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# **COMMERCIAL FERTILIZERS IN 1946-47**

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**AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS**

**GIBB GILCHRIST, President**

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## PREFACE

This is the 45th annual fertilizer bulletin. It contains information regarding the Texas fertilizer laws, statistics concerning the sale of fertilizer during the 1946-47 season, and analyses of samples of fertilizer sold by different manufacturers.

Fertilizer inspection tax tags equivalent to 401,297 tons of fertilizers were sold from September 1, 1946, through August 31, 1947. This tonnage was about 31 percent higher than that sold in 1945-1946. The 4-12-4 and 5-10-5 grades of mixed fertilizers accounted for about 86 percent of the mixed goods sold. Superphosphate (20 percent) and ammonium nitrate accounted for 80 percent of the fertilizer materials sold.

Tables are given which compare the valuations of the fertilizers sold by different manufacturers, as based upon actual analyses, with the guaranteed valuations and selling prices, and show the extent to which the various fertilizer manufacturers met or exceeded their guarantees.

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**COMMERCIAL FERTILIZERS IN 1946-47**

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Department of Agronomy**

This is the 45th annual fertilizer bulletin published in compliance with the Texas fertilizer law, which requires that the State Chemist shall issue at least one bulletin annually setting forth the analyses of fertilizers made under the provisions of the fertilizer law, the operations of the law, and other information pertaining to the sale of fertilizer in Texas.

**Some Requirements of the Texas Fertilizer Law**

The laws governing the sale of commercial fertilizers in Texas are found in Chapter Twelve of Title Nineteen of the Revised Criminal Statutes, 1925, and in Chapter Five of Title Four of Texas Civil Statutes, 1925. A summary of some important requirements of the law is given below. For further requirements of the law, penalties, definitions and other detailed information, reference should be made to the full text of the laws. Copies of these laws will be furnished by the State Chemist upon request.

**Materials covered by the law.** All mixed fertilizers and fertilizer materials and all other substances which have or are claimed to have a beneficial effect on the soil or to promote the growth of crops, come under this law, with the exceptions of lime, limestone, marl, unground bones, stockpen manure, barnyard manure, or the excrement of any domestic animal in case that said manure or excrement has not been dried or manipulated or otherwise treated, or is not claimed to have a value of more than \$4.00 a ton.

**Registration.** Before a fertilizer is offered for sale or is sold in Texas, it must be registered with the State Chemist of Texas. All registrations expire on August 31 of each year, and new applications for registration must be submitted for each year. Application blanks for registration are furnished by the State Chemist of Texas, College Station, Texas, upon request. One copy of the application blank must be filled out and sent to the State Chemist, together with a copy of the printed bag or tag to be used. Such bag or tag must meet the requirements of the fertilizer law. Wording on the printed bag or tag must agree exactly with the wording on the application for registration, and no change may be made in the wording of the bag or tag after it has been registered. Any such change requires a new registration.

The application for registration must state all of the materials used in the fertilizer, including the filler or conditioner, and these materials must be used in all batches. A change may be made only if the change meets the requirements of the law and the State Chemist is notified.

No brand name identical with or so similar to a brand name previously registered by another manufacturer as to lead to confusion can

be accepted. No name which is misleading as to the ingredients of the fertilizer can be accepted. The grade of mixed fertilizers should be part of the brand name, for example, Jupiter 20% Superphosphate or Mars 5-10-5 fertilizer.

**Branding.** The law requires the following information to be printed on the bag or on a tag attached to the bag:

Net weight of contents of the bag.

Name of fertilizer in full.

Name and address of manufacturer, manipulator, or guarantor.

Guaranteed analysis (in the order given below):

Nitrogen, percent

Available phosphoric acid, percent

Potash, percent

Nitrogen refers to the total nitrogen (N) present. Such terms as "ammonia" or "equivalent to ammonia" cannot be used.

Available phosphoric acid ( $P_2O_5$ ) must be guaranteed in all mixed fertilizers and in all fertilizer materials, with the following exceptions. Total phosphoric acid may be guaranteed in bone meal, tankage or other similar products, but where this is done, no guarantee of available phosphoric acid can be used. If it is desired to claim available phosphoric acid only, the guarantee must take the form set forth above.

Potash ( $K_2O$ ) refers to potash soluble in distilled water. No other guarantee or term can be used.

**Inspection tax tags.** In order to finance the inspection of fertilizers and the collection and analyses of official samples of fertilizer, experiments relative to the value of fertilizers, and for certain other purposes, the law imposes an inspection tax of 25 cents per ton upon all fertilizers sold or offered for sale in Texas. This tax is paid by means of tax tags issued by the State Chemist. Request for tags should be addressed to the State Chemist of Texas, College Station, Texas, accompanied by a remittance of \$12.50 for each 1,000 tags for 100-pound packages. Tags ordered without remittance will be shipped C.O.D. These tags must be attached to the bag by the manufacturer before shipment is made. Tax tags cannot be used after August 31 of the year issued, and the law does not permit the State Chemist to redeem any unused tax tags.

Tax tags do not need to be attached to fertilizer materials sold to manufacturers for manufacturing purposes only.

**Bulk sales.** Fertilizer in bulk for manufacturing purposes can be shipped only to the factory of a manufacturer who has registered fertilizer for sale in Texas.

Fertilizer in bulk cannot be sold to dealers, but dealers may register fertilizers in their own names and the fertilizer can then be sold after being bagged and tagged by them.

Fertilizer in bulk may be sold by manufacturers, manipulators, or guarantors to persons, individuals or firms for their own use on their own lands, but not for resale or distribution, provided authorization to

make such sales has been issued by the State Chemist. The inspection tax must be paid upon all such sales, and the purchaser must be furnished with tax tags covering the amount of fertilizer sold. All authorizations to sell fertilizer in bulk expire each August 31.

**Report of sales.** A report of each sale or shipment of fertilizer in or into Texas must be mailed to the State Chemist within three days of such sale or shipment. Reports of sales in bulk to manufacturers must be marked "for manufacturing purposes". Reports of sales in bulk to individuals for their own use on their own land must be marked "bulk sale to consumer". Summary reports of sales covering periods decided upon by the State Chemist may also be required.

#### Fertilizer Grades to Be Sold During 1947-1948

The grade of a mixed fertilizer is stated in numbers representing the guaranteed analysis as percentages of nitrogen, available phosphoric acid, and water-soluble potash. For example, a grade of 5-10-5 means that the fertilizer is guaranteed by the manufacturer to contain 5% nitrogen, 10% available phosphoric acid, and 5% potash. Fertilizers are frequently referred to by these numbers, which form a short and accurate description of the fertilizer. The term grade may also refer to the percentage of a constituent in a fertilizer material; as in 20% superphosphate. Wherever practicable, the grade of a fertilizer or fertilizer material should be included as part of the full name of the fertilizer required on the bag or tag.

The grades of mixed farm fertilizers sold in Texas have been limited in number for 20 years. This limitation and standardization assists the farmer to become familiar with the different kinds of fertilizer, enables him to decide more readily on the proper kind to be used, enables the agricultural specialist to make definite recommendations, and reduces the cost of manufacture and handling, thereby reducing the cost of the fertilizer to the consumer. The grades of mixed farm fertilizers to be sold in Texas during a given year are decided upon by the Texas Fertilizer Committee, after a public hearing at which manufacturers and others interested may present recommendations. This public hearing is usually held in cooperation with fertilizer control officials, agricultural specialists, and manufacturers of Texas, Louisiana, Arkansas, Oklahoma and New Mexico. The list of approved grades is published in the annual fertilizer bulletin and may also be obtained upon request sent to the State Chemist.

The grades of fertilizer approved by the Texas Fertilizer Committee for registration in Texas during the 1947-48 year are as follows:

0-14-7, 4-8-8, 4-12-4, 4-12-8, 5-10-5, 6-10-4, 6-12-0, 8-8-8, 8-16-8, 10-10-0, 10-20-0, 12-0-12.

The 16-20-0 grade is approved for registration as a material. This change in classification of 16-20-0 is made to conform with the classi-

fication used by the United States Department of Agriculture and the control officials of many other states.

### The Texas Fertilizer Committee

The Texas Fertilizer Committee, composed of agricultural subject matter specialists of the Agricultural and Mechanical College of Texas and representatives of the United States Department of Agriculture, is appointed by the Director of the Texas Agricultural Experiment Station to advise and assist the State Chemist of Texas in the discharge of certain of his duties, particularly with respect to grades of mixed fertilizer to be approved for registration during the coming year, and recommendations of grades to be used for various crops. This committee for the current fertilizer year is composed of the following individuals:

J. F. Fudge, State Chemist, Chairman  
 J. E. Adams, Head, Department of Agronomy  
 G. W. Adriance, Head, Department of Horticulture  
 F. R. Brison, Professor of Horticulture  
 E. A. Miller, Extension Agronomist  
 O. J. Moss, Production and Marketing Administration,  
     United States Department of Agriculture  
 E. B. Reynolds, Agronomist  
 J. F. Rosborough, Extension Horticulturist  
 M. K. Thornton, Extension Agricultural Chemist

### Brands and Trade-marks Registered with the State Chemist

The law prohibits the use of a brand or trade-mark identical with or so nearly similar to that of a name previously registered with the State Chemist as to lead to uncertainty, confusion or fraud, and requires the State Chemist to publish annually a list of brands or trade-marks registered with him. The following is a list of brands and trade-marks registered with the State Chemist during 1946-47:

Acid Earth	Fertilis	Marshall	Smith Gro-Green
Aero	Ferti-Lome	Min-Coll	Smith Gro-Grain
AleXite	Fidelity	Min-Sol	Smith Square Deal
All Crop	Ford	Milorganite	Smith Money Maker
All-Weather	Four Leaf	Mr. O	Smith Nitro-Phos
Arcadian	Fulton's Plantabbs	N. J.	Soiless-Hydroponics
Armstrong's Prescription	Goldenrod	Nulife	Soylaid
Arrow Standard	Green Acre	Old Black Joe	Star
Best Bet	Gro-Crop	Owl	Stauffer's
Big Crop	Heart	Pabak	Sulphur Earth
Bull Dog	Hu-Actinite	Palestine Blue Star	Swift's Red Steer
Burbank	Hy-Gro	Pic-Nic	T. C. C.
C. C. I.	Hyponex	Plant-Chem	Terra-Lite
Cal-Nitro	Hy-Trous	Purina	Texas Longhorn
Capitol	International	Quick-Mix	Thorobred
Champion	Interstate	Ra-Pid-Gro	Triple C
Chilean	K-W	Red Diamond	V-C
Clark's	La-Tex	Red Seal	Valley Growers
Co-op	Lawn Chem.	Red Star	Valley Port
Daveo	Lion	Red Tomato	Velvet Green
Dixie Leader	Liqua-Vita	Reliance	Victory
Double Circle	Liquinox	Ross	Vigoro
DuPont Uramon	Loma	Se-Bo-Phos	Weber-King
Etco	Lone Star	Silver Tip	White Diamond
Eureka	Lonfosco	Smith Big Yield	Wizard
	Longhorn		Wolf

### Inspection Tax Tag Sales During 1946-47 Season

Fertilizer inspection tax tags equivalent to a total of 401,297 tons of fertilizers were sold during the fertilizer year from September 1, 1946 through August 31, 1947. This tonnage is compared in Table 1 with tonnages sold during other years.

Table 1. Fertilizer tag sales, calculated to tonnage basis during different years

Year	Total tonnage
1905-06	18,500
1910-11	52,985
1915-16	21,500
1920-21	14,850
1925-26	121,747
1930-31	64,424
1932-33	30,845
1935-36	60,016
1941-42	134,560
1942-43	154,828
1943-44	196,877
1944-45	217,760
1945-46	305,510
1946-47	401,297

Cottonseed meal sold as feed but used as fertilizer is not included in tonnages. Sales during 1946-47 were about 31 percent higher than during 1945-46. Significant increases in sales have occurred nearly every year since the 1932-33 season, when the sales amounted to only about 8% of those during the past season.

### Tonnage Sales of Different Grades of Fertilizers

As shown in Table 1, 401,297 tons of fertilizer was sold during the year September 1, 1946 to August 31, 1947. The tonnage of different grades of mixed fertilizers and fertilizer materials for periods extending from July 1, 1946, to December 31, 1946, from January 1, 1947 to June 30, 1947, and the total from July 1, 1946 to June 30, 1947 are given in Table 2. These periods were used because they are in accord with the periods almost universally used by the fertilizer manufacturers, by the United States Department of Agriculture, and by many states, and are those recommended for national adoption by the Committee on Fertilizer Grades and Ratios of the American Society of Agronomy to provide a uniform basis for estimating the needs of the fertilizer industry of the United States. The tonnages are those compiled from current reports of sales of fertilizers sent to the State Chemist by fertilizer guarantors.

A total of 234,841 tons of mixed goods was sold during this period, July 1, 1946 to June 30, 1947 as shown in Table 2. The 4-12-4 grade amounted to 57 percent and the 5-10-5 grade amounted to 29 percent of this total. Thus, while 13 grades of mixed fertilizer were approved by the Texas Fertilizer Committee, 2 grades accounted for 86 percent of the total mixed goods sold. Four grades (including 6-12-0 and 4-8-8) accounted for over 95 percent of the total. A total of 115,745 tons of

Table 2. Mixed goods and materials sold from July 1, 1946 to June 30, 1947

	July 1, 1946	Jan. 1, 1947	Total
	Dec. 31, 1946	June 30, 1947	Tons
	Tons	Tons*	Tons
Mixed goods (total) .....	48,015	186,826	234,841
0-14-7 .....	1,168	1,510	2,678
4-8-8 .....	128	5,506	5,634
4-12-4 .....	30,668	104,852	135,520
5-10-5 .....	7,959	60,691	68,650
6-12-0 .....	6,590	6,611	13,201
6-12-4 (garden) .....	—	557	557
8-8-8 .....	50	114	164
10-10-0 .....	1,072	1,684	2,756
10-20-0 .....	—	107	107
16-20-0 .....	—	4,856	4,856
Specialties .....	380	338	718
Materials (total) .....	66,601	49,144	115,745
Ammonium nitrate .....	13,581	16,030	29,611
Nitrate of soda .....	558	1,027	1,585
Sulphate of ammonia .....	372	588	960
Other N carriers .....	435	471	906
Superphosphate, 18% .....	55	289	344
Superphosphate, 19% .....	1,485	108	1,593
Superphosphate, 20% .....	46,217	28,667	74,884
Superphosphate, 45% .....	3,868	1,854	5,722
Muriate of potash, 50% .....	1	13	14
Muriate of potash, 60% .....	29	59	88
Other potash carriers .....	—	38	38
Other products under law .....	10,113	16,341	26,454
Ground rock phosphate .....	402	1,078	1,480
Soft phosphate with colloidal clay .....	774	6,109	6,883
Packaged manures .....	89	202	291
Activated sludge .....	178	303	481
Bone meal and flour .....	59	72	131
Sulphur .....	6,006	5,164	11,170
Others .....	2,605	3,413	6,018
Total fertilizer .....	124,729	252,311	377,040
Superphosphate, 20%, owned and distributed by U. S. Department of Agriculture .....	18,200	9,720	27,920

fertilizer materials were sold (not including 27,920 tons of 20% superphosphate owned and distributed by the Production and Marketing Administration). Of this quantity 18%, 19% and 20% superphosphate amounted to 66 percent and ammonium nitrate, to 26 percent. Other products coming under the law accounted for 26,454 tons. Of this quantity, sulphur accounted for about 42 percent and soft phosphate with colloidal clay for 26 percent.

The tonnages of the principal fertilizer constituents, calculated from the tonnages given in Table 2 and the guaranteed analyses of the goods, are given in Table 3. Nitrogen sold in materials almost equaled

Table 3. Principal fertilizer constituents sold from July 1, 1946 to June 30, 1947

	July 1, 1946	Jan. 1, 1947	Total
	Dec. 31, 1946	June 30, 1947	Tons
	Tons	Tons	Tons
Nitrogen			
In mixed goods .....	2,169	8,844	11,013
In materials .....	4,682	5,622	10,304
Total .....	6,851	14,466	21,317
Available phosphoric acid			
In mixed goods .....	5,607	21,334	26,941
In materials .....	11,321	6,653	17,974
Total .....	16,928	27,987	44,915
Water-soluble potash			
In mixed goods .....	1,732	7,806	9,538
In materials .....	18	25	43
Total .....	1,750	7,831	9,581

that sold in mixed goods. Available phosphoric acid sold in materials represented about 40 percent of the total sold. Practically no potash materials were sold during the year. Fall sales accounted for about 15 percent of the nitrogen, 38 percent of the available phosphoric acid, and 18 percent of the potash sold during the year.

### Valuation per Ton

The Texas fertilizer law permits a deficiency of less than 10 percent in one plant food to be compensated by an excess of another, but allows a deficiency of not more than 4 percent in the total valuation of the fertilizer. If the deficiency exceeds 4 percent of the valuation, a rebate must be paid by the manufacturers to the dealer or consumer. If paid to the dealer, the dealer must pay the refund to the purchaser. Both manufacturer and dealer must forward evidence of payment to the State Chemist. A calculation of the guaranteed valuation and of the valuation found in a given fertilizer sample must therefore be made. The valuation also sums up the value of the three principal constituents (nitrogen, available phosphoric acid, and potash) shown in the guarantee or found in the analysis into a single figure, which is convenient for comparative purposes.

The calculation of the valuation requires a specific valuation for each of the three constituents. The following prices per pound and per unit (1 percent of a ton, or 20 pounds) were used for this calculation in 1946-47.

	Price per pound	Price per unit
Nitrogen .....	\$ .13	\$ 2.60
Available phosphoric acid .....	.07	1.40
Total phosphoric acid in tankage and bone meal.....	.05	1.00
Total phosphoric acid in rock phosphate .....	.015	0.30
Potash .....	.07	1.40

The valuation is calculated by multiplying the percentage of each constituent by the valuation per unit, and adding the products. The following is an example of the calculation of the valuation of a 5-10-5 fertilizer:

Nitrogen .....	5 × \$2.60 = \$13.00
Available phosphoric acid .....	10 × 1.40 = 14.00
Potash .....	5 × 1.40 = 7.00
Guaranteed valuation	\$34.00

The valuation guaranteed and the valuation found are used for comparative purposes in a number of the following tables.

### Composition and Selling Prices of Different Grades of Fertilizers

The average composition, the guaranteed valuation, the valuation found by analysis, and the average retail selling price per ton, of various grades of fertilizers are shown in Table 4. The average retail selling price is the average of the cash retail price furnished to the fertilizer

Table 4. Average composition, valuation and selling prices of grades of fertilizers 1946-47

Grades of farm fertilizers	Number averaged	Nitrogen percent	Available phosphoric acid percent	Potash percent	Guaranteed valuation per ton	Valuation found per ton	Selling price per ton
0-14-7 .....	9	0.00	13.99	6.82	\$29.40	\$29.14	\$32.47
4-8-8 .....	62	3.92	8.30	7.45	32.80	32.18	38.60
4-12-4 .....	597	3.97	11.84	4.12	32.80	32.65	39.43
5-10-5 .....	425	4.82	9.95	5.10	34.00	33.62	41.66
6-12-0 .....	34	5.95	11.91	0.00	32.40	32.15	39.80
8-8-8 .....	2	7.22	8.12	8.17	43.20	41.57	45.55
10-10-0 .....	10	9.63	9.71	—	40.00	38.64	43.99
10-20-0 .....	1	12.67	19.84	—	54.00	60.72	65.00
16-20-0 .....	5	16.63	18.20	—	69.60	68.72	70.48
Ammonium nitrate, 32.5% .....	15	32.61	—	—	84.50	84.80	63.00
Ammonium sulphate, 20.8% .....	4	20.94	—	—	54.08	54.44	93.75
Cyanamid, 20.6% .....	1	20.26	—	—	53.56	52.68	—
Nitrate of soda, 16.0% .....	3	16.31	—	—	41.60	42.41	51.45
6-2-0 Milorganite .....	1	5.55	2.52	—	18.40	17.96	59.50
6-12-4 (garden) .....	5	5.94	11.97	4.11	38.00	37.95	57.86
Superphosphate, 18% .....	1	—	19.04	—	25.20	26.66	27.90
Superphosphate, 20% .....	39	—	19.83	—	28.00	27.77	29.93
Superphosphate, 45% .....	1	—	46.74	—	63.00	65.44	59.80
Superphosphate, 47% .....	1	—	47.31	—	65.80	66.23	—
Rock phosphate, 30% .....	1	—	29.98*	—	9.00	8.98	30.00
Rock phosphate, 33% .....	1	—	33.35*	—	9.90	10.01	38.00
Soft phosphate with colloidal clay, 18% .....	2	—	21.19*	—	5.40	6.36	30.00
Soft phosphate with colloidal clay, 20% .....	2	—	20.21*	—	6.00	6.07	28.79
Soft phosphate with colloidal clay, 22% .....	1	—	23.37*	—	6.60	7.01	23.00
Sheep manure 1.50-1.00-1.50 .....	1	1.83	1.33	3.50	7.40	11.65	36.00
Sheep manure 1.50-1.00-2.00 .....	1	1.48	1.44	2.16	8.10	8.89	60.00

\* Total phosphoric acid

inspector by the dealers. The prices of the same fertilizer may vary between towns on account of differences in cost of transportation, or for other causes. The retail price includes handling costs, carrying charges, and the dealer's profits, as well as the cost of the plant food used in the materials from which the fertilizer is made.

The average valuation found by analysis (Table 4) is slightly above the guaranteed valuation in most cases.

#### Average Cost of Nitrogen, Available Phosphoric Acid and Potash

The calculated retail cost of a pound of nitrogen, of available phosphoric acid and of potash, in cents per pound, as calculated from the cash selling price per ton of the various grades of fertilizer given in Table 4 and the guaranteed composition are shown in Table 5. For the purpose of these calculations, it was assumed that the prices were in the same ratio as the valuations. As the price of the same fertilizer may vary in different places, these figures are not correct for any particular locality, but represent averages only, and are for purposes of comparison. The prices were collected by the inspectors from retail merchants handling fertilizers. Grades used extensively near the factories might average a lower price than those used at a distance on

Table 5. Approximate average cost per pound of nitrogen, available phosphoric acid and potash during 1946-47

	Nitrogen Cents	Available phosphoric acid Cents	Potash Cents
Ammonium nitrate 32.5%	9.70	—	—
Superphosphate, 45%	—	6.64	—
16-20-0	13.17	7.09	—
8-8-8	13.70	7.38	7.38
Superphosphate, 20%	—	7.48	—
10-10-0	14.30	7.70	—
0-14-7	—	7.73	7.73
Superphosphate, 18%	—	7.75	—
4-8-8	15.30	8.24	8.24
4-12-4	15.63	8.41	8.41
10-20-0	15.65	8.43	—
5-10-5	15.93	8.58	8.58
6-12-0	15.96	8.60	—
Nitrate of soda, 16%	16.08	—	—
6-12-4 (garden)	19.80	10.66	10.66
Ammonium sulphate, 20.8%	22.54	—	—
6-2-0 (Milorganite)	42.04	22.64	—
Rock phosphate, 30%	—	5.00*	—
Soft phosphate with colloidal clay, 22%	—	5.23*	—
Rock phosphate, 33%	—	5.76*	—
Soft phosphate with colloidal clay, 20%	—	7.20*	—
Sheep manure 1.50-1.00-1.50	63.25	34.06	34.06
Soft phosphate with colloidal clay, 18%	—	8.33*	—
Sheep manure 1.50-1.00-2.00	96.29	51.85	51.85

\* Total phosphoric acid

account of lower transportation costs. The fertilizers with the lowest costs (of plant food) are given first in the table.

**Cost of nitrogen.** The cheapest source of nitrogen was ammonium nitrate, followed by 16-20-0, 8-8-8 and 10-10-0. Sheep manure was the most expensive source of nitrogen, but very little is used except for lawns and gardens. Of the farm fertilizers, 5-10-5 and 6-12-0 were the most expensive sources of nitrogen. Due to the cost of mixing, the cost of nitrogen was greater in most of the mixed fertilizers than in nitrogen materials.

**Cost of phosphoric acid.** The cheapest source of phosphoric acid was 45% superphosphate, followed in order by 16-20-0, 8-8-8 and 20% superphosphate. Phosphoric acid was most expensive in sheep manure, followed by 6-12-0, 5-10-5 and 10-20-0.

**Cost of potash.** 8-8-8 furnished the cheapest source of potash, followed by 0-14-7 and 4-8-8.

### Sulphur and Sulphur Carriers

Sulphur and sulphur carriers, while not usually considered fertilizers in the ordinary usage of the term, come within the jurisdiction of the Texas fertilizer law when applied to soils to promote the growth of crops. A total of 11,170 tons of sulphur and of 1,610 tons of sulphur earth were sold during the year, principally in the Lower Rio Grande Valley. The value of sulphur or of a material carrying sulphur for acidifying soils depends upon the quantity of sulphur and sulphuric

acid in the material. Four samples of soil sulphur were analyzed, with the following results:

	% Sulphur Guaranteed	% Sulphur Found
Kipfer Chemical Company .....	99.50	99.53
Southern Acid and Sulphur Company .....	99.50	99.81
Stauffer Chemical Company .....	99.50	99.51
Texas Gulf Sulphur Company .....	99.50	99.82

### Relation of Valuation Guaranteed to Valuation Found

The average valuation guaranteed by all manufacturers doing business in Texas, compared with the valuation found upon analysis, are shown in Table 6. In the preparation of this table, all analyses made

Table 6. Average valuation of all fertilizer guaranteed and found in dollars per ton  
1946-47

Manufacturer	Average valuation guaranteed	Average valuation found	Number averaged	No. of samples more than 4% below guarantee
American Cyanamid Company .....	\$31.73	\$31.35	2	0
Armour Fertilizer Works .....	32.53	32.52	248	14
Arkansas Fertilizer Company .....	28.00	28.71	1	0
Armstrong Prescription Fertilizer Works .....	9.00	8.98	1	0
Associated Cooperatives .....	74.45	75.26	4	0
Bryan Cotton Oil & Fertilizer Works .....	32.80	36.23	2	0
Campbell Fertilizer Company .....	32.80	32.38	5	1
Chilean Nitrate Sales Corporation .....	41.60	42.41	3	0
Colloidal Products Company .....	5.40	6.36	2	0
East Texas Products Company .....	33.36	33.41	45	0
Farm Services, Inc. ....	38.03	36.79	14	2
Farmers State Exchange, Inc. ....	32.80	31.82	1	0
Fidelity Chemical Corporation .....	33.50	32.96	67	4
Ford Motor Company .....	54.08	54.44	4	0
Gilmer Cotton Oil & Fertilizer Company .....	31.90	33.21	8	1
International Minerals & Chemical Corp. ....	33.12	32.64	76	9
Interstate By-Products Company .....	7.40	11.65	1	0
Jacksonville Fertilizer Works .....	33.00	31.54	6	3
Kelly-Weber & Company, Inc. ....	32.00	32.37	16	0
Kipfer Chemical Company .....	28.00	28.38	1	0
Lake Charles Feed Company .....	32.80	34.77	1	0
La-Tex Fertilizer Works .....	32.86	32.38	42	5
Lion Oil Company .....	84.50	84.79	8	0
Marshall Cotton Oil Company .....	33.35	31.08	13	6
Mora C. Clark .....	6.00	5.95	1	0
Niagara Sprayer & Chemical Company .....	28.00	28.80	1	0
Oil Mill & Fertilizer Works .....	32.80	32.14	8	0
Pittsburg Cotton Oil Company .....	33.28	33.81	10	1
Ralston Purina Company .....	34.00	33.40	11	0
Red Star Fertilizer Works .....	33.30	32.35	58	11
Robin Jones Phosphate Company .....	6.60	7.01	1	0
The Rowland Fertilizer Company .....	64.40	62.94	3	1
Sea Board Sales Company .....	6.00	6.18	1	0
The Sewerage Commission of Milwaukee .....	18.40	17.96	1	0
Shreveport Fertilizer Works .....	33.37	32.97	57	11
Smith-Douglas Company, Inc. ....	33.70	33.57	85	2
Southern Acid & Sulphur Co., Inc. ....	55.73	57.87	6	0
Southwestern Peanut Growers Association .....	32.12	31.97	5	0
Spencer Chemical Company .....	84.50	84.82	5	0
Swift and Company .....	32.83	33.08	147	3
Tennessee Corporation .....	34.00	33.15	2	0
Texas Farm Products Company .....	33.33	32.92	128	9
Tri-State Fertilizer Company .....	32.80	32.25	3	0
Tyler Fertilizer Company .....	32.88	30.78	15	8
Virginia-Carolina Chemical Company .....	33.31	33.06	97	1
Waldo Fertilizer Works .....	33.47	31.69	9	5

were averaged, even though several were made of each brand. Fertilizer materials, as well as mixed fertilizers, were included in the calculation of the averages given. In nearly all cases, the valuation found exceeded the guaranteed valuation.

Whenever any lot of fertilizer is 4 percent or more below the guaranteed valuation, the law requires all persons who have sold this lot of fertilizer to make good the deficiency to all purchasers. This rebate is paid by the manufacturer to the dealer and by the dealer to the customer. The number of lots on which such rebates were paid by each manufacturer is also shown in Table 6. Ninety-five samples were found more than 4 percent below the guarantee and rebates amounting to nearly \$4,000 were refunded to the purchasers.

### How to Get Free Analysis of Fertilizers

Purchasers of commercial fertilizers for their own use (but not for sale) can secure a free analysis of a sample provided they take a legal sample. Those who desire the free analysis of a sample of commercial fertilizer should write for the form, "Application for Free Fertilizer Analysis," to the State Chemist, College Station, Texas, before taking a sample. The proper sampling of a fertilizer requires care, and the law requires it to be taken in a certain way so that a fair sample is taken. If the sample is not properly taken, it does not represent the fertilizer sampled, and the analysis may be better or poorer than the goods actually are. This privilege of a free analysis applies only to fertilizers tagged and sold under the fertilizer law and to samples properly taken so that they represent the goods sampled.

### Publications Dealing with the Use of Fertilizers

Single copies of publications concerning the use of commercial fertilizers for various crops in different sections of Texas will be sent free on request. Some publications of the Texas Agricultural Experiment Station containing information relative to fertilizers and fertilizing materials are as follows:

Circulars:

85. Use of commercial fertilizers.
90. Rose growing for the home gardener.
95. Vitamin B1 (Thiamin) and other vitamins as fertilizers.
102. Recommendations for the use of the approved grades of fertilizer for Texas in 1943-44.

**Bulletins:**

212. The availability of phosphoric acid in rock phosphate.
350. Fertilizer statistics for Texas (to 1927).
414. Possibilities of sulphur as a soil amendment.
408. Effect of sulphur on yield of certain crops.
428. The fertilizing value of greensand.
432. Manganese in Texas soils and its relation to crops.
445. The composition and fertilizing value of sewage sludge.
469. Fertilizer experiments with cotton.
509. Availability of the phosphoric acid of finely divided rock phosphate.
524. Fertilizer experiments with yellow Bermuda onions in the Winter Garden region of Texas.
572. Fertilizer statistics for Texas, 1926-38.
596. Onion fertilizer experiments at Laredo, Big Wells and Eagle Pass, Texas.
602. Fertilizer for rice in Texas.
627. Resistance to wilt and root knot and the effect of potash fertilizer in East Texas.
647. Some factors affecting the utilization of phosphoric acid in soils by plants in pot experiments.
672. The value of different phosphates for various Texas soils and grasses as indicated by pot experiments.

**Progress Reports:**

675. Acid production in compost of sulphur and organic matter.
875. Yield, chemical analysis and fertilizer response of eleven forage grasses.
938. Soil analysis and farm problems.
963. The need for lime of some East Texas soils.
983. Effect of large amounts of phosphate upon yield and composition of grasses.
989. Fertilizers for white potatoes in the High Plains of Texas.
993. Fertilizer tests with cotton and corn at the El Paso Valley substation.
996. The effect of phosphates upon the percentage of phosphoric acid in pasture grasses.
998. Distribution of fertilizer sales in Texas July 1-Dec. 31, 1945.
1025. Fertilizer studies with vegetables in Cameron County.
1037. Distribution of fertilizer sales in Texas, Jan. 1-June 30, 1946.
1055. Nitrogen fertilizers for rice.

- 1057. Distribution of fertilizer sales in Texas, July 1-Dec. 31, 1946.
- 1071. Superphosphate increases yield of alfalfa in the Wichita Irrigated Valley.
- 1074. Fertilizer studies with sweet potatoes.
- 1090. Fertilizer experiments with spinach in the Texas Winter Garden.
- 1091. Distribution of fertilizer sales in Texas, Jan. 1-June 30, 1947.

Single copies of these publications will be sent free on request to the Editor, Texas Agricultural Experiment Station, College Station, Texas. In order to avoid errors, both the number and the name of the publication should be given.

### Analyses of Fertilizers 1946-47

A total of 1,233 samples of fertilizers and fertilizer materials was collected during the year by fertilizer inspectors from the goods being sold in many towns and cities of Texas. The chief places of sales were inspected several times. These samples were analyzed by the official methods of the Association of Official Agricultural Chemists of North America, as is required by law. Inspection and analytical work were done by T. L. Ogier, Waldo Walker, Mrs. Vera Quinn, Mrs. Beulah Lowe, Mrs. Martha Ripple, William M. Lewis, C. B. McLarry and H. W. Greene. The analyses are shown in Table 7 at the end of this bulletin.

### Summary

This bulletin is the 45th annual report of the operation of the Texas fertilizer laws, and covers the period from September 1, 1946 through August 31, 1947.

The tonnage of fertilizers and fertilizer materials sold during this period amounted to 401,297 tons, an increase of about 31 percent over the tonnage sold during the preceding year. The 4-12-4 grade amounted to over one-half of the total mixed goods sold and 20% superphosphate amounted to about one-half of the fertilizer materials sold.

The grades of fertilizer to be sold in Texas during the 1947-48 period are listed.

The relation of the guaranteed valuation to the valuation found upon analysis of samples from various manufacturers is shown. Rebates amounting to nearly \$4,000 were paid upon 95 lots of fertilizers out of a total of 1,233 lots analyzed.

Analyses of 1,233 official samples of fertilizers collected by the fertilizer inspectors are given.

Table 7. Analyses of commercial fertilizers sampled during 1946-47

Laboratory number	Manufacturer, place of business and brand	Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
<b>American Cyanamid Company, New York, New York</b>					
91099	20.6% Aero Cyanamid Granular, Guarantee.....	20.60			\$53.56
	Analysis .....	20.26			52.68
91947	Aero Phosphate 33%.....		33.00		9.90
	Analysis .....		33.35		10.01
<b>Armour Fertilizer Works, Houston, Fort Worth, Dallas, Texas, and New Orleans, Louisiana</b>					
90718	Armour's Big Crop Fertilizer 4-12-4, Guarantee.....	4.00	12.00	4.00	32.80
90720	Analysis .....	4.09	11.69	4.54	33.36
90723	Analysis .....	3.96	12.01	4.68	33.66
90725	Analysis .....	3.94	12.58	4.28	33.84
90734	Analysis .....	4.06	11.78	4.29	33.06
90737	Analysis .....	4.00	11.82	4.01	32.56
90742	Analysis .....	4.08	11.62	4.29	32.89
90743	Analysis .....	4.26	11.13	4.73	33.28
90747	Analysis .....	4.02	12.37	4.41	33.94
90749	Analysis .....	4.02	12.48	4.12	33.69
90752	Analysis .....	4.29	12.33	4.01	34.02
90753	Analysis .....	4.02	12.20	4.07	33.23
90757	Analysis .....	4.07	12.04	4.23	33.36
90764	Analysis .....	4.10	12.01	4.30	33.49
90768	Analysis .....	4.20	12.34	4.39	34.35
90772	Analysis .....	4.08	11.28	4.52	32.73
90777	Analysis .....	3.94	12.42	4.08	33.34
90780	Analysis .....	4.04	11.04	4.14	31.76
90783	Analysis .....	3.92	12.22	4.02	32.93
90790	Analysis .....	4.09	12.21	4.18	33.57
90794	Analysis .....	3.97	12.27	4.25	33.45
90797	Analysis .....	3.99	12.78	4.02	33.98
90802	Analysis .....	3.71	12.25	4.18	32.65
90803	Analysis .....	4.17	11.64	4.24	33.08
90804	Analysis .....	4.02	11.43	4.02	32.08
90810	Analysis .....	3.92	11.18	4.27	31.75
90813	Analysis .....	3.92	10.95	4.29	31.54
90814	Analysis .....	3.99	11.04	4.20	31.71
90816	Analysis .....	4.01	10.28	4.52	31.15
90822	Analysis .....	3.96	12.48	4.10	33.51
90827	Analysis .....	4.09	12.14	4.06	33.31
90830	Analysis .....	4.04	12.03	4.31	33.37
90833	Analysis .....	4.06	12.00	4.44	33.58
90836	Analysis .....	4.46	12.02	4.69	35.00
90842	Analysis .....	4.04	12.40	4.16	33.68
90843	Analysis .....	4.04	12.19	4.08	33.28
90845	Analysis .....	4.19	12.33	4.14	33.95
90857	Analysis .....	3.90	11.14	4.11	31.49
90858	Analysis .....	3.61	11.93	4.04	31.75
90865	Analysis .....	3.90	11.01	3.78	30.84
90871	Analysis .....	3.94	11.46	3.73	31.50
90875	Analysis .....	4.37	12.16	4.18	34.23
90880	Analysis .....	4.30	12.62	4.82	35.60
90884	Analysis .....	4.01	12.52	4.21	33.85
90895	Analysis .....	4.02	12.07	4.36	33.45
90905	Analysis .....	4.10	12.54	4.16	34.04
90913	Analysis .....	3.96	11.07	4.08	31.50
90916	Analysis .....	3.93	10.99	4.25	31.56
90919	Analysis .....	4.08	10.64	4.50	31.81
90930	Analysis .....	3.95	10.50	4.10	30.71
90936	Analysis .....	4.56	11.31	4.17	33.53
90942	Analysis .....	4.20	12.18	4.02	33.60
90943	Analysis .....	3.94	11.11	4.08	31.50
90944	Analysis .....	3.93	10.77	4.24	31.24
		4.02	11.70	4.02	32.46

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand	Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
90946	Armour's Big Crop Fertilizer 4-12-4, Guarantee	4.00	12.00	4.00	\$32.80
90947	Analysis	4.00	10.09	4.36	30.63
90950	Analysis	4.05	11.04	4.16	31.81
90951	Analysis	3.62	11.54	4.01	31.18
90958	Analysis	4.27	12.56	4.03	34.32
90960	Analysis	3.90	12.56	4.02	33.35
90966	Analysis	3.93	10.81	4.16	31.17
90969	Analysis	4.00	11.85	4.24	32.93
90981	Analysis	3.90	12.00	4.18	32.79
90982	Analysis	4.39	12.52	4.02	34.57
90983	Analysis	4.19	11.17	4.37	32.65
90991	Analysis	4.04	12.67	4.17	34.08
90997	Analysis	4.10	10.27	4.62	31.51
90999	Analysis	4.16	12.33	4.55	34.45
91003	Analysis	4.40	12.27	4.28	34.61
91006	Analysis	4.00	12.09	4.13	33.11
91009	Analysis	4.04	12.00	4.36	33.40
91012	Analysis	4.06	11.80	4.01	32.69
91014	Analysis	4.00	11.83	4.19	32.83
91020	Analysis	3.75	12.02	4.02	32.21
91028	Analysis	4.04	11.94	4.79	33.93
91031	Analysis	3.88	12.26	4.28	33.14
91037	Analysis	4.13	12.44	4.38	34.29
91048	Analysis	4.00	11.60	4.06	32.32
91061	Analysis	3.93	12.49	4.02	33.33
91069	Analysis	3.83	12.09	4.15	31.70
91073	Analysis	3.89	12.44	4.03	33.17
91080	Analysis	4.00	11.39	4.19	32.22
91081	Analysis	4.26	12.30	4.28	34.29
91085	Analysis	4.09	13.45	4.05	34.71
91088	Analysis	4.17	12.48	4.38	34.44
91095	Analysis	4.02	12.01	4.30	33.28
91114	Analysis	4.06	11.79	4.04	32.73
91128	Analysis	4.21	12.05	4.04	33.48
91126	Analysis	3.87	10.45	4.19	30.56
91129	Analysis	4.00	12.16	4.04	33.08
91130	Analysis	4.00	12.07	4.01	32.91
91135	Analysis	4.02	11.48	4.30	32.54
91140	Analysis	4.09	11.76	4.16	32.91
91141	Analysis	3.98	11.88	4.24	32.92
91142	Analysis	3.99	11.81	4.17	32.74
91147	Analysis	4.14	12.22	4.65	34.38
91149	Analysis	4.05	11.81	4.38	33.19
91154	Analysis	3.88	11.92	4.02	32.41
91156	Analysis	4.09	11.49	4.18	32.57
91172	Analysis	4.21	11.83	4.31	33.54
91174	Analysis	4.21	12.25	4.30	34.12
91177	Analysis	4.23	11.76	4.02	33.09
91187	Analysis	3.92	11.63	4.02	32.10
91193	Analysis	4.09	12.38	4.18	33.81
91209	Analysis	3.94	11.72	4.38	32.78
91258	Analysis	3.90	11.11	4.16	31.51
91274	Analysis	3.94	10.95	4.31	31.60
91277	Analysis	4.43	10.88	4.27	32.73
91295	Analysis	3.82	11.34	4.10	31.54
91306	Analysis	4.10	10.00	4.16	30.48
91377	Analysis	4.04	11.08	4.12	31.78
91413	Analysis	4.09	11.50	4.46	32.97
91419	Analysis	3.95	12.42	4.02	33.29
91443	Analysis	4.05	12.07	4.01	33.04
91455	Analysis	4.23	11.33	4.02	32.49
91472	Analysis	4.20	10.81	4.22	31.96
91479	Analysis	4.08	12.47	4.35	34.16
91484	Analysis	4.02	11.70	4.12	32.60

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand	Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
91502	Armour's Big Crop Fertilizer 4-12-4, Guarantee	4.00	12.00	4.00	\$32.80
91515	Analysis	4.04	11.78	3.44	31.81
91530	Analysis	3.99	11.70	4.20	32.68
91541	Analysis	3.90	11.31	4.01	31.58
91542	Analysis	3.81	12.39	3.31	31.89
91543	Analysis	3.85	12.16	4.43	33.23
91544	Analysis	3.54	12.32	4.22	32.36
91546	Analysis	3.86	12.14	4.15	32.07
91547	Analysis	4.03	12.06	4.14	33.16
91548	Analysis	4.09	11.52	4.09	32.49
91550	Analysis	3.99	11.62	4.41	32.81
91551	Analysis	4.28	11.72	4.22	33.45
91552	Analysis	4.29	12.06	4.24	33.97
91555	Analysis	3.64	12.01	4.02	31.90
91561	Analysis	3.80	11.69	4.23	32.17
91564	Analysis	3.83	11.39	4.08	31.62
91608	Analysis	4.09	11.37	4.23	32.47
91640	Analysis	3.87	11.16	4.32	31.73
91644	Analysis	3.76	13.09	4.05	33.78
91650	Analysis	3.86	12.12	4.01	32.62
91651	Analysis	4.23	12.04	5.01	34.87
91652	Analysis	3.92	12.70	4.02	33.60
91667	Analysis	4.04	12.51	4.25	33.96
91669	Analysis	3.92	12.10	4.28	33.12
91673	Analysis	3.80	12.26	5.68	32.72
91679	Analysis	3.65	12.07	4.01	32.00
91581	Analysis	4.21	11.01	4.01	31.97
91625	Analysis	4.00	11.69	4.34	32.85
91629	Analysis	3.89	12.12	4.40	33.24
91695	Analysis	3.95	11.74	4.30	32.73
91699	Analysis	3.69	12.00	4.08	32.03
91706	Analysis	3.80	12.54	4.02	33.07
91757	Analysis	3.80	12.08	4.20	32.67
91762	Analysis	3.77	11.45	4.11	31.58
91771	Analysis	2.62	8.92	3.07	23.60
91790	Analysis	3.69	12.17	4.08	32.34
91791	Analysis	3.62	12.07	4.02	31.94
91803	Analysis	4.43	12.14	4.24	34.46
91792	Analysis	4.14	9.98	4.30	30.75
91793	Analysis	3.96	11.47	4.30	32.38
91811	Analysis	3.81	11.18	4.24	31.50
91814	Analysis	3.78	12.20	4.02	32.41
91815	Analysis	3.73	11.49	4.42	31.98
91817	Analysis	3.67	12.20	4.03	32.26
91820	Analysis	3.77	12.13	4.11	32.53
91822	Analysis	3.81	11.91	4.08	32.22
91523	Analysis	4.06	11.68	4.01	32.52
91824	Analysis	3.72	11.62	4.02	31.57
91828	Analysis	4.19	11.36	4.02	32.42
91839	Analysis	4.04	10.88	4.21	31.55
91848	Analysis	3.83	12.19	4.44	33.25
91857	Analysis	3.71	12.05	4.37	32.64
91860	Analysis	3.46	12.17	4.20	31.92
91864	Analysis	3.89	11.46	4.24	32.09
91883	Analysis	3.51	11.15	3.91	30.21
91915	Analysis	4.07	12.01	4.28	33.38
91923	Analysis	6.03	11.70	4.21	35.00
91931	Analysis	3.74	11.83	4.21	32.05
91936	Analysis	3.82	12.60	3.87	32.99
91940	Analysis	3.82	12.71	3.91	33.19
91942	Analysis	4.00	12.17	4.00	33.04
91946	Analysis	3.84	12.15	4.44	33.21
91948	Analysis	3.79	11.98	4.31	32.65
		3.77	12.05	3.81	32.00

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand					Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
91949	Armour's Big Crop Fertilizer	4-12-4, Guarantee	4.00	12.00	4.00	\$32.80			
	Analysis		3.93	12.35	4.04	33.17			
90719	Armour's Velvetgreen Plantfood	5-10-5, Guarantee	5.00	10.00	5.00	34.00			
90744	Analysis		5.14	10.22	5.36	35.17			
90756	Analysis		5.04	10.62	4.70	34.55			
90782	Analysis		4.93	10.17	5.55	34.83			
90789	Analysis		5.08	10.34	4.64	34.19			
90799	Analysis		5.42	11.75	4.73	37.16			
90823	Analysis		5.07	10.33	5.21	34.93			
90831	Analysis		4.92	10.54	5.02	34.58			
90864	Analysis		5.02	9.93	5.35	34.45			
90873	Analysis		5.08	10.30	5.19	34.90			
90898	Analysis		5.34	10.10	4.66	34.54			
90931	Analysis		5.13	10.49	5.09	35.16			
90937	Analysis		5.38	10.29	5.10	35.54			
90901	Analysis		4.79	10.08	5.03	33.60			
90922	Analysis		5.35	9.67	5.84	35.63			
90998	Analysis		4.92	10.64	5.28	35.08			
91000	Analysis		5.25	10.55	5.20	35.70			
91101	Analysis		5.10	9.91	5.07	34.23			
91015	Analysis		4.73	10.38	5.04	33.89			
91021	Analysis		4.94	10.09	5.21	34.26			
91583	Analysis		4.90	10.34	5.03	34.26			
91643	Analysis		5.02	10.18	5.01	34.31			
91649	Analysis		5.23	10.07	5.04	34.76			
91660	Analysis		4.87	10.11	5.13	33.99			
91661	Analysis		5.04	10.08	5.16	34.43			
91662	Analysis		5.21	9.42	5.34	34.22			
91663	Analysis		4.64	11.09	5.01	34.60			
91680	Analysis		4.92	9.88	5.20	33.90			
91696	Analysis		4.69	9.56	5.14	32.77			
91816	Analysis		4.73	10.17	5.07	33.64			
91849	Analysis		4.48	10.18	5.58	33.71			
91821	Analysis		4.64	10.10	5.12	33.38			
			4.80	10.09	4.78	33.30			
90721	Armours Big Crop Fertilizer	6-12-0, Guarantee	6.00	12.00	0.00	32.40			
90798	Analysis		6.00	11.75	0.00	32.05			
90828	Analysis		5.97	12.21	0.00	32.61			
90834	Analysis		6.26	11.72	0.00	32.69			
90838	Analysis		5.74	12.12	0.00	31.89			
90846	Analysis		5.46	12.25	0.00	31.35			
90866	Analysis		5.78	12.60	0.00	32.67			
90874	Analysis		6.33	11.46	0.00	32.50			
90885	Analysis		6.02	12.16	0.00	32.67			
90890	Analysis		6.10	12.15	0.00	32.87			
90896	Analysis		5.42	12.51	0.00	31.60			
91007	Analysis		6.38	12.19	0.00	33.53			
91010	Analysis		6.28	12.45	0.00	33.76			
91098	Analysis		5.76	12.45	0.00	32.41			
91102	Analysis		6.18	12.10	0.00	33.01			
91648	Analysis		5.90	12.40	0.00	32.70			
91795	Analysis		6.04	11.92	0.00	32.39			
91797	Analysis		5.83	12.15	0.00	32.17			
91808	Analysis		5.96	12.11	0.00	32.45			
			6.42	11.91	0.00	33.36			
90859	Armour's Big Crop 20% Superphosphate, Guarantee	0.00	20.00	0.00	28.00				
90862	Analysis		0.00	18.70	0.00	26.18			
90893	Analysis		0.00	19.44	0.00	27.22			
90910	Analysis		0.00	19.84	0.00	27.78			
90918	Analysis		0.00	20.18	0.00	28.25			
90945	Analysis		0.00	19.20	0.00	26.88			
			0.00	18.45	0.00	25.88			

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand	Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
90949	Armour's Big Crop 20% Superphosphate, Guarantee	0.00	20.00	0.00	\$28.00
91013	Analysis	0.00	20.16	0.00	28.22
91127	Analysis	0.00	20.04	0.00	28.06
91582	Analysis	0.00	17.45	0.00	24.43
91654	Analysis	0.00	20.36	0.00	28.50
91664	Analysis	0.00	18.66	0.00	26.12
91670	Analysis	0.00	19.40	0.00	27.16
91939	Analysis	0.00	19.32	0.00	27.05
91950	Analysis	0.00	20.14	0.00	28.20
90801	Armour's Pulverized Sheep Manure	1.50	1.00	2.00	8.10
	Analysis	1.48	1.44	2.16	8.89
<b>Arkansas Fertilizer Company, Little Rock, Arkansas</b>					
White Diamond Fertilizer 20% Superphosphate,					
91509	Guarantee	0.00	20.00	0.00	28.00
	Analysis	0.00	20.51	0.00	28.71
<b>Armstrong's Prescription Fertilizer Company, Hereford, Texas</b>					
Armstrong's Prescription 30% Rock Phosphate,					
91802	Guarantee	0.00	30.00*	0.00	9.00
	Analysis	0.00	29.93*	0.00	8.98
<b>Associated Cooperative, Inc., Sheffield, Alabama</b>					
Ammonium Nitrate, Guarantee					
90839	Analysis	32.50	0.00	0.00	84.50
90872	Analysis	32.62	0.00	0.00	84.81
90894	Concentrated 45% Superphosphate, Guarantee	32.52	0.00	0.00	84.55
91573	Analysis	0.00	45.00	0.00	63.00
	Concentrated 47% Superphosphate, Guarantee	0.00	46.74	0.00	65.44
	Analysis	0.00	47.00	0.00	65.80
	Analysis	0.00	47.31	0.00	66.23
<b>Bryan Cotton Oil and Fertilizer Company, Bryan, Texas</b>					
Star Brand 4-12-4 Special Fertilizer, Guarantee					
91067	Analysis	4.00	12.00	4.00	32.80
91636	Analysis	4.62	12.53	4.99	36.54
	Analysis	4.08	13.07	5.00	35.91
<b>Campbell Fertilizer Company, Houston, Texas</b>					
All-Weather Organic Base Fertilizer, Guarantee					
91022	Analysis	4.00	12.00	4.00	32.80
91139	Analysis	3.92	11.67	4.01	32.14
91146	Analysis	3.88	11.79	4.20	32.48
91151	Analysis	3.79	11.65	2.61	29.81
91943	Analysis	3.86	12.30	4.02	32.89
	Analysis	3.90	13.66	3.81	34.59
<b>Chilean Nitrate Sales Corporation, New York 5, New York</b>					
Champion Brand 16% Nitrate of Soda, Guarantee					
90784	Analysis	16.00	0.00	0.00	41.60
90826	Analysis	16.40	0.00	0.00	42.64
91886	Analysis	16.44	0.00	0.00	42.74
	Analysis	16.10	0.00	0.00	41.86
<b>Colloidal Products Company, Tampa 1, Florida</b>					
Soft Phosphate with Colloidal Clay, Guarantee					
90788	Analysis	0.00	18.00*	0.00	5.40
90886	Analysis	0.00	20.81*	0.00	6.24
	Analysis	0.00	21.57*	0.00	6.47
<b>East Texas Products Company, Tyler, Texas</b>					
Goldenrod 4-12-4 Plantfood, Guarantee					
90974	Analysis	4.00	12.00	4.00	32.80
91042	Analysis	4.29	12.53	4.21	34.58
	Analysis	4.10	12.44	4.18	33.93

\* Total phosphoric acid

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand	Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
91107	Goldenrod 4-12-4 Plantfood, Guarantee.....	4.00	12.00	4.00	\$32.80
91117	Analysis .....	4.37	12.06	4.14	34.04
91221	Analysis .....	4.02	11.84	4.14	32.83
91228	Analysis .....	4.05	12.26	4.09	33.42
91232	Analysis .....	4.09	11.64	4.08	32.64
91345	Analysis .....	4.21	11.34	4.17	32.67
91444	Analysis .....	4.19	10.95	4.02	31.85
91447	Analysis .....	4.26	11.40	4.02	32.67
91453	Analysis .....	4.16	11.91	4.13	33.27
91486	Analysis .....	4.41	11.81	4.26	33.96
91574	Analysis .....	4.37	12.45	4.24	34.73
91586	Analysis .....	4.09	11.36	4.13	32.31
91592	Analysis .....	3.96	11.18	4.12	31.72
91071	Analysis .....	4.03	11.64	4.04	32.44
91840	Analysis .....	4.01	12.03	4.31	33.30
91842	Analysis .....	3.88	12.16	4.13	32.96
91851	Analysis .....	4.08	12.00	4.14	33.21
91856	Analysis .....	3.94	11.27	4.31	32.05
91858	Analysis .....	3.78	12.19	4.28	32.89
91897	Analysis .....	3.88	12.09	4.20	32.90
91920	Analysis .....	3.95	11.35	4.10	31.90
91930	Analysis .....	4.11	11.45	4.56	33.10
	Goldenrod Brand 5-10-5 Fertilizer, Guarantee.....	3.88	11.30	4.12	31.68
90973	Analysis .....	5.00	10.00	5.00	34.00
91041	Analysis .....	5.22	10.32	5.28	35.41
91072	Analysis .....	5.27	10.19	5.11	35.12
91103	Analysis .....	5.05	9.95	5.02	34.09
91108	Analysis .....	5.12	10.69	5.01	35.29
91113	Analysis .....	5.21	10.38	5.10	35.22
91118	Analysis .....	5.09	9.95	5.08	34.27
91222	Analysis .....	5.09	9.25	5.28	33.57
91338	Analysis .....	5.03	10.05	5.10	34.29
91341	Analysis .....	5.04	10.09	5.12	34.40
91346	Analysis .....	4.98	9.76	5.16	33.83
91575	Analysis .....	5.48	9.28	5.15	34.45
91585	Analysis .....	4.75	9.54	5.13	32.89
91587	Analysis .....	5.03	9.45	5.11	33.46
91593	Analysis .....	4.75	9.65	5.01	32.87
91843	Analysis .....	4.96	10.33	5.02	34.39
91852	Analysis .....	4.63	10.47	4.82	33.45
91903	Analysis .....	4.52	9.53	5.23	32.41
91919	Analysis .....	5.02	8.97	5.04	32.67
	ETCO 5-10-5 Plant Food, Guarantee.....	4.76	9.88	5.24	33.55
91841	Analysis .....	5.00	10.00	5.00	34.00
91846	Analysis .....	4.63	10.29	4.72	33.06
		4.87	9.81	5.84	33.87
<b>Farm Services, Inc., Opelousas, Louisiana</b>					
90883	Thorobred 4-12-4 Fertilizer, Guarantee.....	4.00	12.00	4.00	32.80
91707	Analysis .....	4.11	10.90	4.16	31.77
91715	Analysis .....	3.88	10.90	4.02	30.98
	Thorobred 5-10-5 Fertilizer, Guarantee.....	3.54	11.85	4.13	31.57
90920	Analysis .....	5.00	10.00	5.00	34.00
	Thorobred 10-10-0 Fertilizer, Guarantee.....	5.06	9.37	5.74	34.32
90840	Analysis .....	9.81	9.46	0.00	38.75
90841	Analysis .....	9.69	9.92	0.00	39.08
90863	Analysis .....	9.58	9.74	0.00	38.55
90869	Analysis .....	9.53	9.76	0.00	38.44
90870	Analysis .....	9.48	9.79	0.00	38.55
90891	Analysis .....	9.89	10.18	0.00	39.94

\* Total phosphoric acid

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand		Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
	Thorobred	10-10-0 Fertilizer, Guarantee.....	10.00	10.00	0.00	\$40.00
90921	Analysis	.....	9.70	9.67	0.00	38.76
90926	Analysis	.....	10.16	9.90	0.00	40.28
90929	Analysis	.....	9.00	8.46	0.00	35.24
90934	Analysis	.....	9.42	10.25	0.00	38.84
	Farmers State Exchange, Inc., Shreveport, Louisiana					
	Dixie Leader	4-12-4 Fertilizer, Guarantee.....	4.00	12.00	4.00	32.80
91906	Analysis	.....	3.68	11.72	4.18	31.82
	Fidelity Chemical Corporation, Houston, Texas					
	Fidelity	4-12-4 Fertilizer, Guarantee.....	4.00	12.00	4.00	32.80
90724	Analysis	.....	4.00	11.98	4.02	32.80
90728	Analysis	.....	4.12	11.32	4.20	32.44
90730	Analysis	.....	4.18	11.19	4.03	32.18
90732	Analysis	.....	3.96	11.17	4.12	31.71
90746	Analysis	.....	4.04	11.49	4.01	32.20
90750	Analysis	.....	4.20	11.78	4.04	33.07
90762	Analysis	.....	4.04	11.25	4.05	31.92
90774	Analysis	.....	4.08	11.71	4.09	32.73
90795	Analysis	.....	3.96	11.69	4.00	32.27
90818	Analysis	.....	4.02	11.33	4.16	32.13
90855	Analysis	.....	4.19	11.25	4.08	32.35
90932	Analysis	.....	4.41	11.31	4.10	33.04
90993	Analysis	.....	4.10	11.32	4.02	32.14
91001	Analysis	.....	4.08	11.52	4.39	32.89
91019	Analysis	.....	3.90	10.80	4.07	30.96
91024	Analysis	.....	3.92	12.05	4.19	32.93
91025	Analysis	.....	4.19	11.03	4.28	32.32
91082	Analysis	.....	3.91	11.58	4.02	32.01
91093	Analysis	.....	4.15	12.17	4.19	33.70
91143	Analysis	.....	3.95	11.51	4.13	32.16
91160	Analysis	.....	4.17	11.47	4.32	32.95
91236	Analysis	.....	4.02	10.85	4.57	32.04
91441	Analysis	.....	3.94	11.28	4.01	31.64
91458	Analysis	.....	4.27	10.58	4.22	31.82
91540	Analysis	.....	3.83	11.06	4.28	32.03
91553	Analysis	.....	4.06	11.53	4.02	32.33
91556	Analysis	.....	4.07	11.14	4.22	32.09
91639	Analysis	.....	3.78	12.28	4.03	32.66
91653	Analysis	.....	4.05	11.33	4.25	32.34
91672	Analysis	.....	4.00	11.30	4.09	31.95
91674	Analysis	.....	3.86	11.70	4.01	32.03
91682	Analysis	.....	3.82	11.23	3.84	31.03
91698	Analysis	.....	3.94	11.06	4.14	31.52
91700	Analysis	.....	4.14	10.69	4.13	31.51
91701	Analysis	.....	3.94	11.28	4.17	31.87
91638	Analysis	.....	4.31	11.56	4.12	33.16
91865	Analysis	.....	4.44	12.11	4.02	34.12
91933	Analysis	.....	3.92	11.65	4.36	32.60
91941	Analysis	.....	4.10	11.86	4.12	33.03
91945	Analysis	.....	4.33	11.68	3.84	32.99
91866	Analysis	.....	4.01	12.25	3.10	31.92
91867	Analysis	.....	4.48	11.23	3.35	32.06
91927	Analysis	.....	3.65	12.01	3.88	31.73
90727	Analysis	.....	4.84	10.09	5.24	34.05
90731	Analysis	.....	4.87	9.54	5.04	33.08
90733	Analysis	.....	4.91	9.42	4.82	32.71
90745	Analysis	.....	4.96	9.44	4.83	32.88
90751	Analysis	.....	4.17	11.64	4.11	32.89
90763	Analysis	.....	5.14	10.03	5.03	34.44
90767	Analysis	.....	4.69	8.85	4.56	30.96
90776	Analysis	.....	5.02	10.02	4.76	33.74
90796	Analysis	.....	4.91	9.29	5.01	32.79
90819	Analysis	.....	5.06	9.69	5.14	33.93

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand		Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
	Fidelity 4-12-4 Fertilizer, Guarantee.		4.00	12.00	4.00	\$32.80
90856	Analysis		5.04	10.01	5.01	34.12
90994	Analysis		4.28	10.98	5.01	33.51
91026	Analysis		5.04	9.51	4.54	32.77
91094	Analysis		4.44	10.00	5.44	33.16
91549	Analysis		5.07	9.03	5.08	33.93
91557	Analysis		4.82	9.00	5.11	32.28
91656	Analysis		4.80	9.35	5.12	32.74
91702	Analysis		4.73	10.04	5.04	33.42
	Fidelity 6-12-0 Fertilizer, Guarantee.		6.00	12.00	0.00	32.40
90820	Analysis		6.30	11.06	0.00	31.86
	Ferti-Lome Fertilizer, Guarantee		6.00	12.00	4.00	38.00
90933	Analysis		5.90	12.06	4.12	37.99
91083	Analysis		5.92	12.02	4.01	37.83
91161	Analysis		6.27	11.87	5.01	39.93
91703	Analysis		5.73	12.08	4.05	37.48
91819	Analysis		5.87	11.89	3.36	36.54
	<b>Ford Motor Company, Dearborn, Michigan</b>					
	Ammonium Sulphate, Guarantee		20.80	0.00	0.00	54.08
90868	Analysis		21.14	0.00	0.00	54.96
91641	Analysis		20.89	0.00	0.00	54.81
91665	Analysis		20.88	0.00	0.00	54.29
91785	Analysis		20.85	0.00	0.00	54.21
	<b>Gilmer Cotton Oil and Fertilizer Company, Gilmer, Texas</b>					
	Texas Longhorn Brand 4-8-8 Fertilizer, Guarantee		4.00	8.00	8.00	32.80
91285	Analysis		4.01	8.11	7.17	31.82
91332	Analysis		3.22	9.44	7.10	31.53
91895	Analysis		4.10	8.52	7.45	33.02
	Texas Longhorn 4-12-4 Fertilizer, Guarantee		4.00	12.00	4.00	32.80
91894	Analysis		8.55	19.12	1.03	50.44
	Texas Longhorn Brand 5-10-5 Fertilizer, Guarantee		5.00	10.00	5.00	34.00
91284	Analysis		4.43	10.21	5.03	32.85
91333	Analysis		4.23	10.39	5.10	32.69
	Texas Longhorn 20% Superphosphate, Guarantee		0.00	20.00	0.00	28.00
91286	Analysis		0.00	18.65	0.00	26.11
91536	Analysis		0.00	19.45	0.00	27.23
	<b>International Minerals &amp; Chemical Corporation, Texarkana, Arkansas-Texas</b>					
	International 4-8-8 Fertilizer, Guarantee		4.00	8.00	8.00	32.80
91131	Analysis		3.29	8.90	6.76	30.65
91186	Analysis		3.60	8.48	8.04	32.49
91305	Analysis		3.95	8.39	7.32	32.27
91392	Analysis		3.63	9.05	7.12	32.05
91471	Analysis		3.93	8.16	7.15	31.65
91560	Analysis		4.05	8.50	7.03	32.27
91598	Analysis		4.05	8.82	7.22	32.99
91781	Analysis		3.85	9.14	6.96	32.55
91878	Analysis		3.69	8.87	6.89	31.58
91886	Analysis		3.79	10.71	5.06	31.92
	International 4-12-4 Fertilizer, Guarantee		4.00	12.00	4.00	32.80
90990	Analysis		3.78	10.87	4.31	31.08
91056	Analysis		3.80	12.83	4.02	33.47
91119	Analysis		3.75	11.49	4.28	31.82
91185	Analysis		4.12	12.36	4.04	33.67
91255	Analysis		3.95	10.22	4.28	30.57
91259	Analysis		4.09	12.17	4.02	33.30

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand		Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
91260	International	4-12-4 Fertilizer, Guarantee.....	4.00	12.00	4.00	\$32.80
91304	Analysis		4.06	12.06	4.11	33.19
91340	Analysis		3.77	11.81	4.02	31.96
91374	Analysis		4.05	12.10	4.01	33.94
91385	Analysis		4.07	11.35	4.01	32.08
91393	Analysis		3.97	11.57	4.02	32.15
91400	Analysis		3.95	11.66	4.04	32.25
91404	Analysis		3.99	11.84	4.03	32.59
91435	Analysis		3.89	12.13	4.01	32.70
91440	Analysis		3.72	11.74	4.01	31.72
91446	Analysis		4.10	12.03	4.01	33.11
91477	Analysis		3.80	11.67	4.01	31.82
91482	Analysis		3.95	12.69	2.64	31.74
91516	Analysis		4.05	12.05	4.03	33.04
91520	Analysis		4.26	11.23	4.04	32.46
91526	Analysis		3.78	12.05	4.04	32.36
91559	Analysis		3.91	11.76	4.02	32.26
91599	Analysis		3.80	11.32	4.27	31.71
91605	Analysis		4.07	12.02	4.06	33.09
91767	Analysis		4.11	11.65	4.12	32.77
91810	Analysis		4.46	10.18	4.24	31.79
91876	Analysis		3.88	11.89	4.27	32.72
91880	Analysis		3.97	12.15	4.47	33.59
91901	Analysis		3.73	12.11	4.16	32.47
91913	Analysis		3.97	12.02	3.64	32.25
	International	5-10-5 Fertilizer, Guarantee.....	3.88	12.37	4.19	33.28
90989	Analysis		5.00	10.00	5.00	34.00
91053	Analysis		4.93	10.98	4.11	33.68
91055	Analysis		4.98	10.36	5.01	34.46
91120	Analysis		4.94	10.15	5.01	34.06
91132	Analysis		4.98	9.92	5.02	33.87
91132	Analysis		4.85	10.63	5.01	34.05
91273	Analysis		4.91	10.76	4.31	33.86
91288	Analysis		4.74	10.38	5.06	33.93
91367	Analysis		5.02	10.96	4.27	34.37
91384	Analysis		5.13	10.41	5.03	34.95
91405	Analysis		4.99	10.17	4.40	33.37
91406	Analysis		4.56	9.78	4.03	31.19
91420	Analysis		5.04	10.24	5.01	34.45
91445	Analysis		4.85	10.06	5.14	33.89
91483	Analysis		4.80	9.80	5.02	33.23
91511	Analysis		5.01	10.39	4.91	34.45
91517	Analysis		4.97	9.81	4.37	32.77
91521	Analysis		4.64	10.15	4.17	32.11
91609	Analysis		4.70	10.03	5.14	33.46
91747	Analysis		4.83	10.47	5.42	34.81
91753	Analysis		5.02	10.07	5.33	34.61
91175	Analysis		5.09	10.49	4.87	34.73
91184	Analysis		4.90	10.02	4.34	32.85
91756	Analysis		4.30	10.32	3.86	30.33
91766	Analysis		4.49	9.98	4.33	31.70
91769	Analysis		4.44	10.36	4.81	32.77
91375	Analysis		5.04	10.17	4.39	33.49
91780	Analysis		4.58	9.76	5.11	32.68
91881	Analysis		4.85	10.10	4.96	33.69
91850	Analysis		4.34	10.28	4.59	32.10
91877	Analysis		5.08	9.55	4.38	32.71
91879	Analysis		4.34	10.07	4.24	31.32
91902	Analysis		4.87	10.04	4.86	33.52
	International	20% Superphosphate, Guarantee.....	0.00	20.00	0.00	28.00
91134	Analysis		0.00	20.45	0.00	28.63
91178	Analysis		0.00	20.62	0.00	28.87
91478	Analysis		0.00	20.03	0.00	28.04

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand	Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
	<b>Interstate By Products Company, Ft. Worth 1, Texas</b>				
90939	Interstate Dried Ground Sheep Manure, Guarantee... Analysis .....	1.50 1.88	1.00 1.33	1.50 3.50	\$ 7.40 11.65
	<b>Jacksonville Fertilizer Company, Jacksonville, Texas</b>				
91051	Red Tomato Brand 4-12-4 Fertilizer, Guarantee... Analysis .....	4.00 4.12	12.00 11.81	4.00 4.46	32.80 33.48
91597	Analysis .....	3.61	10.86	4.41	30.76
91588	Analysis .....	3.72	10.00	4.01	30.40
91617	Analysis .....	3.87	11.27	4.40	32.00
91620	Analysis .....	3.58	11.29	4.08	30.83
91052	Red Tomato Brand 5-10-5 Fertilizer, Guarantee... Analysis .....	5.00 4.06	10.00 10.16	5.00 5.01	34.00 31.79
	<b>Kelley-Weber &amp; Company, Inc., Lake Charles, Louisiana</b>				
	Weber-King Brand Fertilizer Special 0-14-7				
91197	Guarantee .....	0.00	14.00	7.00	29.40
91204	Analysis .....	0.00	14.44	7.22	30.33
	Analysis .....	0.00	14.07	6.51	28.81
	Weber-King Brand Fertilizer Special 4-12-4				
91162	Guarantee .....	4.00	12.00	4.00	32.80
91196	Analysis .....	4.17	12.97	4.02	34.63
91206	Analysis .....	4.00	11.63	4.02	32.31
91207	Analysis .....	4.02	12.29	4.02	33.29
91240	Analysis .....	4.70	10.44	5.25	34.19
91247	Analysis .....	4.12	12.10	4.14	33.45
91208	Analysis .....	4.00	11.96	4.02	32.77
91719	Analysis .....	4.04	12.46	4.40	34.10
91720	Analysis .....	3.94	12.29	4.02	33.08
	Weber-King Brand Fertilizer Special 5-10-5,				
91198	Guarantee .....	5.00	10.00	5.00	34.00
91248	Analysis .....	4.77	10.85	5.02	34.62
91721	Analysis .....	4.92	10.14	5.10	34.13
	Analysis .....	4.92	9.43	5.31	33.42
	Weber-King Brand 20% Superphosphate, Guarantee..	0.00	20.00	0.00	28.00
91205	Analysis .....	0.00	20.29	0.00	28.41
91173	Analysis .....	0.00	20.37	0.00	28.52
	<b>Kipfer Chemical Company, Harlingen, Texas</b>				
	K W Brand 20% Superphosphate, Guarantee.....	0.00	20.00	0.00	28.00
90924	Analysis .....	0.00	20.27	0.00	28.38
	<b>Lake Charles Feed Company, Inc., Lake Charles, Louisiana</b>				
91145	Bestbet Brand Fertilizer Special 4-12-4, Guarantee... Analysis .....	4.00 4.38	12.00 12.64	4.00 4.06	32.80 34.77
	<b>La-Tex Fertilizer Works, Shreveport, Louisiana</b>				
91495	La-Tex Fertilizer 0-14-7, Guarantee.....	0.00	14.00	7.00	29.40
	Analysis .....	0.00	13.51	7.08	28.82
91294	La-Tex Fertilizer 4-8-8, Guarantee.....	4.00	8.00	8.00	32.80
91318	Analysis .....	3.90	9.14	7.52	33.47
91278	Analysis .....	4.67	8.50	8.02	35.27
	La-Tex Fertilizer 4-12-4, Guarantee.....	4.37	7.08	8.01	32.48
90909	Analysis .....	4.00	12.00	4.00	32.80
90964	Analysis .....	3.19	12.37	3.25	30.16
90972	Analysis .....	3.92	11.44	4.09	31.94
	Analysis .....	4.22	11.84	4.16	33.37

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand		Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
Manufacturer, place of business and brand						
91050	La-Tex Fertilizer	4-12-4, Guarantee	4.00	12.00	4.00	\$32.80
91138	Analysis		4.24	11.59	4.52	33.58
91190	Analysis		5.04	9.64	5.38	34.13
91199	Analysis		4.14	10.99	4.20	32.03
91335	Analysis		3.65	11.71	4.01	31.49
91344	Analysis		3.59	12.17	4.03	32.01
91363	Analysis		4.23	10.71	5.01	33.00
91496	Analysis		4.26	10.90	4.12	32.11
91612	Analysis		3.60	12.51	4.06	32.55
91813	Analysis		2.62	13.04	2.51	28.58
	La-Tex 5-10-5	Fertilizer, Guarantee	3.70	11.78	4.23	32.03
90906	Analysis		5.00	10.00	5.00	34.00
90963	Analysis		4.95	10.06	5.02	33.98
91049	Analysis		4.62	11.25	4.57	34.16
91116	Analysis		4.85	10.48	5.02	34.31
91137	Analysis		5.36	8.93	6.05	34.91
91189	Analysis		5.36	10.02	5.36	35.47
91200	Analysis		5.33	9.50	5.36	34.66
91276	Analysis		4.68	10.01	5.01	33.19
91287	Analysis		3.94	11.95	4.09	32.79
91293	Analysis		4.43	10.26	5.01	32.89
91319	Analysis		4.92	10.36	5.17	34.53
91336	Analysis		4.92	10.08	5.12	34.00
91343	Analysis		4.43	10.32	5.02	33.00
91355	Analysis		4.28	11.17	4.42	32.96
91364	Analysis		4.99	10.05	5.02	34.07
91387	Analysis		5.00	10.14	5.38	34.73
91490	Analysis		4.78	10.01	5.00	33.44
91535	Analysis		3.88	10.13	5.02	31.30
91571	Analysis		4.17	10.80	4.28	31.95
91613	Analysis		4.81	9.18	5.46	33.00
91899	Analysis		2.82	14.11	5.09	34.21
	La-Tex 0-20-0	Fertilizer, Guarantee	4.86	9.04	5.42	32.88
90911	Analysis		0.00	20.00	0.00	28.00
90965	Analysis		0.00	20.41	0.00	28.57
91494	Analysis		0.00	18.33	0.00	25.66
91570	Analysis		0.00	19.40	0.00	27.24
			0.00	17.85	0.00	24.99
Lion Oil Company, El Dorado, Arkansas						
90876	Lion Ammonium Nitrate Fertilizer	Guarantee	32.50	0.00	0.00	84.50
90882	Analysis		32.56	0.00	0.00	84.66
90915	Analysis		32.54	0.00	0.00	84.60
90935	Analysis		32.56	0.00	0.00	84.66
91057	Analysis		32.56	0.00	0.00	84.55
91600	Analysis		32.80	0.00	0.00	85.28
91929	Analysis		32.60	0.00	0.00	84.76
91934	Analysis		32.72	0.00	0.00	85.07
			32.58	0.00	0.00	84.71
Marshall Cotton Oil Company, Marshall, Texas						
91252	Marshall 4-12-4 Fertilizer	Guarantee	4.00	12.00	4.00	32.80
91314	Analysis		3.68	12.73	4.31	33.42
91361	Analysis		3.64	11.79	4.01	31.58
91398	Analysis		4.07	11.25	4.32	31.98
91742	Analysis		3.61	11.10	4.08	30.64
91746	Analysis		3.93	11.38	4.02	31.78
91748	Analysis		3.65	11.84	4.02	31.70
	Marshall 5-10-5 Fertilizer	Guarantee	3.66	12.23	4.04	32.30
91813	Analysis		5.00	10.00	5.00	34.00
91815	Analysis		4.21	9.39	4.13	29.88
91862	Analysis		4.46	9.07	4.24	30.24
91480	Analysis		4.92	9.26	4.92	32.64
			4.02	8.85	4.56	29.22

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand	Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
91745	Marshall 5-10-5 Fertilizer, Guarantee.....	5.00	10.00	5.00	\$34.00
91749	Analysis .....	3.94	8.82	5.49	29.52
91749	Analysis .....	3.93	9.52	5.01	29.16
Mora C. Clark, Ft. Worth, 2, Texas					
90941	Clarks Soft Phosphate with Colloidal clay Guarantee .....	0.00	20.00*	0.00	6.00
	Analysis .....	0.00	19.82*	0.00	5.95
Niagara Sprayer & Chemical Company, Inc. Harlingen, Texas					
90928	Triple C Brand 20% Superphosphate Granular Guarantee .....	0.00	20.00	0.00	28.00
	Analysis .....	0.00	20.57	0.00	28.80
Oil Mill & Fertilizer Works, Henderson, Texas					
90955	Wolf Brand 4-12-4 Fertilizer, Guarantee.....	4.00	12.00	4.00	32.80
91380	Analysis .....	3.93	11.39	4.27	32.15
91728	Analysis .....	3.67	11.77	4.01	31.63
90956	Wolf Brand 5-10-5 Fertilizer, Guarantee.....	3.80	11.51	4.15	31.80
91233	Analysis .....	5.00	10.00	5.00	34.00
91379	Analysis .....	5.03	9.93	4.04	32.64
91900	Analysis .....	4.63	10.43	5.03	33.68
91381	Wolf Brand Superphosphate 20%, Guarantee.....	4.91	10.57	4.76	34.23
	Analysis .....	4.80	9.48	4.95	32.68
	Analysis .....	0.00	20.00	0.00	28.00
	Analysis .....	0.00	20.20	0.00	28.28
Pittsburg Cotton Oil Company, Pittsburg, Texas					
91779	4-8-8 Double Circle Fertilizer, Guarantee.....	4.00	8.00	8.00	32.80
91884	Analysis .....	4.02	8.12	7.61	32.47
91891	Analysis .....	3.74	8.02	7.56	31.53
91280	Analysis .....	3.94	8.02	6.57	30.67
91760	Double Circle Fertilizer 4-12-4, Guarantee.....	4.00	12.00	4.00	32.80
91889	Analysis .....	5.02	12.42	4.85	37.23
91758	Analysis .....	4.25	12.09	4.02	33.61
91279	Analysis .....	4.16	12.29	4.00	33.63
91778	5-10-5 Double Circle Fertilizer, Guarantee.....	5.00	10.00	5.00	34.00
91890	Analysis .....	5.15	10.14	5.51	35.30
	Analysis .....	5.80	10.52	5.94	38.11
	Analysis .....	4.70	9.36	5.22	32.66
	Analysis .....	4.67	9.60	5.23	32.90
Ralston Purina Company, St. Louis, Missouri					
90829	Purina Plant Food, Guarantee .....	5.00	10.00	5.00	34.00
90897	Analysis .....	4.95	9.56	5.20	33.53
90900	Analysis .....	4.84	9.94	5.15	33.71
90917	Analysis .....	4.81	9.41	5.12	32.85
90923	Analysis .....	4.46	10.00	5.14	32.80
90996	Analysis .....	4.85	9.28	5.52	33.33
91005	Analysis .....	4.94	10.17	5.13	34.26
91023	Analysis .....	5.08	9.46	5.24	33.79
91223	Analysis .....	5.08	9.56	5.40	34.15
91321	Analysis .....	4.87	9.54	5.02	33.05
91328	Analysis .....	5.02	8.89	5.13	32.70
	Analysis .....	4.83	9.71	5.02	33.18
Red Star Fertilizer Company, Sulphur Springs, Texas					
91262	Red Star Brand 0-14-7 Fertilizer, Guarantee.....	0.00	14.00	7.00	29.40
91263	Red Star Brand 4-8-8 Fertilizer, Guarantee.....	0.00	14.25	7.30	30.17
	Analysis .....	4.00	8.00	8.00	32.80
	Analysis .....	4.01	8.05	7.37	32.02

\* Total phosphoric acid

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand					Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
Manufacturer, place of business and brand									
91267	Red Star Brand 4-8-8 Fertilizer, Guarantee.....	Analysis	4.00	8.00	8.00	\$32.80			
91312		Analysis	4.47	9.10	5.90	32.62			
91468		Analysis	3.67	8.03	8.04	32.04			
91562		Analysis	4.06	8.34	7.42	32.63			
91754		Analysis	4.05	8.59	7.24	32.70			
91761		Analysis	3.84	8.06	8.02	32.49			
91773		Analysis	3.82	7.41	8.02	31.53			
91806		Analysis	3.57	8.49	8.02	32.40			
91827		Analysis	4.12	9.35	8.01	34.47			
91825		Analysis	4.05	8.41	6.57	31.50			
91777		Analysis	4.07	8.86	7.72	33.79			
91853		Analysis	3.61	8.89	6.03	30.28			
91787		Analysis	3.92	7.77	7.77	31.95			
		Analysis	3.94	8.00	7.55	32.01			
91125	Red Star 4-12-4 Fertilizer, Guarantee.....	Analysis	4.00	12.00	4.00	32.80			
91133		Analysis	3.90	12.38	4.36	33.57			
91256		Analysis	4.27	11.01	4.60	32.95			
91264		Analysis	4.06	11.60	4.31	32.83			
91528		Analysis	3.87	11.29	4.05	31.53			
91531		Analysis	4.30	10.68	4.40	32.29			
91533		Analysis	4.11	12.16	4.18	33.56			
91537		Analysis	3.98	11.38	4.01	31.89			
91539		Analysis	4.14	11.12	3.71	31.52			
91685		Analysis	4.04	10.91	3.78	31.06			
91691		Analysis	3.97	11.00	3.15	30.13			
91692		Analysis	3.57	10.62	2.98	28.32			
91697		Analysis	3.94	11.82	4.02	31.72			
91783		Analysis	3.82	10.46	2.84	28.55			
91809		Analysis	4.15	11.20	4.02	32.10			
91798		Analysis	3.88	11.33	4.02	31.58			
		Analysis	3.78	10.48	3.01	28.71			
91124	Red Star 5-10-5 Fertilizer, Guarantee.....	Analysis	5.00	10.00	5.00	34.00			
91261		Analysis	4.92	9.68	5.66	34.26			
91267		Analysis	3.49	10.59	5.04	30.96			
91269		Analysis	5.47	9.10	5.26	34.32			
91268		Analysis	5.04	10.07	5.24	34.54			
91469		Analysis	5.00	10.51	4.18	33.56			
91470		Analysis	4.70	10.00	4.67	32.76			
91476		Analysis	4.98	9.00	5.12	32.72			
91529		Analysis	4.94	9.46	5.16	33.30			
91532		Analysis	4.66	10.03	4.71	32.75			
91538		Analysis	5.06	9.66	5.01	33.69			
91543		Analysis	4.91	10.03	4.81	33.54			
91558		Analysis	4.92	9.38	5.02	32.95			
91563		Analysis	5.08	8.89	5.01	32.64			
91694		Analysis	4.78	9.41	5.14	32.80			
91752		Analysis	4.62	9.50	5.24	32.65			
91755		Analysis	3.95	10.13	4.08	30.16			
91770		Analysis	4.74	9.65	5.18	33.08			
91772		Analysis	4.55	8.77	5.02	31.14			
91784		Analysis	4.39	9.87	4.65	31.74			
91799		Analysis	4.78	9.73	5.31	33.48			
91807		Analysis	4.72	10.37	5.03	33.83			
91826		Analysis	4.79	9.90	5.23	33.63			
91788		Analysis	5.01	9.03	5.17	32.91			
91854		Analysis	5.06	9.56	5.01	33.55			
91786		Analysis	5.19	10.70	5.16	35.69			
91776		Analysis	4.34	10.04	5.62	33.21			
		Analysis	4.26	10.15	4.39	31.44			

Robin Jones Phosphate Company, Nashville, Tennessee

Florida Colloidal Phosphate 22%, Guarantee.....	0.00	22.00*	0.00	6.60
90815 Analysis .....	0.00	23.37*	0.00	7.01

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand	Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
	The Rowland Fertilizer Company, Plainview, Texas				
91801	All Crop 10-29-0 Fertilizer, Guarantee.....	10.00	20.00	0.00	\$54.00
	Analysis .....	12.67	19.84	0.00	60.72
91800	All Crop Fertilizer 16-20-0, Guarantee.....	16.00	20.00	0.00	69.60
91804	Analysis .....	16.66	16.80	0.00	66.84
	Analysis .....	18.09	10.17	0.00	61.27
	Sea Board Sales Company, Dunnellon, Florida				
91951	Se-Bo-Phos, Soft phosphate with colloidal clay, Guarantee .....	0.00	20.00*	0.00	6.00
	Analysis .....	0.00	20.60*	0.00	6.18
	The Sewerage Commission of Milwaukee, Milwaukee 1, Wisconsin				
90940	Milwaukee Milorganite Fertilizer, Guarantee.....	6.00	2.00	0.00	18.40
	Analysis .....	5.55	2.52	0.00	17.96
	Shreveport Fertilizer Works, Shreveport, Louisiana				
91327	Lion Brand 0-14-7 Fertilizer, Guarantee.....	0.00	14.00	7.00	29.40
	Analysis .....	0.00	12.47	5.64	25.36
91182	Lion Brand Fertilizer 4-8-8, Guarantee.....	4.00	8.00	8.00	32.80
91298	Analysis .....	4.00	7.76	8.41	33.03
91300	Analysis .....	3.97	7.63	7.21	31.09
91408	Analysis .....	5.03	8.26	9.37	37.76
91507	Analysis .....	4.93	8.25	9.58	37.78
	Lion Brand 4-12-4 Fertilizer, Guarantee.....	4.53	8.91	7.51	34.76
90938	Analysis .....	4.00	12.00	4.00	32.80
91121	Analysis .....	3.92	12.07	3.82	32.44
91245	Analysis .....	3.43	12.78	4.04	32.47
91325	Analysis .....	3.28	12.36	4.10	31.57
91391	Analysis .....	1.67	15.03	2.25	28.53
91473	Analysis .....	3.97	12.64	3.46	32.86
91711	Analysis .....	2.68	13.69	3.03	30.38
91874	Analysis .....	4.32	11.16	4.03	32.26
	Longhorn Brand 4-12-4 Fertilizer, Guarantee.....	3.77	11.81	4.45	32.57
91217	Analysis .....	4.00	12.00	4.00	32.80
91230	Analysis .....	3.62	12.06	4.31	32.32
91249	Analysis .....	3.74	11.52	4.26	31.81
91350	Analysis .....	2.55	13.91	4.01	31.78
91428	Analysis .....	1.96	15.42	2.38	30.02
91463	Analysis .....	3.49	12.45	4.01	32.11
91487	Analysis .....	2.60	13.58	3.25	30.32
91726	Analysis .....	3.12	12.13	4.02	30.72
	Lion Brand Fertilizer 5-10-5, Guarantee.....	3.98	10.95	4.21	31.57
91115	Analysis .....	5.00	10.00	5.00	34.00
91122	Analysis .....	4.94	10.34	5.01	34.33
91183	Analysis .....	4.96	10.44	5.01	34.53
91246	Analysis .....	5.51	8.03	5.38	33.10
91299	Analysis .....	5.09	9.67	5.38	34.30
91326	Analysis .....	5.17	10.11	5.04	34.65
91370	Analysis .....	4.82	9.63	5.17	33.25
91390	Analysis .....	5.02	9.51	6.17	35.00
91394	Analysis .....	5.72	9.12	5.84	35.12
91409	Analysis .....	4.61	9.56	5.20	32.65
91418	Analysis .....	4.31	10.13	6.60	34.63
91457	Analysis .....	4.66	9.85	5.01	32.92
91474	Analysis .....	5.06	10.24	5.14	34.70
91508	Analysis .....	5.10	10.06	5.12	34.51
91565	Analysis .....	4.17	11.68	4.22	33.10
91512	Analysis .....	4.86	9.60	5.39	33.63
91058	Analysis .....	4.39	9.93	5.38	32.84
91710	Analysis .....	5.12	10.48	5.39	35.53
	Analysis .....	4.77	9.50	5.12	32.87

\* Total phosphoric acid

Table 7. Analyses of commercial fertilizers sampled during 1946-47

Laboratory number	Manufacturer, place of business and brand	Nitrogen percent	Available phosphoric acid percent	Potash percent	* Valuation found per ton
	Longhorn Brand 5-10-5 Fertilizer, Guarantee.	5.00	10.00	5.00	\$34.00
91765	Analysis	5.16	9.48	5.08	33.80
91860	Analysis	5.41	9.53	6.00	35.81
91875	Analysis	4.54	9.68	5.23	32.66
91925	Analysis	4.68	10.17	5.03	33.45
91926	Analysis	4.06	10.11	5.13	31.90
91918	Analysis	3.86	9.56	6.60	32.67
90914	Analysis	4.18	9.87	5.01	31.70
91208	Analysis	4.91	10.01	5.30	34.20
91218	Analysis	4.37	10.44	5.16	33.20
91231	Analysis	3.88	12.61	5.02	34.77
91351	Analysis	5.08	9.37	6.57	35.53
91427	Analysis	5.26	10.14	5.31	35.31
91464	Analysis	5.19	9.53	5.35	34.32
91488	Analysis	5.09	9.84	5.46	34.65
91572	Analysis	4.61	9.58	5.20	32.68
91725	Analysis	4.08	10.57	4.42	31.60
91429	Longhorn 20% Superphosphate, Guarantee.	0.00	20.00	0.00	28.00
	Analysis	0.00	18.63	0.00	26.08
	Smith Douglass Company, Inc., Shreveport, Louisiana				
	Smith's Big Yield 4-12-4, Guarantee.	4.00	12.00	4.00	32.80
90769	Analysis	4.06	11.43	4.17	32.04
91035	Analysis	4.16	12.04	4.28	33.67
91045	Analysis	4.07	11.43	4.20	32.46
91110	Analysis	3.98	11.45	4.18	32.23
91176	Analysis	4.06	11.46	4.25	32.27
91180	Analysis	4.01	11.34	4.10	32.06
91181	Analysis	4.14	11.56	4.06	32.62
91242	Analysis	4.03	11.30	4.02	31.93
91254	Analysis	4.01	11.46	4.04	32.13
91302	Analysis	4.02	11.00	4.20	31.73
91403	Analysis	3.98	11.30	4.05	31.84
91410	Analysis	4.02	10.97	4.09	31.54
91421	Analysis	4.01	11.82	4.14	32.78
91448	Analysis	4.05	12.14	4.03	33.17
91460	Analysis	4.16	10.97	4.14	31.98
91601	Analysis	4.00	11.24	4.07	31.84
91618	Analysis	4.05	11.77	4.02	32.64
91744	Analysis	3.75	11.60	4.03	31.63
91938	Analysis	3.78	11.47	4.30	31.91
91868	Analysis	4.01	12.00	3.72	32.44
	Smith's Square Deal 5-10-5 Fertilizer, Guarantee.	5.00	16.00	5.00	34.00
90770	Analysis	4.74	10.18	5.05	33.64
90773	Analysis	4.82	10.62	5.16	34.62
90778	Analysis	5.00	10.29	5.20	34.69
90779	Analysis	4.95	10.22	5.02	34.21
90793	Analysis	4.92	10.23	5.09	34.24
90988	Analysis	4.91	10.68	5.23	35.04
91034	Analysis	4.96	10.07	5.22	34.31
91044	Analysis	4.98	10.81	5.02	34.87
91046	Analysis	5.07	10.38	5.22	35.02
91054	Analysis	5.03	9.78	5.51	34.48
91066	Analysis	5.09	10.78	5.22	35.63
91074	Analysis	4.95	10.01	5.26	34.24
91177	Analysis	4.89	9.83	5.88	34.00
91179	Analysis	5.07	10.13	5.38	35.89
91227	Analysis	4.86	10.23	5.02	33.99
91250	Analysis	5.03	10.00	5.26	34.44
91253	Analysis	4.87	9.28	5.29	33.06
91275	Analysis	4.99	10.56	5.22	35.06
91282	Analysis	5.00	10.02	5.06	34.11
91290	Analysis	5.10	10.01	5.06	34.35

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand		Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
91301	Smith's Square Deal 5-10-5 Fertilizer, Guarantee.	Analysis	5.00	10.00	5.00	\$34.00
91303		Analysis	5.04	10.26	5.11	34.61
91316		Analysis	4.82	9.05	5.75	33.25
91323		Analysis	5.09	10.12	5.39	34.93
91331		Analysis	4.80	9.95	5.28	33.80
91339		Analysis	4.98	9.69	5.36	34.02
91345		Analysis	5.17	10.56	5.02	35.25
91347		Analysis	5.07	9.30	5.16	33.42
91356		Analysis	5.00	10.14	5.20	34.48
91365		Analysis	5.04	10.31	5.32	34.98
91376		Analysis	5.16	10.61	5.30	35.69
91378		Analysis	4.88	9.69	5.17	33.50
91388		Analysis	5.00	9.72	5.34	34.09
91389		Analysis	4.96	10.13	5.28	34.47
91402		Analysis	4.71	9.80	5.27	33.35
91411		Analysis	4.78	9.46	5.14	32.87
91414		Analysis	5.05	10.16	5.04	34.41
91422		Analysis	4.87	9.71	5.01	33.26
91430		Analysis	4.97	9.73	5.36	34.04
91442		Analysis	4.90	10.12	5.26	34.27
91449		Analysis	4.86	10.21	5.11	34.08
91459		Analysis	4.73	10.05	5.42	33.96
91475		Analysis	5.06	10.21	5.24	34.79
91505		Analysis	4.87	9.30	5.65	33.59
91523		Analysis	4.90	9.71	5.21	33.62
91525		Analysis	5.09	10.01	5.15	34.45
91566		Analysis	5.16	10.03	5.02	34.49
91606		Analysis	4.75	10.15	5.08	33.67
91619		Analysis	5.06	9.83	5.16	34.14
91637		Analysis	4.64	10.14	4.64	32.71
91678		Analysis	4.54	9.95	5.21	33.02
91731		Analysis	4.64	10.28	5.02	33.48
91740		Analysis	4.55	10.01	5.14	33.04
91743		Analysis	4.59	9.61	5.21	32.66
91751		Analysis	4.45	10.10	4.99	32.70
91759		Analysis	4.63	9.59	5.11	32.71
91763		Analysis	4.42	9.76	5.64	33.05
91768		Analysis	4.70	9.40	5.42	32.97
91782		Analysis	4.45	10.43	4.67	32.65
91829		Analysis	5.05	9.65	5.62	34.51
91885		Analysis	4.59	11.33	5.61	35.71
91914		Analysis	4.58	10.02	4.97	32.90
91869		Analysis	4.89	10.19	5.35	34.47
91892		Analysis	4.11	10.84	4.42	32.09
91524	Smith Nitro Phos. 6-12-0, Guarantee.	Analysis	6.00	12.00	0.00	32.40
			6.00	12.12	0.00	32.57
Southern Acid & Sulphur Co., Inc., St. Louis 2, Missouri						
91011	SASCO 20% Superphosphate, Guarantee.	Analysis	0.00	20.00	0.00	28.00
91084		Analysis	0.00	21.15	0.00	29.61
	SASCO-Phos Ammonia Phosphate-Sulphate,					
91796	Guarantee	Analysis	16.00	20.00	0.00	69.60
91805		Analysis	16.36	20.49	0.00	71.86
91937		Analysis	16.33	21.22	0.00	72.17
91944		Analysis	16.05	21.26	0.00	71.49
			16.02	21.56	0.00	71.83
Southwestern Peanut Growers Ass'n., Gorman, Texas						
90817	Pabak Brand 4-12-4 Fertilizer, Guarantee.	Analysis	4.00	12.00	4.00	32.80
			4.09	12.21	3.49	32.61

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand		Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
Manufacturer, place of business and brand						
90847	Pabak Brand	4-12-4 Fertilizer, Guarantee.....	4.00	12.00	4.00	\$32.80
	Analysis .....		4.12	12.27	4.03	33.53
91684	Analysis .....		3.80	11.50	4.01	31.59
91789	Analysis .....		3.68	11.65	4.04	31.54
90848	Pabak Brand	0-14-7 Fertilizer, Guarantee.....	0.00	14.00	7.00	29.40
	Analysis .....		0.00	14.75	7.09	30.58
Spencer Chemical Company, Pittsburg, Kansas						
90854	Ammonium Nitrate Fertilizer, Guarantee.....		32.50	0.00	0.00	84.50
	Analysis .....		32.96	0.00	0.00	85.70
90978	Analysis .....		32.56	0.00	0.00	84.66
91096	Analysis .....		32.50	0.00	0.00	84.50
91112	Analysis .....		32.56	0.00	0.00	84.66
91452	Analysis .....		32.54	0.00	0.00	84.60
Swift and Company Fertilizer Works, New Orleans, Shreveport, Louisiana, Houston, Texas						
90722	Swift's Red Steer Brand	4-12-4, Guarantee.....	4.00	12.00	4.00	32.80
	Analysis .....		4.33	12.00	4.87	34.88
90726	Analysis .....		4.07	12.81	3.57	33.51
90729	Analysis .....		4.09	12.23	4.08	33.46
90740	Analysis .....		3.64	11.59	4.10	31.52
90748	Analysis .....		4.04	12.87	4.02	34.15
90758	Analysis .....		3.99	12.30	4.02	33.22
90760	Analysis .....		3.81	12.61	4.28	33.55
90775	Analysis .....		3.92	12.26	4.07	33.05
90781	Analysis .....		4.14	12.19	4.04	33.49
90785	Analysis .....		4.02	12.02	4.08	32.99
90791	Analysis .....		3.89	12.03	4.08	32.66
90805	Analysis .....		4.08	12.14	4.03	33.25
90806	Analysis .....		3.67	12.44	4.09	32.69
90809	Analysis .....		4.14	12.01	4.04	33.23
90812	Analysis .....		4.06	12.54	4.09	33.85
90821	Analysis .....		4.00	12.46	4.20	33.72
90844	Analysis .....		3.92	12.74	4.01	33.64
90849	Analysis .....		4.08	12.61	4.27	34.24
90850	Analysis .....		4.21	12.46	3.42	33.18
90887	Analysis .....		4.01	12.07	4.03	32.97
90903	Analysis .....		4.08	12.04	4.01	33.08
90912	Analysis .....		3.86	12.39	4.05	33.06
90948	Analysis .....		3.96	12.97	4.11	34.21
90957	Analysis .....		3.93	12.08	4.24	33.07
90971	Analysis .....		4.00	12.44	4.05	33.49
90979	Analysis .....		4.09	13.46	4.02	35.10
90986	Analysis .....		4.15	12.12	4.04	33.42
90992	Analysis .....		3.75	14.13	4.04	35.19
90995	Analysis .....		4.02	12.30	4.12	33.44
91008	Analysis .....		4.22	12.47	4.12	34.20
91027	Analysis .....		3.96	12.28	5.02	34.52
91032	Analysis .....		4.25	12.22	3.46	33.00
91047	Analysis .....		4.19	12.40	4.28	34.24
91070	Analysis .....		4.06	11.94	4.01	32.89
91075	Analysis .....		4.01	12.13	4.08	33.12
91076	Analysis .....		3.93	12.14	4.04	32.88
91077	Analysis .....		4.02	11.80	4.50	33.27
91086	Analysis .....		4.03	12.09	4.11	33.16
91091	Analysis .....		4.04	12.24	4.64	34.14
91100	Analysis .....		4.02	11.92	4.18	32.99
91128	Analysis .....		4.00	12.32	4.15	33.46
91136	Analysis .....		3.96	11.78	4.08	32.50
91144	Analysis .....		4.20	12.53	4.48	34.73
91150	Analysis .....		3.98	11.85	4.03	32.58
91157	Analysis .....		4.00	12.01	4.02	32.84

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand	Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
91158	Swift's Red Steer Brand 4-12-4, Guarantee.	4.00	12.00	4.00	\$32.80
91165	Analysis .....	4.10	11.85	4.25	33.20
91224	Analysis .....	3.88	12.28	4.12	33.05
91265	Analysis .....	4.02	12.31	4.26	33.64
91283	Analysis .....	4.19	11.65	4.36	33.30
91297	Analysis .....	4.28	12.33	4.29	34.40
91322	Analysis .....	4.07	12.49	4.40	34.32
91371	Analysis .....	4.05	11.51	4.22	32.55
91382	Analysis .....	4.11	12.27	4.10	33.61
91407	Analysis .....	3.96	11.65	4.31	32.64
91433	Analysis .....	4.06	11.59	4.20	32.67
91454	Analysis .....	4.03	12.00	3.19	31.75
91489	Analysis .....	4.06	11.43	4.21	32.45
91492	Analysis .....	4.15	11.21	4.35	32.57
91510	Analysis .....	3.91	11.32	4.05	31.69
91527	Analysis .....	3.88	11.94	4.03	32.45
91554	Analysis .....	4.14	12.04	4.16	33.44
91589	Analysis .....	3.62	11.29	4.58	31.63
91594	Analysis .....	4.23	11.25	4.12	32.52
91603	Analysis .....	4.01	12.12	4.10	33.14
91614	Analysis .....	4.02	11.73	4.20	32.75
91622	Analysis .....	4.00	12.08	4.09	33.04
91628	Analysis .....	3.54	11.78	4.22	31.60
91634	Analysis .....	4.07	12.11	4.13	33.31
91657	Analysis .....	4.00	12.10	4.03	32.98
91668	Analysis .....	3.89	11.39	4.01	31.77
91671	Analysis .....	3.94	11.33	4.47	32.36
91675	Analysis .....	3.95	11.79	4.01	32.39
91681	Analysis .....	4.07	11.87	4.02	32.83
91683	Analysis .....	3.74	11.81	4.18	32.10
91686	Analysis .....	4.14	11.28	4.01	32.16
91705	Analysis .....	4.02	11.28	4.15	32.05
91709	Analysis .....	3.80	11.87	4.21	32.39
91734	Analysis .....	3.80	12.13	4.02	32.49
91764	Analysis .....	3.94	11.52	4.12	32.14
91774	Analysis .....	4.08	11.69	4.06	32.66
91855	Analysis .....	4.02	12.00	4.24	33.19
91863	Analysis .....	3.94	12.39	4.26	33.55
91893	Analysis .....	4.02	12.05	4.02	32.95
91924	Analysis .....	4.12	11.69	4.08	32.79
91935	Analysis .....	3.79	12.04	4.51	33.02
90761	Analysis .....	3.84	12.28	3.91	32.64
90787	Analysis .....	3.86	12.29	4.24	33.19
90792	Analysis .....	4.35	11.41	4.74	33.92
90825	Analysis .....	4.33	11.57	4.62	33.98
90837	Analysis .....	4.29	11.63	4.24	33.37
90861	Analysis .....	4.33	12.01	4.26	34.03
90878	Analysis .....	4.29	11.79	4.37	33.78
90888	Analysis .....	3.86	12.74	4.20	33.76
90899	Analysis .....	4.03	12.28	4.45	33.90
91004	Analysis .....	4.34	12.01	4.36	34.05
91087	Analysis .....	4.06	12.53	4.21	33.99
91092	Analysis .....	3.99	12.16	4.16	33.21
91166	Analysis .....	3.91	12.42	4.36	33.66
91324	Analysis .....	4.24	11.74	4.36	33.56
91576	Analysis .....	4.17	11.53	4.12	32.75
91604	Analysis .....	4.11	11.91	4.20	33.24
91616	Analysis .....	3.76	12.10	4.08	32.43
91645	Analysis .....	3.90	12.28	4.10	33.07
91647	Analysis .....	4.18	12.69	4.24	34.58
91659	Analysis .....	4.10	12.11	4.01	33.22
91666	Analysis .....	3.85	12.07	4.17	32.75
91687	Analysis .....	4.04	12.44	4.17	33.76
		3.86	11.62	4.02	31.94

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand	Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
91690	Swift's Red Steer Brand 4-12-4, Guarantee.....	4.00	12.00	4.00	\$32.80
91775	Analysis .....	3.76	12.18	4.03	32.47
91794	Analysis .....	3.92	12.26	4.44	33.57
91818	Analysis .....	3.80	11.50	4.14	31.78
91847	Analysis .....	3.91	12.29	4.26	33.84
90800	Swift's Red Steer Brand 5-10-5, Guarantee.....	4.05	11.58	4.32	32.79
90824	Analysis .....	5.00	10.00	5.00	34.00
90980	Analysis .....	4.53	9.29	5.10	31.93
90987	Analysis .....	4.87	10.11	5.03	33.85
91033	Analysis .....	5.50	9.41	5.34	34.95
91048	Analysis .....	4.93	10.33	5.22	34.56
91059	Analysis .....	5.08	10.13	4.72	34.00
91159	Analysis .....	5.00	10.18	5.22	34.56
91251	Analysis .....	5.01	10.02	5.02	34.09
91266	Analysis .....	4.54	11.10	4.36	33.44
91281	Analysis .....	3.95	11.54	4.50	32.72
91296	Analysis .....	5.08	9.61	5.10	33.80
91357	Analysis .....	5.04	10.02	5.17	34.37
91359	Analysis .....	5.14	9.62	5.10	33.97
91372	Analysis .....	5.08	9.72	5.36	34.32
91373	Analysis .....	5.03	9.73	5.26	34.06
91383	Analysis .....	5.02	9.93	5.06	34.03
91401	Analysis .....	5.17	10.14	5.20	34.78
91522	Analysis .....	4.89	10.22	5.18	34.27
91567	Analysis .....	4.78	10.26	5.01	33.80
91590	Analysis .....	5.20	9.89	5.15	34.58
91615	Analysis .....	4.91	10.06	5.02	33.88
91646	Analysis .....	4.89	9.54	5.22	33.38
91676	Analysis .....	4.66	10.02	5.07	33.25
91835	Analysis .....	4.82	10.59	5.21	34.65
90786	Swift's Red Steer Brand 6-12-0, Guarantee.....	4.61	10.15	5.01	33.21
90860	Analysis .....	4.65	10.09	5.16	33.44
90927	Analysis .....	6.00	12.00	0.00	32.40
91642	Analysis .....	6.02	11.13	0.00	31.23
90759	Swift's Red Steer Brand 20% Superphosphate, Guarantee .....	5.78	12.40	0.00	32.26
91097	Analysis .....	5.41	11.94	0.00	30.79
91655	Analysis .....	5.44	10.74	0.00	29.18
91658	Analysis .....	0.00	20.00	0.00	28.00
91704	Analysis .....	0.00	20.25	0.00	28.35
90881	Tennessee Corporation, Cincinnati 15, Ohio Loma 5-10-5, Guarantee.....	5.00	10.00	5.00	34.00
91002	Analysis .....	4.42	10.67	4.60	32.87
91722	Texas Farm Products Company, Nacogdoches, Texas Lone Star 4-8-8 Fertilizer, Guarantee.....	4.28	11.03	4.90	33.43
91610	Analysis .....	4.00	8.00	8.00	32.80
91632	Analysis .....	3.59	8.29	8.02	32.17
91713	Analysis .....	4.03	8.04	8.01	32.95
91716	Analysis .....	4.04	7.68	7.71	32.04
91729	Analysis .....	3.83	7.74	8.03	32.04
91732	Analysis .....	3.63	7.55	7.02	29.84
91738	Analysis .....	3.67	7.82	7.03	30.33
91830	Analysis .....	3.47	7.60	8.05	30.98
91833	Analysis .....	3.85	8.20	7.16	31.51
91873	Analysis .....	3.72	8.18	8.13	32.50
91881	Analysis .....	3.79	8.31	8.02	32.71
91888	Analysis .....	4.00	8.29	8.08	33.32
91861	Analysis .....	3.82	8.44	8.10	33.09
91888	Analysis .....	4.00	8.09	6.59	30.96
	Analysis .....	4.21	8.12	6.38	31.56

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand	Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
	Manufacturer, place of business and brand				
91905	Lone Star 4-8-8 Fertilizer, Guarantee.	4.00	8.00	8.00	\$32.80
91907	Analysis .....	4.00	7.70	7.83	32.14
91910	Analysis .....	3.94	7.79	8.15	32.56
91917	Analysis .....	3.74	8.12	7.45	31.52
91921	Analysis .....	4.14	7.72	7.12	31.50
91928	Analysis .....	3.83	8.58	7.22	32.09
91932	Analysis .....	3.83	8.00	7.55	31.73
	Lone Star 4-12-4, Guarantee..	3.72	7.57	7.53	30.81
90954	Analysis .....	4.00	12.00	4.00	32.80
90959	Analysis .....	3.54	12.11	4.02	31.78
90961	Analysis .....	3.59	12.11	4.01	31.89
90967	Analysis .....	3.86	12.34	4.20	33.20
90975	Analysis .....	4.07	11.89	4.27	33.21
91040	Analysis .....	3.95	12.05	4.10	32.88
91062	Analysis .....	3.89	12.05	4.19	32.85
91065	Analysis .....	3.89	11.88	4.10	32.48
91068	Analysis .....	4.02	11.45	4.04	32.14
91078	Analysis .....	4.08	12.13	4.11	33.84
91089	Analysis .....	4.08	11.44	4.01	32.24
91163	Analysis .....	3.98	11.94	4.06	32.75
91167	Analysis .....	3.88	11.47	4.02	31.78
91169	Analysis .....	3.96	12.46	4.08	33.45
91170	Analysis .....	4.20	11.99	4.22	33.62
91194	Analysis .....	4.13	11.62	4.05	32.68
91210	Analysis .....	4.02	11.32	4.13	32.08
91213	Analysis .....	3.79	11.45	4.13	31.66
91225	Analysis .....	3.77	11.21	4.04	31.14
91241	Analysis .....	3.98	11.60	4.20	32.47
91272	Analysis .....	4.19	11.60	4.35	33.22
91292	Analysis .....	3.85	11.83	4.04	32.23
91309	Analysis .....	3.93	11.97	4.02	32.61
91310	Analysis .....	4.29	11.77	4.22	33.54
91334	Analysis .....	4.12	11.57	4.15	32.72
91337	Analysis .....	4.02	11.82	4.12	32.77
91342	Analysis .....	4.06	11.45	4.02	32.22
91396	Analysis .....	4.14	11.81	4.02	32.92
91416	Analysis .....	3.96	11.19	4.06	31.65
91424	Analysis .....	4.06	11.30	4.20	32.26
91426	Analysis .....	4.28	11.32	4.36	33.08
91432	Analysis .....	4.17	12.09	4.20	33.65
91438	Analysis .....	4.02	12.02	4.35	33.37
91451	Analysis .....	4.18	11.51	4.18	32.88
91456	Analysis .....	4.08	11.47	4.24	32.61
91461	Analysis .....	4.08	11.92	4.08	33.01
91465	Analysis .....	4.04	11.25	4.04	31.91
91500	Analysis .....	3.95	11.34	4.02	31.78
91630	Analysis .....	4.04	12.01	4.02	32.94
91727	Analysis .....	4.09	11.41	4.12	32.37
91908	Analysis .....	3.95	11.59	4.08	32.21
	Lone Star 5-10-5 Fertilizer, Guarantee..	4.13	11.01	4.01	31.89
90962	Analysis .....	5.00	10.00	5.00	34.00
90977	Analysis .....	4.84	9.78	5.01	33.28
91036	Analysis .....	5.10	9.88	5.21	34.38
91039	Analysis .....	4.80	10.20	5.14	33.96
91063	Analysis .....	5.02	9.82	5.05	33.87
91064	Analysis .....	4.72	9.91	4.70	32.72
91079	Analysis .....	5.18	10.48	5.39	35.69
91090	Analysis .....	4.83	9.85	5.01	33.36
91111	Analysis .....	4.98	10.32	5.08	34.51
91164	Analysis .....	4.96	10.02	5.01	33.94
91168	Analysis .....	4.88	9.83	5.01	33.46
91171	Analysis .....	5.05	10.03	5.02	34.20
		5.03	9.77	5.01	33.77

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand				Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
	Lone Star 5-10-5 Fertilizer, Guarantee.....	5.00	10.00	5.00	\$34.00			
91188	Analysis .....	5.19	9.97	5.13	34.63			
91195	Analysis .....	4.60	10.52	4.52	33.02			
91211	Analysis .....	5.13	9.71	5.08	34.09			
91226	Analysis .....	4.98	10.27	5.20	34.61			
91229	Analysis .....	4.60	10.02	5.02	33.02			
91239	Analysis .....	5.24	10.06	5.10	34.84			
91271	Analysis .....	4.80	9.96	4.78	33.11			
91308	Analysis .....	5.09	10.14	5.19	34.70			
91311	Analysis .....	5.06	10.10	5.02	34.33			
91349	Analysis .....	5.06	10.28	5.04	34.61			
91395	Analysis .....	5.17	9.47	4.84	33.48			
91415	Analysis .....	5.28	9.62	5.24	34.54			
91423	Analysis .....	5.10	9.53	5.26	38.96			
91425	Analysis .....	4.79	10.06	5.08	33.64			
91431	Analysis .....	5.03	10.16	5.11	34.45			
91437	Analysis .....	4.98	9.80	5.01	33.68			
91450	Analysis .....	5.21	8.76	5.25	33.16			
91462	Analysis .....	5.19	9.74	5.01	34.14			
91466	Analysis .....	5.04	9.14	5.15	33.11			
91467	Analysis .....	5.10	9.39	5.12	33.58			
91493	Analysis .....	5.11	9.57	5.08	33.80			
91497	Analysis .....	4.95	9.53	5.02	33.24			
91501	Analysis .....	5.18	9.54	5.16	34.05			
91595	Analysis .....	5.11	10.01	5.02	34.33			
91596	Analysis .....	5.07	10.14	5.02	34.88			
91607	Analysis .....	4.05	9.66	5.01	33.14			
91737	Analysis .....	4.59	9.21	5.02	31.85			
91611	Analysis .....	5.08	9.81	5.02	33.97			
91633	Analysis .....	4.93	9.63	5.03	33.34			
91621	Analysis .....	4.80	9.33	5.16	32.76			
91631	Analysis .....	5.01	9.68	5.14	33.78			
91712	Analysis .....	4.71	10.04	5.03	33.35			
91714	Analysis .....	4.92	9.53	5.03	33.17			
91723	Analysis .....	4.43	9.61	5.03	32.01			
91730	Analysis .....	4.45	9.18	5.01	31.36			
91733	Analysis .....	4.62	9.57	5.22	32.72			
91832	Analysis .....	4.73	10.74	5.19	34.61			
91834	Analysis .....	4.78	10.12	5.22	33.91			
91859	Analysis .....	4.86	9.57	5.27	33.42			
91862	Analysis .....	4.78	9.57	5.41	33.40			
91872	Analysis .....	5.12	9.58	5.51	34.43			
91887	Analysis .....	5.01	9.31	5.54	33.82			
91898	Analysis .....	4.84	9.75	5.07	33.33			
91904	Analysis .....	4.59	10.26	5.25	33.64			
91909	Analysis .....	4.74	9.30	4.83	32.10			
91916	Analysis .....	4.82	9.86	5.05	33.40			
91922	Analysis .....	4.82	9.64	5.44	33.65			
	Lone Star 6-12-0 Fertilizer, Guarantee.....	6.00	12.00	0.00	32.40			
91434	Analysis .....	6.05	11.57	0.00	31.93			
90976	Analysis .....	6.08	12.09	0.00	32.74			
91038	Analysis .....	6.02	11.53	0.00	31.79			
91219	Analysis .....	5.91	11.80	0.00	31.89			
91238	Analysis .....	5.97	12.02	0.00	32.35			
91307	Analysis .....	6.05	11.09	0.00	31.26			
91417	Analysis .....	5.97	11.28	0.00	31.31			

## Tri-State Fertilizer Company, Shreveport, Louisiana

Red	Diamond	4-8-8 Fertilizer, Guarantee.....	4.00	8.00	8.00	32.80
91244	Analysis .....	4.11	7.55	8.01	32.47	
Red	Diamond	4-12-4 Fertilizer, Guarantee.....	4.00	12.00	4.00	32.80
91243	Analysis .....	4.01	11.49	4.31	32.55	
91724	Analysis .....	3.94	11.33	4.02	31.73	

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand		Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
<b>Tyler Fertilizer Company, Tyler, Texas</b>						
90985	Heart Brand	4-8-8 Fertilizer, Guarantee.....	4.00	8.00	8.00	\$32.80
91579	Analysis		3.40	8.57	7.31	31.07
91836	Analysis		3.78	7.76	8.15	32.10
91838	Analysis		3.98	7.76	3.98	26.78
91845	Analysis		3.71	8.20	8.34	32.81
	Heart Brand	4-12-4 Fertilizer, Guarantee.....	3.42	7.73	4.76	26.37
91105	Analysis		3.64	12.45	4.02	32.52
91109	Analysis		4.59	9.41	5.42	32.69
91578	Analysis		3.82	11.84	4.12	31.58
91844	Analysis		3.45	11.44	3.48	29.81
	Heart Brand	5-10-5 Fertilizer, Guarantee.....	5.00	10.00	5.00	34.00
90984	Analysis		3.85	11.70	4.14	32.19
91104	Analysis		5.40	8.25	5.49	33.28
91580	Analysis		4.27	8.10	5.03	29.48
91584	Analysis		4.50	9.10	5.02	31.47
91837	Analysis		5.00	8.14	4.41	30.57
91106	20% Superphosphate, Guarantee.....		0.00	20.00	0.00	28.00
	Analysis		0.00	20.68	0.00	28.95
<b>Virginia-Carolina Chemical Corp., Shreveport, Louisiana</b>						
90853	V-C Fertilizer	0-14-7, Guarantee.....	0.00	14.00	7.00	29.40
91216	Analysis		0.00	13.92	7.07	29.53
91912	Analysis		0.00	14.09	7.20	29.81
	V-C Fertilizer	4-8-8, Guarantee.....	0.00	14.37	6.26	28.88
91202	Analysis		4.00	8.00	8.00	32.80
91214	Analysis		3.76	8.07	8.45	32.91
91220	Analysis		3.85	7.90	7.46	31.58
	V-C Fertilizer	4-12-4, Guarantee.....	3.64	8.66	7.43	31.98
90735	Analysis		4.00	12.00	4.00	32.80
90738	Analysis		3.84	12.09	4.04	32.56
90754	Analysis		4.05	12.25	3.37	32.40
90765	Analysis		3.80	12.30	3.83	32.46
90807	Analysis		3.83	11.81	4.08	32.20
90811	Analysis		3.86	11.55	4.01	31.82
90851	Analysis		3.85	12.07	4.04	32.57
90902	Analysis		3.74	12.10	4.11	32.41
90904	Analysis		3.98	11.82	4.13	32.68
90908	Analysis		3.92	12.30	4.04	33.07
90952	Analysis		3.84	12.23	4.04	32.76
90968	Analysis		3.77	12.46	4.04	32.90
91017	Analysis		3.97	11.77	4.11	32.55
91018	Analysis		4.03	11.86	4.29	33.09
91029	Analysis		3.78	12.01	4.36	32.74
91060	Analysis		3.93	11.05	4.28	31.68
91148	Analysis		4.02	11.57	4.27	32.63
91152	Analysis		3.92	11.93	4.08	32.60
91153	Analysis		4.08	11.38	4.31	32.57
91155	Analysis		3.98	11.70	4.02	32.36
91192	Analysis		3.97	11.28	4.19	31.98
91201	Analysis		3.97	12.17	4.04	33.02
91212	Analysis		3.95	11.83	4.02	32.46
91215	Analysis		3.94	12.07	4.03	32.78
91234	Analysis		3.94	12.11	4.20	33.07
91237	Analysis		3.88	12.31	4.02	32.95
91270	Analysis		3.95	12.65	4.02	33.61
91317	Analysis		3.95	12.35	4.25	33.51
91329	Analysis		3.93	12.03	4.15	32.87
91368	Analysis		3.94	12.01	4.34	33.13
	Analysis		4.03	11.70	4.31	32.89

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand			Laboratory number	Available phosphoric acid percent	Potash percent	Valuation found per ton
91436	V-C Fertilizer	4-12-4, Guarantee		4.00	12.00	4.00	\$32.80
91485	Analysis			4.01	11.57	4.14	32.43
91491	Analysis			3.97	11.89	4.38	33.10
91499	Analysis			3.94	12.14	4.15	33.03
91568	Analysis			3.92	11.98	4.09	32.69
91591	Analysis			4.08	11.79	4.34	33.07
91602	Analysis			3.58	11.94	4.02	31.66
91626	Analysis			3.66	12.05	4.01	32.00
91635	Analysis			3.74	12.05	4.12	32.36
91688	Analysis			3.51	12.35	4.03	32.06
91693	Analysis			3.75	11.96	4.02	32.12
91718	Analysis			3.84	12.04	4.09	32.57
91741	Analysis			3.61	12.26	4.02	32.18
91750	Analysis			3.90	11.09	4.34	31.75
91870	Analysis			3.80	12.07	4.17	32.62
91871	Analysis			3.76	12.04	4.05	32.31
91882	Analysis			3.91	12.48	4.22	33.55
	V-C Fertilizer	5-10-5, Guarantee		5.00	10.00	5.00	34.00
90739	Analysis			4.83	10.07	5.08	33.77
90736	Analysis			4.86	9.71	5.03	33.27
90741	Analysis			4.81	10.56	4.76	33.95
90755	Analysis			4.76	9.49	5.14	32.87
90766	Analysis			4.67	10.79	4.71	33.84
90771	Analysis			4.72	10.17	5.02	33.54
90808	Analysis			4.86	9.78	5.22	33.64
90852	Analysis			5.03	10.48	4.92	34.64
90907	Analysis			4.74	10.41	5.02	33.92
90953	Analysis			4.82	10.01	5.01	33.55
90970	Analysis			5.00	10.04	5.24	34.40
91030	Analysis			4.73	9.85	5.01	33.10
91191	Analysis			4.87	9.57	5.08	33.17
91203	Analysis			4.97	9.42	5.09	33.24
91235	Analysis			4.85	10.40	5.03	34.21
91289	Analysis			4.93	10.13	5.05	34.07
91291	Analysis			4.68	11.13	4.71	34.34
91330	Analysis			4.81	10.12	5.02	33.71
91348	Analysis			4.94	10.07	5.20	34.22
91353	Analysis			4.86	10.07	5.02	33.77
91366	Analysis			4.85	10.20	5.01	33.90
91369	Analysis			4.91	9.73	5.08	33.50
91399	Analysis			4.89	9.82	5.15	33.67
91412	Analysis			5.04	10.10	5.14	34.44
91439	Analysis			5.00	9.88	5.35	34.32
91481	Analysis			4.89	9.94	5.01	33.64
91498	Analysis			4.82	10.05	5.24	33.94
91503	Analysis			5.08	9.21	5.38	33.63
91504	Analysis			5.06	10.11	5.01	34.82
91518	Analysis			4.90	9.98	5.02	33.74
91569	Analysis			4.81	9.56	5.12	33.06
91577	Analysis			4.88	10.11	5.01	33.85
91624	Analysis			4.86	10.10	5.14	33.94
91627	Analysis			4.68	10.03	5.22	33.52
91677	Analysis			4.76	10.35	5.02	33.90
91717	Analysis			4.69	9.79	5.13	33.08
91739	Analysis			4.74	10.11	5.01	33.48
91896	Analysis			5.09	10.04	5.06	34.37
91911	Analysis			4.72	10.25	5.21	33.91
	V-C 6-12-0 Fertilizer, Guarantee			6.00	12.00	0.00	32.40
91545	Analysis			6.01	11.35	0.00	31.52
91623	Analysis			5.65	12.14	0.00	31.69
	V-C Fertilizer	8-8-8, Guarantee		8.00	8.00	8.00	43.20
91016	Analysis			6.88	8.08	8.22	40.71
91352	Analysis			7.55	8.16	8.12	42.42

Table 7. Analyses of commercial fertilizers sampled during 1946-47—Continued

Laboratory number	Manufacturer, place of business and brand		Nitrogen percent	Available phosphoric acid percent	Potash percent	Valuation found per ton
91689	V-C 18% Superphosphate	Analysis	0.00	18.00	0.00	\$25.20
				0.00	19.04	26.60
	<b>Waldo Fertilizer Works, Waldo, Arkansas</b>					
91320	Victory Brand 4-12-4 Fertilizer, Guarantee	Analysis	4.00	12.00	4.00	32.80
91397		Analysis	3.68	11.02	4.32	31.05
91514		Analysis	3.92	11.49	4.05	31.95
91736		Analysis	2.52	13.78	2.75	29.69
		Analysis	3.54	10.70	4.02	29.83
91358	Victory 5-10-5 Fertilizer, Guarantee	Analysis	5.00	10.00	5.00	34.00
91506		Analysis	5.02	9.45	5.14	32.98
91513		Analysis	4.25	10.39	4.56	31.98
91519		Analysis	4.56	9.93	4.98	32.73
91735		Analysis	5.24	9.54	5.06	34.06
		Analysis	4.70	8.83	5.02	30.91