--	10	103.0	--	--	--	10	103.0
Swift and Co., Plant Food Division . . . . .	2	98.3	75	100.6	100.7	103.2	--	--	--	--	--	77	101.2
Tennessee Corp. . . . .	--	--	2	105.9	105.0	100.3	--	--	--	--	--	2	104.1
Virginia-Carolina Chemical Corp. . . . .	4	103.8	28	105.7	97.3	104.1	--	--	--	--	--	32	100.9
Westover Nursery. . . . .	--	--	--	--	--	--	2	149.3	96.4	120.0	143.5	2	107.0
Totals	78	105.1	486	99.6	101.3	101.5	32	103.2	100.9	137.5	155.5	596	101.9

Table 2.--SUMMARY OF TOTAL AND DEFICIENT FERTILIZER NUTRIENTS (Spring, 1947 Samples)

Manufacturer	Nitrogen			Total Phosphoric Acid (from Bone)			Available Phosphoric Acid			Potash			All Analyses		
	Total	Deficient		Total	Deficient		Total	Deficient		Total	Deficient		Total	Deficient	
	No.	No.	%	No.	No.	%	No.	No.	%	No.	No.	%	No.	No.	%
American Agricultural Chemical Co. .	38	14	36.8	---	---	----	55	12	21.8	49	7	14.3	142	33	23.2
Armour Fertilizer Works. . . . .	80	40	50.0	1	0	0	116	24	20.7	78	22	28.2	275	86	31.3
Associated Cooperatives, Inc. . . . .	3	0	0.0	---	---	----	4	0	0.0	---	---	----	7	0	0.0
Central Farmers Fertilizer Co. . . . .	---	---	----	---	---	----	4	0	0.0	---	---	----	4	0	0.0
Darling and Co. . . . .	143	76	53.1	---	---	----	154	68	44.2	154	81	52.6	451	225	49.9
Davison Chemical Corp. . . . .	2	0	0.0	---	---	----	6	1	16.7	2	1	50.0	10	2	20.0
Farm Bureau Service Co., of Mo., Inc. .	---	---	----	---	---	----	3	0	0.0	---	---	----	3	0	0.0
Farm Bureau Cooperative Assn. . . . .	4	0	0.0	---	---	----	4	0	0.0	4	0	0.0	12	0	0.0
A. H. Hoffman, Inc. . . . .	4	0	0.0	---	---	----	4	0	0.0	4	0	0.0	12	0	0.0
Hydroponic Chemical Co. . . . .	3	0	0.0	---	---	----	3	0	0.0	3	0	0.0	9	0	0.0
Lange Bros. . . . .	15	4	26.7	---	---	----	18	6	33.3	16	7	43.8	49	17	34.7
Milwaukee Sewerage Commission . . . .	4	0	0.0	---	---	----	4	0	0.0	---	---	----	8	0	0.0
Missouri Chemical Co. . . . .	52	18	34.6	---	---	----	79	17	21.5	60	37	61.7	191	72	37.7
The Pulverized Manure Co. . . . .	4	4	100.0	---	---	----	4	2	50.0	4	0	0.0	12	6	50.0
Ruhm Phosphate and Chemical Co. . . .	---	---	----	---	---	----	2	0	0.0	---	---	----	2	0	0.0
Sears Roebuck and Co. . . . .	2	1	50.0	---	---	----	2	0	0.0	2	1	50.0	6	2	33.3
Southern Acid and Sulphur Co. . . . .	7	1	14.3	---	---	----	7	0	0.0	---	---	----	14	1	7.2
Spencer Chemical Co. . . . .	10	0	0.0	---	---	----	---	---	----	---	---	----	10	0	0.0
Swift and Co. Plant Food Division . . .	74	21	28.3	---	---	----	77	27	35.1	75	22	29.3	226	70	30.9
Tennessee Corp. . . . .	2	0	0.0	---	---	----	2	0	0.0	2	1	50.0	6	1	16.7
Virginia-Carolina Chemical Corp. . . .	25	1	4.0	---	---	----	32	19	59.3	28	5	17.9	85	25	29.4
Westover Nursery. . . . .	2	0	0.0	1	1	100.0	1	0	0.0	1	0	0.0	5	1	20.0
TOTALS. . . . .	474	180	37.9	2	1	50.0	581	176	30.2	482	184	38.2	1539	541	35.2

Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water Soluble Potash K <sub>2</sub> O
	Total %	Water Soluble to Total %	Total in Bone %	Insolu- ble %	Avail- able %	%
<b>Agricultural Laboratories, Inc.</b> Columbus, Ohio						
<u>Stim-U-Plant (a)</u>						
Chesmore Seed Co., St. Joseph (d) (h) . . . . .	11.19	100.0(i)	----	0.05	12.43	21.46
Guaranteed Analysis . . . . .	11.00	----	----	---	12.00	19.00
<b>Allied Chemical &amp; Dye Corp.</b> New York, N. Y.						
<u>Arcadian Nitrate of Soda</u>						
Thompson-Hayward Chem. Co., Kansas City . . . . .	16.55	100.0(d)	----	---	----	----
Guaranteed Analysis . . . . .	16.00	----	----	---	----	----
<b>American Agricultural Chemical Co.</b> National Stock Yards, Ill.						
<u>AA BRANDS:</u>						
<u>18% Normal Superphosphate</u>						
Eagle Mill & Elevator Co., Higginsville . . . . .	----	----	----	1.10	18.30	----
A. L. LaRue, Winfield . . . . .	----	----	----	0.51	19.49	----
Silex Grain Co., Silex . . . . .	----	----	----	0.51	18.99	----
T. R. Legg, Monticello . . . . .	----	----	----	0.63	18.62	----
Henderson Produce, Shelbyna . . . . .	----	----	----	0.54	18.46	----
H. E. Stone, Centralia . . . . .	----	----	----	0.70	18.55	----
Average Analysis . . . . .	----	----	----	0.67	18.74	----
Guaranteed Analysis . . . . .	----	----	----	---	18.00	----
<u>AA 0-14-7:</u>						
Eagle Mill & Elevator Co., Higginsville (d) . . . . .	----	----	----	0.54	14.09	7.40
Lohman Producers Exchange, Lohman . . . . .	----	----	----	0.58	14.32	7.55
MFA Exchange, Russellville . . . . .	----	----	----	0.60	14.03	7.89
E. S. Oliver Feed Store, Fulton . . . . .	----	----	----	0.50	14.63	7.59
A. E. Armstrong Produce, Lowry City . . . . .	----	----	----	0.65	14.43	7.96
W. L. Garren, Piedmont . . . . .	----	----	----	0.47	14.86	7.85
Average Analysis . . . . .	----	----	----	0.56	14.36	7.71
Guaranteed Analysis . . . . .	----	----	----	---	14.00	7.00
<u>AA 2-12-6:</u>						
Kelso Milling Co., Kelso . . . . .	1.90	92.1	----	0.65	12.57	6.36
Cole Co. Farm Bureau Service Co., Jefferson City . . . . .	2.02	92.5	----	1.54	11.60	6.52
Pete Rhoten, Conway . . . . .	2.06	96.6	----	0.31	12.21	6.61
Cuba Roller Mills, Cuba . . . . .	1.86	91.9	----	1.20	11.72	6.24
Farmers Coop. Assn. No. 17, St. Clair . . . . .	1.97	95.9	----	1.17	11.93	6.25
Rosebud Feed Co., Rosebud . . . . .	2.03	97.5	----	0.25	12.56	6.38
Eagle Mill and Elevator Co., Higginsville . . . . .	1.95	94.3	----	0.34	11.75	5.96
Farmers Elevator Co., Salisbury . . . . .	2.18	93.5	----	1.34	12.10	5.76
Average Analysis . . . . .	1.99	94.3	----	0.85	12.06	6.26
Guaranteed Analysis . . . . .	2.00	----	----	---	12.00	6.00
<u>AA 4-12-4:</u>						
Kelso Milling Co., Kelso (d) . . . . .	3.73	96.7	----	0.85	12.73	4.12
Lohman Producers Exchange, Lohman . . . . .	4.02	98.5	----	0.53	12.25	4.37
Haslag Bros., Loose Creek . . . . .	4.13	98.7	----	0.61	12.08	4.40
Cuba Roller Mills, Cuba . . . . .	4.26	98.3	----	0.58	12.46	4.28
Farmers Elevator Co., Salisbury (d) . . . . .	4.09	97.7	----	0.96	11.64	4.30
Average Analysis . . . . .	4.05	97.9	----	0.71	12.23	4.29
Guaranteed Analysis . . . . .	4.00	----	----	---	12.00	4.00
<u>AGRIC BRANDS:</u>						
<u>Phosphate and Potash 0-14-7:</u>						
Lohman Producers Exchange, Lohman . . . . .	----	----	----	0.60	14.28	8.07

Underscored items indicates deficiency.

(a) Not registered.

(d) Registration tags not attached.

(h) Sample drawn from less than five containers.

(i) Not determined, all water soluble.

Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947 (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water Soluble Potash
	Total	Water Soluble to Total	Total in Bone	Insoluble	Avail-able	K <sub>2</sub> O
	%	%	%	%	%	%
H. T. Ranson, Metz (c) . . . . .	----	----	----	0.47	14.28	7.18
Farmers Exchange, Hardin (d) . . . . .	----	----	----	0.87	14.38	7.08
Farmers Elevator, Jonesburg . . . . .	----	----	----	1.04	14.14	7.44
Farmers Equity Exchange, Bowling Green . . . . .	----	----	----	0.82	14.73	7.01
Average Analysis . . . . .	----	----	----	0.76	14.36	7.36
Guaranteed Analysis . . . . .	----	----	----	---	14.00	7.00
<u>Agrico For Grain 2-12-6:</u>						
Baumgardner Produce, Poplar E.uff . . . . .	1.93	86.0	----	2.05	11.48	6.17
Guaranteed Analysis . . . . .	2.00	----	----	---	12.00	6.00
<u>Agrico for Corn 2-12-6:</u>						
Lohman Producers Exchange, Lohman . . . . .	2.00	94.0	----	0.55	12.29	6.48
Glenn's Cash Store, Ellington . . . . .	2.10	96.2	----	0.37	12.27	6.27
Eisenbels Feed & Fuel, Ste. Genevieve . . . . .	2.14	95.3	----	0.95	12.13	6.28
J. C. Ricketts, Bellevue . . . . .	1.98	92.4	----	2.02	11.08	6.50
Farmers Elevator & Supply Co., Chesterfield (d) . . . . .	1.88	97.3	----	1.33	11.11	6.97
The Trading Post, De Soto . . . . .	1.95	95.3	----	1.19	11.63	6.75
Farmers Exchange, Hardin . . . . .	2.00	94.0	----	1.09	11.83	5.94
Farmers Elevator, Jonesburg . . . . .	1.83	92.3	----	1.08	12.00	6.11
Silex Grain Co., Silex . . . . .	2.08	95.6	----	0.34	12.60	6.10
Farmers Equity Exchange, Bowling Green . . . . .	2.00	93.0	----	1.24	11.73	6.14
Ralls Co. Farm Bureau Service Co., New London . . . . .	2.00	94.5	----	0.73	12.13	6.19
Henderson Produce, Shelbyna (c) . . . . .	2.05	96.0	----	0.39	12.21	6.04
Milne Produce, Paris (c) . . . . .	2.11	95.2	----	0.52	12.04	5.83
H. E. Stone, Centralia . . . . .	2.01	91.5	----	1.17	12.12	5.99
Average Analysis . . . . .	2.01	94.5	----	0.93	11.94	6.26
Guaranteed Analysis . . . . .	2.00	----	----	---	12.00	6.00
<u>Agrico for Midwest 3-12-12:</u>						
J. C. Ricketts, Bellevue . . . . .	2.95	98.3	----	0.72	12.06	12.03
C. Morris & Son, Sikeston . . . . .	3.14	96.1	----	0.95	12.61	11.59
Average Analysis . . . . .	3.05	97.2	----	0.84	12.34	11.81
Guaranteed Analysis . . . . .	3.00	----	----	---	12.00	12.00
<u>Agrico for Cereals 4-12-4:</u>						
Rosebud Feed Co., Rosebud . . . . .	4.08	98.7	----	0.43	12.31	4.44
Langfitt Seed Farms & Elevators, Bethany . . . . .	4.18	96.6	----	0.68	12.18	4.01
Average Analysis . . . . .	4.13	97.7	----	0.58	12.25	4.23
Guaranteed Analysis . . . . .	4.00	----	----	---	12.00	4.00
<u>Agrico for Garden 4-12-4:</u>						
Jasper Implement Co., Jasper . . . . .	3.80	98.4	----	---	12.75	4.09
Guaranteed Analysis . . . . .	4.00	----	----	---	12.00	4.00
<u>Agrico for Truck 4-12-8:</u>						
Chamberlain Canning Co., Anderson . . . . .	4.07	99.0	----	0.55	12.09	8.10
Beckman Bros., Inc., Olivette (d) . . . . .	3.99	99.2	----	0.96	12.06	7.98
Farmers Elevator & Supply Co., Chesterfield (d) . . . . .	4.02	98.5	----	0.96	11.90	8.25
Average Analysis . . . . .	4.03	98.9	----	0.82	12.02	8.11
Guaranteed Analysis . . . . .	4.00	----	----	---	12.00	8.00
<u>Agrico for Lawns, Trees &amp; Shrubs 6-10-4:</u>						
Briggs Seed Store, Joplin . . . . .	5.98	96.9	----	0.67	10.77	4.24
Farmers Elevator & Supply Co., Chesterfield (d) . . . . .	6.01	95.1	----	0.60	10.66	4.15
Average Analysis . . . . .	6.00	96.0	----	0.64	10.72	4.20
Guaranteed Analysis . . . . .	6.00	----	----	---	10.00	4.00

(c) Wrong registration tags.

(d) Registration tags not attached.

Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947 (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water Soluble Potash K <sub>2</sub> O %
	Total %	Water Soluble to Total %	Total in Bone %	Insoluble %	Available %	
<b>Anaconda Copper Mining Co.</b>						
Anaconda, Mont.						
<u>Anaconda Treble Superphosphate</u>						
Dannen Mills, St. Joseph . . . . .	---	---	---	2.91	43.04	---
Guaranteed Analysis . . . . .	---	---	---	---	43.00	---
<b>Armour Fertilizer Works</b>						
East St. Louis, Ill.						
<u>BIG CROP BRANDS:</u>						
<u>20% Superphosphate:</u>						
Boonville Mill, Boonville (b) . . . . .	---	---	---	0.65	22.00	---
Fortuna Elevator Co., Fortuna . . . . .	---	---	---	1.12	21.83	---
Beumel Bros., Westphalia . . . . .	---	---	---	0.79	22.16	---
Wise Bros., Stephens (d) . . . . .	---	---	---	0.74	21.91	---
G. B. Beeny & Son, Sheldon . . . . .	---	---	---	0.55	22.30	---
Phil Ratliff, Neosho (d) . . . . .	---	---	---	0.44	22.06	---
Greenfield Milling Co., Greenfield . . . . .	---	---	---	1.67	19.78	---
A. E. Armstrong Produce, Lowry City . . . . .	---	---	---	0.83	21.97	---
Richards Bros., Mansfield . . . . .	---	---	---	0.61	21.74	---
Saline Co. Seed House, Marshall . . . . .	---	---	---	0.54	21.76	---
Malone Produce, St. James . . . . .	---	---	---	0.31	21.69	---
Hixsen's Store, Bellevue . . . . .	---	---	---	1.52	19.63	---
Julius Peterson Co., St. Louis (d) . . . . .	---	---	---	0.89	20.41	---
John B. Dickinson, De Soto . . . . .	---	---	---	0.28	21.12	---
St. Clair Feed Co., St. Clair . . . . .	---	---	---	0.88	21.12	---
Owensville Roller Mill, Owensville (d) . . . . .	---	---	---	1.01	20.59	---
G. Goe Truck Service, Brunswick . . . . .	---	---	---	1.10	21.10	---
Carter's Feed Store, Chillicothe (d) . . . . .	---	---	---	0.85	21.70	---
Pearce Produce Co., Fairfax . . . . .	---	---	---	0.97	21.48	---
Prairie Milling Co., Montgomery City (d) . . . . .	---	---	---	1.95	18.50	---
Farmers Elevator, Silx . . . . .	---	---	---	1.49	21.26	---
Peabody Produce, Bowling Green . . . . .	---	---	---	1.48	20.52	---
Sunshine Feed Store, Hannibal . . . . .	---	---	---	1.57	20.78	---
Engendorf Truck Service, Lewistown . . . . .	---	---	---	1.37	20.33	---
Craig Bros., Memphis . . . . .	---	---	---	1.13	20.92	---
Prebe Bros., Edina . . . . .	---	---	---	0.52	22.38	---
Truesdell Bros., Clark . . . . .	---	---	---	1.17	19.78	---
Magee Hatchery, Marceline . . . . .	---	---	---	1.97	19.48	---
Farmers Elevator, Salisbury . . . . .	---	---	---	1.45	21.25	---
H. E. Stone, Centralia . . . . .	---	---	---	1.23	22.27	---
Berry Ward, Columbia . . . . .	---	---	---	1.05	21.65	---
Average Analysis . . . . .	---	---	---	1.04	21.14	---
Guaranteed Analysis . . . . .	---	---	---	---	20.00	---
<b>0-14-7:</b>						
Saline Co. Seed House, Marshall (d) . . . . .	---	---	---	1.31	14.37	7.15
Hixsen's Store, Bellevue (d) . . . . .	---	---	---	1.62	14.11	7.02
A. H. Hummert Seed Co., St. Louis . . . . .	---	---	---	1.33	14.02	7.10
Julius Peterson Co., St. Louis (d) . . . . .	---	---	---	1.30	14.19	7.09
Kahoka Implement Co., Kahoka . . . . .	---	---	---	1.54	14.91	8.01
Henderson Produce, Shelbina . . . . .	---	---	---	1.64	14.94	7.31
Average Analysis . . . . .	---	---	---	1.46	14.42	7.28
Guaranteed Analysis . . . . .	---	---	---	---	14.00	7.00
<b>2-12-6:</b>						
Eggiman Feed and Produce, Cape Girardeau . . . . .	2.20	84.5	---	2.25	12.57	5.77
East Prairie Milling Co., East Prairie . . . . .	2.05	91.7	---	2.08	11.81	6.00
A. W. Baker, Linn (d) . . . . .	2.15	87.4	---	2.07	12.49	6.21
Beumel Bros., Westphalia (d) . . . . .	1.99	85.9	---	2.33	13.15	6.16
Peoples Produce Co., Dixon . . . . .	2.18	87.1	---	3.17	12.18	6.30
Rolla Feed Mill, Rolla (d) . . . . .	2.07	85.9	---	2.24	12.16	6.11

(b) Some registration tags missing.

(d) Registration tags not attached.

Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947, (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water Soluble Potash K <sub>2</sub> O %
	Total %	Water Soluble to Total %	Total in Bone %	Insoluble %	Available %	
John B. Dickinson, De Soto . . . . .	2.30	90.9	----	1.99	11.96	6.22
Asbell Produce, Burlington Jct. . . . .	2.12	84.9	----	2.19	12.45	5.73
Farmers Elevator and Supply Co., Troy . . . . .	2.00	85.5	----	2.55	11.70	5.93
Farmers Elevator, Silex . . . . .	1.88	88.8	----	2.23	12.13	6.33
Kahoka Implement Co., Kahoka . . . . .	2.20	90.0	----	2.29	12.07	6.91
Boler Jack Produce Co., Moberly . . . . .	2.00	89.0	----	3.09	11.56	6.18
Farmers Hatchery, Macon . . . . .	1.89	89.4	----	2.23	12.37	5.87
Ruby Green Produce, Kirksville . . . . .	2.08	84.6	----	2.31	12.09	5.83
Farmers Elevator, Salisbury . . . . .	1.91	92.1	----	2.88	11.57	6.17
Average Analysis . . . . .	2.07	87.8	----	2.39	12.15	6.11
Guaranteed Analysis . . . . .	2.00	----	----	---	12.00	6.00
<b>3-9-18:</b>						
Jonesway Gin Co., Kennett . . . . .	2.98	95.6	----	0.80	10.12	17.98
Farmers Seed and Supply Co., Dexter . . . . .	2.89	95.1	----	0.88	9.56	20.43
Average Analysis . . . . .	2.94	95.4	----	0.84	9.84	19.21
Guaranteed Analysis . . . . .	3.00	----	----	---	9.00	18.00
<b>3-12-12:</b>						
E. P. Coleman Co., Sikeston . . . . .	2.96	93.5	----	1.03	12.55	12.15
Jonesway Gin Co., Kennett . . . . .	2.98	94.2	----	0.83	12.69	13.40
R. M. Hart Store, Holcomb . . . . .	2.94	93.8	----	0.95	12.83	13.86
Farmers Seed and Supply Co., Dexter . . . . .	2.96	93.9	----	1.09	13.23	12.23
Average Analysis . . . . .	2.96	93.9	----	0.98	12.83	12.91
Guaranteed Analysis . . . . .	3.00	----	----	---	12.00	12.00
<b>4-12-4:</b>						
Cape Co. Farm Bureau Service Co., Jackson . . . . .	3.96	88.1	----	3.67	11.66	4.15
Osteen & Adams, Portageville . . . . .	4.05	91.6	----	2.52	12.04	4.34
Jonesway Gin Co., Kennett . . . . .	3.90	91.8	----	1.60	12.86	4.22
Baumgardner Produce, Poplar Bluff . . . . .	4.23	93.8	----	2.23	12.47	4.24
Farmers Seed & Supply Co., Dexter . . . . .	4.01	91.0	----	3.04	11.90	4.32
Boonville Mill, Booneville . . . . .	4.03	94.2	----	1.56	12.08	4.38
E. S. Oliver Feed Store, Fulton . . . . .	4.40	94.1	----	1.47	12.43	4.62
Wise Bros., Stephens (d) . . . . .	3.80	94.5	----	1.35	12.99	4.18
H. L. Emery and Sons, Nevada . . . . .	4.04	94.3	----	2.84	11.09	4.33
Phil Ratliff, Neosho (d) . . . . .	3.82	94.5	----	1.81	12.11	4.38
Farmers Elevator, Purdy . . . . .	4.07	92.1	----	2.48	12.22	4.17
Saline Co. Seed House, Marshall (d) . . . . .	3.81	93.9	----	1.69	12.41	4.39
Thayer Produce, Thayer . . . . .	3.95	91.1	----	2.83	12.29	4.06
Hixsen's Store, Belleview . . . . .	4.25	91.0	----	2.76	12.28	4.56
Julius Peterson Co., St. Louis (d) . . . . .	4.03	93.7	----	2.82	11.08	4.18
Rosebud Feed Co., Rosebud . . . . .	4.04	90.5	----	3.15	10.95	4.18
Miller-Davis Co., Liberty . . . . .	3.93	90.3	----	3.34	12.10	4.50
Bartels & Shores Chem. Co., Kansas City . . . . .	4.00	92.8	----	2.77	11.02	3.91
G. Goe, Truck Service, Brunswick . . . . .	3.37	87.2	----	3.77	12.85	3.42
Asbell Produce, Burlington Jct. . . . .	4.28	87.8	----	2.02	12.01	3.89
Prairie Milling Co., Montgomery City (b) . . . . .	3.93	90.5	----	2.23	12.29	4.52
P. O. Foristell, Foristell . . . . .	3.89	94.3	----	2.21	12.09	3.91
Farmers Elevator and Supply Co., Troy . . . . .	4.06	89.4	----	3.59	10.99	4.04
Peabody Produce, Bowling Green . . . . .	4.00	92.5	----	1.95	12.25	4.00
Sunshine Feed Store, Hannibal . . . . .	4.03	88.8	----	3.63	10.96	4.24
Engendorf Truck Service, Lewistown (b) . . . . .	4.03	89.8	----	3.28	11.48	4.28
Kahoka Implement Co., Kahoka . . . . .	4.11	89.7	----	1.59	12.73	4.19
Prebe Bros., Edina . . . . .	3.83	93.2	----	1.84	12.36	3.40
Henderson Produce, Shelbina . . . . .	3.96	86.6	----	1.77	13.79	3.91
Milne Produce, Paris . . . . .	3.82	93.4	----	1.84	12.18	3.70
Truesdale Bros., Clark . . . . .	3.87	94.3	----	2.63	12.01	4.33
Wilson Produce, Queen City (d) . . . . .	3.81	93.4	----	1.67	12.33	3.43
Leslie Taylor, Armstrong . . . . .	4.16	93.7	----	2.60	11.43	4.38
H. E. Stone, Centralia (d) . . . . .	4.12	93.6	----	2.35	12.24	4.44
T. W. Stewart, Sturgeon . . . . .	4.02	95.7	----	1.54	12.76	4.55
Average Analysis . . . . .	3.99	91.9	----	2.38	12.08	4.16
Guaranteed Analysis . . . . .	4.00	----	----	---	12.00	4.00

(b) Some registration tags missing.

(d) Registration tags not attached.

Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947, (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water Soluble Potash K <sub>2</sub> O %
	Total %	Water Soluble to Total %	Total in Bone %	Insoluble %	Available %	
<b>4-12-8:</b>						
Julius Peterson Co., St. Louis (c) . . . . .	4.14	95.6	----	1.26	11.73	8.42
P. O. Foristell, Foristell (d) . . . . .	4.19	93.3	----	1.80	12.10	8.39
Average Analysis . . . . .	4.17	94.5	----	1.53	11.92	8.41
Guaranteed Analysis . . . . .	4.00	----	----	---	12.00	8.00
<b>4-16-0:</b>						
H. L. Emery and Sons, Nevada . . . . .	4.11	88.0	----	2.87	14.93	----
G. B. Beeny and Son, Sheldon . . . . .	3.85	88.5	----	2.31	16.42	----
Northern Feed Co., Springfield . . . . .	3.44	89.2	----	2.50	14.43	----
Superior Chemical Sales Co., Kansas City . . . . .	3.96	91.4	----	1.35	16.40	----
Carter's Feed Store, Chillicothe . . . . .	3.91	91.0	----	1.37	17.13	----
Idecker Implement Co., Mound City . . . . .	3.95	91.1	----	1.23	16.87	----
Langfitt Seed Farms and Elevators, Bethany (d) . . . . .	4.03	91.3	----	1.43	16.50	----
Average Analysis . . . . .	3.89	90.1	----	1.87	16.10	----
Guaranteed Analysis . . . . .	4.00	----	----	---	16.00	----
<b>8-8-8:</b>						
Kahoka Implement Co., Kahoka . . . . .	7.65	97.2	----	0.96	8.58	6.88
Leslie Taylor, Armstrong (d) . . . . .	8.01	97.2	----	1.00	8.54	7.87
Average Analysis . . . . .	7.83	97.2	----	0.98	8.56	7.38
Guaranteed Analysis . . . . .	8.00	----	----	---	8.00	8.00
<b>10-6-4:</b>						
Julius Peterson Co., St. Louis (d) . . . . .	9.15	98.1	----	0.65	7.23	3.94
Beckman Bros., Inc., Olivette . . . . .	8.43	97.8	----	0.81	8.35	4.19
Kahoka Implement Co., Kahoka . . . . .	9.47	98.2	----	0.81	7.43	3.96
Shaw Produce, Greentop . . . . .	9.43	97.9	----	1.23	6.73	3.71
Leslie Taylor, Armstrong (d) . . . . .	10.20	98.7	----	0.65	7.11	4.28
Average Analysis . . . . .	9.34	98.1	----	0.83	7.37	4.02
Guaranteed Analysis . . . . .	10.00	----	----	---	6.00	4.00
<b>Garden and Lawn Fertilizer 4-12-4:</b>						
Osteen and Adams, Portageville . . . . .	3.61	92.7	----	2.62	11.91	4.13
Northern Feed Co., Springfield (d) . . . . .	3.97	93.4	----	1.64	12.70	4.74
Average Analysis . . . . .	3.79	93.1	----	2.13	12.31	4.44
Guaranteed Analysis . . . . .	4.00	----	----	---	12.00	4.00
<b>Special Ornamental Fertilizer 10-8-6:</b>						
Palmer Seed Co., St. Louis (d) . . . . .	8.60	97.3	----	0.90	9.50	5.32
Soil Service Co., Kansas City . . . . .	8.62	97.5	----	0.91	9.85	4.86
Bartels and Shores Chemical Co., Kansas City . . . . .	9.14	97.5	----	0.88	9.06	5.50
Average Analysis . . . . .	8.75	97.4	----	0.90	9.47	5.23
Guaranteed Analysis . . . . .	10.00	----	----	---	8.00	6.00
<b>Bone Meal Fertilizer:</b>						
Northern Feed Co., Springfield (d) . . . . .	2.73	34.4	28.35	---	---	---
Guaranteed Analysis . . . . .	2.00	----	27.00	---	---	---
<b>Pulverized Sheep Manure:</b>						
Northern Feed Co., Springfield (d) . . . . .	1.52	17.8	----	0.49	1.11	3.46
Ed. F. Mangelsdorf & Bros. Inc., St. Louis (d) . . . . .	1.52	23.0	----	0.42	1.04	3.08
Average Analysis . . . . .	1.52	20.4	----	0.46	1.08	3.27
Guaranteed Analysis . . . . .	1.50	----	----	---	1.00	2.50
<b>Associated Cooperatives, Inc. Sheffield, Ala.</b>						
<b>Ammonium Nitrate:</b>						
Producers Exchange, Lebanon ? . . . . .	32.91	----	----	---	---	---
Farmers Coop. Assn., Freeburg . . . . .	33.27	----	----	---	---	---
MFA Central Cooperative, Perryville (d) . . . . .	33.22	----	----	---	---	---
Average Analysis . . . . .	33.13	----	----	---	---	---
Guaranteed Analysis . . . . .	32.50	----	----	---	---	---
<b>Concentrated Phosphate Fertilizer 47%:</b>						
Producers Exchange, Lebanon . . . . .	----	----	----	0.24	50.01	----
MFA Central Cooperative, Perryville . . . . .	----	----	----	0.34	50.21	----
MFA Central Cooperative, Ste. Genevieve . . . . .	----	----	----	0.26	50.04	----

(c) Wrong registration tags.

(d) Registration tags not attached.



Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947 (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water Soluble Potash K <sub>2</sub> O %
	Total %	Water Soluble to Total %	Total in Bone %	Insoluble %	Available %	
Boone Co. MFA Exchange, Columbia	----	----	----	0.60	49.13	----
Average Analysis	----	----	----	0.36	49.85	----
Guaranteed Analysis	----	----	----	---	47.00	----
<b>Atkins and Durbrow</b>						
New York, N. Y.						
<u>Driconure:</u>						
Palmer Seed Co., St. Louis	3.74	54.2	----	0.25	3.42	1.59
Guaranteed Analysis	2.00	----	----	---	1.00	1.00
<b>Central Farmers Fertilizer Co.</b>						
Chicago, Ill.						
<u>Concentrated Triple Superphosphate 46%:</u>						
Boone Co. Farm Bureau Service Co., Columbia (a)	----	----	----	0.77	48.58	----
Guaranteed Analysis	----	----	----	---	46.00	----
<u>Concentrated Triple Superphosphate 47%:</u>						
Liberty Marketing Co., Liberty (a)	----	----	----	0.59	49.21	----
Consumers Cooperative Retail, Brookfield (a)	----	----	----	0.57	49.98	----
Cole Co. Farm Bureau Service Co., Jefferson City (a)	----	----	----	0.52	50.23	----
Average Analysis	----	----	----	0.56	49.81	----
Guaranteed Analysis	----	----	----	---	47.00	----
<b>Dannen Mills, Inc.</b>						
St. Joseph, Mo.						
<u>DANNEN FARM FERTILIZERS:</u>						
<u>4-16-0:</u>						
Dannen Mills, St. Joseph	3.92	94.3	----	3.93	11.85	----
Guaranteed Analysis	4.00	----	----	---	16.00	----
<b>Darling &amp; Co.</b>						
East St. Louis, Ill.						
<u>Twelve Twelve 0-12-12:</u>						
Sikeston Gin Co., Sikeston	----	----	----	0.60	11.46	14.34
Farmers Exchange, Salem	----	----	----	0.60	11.59	14.66
Bryan Produce, Princeton	----	----	----	0.68	12.35	13.82
Average Analysis	----	----	----	0.63	11.80	14.27
Guaranteed Analysis	----	----	----	---	12.00	12.00
<u>Fourteen Seven 0-14-7:</u>						
MFA Central Cooperative, Versailles	----	----	----	0.82	12.76	7.40
Hummer Flour and Feed Store, Jefferson City	----	----	----	0.61	15.12	8.81
Farmers Exchange, Neosho	----	----	----	0.51	12.87	9.20
H. H. George Produce, Pierce City	----	----	----	0.63	14.37	7.36
Farmers Exchange, Hartville	----	----	----	3.45	10.88	7.68
Farmers Exchange, Iberia	----	----	----	0.79	12.85	7.49
Farmers Exchange, Trenton	----	----	----	1.31	12.92	8.04
Producers Grain Co., Mexico	----	----	----	2.23	14.65	6.76
Average Analysis	----	----	----	1.29	13.30	7.59
Guaranteed Analysis	----	----	----	---	14.00	7.00
<u>Crop King 2-12-6:</u>						
Worley Implement Co., Dexter	1.97	97.4	----	1.73	10.67	6.43
MFA Elevator and Cooperative Assn., Boonville	2.02	97.0	----	0.84	12.50	5.49
MFA Cooperative Assn., California	1.87	97.8	----	0.87	11.49	6.28
MFA Farmers Elevator, Tipton	2.05	97.0	----	0.71	12.37	6.40
Lohman Producers Exchange, Lohman	2.25	98.2	----	0.69	12.53	6.16
Cole Co. Farm Bureau Service Co., Jefferson City	2.00	95.5	----	0.69	11.72	6.65

(a) Not registered.

Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947, (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water Soluble Potash K <sub>2</sub> O
	Total %	Water Soluble to Total %	Total in Bone %	Insoluble %	Available %	%
Hummer Flour and Feed Store, Jefferson City . . .	2.18	97.2	----	0.75	11.77	6.85
Harriman Elevator, Adrian . . . . .	2.01	95.0	----	1.09	12.63	5.10
Harriman Elevator, Adrian . . . . .	<u>1.96</u>	96.9	----	2.07	<u>10.49</u>	6.23
Harriman Elevator, Adrian . . . . .	2.14	95.3	----	0.84	12.28	4.94
H. L. Emery and Sons, Milo (b) . . . . .	<u>1.92</u>	94.2	----	1.08	<u>11.74</u>	4.83
Producers Grain Co., Iantha . . . . .	2.10	97.1	----	1.47	<u>11.01</u>	6.76
Chapman and Follmer, Avilla . . . . .	2.20	96.4	----	0.90	13.12	5.92
Chapman and Follmer, Avilla . . . . .	2.07	97.5	----	0.80	12.00	6.01
Farmers Exchange, Neosho . . . . .	<u>1.88</u>	96.8	----	0.99	12.51	5.54
Farmers Exchange, Cassville . . . . .	2.09	96.1	----	0.77	12.37	6.81
Farmers Exchange, Monett . . . . .	<u>1.91</u>	96.8	----	0.88	12.06	5.72
Farmers Exchange, Lockwood . . . . .	<u>1.88</u>	98.9	----	0.55	12.49	6.10
Farmers Exchange, Lowry City . . . . .	2.04	98.5	----	0.83	13.07	5.54
Farmers Elevator and Supply Co., Clinton . . . . .	2.62	97.7	----	1.03	12.73	<u>5.04</u>
Knobnoster Elevator Co., Knobnoster . . . . .	<u>1.86</u>	97.3	----	0.68	11.78	6.09
Saline Co. Seed House, Marshall . . . . .	2.02	97.0	----	0.82	12.02	6.00
MFA Central Cooperative, Sedalia . . . . .	<u>1.94</u>	96.9	----	0.81	<u>11.69</u>	6.15
L. W. Hoehn, Smithton . . . . .	<u>1.99</u>	97.9	----	0.76	12.32	<u>5.88</u>
Farmers Produce Exchange, Weaubleau . . . . .	2.06	97.5	----	0.74	12.20	6.00
Dallas Co. Farmers Exchange, Buffalo . . . . .	2.06	96.6	----	0.87	12.53	5.29
Greene Co. Farm Sales Assn., Springfield . . . . .	2.51	99.2	----	0.86	11.76	9.25
Farmers Exchange, Conway . . . . .	2.05	96.0	----	1.07	<u>11.88</u>	<u>5.53</u>
Farmers Coop. Assn., Mansfield . . . . .	2.12	95.7	----	0.81	12.35	<u>5.10</u>
Evans Produce, Eldon . . . . .	2.25	96.4	----	3.25	<u>9.95</u>	6.18
Producers Exchange, Vienna . . . . .	2.08	97.5	----	1.00	<u>11.62</u>	6.87
Farmers Exchange, Rolla . . . . .	2.01	95.0	----	1.11	<u>11.81</u>	5.98
Farmers Exchange, Steelville . . . . .	2.04	96.0	----	1.53	<u>11.17</u>	6.84
Farmers Exchange, Salem . . . . .	1.75	97.7	----	0.61	12.71	<u>5.71</u>
Harry L. Ferguson, Raymondville . . . . .	2.08	95.6	----	1.57	<u>11.79</u>	<u>5.25</u>
Thayer Produce, Thayer . . . . .	<u>1.80</u>	97.8	----	0.76	12.68	<u>5.33</u>
MFA Central Cooperative, Perryville . . . . .	<u>1.94</u>	96.9	----	1.30	12.20	<u>5.07</u>
Farmington Milling Co., Farmington . . . . .	2.12	96.6	----	1.08	<u>11.89</u>	<u>5.78</u>
Roys Implement and Feed Store, Potosi . . . . .	2.00	97.5	----	1.25	<u>11.95</u>	<u>4.52</u>
Farmers Cooperative Assn. No. 117, St. Clair . . . . .	<u>1.93</u>	95.8	----	1.22	12.12	<u>4.99</u>
Farmers Exchange, Union (c) . . . . .	<u>1.77</u>	96.6	----	1.04	<u>11.80</u>	<u>5.12</u>
MFA Cooperative Assn., Higginsville . . . . .	2.02	96.0	----	0.79	12.13	<u>5.36</u>
Lafayette Milling Co., Lexington . . . . .	<u>1.95</u>	96.9	----	0.92	<u>11.56</u>	6.04
Alexander Produce, Pleasant Hill . . . . .	2.35	97.0	----	2.11	<u>10.64</u>	6.34
Farmers Coop. Elevator Assn., Harrisonville . . . . .	2.06	96.1	----	1.29	15.01	<u>5.04</u>
Farmers Produce and Grain Exchange, Chillicothe . . . . .	2.07	97.1	----	1.23	12.23	<u>5.46</u>
Thomas Fiddick and Sons, Cameron . . . . .	2.26	96.7	----	1.90	<u>11.46</u>	6.01
MFA Cooperative Assn., Gallatin . . . . .	2.03	92.6	----	0.88	12.33	<u>5.42</u>
MFA Central Cooperative, Albany . . . . .	1.98	93.9	----	1.10	<u>11.60</u>	<u>4.97</u>
Langfitt Seed Farms and Elevators, Bethany . . . . .	2.05	94.1	----	0.94	12.34	<u>5.65</u>
Bryan Produce, Princeton . . . . .	2.11	94.7	----	0.93	12.09	<u>5.30</u>
Charles Stevens, High Hill . . . . .	<u>1.91</u>	95.2	----	1.19	<u>11.26</u>	<u>5.35</u>
Farmers Elevator, Wright City . . . . .	<u>1.93</u>	95.8	----	1.47	<u>11.18</u>	6.76
Cooperative Assn. No. 20., Wentzville . . . . .	2.01	95.5	----	1.16	12.74	<u>5.41</u>
Farmers Elevator and Supply Co., Troy . . . . .	<u>1.95</u>	93.8	----	1.04	14.36	<u>4.47</u>
Farmers Equity Exchange, Bowling Green . . . . .	<u>1.92</u>	94.2	----	1.14	<u>11.75</u>	<u>5.44</u>
Farmers Elevator and Exchange, Palmyra . . . . .	2.00	97.0	----	1.62	12.56	<u>5.41</u>
Farmers Elevator and Exchange, Ewing . . . . .	2.07	97.5	----	0.69	14.31	6.21
Gabe Logsdon and Son, Wayland . . . . .	2.38	94.1	----	3.22	<u>10.72</u>	6.09
Henderson Produce, Shelbina . . . . .	2.06	95.6	----	1.24	<u>11.06</u>	<u>5.58</u>
Farmers Produce Exchange, LaPlata . . . . .	2.27	95.1	----	2.74	<u>10.67</u>	6.21
Farmers Cooperative Assn., Novinger . . . . .	2.03	95.5	----	1.18	12.02	<u>5.59</u>
Cooperative Assn. No. 300, Queen City . . . . .	2.02	96.5	----	1.09	12.49	<u>5.70</u>
J. L. McCalment, Unionville . . . . .	2.00	96.5	----	1.11	12.37	<u>5.36</u>
Farm Club, Humphreys . . . . .	2.01	92.5	----	1.21	13.31	6.08
Average Analysis . . . . .	2.05	96.3	----	1.15	12.06	5.80
Guaranteed Analysis . . . . .	2.00	----	----	----	12.00	6.00
<b>Big Potash 3-9-18:</b>						
Vanduser Gin Co., Vanduser . . . . .	<u>2.80</u>	97.7	----	0.57	9.03	18.85

(b) Some registration tags missing.

(c) Wrong registration tags.

Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947, (Continued)

Manufacturer, Brands; and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water Soluble Potash K <sub>2</sub> O %
	Total	Water Soluble to Total	Total in Bone	Insolu- ble	Avail- able	
	%	%	%	%	%	
Sikeston Gin Co., Sikeston . . . . .	3.10	97.1	----	0.76	10.10	16.66
McCracken Oil Co., Charleston . . . . .	2.96	98.6	----	0.80	9.66	16.77
Davis and Gregory Cotton Co., East Prairie . . . . .	2.90	98.3	----	1.09	9.05	17.36
Hunterville Gin Co., Hunterville . . . . .	2.84	98.5	----	0.72	9.54	17.36
Average Analysis . . . . .	2.88	98.0	----	0.79	9.48	17.40
Guaranteed Analysis . . . . .	3.00	----	----	---	9.00	18.00
<b>Darling's 3-12-4:</b>						
Shaw Produce Co., Greentop . . . . .	3.04	98.0	----	0.86	13.62	3.61
Guaranteed Analysis . . . . .	3.00	----	----	---	12.00	4.00
<b>Darling's 3-12-8:</b>						
MFA Elevator and Cooperative Assn., Boonville (d)	2.61	96.5	----	0.77	12.01	7.49
Knobnoster Elevator Co., Knobnoster (c) . . . . .	3.27	98.4	----	0.75	11.65	8.80
Saline Co. Seed House, Marshall . . . . .	2.76	97.4	----	0.77	12.69	6.74
Farmers Exchange, Iberia . . . . .	3.40	97.4	----	1.00	11.52	7.80
Lafayette Milling Co., Lexington . . . . .	2.70	97.0	----	0.72	11.87	7.70
Thomas Fiddick and Sons, Lexington . . . . .	3.01	97.7	----	0.85	12.55	7.32
MFA Cooperative Assn., Gallatin . . . . .	3.00	97.7	----	0.85	12.19	7.76
MFA Central Coop., Albany . . . . .	2.47	95.9	----	0.59	12.55	6.90
Farmers Exchange, Trenton . . . . .	2.54	97.6	----	0.79	11.53	8.18
Producers Grain Co., Mexico . . . . .	3.06	97.7	----	0.72	13.18	7.81
Shaw Produce Co., Greentop . . . . .	3.04	97.0	----	1.43	12.59	6.90
Cooperative Assn. 300, Queen City . . . . .	2.34	99.5	----	0.96	12.92	6.73
Average Analysis . . . . .	2.85	97.5	----	0.85	12.27	7.51
Guaranteed Analysis . . . . .	3.00	----	----	---	12.00	8.00
<b>Sure Winner 3-12-12:</b>						
Vanduser Gin Co., Vanduser . . . . .	3.07	98.6	----	1.04	11.80	12.12
Sikeston Gin Co., Sikeston . . . . .	3.14	97.1	----	0.73	11.99	12.19
Davis and Gregory Cotton Co., East Prairie . . . . .	3.14	98.0	----	1.62	11.26	12.50
Osteen and Adams, Portageville . . . . .	3.02	99.6	----	1.01	11.07	11.58
Kennett Grain and Seed Co., Kennett . . . . .	3.09	99.3	----	0.54	11.70	11.80
Lamar Farmers Exchange, Lamar . . . . .	3.08	99.0	----	1.11	12.49	11.38
Farmers Exchange, Jasper . . . . .	3.10	99.1	----	1.05	11.83	11.94
Green Co. Farm Sales Assn., Springfield . . . . .	3.00	99.7	----	0.78	11.22	12.82
Farmers Cooperative Assn., Freeburg . . . . .	2.91	98.6	----	0.75	12.43	9.24
MFA Central Cooperative, Albany . . . . .	2.92	97.2	----	1.04	11.52	11.94
Bryan Produce, Princeton . . . . .	3.08	97.4	----	0.71	11.32	12.42
Cooperative Assn. No. 20, Wentzville . . . . .	3.00	97.3	----	0.48	11.79	11.66
Gabe Logsdon & Son, Wayland . . . . .	2.89	97.9	----	0.77	12.01	11.17
Average Analysis . . . . .	3.03	98.4	----	0.89	11.72	11.77
Guaranteed Analysis . . . . .	3.00	----	----	---	12.00	12.00
<b>Field Marshal 4-12-4:</b>						
Cape Co. Farm Bureau Service Co., Jackson . . . . .	3.96	98.9	----	1.20	11.57	4.42
Mississippi Co. Milling Co., East Prairie . . . . .	3.93	98.7	----	0.95	11.25	5.26
R. M. Hart Store, Holcomb . . . . .	3.66	98.6	----	2.55	10.97	4.19
Farmers Cash Store, Poplar Bluff . . . . .	4.12	99.0	----	0.96	11.44	4.87
MFA Cooperative Assn., California . . . . .	4.01	98.5	----	0.63	13.49	4.07
MFA Farmers Elevator, Tipton . . . . .	3.76	98.6	----	0.97	11.85	5.29
Kenny Bros. Grain Co., Butler . . . . .	3.78	98.6	----	0.67	11.31	4.38
Chapman & Follmer, Avilla . . . . .	3.90	98.7	----	0.38	11.68	4.74
H. H. George Produce, Pierce City . . . . .	3.91	98.9	----	0.97	12.25	3.73
Farmers Exchange, Lockwood . . . . .	3.70	99.2	----	0.70	11.66	4.00
Farmers Elevator & Supply Co., Clinton . . . . .	3.65	98.0	----	1.08	12.82	4.06
Producers Exchange, Cole Camp . . . . .	3.68	98.6	----	0.85	11.90	3.86
Producers Exchange, Lincoln . . . . .	3.92	99.2	----	0.82	12.13	3.93
Farmers Exchange, Ozark . . . . .	4.05	97.5	----	1.14	11.80	5.28
Farmers Exchange, Ava . . . . .	3.80	98.9	----	0.79	12.05	4.05
Farmers Exchange, Rolla . . . . .	3.78	98.9	----	0.77	12.75	4.10
Farmers Exchange, Steelville . . . . .	4.00	98.8	----	0.83	11.41	4.98
Farmers Exchange, Salem . . . . .	3.93	98.4	----	0.53	12.87	4.15

(c) Wrong registration tags.

(d) Registration tags not attached.

Table 3.--FERTILIZER ANALYSES AND GUARANTEES: SPRING, 1947 (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water Soluble Potash K <sub>2</sub> O %
	Total %	Water Soluble to Total %	Total in Bone %	Insoluble %	Available %	
Thayer Produce, Thayer . . . . .	3.65	98.3	----	1.22	12.08	3.94
Farmers Exchange, Birchtree . . . . .	4.07	96.3	----	0.75	11.77	5.35
MFA Central Cooperative, Ste. Genevieve . . . . .	3.98	97.2	----	0.72	12.48	3.95
Farmington Milling Co., Farmington . . . . .	3.81	97.6	----	0.98	12.54	3.65
Eagle Mill & Elevator Co., Higginsville . . . . .	3.52	98.0	----	0.92	12.18	4.13
Ketchum & Palmer Produce, Pleasant Hill . . . . .	3.83	98.1	----	0.78	12.52	4.21
Farmers Cooperative Elevator Assn., Harrisonville . . . . .	3.89	97.6	----	1.02	12.39	3.42
Ray-Carroll Co. Grain Growers Inc., Norborne . . . . .	3.79	97.0	----	2.24	11.05	4.08
Farmers Produce & Grain Exchange, Chillicothe . . . . .	3.15	97.7	----	1.41	12.01	3.90
H. H. Green Mill & Elevator Co., Hamilton . . . . .	3.50	96.9	----	1.38	12.48	3.70
Thomas Fiddick & Sons, Cameron . . . . .	3.59	96.9	----	1.18	12.52	4.14
Langfitt Seed Farms & Elevators, Bethany . . . . .	3.55	97.7	----	1.10	12.90	3.90
Bryan Produce, Princeton . . . . .	3.52	96.8	----	1.53	12.11	3.48
Summers Elevator Co., Fayette . . . . .	3.62	97.7	----	0.80	10.48	4.36
Producers Exchange, Truesdale (d) . . . . .	3.25	94.7	----	3.65	9.80	5.37
Farmers Elevator, Wright City . . . . .	3.25	95.6	----	1.61	12.03	4.44
Cooperative Assn. No. 20, Wentzville . . . . .	3.98	96.4	----	1.67	12.83	3.92
Farmers Elevator & Supply Co., Troy . . . . .	3.13	95.5	----	2.10	11.51	4.84
Gabe Logsdon & Son, Wayland . . . . .	3.90	97.2	----	1.14	11.41	4.84
Farmers Elevator & Produce Co., Memphis . . . . .	3.36	96.1	----	1.24	12.03	3.60
Brees Produce, Edina . . . . .	3.66	97.4	----	1.06	12.70	4.39
Producers Grain Co., Mexico . . . . .	3.99	97.8	----	1.17	12.31	3.78
Ruby Green Produce, Kirksville . . . . .	3.83	96.0	----	1.79	12.91	3.52
Farmers Exchange, Kirksville . . . . .	3.63	97.5	----	1.14	12.76	4.38
Cooperative Assn. No. 300., Queen City . . . . .	3.89	97.6	----	1.14	13.12	3.41
Farm Club, Humphreys . . . . .	4.13	97.8	----	0.76	12.32	4.95
Farm Club, Purdin . . . . .	3.34	96.7	----	1.07	11.90	4.38
Glasgow Cooperative Assn., Glasgow . . . . .	3.80	96.1	----	2.28	12.40	3.60
Summers Elevator Co., Armstrong . . . . .	2.91	96.9	----	1.29	13.57	3.52
Average Analysis . . . . .	3.72	97.6	----	1.19	12.09	4.21
Guaranteed Analysis . . . . .	4.00	----	----	----	12.00	4.00
Davison Chemical Corp. Nashville, Tenn.						
<b>DAYCO RED DIAMOND BRANDS:</b>						
<b>19% Granulated Superphosphate:</b>						
Whitlock & Lines, Monett . . . . .	----	----	----	1.38	19.07	----
Producers Grain Co., Eldorado Springs . . . . .	----	----	----	1.10	19.35	----
Producers Exchange, Cole Camp . . . . .	----	----	----	1.72	18.48	----
Ray-Carroll Co. Grain Growers, Inc., Norborne . . . . .	----	----	----	1.07	19.08	----
Average Analysis . . . . .	----	----	----	1.32	19.00	----
Guaranteed Analysis . . . . .	----	----	----	----	19.00	----
<b>4-12-4:</b>						
Producers Grain Co., Eldorado Springs . . . . .	4.42	95.9	----	1.72	12.82	3.93
H. H. Green Mill & Elevator Co., Hamilton . . . . .	4.28	95.5	----	1.57	12.89	4.26
Average Analysis . . . . .	4.35	95.7	----	1.65	12.86	4.15
Guaranteed Analysis . . . . .	4.00	----	----	----	12.00	4.00
Delta Fertilizer Co. Helena, Ark.						
<b>FRUITS-ALL BRANDS:</b>						
<b>6-8-12:</b>						
Black Gin Co., Morley . . . . .	6.51	99.0	----	1.23	5.73	11.64
Guaranteed Analysis . . . . .	6.00	----	----	----	8.00	12.00
Excell Laboratories Chicago, Ill.						
<b>New Plant Life:</b>						
St. Louis Seed Co., St. Louis (h) . . . . .	2.52	100.0(d)	----	0.01	0.76	2.12
Guaranteed Analysis . . . . .	2.00	----	----	----	1.00	2.00

(d) Registration tags not attached.

(i) Not determined, all water soluble.

(h) Sample drawn from less than five containers.

Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947, (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water
	Total	Soluble to Total	Total in Bone	Insolu- ble	Avail- able	Soluble Potash
	%	%	%	%	%	K <sub>2</sub> O %
<b>Farm Bureau Cooperative Ass'n. Columbus, Ohio</b>						
<b>FARM BUREAU BRANDS:</b>						
<b>2-12-6:</b>						
Southeast Mo. Farm Bureau Service Co., Sikeston	2.12	93.8	----	0.72	12.92	6.12
Guaranteed Analysis . . . . .	2.00	----	----	---	12.00	6.00
<b>3-9-18:</b>						
L. E. Webb, White Oak . . . . .	3.35	91.9	----	0.86	9.78	18.39
Guaranteed Analysis . . . . .	3.00	----	----	---	9.00	18.00
<b>4-12-4:</b>						
Ralls Co. Farm Bureau Service Co., New London.	4.26	99.2	----	1.06	12.30	4.36
Linn Co. Farm Bureau Service Co., Linneus . . . .	4.19	98.3	----	1.08	12.24	4.54
Average Analysis . . . . .	4.23	98.8	----	1.07	12.27	4.45
Guaranteed Analysis . . . . .	4.00	----	----	---	12.00	4.00
<b>Farm Bureau Service Co. of Mo., Inc. Jefferson City, Mo.</b>						
<b>20% Superphosphate:</b>						
Cole Co. Farm Bureau Service Co., Jefferson City (h) . . . . .	----	----	----	0.58	20.92	----
Hummer Flour and Feed Store, Hannibal . . . . .	----	----	----	0.93	21.62	----
Marion Co. Farm Bureau Service Co., Palmyra . .	----	----	----	0.94	21.36	----
Average Analysis . . . . .	----	----	----	0.82	21.30	----
Guaranteed Analysis . . . . .	----	----	----	---	20.00	----
<b>Ford Motor Co. Dearborn, Mich.</b>						
<b>Ford Ammonium Sulphate:</b>						
Palmer Seed Co., St. Louis . . . . .	21.05	----	----	---	----	----
Guaranteed Analysis . . . . .	20.80	----	----	---	----	----
<b>Goulard &amp; Olena Skillman, N. J.</b>						
<b>G. and O. Rose Food:</b>						
Sears Roebuck and Co., St. Louis (d) (h) . . . . .	7.37	82.4	----	0.28	8.48	5.21
Guaranteed Analysis . . . . .	7.00	----	----	---	8.00	5.00
<b>J. Harris Manure Co. East St. Louis, Ill.</b>						
<b>Hampton Park Sheep Manure:</b>						
Westover Nursery, St. Louis (c) . . . . .	2.07	10.6	----	0.35	1.08	2.55
Guaranteed Analysis . . . . .	2.00	----	----	---	1.00	2.00
<b>A. H. Hoffman, Inc. Landisville, Pa.</b>						
<b>Hoffman Cow Manure:</b>						
S. S. Kresge, Co., Kansas City (h) . . . . .	2.01	29.9	----	0.16	1.21	2.35
Guaranteed Analysis . . . . .	2.00	----	----	---	1.00	1.00
<b>Hoffman Poultry Manure:</b>						
F. W. Woolworth Stores Co., Kansas City (h) . . .	3.34	53.8	----	0.46	3.44	2.22
Guaranteed Analysis . . . . .	3.00	----	----	---	1.00	1.50

(c) Wrong registration tags.

(d) Registration tags not attached.

(h) Sample drawn from less than five containers.

(i) Not determined, all water soluble.

Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947, (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water
	Total	Water Soluble	Total	Insolu- ble	Avail- able	Soluble Potash
	%	%	%	%	%	K <sub>2</sub> O %
<b>Hoffman Sheep Manure:</b>						
S. S. Kresge Co., Kansas City (h) . . . . .	1.57	15.3	----	0.19	1.25	3.43
Montgomery Ward, Kansas City (h) . . . . .	1.74	17.2	----	0.18	1.24	3.84
Average Analysis . . . . .	1.66	16.3	----	0.19	1.25	3.64
Guaranteed Analysis . . . . .	1.50	----	----	---	1.00	2.00
<b>Hydroponic Chemical Co. New York, N. Y.</b>						
<b>Hyponex Plant Food:</b>						
Famous Barr Co., St. Louis (h) . . . . .	7.65	100.0(d)	----	0.03	7.05	19.43
Sears Roebuck and Co., Kansas City (h) . . . . .	7.55	100.0(d)	----	0.01	7.07	21.56
Chesmore Seed Co., St. Joseph (h) . . . . .	7.31	100.0(d)	----	0.06	6.96	20.88
Average Analysis . . . . .	7.50	----	----	0.03	7.03	20.62
Guaranteed Analysis . . . . .	7.00	----	----	---	6.00	19.00
<b>Kansas City Fertilizer Co. Kansas City, Mo.</b>						
<b>Archer Brand Sheep Manure:</b>						
Soil Service Co., Kansas City (d) . . . . .	1.43	25.2	----	0.26	1.08	3.20
Guaranteed Analysis . . . . .	2.00	----	----	---	1.00	2.00
<b>The Kellog Co. Ocala, Fla.</b>						
<b>Kell-Phos: (a)</b>						
Pearson-Ferguson Chem. Co., Kansas City (d) . . . . .	----	----	----	16.20	5.05	----
Guaranteed Analysis . . . . .	----	----	----	---	2.00	----
<b>Lange Bros. St. Louis, Mo.</b>						
<b>LB BRANDS:</b>						
<b>20% Superphosphate:</b>						
Upchurch Feed, Flour & Grocery, Lutesville (c) . . . . .	----	----	----	0.79	20.16	----
The Trading Post, De Soto . . . . .	----	----	----	0.76	20.59	----
Average Analysis . . . . .	----	----	----	0.78	20.38	----
Guaranteed Analysis . . . . .	----	----	----	---	20.00	----
<b>0-14-7:</b>						
McCullough and Miller, Brashear . . . . .	----	----	----	0.89	15.29	7.08
Guaranteed Analysis . . . . .	----	----	----	---	14.00	7.00
<b>2-12-8:</b>						
Upchurch Feed, Flour and Grocery, Lutesville (c) . . . . .	2.04	96.0	----	0.97	12.03	6.25
Beumel Bros., Westphalia (c) . . . . .	2.19	96.8	----	0.80	12.00	6.04
The Trading Post, De Soto . . . . .	2.04	95.0	----	1.12	11.82	6.08
Engendorf Truck Service, Lewistown . . . . .	2.00	96.0	----	1.15	11.41	5.52
Taylor Brothers, Edina . . . . .	2.08	98.0	----	1.31	12.05	6.18
Average Analysis . . . . .	2.07	96.4	----	1.07	11.86	6.01
Guaranteed Analysis . . . . .	2.00	----	----	---	12.00	6.00
<b>3-12-12:</b>						
Schroff Bros., Montgomery City (d) . . . . .	3.02	97.3	----	0.77	12.21	11.28
Clem Jacobsmeyer, Florissant (d) . . . . .	3.05	98.0	----	1.57	12.41	11.87
Louis Wehmer, Florissant . . . . .	3.00	98.0	----	1.80	12.04	12.53
Average Analysis . . . . .	3.02	97.8	----	1.38	12.22	11.89
Guaranteed Analysis . . . . .	3.00	----	----	---	12.00	12.00
<b>4-12-4:</b>						
Engendorf Truck Service, Lewistown (d) . . . . .	3.97	97.7	----	0.50	12.04	4.08

(c) Wrong registration tags.

(h) Sample drawn from less than five containers.

(d) Registration tags not attached.

Table 3. FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947, (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water Soluble Potash K <sub>2</sub> O %
	Total %	Water Soluble to Total %	Total in Bone %	Insoluble %	Available %	
Henderson Produce, Shelbina . . . . .	4.00	98.0	----	0.88	<u>11.62</u>	<u>3.96</u>
McCullough and Miller, Brashear . . . . .	<u>3.94</u>	97.9	----	0.21	<u>11.54</u>	<u>3.72</u>
Average Analysis . . . . .	<u>3.97</u>	97.9	----	0.53	<u>13.73</u>	<u>3.92</u>
Guaranteed Analysis . . . . .	4.00	----	----	---	12.00	4.00
<b>8-8-8:</b>						
Wendell Holman, Columbia . . . . .	7.98	99.3	----	0.40	8.04	<u>7.71</u>
Planters Cotton Co., Sikeston (c) . . . . .	8.07	99.1	----	0.52	<u>7.69</u>	<u>7.52</u>
Average Analysis . . . . .	8.03	99.2	----	0.46	<u>7.87</u>	<u>7.62</u>
Guaranteed Analysis . . . . .	8.00	----	----	---	8.00	8.00
<b>10-6-4:</b>						
Julius Peterson Co., St. Louis (d) . . . . .	9.84	98.5	----	0.54	6.03	4.05
Clem Jacobsmeyer, Florissant . . . . .	10.04	99.2	----	0.17	<u>5.59</u>	4.02
Average Analysis . . . . .	<u>9.94</u>	98.9	----	0.36	<u>5.81</u>	4.04
Guaranteed Analysis . . . . .	10.00	----	----	---	6.00	4.00
Milwaukee Sewerage Commission Milwaukee, Wis.						
<b>Milorganite:</b>						
St. Louis Seed Co., St. Louis (b) . . . . .	6.05	12.6	----	0.56	3.12	----
A. H. Hummert Seed Co., St. Louis (d) . . . . .	6.00	5.8	----	0.51	2.49	----
Ed. F. Mangelsdorf & Bros. Inc., St. Louis (d) . . . . .	6.14	7.0	----	0.51	2.54	----
Prunty Seed & Grain Co., St. Louis . . . . .	6.18	7.1	----	0.59	2.38	----
Average Analysis . . . . .	6.09	8.1	----	0.54	2.63	----
Guaranteed Analysis . . . . .	6.00	----	----	---	2.00	----
Missouri Chemical Co. Atlas, Mo.						
<b>MERCO BRANDS:</b>						
<b>18% Superphosphate:</b>						
Benton Feed Store, St. Joseph . . . . .	----	----	----	0.88	19.12	----
Atlanta Grain Elevator, Atlanta . . . . .	----	----	----	1.33	18.67	----
MFA Central Cooperative, Browning . . . . .	----	----	----	0.55	18.40	----
Average Analysis . . . . .	----	----	----	0.92	18.73	----
Guaranteed Analysis . . . . .	----	----	----	---	18.00	----
<b>20% Superphosphate:</b>						
Shultice Produce, Boonville . . . . .	----	----	----	0.87	21.23	----
Versailles Produce and Feed, Versailles . . . . .	----	----	----	0.21	21.09	----
Allman Produce and Feed, Wheaton . . . . .	----	----	----	0.56	21.14	----
Pierce City Milling Co., Pierce City . . . . .	----	----	----	0.75	21.20	----
Greenfield Milling Co., Greenfield . . . . .	----	----	----	0.71	21.29	----
Farmers Exchange, Humansville . . . . .	----	----	----	0.50	21.25	----
Bushong Mercantile Co., Galena . . . . .	----	----	----	1.02	20.48	----
Farmers Exchange, Iberia . . . . .	----	----	----	0.80	22.05	----
Farmers Exchange, Mountain View . . . . .	----	----	----	0.81	20.98	----
Hedrick Elevator, Buckner . . . . .	----	----	----	0.95	20.20	----
May Milling Co., Grandview (c) . . . . .	----	----	----	0.93	20.87	----
Farmers Produce and Grain Co., Hamilton . . . . .	----	----	----	0.50	22.00	----
McClellands Farm and Home Supply, Gallatin . . . . .	----	----	----	0.89	20.46	----
Audrain Co. Farm Bureau Service Co., Mexico . . . . .	----	----	----	0.43	21.67	----
Farmers Exchange, Brookfield . . . . .	----	----	----	0.41	22.24	----
Average Analysis . . . . .	----	----	----	0.66	21.20	----
Guaranteed Analysis . . . . .	----	----	----	---	20.00	----
<b>0-14-7:</b>						
Pierce City Milling Co., Pierce City . . . . .	----	----	----	1.48	<u>13.96</u>	<u>6.88</u>
Farmers Exchange, Mountain View . . . . .	----	----	----	1.02	14.03	7.04
Cameron Cooperative Elevator Assn., Cameron . . . . .	----	----	----	0.97	14.16	7.43

(b) Some registration tags missing.

(d) Registration tags not attached.

(c) Wrong registration tags.

Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947, (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water Soluble Potash K <sub>2</sub> O %
	Total %	Water Soluble to Total %	Total in Bone %	Insoluble %	Available %	
Benton Feed Store, St. Joseph . . . . .	----	----	----	1.49	12.39	6.84
Bauman Produce, Savannah . . . . .	----	----	----	1.17	14.23	6.80
Bryan Produce, Princeton . . . . .	----	----	----	1.17	14.43	7.20
Henderson Produce, Shelbyna . . . . .	----	----	----	1.17	14.58	6.80
Audrain Co. Farm Bureau Service Co., Mexico . .	----	----	----	0.85	14.50	7.38
Farmers Exchange, Kirksville . . . . .	----	----	----	0.87	14.56	7.41
Average Analysis . . . . .	----	----	----	1.13	14.09	7.06
Guaranteed Analysis . . . . .	----	----	----	---	14.00	7.00
<b>2-12-8:</b>						
Jasper Implement Co., Jasper . . . . .	2.08	95.1	----	0.94	12.18	5.50
Phil Ratliff, Neosho . . . . .	2.19	94.5	----	1.04	12.31	5.96
Farmers Exchange, Lowry City . . . . .	2.45	97.9	----	1.08	11.64	6.35
Farmers Elevator and Supply Co., Clinton . . . .	2.23	95.9	----	0.90	12.02	6.19
Farmers Exchange, Humansville . . . . .	2.02	95.5	----	1.23	12.24	5.80
Dallas Co. Farmers Exchange, Buffalo . . . . .	2.00	96.0	----	1.33	12.05	5.50
Richards Bros., Mansfield . . . . .	2.21	95.4	----	1.03	12.37	5.50
Producers Exchange, Marshfield . . . . .	1.96	96.4	----	1.29	11.92	5.48
Farmers Exchange, Mountain View . . . . .	1.82	100.0	----	1.03	12.14	6.02
Farmers Exchange, Birch Tree . . . . .	2.04	95.0	----	1.29	12.21	5.94
May Milling Co., Grandview . . . . .	2.11	95.2	----	1.40	11.68	6.65
Carter's Feed Store, Chillicothe . . . . .	2.17	96.3	----	1.17	12.19	6.41
Owen Produce, Maysville . . . . .	2.16	96.7	----	1.49	12.11	6.00
Dannen Elevator, Maryville . . . . .	2.20	96.4	----	1.87	11.85	6.82
Audrain Co. Farm Bureau Service Co., Mexico . .	2.25	94.6	----	0.84	12.08	6.02
MFA Central Cooperative, Moberly . . . . .	1.94	95.8	----	1.05	11.61	5.84
MFA Central Cooperative, Cairo . . . . .	2.01	92.0	----	1.09	12.53	5.28
Atlanta Grain Elevator, Atlanta . . . . .	2.16	94.4	----	1.20	12.36	5.66
Fayette Cooperative Mill and Elevator, Fayette . .	2.14	94.3	----	1.15	13.17	5.94
Columbia Cooperative Warehouse Assn., Columbia	2.06	93.6	----	0.85	12.91	5.87
Average Analysis . . . . .	2.11	95.6	----	1.16	12.18	5.94
Guaranteed Analysis . . . . .	2.00	----	----	---	12.00	6.00
<b>4-12-4:</b>						
Shultice Produce, Boonville . . . . .	4.11	96.5	----	1.66	12.16	4.13
Cole Co. Farm Bureau Service Co., Jefferson City .	4.10	96.8	----	2.12	11.58	3.86
E. S. Oliver Feed Store, Fulton . . . . .	4.18	98.0	----	1.06	12.46	3.82
Chamberlain Canning Co., Anderson . . . . .	4.11	96.8	----	1.79	12.12	4.32
Pierce City Milling Co., Pierce City . . . . .	4.10	96.8	----	1.68	12.26	3.85
Whitesell's General Store, Stockton . . . . .	4.16	96.6	----	2.23	11.50	3.98
Northern Feed Co., Springfield . . . . .	3.93	95.4	----	2.18	11.34	4.07
Tevebaugh Bros., Gainesville . . . . .	3.47	96.5	----	1.39	12.41	3.36
Farmers Cooperative Assn., Mansfield . . . . .	4.27	97.6	----	1.73	11.99	4.05
Producers Exchange, Marshfield . . . . .	3.52	97.1	----	1.40	13.00	3.74
Farmers Exchange, Mountain View . . . . .	3.85	97.6	----	1.50	12.50	3.60
Farmers Exchange, Birchtree . . . . .	4.27	95.0	----	1.17	12.29	3.75
Hedrick Elevator, Buckner . . . . .	3.80	97.6	----	1.25	12.15	3.87
May Milling Co., Grandview . . . . .	4.06	97.7	----	1.47	12.37	5.00
Ray-Carroll Co. Grain Growers, Inc., Richmond .	3.81	97.1	----	1.19	11.89	3.78
Farmers Cooperative Assn., Brunswick . . . . .	3.58	96.0	----	1.00	12.50	3.86
Cameron Cooperative Elevator Assn., Cameron . .	3.78	96.0	----	1.30	12.24	3.83
Maysville Produce, Maysville . . . . .	4.04	96.7	----	1.35	12.09	3.91
Owen Produce, Maysville . . . . .	4.08	98.2	----	1.06	12.36	4.00
Bauman Produce, Savannah . . . . .	4.00	97.0	----	1.45	12.55	4.02
MFA Central Cooperative, Albany . . . . .	4.00	97.0	----	1.65	12.37	3.47
Farmers Exchange, Trenton . . . . .	4.30	97.9	----	1.75	12.31	4.21
Altanta Grain Elevator, Atlanta . . . . .	3.79	97.8	----	1.35	11.95	4.04
MFA Central Cooperative, Lancaster . . . . .	3.71	92.4	----	0.74	13.16	3.57
J. L. McCalment, Unionville . . . . .	3.97	98.2	----	1.06	12.04	3.82
MFA Central Cooperative, Browning . . . . .	3.73	97.3	----	0.82	12.42	3.75
Producers Grain Co., Mexico . . . . .	4.10	97.8	----	1.11	11.72	3.86
Columbia Cooperative Warehouse Assn., Columbia	4.19	98.0	----	0.70	11.28	4.36
Average Analysis . . . . .	3.86	96.9	----	1.40	12.17	3.92
Guaranteed Analysis . . . . .	4.00	----	----	---	12.00	4.00



Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947, (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water Soluble Potash K <sub>2</sub> O
	Total %	Water Soluble to Total %	Total in Bone %	Insoluble %	Available %	%
<b>4-16-0:</b>						
MFA Central Cooperative, Albany.....	3.55	94.9	----	1.34	15.57	----
Guaranteed Analysis.....	4.00	----	----	---	16.00	----
<b>5-10-10:</b>						
Platte City Implement Co., Platte City.....	4.80	97.3	----	1.52	10.48	9.39
Bauman Produce, Savannah.....	4.71	98.3	----	1.40	10.03	9.79
Glasgow Cooperative Assn., Glasgow.....	5.09	96.8	----	1.87	9.73	9.59
Average Analysis.....	4.87	97.5	----	1.60	10.08	9.59
Guaranteed Analysis.....	5.00	----	----	---	10.00	10.00
<b>North American Cyanamid Co.</b>						
Niagara Falls, Ontario						
<u>Aeroprills: (a)</u>						
Oscar Meyer, Florissant.....	33.34	99.8	----	---	----	----
Guaranteed Analysis.....	33.50	----	----	---	----	----
<b>Plantabbs Co.</b>						
Baltimore, Md.						
<u>Fulton's Plantabbs:</u>						
Famous Barr Co., St. Louis (h).....	11.12	----	----	0.04	18.97	23.44
Guaranteed Analysis.....	11.00	----	----	---	15.00	20.00
<b>The Pulverized Manure Co.</b>						
Chicago, Ill.						
<u>Wizard Brand Cow Manure:</u>						
St. Francois Co. Farm Bureau Service Co., Farmington.....	1.83	18.0	----	0.27	0.99	1.69
Prunty Seed and Grain Co., St. Louis.....	1.95	12.3	----	0.18	0.83	1.60
Average Analysis.....	1.89	15.2	----	0.23	0.91	1.65
Guaranteed Analysis.....	2.00	----	----	---	1.00	1.00
<u>Wizard Brand Sheep Manure:</u>						
St. Francois Co. Farm Bureau Service Co., Farmington.....	1.84	15.8	----	0.30	1.25	2.32
Prunty Seed and Grain Co., St. Louis.....	1.87	17.6	----	0.26	1.59	3.47
Average Analysis.....	1.86	16.7	----	0.28	1.42	2.90
Guaranteed Analysis.....	2.00	----	----	---	1.00	2.00
<b>Ruhm Phosphate &amp; Chem. Co.</b>						
Mt. Pleasant, Tenn.						
<u>Ruhm's Phosphate Rock 30%:</u>						
Julius Peterson Co., St. Louis (e).....	----	----	----	23.80	6.20	----
J. O. Rankin, Hayti (e).....	----	----	----	27.10	3.10	----
Average Analysis.....	----	----	----	25.45	4.65	----
Guaranteed Analysis.....	----	----	----	27.00	3.00	----
<b>Sears Roebuck &amp; Co.</b>						
Chicago, Ill.						
<u>Garden Master Plant Food: 4-12-4:</u>						
Sears Roebuck and Co., St. Louis.....	4.00	90.5	----	1.82	12.30	3.65
Sears Roebuck and Co., Kansas City.....	3.95	91.9	----	2.19	12.57	4.28
Average Analysis.....	3.98	91.2	----	2.01	12.44	3.97
Guaranteed Analysis.....	4.00	----	----	---	12.00	4.00

(a) Not registered  
(e) Incomplete labels.

(h) Sample drawn from less than five containers.

Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947, (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water Soluble Potash K <sub>2</sub> O %
	Total	Water Soluble to Total	Total in Bone	Insolu- ble	Avail- able	
	%	%	%	%	%	
<b>Southern Acid &amp; Sulphur Co.</b> Houston, Texas						
<u>Sasco-Phos 16-20-0:</u>						
Pearson-Ferguson Chemical Co., Kansas City (c)	16.83	98.3	----	0.89	22.81	----
Ray-Carroll Co. Grain Growers, Inc., Richmond.	15.73	98.6	----	0.71	22.84	----
Ray-Carroll Co. Grain Growers, Inc., Norborne.	16.31	98.4	----	0.75	23.20	----
Ray-Carroll Co. Grain Growers, Inc., Carrollton.	16.57	98.6	----	0.60	23.15	----
Pearce Produce Co., Fairfax (c)	16.77	98.3	----	0.76	22.99	----
Dannen Elevator, Maryville	16.79	98.2	----	0.98	23.42	----
MFA Central Cooperative, Moberly	16.91	98.2	----	0.95	22.10	----
Average Analysis	16.56	98.4	----	0.81	22.93	----
Guaranteed Analysis	16.00	----	----	----	20.00	----
<b>Spencer Chemical Co.</b> Pittsburg, Kansas						
<u>Spencer Ammonium Nitrate:</u>						
Madison Co. Farmers Warehouse Assn., Fredericktown (d)	33.61	100.0(d)	----	----	----	----
Neosho Seed Co., Neosho	33.46	100.0(d)	----	----	----	----
Pearson-Ferguson Chemical Co., Kansas City	33.54	100.0(d)	----	----	----	----
Miller Davis Co., Liberty	33.29	100.0(d)	----	----	----	----
H. H. Green Mill and Elevator Co., Hamilton	33.61	100.0(d)	----	----	----	----
Dannen Mills, St. Joseph	33.26	100.0(d)	----	----	----	----
Dannen Elevator, Maryville	33.54	100.0(d)	----	----	----	----
Bryan Produce, Princeton	33.54	100.0(d)	----	----	----	----
Schroff Bros., Montgomery City (d)	33.56	100.0(d)	----	----	----	----
Ralls Co. Farm Bureau Service Co., New London.	33.46	100.0(d)	----	----	----	----
Average Analysis	33.49	----	----	----	----	----
Guaranteed Analysis	32.50	----	----	----	----	----
<b>Standard Wholesale Phosphate &amp; Acid Works, Inc.</b> Baltimore, Md.						
<u>Standard 0-14-7: (a)</u>						
Bethany Ice and Produce Co., Bethany	----	----	----	0.94	15.06	6.52
Guaranteed Analysis	----	----	----	----	14.00	7.00
<b>Stockdale Fertilizer Co.</b> Morris, Ill.						
<u>Ovene (Sheep manure):</u>						
S. S. Kresge Co., St. Joseph (d)	2.45	29.0	----	0.18	1.70	2.87
Guaranteed Analysis	2.00	----	----	----	1.00	2.00
<b>Swift &amp; Co., Plant Food Division</b> National Stock Yards, Ill.						
<u>RED STEER BRANDS:</u>						
<u>20% Superphosphate:</u>						
A. E. Armstrong Produce, Lowry City	----	----	----	0.53	21.17	----
Swift and Co., St. Joseph	----	----	----	0.47	18.13	----
Average Analysis	----	----	----	0.50	19.65	----
Guaranteed Analysis	----	----	----	----	20.00	----
<u>0-14-7:</u>						
Swift and Co., St. Joseph	----	----	----	0.37	14.13	6.98
Guaranteed Analysis	----	----	----	----	14.00	7.00

(a) Not registered.

(c) Wrong registration tags.

(d) Registration tags not attached.

(i) Not determined, all water soluble.

Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947 (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water Soluble Potash K <sub>2</sub> O %
	Total %	Water Soluble to Total %	Total in Bone %	Insoluble %	Available %	
<b>2-12-6:</b>						
Cape Co. Milling Co., Jackson . . . . .	1.98	95.9	----	0.47	12.53	6.10
J. P. Ross Cotton Co., Essex . . . . .	2.02	93.5	----	0.57	12.21	5.85
Shell's Store, Lutesville . . . . .	2.08	93.2	----	0.61	12.19	5.92
Madison Co. Farmers Warehouse Assn., Fredericktown . . . . .	2.10	99.5	----	0.46	12.24	5.80
Boonville Mill, Boonville (d) . . . . .	2.15	92.5	----	0.42	12.12	6.12
A. W. Baker, Linn . . . . .	2.11	93.8	----	0.37	12.51	5.87
Norris Grain Co., Nevada . . . . .	2.02	94.0	----	0.47	12.01	5.59
Ray Means Produce, Lamar . . . . .	2.00	91.5	----	0.32	12.12	5.70
Neosho Seed Co., Neosho . . . . .	2.08	91.3	----	0.33	11.72	5.54
Farmers Elevator, Purdy . . . . .	2.35	92.3	----	0.45	12.07	6.07
Kelso Elevator, Mt. Vernon . . . . .	2.14	92.9	----	0.45	12.11	6.66
A. E. Armstrong Produce, Lowry City . . . . .	2.07	93.2	----	0.40	12.36	5.95
Halbrook Feed Store, Salem . . . . .	1.89	90.4	----	0.42	12.54	5.48
Hahn Feed Store, Union (d) . . . . .	2.01	91.5	----	0.47	12.97	5.77
Farmers Elevator, Gerald . . . . .	2.21	93.6	----	0.34	12.66	6.01
H. D. Moody Feed Store, Mound City . . . . .	2.24	93.3	----	0.38	13.08	5.84
Charles Stevens, High Hill . . . . .	2.07	92.7	----	0.33	12.19	5.70
Lincoln Co. Farm Bureau Service Co., Troy (d) . . . . .	2.05	92.6	----	0.46	11.72	5.98
Farmers Elevator, Silx . . . . .	2.22	92.3	----	0.19	12.43	5.96
Unionville Produce, Unionville . . . . .	2.05	94.6	----	0.48	12.36	5.99
Summers Elevator Co., Armstrong . . . . .	2.07	93.7	----	0.38	12.71	6.08
Average Analysis . . . . .	2.09	93.3	----	0.42	12.33	5.90
Guaranteed Analysis . . . . .	2.00	----	----	----	12.00	6.00
<b>4-12-4:</b>						
Cape Co. Milling Co., Jackson . . . . .	4.06	94.5	----	0.38	13.06	4.06
Bertrand Cotton Co., Bertrand . . . . .	3.93	97.7	----	0.38	12.32	4.00
Clay Co. Cotton Co., Charleston (d) . . . . .	4.07	97.5	----	0.30	13.06	3.88
Kennett Grain and Seed Co., Kennett . . . . .	4.01	97.7	----	0.43	12.61	3.93
J. P. Ross Cotton Co., Essex . . . . .	4.04	97.5	----	0.39	12.45	4.36
Madison Co. Farmers Warehouse Assn., Fredericktown . . . . .	4.03	97.8	----	0.24	12.58	4.21
Boonville Mill, Boonville (b) . . . . .	3.64	96.4	----	0.39	12.29	4.36
Lohman Milling Co., Lohman . . . . .	4.00	97.8	----	0.48	12.18	4.16
Haslag Bros., Loose Creek . . . . .	3.59	97.7	----	0.24	12.36	4.46
Ray Means Produce, Lamar . . . . .	3.66	96.9	----	0.50	12.22	4.36
Kelso Elevator, Mt. Vernon . . . . .	3.61	95.2	----	0.61	11.87	4.10
Producers Exchange, Lincoln . . . . .	3.95	98.2	----	0.31	11.73	4.07
Nixa Hardware, Nixa . . . . .	4.21	98.0	----	0.58	12.22	4.14
Halbrook Feed Store, Salem . . . . .	3.18	95.5	----	0.46	11.38	4.36
Smith Bros., Licking (d) . . . . .	4.04	97.2	----	0.15	12.35	4.18
Ada Dickerson, Doniphan . . . . .	3.79	97.0	----	0.51	12.19	5.01
St. Clair Feed Co., St. Clair (c) . . . . .	3.96	97.2	----	0.47	11.53	4.79
Swift & Co., St. Joseph . . . . .	4.13	98.3	----	0.31	12.85	4.12
H. D. Moody Feed Store, Mound City . . . . .	4.05	97.5	----	0.36	12.48	4.14
Summers Elevator Co., Armstrong . . . . .	4.02	98.5	----	0.26	12.16	4.42
Schroff Bros., Montgomery City . . . . .	4.20	98.3	----	2.37	11.42	2.54
Charles Stevens, High Hill . . . . .	3.77	97.6	----	0.30	11.68	4.15
Farmers Cooperative Elevator Assn., O'Fallon . . . . .	4.03	96.0	----	0.90	12.00	4.74
Farmers Elevator, Silx (c) . . . . .	3.96	98.2	----	0.43	11.87	4.19
Farmers Elevator Exchange, Hannibal . . . . .	4.16	97.5	----	2.43	11.25	4.26
Farmers Elevator Exchange, Palmyra (b) . . . . .	3.96	98.7	----	1.51	12.09	4.60
Taylor Bros., Edina . . . . .	4.20	98.1	----	0.47	12.29	4.21
James Young, Paris . . . . .	4.30	96.5	----	2.24	10.84	4.88
Unionville Produce, Unionville . . . . .	4.07	98.2	----	0.25	12.39	4.12
Average Analysis . . . . .	3.95	97.4	----	0.64	12.13	4.23
Guaranteed Analysis . . . . .	4.00	----	----	----	12.00	4.00
<b>Vigoro 4-12-4:</b>						
Eggiman Feed and Produce, Cape Girardeau . . . . .	3.87	94.5	----	0.55	13.03	4.72

(b) Some registration tags missing.  
(c) Wrong registration tags.

(d) Registration tags not attached.

Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947 (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water Soluble Potash K <sub>2</sub> O %
	Total	Water Soluble to Total	Total in Bone	Insolu- ble	Avail- able	
	%	%	%	%	%	
Kennett Grain and Seed Co., Kennett . . . . .	4.07	95.0	----	0.63	12.65	4.60
Square Deal Produce, Osceola . . . . .	4.06	96.5	----	0.84	12.26	4.09
Sears Roebuck and Co., St. Louis (h) . . . . .	3.83	94.5	----	0.91	12.55	5.02
Ed. F. Mangelsdorf and Bros., Inc., St. Louis (h) . . . . .	4.14	95.0	----	1.90	11.03	4.19
United States Seed Co., St. Louis . . . . .	4.00	96.3	----	1.31	11.21	4.36
Prunty Seed and Grain Co., St. Louis . . . . .	4.00	96.0	----	1.18	11.70	4.31
St. Clair Feed Co., St. Clair (d) . . . . .	4.08	96.3	----	1.94	10.86	3.84
Montgomery Ward, Kansas City (h) . . . . .	4.00	95.8	----	0.57	11.80	4.38
Soil Service Co., Kansas City . . . . .	3.88	97.4	----	1.79	11.07	4.20
Swift and Co., St. Joseph . . . . .	4.43	97.9	----	2.58	11.01	4.35
Chesmore Seed Co., St. Joseph (h) . . . . .	4.65	95.9	----	0.30	11.57	4.47
F. W. Woolworth Stores Co., St. Joseph (h) . . . . .	4.35	91.4	----	0.57	13.37	4.58
Pearce Produce Co., Fairfax . . . . .	4.40	98.2	----	2.46	10.78	4.18
Curfman and Son Hardware, Tarkio (h) . . . . .	4.04	91.8	----	0.57	12.53	4.28
White Feed and Fuel, Moberly . . . . .	4.00	96.3	----	1.05	11.85	4.07
Unionville Produce, Unionville . . . . .	4.18	96.4	----	2.23	10.86	4.39
Glasgow Milling Co., Glasgow . . . . .	4.30	96.3	----	2.85	10.75	4.18
Producers Grain Co., Mexico . . . . .	4.29	96.9	----	2.33	11.31	4.22
Sears Roebuck and Co., Kansas City . . . . .	4.29	94.1	----	0.91	12.35	3.99
Average Analysis . . . . .	4.14	95.6	----	1.37	11.73	4.32
Guaranteed Analysis . . . . .	4.00	----	----	---	12.00	4.00
<b>Brimm 4-12-8:</b>						
Hahn Feed Store, Union (d) . . . . .	3.20	96.3	----	0.44	12.06	7.56
Farmers Elevator Exchange, Palmyra . . . . .	3.85	97.1	----	1.30	11.82	8.28
T. R. Legg, Monticello . . . . .	3.74	97.5	----	1.16	11.58	8.30
Unionville Produce, Unionville . . . . .	3.26	96.3	----	0.52	13.50	8.28
Average Analysis . . . . .	3.51	96.8	----	0.86	12.24	8.11
Guaranteed Analysis . . . . .	4.00	----	----	---	12.00	8.00
<b>Temple Cotton Oil Co.</b>						
Little Rock, Ark.						
<b>Quapaw 0-10-20: (a)</b>						
R. M. Hart Store, Holcomb (d) . . . . .	----	----	----	0.44	9.70	20.80
Guaranteed Analysis . . . . .	----	----	----	---	10.00	20.00
<b>Tennessee Corp.</b>						
Lockland, Ohio						
<b>Loma 5-10-5:</b>						
St. Louis Seed Co., St. Louis . . . . .	5.26	96.1	----	0.59	10.59	5.07
Soil Service Co., Kansas City . . . . .	5.33	96.2	----	0.48	10.42	4.96
Average Analysis . . . . .	5.30	96.2	----	0.54	10.51	5.02
Guaranteed Analysis . . . . .	5.00	----	----	---	10.00	5.00
<b>Virginia-Carolina Chem. Corp.</b>						
East St. Louis, Ill.						
<b>VC BRANDS:</b>						
<b>VC Phospho Tobacco 18%:</b>						
Owensville Roller Mill, Owensville . . . . .	----	----	----	1.83	18.10	----
Guaranteed Analysis . . . . .	----	----	----	---	18.00	----
<b>VC 20% Superphosphate:</b>						
Madison Co. Farmers Warehouse Assn., Fredericktown . . . . .	----	----	----	1.95	21.30	----
Bushong Bros. Mercantile Co., Gainesville . . . . .	----	----	----	0.58	21.47	----
Average Analysis . . . . .	----	----	----	1.27	21.39	----
Guaranteed Analysis . . . . .	----	----	----	---	20.00	----

(a) Not registered.

(d) Registration tags not attached.

(h) Sample drawn from less than five containers.

Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947, (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water Soluble Potash K <sub>2</sub> O %
	Total %	Water Soluble to Total %	Total in Bone %	Insoluble %	Available %	
<b>VC 47% Superphosphate:</b>						
Soil Service Co., Kansas City	----	----	----	0.07	48.08	----
Guaranteed Analysis	----	----	----	---	47.00	----
<b>VC 0-10-20:</b>						
Kennett Grain and Seed Co., Kennett	----	----	----	0.17	10.73	20.90
Guaranteed Analysis	----	----	----	---	10.00	20.00
<b>VC 0-14-7:</b>						
Peoples Elevator, Rich Hill	----	----	----	1.61	14.42	5.95
Farmers Exchange, Mt. Vernon	----	----	----	2.34	12.21	9.32
Average Analysis	----	----	----	1.98	<u>13.32</u>	7.64
Guaranteed Analysis	----	----	----	---	14.00	7.00
<b>VC 2-12-6:</b>						
Madison Co. Farmers Warehouse Assn.,						
Fredericktown	2.07	92.2	----	1.07	12.23	6.17
Peoples Elevator, Rich Hill	2.19	92.6	----	0.89	<u>11.99</u>	6.16
Farmers Exchange, Mt. Vernon	2.13	92.0	----	0.83	<u>12.05</u>	6.25
Farmers Elevator and Supply Co., Clinton	2.14	93.4	----	2.00	<u>11.30</u>	6.68
Knobnoster Elevator Co., Knobnoster	2.46	94.3	----	1.15	<u>11.51</u>	6.51
D. C. Oldfield, Cross Timbers	2.01	93.0	----	0.64	<u>11.05</u>	5.68
P. L. Fitzpatrick and Son, Weaubleau	2.64	93.5	----	1.56	<u>11.88</u>	6.72
Bushong Bros. Mercantile Co., Gainesville	2.07	94.6	----	0.73	<u>10.91</u>	6.10
Cuba Roller Mills, Cuba	2.02	90.5	----	2.04	<u>11.35</u>	6.05
Price Mercantile Co., Van Buren	2.00	94.0	----	0.82	<u>11.04</u>	5.89
G. R. Rayfield, Ellington	2.05	93.1	----	0.74	<u>11.33</u>	6.60
Potosi Mill and Elevator Co., Potosi	2.05	94.1	----	0.67	<u>11.24</u>	5.75
Owensville Roller Mill, Owensville	2.33	91.4	----	1.05	<u>11.59</u>	6.44
Average Analysis	2.17	93.0	----	1.09	<u>11.50</u>	6.15
Guaranteed Analysis	2.00	----	----	---	12.00	6.00
<b>VC Ammoniated Phospho Tobacco 2-12-6:</b>						
Lohman Milling Co., Lohman	2.02	89.6	----	1.15	12.61	6.20
Peoples Elevator, Rich Hill	2.17	88.9	----	1.28	<u>11.09</u>	6.29
B. H. and Pearl Orsden, Camdenton	2.68	91.7	----	1.33	<u>11.13</u>	6.59
MFA Central Cooperative, Perryville	2.02	92.5	----	1.06	<u>11.63</u>	6.34
Peabody Produce, Bowling Green	2.40	92.5	----	0.93	<u>12.37</u>	6.14
Average Analysis	2.26	91.0	----	1.15	<u>11.77</u>	6.31
Guaranteed Analysis	2.00	----	----	---	12.00	6.00
<b>C 3-9-18:</b>						
Missouri Soybean Co., Caruthersville	3.17	96.2	----	0.48	9.47	18.17
Guaranteed Analysis	3.00	----	----	---	9.00	18.00
<b>VC 4-12-4:</b>						
Madison Co. Farmers Warehouse Assn.,						
Fredericktown	4.66	95.9	----	1.28	<u>11.42</u>	4.66
Chamberlain Canning Co., Anderson	3.67	95.6	----	1.47	<u>12.19</u>	4.24
Pearson-Ferguson Chemical Co., Kansas City	4.07	97.7	----	1.10	<u>11.57</u>	4.11
Thompson-Hayward Chemical Co., Kansas City	4.06	97.7	----	1.29	<u>11.61</u>	4.06
Peabody Produce, Bowling Green (c)	4.06	97.5	----	1.24	<u>11.93</u>	4.30
Average Analysis	4.10	96.8	----	1.28	<u>11.74</u>	4.27
Guaranteed Analysis	4.00	----	----	---	12.00	4.00
<b>VC Victory Garden Fertilizer 4-12-4:</b>						
Ruessler Feed Store, Old Appleton (a) (d)	3.46	96.2	----	1.22	12.06	4.22
Guaranteed Analysis	4.00	----	----	---	12.00	4.00

(a) Not registered.

(c) Wrong registration tags.

(d) Registration tags not attached.

Table 3.--FERTILIZER ANALYSES AND GUARANTEES; SPRING, 1947, (Continued)

Manufacturer, Brands, and Dealer or Purchaser	Nitrogen		Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Water
	Total	Water Soluble to Total	Total in Bone	Insolu- ble	Avail- able	Soluble Potash
	%	%	%	%	%	K <sub>2</sub> O %
<b>Westover Nursery</b>						
St. Louis, Mo.						
<u>Rosegro:</u>						
Westover Nursery, St. Louis (d) (f) . . . . .	4.30	28.8	24.10	----	----	----
Guaranteed Analysis . . . . .	3.30	----	25.00	----	----	----
<u>Wesgro Brand Cattle Manure:</u>						
Westover Nursery, St. Louis (d) . . . . .	2.12	9.9	----	0.25	1.20	2.87
Guaranteed Analysis . . . . .	1.00	----	----	---	1.00	2.00

(d) Registration tags not attached.

(f) Labels partly wrong.

Table 4.--FERTILIZERS, WITH GUARANTEED ANALYSES, REGISTERED AND OFFERED FOR SALE IN MISSOURI, 1948

Manufacturer and Brand Names	Nitrogen %	Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )			Potash (K <sub>2</sub> O) %
		Total in Bone %	Avail- able %	Insolu- ble %	
<b>J. C. Adderley &amp; Associates</b> Molino, Fla.					
Vitaloid Phosphate . . . . .	----	----	----	20.00	----
Total Phosphoric Acid equivalent to . . . . .	----	----	----	20.00	----
<b>Agricultural Minerals Co.</b> Montgomery, Ala.					
Agri-Mins (Minor Agricultural Minerals) . . . . .	0.00	0.00	0.00	0.00	0.00
<b>Allied Chemical &amp; Dye Corp.</b> New York, N. Y.					
Arcadian the American Nitrate of Soda . . . . .	16.00	----	----	----	----
<b>American Agricultural Chemical Co.</b> National Stock Yards, Ill.					
Phosphate Rock, Ground Florida Pebble . . . . .	----	----	3.00	28.00	----
18% Normal Superphosphate 0-18-0 . . . . .	----	----	18.00	----	----
Agrico Phosphate & Potash 0-12-12 . . . . .	----	----	12.00	----	12.00
A. A. Quality Fertilizer 0-12-12 . . . . .	----	----	12.00	----	12.00
Agrico Alkaline 0-10-20 . . . . .	----	----	10.00	----	20.00
Agrico Phosphate & Potash 0-14-7 . . . . .	----	----	14.00	----	7.00
A. A. Quality Fertilizer 0-14-7 . . . . .	----	----	14.00	----	7.00
A. A. Quality Fertilizer 0-10-20 . . . . .	----	----	10.00	----	20.00
Agrico For Grain 2-12-6 . . . . .	2.00	----	12.00	----	6.00
Agrico For Corn 2-12-6 . . . . .	2.00	----	12.00	----	6.00
A. A. Quality Fertilizer 2-12-6 . . . . .	2.00	----	12.00	----	6.00
Agrico For Corn 3-14-6 . . . . .	3.00	----	14.00	----	6.00
Agrico For Cotton 3-9-18 . . . . .	3.00	----	9.00	----	18.00
A. A. Quality Fertilizer 3-9-18 . . . . .	3.00	----	9.00	----	18.00
Agrico For Midwest 3-12-12 . . . . .	3.00	----	12.00	----	12.00
A. A. Quality Fertilizer 3-12-12 . . . . .	3.00	----	12.00	----	12.00
Agrico For Cereals 4-12-4 . . . . .	4.00	----	12.00	----	4.00
A. A. Quality Fertilizer 4-12-4 . . . . .	4.00	----	12.00	----	4.00
Agrico For Truck 4-12-8 . . . . .	4.00	----	12.00	----	8.00
Agrico Top Dresser 8-8-8 . . . . .	8.00	----	8.00	----	8.00
Agrico For Gardens 4-12-4 . . . . .	4.00	----	12.00	----	4.00
Agrico For Lawns, Trees & Shrubs 6-10-4 . . . . .	6.00	----	10.00	----	4.00
<b>American Cyanamid Co.</b> New York, N. Y.					
20.6% Aero Cyanamid, Granular . . . . .	20.60	----	----	----	----
Aero-Phos Florida Natural Phosphate . . . . .	----	----	3.00	30.00	----
			(Equivalent to 33% total Phosphoric Acid.)		
<b>American Liquid Fertilizer Co.</b> Marietta, Ohio					
Liqua-Vita . . . . .	6.00	----	9.00	----	7.00
<b>Arkansas Fertilizer Co.</b> Little Rock, Ark.					
White Diamond 0-10-20 . . . . .	----	----	10.00	----	20.00
White Diamond 0-12-12 . . . . .	----	----	12.00	----	12.00
White Diamond 0-14-7 . . . . .	----	----	14.00	----	7.00
White Diamond 2-12-6 . . . . .	2.00	----	12.00	----	6.00
White Diamond 3-9-18 . . . . .	3.00	----	9.00	----	18.00
White Diamond 3-12-12 . . . . .	3.00	----	12.00	----	12.00

Table 4.--FERTILIZERS, WITH GUARANTEED ANALYSES, REGISTERED AND OFFERED FOR SALE IN MISSOURI; 1948 (Continued)

Manufacturer and Brand Names	Nitrogen %	Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )			Potash (K <sub>2</sub> O) %
		Total in Bone %	Avail- able %	Insolu- ble %	
White Diamond 4-12-4 . . . . .	4.00	----	12.00	----	12.00
White Diamond 5-10-10 . . . . .	5.00	----	10.00	----	10.00
White Diamond 20% Superphosphate . . . . .	----	----	20.00	0.50	----
Triangle Brand 20% Superphosphate . . . . .	----	----	20.00	0.50	----
White Diamond 45% Superphosphate . . . . .	----	----	45.00	0.50	----
White Diamond 22% Manure Salts . . . . .	----	----	----	----	22.00
White Diamond 25% Manure Salts . . . . .	----	----	----	----	25.00
White Diamond 30% Manure Salts . . . . .	----	----	----	----	30.00
White Diamond 50% Muriate of Potash . . . . .	----	----	----	----	50.00
White Diamond 4-16-0 . . . . .	4.00	----	16.00	----	----
Nitrate of Soda, 16% . . . . .	16.00	----	----	----	----
Ammonium Nitrate, 32 1/2% . . . . .	32.50	----	----	----	----
White Diamond 8-8-8 . . . . .	8.00	----	8.00	----	8.00
<b>Armour Fertilizer Works</b>					
East St. Louis, Ill.					
Armour's Big Crop 20% Superphosphate . . . . .	----	----	20.00	----	----
Armour's Big Crop 0-12-12 . . . . .	----	----	12.00	----	12.00
Armour's Big Crop 0-14-7 . . . . .	----	----	14.00	----	7.00
Armour's Big Crop 2-12-6 . . . . .	2.00	----	12.00	----	6.00
Armour's Big Crop 3-9-18 . . . . .	3.00	----	9.00	----	18.00
Armour's Big Crop 3-12-8 . . . . .	3.00	----	12.00	----	8.00
Armour's Big Crop 3-12-12 . . . . .	3.00	----	12.00	----	12.00
Armour's Big Crop 4-8-8 . . . . .	4.00	----	8.00	----	8.00
Armour's Big Crop 4-12-4 . . . . .	4.00	----	12.00	----	4.00
Armour's Big Crop 4-16-0 . . . . .	4.00	----	16.00	----	----
Armour's Big Crop 8-8-8 . . . . .	8.00	----	8.00	----	8.00
Armour's Big Crop 8-8-8s . . . . .	8.00	----	8.00	----	8.00s
Armour's Big Crop 10-6-4 . . . . .	10.00	----	6.00	----	4.00
Armour's Velvetgreen 5-10-5 . . . . .	5.00	----	10.00	----	5.00
Armour's Special Ornamental 10-8-6 . . . . .	10.00	----	8.00	----	6.00
Armour's Pulverized Sheep Manure . . . . .	1.50	----	1.00	----	2.00
Armour's Shredded Cattle Manure . . . . .	1.50	----	1.00	----	1.00
Ammonium Nitrate 32.5% . . . . .	32.50	----	----	----	----
Nitrate of Soda 16% . . . . .	16.00	----	----	----	----
Cyanamid 20.6% . . . . .	20.60	----	----	----	----
Armour's Steam Bone Meal . . . . .	2.00	27.00	----	----	----
<b>Associated Cooperatives, Inc.</b>					
Sheffield, Ala.					
Ammonium Nitrate Fertilizer . . . . .	32.50	----	----	----	----
<b>Atkins and Durbrow</b>					
New York, N. Y.					
Driconure . . . . .	2.00	----	1.00	----	1.00
<b>Best Bros. Plant Foods, Inc.</b>					
St. Joseph, Mo.					
Best Bros. 'Best Bet' Plant Food 0-12-12 . . . . .	----	----	12.00	----	12.00
Best Bros. 'Best Bet' Plant Food 0-14-7 . . . . .	----	----	14.00	----	7.00
Best Bros. 'Best Bet' Plant Food 0-20-10 . . . . .	----	----	20.00	----	10.00
Best Bros. 'Best Bet' Plant Food 0-20-20 . . . . .	----	----	20.00	----	20.00
Best Bros. 'Best Bet' Plant Food 2-12-6 . . . . .	2.00	----	12.00	----	6.00
Best Bros. 'Best Bet' Plant Food 3-12-12 . . . . .	3.00	----	12.00	----	12.00
Best Bros. 'Best Bet' Plant Food 4-12-4 . . . . .	4.00	----	12.00	----	4.00
Best Bros. 'Best Bet' Plant Food 4-8-4 . . . . .	4.00	----	8.00	----	4.00
Best Bros. 'Best Bet' Plant Food 5-10-10 . . . . .	5.00	----	10.00	----	10.00
Best Bros. 'Best Bet' Plant Food 0-20-0 . . . . .	----	----	20.00	----	----



Table 4.--FERTILIZERS, WITH GUARANTEED ANALYSES, REGISTERED AND OFFERED FOR SALE IN MISSOURI; 1948 (Continued)

Manufacturer and Brand Names	Nitrogen %	Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )			Potash (K <sub>2</sub> O) %
		Total in Bone %	Avail- able %	Insolu- ble %	
<b>Central Farmers Fertilizer Co.</b> Chicago, Ill.					
Concentrated Superphosphate 45%	----	----	45.00	----	----
Concentrated Superphosphate 46%	----	----	46.00	----	----
Concentrated Superphosphate 47%	----	----	47.00	----	----
Concentrated Superphosphate 48%	----	----	48.00	----	----
Ammonium Nitrate	32.50	----	----	----	----
<b>Chilean Nitrate Sales Corp.</b> New York, N. Y.					
Chilean Nitrate of Soda - Champion Brand	16.00	----	----	----	----
<b>Colorado Fuel &amp; Iron Corp.</b> Denver, Colorado					
Silver Tip Sulphate of Ammonia	20.50	----	----	----	----
<b>Cloverset Flower Farm</b> Kansas City, Mo.					
Cloverset Rose Grower	5.00	----	10.00	----	5.00
<b>Consumers' Cooperative Ass'n.</b> Kansas City, Mo.					
Central Farmers Fertilizer Co. Triple Superphosphate	----	----	45.00	1.50	----
Central Farmers Fertilizer Co. Triple Superphosphate	----	----	46.00	1.50	----
Central Farmers Fertilizer Co. Triple Superphosphate	----	----	47.00	1.50	----
Central Farmers Fertilizer Co. Ammonium Nitrate	32.50	----	----	----	----
<b>Cotton Producers Ass'n.</b> Carrollton, Ga.					
Co-op 20% Acid Phosphate	----	----	20.00	0.10	----
Co-op 19% Acid Phosphate	----	----	19.00	0.10	----
Co-op 18% Acid Phosphate	----	----	18.00	0.15	----
<b>Dannen Mills, Inc.</b> St. Joseph, Mo.					
Dannen Fertilizer 4-12-4	4.00	----	12.00	----	4.00
Dannen Fertilizer 2-12-6	2.00	----	12.00	----	6.00
Dannen Fertilizer 4-16-0	4.00	----	16.00	----	----
Dannen Fertilizer 0-19-0	----	----	19.00	----	----
Dannen Fertilizer 5-10-5	5.00	----	10.00	----	5.00
Dannen Fertilizer 0-14-7	----	----	14.00	----	7.00
<b>Darling &amp; Co.</b> East St. Louis, Ill.					
Darling's 4-16-0	4.00	----	16.00	----	----
Darling's Four Twelve Eight 4-12-8	4.00	----	12.00	----	8.00
Darling's Field Marshal 4-12-4	4.00	----	12.00	----	4.00
Darling's Big Potash 3-9-18	3.00	----	9.00	----	18.00
Darling's Sure Winner 3-12-12	3.00	----	12.00	----	12.00
Darling's Three Twelve Eight 3-12-8	3.00	----	12.00	----	8.00
Darling's Three Twelve Four 3-12-4	3.00	----	12.00	----	4.00
Darling's Crop King 2-12-6	2.00	----	12.00	----	6.00
Darling's Fourteen Seven 0-14-7	----	----	14.00	----	7.00
Darling's Twelve Twelve 0-12-12	----	----	12.00	----	12.00
Darling's 20% Superphosphate 0-20-0	----	----	20.00	----	----

Table 4. --FERTILIZERS, WITH GUARANTEED ANALYSES, REGISTERED AND OFFERED FOR SALE IN MISSOURI; 1948 (Continued)

Manufacturer and Brand Names	Nitrogen %	Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )			Potash (K <sub>2</sub> O) %
		Total in Bone %	Avail- able %	Insolu- ble %	
<b>Davison Chemical Corp.</b> Nashville, Tenn.					
Davco Granulated Superphosphate 20% . . . . .	----	----	20.00	----	----
Davco Red Diamond Fertilizer . . . . .	4.00	----	12.00	1.00	4.00
Davco Red Diamond Fertilizer . . . . .	2.00	----	12.00	1.00	6.00
Davco Red Diamond Fertilizer . . . . .	----	----	14.00	1.00	4.00
<b>Delta Fertilizer Co.</b> Helena, Ark.					
Fruits-All Brand (3-9-18) . . . . .	3.00	----	9.00	----	18.00
Fruits-All Brand (6-8-12) . . . . .	6.00	----	8.00	----	12.00
Fruits-All Brand (4-12-4) . . . . .	4.00	----	12.00	----	4.00
<b>DuPont de Nemours &amp; Co.</b> Wilmington, Del.					
Du Pont Uramon Fertilizer Compound . . . . .	42.00	----	----	----	----
<b>Ellis Chemical Co., Inc.</b> Jeffersonville, Ind.					
Ellis Fertilizer 2-12-6 . . . . .	2.00	----	12.00	----	6.00
Ellis Fertilizer 3-12-12. . . . .	3.00	----	12.00	----	12.00
Ellis Fertilizer 6-8-6 . . . . .	6.00	----	8.00	----	6.00
Ellis Fertilizer 3-18-9 . . . . .	3.00	----	18.00	----	9.00
<b>Excell Laboratories</b> Chicago, Ill.					
"New Plant Life" . . . . .	2.00	----	1.00	----	2.00
<b>Farm Bureau Service Co. of Mo., Inc.</b> Jefferson City, Mo.					
Granulated 20% Superphosphate. . . . .	----	----	20.00	----	----
<b>Ford Motor Co.</b> Dearborn, Mich.					
Ford Ammonium Sulphate. . . . .	20.80	----	----	----	----
<b>Gaylord Chemical Co.</b> Kansas City, Mo.					
Sup-ro . . . . .	4.00	----	4.00	----	4.00
<b>Goulard &amp; Olena</b> Skillman, N. J.					
G & O Rose Food . . . . .	7.00	----	8.00	----	5.00
G & O Dahlia Food . . . . .	5.00	----	6.00	----	15.00
G & O Rhodo & Azalea Food . . . . .	3.00	----	20.00	----	3.00
G & O Tree Food . . . . .	9.00	----	7.00	----	3.00
<b>J. Harris Manure Co.</b> East St. Louis, Ill.					
Sheep Manure. . . . .	2.00	----	1.00	----	2.00
Cattle Manure . . . . .	2.00	----	1.00	----	2.00
<b>Harwick Chemical Co.</b> Butler, Mo.					
Ammonium Nitrate Fertilizer . . . . .	32.50	----	----	----	----

Table 4.--FERTILIZERS, WITH GUARANTEED ANALYSES, REGISTERED AND OFFERED FOR SALE IN MISSOURI; 1948 (Continued)

Manufacturer and Brand Names	Nitrogen %	Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Potash (K <sub>2</sub> O) %
		Total in Bone %	Avail- able %	Insolu- ble %	
<b>A. H. Hoffman, Inc.</b> Landisville, Pa.					
Hoffman Bone Meal . . . . .	3.70	20.00	----	----	----
Hoffman Cow Manure (Dehydrated) . . . . .	2.00	----	1.00	----	1.00
Hoffman Sheep Manure (Kiln-Dried) . . . . .	1.50	----	1.00	----	2.00
Hoffman Poultry Manure (Dehydrated) . . . . .	3.00	----	1.00	----	1.50
<b>International Mineral &amp; Chemical Corp.</b> Chicago, Ill.					
Sul-Po-Mag (Sulphate of Potash Magnesia) (Contains 18.50% Water Soluble MgO) . . . . .	----	----	----	----	21.50
<b>Interstate Mills</b> Cairo, Ill.					
Interstate Sulphate of Ammonia . . . . .	20.50	----	----	----	----
Interstate Muriate of Potash . . . . .	----	----	----	----	60.00
Interstate Super Phosphate 20% . . . . .	----	----	20.00	----	----
Interstate Brand 4-12-4 . . . . .	4.00	----	12.00	----	4.00
Interstate Brand 5-10-5 . . . . .	5.00	----	10.00	----	5.00
Interstate Brand 4-16-0 . . . . .	4.00	----	16.00	----	----
Interstate Brand 2-12-6 . . . . .	2.00	----	12.00	----	6.00
Interstate Brand 0-20-0 . . . . .	----	----	20.00	----	----
Interstate Brand Superphosphate 18% . . . . .	----	----	18.00	----	----
<b>The Kellog Co.</b> Ocala, Fla.					
Kel-Phos Fertilizer Grade . . . . .	----	----	2.00	18.00	----
			(Equivalent to 20% P <sub>2</sub> O <sub>5</sub> )		
<b>Kansas City Fertilizer Co.</b> Kansas City, Mo.					
Archer Brand Sheep Manure . . . . .	2.00	----	1.00	----	2.00
Archer Brand Cattle Manure . . . . .	2.00	----	1.00	----	1.00
<b>Lange Bros.</b> St. Louis, Mo.					
Lange Brothers (LB) 10-6-4 . . . . .	10.00	----	6.00	0.30	4.00
Lange Brothers (LB) 8-8-8 . . . . .	8.00	----	8.00	0.30	8.00
Lange Brothers (LB) 4-12-8 . . . . .	4.00	----	12.00	0.50	8.00
Lange Brothers (LB) 4-12-4 . . . . .	4.00	----	12.00	0.50	4.00
Lange Brothers (LB) 3-12-12 . . . . .	3.00	----	12.00	0.50	12.00
Lange Brothers (LB) 3-9-18 . . . . .	3.00	----	9.00	0.40	18.00
Lange Brothers (LB) 2-12-6 . . . . .	2.00	----	12.00	0.50	6.00
Lange Brothers (LB) 0-20-10 . . . . .	----	----	20.00	0.50	10.00
Lange Brothers (LB) 0-12-12 . . . . .	----	----	12.00	0.50	12.00
Lange Brothers (LB) 0-14-7 . . . . .	----	----	14.00	0.50	7.00
Lange Brothers (LB) 0-9-27 . . . . .	----	----	9.00	0.40	27.00
Lange Brothers (LB) 0-20-0 . . . . .	----	----	20.00	0.50	----
Lange Brothers (LB) 0-45-0 . . . . .	----	----	45.00	0.50	----
<b>Lion Oil Co.</b> Eldorado, Ark.					
Lion Ammonium Nitrate Fertilizer . . . . .	32.50	----	----	----	----
Lion Ammonium Nitrate Fertilizer . . . . .	33.50	----	----	----	----

Table 4.--FERTILIZERS, WITH GUARANTEED ANALYSES, REGISTERED AND OFFERED FOR SALE IN MISSOURI; 1948 (Continued)

Manufacturer and Brand Names	Nitrogen %	Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )			Potash (K <sub>2</sub> O) %
		Total in Bone %	Avail- able %	Insolu- ble %	
<b>Lyons Fertilizer Co.</b> Tampa, Fla.					
Lyons Mixture #1	2.00	----	12.00	----	6.00
Lyons Mixture #2	3.00	----	12.00	----	12.00
Lyons Mixture #3	3.00	----	12.00	----	6.00
Lyons Mixture #4	3.00	----	12.00	----	8.00
Lyons Mixture #5	4.00	----	16.00	----	----
Lyons Mixture #6	4.00	----	12.00	----	4.00
Lyons Mixture #7	4.00	----	12.00	----	8.00
Lyons Mixture #8	----	----	14.00	----	7.00
Lyons Mixture #9	6.00	----	12.00	----	6.00
Lyons Superphosphate	----	----	20.00	----	----
<b>McCormick &amp; Co., Inc.</b> Baltimore, Md.					
Hy-gro	13.00	----	26.00	----	13.00
<b>Midwestern Phosphate Corp.</b> Madison, Wis.					
Midwestern 20% Superphosphate	----	----	20.00	----	----
<b>Milwaukee Sewerage Commission</b> Milwaukee, Wis.					
Milorganite	6.00	----	2.00	0.75	----
<b>Missouri Chemical Co.</b> Joplin, Mo.					
Merco 20% Superphosphate	----	----	20.00	----	----
Merco 4-16-0	4.00	----	16.00	----	----
Merco 4-12-4	4.00	----	12.00	----	4.00
Merco 5-10-10	5.00	----	10.00	----	10.00
Merco 2-12-6	2.00	----	12.00	----	6.00
<b>M.F.A. Plant Foods Division</b> Springfield, Mo.					
MFA Plant Food 0-20-0	----	----	20.00	----	----
MFA Plant Food 0-14-7	----	----	14.00	----	7.00
MFA Plant Food 2-12-6	2.00	----	12.00	----	6.00
MFA Plant Food 3-12-12	3.00	----	12.00	----	12.00
MFA Plant Food 4-12-4	4.00	----	12.00	----	4.00
MFA Plant Food 4-12-8	4.00	----	12.00	----	8.00
MFA Plant Food 8-8-8	8.00	----	8.00	----	8.00
<b>"Na-Churs" Plant Food Co.</b> Marion, Ohio					
"Na-Churs" Plant Food 5-10-5	5.00	----	10.00	----	5.00
"Na-Churs" Plant Food 5-5-10	5.00	----	5.00	----	10.00
<b>Planetary Chemical Co.</b> Creve Coeur, Mo.					
Pop-up Plant Starter	10.00	----	52.00	----	17.00
Planetizer 1735	17.50	----	35.00	----	17.50
Planetizer 20	20.00	----	20.00	----	20.00
Planetizer 21	21.00	----	21.00	----	21.00
Planetizer 8-8-8 Liquid	8.00	----	8.00	----	8.00
Planetizer 5-10-5 Liquid	5.00	----	10.00	----	5.00

Table 4.--FERTILIZERS, WITH GUARANTEED ANALYSES, REGISTERED AND OFFERED FOR SALE IN MISSOURI; 1948 (Continued)

Manufacturer and Brand Names	Nitrogen %	Phosphoric Acid P <sub>2</sub> O <sub>5</sub>			Potash (K <sub>2</sub> O) %
		Total in Bone %	Avail- able %	Insolu- ble %	
Plantabbs Co. Baltimore, Md.					
Fulton's Plantabbs . . . . .	11.00	----	15.00	----	20.00
The Pulverized Manure Co. East St. Louis, Ill.					
Wizard Brand Pulverized Sheep Manure . . . . .	2.00	----	1.00	----	2.00
Wizard Brand Cow Manure . . . . .	2.00	----	1.00	----	1.00
Ralston-Purina Co. St. Louis, Mo.					
Purina Plant Food . . . . .	5.00	----	10.00	1.00	5.00
Ra-Pid-Gro Corp. Dansville, N. Y.					
Ra-Pid-Gro . . . . .	23.00	----	21.00	----	17.00
C. M. Reed & Son Carthage, Mo.					
Kalosecta 4-12-4 . . . . .	4.00	----	12.00	1.00	4.00
Rose Mfg. Co. Beacon, N. Y.					
Triogen Rose Food . . . . .	5.00	----	10.00	----	5.00
Ruhm Phosphate & Chem. Co. Mt. Pleasant, Tenn.					
Red Seal Brand - Ruhm's Phosphate Rock 30%. . . . .	----	----	3.00	27.00	----
Schrock Fertilizer Service Congerville, Ill.					
Powdered Phosphate Rock . . . . .	----	----	3.00	29.00	----
			(Equivalent to 32% total P <sub>2</sub> O <sub>5</sub> .)		
O. M. Scott & Sons Co. Marysville, Ohio					
Scotts Turf Builder . . . . .	8.00	----	----	----	3.00
Scotts Lawn Food plus Weed Control . . . . .	7.00	----	11.00	----	5.00
Sears Roebuck & Co. Chicago, Ill.					
Garden Master Sheep Manure . . . . .	1.75	----	0.80	----	3.00
Cross Country Bulb Food 4-12-8 . . . . .	4.00	----	12.00	----	8.00
Cross Country Plant Food 4-12-4 . . . . .	4.00	----	12.00	----	4.00
Cross Country Evergreen Food 8-6-4. . . . .	8.00	----	6.00	----	4.00
Cross Country Sheep Manure . . . . .	1.50	----	1.00	----	2.00
Cross Country Peat Manure . . . . .	1.00	----	2.00	----	1.00
Cross Country Sulfate of Ammonia. . . . .	20.00	----	----	----	----
Cross Country Cow Manure . . . . .	1.75	----	1.00	----	2.00
Cross Country Steamed Bone Meal. . . . .	2.00	0.20	----	----	----
Cross Country Rose Food. . . . .	5.00	----	10.00	----	5.00
Cross Country Liquid Plant Food (Nitrogen, Nitric, 4%; Nitrogen, Ammonic, 6%). . . . .	10.00	----	5.00	----	5.00

Table 4.--FERTILIZERS, WITH GUARANTEED ANALYSES, REGISTERED AND OFFERED FOR SALE IN MISSOURI; 1948 (Continued)

Manufacturer and Brand Names	Nitrogen %	Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )			Potash (K <sub>2</sub> O) %
		Total in Bone %	Avail- able %	Insolu- ble %	
<b>Smith Agricultural Chemical Co.</b> Columbus, Ohio					
Sacco . . . . .	4.00	----	12.00	----	4.00
Wedo. . . . .	6.00	----	10.00	----	4.00
<b>Southern Acid &amp; Sulphur Co.</b> Houston, Texas					
Ammonium Phosphate-Sulfate . . . . .	16.00	----	20.00	1.00	----
20% Superphosphate . . . . .	----	----	20.00	1.00	----
<b>Spencer Chemical Co.</b> Pittsburg, Kansas					
Ammonium Nitrate (Fertilizer Grade) . . . . .	33.50	----	----	----	----
<b>Standard Wholesale Phosphate &amp; Acid Works, Inc.</b> Baltimore, Md.					
Standard 0-14-7 . . . . .	----	----	14.00	----	7.00
Standard 2-12-6 . . . . .	2.00	----	12.00	----	6.00
Standard 3-12-6 . . . . .	3.00	----	12.00	----	6.00
Standard 4-12-4 . . . . .	4.00	----	12.00	----	4.00
Standard 5-10-5 . . . . .	5.00	----	10.00	----	5.00
Standard 6-8-6 . . . . .	6.00	----	8.00	----	6.00
Standard 10-6-4 . . . . .	10.00	----	6.00	----	4.00
Standard 20% Superphosphate . . . . .	----	----	20.00	----	----
Standard 3-12-12 . . . . .	3.00	----	12.00	----	12.00
Standard 0-12-12 . . . . .	----	----	12.00	----	12.00
Standard 0-20-10 . . . . .	----	----	20.00	----	10.00
<b>Swift &amp; Co., Plant Food Division</b> National Stock Yards, Ill.					
Vigoro . . . . .	4.00	----	12.00	----	4.00
Brimm . . . . .	4.00	----	12.00	----	8.00
Red Steer 4-12-8 . . . . .	4.00	----	12.00	----	8.00
Red Steer 4-12-4 . . . . .	4.00	----	12.00	----	4.00
Red Steer 2-12-6 . . . . .	2.00	----	12.00	----	6.00
Red Steer 0-14-7 . . . . .	----	----	14.00	----	7.00
Red Steer Superphosphate 20% . . . . .	----	----	20.00	----	----
Red Steer 6-8-6 (Tobacco Grower) . . . . .	6.00	----	8.00	----	Muriate 3.00 Sulphate 3.00
Ammonium Nitrate . . . . .	33.50	----	----	----	----
Nitrate of Soda . . . . .	16.00	----	----	----	----
Pulverized Sheep & Cattle Manure . . . . .	1.50	----	1.00	----	1.75
Cyanamid . . . . .	21.00	----	----	----	----
Red Steer 3-12-6 . . . . .	3.00	----	12.00	----	6.00
<b>Temple Cotton Oil Co.</b> Little Rock, Ark.					
Quapaw 6-8-12 . . . . .	6.00	----	8.00	----	12.00
Quapaw 3-9-18 . . . . .	3.00	----	9.00	----	18.00
Quapaw 4-12-4 . . . . .	4.00	----	12.00	----	4.00
Quapaw 0-10-20 . . . . .	----	----	10.00	----	20.00
Muriate of Potash . . . . .	----	----	----	----	50.00
Kainit . . . . .	----	----	----	----	22.00
Superphosphate . . . . .	----	----	20.00	----	----
<b>Tennessee Corp.</b> Lockland, Ohio					
Loma 5-10-5 . . . . .	5.00	----	10.00	----	5.00
Loma 8-8-8 Mineralized . . . . .	8.00	----	8.00	----	8.00

Table 4.--FERTILIZERS, WITH GUARANTEED ANALYSES, REGISTERED AND OFFERED FOR SALE IN MISSOURI, 1948, (Continued)

Manufacturer and Brand Names	Nitrogen %	Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )			Potash (K <sub>2</sub> O) %
		Total in Bone %	Avail- able %	Insolu- ble %	
Thompson Sales Co. Montgomery, Ala.					
Calphos. . . . .	----	----	2.00	16.00	----
(Equivalent to 18% total P <sub>2</sub> O <sub>5</sub> )					
Thomson Phosphate Co. Chicago, Ill.					
Top Yield Powdered Rock Phosphate . . . . .	----	----	2.00	29.00	----
(Equivalent to 31% total P <sub>2</sub> O <sub>5</sub> )					
Four Leaf Powdered Rock Phosphate . . . . .	----	----	2.00	28.00	----
(Equivalent to 30% total P <sub>2</sub> O <sub>5</sub> )					
Tri-State Packing Co. Joplin, Mo.					
Bone Meal . . . . .	2.00	27.00	----	----	----
Tyler Fertilizer Co. Tyler, Texas					
Heart Brand 3-9-18. . . . .	3.00	----	9.00	0.50	18.00
Heart Brand 0-10-20. . . . .	----	----	10.00	0.50	20.00
60% Muriate of Potash. . . . .	----	----	----	----	60.00
22% Manure Salts. . . . .	----	----	----	----	22.00
Virginia-Carolina Chem. Corp. East St. Louis, Ill.					
VC Phospho Tobacco Fertilizer 2-12-6. . . . .	2.00	----	12.00	----	6.00
VC Phospho Tobacco Fertilizer 4-12-8. . . . .	4.00	----	12.00	0.50	8.00
VC Phospho Tobacco Fertilizer 4-12-4. . . . .	4.00	----	12.00	0.50	4.00
VC Phospho Tobacco Fertilizer 0-14-7. . . . .	----	----	14.00	0.50	7.00
VC Phospho Tobacco Fertilizer 0-12-12. . . . .	----	----	12.00	0.50	12.00
VC Phospho Tobacco Fertilizer 3-12-12. . . . .	3.00	----	12.00	0.50	12.00
VC Phospho Tobacco Fertilizer 18% . . . . .	----	----	18.00	0.50	----
VC Fertilizer 10-6-4. . . . .	10.00	----	6.00	0.50	4.00
VC Fertilizer 4-16-0. . . . .	4.00	----	16.00	0.50	----
VC Fertilizer 3-12-12. . . . .	3.00	----	12.00	0.50	12.00
VC Fertilizer 4-12-4. . . . .	4.00	----	12.00	0.50	4.00
VC Fertilizer 4-12-8. . . . .	4.00	----	12.00	0.50	8.00
VC Fertilizer 2-12-6. . . . .	2.00	----	12.00	0.50	6.00
VC Fertilizer 0-12-12. . . . .	----	----	12.00	0.50	12.00
VC Fertilizer 0-14-7. . . . .	----	----	14.00	0.50	7.00
VC Fertilizer 8-8-8. . . . .	8.00	----	8.00	0.50	8.00
VC Good Luck Fish Pond Fertilizer. . . . .	10.00	----	6.00	0.50	4.00
VC 20% Superphosphate. . . . .	----	----	20.00	0.50	----
West Coast Fertilizer Co. Tampa, Fla.					
Special Mixture #1 . . . . .	3.00	----	12.00	----	12.00
Special Mixture #2 . . . . .	10.00	----	10.00	----	----
Ammoniated Superphosphate. . . . .	6.00	----	15.00	----	----
Westover Nursery St. Louis, Mo.					
Wesgro Cattle Manure. . . . .	1.00	----	1.00	----	2.00
Wesgro Sheep Manure. . . . .	2.00	----	1.00	----	2.00
Rosegro . . . . .	3.30	25.00	----	----	----
Special Rose Plant Food (A Blood and Bone Mixture) . . . . .	----	----	----	----	----
Woodruff & Sons, Inc. Milford, Conn.					
Gro-Sod Lawn Food. . . . .	10.00	----	6.00	----	4.00