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A. B. CONNER, Director

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COMMERCIAL FERTILIZERS IN 1943-44

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DIVISION OF CHEMISTRY



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This is the annual Fertilizer Control Bulletin. It contains statistics regarding fertilizers sold in Texas, information regarding the fertilizer law, and analyses of samples of the fertilizer sold by different manufacturers.

The total sales of fertilizer in Texas for 1943-44 were 196,877 tons. In 1942-43 the sales were 154,828 tons. In 1941-42 they were 134,560 tons. Cottonseed meal sold as a feed but used as a fertilizer was not included in these totals. Sales of fertilizer were about 28% more than last year. Practically all the sales of mixed fertilizers were confined to about 15 analyses.

Tables are given showing the extent to which the various fertilizer manufacturers met or exceeded their guarantees. The cost of nitrogen, phosphoric acid, and potash were slightly higher in some grades in 1943-44 than in 1942-43.

CONTENTS

	Page
Introduction	5
Explanation of terms	5
How fertilizers are named	6
Information on the fertilizer bag and tag	6
How to calculate the valuation	6
Fertilizer grades to be sold in 1944-45	7
Quantity sold	7
Quantity of sales by grades	8
Composition and selling prices of different grades of fertilizer	8
Cost of plant food	9
Sulphur	11
So-called soil conditioner	11
How to get free analyses	12
Analysis of fertilizers, 1943-44	12
Relation of valuation guaranteed to valuation delivered	13
Averages below guarantee	13
Publications dealing with the use of fertilizers	14
Summary	14

COMMERCIAL FERTILIZERS 1943-44

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Fertilizer laws require fertilizer to be correctly labeled so that the purchaser can know what he is getting. The object of the fertilizer law is to protect the farmer or other users of fertilizer against misrepresentation of the composition or fertilizing value of the fertilizer as well as manufacturers and dealers against unfair competition due to such misrepresentation.

The first Texas fertilizer law was passed in 1899. It was revised and amended in 1911. The results of the fertilizer inspection have been published in bulletins of the Texas Agricultural Experiment Station regularly since 1906. This is the forty-second Fertilizer Control Bulletin. It contains statistics, definitions of terms, a report on the analyses made in enforcing the provisions of the fertilizer law, and information regarding the use of fertilizers.

Explanation of Terms

Nitrogen refers to the total nitrogen in the fertilizer. It is necessary in proper amounts for the development of all parts of the plant, but occasionally an excess of nitrogen delays maturity. Such excess is liable to promote growth of stalk and leaves at the expense of fruit. Nitrogen is needed by many Texas soils, especially the sandy soils in the eastern parts of the State. Nitrogen occurs in the soil mainly in organic matter and is made available by nitrification. Since nitrogen is used in comparatively large quantities by plants and is, to some extent, washed from the soil, it is usually the first element to become depleted.

Available phosphoric acid is the phosphoric acid (P_2O_5) in fertilizers which can be taken up quickly by plants. Phosphoric acid promotes the fruiting of plants, though it is also necessary for the development of all parts of the plant.

Total phosphoric acid is the entire quantity of the phosphoric acid (P_2O_5) present, whether highly available or not. A guarantee of total phosphoric acid in place of available is made in bone, tankage and rock phosphate.

Potash guaranteed in a fertilizer is required by the law to be soluble in water. Potash, like nitrogen, is needed by all parts of the plant, but especially by stalk and leaves. An excess of potash may delay maturity and may sometimes promote growth of the stalk and leaves at the expense of the fruit. When potash is abundantly supplied, plants may take up more than they need. Potash is present in soils more abundantly than nitrogen or phosphoric acid.

Valuation per ton represents the approximate average cost at retail of the plant food in the unmixed fertilizer. It is usually lower than the price at which the mixed fertilizer is sold, but since it is an average, it

may be greater than the prices of some of the unmixed fertilizer materials. The selling price includes cost of mixing, of bags, of transportation, the profit of the manufacturer, if any, and that of the dealer. The valuations are decided on about September 1, and the prices often change before the principal fertilizer season, which is February to April in Texas. The valuation sums up the value of the three plant foods shown in the analysis into a single figure, and is convenient for this purpose. The fertilizer law permits a deficiency of less than ten per cent in one plant food to be compensated by an excess of another, but if the valuation found is four per cent less than the guaranteed valuation, a rebate must be paid to the purchaser. The valuation found compared with the valuation guaranteed shows whether or not the fertilizer value as a whole is better or poorer than the guarantee as a whole. The following prices were used for calculating valuations in 1943-44.

	Cents per pound
Nitrogen	13.0
Available phosphoric acid	7.0
Total phosphoric acid in tankage, and bone meal	5.0
Total phosphoric acid in rock phosphate	1.5
Potash	7.0

How fertilizers are named

Fertilizers are frequently named by numbers, such as a 5-10-5 fertilizer, a 4-12-4 fertilizer and so on. In such names, the first figure stands for the percentage of nitrogen, the second for the percentage of available phosphoric acid, and the third for the percentage of water-soluble potash. This is a short and accurate method of naming fertilizers.

Information on the Fertilizer Bag or Tag

The guaranteed analysis of the fertilizer is required by law to be printed on the bag or on a tag attached to the bag, so that the purchaser can see what he is buying. Total phosphoric acid may be guaranteed for bone or tankage instead of available phosphoric acid. A guarantee of total phosphoric acid is required in rock phosphate. The information required on the package is as follows:

Net weight
 Name of fertilizer in full
 Name and address of manufacturer
 Guaranteed analysis:
 Nitrogen, per cent
 Available phosphoric acid, per cent
 Potash, per cent

How to Calculate the Valuation

The valuation of a fertilizer per ton is calculated by multiplying the percentage of each constituent by its valuation per unit and adding the products. A unit is one per cent of a ton, or 20 pounds; so if the valuation of nitrogen is 13 cents a pound, the valuation of a unit of nitrogen is $13 \times 20 = \$2.60$. The valuation of a unit of available phosphoric acid with phosphoric acid at 7.0 cents a pound would be $7.0 \times 20 = \$1.40$; the valuation of a unit of potash at 7 cents a pound would be \$1.40. The following is an example of a calculation at the prices given above:

VALUATION OF 5-10-5 FERTILIZER

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

Total

\$34.00

Fertilizer Grades to be Sold in 1944-45

The grades of fertilizer sold in Texas have been limited in number for 19 years. This standardization aids 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 worker to make definite recommendations, and reduces the cost of manufacture and handling, thereby also reducing the cost to the consumer. As a war measure, grades of fertilizer to be sold were restricted in number by the War Food Administration.

The grades of mixed fertilizer adopted by the Food Production Administration for sale in Texas for 1944-45 are as follows:

0-14-7, 4-8-8, 4-10-0, 4-12-4, 5-10-5, 6-8-4, 6-12-0, 10-10-0, 10-20-0, 12-15-0; for Panhandle and West Texas only 6-30-0. The 5-10-5 is also to be sold as the Victory Garden Fertilizer.

Quantity Sold

The quantities of commercial fertilizer sold in Texas for several seasons, from September 1 to August 31, are given in Table 1. These are the actual sales as reported by the manufacturers, and not the tag sales. The tag sales are always a little larger than the actual sales. The sales in 1943-44 of 196,877 tons were about 28% higher than last season. This is the highest sale so far made in Texas and exceeds the former high mark of 187,215 tons sold during the season of 1928-29. There has been a gradual increase every year since 1937. Fertilizer statistics for a number of years to August 31, 1926, including sales by counties, have been published in Bulletin 350, and from 1926 to 1938 in Bulletin 572.

Table 1. Fertilizers sold in Texas, (not including cottonseed meal sold as feed but used as fertilizers).

	Tons
1905-06	13,500
1910-11	52,985
1913-14	77,400
1914-15	17,500
1919-20	56,700
1920-21	14,850
1921-22	33,000
1922-23	73,300
1923-24	126,179
1924-25	97,719
1925-26	121,747
1926-27	79,863
1927-28	139,126
1928-29	187,215
1930-31	64,424
1932-33	30,845
1935-36	60,016
1937-38	79,640
1938-39	93,115
1939-40	116,307
1940-41	129,578
1941-42	134,560
1942-43	154,828
1943-44	196,877

Quantity of Sales by Grades

Table 2 contains the sales of fertilizer by grades for 1943-44 arranged in order according to sales. Sales of 4-12-4 fertilizer were highest of all. The 5-10-5 came second, the 6-8-4 third and the 20% superphosphate fourth. Some grades which appear on this table are not on the authorized list. These were either fertilizer carried over from the previous season, whose sale was authorized, or grades manufactured especially for use on Army or Navy air fields.

The tonnage of cottonseed meal reported in Table 2 includes only that tagged with fertilizer tax tags and sold as a fertilizer.

Table 2. Sales by grade in order of tonnage, September 1, 1943 to August 31, 1944.

Grade	Tons
4-12-4	77,417
5-10-5	34,736
6-8-4	21,594
Superphosphate 20%	14,147
Ammonium nitrate	11,979
4-8-8	7,690
4-10-0	7,017
Sulphur	3,353
4-12-6	3,110
Sulphur earth	2,323
Superphosphate 43 and 45%	2,207
6-12-0	2,098
10-10-0	1,794
Nitrate of soda	1,526
Superphosphate 18%	905
Phosphate rock	856
Activated sludge	524
Uramon 42% N	508
0-14-7	492
10-6-4 (air fields)	450
Sulphate of ammonia	329
Cyanamid	297
6-30-0	272
Sheep manure	230
6-12-4 (Specialty)	209
Muriate of potash 60%	186
6-9-3 (Sepcialty)	162
12-15-0	110
Bone meal	89
4-10-7	60
Bat manure	54
Muriate of potash 50%	52
10-20-0	30
Manure salts 25%	30
Cottonseed meal	21
3-8-7 (Last season)	13
3-10-0 (Last season)	10
Total	196,877
Superphosphate distributed by the Agricultural Adjustment Administration, not included in the above	19,833

Composition and Selling Prices of Different Grades of Fertilizer

Table 3 contains the average composition, the guaranteed valuation, the valuation found by analysis, and the average retail selling price per ton, of various grades of fertilizers. The average retail selling price is the average of the cash retail prices furnished to the fertilizer inspector by the dealers. The prices of the same fertilizer may be different in different

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. Prices of fertilizer were established by the Office of Price Administration beginning with the spring of 1943.

The average valuation found by analysis (Table 3) exceed the guaranteed valuation in almost every case. The exceptions are 4-8-8, 4-12-6, 5-10-5 and 6-8-4. In all of these, however, the average valuations found by analysis are only slightly below the valuations guaranteed.

Table 3. Average composition, valuation and selling prices of fertilizers 1943-44.

Grades of farm fertilizers	Number averaged	Nitrogen per cent	Available Phos. acid per-cent	Potash per cent	Guaranteed Valuation per ton	Valuation Found per ton	Selling Price per ton
0-14-7	2		14.24	6.96	\$29.40	\$29.39	\$31.00
3-8-7	1	3.20	8.52	6.35	28.80	29.14	
3-12-6	2	3.10	12.40	6.15	33.00	34.02	33.93
3-15-0	1	3.12	15.24		28.80	29.45	31.65
4-8-8	20	3.98	8.30	7.64	32.80	32.70	35.03
4-10-0	15	4.12	10.16		24.40	24.94	30.73
4-10-7	2	4.13	10.89	6.62	34.20	35.25	35.65
4-12-4	224	4.02	11.84	4.13	32.80	32.85	35.18
4-12-4 Garden	12	4.20	12.02	4.34	32.80	33.82	61.27
4-12-6	13	4.04	11.50	5.73	35.60	34.63	36.63
4-12-18 Flowers	2	4.06	11.95	18.59	52.40	53.29	
5-10-5 Victory garden ..	4	5.30	9.75	5.23	34.00	34.74	56.66
5-10-5	94	4.95	10.05	5.02	34.00	33.40	36.51
6-8-4	107	5.84	8.23	4.06	32.40	32.36	36.19
6-9-3 Lawn & Flowers	1	6.78	9.30	3.06	32.40	34.82	63.00
6-12-0	7	6.26	11.94		32.40	32.98	37.85
10-10-0	12	10.10	10.47		40.00	40.93	43.33
Ammonium nitrate							
32.5%	14	32.86			84.50	85.43	64.10
Nitrate of soda 16%	4	16.28			41.60	42.34	45.44
Sheep manure	3	1.56	1.46	3.25	9.40	10.66	43.34
Superphosphate 18%	5		18.85		25.20	26.40	26.41
Superphosphate 20%	27		20.07		28.00	28.09	27.96
Superphosphate 45%	2		48.33		63.00	67.66	55.75
Uramon Fertilizer	2	42.56			109.20	110.66	59.77

Cost of Plant Food

Table 4 contains 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 prices per ton of the various grades of fertilizer given in Table 3 and the guaranteed composition. 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 be different 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 account of lower transportation costs. The fertilizers with the lowest cost of plant food are given first in the table.

Table 4. Approximate average cost of plant food in cents per pound 1943-1944. arranged in order of increasing cost.

Grades	Nitrogen cents	Available Phosphoric acid cents	Potash cents
Uramon Fertilizer	7.15		
Ammonium nitrate 32.5%	9.88		
Superphosphate 45%		6.15	
Superphosphate 20%		7.00	
4-12-6	13.39	7.21	7.21
3-12-6	13.39	7.21	7.21
4-10-7	13.52	7.28	7.28
0-14-7		7.35	7.35
Superphosphate 18%		7.35	
4-8-8	13.91	7.49	7.49
4-12-4	13.91	7.49	7.49
5-10-5	13.91	7.49	7.49
10-10-0	14.04	7.56	
Nitrate of soda 16%	14.17		
3-15-0	14.30	7.70	
6-8-4	14.56	7.84	7.84
6-12-0	15.21	8.19	
4-10-0	16.38	8.82	
5-10-5 Victory Garden	21.71	11.69	11.69
6-9-3 Lawn and Flowers	25.22	13.58	13.59
Sheep manure	59.93	32.22	32.22

Cost of Nitrogen. The uramon (urea) was the cheapest source of nitrogen, ammonium nitrate second, 4-12-6 third, 4-12-4 fourth, and 5-10-5 fifth. Sheep manure was the most expensive source of nitrogen, but is chiefly used for lawns or gardens. Of the farm fertilizers, 4-10-0 was the most expensive source of nitrogen, followed by 6-12-0 and 6-8-4, as shown in Table 4. The cost of nitrogen was greater in most of the mixed fertilizers than in uramon or ammonium nitrate because it costs to mix the fertilizer. The lowest-priced nitrogen in the mixed fertilizers was in the 4-12-6, followed in order by the 4-8-8, 4-12-4, and 5-10-5. Nitrogen was higher in price than last season in all fertilizers, except in 4-12-4, uramon, ammonium nitrate, and sheep manure. Nitrogen in 4-12-4 cost 13.91 cents per pound. It was 1.05 cents higher in nitrate of soda. It was 17.11 cents lower in sheep manure, .52 cents higher in 6-8-4 and .39 cents higher in 4-10-0.

Cost of Phosphoric Acid. The cheapest source of phosphoric acid was 45% superphosphate, then 20% superphosphate, followed by 4-12-6. The cost of available phosphoric acid was about .65 of a cent higher per pound in 18% superphosphate than in 20%. Omitting the flower fertilizers, phosphoric acid was most expensive in sheep manure, then in 4-10-0, 6-12-0 and 6-8-4. Available phosphoric acid in 4-12-4 was .06 of a cent of pound lower than last year.

Cost of Potash. 4-12-6 furnished the cheapest potash, followed by 0-14-7, then 4-8-8 and then 4-12-4. Omitting the flower fertilizers, potash was the most expensive in sheep manure, followed by 6-8-4. Potash in 4-12-4 cost .06 of a cent a pound less than last year.

Sulphur

Sulphur was sold to the extent of 3353 tons and sulphur earth, 2323 tons (Table 2) chiefly in the Rio Grande Valley. On some calcareous soils, plants suffer from a yellowing of the leaves, known as chlorosis, usually due to deficiency of iron. The presence of carbonate of lime prevents the plant from taking up (or utilizing) sufficient iron. Iron sulphate is sometimes used to cure chlorosis. Sulphur is oxidized in soils by organisms and may be used to acidify such soils. Most of these soils contain such large quantities of carbonate of lime that broadcast applications of sulphur are soon neutralized and made useless. A sufficient number of acidified spots or streaks may prevent the chlorosis. The acidified spots may be made by digging post holes to depths of 2 to 3 feet, mixing the soil with sulphur and returning the mixture to the holes. Holes may also be made with a pointed iron rod and filled with the sulphur. A sulphur compost may also be used, as recommended by Godfrey in Progress Report No. 675. The sulphur may also be applied in furrows, at the rate of one pound to 20 feet. The value of sulphur or a mixture containing sulphur for acidifying a soil depends upon the quantity of sulphur and sulphuric acid present. One pound of sulphur when completely oxidized will produce nearly three pounds of sulphuric acid. The sulphur contained in gypsum has no value whatever for producing acidity in calcareous soils. Sulphur or gypsum will change sodium carbonate, sometimes called black alkali, to sodium sulphate, which is called "white alkali", but will not remove the "alkali" from the soil. The only effective way to remove the "alkali" is to wash it out with water. See Progress report No. 866.

Two samples of sulphur were analyzed. Triple C Brand Soil Sulphur, sold by Coastal Chemical Co. was guaranteed to contain 99.50% sulphur and found to contain 99.55%. Soil sulphur sold by Southern Acid and Sulphur Co. was guaranteed to contain 99.50% sulphur and found to contain 99.74%.

So-called soil conditioner

Earth claimed to be a soil conditioner was offered for sale in Hidalgo county. It was advertised to be acid, and to contain as much as 39.5% sulphur. A sample was collected by the State Fertilizer inspector, and found to have the following composition:

Water	2.86 per cent
Free acid	None
pH (degree of acidity)	6.89
Calcium carbonate	8.03 per cent
Sulphur (elemental)	2.59 per cent
Calcium sulphate (CaSO ₄)	58.77 per cent
Nitrogen	0.03 per cent
Total phosphoric acid	0.18 per cent
Water-soluble potash	0.23 per cent

The sample did not contain any free acid as claimed. The claim that it is an acidulous soil conditioner is not justified. It was neutral, as shown by the pH of 6.89. The calcium carbonate would neutralize about 8 per cent sulphuric acid. The 2.59% elemental sulphur would oxidize to acid, but the quantity of calcium carbonate in the sample is sufficient to neutralize all the acid produced from the elemental sulphur, so the fertilizer is not acid-forming. Calcium sulphate is neutral and will not acidify soils. There is no indication that the sample contains anything of any value as soil conditioner or to supply plant food to ordinary soils or to help salty soils, although the calcium sulphate might have a little value to those unusual soils which contain sodium carbonate.

Another sample termed a "vitamin soil conditioner" or "acidulous soil conditioner", claimed to produce increased crops, was compared in pot experiments by Dr. J. F. Fudge with commercial fertilizer. The pots contained 11 pounds soil and three pots received 1 gram each of ammonium nitrate, potassium sulphate and superphosphate, or 10 grams of soil conditioner. The average weights of the dried crops were as follows:

	Fertilized grams	Soil Conditioner grams
Corn plants		
Windthorst fine sandy loam	7.1	1.4
Nimrod fine sand	9.1	3.2
Reinach silt loam	23.0	4.3
Houston black clay	25.0	3.6
Wilson clay loam	29.1	5.2
Frio clay loam	31.5	25.3
Hegari plants		
Frio clay loam	10.1	4.1
Houston black clay	30.5	1.7

Without any addition, the Frio clay loam produced 4.7 grams of hegari, and the Houston black clay produced 2.3 grams. The "soil conditioner" had no value compared with the fertilizer.

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 a blank, "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.

Analysis of Fertilizers, 1943-44

Samples of fertilizer were collected from the goods being sold in many towns and cities. The chief places of sales were visited several times.

Table 6 near the end of this Bulletin, contains a list of the 585 samples of fertilizer subjected to analysis in the season ending August 31, 1944. Practically all samples of fertilizer were collected by our inspectors. The number of samples collected was smaller than last year because the fertilizer was taken to the farms as fast as it was manufactured and distributed instead of being placed in stores or warehouses as usually occurs. Analysis and inspection were made by T. L. Ogier, Waldo Walker, E. B. Brown, Gwendylee Lake, Vera Otto and C. B. McLarry.

Table 5 Average valuation of all fertilizers guaranteed and found in dollars per ton 1943-44.

Manufacturer	Number Averaged	Valuation Guaranteed	Valuation found	No. of samples more than 4% below guarantee
Armour Fertilizer Works	105	\$ 32.33	\$ 32.37	3
Associated Cooperatives	6	84.50	85.91	0
Bryan Cotton Oil & Fertilizer Co.	3	31.60	33.80	0
Campbell Fertilizer Co.	8	29.80	29.20	0
Chilean Nitrate Sales Corp.	4	41.60	42.34	0
Coastal Chemical Co.	5	44.98	45.37	0
East Texas Cotton Oil Co.	6	33.67	33.52	1
E. I. Du Pont de Nemours & Co.	2	109.20	110.66	0
Farm Service, Inc.	2	32.60	36.00	0
Federal Chemical Co. Inc.	34	32.61	32.48	0
Fidelity Chemical Corp.	41	33.70	34.44	0
Gilmer Cotton Oil & Fertilizer Co.	4	33.70	35.44	0
Hydroponic Chemical Co. Inc.	1	53.20	52.63	0
International Minerals & Chemical Corp.	22	32.31	32.75	0
Jacksonville Fertilizer Co.	4	33.00	33.18	0
Kelly Weber & Co. Inc.	6	32.87	32.27	0
Longview Cotton Oil Co.	3	33.07	32.67	0
Marshall Cotton Oil Co.	7	32.60	32.62	0
Mixson Brothers	2	32.80	32.60	0
Oil Mill & Fertilizer Works	4	33.70	32.92	0
Plantabbs Company	2	52.40	53.29	0
Port Fertilizer Co.	11	57.53	59.68	0
Red Star Fertilizer Co.	7	32.23	32.46	0
Shreveport Fertilizer Works	27	33.42	33.71	1
Swift & Co. Fertilizer Works	115	33.10	33.48	7
Temple Cotton Oil Co.	2	32.80	32.05	1
Texas Farms Products Co.	48	32.53	32.25	1
The Pulverized Manure Co.	3	9.40	10.66	0
Tri-State Fertilizer & Lumber Co.	4	32.90	33.17	0
Tyler Fertilizer Co.	6	32.87	32.61	0
United Chemical Co.	24	32.58	32.58	2
Virginia Caroline Chemical Co.	56	32.46	32.67	1
Waldo Fertilizer Works	3	31.60	32.02	0

Relation of Valuation Guaranteed to Valuation Delivered

Table 5 contains the average guaranteed valuation, and the average valuation found by our analyses, for all manufacturers doing business in Texas. In the preparation of this table, all analyses made were averaged, even though several were made of each brand. Fertilizer materials are included as well as mixed fertilizers.

Averages Below Guarantee

Whenever any lot of fertilizer is 4 per cent or more below guarantee, 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 rebates were paid by each manufacturer is shown in Table 5.

Publications dealing with the Use of Fertilizer

Information concerning the use of commercial fertilizer for various crops in different sections of Texas will be sent free on request. Some publications of the Texas Experiment Station giving information on fertilizers and fertilizing material are as follows:

- Circular 85—Use of commercial fertilizers.
- Bulletin 167—Commercial fertilizers and their use.
- Bulletin 212—The availability of phosphoric acid in rock phosphate.
- Bulletin 350—Fertilizer statistics for Texas (to 1927).
- Bulletin 398—Fertilizers for rice in Texas.
- Bulletin 414—Possibilities of sulphur as a soil amendment.
- Bulletin 408—Effect of sulphur on yield of certain crops.
- Bulletin 428—The fertilizing value of greensand.
- Bulletin 432—Manganese in Texas soils and its relation to crops.
- Bulletin 445—The composition and fertilizing value of sewage sludge.
- Bulletin 469—Fertilizer experiments with cotton.
- Bulletin 509—Availability of the phosphoric acid of finely divided rock phosphate.
- Bulletin 524—Fertilizer experiments with yellow Bermuda onions in the Winter Garden region of Texas.
- Bulletin 572—Fertilizer statistics for Texas, 1926-38.
- Progress Report 594—Non-acid forming fertilizers.
- Bulletin 596—Onion fertilizer experiments at Laredo, Big Well, and Eagle Pass, Texas.
- Bulletin 602—Fertilizers for rice in Texas.
- Progress Report 675—Acid production in compost of sulphur and organic matter.
- Circular 90—Rose growing for the home gardener.
- Circular 95—Vitamin B₁ (Thimain) and other vitamins as fertilizers.
- Circular 102—Recommendations for the use of the approved grades of fertilizer for Texas in 1943-44.
- Progress Report 864—Distribution of fertilizer sales in Texas for 1942-43.
- Progress Report 908—Distribution of fertilizer sales in Texas for 1943-44.

Any of these publications will be sent free on request to the Director of the Experiment Station, College Station, Texas. In order to avoid errors, both the name and the number should be given.

SUMMARY

This Bulletin contains a report of the Texas Fertilizer Control for 1943-44.

An explanation of terms is given.

Sales of fertilizer in Texas were 196,877 tons in 1943-44. They were 154,828 tons in 1942-43. The tonnage for other years is given.

The average selling prices and composition of the different kinds of fertilizer are given.

The grades of fertilizer to be sold next season are given.

A table is given showing the relation of the guaranteed valuation to the valuation delivered by the various manufacturers.

Analyses of 585 samples collected by the inspector are given.

Table 6. Analysis of commercial fertilizer, season 1943-44

Laboratory Number	Manufacture, place of business and brand	Nitrogen per cent	Available phosphoric acid, per cent	Potash, per cent	Valuation found, per ton
Armour Fertilizer Works, Houston, Fort Worth, Texas, and New Orleans, Louisiana					
	Ammonium Nitrate Fertilizer, Guarantee	32.50			\$84.50
88678	Analysis	33.52			87.15
	Armour's Big Crop Fertilizer 3-12-6, Guarantee	3.00	12.00	6.00	33.00
88886	Analysis	3.08	12.29	6.24	33.96
88932	Analysis	3.12	12.50	6.05	34.08
	Armour's Big Crop Fertilizer 3-15-0, Guarantee	3.00	15.00	0.00	28.80
88612	Analysis	3.12	15.24		29.45
	Armour's Big Crop Fertilizer 4-8-8, Guarantee	4.00	8.00	8.00	32.80
88722	Analysis	4.21	8.06	7.02	32.06
88919	Analysis	4.06	8.43	6.80	31.88
	Armour's Big Crop Fertilizer 4-10-0, Guarantee	4.00	10.00	0.00	24.40
88733	Analysis	4.27	9.48		24.37
89125	Analysis	4.29	10.35		25.64
89129	Analysis	3.94	10.76		25.30
89132	Analysis	4.07	10.43		25.18
89135	Analysis	4.11	10.59		25.52
89153	Analysis	4.06	11.24		26.30
	Armour's Big Crop Fertilizer 4-12-4, Guarantee	4.00	12.00	4.00	32.80
88596	Analysis	4.02	12.10	4.10	33.13
88598	Analysis	3.78	12.10	4.06	32.45
88600	Analysis	4.10	12.67	3.67	33.54
88609	Analysis	3.68	11.78	4.61	32.51
88614	Analysis	3.93	12.31	4.16	33.27
88620	Analysis	4.02	12.38	4.10	33.52
88625	Analysis	3.96	12.19	4.04	33.03
88627	Analysis	3.98	12.22	3.51	32.37
88639	Analysis	4.26	12.24	3.93	33.72
88646	Analysis	3.96	12.34	4.04	33.24
88655	Analysis	3.95	11.64	4.34	32.65
88661	Analysis	3.99	11.69	4.15	32.55
88664	Analysis	3.87	11.70	4.01	32.05
88675	Analysis	4.01	11.83	3.93	32.49
88687	Analysis	3.93	12.11	4.18	33.02
88694	Analysis	4.01	11.35	4.06	32.00
88701	Analysis	4.08	12.06	4.07	33.19
88708	Analysis	3.98	11.75	4.07	32.50
88715	Analysis	3.85	11.86	4.08	32.32
88717	Analysis	4.10	11.74	4.39	33.25
88731	Analysis	4.12	11.80	4.16	33.05
88737	Analysis	3.96	11.62	4.24	32.51
88744	Analysis	3.98	11.43	4.06	32.03
88781	Analysis	4.09	12.00	4.22	33.34
88822	Analysis	4.00	11.43	4.16	32.22
88832	Analysis	3.98	11.84	4.36	33.03
88849	Analysis	4.14	11.89	3.92	33.90
88859	Analysis	4.08	11.47	3.68	31.82
88885	Analysis	4.00	12.07	4.08	33.01
88920	Analysis	3.97	11.45	4.20	32.23
88931	Analysis	3.91	12.03	4.05	32.68
88942	Analysis	4.19	11.85	4.21	33.37
88965	Analysis	3.83	11.76	4.06	33.10
89001	Analysis	4.10	12.06	4.01	33.15
89007	Analysis	4.12	11.71	3.75	32.35
89019	Analysis	3.80	11.74	3.85	31.71
89044	Analysis	3.85	11.69	4.06	32.06
89052	Analysis	4.06	11.53	3.87	32.12
89062	Analysis	4.02	11.49	4.07	32.24
89063	Analysis	3.92	11.95	4.02	32.55
89116	Analysis	4.20	11.70	4.35	33.39
89124	Analysis	3.99	12.00	3.50	32.15

Table 6. Analysis of commercial fertilizer, season 1943-44

Laboratory Number	Manufacture, place of business and brand	Nitrogen per cent	Available phosphoric acid, per cent	Potash, per cent	Valuation found, per ton
Armour Fertilizer Works, Houston, Fort Worth, Texas and New Orleans, Louisiana—Continued					
Armour's Big Crop Fertilizer 4-12-4,—Cont.					
89128	Analysis	4.16	11.63	4.12	\$32.87
89131	Analysis	3.83	11.49	4.01	31.80
89140	Analysis	4.10	12.17	4.04	33.36
89171	Analysis	4.30	12.09	4.04	33.77
Armour's Big Crop Fertilizer 4-12-6, Guarantee					
88647	Analysis	4.00	12.00	6.00	35.60
88824	Analysis	4.28	11.34	6.03	35.45
89020	Analysis	3.84	11.68	5.05	33.40
	Analysis	4.23	11.46	5.96	35.38
Armour's Big Crop Fertilizer 5-10-5, Guarantee					
88644	Analysis	5.00	10.00	5.00	34.00
88656	Analysis	4.90	10.11	5.08	34.00
88662	Analysis	5.26	9.57	5.20	34.36
88674	Analysis	5.18	9.60	5.28	34.30
88716	Analysis	4.71	10.32	5.06	33.75
88732	Analysis	4.70	10.19	5.12	33.66
88735	Analysis	5.19	9.78	4.76	33.84
88825	Analysis	4.95	10.06	5.05	34.02
88852	Analysis	5.12	10.03	4.72	33.96
88860	Analysis	5.30	9.59	5.08	34.32
89045	Analysis	5.00	9.92	4.78	33.58
89170	Analysis	5.10	9.80	4.53	33.32
89173	Analysis	5.24	10.36	5.12	35.29
	Analysis	5.10	10.85	5.55	36.22
Armour's Big Crop Fertilizer 6-8-4, Guarantee					
88638	Analysis	6.00	8.00	4.00	32.40
88645	Analysis	5.91	7.85	4.61	32.81
88665	Analysis	5.38	8.40	4.54	32.11
88734	Analysis	6.03	8.07	4.26	32.94
88782	Analysis	6.11	8.08	4.09	32.93
88823	Analysis	6.32	8.11	3.72	32.99
88850	Analysis	5.55	8.07	4.36	31.83
88851	Analysis	6.13	8.20	4.14	33.22
89053	Analysis	5.95	8.20	3.99	32.54
89064	Analysis	5.38	8.29	4.76	32.26
89072	Analysis	5.70	8.72	3.87	32.45
89141	Analysis	5.43	8.60	3.10	30.50
89172	Analysis	5.64	8.32	4.02	31.94
	Analysis	5.63	8.31	4.06	31.95
Armour's Big Crop Fertilizer 6-12-0, Guarantee					
88672	Analysis	6.00	12.00	0.00	32.40
88677	Analysis	5.95	11.56		31.65
89142	Analysis	6.07	12.27		32.96
	Analysis	6.78	12.01		34.44
Armour's Big Crop Superphosphate 18%, Guarantee					
88676	Analysis	18.00			25.20
88695	Analysis	19.19			26.87
	Analysis	19.39			27.15
Armour's Big Crop Superphosphate 20%, Guarantee					
88606	Analysis	20.00			28.00
88613	Analysis	19.86			27.80
88618	Analysis	19.44			27.22
88619	Analysis	19.33			27.06
88624	Analysis	19.46			27.24
88632	Analysis	20.02			28.03
88657	Analysis	19.22			26.91
88673	Analysis	18.76			26.26
89163	Analysis	19.31			27.03
89174	Analysis	20.06			28.08
	Analysis	20.61			28.85
Armour's Victory Garden Fertilizer For Food					
Production only, Guarantee					
88599	Analysis	5.00	10.00	5.00	34.00
88897	Analysis	4.70	10.30	5.08	33.75
	Analysis	4.98	9.78	4.98	33.61

Table 6. Analysis of commercial fertilizer, season 1943-44

Laboratory Number	Manufacture, place of business and brand	Nitrogen per cent	Available phosphoric acid, per cent	Potash, per cent	Valuation found, per ton
Armour Fertilizer Works, Houston, Fort Worth, Texas and New Orleans, Louisiana—Continued					
Armour's Victory Garden Fertilizer For Food					
	Production only*, Guarantee	3.00	8.00	7.00	\$28.80
88597	Analysis	3.20	8.52	6.35	29.14
Associated Cooperatives, Sheffield, Ala.					
	Ammonium Nitrate Fertilizer, Guarantee	32.50			84.50
88881	Analysis	33.04			85.90
89152	Analysis	33.56			87.26
89156	Analysis	33.17			86.24
89160	Analysis	33.05			85.93
89165	Analysis	32.52			84.55
89167	Analysis	32.92			85.59
Bryan Cotton Oil & Fertilizer Company, Bryan, Texas					
	Star Brand 5-10-5 Fertilizer, Guarantee	5.00	10.00	5.00	34.00
88699	Analysis	5.64	11.11	5.32	37.66
	Star Brand Special Fertilizer, Guarantee	4.00	12.00	4.00	32.80
88698	Analysis	4.54	12.15	4.71	35.40
	Star Brand 20% Superphosphate, Guarantee	0.00	20.00	0.00	28.00
88700	Analysis		20.25		28.35
Campbell Fertilizer Company, Houston, Texas					
	All-Weather Organic Base Fertilizer 4-8-8, Guarantee	4.00	8.00	8.00	32.80
88720	Analysis	4.02	8.70	7.09	32.56
88723	Analysis	3.12	9.64	7.55	32.18
	All-Weather Organic Base Fertilizer 4-10-0, Guarantee	4.00	10.00	0.00	24.40
89130	Analysis	4.37	9.57		24.76
89133	Analysis	4.23	8.92		23.49
	All-Weather Organic Base Fertilizer 4-12-4, Guarantee	4.00	12.00	4.00	32.80
88692	Analysis	3.56	12.09	4.35	32.28
88729	Analysis	3.78	12.24	3.75	32.22
	All-Weather Organic Base Fertilizer 5-10-5, Guarantee	5.00	10.00	5.00	34.00
88730	Analysis	4.39	10.44	4.78	32.72
	4-10-0 All-Weather Rice Fertilizer With Bone Meal, Guarantee	4.00	10.00	0.00	24.40
89136	Analysis	4.12	9.04		23.37
Chilean Nitrate Sales Corporation, New York, New York					
	Chilean Nitrate of Soda Champion Brand, Guarantee	16.00			41.60
88604	Analysis	16.17			42.04
88630	Analysis	16.07			41.78
89081	Analysis	16.48			42.85
89113	Analysis	16.41			42.67
Coastal Chemical Co., Harlingen, Texas					
	Ammonium Nitrate Fertilizer, Guarantee	32.50			84.50
88634	Analysis	32.60			84.76
	Triple C Brand 6-12-0, Guarantee	6.00	12.00	0.00	32.40
88633	Analysis	5.76	11.68		31.33
	Triple C Brand 10-10-0, Guarantee	10.00	10.00		40.00
88622	Analysis	10.00	10.42		40.59
88635	Analysis	10.86	10.38		42.77
	Triple C Brand 20% Superphosphate Granular, Guarantee	0.00	20.00	0.00	28.00
88686	Analysis		19.57		27.40
East Texas Cotton Oil Company, Palestine, and Tyler, Texas					
	Golden Rod Brand 4-12-4 Fertilizer, Guarantee	4.00	12.00	4.00	32.80
88794	Analysis	4.22	12.18	4.23	33.52
88995	Analysis	3.99	12.16	3.48	32.26

*Last season's goods.

Table 6. Analysis of commercial fertilizer, season 1943-44

Laboratory Number	Manufacture, place of business and brand	Nitrogen per cent	Available phosphoric acid, per cent	Potash, per cent	Valuation found, per ton
East Texas Cotton Oil Company, Palestine, and Tyler, Texas (Continued)					
88842	Goldenrod Brand 4-12-6 Fertilizer, Guarantee	4.00	12.00	6.00	\$35.60
	Analysis	4.64	10.54	4.75	33.47
88795	Goldenrod Brand 5-10-5 Fertilizer, Guarantee	5.00	10.00	5.00	34.00
88841	Analysis	4.90	10.14	4.65	33.45
	Analysis	3.94	11.89	5.82	35.04
88764	Palestine Blue Star Brand 4-12-4 Fertilizer, Guarantee	4.00	12.00	4.00	32.80
	Analysis	4.13	11.93	4.24	33.38
E. I. Du Pont de Nemours and Company, Wilmington, Delaware					
	Du Pont Uramon Fertilizer Compound, Guarantee	42.00			109.20
89154	Analysis	42.76			111.18
89168	Analysis	42.36			110.14
Farm Service, Inc., Opelonsas, La.					
89067	Thorobred 4-12-4 Fertilizer, Guarantee	4.00	12.00	4.00	32.80
	Analysis	5.10	12.04	4.08	35.83
89068	Thorobred 6-8-4 Fertilizer, Guarantee	6.00	8.00	4.00	32.40
	Analysis	6.32	10.55	3.56	36.17
Federal Chemical Company, Inc., Shreveport, Louisiana					
88837	Federal 4-8-8, Guarantee	4.00	8.00	8.00	32.80
88922	Analysis	3.88	7.70	9.13	33.65
	Analysis	3.86	8.10	11.51	37.49
88714	Federal 4-12-4, Guarantee	4.00	12.00	4.00	32.80
88765	Analysis	4.00	11.46	4.03	32.08
88787	Analysis	4.11	11.28	4.31	32.51
88789	Analysis	4.04	12.02	3.91	32.80
88817	Analysis	4.07	11.89	3.99	32.82
88861	Analysis	4.06	11.47	4.30	32.64
88864	Analysis	3.99	11.46	4.03	32.05
88875	Analysis	3.89	11.93	4.05	32.48
88882	Analysis	4.02	11.98	3.92	32.71
88930	Analysis	4.09	11.91	4.24	33.24
88956	Analysis	4.02	11.51	4.09	32.29
88974	Analysis	4.08	11.52	4.12	32.51
89036	Analysis	3.84	11.96	4.07	32.42
89046	Analysis	4.00	11.56	4.01	32.19
89065	Analysis	3.99	11.11	4.14	31.72
89085	Analysis	4.64	9.95	4.20	31.87
89093	Analysis	3.96	11.64	4.09	32.33
89106	Analysis	3.92	12.01	4.24	32.94
	Analysis	3.98	11.52	4.93	33.38
88713	Federal 5-10-5, Guarantee	5.00	10.00	5.00	34.00
88767	Analysis	4.93	9.30	5.16	33.06
88788	Analysis	4.96	9.45	5.15	33.34
88976	Analysis	4.97	9.69	5.15	33.70
	Analysis	4.87	9.97	5.19	33.89
88766	Federal 6-8-4, Guarantee	6.00	8.00	4.00	32.40
88818	Analysis	5.97	7.92	4.22	32.52
88836	Analysis	6.01	8.00	4.16	32.65
88840	Analysis	6.04	7.49	4.20	32.07
88862	Analysis	6.11	7.44	4.07	32.01
88865	Analysis	5.52	8.12	4.55	32.09
88876	Analysis	5.96	7.73	4.06	32.00
88975	Analysis	5.80	8.18	3.98	32.10
89066	Analysis	5.72	8.00	4.05	32.74
	Analysis	5.99	7.41	4.14	31.74
89047	Federal 18% Superphosphate, Guarantee	0.00	18.00	0.00	25.20
	Analysis		17.99		25.19

Table 6. Analysis of commercial fertilizer, season 1943-44

Laboratory Number	Manufacture, place of business and brand	Nitrogen per cent	Available phosphoric acid, per cent	Potash, per cent	Valuation found, per ton
Fidelity Chemical Corporation, Houston, Texas					
	Fidelity 4-10-0 Fertilizer, Guarantee	4.00	10.00	0.00	\$24.40
88659	Analysis	4.69	11.67		28.53
89040	Analysis	3.84	10.72		24.99
89134	Analysis	3.96	9.93		24.20
	Fidelity 4-10-7 Fertilizer, Guarantee	4.00	10.00	7.00	34.20
88637	Analysis	4.18	10.52	6.04	34.06
	Fidelity 4-12-4 Fertilizer, Guarantee	4.00	12.00	4.00	32.80
88595	Analysis	4.04	12.23	4.06	33.30
88601	Analysis	4.27	12.28	4.18	34.14
88641	Analysis	4.25	12.26	3.65	33.82
88654	Analysis	4.52	10.96	4.31	33.12
88658	Analysis	4.40	11.35	4.91	34.20
88663	Analysis	3.97	11.75	4.23	32.69
88668	Analysis	4.12	11.77	4.12	32.96
88693	Analysis	4.13	11.57	4.02	32.57
88707	Analysis	4.25	11.96	3.98	33.36
88724	Analysis	4.55	11.62	3.93	33.60
89032	Analysis	4.47	12.06	3.89	33.95
89035	Analysis	4.24	11.79	3.77	32.81
89039	Analysis	4.53	12.16	3.85	34.19
89042	Analysis	4.00	11.77	3.82	32.23
89059	Analysis	4.33	12.07	4.06	33.84
89121	Analysis	4.37	11.89	3.21	32.50
89138	Analysis	4.52	12.06	4.02	34.26
	Fidelity 5-10-5 Fertilizer, Guarantee	5.00	10.00	5.00	34.00
88653	Analysis	5.25	10.28	4.70	34.62
88725	Analysis	4.89	10.08	5.14	34.02
89084	Analysis	5.28	10.68	4.85	35.47
89122	Analysis	4.98	9.78	5.24	33.74
89139	Analysis	5.80	11.29	4.36	36.99
	Fidelity 6-8-4 Fertilizer, Guarantee	6.00	8.00	4.00	32.40
88982	Analysis	6.15	8.30	4.33	33.67
89033	Analysis	6.06	8.50	3.52	32.59
89080	Analysis	6.16	8.73	3.41	33.01
89123	Analysis	5.91	8.69	4.40	33.70
	Fidelity 6-12-0 Fertilizer, Guarantee	6.00	12.00	0.00	32.40
88685	Analysis	6.24	11.44		32.24
89146	Analysis	6.35	12.36		33.81
89150	Analysis	6.64	12.28		34.45
	Fidelity 10-10-0 Fertilizer, Guarantee	10.00	10.00	0.00	40.00
88615	Analysis	10.10	10.18		40.51
88631	Analysis	9.59	11.03		40.37
88636	Analysis	10.23	10.57		41.40
88642	Analysis	9.69	10.41		39.76
88679	Analysis	10.10	10.56		41.04
88682	Analysis	10.02	10.22		40.36
89145	Analysis	10.23	10.64		41.50
89151	Analysis	9.41	11.21		40.16
Gilmer Cotton Oil and Fertilizer Company, Gilmer, Texas					
	Texas Longhorn 4-8-8, Guarantee	4.00	8.00	8.00	32.80
88877	Analysis	4.11	8.99	7.85	34.27
	Texas Longhorn 4-12-6, Guarantee	4.00	12.00	6.00	35.60
88878	Analysis	5.46	12.14	5.61	39.05
	Texas Longhorn 5-10-5, Guarantee	5.00	10.00	5.00	34.00
88880	Analysis	5.01	9.80	5.54	34.51
	Texas Longhorn Corn Surecrop, Guarantee	6.00	8.00	4.00	32.40
88879	Analysis	5.19	9.70	4.90	33.93

Table 6. Analysis of commercial fertilizer, season 1943-44

Laboratory Number	Manufacture, place of business and brand	Nitrogen per cent	Available phosphoric acid, per cent	Potash, per cent	Valuation found, per ton
Hydroponic Chemical Company, Inc., New York, New York					
89137	Hyponex, Guarantee	7.00	6.00	19.00	\$53.20
	Analysis	6.78	6.34	18.66	52.63
International Minerals & Chemical Corporation, Texarkana, Ark.-Tex.					
88921	Internaional 4-8-8 Fertilizer, Guarantee	4.00	8.00	8.00	32.80
	Analysis	4.19	8.32	7.18	32.59
88796	International 4-12-4 Fertilizer, Guarantee	4.00	12.00	4.00	32.80
	Analysis	4.22	11.66	4.02	32.92
88809	Analysis	4.22	12.15	3.74	33.22
88853	Analysis	4.25	11.88	4.16	33.50
88856	Analysis	4.04	11.81	4.19	32.90
88935	Analysis	4.09	12.06	4.21	33.40
88998	Analysis	4.01	12.39	4.04	33.44
88798	International 5-10-5 Fertilizer, Guarantee	5.00	10.00	5.00	34.00
	Analysis	5.25	10.03	5.12	34.86
88811	Analysis	5.30	10.33	5.01	35.25
88858	Analysis	4.95	10.21	4.86	33.96
88912	Analysis	5.39	9.80	4.68	34.28
88936	Analysis	5.29	9.99	4.83	34.50
88946	Analysis	5.35	9.81	4.75	34.29
88987	Analysis	5.06	9.82	5.20	34.19
88999	Analysis	4.92	10.10	5.66	34.85
88797	International 6-8-4 Fertilizer, Guarantee	6.00	8.00	4.00	32.40
	Analysis	5.94	8.28	4.09	32.76
88810	Analysis	6.04	8.12	3.92	32.56
88857	Analysis	6.07	7.92	4.68	33.42
88913	International 20% Superphosphate, Guarantee		20.00		28.00
	Analysis		20.47		28.66
89027	Analysis		20.33		28.46
89034	Analysis		20.15		28.21
88973	Analysis		20.27		28.38
Jacksonville Fertilizer Company, Jacksonville, Texas					
88805	Red Tomato 4-12-4 Fertilizer, Guarantee	4.00	12.00	4.00	32.80
	Analysis	4.10	12.54	4.01	33.83
88992	Analysis	3.89	12.18	4.08	32.87
88807	Red Tomato Brand 5-10-5 Fertilizer, Guarantee	5.00	10.00	5.00	34.00
	Analysis	5.00	9.65	4.82	33.26
88806	Red Tomato 6-8-4 Fertilizer, Guarantee	6.00	8.00	4.00	32.40
	Analysis	5.91	8.53	3.88	32.74
Kelly Weber & Company, Inc., Lake Charles, Louisiana					
88736	Weber-King Brand Fertilizer Special 4-12-4, Guarantee	4.00	12.00	4.00	32.80
	Analysis	4.06	12.36	3.64	32.96
88979	Analysis	4.02	11.40	3.75	31.66
89087	Analysis	4.13	11.32	3.76	31.85
89097	Weber-King Brand Fertilizer Special 5-10-5, Guarantee	5.00	10.00	5.00	34.00
	Analysis	5.33	9.22	4.89	33.62
89088	Weber-King Brand Fertilizer 6-8-4, Guarantee	6.00	8.00	4.00	32.40
	Analysis	6.12	8.48	3.03	32.02
89096	Analysis	5.61	8.10	4.00	31.53
Longview Cotton Oil Company, Longview, Texas					
88868	Longview 5-10-5 Fertilizer, Guarantee	5.00	10.00	5.00	34.00
	Analysis	5.20	9.94	4.04	33.10
88867	Longview Prolific Fertilizer, Guarantee	6.00	8.00	4.00	32.40
	Analysis	5.88	7.89	4.32	32.89
88866	Longview Special Fertilizer (High Grade), Guarantee	4.00	12.00	4.00	32.80
	Analysis	3.31	12.06	5.02	32.52

Table 6. Analysis of commercial fertilizer, season 1943-44

Available phosphoric acid,	Manufacture, place of business and brand	Nitrogen per cent	Available phosphoric acid, per cent	Potash, per cent	Valuation found, per ton
Marshall Cotton Oil Company, Marshall, Texas					
88952	Marshall 0-14-7, Guarantee	0.00	14.00	7.00	\$29.40
	Analysis		14.66	6.06	29.00
	Marshall 4-12-4 Fertilizer, Guarantee	4.00	12.00	4.00	32.80
88949	Analysis	3.71	12.20	4.27	32.71
88955	Analysis	3.93	12.01	4.25	32.98
88969	Analysis	4.04	12.01	4.13	33.09
	Marshall 5-10-5 Fertilizer, Guarantee	5.00	10.00	5.00	34.00
88950	Analysis	4.59	10.39	5.09	33.61
88970	Analysis	4.88	10.29	5.00	34.10
	Marshall 6-8-4, Guarantee	6.00	8.00	4.00	32.40
88951	Analysis	5.96	8.20	4.20	32.86
Mixson Brothers, Kirbyville, Texas					
	Jasco Brand Special No. 4-12-4, Guarantee	4.00	12.00	4.00	32.80
88743	Analysis	4.01	11.46	4.05	32.14
89112	Analysis	3.96	12.28	3.98	33.06
Oil Mill & Fertilizer Works, Henderson, Texas					
	Wolf Brand Fertilizer 4-12-4, Guarantee	4.00	12.00	4.00	32.80
88990	Analysis	3.93	11.06	4.20	31.58
	Wolf Brand Fertilizer 5-10-5, Guarantee	5.00	10.00	5.00	34.00
88958	Analysis	4.82	10.53	4.63	33.75
88989	Analysis	4.73	10.43	4.85	33.69
89002	Analysis	4.83	9.93	4.42	32.65
Plantabbs Company, Baltimore, Maryland					
	Fulton's "V" Pantabbs 4-12-18, Guarantee	4.00	12.00	18.00	52.40
88598	Analysis	4.27	12.37	18.02	53.65
89105	Analysis	3.84	11.52	19.16	52.93
Port Fertilizer Company, Las Fresnos, Texas					
	Valley Port Brand 4-12-4 Fertilizer, Guarantee	4.00	12.00	4.00	32.80
88628	Analysis	5.05	14.71	5.02	40.75
	Valley Port Brand 10-10-0 Fertilizer, Guarantee	10.00	10.00		40.00
88616	Analysis	10.99	9.35		41.66
89161	Analysis	10.04	10.70		41.08
	Valley Port Brand 32.5% Ammonium Niraate, Guarantee	32.50			84.50
88621	Analysis	32.53			84.58
88623	Analysis	32.55			84.63
88626	Analysis	32.54			84.60
89147	Analysis	32.73			85.10
	Valley Port Brand 20% Superphosphate, Guarantee		20.00		28.00
89162	Analysis		21.20		29.68
89164	Analysis		20.80		29.12
	Valley Port Brand 45% Superphosphate, Guarantee		45.00		63.00
88617	Analysis		48.56		67.98
88629	Analysis		48.09		67.33
Pulverized Manure Company, Chicago, Ill.					
	Wizard Brand Pulverized Sheep Manure, Guarantee	2.00	1.00	2.00	9.40
88643	Analysis	1.23	.93	1.94	7.22
88891	Analysis	1.60	1.56	4.07	12.04
88898	Analysis	1.85	1.91	3.74	12.72
Red Star Fertilizer Company, Sulphur Springs, Texas					
	Red Star Brand 4-8-8, Guarantee	4.00	8.00	8.00	32.80
88903	Analysis	5.88	8.09	4.09	32.35
88929	Analysis	4.27	8.62	7.32	33.42
	Red Star Brand 4-12-4, Guarantee	4.00	12.00	4.00	32.80
88899	Analysis	4.33	11.56	4.18	33.29
88924	Analysis	3.92	11.67	3.89	31.98

Table 6. Analysis of commercial fertilizer, season 1943-44

Laboratory Number	Manufacture, place of business and brand	Nitrogen per cent	Available phosphoric acid, per cent	Potash, per cent	Valuation found, per ton
Red Star Fertilizer Company, Sulphur Springs, Texas (Cont.)					
88904	Red Star Brand 5-10-5, Guarantee	5.00	10.00	5.00	\$34.00
	Analysis	5.14	10.21	5.15	34.86
88925	Red Star Brand 6-8-4, Guarantee	6.00	8.00	4.00	32.40
	Analysis	5.90	8.59	4.20	33.25
88905	20% Superphosphate, Guarantee	0.00	20.00	0.00	28.00
	Analysis		20.03		28.04
Shreveport Fertilizer Works, Shreveport, La.					
88784	Lion 4-12-4 Fertilizer, Guarantee	4.00	12.00	4.00	32.80
	Analysis	4.32	11.18	4.97	33.84
88799	Analysis	4.00	11.71	4.04	32.45
88883	Analysis	4.29	12.54	4.10	34.45
88964	Analysis	4.26	11.77	4.78	34.25
88991	Analysis	4.17	12.18	4.34	33.97
89089	Analysis	3.14	13.52	3.93	32.59
89117	Analysis	3.90	11.68	4.41	32.66
89118	Lion 4-12-6 Fertilizer Guarantee	4.00	12.00	6.00	35.60
	Analysis	2.86	12.59	6.69	34.44
88778	Lion 5-10-5 Fertilizer, Guarantee	5.00	10.00	5.00	34.00
	Analysis	4.96	9.60	5.37	33.86
88786	Analysis	5.09	9.56	4.82	33.36
88800	Analysis	5.09	9.63	5.38	34.24
88884	Analysis	5.31	11.71	3.78	35.49
88963	Analysis	4.53	10.53	4.99	33.51
89000	Analysis	4.54	10.40	5.10	33.50
89090	Analysis	5.17	10.10	5.36	35.08
89119	Analysis	3.54	10.68	5.92	32.44
88785	Lion 6-8-4 Fertilizer, Guarantee	6.00	8.00	4.00	32.40
	Analysis	6.61	8.29	3.90	34.26
88711	Longhorn 4-12-4 Fertilizer, Guarantee	4.00	12.00	4.00	32.80
	Analysis	4.33	10.57	4.27	32.04
88772	Analysis	4.31	12.53	4.49	35.04
88961	Analysis	3.83	12.09	4.24	32.83
89074	Analysis	4.11	11.83	4.33	33.38
89091	Analysis	4.06	11.52	4.84	33.47
89108	Analysis	3.88	12.23	4.38	33.34
88712	Longhorn 5-10-5 Fertilizer, Guarantee	5.00	10.00	5.00	34.00
	Analysis	4.67	10.24	6.03	34.92
88962	Analysis	4.81	10.25	5.14	34.06
89075	Analysis	4.59	9.89	5.12	32.95
89109	Analysis	4.83	10.18	5.01	33.82
Swift's & Company Fertilizer Works, Houston, Texas, Harvey and Shreveport, La.					
Ammonium Nitrate Fertilizer (conditioned nitrate),					
	Guarantee	32.50			84.50
88603	Analysis	32.49			84.47
89159	Analysis	32.79			85.25
88651	Swift's Red Steer Brand 4-8-8, Guarantee	4.00	8.00	8.00	32.80
	Analysis	3.50	8.53	7.84	32.02
88721	Analysis	3.49	8.31	7.36	31.00
88845	Analysis	4.01	7.88	7.35	31.75
88872	Analysis	3.96	7.98	7.71	32.26
88914	Analysis	4.08	8.22	7.61	32.77
88960	Analysis	3.92	8.04	7.81	32.38
88984	Analysis	3.86	8.05	7.90	32.37
88602	Swift's Red Steer Brand 4-12-4, Guarantee	4.00	12.00	4.00	32.80
	Analysis	3.84	11.64	4.34	32.36
88605	Analysis	4.08	11.92	5.45	34.93
88608	Analysis	4.00	11.61	4.21	32.54
88652	Analysis	3.99	11.45	4.18	32.25

Table 6. Analysis of commercial fertilizer, season 1943-44

Laboratory Number	Manufacture, place of business and brand	Nitrogen per cent	Available phosphoric acid, per cent	Potash, per cent	Valuation found, per ton
Swift's & Company Fertilizer Works, Houston, Texas, Harvey and Shreveport, La. (Continued)					
Swift's Red Steer Brand 4-12-4 (Continued)					
88670	Analysis	4.02	11.89	4.02	\$32.73
88683	Analysis	4.15	11.81	4.02	32.95
88688	Analysis	3.45	11.23	4.14	30.56
88703	Analysis	4.04	11.77	4.11	32.73
88704	Analysis	4.06	11.42	3.89	32.00
88719	Analysis	3.88	12.19	4.04	32.82
88726	Analysis	3.88	11.37	4.07	31.71
88738	Analysis	4.00	11.60	3.94	32.16
88745	Analysis	3.87	11.37	4.07	31.68
88761	Analysis	3.83	11.77	4.39	32.59
88763	Analysis	4.00	11.44	4.23	32.34
88776	Analysis	3.97	11.48	4.04	32.05
88792	Analysis	4.00	11.53	4.00	32.14
88803	Analysis	3.90	11.69	4.04	32.17
88812	Analysis	4.18	11.43	4.31	32.90
88819	Analysis	4.06	11.54	4.18	32.57
88830	Analysis	4.00	12.02	4.00	32.83
88887	Analysis	4.00	12.00	3.85	32.59
88908	Analysis	4.07	12.07	3.98	33.05
88940	Analysis	4.26	11.32	4.09	32.66
88947	Analysis	4.02	11.80	4.06	32.65
88971	Analysis	4.59	10.65	4.75	33.49
88983	Analysis	4.10	12.02	4.11	33.24
88996	Analysis	3.97	11.69	4.09	32.42
89003	Analysis	3.95	12.06	4.08	32.86
89009	Analysis	4.13	11.45	4.19	32.64
89014	Analysis	3.96	11.65	4.37	32.73
89024	Analysis	3.69	11.73	3.92	31.59
89029	Analysis	3.55	12.05	4.39	32.25
89041	Analysis	4.16	11.55	4.06	32.67
89049	Analysis	3.61	11.92	3.91	31.55
89054	Analysis	3.93	11.40	4.23	32.10
89055	Analysis	4.04	11.53	4.01	32.25
89057	Analysis	4.14	11.53	5.20	34.18
89076	Analysis	4.09	11.80	4.04	32.81
89120	Analysis	3.94	11.41	4.01	31.82
89148	Analysis	4.20	12.44	4.40	34.50
89157	Analysis	3.07	12.66	4.72	32.31
	Swift's Red Steer Brand 4-12-6 Guarantee	4.00	12.00	6.00	35.60
88648	Analysis	3.57	11.38	6.04	33.67
88667	Analysis	3.80	11.37	6.01	34.21
88669	Analysis	3.64	11.31	6.02	33.72
88821	Analysis	4.16	10.66	5.49	33.43
88888	Analysis	4.00	12.28	5.65	35.50
89056	Analysis	4.16	11.23	5.52	34.27
89077	Analysis	3.88	11.56	5.68	34.22
	Swift's Red Steer Brand 5-10-5, Guarantee	5.00	10.00	5.00	34.00
88649	Analysis	4.70	9.67	4.73	32.38
88777	Analysis	4.92	9.90	4.81	33.38
88793	Analysis	5.08	9.53	4.75	33.20
88831	Analysis	4.87	9.82	5.00	33.41
88855	Analysis	4.77	9.88	4.71	32.82
88900	Analysis	5.09	9.71	4.87	33.64
88926	Analysis	4.78	9.74	5.11	33.22
88986	Analysis	4.84	9.37	5.39	33.25
89010	Analysis	5.03	10.06	4.86	33.96
89026	Analysis	4.76	10.05	4.67	32.99
89051	Analysis	4.92	9.18	5.39	33.19

Table 6. Analysis of commercial fertilizer, season 1943-44

Laboratory Number	Manufacture, place of business and brand	Nitrogen per cent	Available phosphoric acid, per cent	Potash, per cent	Valuation found, per ton
Swift's & Company Fertilizer Works, Houston, Texas, Harvey and Shreveport, La. (Continued)					
	Swift's Red Steer Brand 6-8-4, Guarantee	6.00	8.00	4.00	\$32.40
88610	Analysis	5.78	8.60	4.19	32.94
88650	Analysis	5.46	8.43	3.94	31.52
88660	Analysis	5.38	8.38	4.06	31.40
88666	Analysis	5.69	8.06	4.09	31.80
88671	Analysis	5.75	8.24	3.87	31.91
88684	Analysis	5.46	8.19	4.08	31.38
88702	Analysis	5.78	7.96	4.05	31.84
88727	Analysis	5.64	8.00	3.79	31.17
88783	Analysis	5.57	8.05	3.85	31.14
88813	Analysis	5.75	8.28	3.89	31.99
88820	Analysis	5.75	8.34	3.73	31.85
88846	Analysis	6.00	8.05	4.10	32.61
88854	Analysis	6.14	7.73	3.95	32.31
88873	Analysis	5.92	8.24	4.04	32.59
88889	Analysis	5.89	8.48	4.28	33.17
88901	Analysis	6.02	8.38	3.71	32.57
88909	Analysis	4.26	7.70	8.77	34.12
88915	Analysis	5.42	7.88	4.79	31.83
88927	Analysis	6.08	8.08	4.08	32.83
88934	Analysis	5.92	8.52	3.88	32.75
88941	Analysis	5.86	8.11	4.07	32.29
88959	Analysis	5.92	7.86	4.16	32.21
88972	Analysis	5.92	8.13	4.03	32.41
88985	Analysis	5.68	7.95	4.23	31.82
88997	Analysis	6.08	8.16	4.04	32.89
89004	Analysis	5.86	7.80	3.55	31.13
89025	Analysis	4.83	8.52	4.47	30.75
89050	Analysis	6.71	8.79	1.35	31.65
	Swift's Red Steer Brand Rice Mixture 4-10-0, Guarantee...	4.00	10.00	0.00	24.40
88804	Analysis	4.02	9.88		24.28
	Swift's Red Steer Brand Superphosphate 18% Guarantee...		18.00		25.20
88607	Analysis		18.97		26.56
	Swift's Red Steer Brand 20% Superphosphate, Guarantee	0.00	20.00	0.00	28.00
89023	Analysis		20.50		28.70
89149	Analysis		21.17		29.64
	Vigoro, Guarantee	4.00	12.00	4.00	32.80
88611	Analysis	4.05	11.85	4.27	33.10
88640	Analysis	4.18	12.09	4.38	33.93
88681	Analysis	4.18	11.68	4.17	33.06
88689	Analysis	4.06	11.34	4.14	32.24
88739	Analysis	4.18	12.40	4.11	33.98
88779	Analysis	4.17	11.66	4.32	33.21
88988	Analysis	4.05	11.71	5.20	34.20
89071	Analysis	4.08	11.58	4.32	32.87
89143	Analysis	4.20	12.69	4.33	34.75
89144	Analysis	4.28	12.47	4.41	34.76
89158	Analysis	4.47	12.31	4.34	34.93
89169	Analysis	4.47	12.47	4.10	34.82
	Vigoro, Guarantee Garden Fertilizer (For Food Production only), Guarantee	5.00	10.00	5.00	34.00
88728	Analysis	5.32	9.34	5.44	34.53
88890	Analysis	5.55	9.55	5.50	35.50
Temple Cotton Oil Company, North Little Rock, Arkansas					
	Quapaw, 4-12-4 Guarantee	4.00	12.00	4.00	32.80
88939	Analysis	3.95	11.74	4.81	33.44
88943	Analysis	3.48	11.63	3.80	30.65

Table 6. Analysis of commercial fertilizer, season 1943-44.

Laboratory Number	Manufacture, place of business and brand	Nitrogen per cent	Available phosphoric acid, per cent	Potash, per cent	Valuation found, per ton
Texas Farm Products Company, Nacogdoches, Texas					
88771	Lone Star Brand 4-10-0 Fertilizer, Guarantee	4.00	10.00	0.00	\$24.40
	Analysis	4.06	9.53		23.97
	Lone Star Brand 4-12-4 Fertilizer, Guarantee	4.00	12.00	4.00	32.80
88696	Analysis	4.12	11.59	4.23	32.86
88705	Analysis	3.93	11.58	4.38	32.56
88709	Analysis	3.80	11.72	4.01	31.90
88746	Analysis	3.90	11.50	4.01	31.85
88747	Analysis	4.01	11.65	3.97	32.30
88748	Analysis	3.83	11.58	4.02	31.80
88756	Analysis	4.00	11.27	3.93	31.63
88758	Analysis	4.10	11.77	4.15	32.95
88762	Analysis	3.93	11.75	3.98	32.24
88768	Analysis	3.94	11.48	4.22	32.22
88790	Analysis	3.98	11.76	4.14	32.61
88870	Analysis	4.03	11.55	3.86	32.05
88874	Analysis	4.21	11.87	3.45	32.40
88906	Analysis	4.04	11.45	4.18	32.38
88918	Analysis	4.02	11.76	4.58	33.32
88966	Analysis	3.95	11.94	4.30	33.01
89016	Analysis	3.87	12.12	4.01	32.64
89021	Analysis	3.93	11.79	4.26	32.69
89028	Analysis	3.96	11.69	4.18	32.52
89082	Analysis	3.90	11.74	4.02	32.21
89086	Analysis	4.00	11.83	4.11	32.71
89103	Analysis	4.02	11.77	4.11	32.68
89107	Analysis	4.01	11.66	4.42	32.94
89110	Analysis	4.01	11.91	4.18	32.95
	Lone Star Brand 5-10-5 Fertilizer Guarantee	5.00	10.00	5.00	34.00
88706	Analysis	4.97	9.89	4.81	33.50
88770	Analysis	4.89	9.85	5.08	33.61
88839	Analysis	4.76	9.84	4.43	32.36
	Lone Star Brand 6-8-4 Fertilizer, Guarantee	6.00	8.00	4.00	32.40
88697	Analysis	5.74	8.06	4.03	31.84
88710	Analysis	5.77	7.88	4.20	31.91
88757	Analysis	5.75	8.21	4.22	32.35
88759	Analysis	6.28	8.01	4.22	33.45
88769	Analysis	5.85	8.04	4.17	32.31
88780	Analysis	6.04	8.25	4.30	33.27
88791	Analysis	5.84	7.96	4.07	32.02
88838	Analysis	6.26	8.24	3.96	33.36
88871	Analysis	5.82	8.05	4.22	32.31
88907	Analysis	5.68	8.04	3.95	31.56
88967	Analysis	5.76	8.11	4.09	32.06
88981	Analysis	6.09	8.08	4.16	32.96
89008	Analysis	5.84	8.03	4.07	32.19
89017	Analysis	5.85	8.39	4.36	33.06
89073	Analysis	5.75	8.04	3.84	31.59
89083	Analysis	5.49	8.07	4.00	31.17
89094	Analysis	5.74	8.07	4.01	31.83
89095	Analysis	5.64	8.08	4.01	31.52
89104	Analysis	5.74	8.17	4.01	31.97
89111	Analysis	5.75	8.42	4.02	32.37
Tri-State Fertilizer & Lumber Company, Shreveport, La.					
88923	Red Diamond 4-8-8 Fertilizer, Guarantee	4.00	8.00	8.00	32.80
	Analysis	3.94	8.29	7.68	32.60
89006	Red Diamond 5-10-5 Fertilizer, Guarantee	5.00	10.00	5.00	34.00
	Analysis	4.70	10.26	4.50	32.88

Table 6. Analysis of commercial fertilizer, season 1943-44.

Laboratory Number	Manufacture, place of business and brand	Nitrogen per cent	Available phosphoric acid, per cent	Potash, per cent	Valuation found, per ton
Tri-State Fertilizer & Lumber Company, Shreveport, La. (Cont.)					
	Red Diamond 6-8-4 Fertilizer, Guarantee	6.00	8.00	4.00	\$32.40
88993	Analysis	6.04	9.01	3.48	33.18
89005	Analysis	6.71	8.39	3.44	34.02
Tyler Fertilizer Company, Tyler, Texas					
	4-8-8 Heart Brand Fertilizer, Guarantee	4.00	8.00	8.00	32.80
88829	Analysis	3.85	8.03	8.28	32.84
	4-12-4 Heart Brand Fertilizer Guarantee	4.00	12.00	4.00	32.80
88826	Analysis	3.88	12.01	4.12	32.67
88847	Analysis	3.92	11.61	4.57	32.84
	5-10-5 Heart Brand Fertilizer, Guarantee	5.00	10.00	5.00	34.00
88828	Analysis	5.16	9.20	5.21	33.59
	6-8-4 Heart Brand Fertilizer, Guarantee	6.00	8.00	4.00	32.40
88827	Analysis	5.75	8.04	4.35	32.30
88848	Analysis	5.93	7.51	3.93	31.43
United Chemical Company, Dallas, Texas					
	"Sunset Brand" Fertilizer 4-12-4, Guarantee	4.00	12.00	4.00	32.80
88755	Analysis	3.62	11.88	4.08	31.75
88980	Analysis	3.72	11.84	4.21	32.14
89022	Analysis	4.01	12.10	4.18	33.22
89048	Analysis	3.91	10.85	4.05	31.03
89060	Analysis	3.79	11.34	4.13	31.51
89069	Analysis	4.10	11.91	4.06	33.01
89102	Analysis	4.19	11.86	4.12	33.26
	"Sunset Brand" Fertilizer 5-10-5, Guarantee	5.00	10.00	5.00	34.00
88760	Analysis	4.86	9.85	5.24	33.77
88893	Analysis	4.98	10.06	5.26	34.39
89015	Analysis	5.27	9.29	5.09	33.84
89058	Analysis	5.29	9.92	5.26	35.00
89061	Analysis	4.78	10.40	5.14	34.19
89070	Analysis	5.22	9.95	4.91	34.37
	"Sunset Brand" Fertilizer 6-8-4, Guarantee	6.00	8.00	4.00	32.40
88808	Analysis	6.07	7.97	3.96	32.48
88894	Analysis	6.08	8.06	3.82	32.44
88848	Analysis	6.10	8.26	3.92	32.91
	"Sunset Brand" Fertilizer 20% Superphosphate, Guarantee	0.00	20.00	0.00	28.00
89038	Analysis		20.01		28.01
	United Plant Food 4-10-0 Rice Special, Guarantee	4.00	10.00	0.00	24.40
89126	Analysis	3.76	10.30		24.20
	United Plantfood 4-12-4, Guarantee	4.00	12.00	4.00	32.80
88863	Analysis	4.04	11.81	4.15	32.84
88892	Analysis	4.18	11.30	4.06	32.37
89127	Analysis	3.95	11.86	3.08	31.18
	United Plantfood 5-10-5, Guarantee	5.00	10.00	5.00	34.00
89018	Analysis	5.38	9.53	5.39	34.88
	United Velvet-Green Lawn and Garden Fertilizer Formula				
	18, Guarantee	6.00	9.00	3.00	32.40
88896	Analysis	6.74	9.30	3.06	34.82
	United Victory Garden Fertilizer (For Food production				
	only), Guarantee	5.00	10.00	5.00	34.00
88895	Analysis	5.32	9.66	4.89	34.20
Virginia Carolina Chemical Corporation, Shreveport, La.					
	V-C Fertilizer 0-14-7, Guarantee	0.00	14.00	7.00	29.40
89013	Analysis		13.81	7.46	29.77
	V-C Fertilizer 4-8-8, Guarantee	4.00	8.00	8.00	32.80
88916	Analysis	3.57	8.03	7.86	31.52

Table 6. Analysis of commercial fertilizer, season 1943-44.

Laboratory Number	Manufacture, place of business and brand		Nitrogen per cent	Available phosphoric acid, per cent	Potash, per cent	Valuation found, per ton
Virginia Carolina Chemical Corporation, Shreveport, La. (Cont.)						
88750	V-C Fertilizer 4-10-7 (old goods), Guarantee	4.00	10.00	7.00	\$84.20	
	Analysis	4.08	11.25	7.20	36.44	
88690	V-C Fertilizers 4-12-4, Guarantee	4.00	12.00	4.00	32.80	
	Analysis	3.99	12.15	4.04	33.04	
88718	Analysis	3.86	12.46	4.34	33.56	
88740	Analysis	3.98	12.23	4.21	33.36	
88749	Analysis	3.83	12.65	3.98	33.24	
88751	Analysis	3.92	12.19	4.16	33.08	
88773	Analysis	3.94	12.32	4.21	33.38	
88801	Analysis	4.33	11.67	3.90	33.06	
88814	Analysis	4.25	11.24	4.12	32.56	
88833	Analysis	3.97	12.42	4.18	33.56	
88937	Analysis	3.75	12.50	4.76	33.91	
88944	Analysis	3.98	12.42	4.34	33.82	
88953	Analysis	4.00	12.05	4.21	33.16	
88994	Analysis	3.90	12.47	4.06	33.28	
89011	Analysis	3.99	12.50	4.14	33.67	
89030	Analysis	4.02	12.64	4.16	33.97	
89037	Analysis	3.99	12.07	3.77	32.55	
89043	Analysis	4.03	12.29	4.03	33.33	
89078	Analysis	4.12	12.28	3.97	33.46	
89092	Analysis	3.90	12.39	4.05	33.16	
89098	Analysis	4.07	12.14	3.87	33.00	
89114	Analysis	3.88	12.63	4.27	33.75	
88758	V-C Fertilizers 5-10-5, Guarantee	5.00	10.00	5.00	34.00	
	Analysis	5.06	10.08	4.82	34.02	
88775	Analysis	4.87	10.17	4.91	33.77	
88802	Analysis	5.05	10.05	5.05	34.27	
88816	Analysis	4.83	10.32	4.86	33.67	
88835	Analysis	4.79	10.59	4.96	34.22	
88844	Analysis	4.95	10.07	5.21	34.26	
88938	Analysis	4.81	10.39	5.27	34.44	
88945	Analysis	4.93	10.24	4.79	33.87	
88957	Analysis	4.94	10.38	5.07	34.47	
89012	Analysis	4.80	10.20	4.85	33.55	
89115	Analysis	4.95	10.31	4.77	33.98	
88741	V-C Fertilizers 6-8-4, Guarantee	6.00	8.00	4.00	32.40	
	Analysis	5.85	8.31	4.04	32.50	
88752	Analysis	5.79	8.28	3.84	32.02	
88774	Analysis	5.81	8.02	4.00	31.84	
88815	Analysis	5.57	8.61	3.75	31.78	
88834	Analysis	5.77	8.39	3.85	32.14	
88843	Analysis	5.79	8.17	3.82	31.84	
88869	Analysis	5.38	8.66	3.80	31.43	
88910	Analysis	5.69	8.78	4.15	32.89	
88917	Analysis	5.73	8.43	4.02	32.33	
88928	Analysis	5.72	8.38	4.09	32.33	
88954	Analysis	5.81	8.10	3.88	31.88	
88968	Analysis	5.79	8.10	4.03	32.03	
89079	Analysis	5.70	8.33	4.05	32.15	
89099	Analysis	5.78	8.38	4.14	32.56	
89101	V-C 18% Superphosphate Guarantee	0.00	18.00	0.00	25.20	
	Analysis		18.72		26.21	
88691	V-C 20% Superphosphate, Guarantee	0.00	20.00	0.00	28.00	
	Analysis		18.36		25.70	
88742	Analysis		20.42		28.59	
88911	Analysis		20.54		28.76	
89031	Analysis		20.99		29.39	

Table 6. Analysis of commercial fertilizer, season 1943-44

Laboratory Number	Manufacture, place of business and brand				Nitrogen per cent	Available phosphoric acid, per cent	Potash, per cent	Valuation found, per ton
	Trade Name	Address	City	State				
Virginia Carolina Chemical Corporation, Shreveport, La. (Continued)								
	V-C Victory Garden Fertilizer (For Food Production only), Guarantee				5.00	10.00	5.00	\$34.00
88754	Analysis				5.04	10.14	5.02	34.33
89100	Analysis				5.00	10.45	5.09	34.76
Waldo Fertilizer Works, Waldo, Ark.								
	Victory 4-12-4 Fertilizer, Guarantee				4.00	12.00	4.00	32.80
88977	Analysis				3.80	12.26	3.90	32.50
	Victory 5-10-5 Fertilizer, Guarantee				5.00	10.00	5.00	34.00
88933	Analysis				4.41	10.37	6.03	34.50
	Victory 20% Superphosphate, Guarantee				0.00	20.00	0.00	28.00
88978	Analysis					20.76		29.06

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