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# TEXAS AGRICULTURAL EXPERIMENT STATION

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COLLEGE STATION, BRAZOS COUNTY, TEXAS

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BULLETIN NO. 368

OCTOBER, 1927

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DIVISION OF CHEMISTRY

## COMMERCIAL FERTILIZERS IN 1926-27 AND THEIR USE



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†As of October 1, 1927.

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\*\*\*In cooperation with U. S. Department of Agriculture.

\*\*\*\*In cooperation with the School of Agriculture.

### SYNOPSIS

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. Any one who desires to do so can see to what extent the various manufacturers are coming up to their guarantees.

The total sales of fertilizer in Texas for 1926-27 were 79,863 tons; in 1925-26 they were 121,747 tons exclusive of cottonseed meal sold as a feed but used as a fertilizer. Practically all the sales of mixed fertilizers in 1926-27 were confined to 20 analyses.

The Bulletin contains a discussion of the use of fertilizers and suggestions for their use on various crops and in various sections of the State. Tables are also given showing the approximate quantity of fertilizer used per acre and percentage of the crops fertilized for some of the counties where fertilizer is used.

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## COMMERCIAL FERTILIZERS IN 1926-27

G. S. FRAPS and S. E. ASBURY

The quantities of commercial fertilizers sold in Texas for several seasons are given in Table 1. The sales in 1926-27 were less than for 1925-26. Fertilizer statistics for a number of years have been published in Bulletin 350.

### MEANING OF THE FIGURES NAMING A FERTILIZER

When a fertilizer is named by figures, the first figure stands for the percentage of available phosphoric acid, the second for the percentage of nitrogen, and the third for the percentage of water-soluble potash. Thus an 8-4-4 fertilizer contains 8 per cent available phosphoric acid, 4 per cent nitrogen and 4 per cent potash, and one knows exactly what kind of fertilizer is referred to.

### QUANTITY OF SALES BY ANALYSES

Table 2 contains the classified sales of fertilizer for three seasons as reported by the manufacturers. About 80 per cent of the fertilizer sold consisted of seven analyses: 10-3-3, 10-2-2, 12-4-4, 8-4-4, 8-4-6, 10-4-2, and 8-3-3 with acid phosphate and cottonseed meal.

Table 1.—Tons fertilizer sold in Texas.

Year	Tons
1905-06.....	13,500
1910-11.....	52,985
1913-14.....	77,400
1914-15.....	17,500
1917-18.....	58,000
1918-19.....	46,000
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

**Quantity of cottonseed meal used as a fertilizer.** The tonnage of cottonseed meal reported in Table 2 includes only that sold as a fertilizer. Considerable quantities of cottonseed meal sold as feed have been used as fertilizer, but up to this year we have not been in position to estimate the amount.

An estimate of the percentage used of mixed fertilizer, cottonseed meal, acid phosphate, and other unmixed fertilizer was requested in connection with the request for fertilizer information discussed in another part of this

Bulletin. The average estimate from 148 replies was 50 per cent mixed fertilizer, 26 per cent cotton seed meal, 20 per cent acid phosphate, and 4 per cent other fertilizer. The actual consumption was 50,701 tons mixed fertilizer, 22,925 tons acid phosphate and 6,037 tons other materials, including cottonseed meal. The consumption of acid phosphate was about 13 per cent higher than the estimate. If the proportions between the acid phosphate and cottonseed meal are assumed to hold good, the consumption of cottonseed meal as a fertilizer in Texas this year was about 30,000 tons. As 2,034 tons were sold as fertilizer, about 28,000 tons would have been sold as feed, but used as fertilizer in 1927.

Table 2.—Tons of fertilizer sold in order of tonnage for 1926-27.

	1926-27	1925-26	1924-25
10-3-3 Fertilizer.....	13,120	19,055	
Acid Phosphate 18 Per Cent.....	12,517	19,515	7,467
10-2-2 Fertilizer.....	8,817	15,089	
12-4-4 Fertilizer.....	8,535	13,779	5,589
Acid Phosphate 16 Per Cent.....	6,355	13,493	16,837
Acid Phosphate 20 Per Cent.....	4,053	3,991	
8-4-4 Fertilizer.....	3,735	3,962	1,595
8-4-6 Fertilizer.....	2,779	3,098	859
Cottonseed Meal.....	2,034	4,396	2,613
10-4-2 Fertilizer.....	1,906	3,790	2,036
8-3-3 Fertilizer.....	1,889	2,174	
10-6-7 Fertilizer.....	1,483	625	
15-5-5 Fertilizer.....	1,249		
Kainit 12.4 Per Cent.....	1,174	1,030	827
15-0-6 Fertilizer.....	1,173	870	
12-3-3 Fertilizer.....	1,144	3,532	3,653
Nitrate of Soda.....	1,095	2,592	1,873
10-4-7 Fertilizer.....	1,000		
10-3-8 Fertilizer.....	838		
12-2-2 Fertilizer.....	680	2,243	2,442
8-3-5 Fertilizer.....	597	448	
Sulphate of Ammonia.....	553	669	1,125
Bone Meal.....	477	315	
12-0-4 Fertilizer.....	441	337	533
Muriate of Potash 50 Per Cent.....	409	569	186
Other mixed Fertilizer.....	330	2,699	49,178
Other unmixed Fertilizer.....	285	533	455
12-4-0 Fertilizer.....	202	332	162
Kainit 14.5.....	174		
18-6-6 Fertilizer.....	75	79	
9-6-3 Fertilizer.....	73	80	
7-5-5 Fertilizer.....		66	64
Manure Salts.....	40	112	
Sulphate of Potash 48 Per Cent.....	4	2	
15-4.11-5 Fertilizer.....		1,973	
12-3-0 Fertilizer.....		261	216
8-7-0 Fertilizer.....		32	9
16-8-12 Fertilizer.....		6	
Total.....	79,236		

### INFORMATION ON THE FERTILIZER BAG AND TAG

The guaranteed analysis of the fertilizer is required by law to be printed either on the bag or on a tag attached to the bag. In addition, a fertilizer tax tag is required on every bag before it is offered for sale or sold. Total phosphoric acid may be guaranteed in bone or tankage instead of available phosphoric acid. The information required on the package is as follows:

Net weight.

Name of fertilizer in full.

Name and address of manufacturer.

Guaranteed analysis:

Available phosphoric acid, per cent.

Nitrogen, per cent.

Potash, per cent.

### EXPLANATION OF TERMS

**Available phosphoric acid** is the phosphoric acid which can be taken up immediately by plants. Phosphoric acid promotes the fruiting of plants, though it is necessary for the development of all parts of the plant.

**Total phosphoric acid** is the entire quantity of the phosphoric acid present, whether available or not. A guarantee of "total phosphoric acid" in place of "available" is made in bone, tankage, rock phosphate, and Thomas phosphate.

**Nitrogen** refers to the total nitrogen in the fertilizer. It is necessary for the development of all parts of the plant, but an excess of nitrogen delays maturity and is liable to promote the growth of stalk and leaves at expense of fruit. Nitrogen is needed by many Texas soils.

**Potash** is required to be soluble in water. A great many Texas soils contain a sufficient quantity of potash, so that its use in fertilizer on such soils is a useless expense. Potash, like nitrogen, is needed by all parts of the plant, but especially by stalk and leaves. An excess of potash delays maturity and is liable to promote growth of the stalk and leaves at the expense of the fruit.

**Valuation per ton** represents the approximate cost of the plant food in the unmixed raw material, at retail, in large markets. It is not the price at which the fertilizer is sold. The selling price includes also cost of mixing, sacks, transportation, and manufacturers' and dealers' profits. The valuations are decided on about September 1, and the prices may change before the active fertilizer season, which is February to April. The following valuations were used in 1926-27:

	Cents per pound
Available phosphoric acid.....	6
Total phosphoric acid in Thomas phosphate, tankage, and bone meal.....	4
Nitrogen .....	22.5
Potash .....	6

### HOW TO CALCULATE THE VALUATION

The valuation of fertilizer is readily calculated by multiplying the composition by the valuation of each unit of plant food and adding the products. A unit is one per cent of a ton, or 20 pounds, so if the valuation of available phosphoric acid is 6 cents a pound, the valuation of a unit is

$6 \times 20 = \$1.20$ . The valuation of a unit of nitrogen at 22.5 cents a pound would be  $22.5 \times 20 = \$4.50$ , and of a unit of potash at 6 cents a pound would be  $\$1.20$ . The following is an example of the calculation at the prices given above:

## Valuation of 8-4-4 Fertilizer

Available phosphoric acid.....	$8 \times \$1.20 =$	$\$ 9.60$
Nitrogen.....	$4 \times 4.50 =$	$18.00$
Potash.....	$4 \times 1.20 =$	$4.80$
Total valuation per ton.....		$\$32.40$

### COMPOSITION AND SELLING PRICE OF DIFFERENT GRADES OF FERTILIZERS

Table 3 contains the average composition found, the guaranteed valuation, the valuation found by analysis, and the average retail selling price per ton, of the various analyses of fertilizers. The average retail selling price is the average of the cash retail price as furnished to the inspector by the dealer. The retail price includes handling costs, carrying charges, and the dealer's profits, as well as the items mentioned under valuation. Prices declined considerably toward the end of the fertilizer season and this decline may have affected the relative prices of some of the brands unequally.

The guaranteed analysis is given in the first column of the table. It is to be noted that the average analyses are usually higher than the guarantee in phosphoric acid and potash, but sometimes under the guarantee in nitrogen. The total valuation found exceeds the guaranteed valuation in almost every case.



Table 3.—Average composition, valuation and selling price of different analyses of fertilizers, 1926-27.

Fertilizer	Number Averaged	Available Phosphoric Acid, Per Cent	Nitrogen, Per Cent	Potash, Per Cent	Guaranteed Valuation, Per Ton	Valuation Found, Per Ton	Selling Price, Per Ton
8-3-3.....	19	9.21	3.04	3.33	\$26.70	\$28.75	\$33.69
8-3-5.....	8	9.14	2.94	4.96	29.10	30.16	36.54
8-4-4.....	68	9.23	3.87	4.21	32.40	33.57	37.67
8-4-6.....	54	9.51	3.90	5.82	34.80	35.94	40.99
9-6-3.....	4	9.55	5.62	3.05	41.40	40.42	43.55
10-2-2.....	80	10.55	2.07	2.37	23.40	24.79	29.45
10-3-3.....	104	10.56	3.03	3.18	29.10	30.13	32.51
10-3-8.....	10	10.65	3.12	7.48	35.10	35.77	42.98
10-4-2.....	22	10.70	3.84	2.50	32.40	33.14	36.65
10-4-7.....	11	10.67	3.97	7.03	38.40	39.09	47.17
10-6-7.....	16	10.91	5.86	6.96	47.40	47.82	55.03
12-0-4.....	3	10.67	.....	4.92	19.20	18.71	31.65
12-2-2.....	5	12.31	2.16	2.19	25.80	27.17	32.10
12-3-3.....	18	12.50	2.97	3.18	31.50	32.20	35.31
12-4-0.....	3	12.47	3.39	.93	32.40	31.34	39.67
12-4-4.....	123	12.29	3.96	4.11	37.20	37.51	41.65
15-0-6.....	9	14.77	.....	5.26	25.20	24.00	34.11
15-5-5.....	22	15.19	4.78	4.56	46.50	45.20	49.12
18-6-6.....	3	17.57	5.05	5.34	55.80	50.20	55.17
Acid Phosphate 16 Per Cent.....	57	17.16	.....	.....	19.20	20.59	21.20
Acid Phosphate 18 Per Cent.....	82	18.89	.....	.....	21.60	22.66	22.70
Acid Phosphate 20 Per Cent.....	36	20.44	.....	.....	24.00	24.53	24.69
Kainit 12.4.....	9	.....	.....	13.13	14.88	15.76	20.31
Sulphate of Ammonia.....	10	.....	20.62	.....	92.12	92.81	75.66
Nitrate of Soda.....	21	.....	15.36	.....	67.26	69.42	70.20
Muriate of Potash 50 Per Cent.....	13	.....	.....	48.60	60.00	58.32	51.45
Cottonseed Meal (Nitrogen only guaranteed) ..	7	.....	6.78	.....	30.57	30.52	31.79
Cottonseed Meal (complete guarantee).....	7	2.34	6.77	1.62	33.53	35.25	30.50
Bone Meal.....	4	23.43	3.73	.....	34.43	36.67	58.33

COMMERCIAL FERTILIZERS IN 1926-27 AND THEIR USES

### COST OF PLANT FOOD

Table 4 contains the retail cost of a pound of available phosphoric acid, of nitrogen and of potash, in cents per pound, as calculated from the cash selling prices per ton of Table 3 and the guaranteed composition. It was assumed that the prices were in the same ratio as the valuations. As the prices of the same fertilizer vary these figures are not correct for any one locality, but represent averages only and are for purposes of comparison. The prices were collected from retail merchants handling fertilizers. The fertilizers with the lowest prices are given first.

**Cost of phosphoric acid.** The cheapest source of phosphoric acid is 20 per cent acid phosphate. Available phosphoric acid cost about 2 per cent more per pound in 18 per cent acid phosphate than in 20 per cent, and about 7 per cent more in 16 per cent than in 20 per cent. Available phosphoric acid cost more in 16 per cent acid phosphate than in the following mixed fertilizers: 18-6-6, 9-6-3, and 15-5-5. Phosphoric acid was most expensive in 12-0-4 fertilizer, next in 15-0-6, then in 8-3-5, and then in 10-2-2.

Table 4.—Approximate average retail cost of plant food in cents per pound, arranged in order of increasing cost.

Fertilizer	Available Phosphoric Acid	Nitrogen	Potash
Sulphate of Ammonia		18.47	
Muriate of Potash 50%			5.14
Cottonseed Meal (Complete Guarantee)	5.46	20.48	5.46
18-6-6	5.93	22.25	5.93
Acid Phosphate 20%	6.17		
Cottonseed Meal (Nitrogen only guaranteed)		23.40	
Nitrate of Soda		23.49	
Acid Phosphate 18%	6.31		
9-6-3	6.31	23.67	6.31
15-5-5	6.34	23.76	6.34
Acid Phosphate 16%	6.62		
10-3-3	6.70	25.13	6.70
12-4-4	6.72	25.20	6.72
12-3-3	6.73	25.22	6.73
10-4-2	6.79	25.45	6.79
10-6-7	6.97	26.12	6.97
8-4-4	6.98	26.17	6.98
8-4-6	7.07	26.51	7.07
12-4-0	7.34	27.54	7.34
10-3-8	7.35	27.56	7.35
10-4-7	7.37	27.63	7.37
12-2-2	7.46	27.99	7.46
8-3-5	7.54	28.26	7.54
10-2-2	7.55	28.33	7.55
8-3-3	7.57	28.40	7.57
15-0-6	8.12		8.12
Kainit 12.4			8.19
12-0-4	9.89		9.89
Bone Meal (Total phosphoric acid)	6.78	38.12	

**Cost of nitrogen.** Sulphate of ammonia was the cheapest source of nitrogen, cottonseed meal being next. Cottonseed meal was unusually low this season and will probably be higher in 1927-28. Nitrogen in nitrate of

soda cost about one-third more than in sulphate of ammonia. Nitrogen costs more in the mixed fertilizers than in the raw materials, as the cost of mixing enters into the price. A pound of nitrogen cost the most in 8-3-3 fertilizer, the 10-2-2 came next, and 8-3-5 third. The lowest priced nitrogen in the mixed fertilizer was in the 18-6-6, followed by the 9-6-3 and 15-5-5.

**Cost of potash.** Potash was the most expensive in 12-0-4 fertilizer, next in kainit. Potash can be purchased more cheaply in mixed fertilizer than in kainit. It is certainly not economical to buy kainit. Muriate of potash was the cheapest form of potash, costing about 60 per cent of the cost of potash in kainit. Evidently a person desiring to buy unmixed potash should buy muriate of potash, and not kainit.

**The highest-priced fertilizer per ton may furnish plant food at the lowest price per pound.**

Freight is an important item in the cost of fertilizer. As freight is paid on a ton basis, freight charges for a pound of plant food are lower for the more concentrated materials than for the less concentrated ones. The greater the freight rate, the greater becomes the difference in the freight cost per unit of plant food for the two groups.

Table 5.—Relative cost of approximately the same amount of plant food in different grades of fertilizer.

Grade	Available Phosphoric Acid	Nitrogen	Potash	Cost
	Pounds	Pounds	Pounds	
1 ton—18-6-6.....	360	120	120	\$ 55.17
1½ tons—12-4-4.....	360	120	120	62.48
2 tons—10-3-3.....	400	120	120	65.02
2 tons—8-3-3.....	320	120	120	67.38

**Freight rates** account for the fact that phosphoric acid in 20 per cent acid phosphate costs less, on an average, than that in 16 per cent and for the high cost of potash in kainit compared with the low cost in muriate of potash.

The ratios of plant food in the 8-3-3, 10-3-3, 12-4-4, and 18-6-6 fertilizers are nearly the same, as the proportions are about three parts phosphoric acid to one of nitrogen and one of potash. Table 5 shows the approximate cost of nearly equal quantities of plant food in these fertilizers. The plant food in 12-4-4 costs \$7.31 more than an equal quantity in 18-6-6. The 10-3-3 costs more than the 12-4-4, but contains a little more phosphoric acid, so that the cost is about the same. The 8-3-3 contains 40 pounds less phosphoric acid than the 18-6-6 or 12-4-4, but costs \$12.31 more than the 18-6-6 and \$4.90 more than the 12-4-4, at the same time containing \$2.40 less phosphoric acid. That is, the most concentrated mixed fertilizer was the cheapest per pound of plant food, or to put it another way, the highest-priced fertilizer per ton may be the lowest-priced per pound of plant food.

This difference is caused partly by freight charges, partly by the cost of bagging, etc.

### FREE ANALYSIS

Fertilizer samples, if taken in accordance with the requirements of the law, will be analyzed free of charge. Those who desire a free analysis of a fertilizer should write for a blank "Application for Free Fertilizer Analysis," to the State Chemist, College Station, Texas, before taking any sample. The proper sampling of a fertilizer requires care.

### BULK SALES

The law permits fertilizers to be sold in bulk by manufacturers direct to consumers for their own use; the tax must, in such case, be paid by the manufacturer. The law requires that fertilizer purchased in bulk and then sold or distributed, be bagged, and that it have a tax tag attached to each sack; also a tag showing the guaranteed analysis of the fertilizer. Considerable saving, both in freight and in purchase price, may be made by purchasing fertilizer in bulk. For further information as to the law concerning bulk sales, address the State Chemist, College Station, Texas.

### ANALYSES 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. The rebate is paid by the manufacturer to the dealer and by the dealer to the customer. During the last season, rebates were required on 64 lots of fertilizer. Many of these were sold only in small amounts.

### INVESTIGATIONS UNDER THE FERTILIZER LAW

The State Chemist is required by the fertilizer law to "investigate the composition, properties and agricultural values of fertilizers, or of fertilizer materials, or ingredients of fertilizer sold, offered for sale within the State of Texas, and shall publish his results as he may find."

### RELATION OF VALUATION GUARANTEED TO VALUATION DELIVERED

Table 6 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 are averaged, even though several were made of many brands and fertilizer materials are included as well as mixed fertilizers.

Table 6.—Comparative valuations of all fertilizer guaranteed and found by analysis, in dollars a ton, arranged alphabetically by manufacturers, 1926-27.

	Number Averaged	Valuation of Guarantee	Valuation Found
American Agricultural Chemical Company.....	1	\$ 19.20	\$ 20.95
Arkansas Fertilizer Company.....	26	35.16	33.93
Armour Fertilizer Works.....	114	32.75	32.91
Barber, Geo. L.....	3	19.20	20.31
The Barrett Company.....	3	92.25	93.08
Berryman Fertilizer Works.....	3	32.90	34.44
Bryan Cotton Oil and Fertilizer Company.....	6	24.70	25.50
Cuero Cotton Oil Company.....	1	29.70	30.33
Douglass Fertilizer Company.....	3	40.00	40.10
Farmers' Cotton Oil Company (Texarkana).....	1	32.25	31.98
Farmers' Cotton Oil Company (Winnsboro).....	4	30.08	30.45
Fidelity Chemical Corporation.....	21	25.53	25.56
Ford Motor Company.....	2	93.60	93.90
Gate City Fertilizer Company.....	1	29.10	27.42
Hope Fertilizer Company.....	10	31.08	31.48
Kelly Weber & Company.....	8	27.04	26.40
Kerens Cotton Oil Company.....	2	25.35	24.37
Kreiss Potassium Phosphate Company.....	1	19.20	18.13
Landa Industries, Inc.....	3	30.96	31.68
Longview Cotton Oil Company.....	22	29.46	31.13
Marshall Cotton Oil Company.....	23	33.38	34.13
Meridian Fertilizer Factory.....	95	28.94	30.99
Mixon Brothers.....	14	28.44	27.87
Robert Nicholson Seed Company.....	1	57.00	56.79
Nitrate Agencies Company.....	4	67.50	69.84
Oil Mill and Fertilizer Works.....	12	30.15	31.23
Old Deerfield Fertilizer Company.....	1	*	85.25
Palestine Oil Mill and Fertilizer Company.....	57	33.48	34.58
Pate Brothers.....	25	32.82	35.65
Pelican Fertilizer Works.....	2	23.70	25.55
Pick Fertilizer Service, Inc.....	1	24.00	25.56
Pittsburg Cotton Oil Company.....	17	30.00	31.98
Planters Fertilizer and Chemical Company.....	16	31.33	31.19
Pulverized Manure Company.....	1	12.90	11.05
H. Schumacher Oil Works.....	1	34.56	33.32
Thos. Self.....	2	34.35	33.36
Shreveport Fertilizer Works.....	33	28.85	29.08
Swift & Company Fertilizer Works.....	195	33.30	34.55
Temple Cotton Oil Company.....	2	33.15	33.58
Tennessee Coal, Iron and Railroad Company.....	1	12.80	13.31
Terrell Oil and Refining Company.....	2	30.30	34.70
Texas Chemical Company.....	2	34.25	36.30
Texas Farm Bureau Service Corporation.....	2	29.40	28.44
Louis Tobian & Company.....	1	30.96	29.97
Tri-State Fertilizer Company, Inc.....	15	31.78	31.70
Trinity Cotton Oil Company.....	1	30.96	30.56
Tyler Fertilizer Company.....	12	31.05	32.77
Virginia-Carolina Chemical Corporation.....	66	29.76	29.39

\*Not registered.

Table 7 contains the average guaranteed analyses, and the average analyses found for mixed fertilizers sold by the various manufacturers.

Table 7.—Average Composition Found and Guaranteed of Mixed Fertilizer, 1926-27.

Manufacturer	Number Averaged	Phosphoric Acid Per Cent		Nitrogen Per Cent		Potash Per Cent		Valuation Per Ton	
		Guaran- teed	Found	Guaran- teed	Found	Guaran- teed	Found	Guaran- teed	Found
Arkansas Fertilizer Company.....	14	10.50	9.76	3.93	3.70	3.43	3.20	\$ 34.39	\$ 32.22
Armour Fertilizer Works.....	85	10.73	11.11	3.80	3.72	4.55	4.42	35.44	35.36
Berryman Fertilizer Works.....	3	10.00	11.06	3.67	3.61	3.67	4.10	32.90	34.44
Bryan Cotton Oil and Fertilizer Company.....	4	11.00	12.63	2.50	2.24	2.50	2.61	27.45	28.21
Douglass Fertilizer Company.....	2	10.00	10.32	2.50	2.35	2.50	2.44	26.25	25.87
Farmers Cotton Oil Company, Winnsboro.....	3	10.00	10.65	3.67	3.59	3.67	3.86	32.90	33.59
Fidelity Chemical Corporation.....	12	10.17	10.12	2.75	2.65	3.75	3.58	29.08	28.35
Hope Fertilizer Company.....	5	10.00	9.66	3.40	3.57	3.40	3.32	31.38	31.64
Longview Cotton Oil Company.....	16	9.13	10.10	3.13	3.08	3.25	3.82	28.91	30.62
Marshall Cotton Oil Company.....	20	10.10	10.79	3.30	3.26	3.30	3.61	30.93	31.91
Meridian Fertilizer Factory.....	72	10.20	11.60	3.20	3.16	3.25	3.65	30.68	32.52
Mixon Brothers.....	11	11.91	11.76	2.26	2.34	4.82	4.01	30.30	29.46
Oil Mill and Fertilizer Works.....	10	10.20	10.31	3.40	3.51	3.40	4.01	31.62	32.97
Palestine Oil Mill and Fertilizer Company.....	38	10.24	11.04	3.50	3.45	3.74	3.78	32.52	33.34
Pate Brothers.....	19	9.58	11.14	3.26	3.40	3.47	3.94	30.35	33.40
Pittsburg Cotton Oil Company.....	14	9.79	10.62	3.71	3.87	3.07	3.15	32.14	33.96
Planters Fertilizer and Chemical Company.....	13	9.92	10.33	3.77	3.64	4.08	3.96	33.76	33.45
Thos. Self.....	2	12.00	13.14	3.50	2.98	3.50	3.48	34.35	33.36
Shreveport Fertilizer Works.....	23	9.83	10.68	3.22	3.00	3.48	3.58	30.44	30.33
Swift and Company Fertilizer Works.....	139	10.31	10.99	3.71	3.82	4.21	4.38	34.16	35.51
Temple Cotton Oil Company.....	2	11.00	11.27	3.50	3.43	3.50	3.85	33.15	33.58
Terrell Oil and Refining Company.....	2	11.00	12.17	3.00	3.62	3.00	3.18	30.30	34.70
Tri-State Fertilizer Company.....	11	10.36	10.88	3.55	3.31	3.36	3.72	32.43	32.39
Tyler Fertilizer Company.....	10	10.10	11.35	3.80	3.80	3.10	3.25	32.94	34.60
Virginia-Carolina Chemical Company.....	49	10.35	10.56	3.35	3.17	3.80	3.70	32.03	31.37

### ANALYSES OF FERTILIZERS, 1926-27

Table 10 contains a list of the samples of fertilizer subjected to analysis in the season beginning September 1, 1926. Analyses below guarantee are brought out in heavy type. Practically all the samples of fertilizer were collected by our inspectors. Analyses and inspection were made by S. E. Asbury, Waldo Walker, T. L. Ogier, J. E. Evans, and Gideon W. Smith.

### REGISTRATIONS, 1926-27

A list of brands registered for sale in the season 1926-27 is given in Table 11.

### RELATION TO EXPERIMENT STATION WORK

The work of the State Chemist is closely related to the chemical work of the Experiment Station. In his capacity as chemist to the Experiment Station, the State Chemist is carrying out extensive investigations into the fundamental properties of soils, especially with respect to their content of plant food. This work is related closely to the use of fertilizers, and is connected with investigations as to the agricultural values of fertilizers required by the Fertilizer Control, for fertilizers vary in effect upon the different soils.

### SULPHUR AND GYPSUM AS A FERTILIZER

We are unable to recommend the use of sulphur or gypsum as a fertilizer in Texas. The experiments which have been carried out do not show satisfactory results under Texas conditions.

### GREEN SAND MARL

Extensive deposits of green sand marl are found in Texas, and from time to time attempts are made to exploit some deposit commercially. Most of these deposits are low in plant food. A deposit of green sand marl containing much more plant food than usual is found near San Antonio. One sample of this marl was found to contain 100 pounds total phosphoric acid and 18 pounds acid-soluble potash in a ton. It does not contain any available phosphoric acid or any water-soluble potash, and so can not be compared directly with a commercial fertilizer. A liberal valuation of this marl would be less than \$2.00 a ton. While such deposits could be used locally at the rate of several tons to the acre if they could be dug up and applied at a low cost per ton, their content of plant food is too low for commercial purposes.

### FERTILIZER STATISTICS, 1927

In June, 1927, a blank requesting information regarding the use of fertilizer was sent out to farmers, fertilizer dealers, county agents, and others in position to give information. These were sent chiefly to the counties using fertilizer, though some were sent in different sections. Our thanks are due to those who gave the information requested.

Table 8 gives the average percentage of the various crops fertilized.

Table 8.—Estimated percentage of the cotton, corn, etc., fertilized

County	No. Reports Averaged	Cotton	Corn	Irish Potatoes	Sweet Potatoes	Tomatoes	Onions	Melons	Strawberries	Citrus Trees	Peach Trees	Other Fruits	Other Vegetables	Other Field Crops
Anderson.....	5	15	7	60	10	88	20	43	50				36	
Aransas.....	4			51		84		51		25			76	
Bowie.....	9	61	33	70	36	49	40	56	35		10		10	33
Camp.....	5	54	40	81	75	65	51	85	50		34	1	90	
Cass.....	13	70	39	80	39	67	75	79	90		17	9	76	25
Cherokee.....	5	44	14	94	39	100		91						
Harrison.....	4	54	9	28	27	5		53					2	
Henderson.....	12	21	11	95	34	99	83	67	75		4		13	4
Hidalgo.....	4			45		16		5	3	4				
Hopkins.....	7	11	14	69	35	63		53	63		20		28	5
Houston.....	4	13	13	63	8	75		72	78				25	10
Leon.....	5	43	16	50	30	75	75	90			25	10	25	10
Marion.....	4	63	47	95	63	88	88	78	75		10	15	90	60
Nacogdoches.....	7	71	31	75	50	93	100	77	75		5		50	15
Panola.....	5	64	40	74	49	95	98	98	90				100	
Rusk.....	5	69	28	52	15	65		38						
Shelby.....	4	38	18	63	37			95	75		8	10	10	10
Smith.....	11	30	23	88	59	98	100	78			28	40	56	10
Upshur.....	5	45	20	59	34	100	100	65					100	
Van Zandt.....	6	12	9	23	13	24	28	37					40	13



Table 9.—Estimated pounds of fertilizer applied per acre.

County	No. Reports Averaged	Cotton	Corn	Irish Potatoes	Sweet Potatoes	Tomatoes	Onions	Melons	Strawberries	Citrus Trees	Peach Trees	Other Fruits	Other Vegetables	Other Field Crops
Anderson.....	5	213	213	550	350	650			100				250	
Aransas.....	4			333		350		350		100			350	
Bowie.....	8	200	150	261	200	350	200	260	100		100		100	100
Camp.....	5	240	190	815	250	800	800	300	200		200			
Cass.....	12	188	155	361	230	334	350	317	250		125	575	150	100
Cherokee.....	5	210	200	675	300	740		263						
Harrison.....	4	237	175	317	250	250		300					200	
Henderson.....	12	213	225	480	250	472	200	241	300		167		200	225
Hidalgo.....	3			317		317		400		450			200	
Hopkins.....	7	171	181	325	190	400		225	400				350	300
Houston.....	4	181	188	300	267	300		333	250			200	160	200
Leon.....	3	138	142	200										
Marion.....	3	200	223	500	250	450	750	300	400		100	100	200	250
Nacogdoches.....	7	221	200	325	238	420	300	260	400					225
Panola.....	5	205	190	575	325	650	550	400	700				200	
Robertson.....	3	108	100	138	100			175					75	100
Rusk.....	5	133	156	333	300	325		400						
Shelby.....	4	225	163	300	300	500		200			350			200
Smith.....	11	209	194	386	281	625	500	198	475		200	200	351	175
Titus.....	3	192	188	400	200			200						
Upshur.....	5	190	190	400	250	1000	1000	350					600	100
Van Zandt.....	6	204	193	450	325	413	250	267			200		200	200

Table 9 gives the average quantity per acre used on the various crops.

Additional data were received, but the tables include only the average of several counties.

No attempt has been made to check the data against the acreage planted and the quantity of fertilizer used in the various counties, or to calculate the total quantity of fertilizer used on the various crops. This may be done later. The data are not considered to have any high degree of accuracy, but can only be considered as indicative of conditions.

Bowie, Cass, Cherokee, Nacogdoches, Rusk, and Smith Counties used the largest amounts of fertilizer in 1925-26, over 4000 tons each. In 1927 it was estimated that 60 to 70 per cent of the cotton planted was fertilized in Bowie, Cass, Nacogdoches, and Rusk Counties, with 44 per cent in Cherokee and 30 per cent in Smith. The percentage of corn estimated to be fertilized was considerably less.

### FERTILIZER ANALYSES TO BE SOLD IN 1927-28

Some changes have been made in the analyses to be placed on the market next season. The analysis 9-5-0 was substituted for 12-4-0. The 8-3-5 and 12-3-3 fertilizers were dropped. There were added 12-6-6, 10-5-5, 9-5-0, and 9-3-0. The analyses of mixed fertilizer which will be sold are as follows: 8-3-3, 8-4-4, 8-4-6, 9-3-0, 9-5-0, 9-6-3, 10-2-2, 10-3-3, 10-3-8, 10-4-2, 10-4-7, 10-5-5, 10-6-7, 12-0-4, 12-2-2, 12-4-4, 12-6-6, 15-0-6, 15-5-5, 18-6-6. It will be noticed that the ratio of phosphoric acid to nitrogen and potash is 3 to 1, or nearly so, in 8-3-3, 10-3-3, 12-4-4, 15-5-5 and 18-6-6, and that it is 2 to 1 in 8-4-4, 10-5-5, and 12-6-6.

### INFORMATION CONCERNING USE OF FERTILIZER

Information regarding the nature and use of fertilizer is contained in Bulletin 167, which will be sent free on application. Considerable changes have taken place since the bulletin was written, however. Suggestions for the use of the various fertilizers are given below.

#### General Considerations on the Use of Fertilizers

Fertilizers supply the three forms of plant food most necessary for growing crops, namely, phosphoric acid, nitrogen, and potash. For best results, other conditions should be favorable, such as soil in good physical condition, a well prepared seed bed, good seed, good cultivation, and a good legume rotation. Nitrogen is the most expensive plant food, and for this reason the amount of fertilizers used generally does not supply all the nitrogen required by the crop. A cropping system which includes the regular growing of legumes, such as clover, cowpeas, or peanuts, to be turned under or grazed off should be followed for the purpose of securing nitrogen from the air. Such a system also adds organic matter to the soil, utilizes time and labor to better advantage, aids in destroying insect pests and plant diseases, and has other favorable effects.

What fertilizers to use depends upon the kind of soil, the climate, the crop, how long the soil has been in cultivation, whether or not it has grown

legumes to be turned under or grazed off, what the soil will produce without fertilizer, and other conditions.

Old soils, or sandy soils generally, need more nitrogen than new soils or clay soils. Soils having a legume rotation need less nitrogen than those cropped constantly to non-legumes.

Clay soils and soils with clay or loam subsoils need little potash in Texas for ordinary farm crops, but light sandy soils with sandy subsoils may need potash. Larger amounts of fertilizer may be profitably used on crops with a high acre value, such as fruit or truck crops, than on ordinary farm crops. The fertilizer on cotton may profitably be twice as much as that used on corn.

Best results are secured by well-balanced plant food in the soil. An excess of nitrogen with a sufficiency of potash is shown by the production of a heavy stalk or vine, with a deficiency of fruit or delayed maturity. If such land has not been fertilized, the best fertilizer to use is 200 to 400 pounds acid phosphate to the acre. This will frequently (but not always) promote fruiting. If a fertilizer has been used, the remedy is to decrease the percentage of nitrogen and to increase the percentage of phosphoric acid in subsequent applications. The percentage of potash may also be decreased.

Excess of nitrogen in the soil with truck crops may also produce rapid growth but soft tissues which do not stand up well under shipment. Strawberries, for example, may produce large fruits which are not firm enough to ship well. Lettuce, cabbage, and similar crops may not be firm enough to stand shipment. Increased quantities of potash will not prevent softness caused by excess of nitrogen.

Excess of nitrogen renders plants more liable to attack by some diseases. Excess of nitrogen also delays maturity. Excess potash, like excess nitrogen, delays maturity of the crop. A well-balanced fertilizer should be selected, due consideration being given to the soil, the crop, the character of growth, and other conditions.

### How and When to Apply

Fertilizer is generally to be applied under the seed at the time of planting. It should not touch the seed, but should be from one to three inches below it or at the side. A combined planter and fertilizer distributor may be used, but care should be taken to select a machine which applies the fertilizer properly, as some machines are not satisfactory.

Fertilizer may also be placed in the ground not more than three weeks before planting. If applied too early, there is danger of loss of plant food by fixation or leaching.

Applications of more than 600 pounds fertilizer to the acre are best made partly in the drill and partly broadcast.

In dry sections, where the soil above the seed is liable to dry out, the fertilizer may be applied on the firm soil at the side of the seed. Sometimes it may be advisable to put it in when the land is bedded, in sections where there is little danger of loss by leaching.

### How Much to Apply

Farmers not experienced in the use of fertilizer should begin with moderate amounts, 200 to 400 pounds to the acre for cotton or corn and 400 to 500 pounds for truck crops. Larger amounts may be tried on a small scale and larger amounts then used if these trials appear to justify it. The approximate amounts to use are indicated below.

### Side Dressings

More than one application of fertilizer is not usually recommended for cotton or corn. Under exceptional conditions, more than one application may be made for cotton or corn. These would be: (1) when more than 600 pounds to the acre are used, (2) when the plants appear to be suffering from deficiency of available plant food, particularly nitrogen, (3) if the weather in the spring has been excessively wet, so as to cause considerable leaching, (4) on deep sandy soil where the plant food is likely to leach out.

Side dressings of cotton or corn with nitrate of soda or sulphate of ammonia are not generally to be recommended, but may be used when the fertilizer applied at planting does not contain enough nitrogen; or on deep sandy soil where there may be considerable loss from leaching. Under such conditions, 100 pounds per acre nitrate of soda or sulphate of ammonia may be applied to cotton just after the chopping.

Side dressings are frequently applied to truck crops. In such case a complete fertilizer is applied before or at the time of planting, and one or more side dressings of sulphate of ammonia or nitrate of soda made afterwards. The reason for this procedure is that there is little danger of loss of phosphoric acid or potash by leaching, while soluble nitrogen is much more easily lost in this way.

### FERTILIZERS FOR EAST TEXAS

The soils of East Texas as a general rule respond well to fertilizers, and the recommendations made here apply chiefly to this section of the State. Many of the soils are sandy, low in phosphoric acid and nitrogen, usually better supplied with potash, but sometimes low. The heavier soils and the bottom lands are much better supplied with plant food.

### FERTILIZERS FOR THE BLACK LANDS

The heavy black limestone soils of Central Texas do not at present respond well to fertilizers. Sometimes fertilizers give good results, but frequently they do not, and in some cases they give results one year and no results the next. These soils appear to need vegetable matter first, such as is supplied by well rotted manure, by legume crops turned under or grazed off, or by winter cover crops.

Sandy lands in this section will probably respond to fertilizer, though little has been used on them.

### FERTILIZERS FOR WEST TEXAS

Some of the lighter soils of West Texas are low in phosphoric acid and potash, and fertilizers will probably be needed in this section of the State as time goes on. In fact, fertilizers have already been used with good results in some sections. Some of the soils of West Texas contain no more plant food than those of East Texas, but it is probable that plants root deeper and have more soil to feed upon, so that the plant is able to secure more plant food than from the corresponding soil in the eastern part of the State.

When fertilizers are used in Texas west of the black-land section, it is suggested that somewhat lower amounts be used than is recommended for East Texas, unless the land is irrigated. Also, unless the land is irrigated care should be taken that the fertilizer is in the firm soil in which the plant grows, not in the loose earth which is likely to dry out.

### FERTILIZERS FOR THE RIO GRANDE VALLEY

The soils of this section are generally well supplied with plant food, especially with potash. When the soils are new, they may contain an excess of nitrogen, and tend to produce a heavy growth of stalk or leaves, with deficiency of fruit. Acid phosphate is the best fertilizer to use in such soils, where there is reason to believe an abundance of nitrogen is present.

After they have been placed under cultivation, these soils are likely to need nitrogen first, as the nitrogen is most readily exhausted. As it is desirable to avoid an excess of nitrogen, low proportions of nitrogen should be used at first. These soils are high in potash, and are less likely to need potash than the East Texas soils, which are lower in potash. However, some potash may be used, especially as the cropping is heavy, but there is no need for the percentage of potash to exceed the percentage of nitrogen.

Our suggestion at present for these soils would be then to begin with acid phosphate if the vegetative growth is very heavy. Follow with 18-6-6 or 12-4-4, or begin with this if vegetative growth is not excessive. In the course of time one would reach such truck fertilizers as 8-4-4 (10-5-5, 12-6-6), 9-6-3, and 10-6-7.

### FERTILIZER FOR THE GULF COASTAL PLAINS

There is considerable variation in the soils of the Gulf Coastal Plains. Some of the soils in the southern section are very sandy, and somewhat low in plant food. They should have about the same fertilizers as the sandy land of East Texas. Most of the soils are heavier and better supplied with plant food than the very sandy soils. The fertilizers suggested are the same as for the corresponding soils of East Texas. The heavy black soils at the Experiment Substation at Angleton respond well to acid phosphate on cotton and corn.

Some of the soils of the Gulf Coastal Plains are poorly drained. They should be well drained and placed in good condition before any fertilizer is used.

## SUGGESTIONS FOR USE OF FERTILIZER

The recommendations given below represent the best present information and will be modified from time to time, as more experimental data are accumulated and further practical experience is secured.

### Cotton

**Loam soils with clay or sandy clay subsoils**, such as Susquehanna, Lufkin, Orangeburg, or similar soils. If 200 to 400 pounds are used, 9-5-0, 9-3-0 or 10-4-2; if over 400 pounds are to be used, 10-4-2, 12-4-4 (15-5-5, 18-6-6), or 8-4-4 (10-5-5, 12-6-6).

**Deep sandy soil**, such as Norfolk sand. If 200 to 300 pounds or more are to be used, 12-4-4 (15-5-5, 18-6-6); if 300 to 400 pounds or more are to be used, 12-4-4 or 8-4-4 (10-5-5, 12-6-6). However, these are not good cotton and corn soils and are better adapted to vegetables.

**Land which produces an excessive stalk** and does not fruit well, chiefly bottom land: use 200 to 400 pounds of 18 per cent or 16 per cent acid phosphate. Nitrate of soda applied early at the rate of 100 to 200 pounds per acre sometimes gives good results on bottom lands which produce a moderately sized stalk.

**Black waxy land**, such as Houston black clay or other heavy black limestone soils of Central Texas. A rotation is needed most of all, preferably a legume rotation. Fertilizers are uncertain. A trial may be made of 200 to 300 pounds of 9-5-0 or 12-4-4 or 100 to 200 pounds nitrate of soda or sulphate of ammonia, or 100 pounds acid phosphate and 100 pounds nitrate of soda.

### Alfalfa

**Soil recently put in alfalfa**: use 200 to 600 pounds acid phosphate.

**Soil in cultivation six years or longer** (best to rotate): use 200 to 600 pounds acid phosphate or 200 to 800 pounds 15-0-6 or 12-0-4.

**Soils poor in lime** should receive lime; see Bulletin 243.

### Asparagus

Apply 10 to 12 tons well rotted manure and 500 to 800 pounds to the acre of an 8-4-4 (10-5-5 or 12-6-6) fertilizer when setting out the plants. If the manure is not available, 600 to 900 pounds of the fertilizer could be used. Every spring apply 400 to 600 pounds 8-4-4. Just before the cutting season is over or soon after, apply 200 to 400 pounds 8-4-4. Two top dressings of nitrate of soda to the acre of 100 pounds to the acre, applied in the spring would also be advisable in many cases.

### Beans (Garden) and Peas (Garden or English)

An application of 300 to 500 pounds 12-4-4 (15-5-5 or 18-6-6) or 8-4-4 (10-5-5, 12-6-6) is suggested.

### Beets, Cabbage, Carrots, Lettuce, Squash, and Turnips

From 500 to 1,000 pounds 8-4-4 (10-5-5, 12-6-6) or 12-4-4 (18-6-6 or 15-5-5) may be used and supplemented by three top dressings of 50 to 100 pounds nitrate of soda or sulphate of ammonia, ten days to two weeks apart, beginning when the plants have begun to make a good growth. Excessive application of nitrogen and too rapid growth will impair the shipping quality.

The nitrate of soda or sulphate of ammonia should be sprinkled along the row, three or four inches from the plants or applied broadcast after the dew has dried off or applied just before cultivation.

### Citrus Trees

We have as yet no experiments on citrus trees in Texas on which to base recommendations for fertilizer. According to Bulletin 145 of the California Experiment Station, nitrogen is chiefly needed, and is best supplied in well rotted manure. Excess of nitrogen may cause mottle leaf.

Farmers Bulletin 1343 of the U. S. Department of Agriculture recommends three applications for young trees. The first should be made early in the spring, the second in summer, the third in September. For the first two applications, 12-4-4 is recommended, for the third, 12-2-2. The total amount should be 1 to 2 pounds per tree, increasing a pound a year until trees are 5 or 6 years old.

For bearing trees, three similar applications are recommended, the first two of 8-4-4 (10-5-5 or 12-6-6) or 8-4-6, the last one of 12-2-2. Bearing trees ten years old should receive 15 to 30 pounds each per year. More fertilizer is used as the trees become larger, large trees receiving 30 to 75 pounds each.

Over-fertilized trees become affected with "die back" especially if an excess of nitrogen is applied. Die back is also caused by hardpan, alkali, or poor drainage. "Mottle leaf" or "freshing" affects poorly nourished trees. It is believed an excess of nitrogen may reduce the shipping quality of the fruit.

The soils on which citrus fruits are grown in Texas are generally higher in potash than either phosphoric acid or nitrogen, and there appears no good reason at present to recommend fertilizers high in potash. The percentage of potash need not exceed the percentage of nitrogen. The recommendations made by the U. S. Department of Agriculture perhaps apply to Texas soils.

### Corn

Loam or clay soils with clay or sandy clay subsoils, such as Susquehanna, Orangeburg, or similar soils with legume rotation: use 200 to 300 pounds of 18 per cent, or 16 per cent acid phosphate, or 200 to 300 pounds 9-5-0, or 9-3-0.

Loam or clay soils with clay or sandy clay subsoils, without legume rotation, in cultivation ten years or less: use 200 to 300 pounds 9-5-0, 9-3-0, or 10-4-2.

**Loam or clay soils with clay or sandy clay subsoils, without legume rotation, in cultivation eleven years or more:** use 200 to 300 pounds 9-5-0 or 9-3-0 or 10-4-2 or 12-4-4.

**Deep sandy soil:** use 200 to 300 pounds 12-2-2 or 12-4-4. This is not a good corn soil.

**Land which produces a heavy stalk but does not fruit well:** use 200 to 400 pounds 18 per cent or 16 per cent acid phosphate.

**Black waxy land (Houston black clay), or heavy limestone land of Central Texas.** A legume rotation is needed first. Fertilizers are uncertain. A trial may be made of 200 to 400 pounds of 9-5-0 or 12-4-4.

#### Cantaloupes, Cucumbers, Squash, or Watermelons

On sandy loam soils, if 200 to 300 pounds are used, 12-4-4 or 8-4-4 or 9-5-0. Larger applications are to be recommended, such as 300 to 500 pounds of 8-4-4 or 8-4-6. An excess of nitrogen will produce a heavy growth of vine, but a deficiency of fruit. The remedy is to use more phosphoric acid or less nitrogen. Well rotted manure should always be used with melons, if possible.

#### Egg Plant, Mustard, Okra, Peppers, and Radishes

An application of 300 to 700 pounds 8-4-4 or 8-4-6 is suggested for trial.

#### Figs

Recommendations for fertilizers for figs depend upon the nature of the soil and the size of the trees. Figs seem to do best on a soil containing lime. Fertilizers so far do not give results at Experiment Substations at Angleton and Beaumont. For small trees on heavy black soil, 200 to 300 pounds to the acre of 9-5-0 fertilizer is suggested. As the trees grow larger, the quantity of fertilizer should be increased to 600 to 1,000 pounds or even more to the acre. These soils contain a good amount of potash but figs have such a high value to the acre that it is well to use some potash when the trees come into bearing. It would then be well to replace 200 or more pounds of the 9-5-0 fertilizer by an equal amount of 9-6-3 or 8-4-4 (10-5-5, 12-6-6) fertilizer.

The fertilizer should be applied in the spring after danger of frost is past, and harrowed in. Weeds should be kept down, especially around young trees. Otherwise the fertilizer may help weeds to grow and thereby hold back the trees.

If the soil is quite sandy, 8-4-4 fertilizer would probably be better than 9-5-0.

#### Onions

The use of 400 to 800 pounds of 8-4-4 (10-5-5, 12-6-6), or 10-4-2 or 9-6-3 is suggested, supplemented with one to three dressings of 100 pounds nitrate of soda or sulphate of ammonia at intervals of 10 to 15 days after the plants have begun to make rapid growth in the spring.



### Peach Trees

**Loam soils with clay or sandy clay subsoils**, such as Orangeburg, Susquehanna, or similar types: use 200 to 600 pounds per acre 9-5-0, 9-3-0, or 10-4-2. When bearing, in addition, apply 200 pounds or more 9-6-3 or 8-4-4 (10-5-5, 12-6-6), increasing the quantity as the trees grow older.

**Deep sandy soil**, such as Norfolk sand: use 200 to 600 pounds 12-4-4 or 8-4-4. On clay soils, bottom lands, use 200 to 600 pounds 9-5-0 or 9-6-3.

### Potatoes, Sweet

**Loam or sandy loam soils with clay or sandy loam subsoils**: From 300 to 600 pounds, 12-4-4 or 8-4-4 may be used.

**Deep sandy soil**: Use 200 to 500 pounds, 8-4-4 or 8-4-6. Excess of nitrogen will produce excessive growth of vine and deficiency of tubers.

### Potatoes, Irish

On loam or sandy loam soils, 300 to 800 pounds 8-4-4 or 12-4-4 or 8-4-6 are suggested. In East Texas, 500 to 800 pounds of 8-4-4 or 9-6-3 may be used.

### Rice

**Land which produces a heavy straw**, when rice straw ashes are returned to the soil: use 200 to 300 pounds acid phosphate 18 per cent or 16 per cent.

**Land which produces heavy straw**, when rice straw ashes are wasted: use 200 to 300 pounds 15-0-6 or 12-0-4.

**Land in cultivation several years**, yields decreasing and straw short: use 100 to 250 pounds sulphate of ammonia applied when rice is half grown or 100 to 200 pounds acid phosphate 18 per cent or 16 per cent applied before planting, supplemented by 150 to 250 pounds sulphate of ammonia when rice is half grown, or if rice straw ashes have been wasted, 200 to 300 pounds 15-0-6 or 12-0-4 at time of planting, supplemented by 150 to 250 pounds sulphate of ammonia when rice is half grown. Sulphate of ammonia alone, when applied properly, gave the best results at the Experiment Substation at Beaumont.

### Strawberries

An application of 300 to 500 pounds 8-4-4 (10-5-5, 12-6-6) or 12-4-4 (15-5-5, 18-6-6) may be made at the time of setting out the plants. In the spring following the setting of the plants, an early application of the same fertilizer should be used in about the same quantity, put as near the row as convenient, and worked into the soil lightly. An application of nitrate of soda or sulphate of ammonia at the rate of 100 pounds to the acre may be applied at the time plants begin to bloom. This may be used as a top dressing, after the dew has dried off of the plants, as it will stick to the plants and burn them if applied while they are damp. If the weather remains too damp, the nitrate of soda can be sprinkled between the rows.

Excessive applications of nitrogen may produce a soft berry which does not ship well. Some growers prefer all the nitrogen to be in the form of cottonseed meal or other organic matter. The best fertilizer to use must be decided by experience. Some growers prefer to apply all the fertilizer early in the fall.

### Tomatoes

**Loam soils with clay or sandy clay subsoils, such as Susquehanna, or Orangeburg:** if 300 to 500 pounds are used, 8-4-6 or 8-4-4; if 500 to 1000 pounds, 8-4-6, 8-4-4, 10-4-2, or 9-6-3. Less than 500 pounds of fertilizer may be supplemented by 100 to 200 pounds nitrate of soda if there is no tendency to excessive growth of vine.

**Deep sandy soil, such as Norfolk sand:** If 200 to 500 pounds are used, 8-4-4 or 8-4-6 or if 500 to 1000 pounds are used, 8-4-6. Less than 500 pounds of fertilizer may be supplemented by 100 to 200 pounds nitrate of soda if there is no tendency to excessive growth of vine.

**Land which produces an excessive vine:** 200 to 400 pounds acid phosphate 18 per cent or 16 per cent. It is also important to prune the vines and on good land, good tomatoes can often be secured without fertilizer. Suckers should be removed every week, beginning a week after the plants are set out and continuing until a week after the top is pinched off. The top is pinched off as soon as the third cluster is formed. Another method of pruning is to allow the first sucker to come out to form a fork, and prune off all others. The top of the main stalk is pinched off immediately after the third cluster of fruit is formed, and the sucker is pinched off immediately after the second cluster is formed on it. According to New Hampshire Bulletin 28, excess of potash delays maturity of tomatoes, while phosphoric acid hastens maturity.

### FERTILIZER FOR HOME GARDENS

The tendency with home gardens is to apply quantities of manure, without sufficient applications of phosphoric acid or potash. This results in an unbalanced condition of the plant food in the soil. The best fertilizer to apply under such conditions would be 200 to 400 pounds acid phosphate alone, or 15-0-6 fertilizer. Where applications of manure have been made only in moderate amounts, 300 to 600 pounds 12-4-4 (15-5-5 or 18-6-6) would probably be excellent. If lighter applications of manure are made, or none at all, 400 to 800 pounds 8-4-4 or 8-4-6 would be suggested, and top dressings with nitrate of soda or sulphate of ammonia might also be tried.

### SUMMARY

This Bulletin contains a report of the Texas Fertilizer Control for 1926-27 and information regarding the use of fertilizer.

Sales of fertilizer in Texas were 79,863 tons in 1926-27.

In 1925-26 they were 121,747 tons. This does not include cottonseed meal sold as a feed but used as a fertilizer, which is estimated to be 28,000 tons in 1926-27.

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

Available phosphoric acid costs less in 20 per cent acid phosphate than in 18 per cent or 16 per cent. Kainit is a very expensive source of potash in Texas, muriate of potash being much cheaper. Nitrogen costs much less in sulphate of ammonia than in cottonseed meal or nitrate of soda.

Plant food costs less per pound in the more concentrated fertilizers than in those containing less, though the former costs more per ton. A pound of plant food costs most in the 8-3-3 fertilizer, the 10-2-2 came next, and the 8-3-5 third.

The use of sulphur or gypsum as a fertilizer is not recommended for Texas.

Green sand marl does not contain enough plant food to be sold as a fertilizer, though some of it could be used locally if it could be mined and applied at a cost of about two dollars a ton.

Most of the fertilizer sold next year will be of the following analyses: 8-3-3, 8-4-4, 8-4-6, 9-3-0, 9-5-0, 9-6-3, 10-2-2, 10-3-3, 10-3-8, 10-4-2, 10-4-7, 10-5-5, 10-6-7, 12-0-4, 12-2-2, 12-4-0, 12-4-4, 12-6-6, 15-0-6, 15-5-5, 15-6-6.

Information is given regarding fertilizers, and suggestions are made for the fertilization of various crops in Texas.

The explanation of terms is given.

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

A table is given containing analyses of samples of fertilizers collected by inspectors for the season of 1926-27.

Statistics were collected to find the average percentages of the different crops fertilized in some of the counties in which fertilizer is used and the quantity of fertilizer applied to an acre.

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
33076	<b>American Agricultural Chemical Corp., St. Louis, Mo.—</b> A. A. 16% Acid Phosphate—Guarantee.....	16.00			\$19.20
	Analysis.....	17.36			20.95
32546	<b>Arkansas Fertilizer Co., Little Rock, Arkansas—</b> White Diamond 9-6-3—Guarantee.....	9.00	6.00	3.00	41.40
	Analysis.....	8.71	4.86	2.80	35.68
33013	White Diamond Acid Phosphate—Guarantee.....	16.00			19.20
	Analysis.....	15.39			18.47
32629	White Diamond Bove-All Acid Phosphate—Guarantee.....	18.00			21.60
	Analysis.....	18.23			21.88
32812	Analysis.....	18.03			21.64
	Analysis.....	17.66			21.19
33113	Analysis.....	18.46			22.15
	White Diamond Cottonseed Meal Fertilizer—Guarantee.....		6.58		29.61
32579	Analysis.....		6.66		29.97
	Analysis.....		6.25		28.13
32545	White Diamond Crop Getter—Guarantee.....	12.00	4.00	4.00	37.20
	Analysis.....	10.80	3.95	3.89	35.41
32578	Analysis.....	10.60	4.04	3.23	34.78
	Analysis.....	10.24	4.15	3.36	35.00
32701	Analysis.....	10.81	4.02	3.13	34.82
	Analysis.....	11.16	4.05	4.56	37.09
32880	Analysis.....	11.47	3.52	4.10	34.52
	Analysis.....	10.00	3.00	3.00	29.10
33011	White Diamond Early Boll—Guarantee.....	10.11	2.49	2.42	26.34
	Analysis.....	10.03	2.69	3.28	28.09
32813	Analysis.....	10.23	2.69	2.78	27.73
	White Diamond Eclipse Acid Phosphate—Guarantee.....	20.00			24.00
32548	Analysis.....	19.55			23.46
	Analysis.....	19.45			23.34
32630	White Diamond Moore's Special Mixture—Guarantee.....	10.00	4.00	2.00	32.40
	Analysis.....	8.47	3.86	2.16	30.12
32577	Analysis.....	8.89	3.85	2.03	30.44
	Analysis.....			50.00	60.00
32700	White Diamond Muriate of Potash—Guarantee.....			50.20	60.24
	Analysis.....			50.20	60.24
33114	White Diamond Nitrate of Soda—Guarantee.....		15.00		67.50
	Analysis.....		15.16		68.22
32881	White Diamond Old Reliable—Guarantee.....	8.00	4.00	4.00	32.40
	Analysis.....	7.72	3.70	3.41	30.00
32547	Analysis.....	7.42	3.98	3.64	31.08
	Analysis.....				92.25
32600	White Diamond Sulphate of Ammonia—Guarantee.....		20.50		92.25
	Analysis.....		20.54		92.43
32111	<b>Armour Fertilizer Works, Houston, Fort Worth, Texas,</b> <b>and New Orleans, La.—</b> Armour's Big Crop African Cotton Grower—Guarantee.....	10.00	3.00	3.00	29.10
	Analysis.....	10.73	3.07	2.84	30.11
32603	Analysis.....	10.05	2.88	2.85	28.44
	Analysis.....	11.01	2.97	3.08	30.28
32686	Analysis.....	10.24	3.02	2.54	28.93
	Analysis.....	10.42	3.01	3.12	29.79
32687	Analysis.....	10.54	3.01	2.76	29.51
	Analysis.....	9.62	3.03	2.58	28.27
32754	Analysis.....	10.08	2.88	2.85	28.48
	Analysis.....	10.05	3.05	2.78	29.13
32870	Analysis.....	10.19	3.09	2.74	29.43
	Analysis.....	9.97	3.19	3.30	30.28
32886	Analysis.....	10.12	3.06	2.82	29.29
	Analysis.....	10.98	3.20	2.97	31.14
32962	Analysis.....				21.60
	Armour's Big Crop Best Phosphate—Guarantee.....	18.00			21.60
32967	Analysis.....	19.03			22.84
	Analysis.....	18.30			21.96
32973	Analysis.....	18.64			22.37
	Analysis.....	18.01			21.61
32992	Analysis.....				21.61
	Analysis.....				21.61
33017	Analysis.....				21.61
	Analysis.....				21.61
33053	Analysis.....				21.61
	Analysis.....				21.61
33157	Analysis.....				21.61
	Analysis.....				21.61

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid—Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
<b>Armour Fertilizer Works, Houston, Fort Worth, Texas, and New Orleans, La.—Continued.</b>					
<b>Armour's Big Crop Best Phosphate—Guarantee Continued.</b>					
33887	Analysis.....	18.62	.....	.....	\$22.34
32906	Analysis.....	18.93	.....	.....	22.72
33016	Analysis.....	18.75	.....	.....	22.50
33079	Analysis.....	18.00	.....	.....	21.60
33152	Analysis.....	19.00	.....	.....	22.80
<b>Armour's Big Crop Farmer's Favorite—Guarantee.</b>					
32789	Analysis.....	10.00	2.00	2.00	23.40
32885	Analysis.....	10.21	1.97	1.73	23.20
32911	Analysis.....	9.47	1.95	2.13	22.70
	Analysis.....	9.91	2.05	2.00	23.52
<b>Armour's Big Crop Fertilizer No. 1042—Guarantee.</b>					
32488	Analysis.....	10.00	4.00	2.00	32.40
	Analysis.....	10.27	3.62	2.12	31.15
<b>Armour's Big Crop Fertilizer No. 1555—Guarantee.</b>					
32353	Analysis.....	15.00	5.00	5.00	46.50
32367	Analysis.....	15.40	4.85	4.88	46.17
32379	Analysis.....	15.63	4.86	4.62	45.47
32401	Analysis.....	15.07	4.69	5.22	45.45
32436	Analysis.....	15.22	4.90	4.71	45.96
32731	Analysis.....	14.95	4.81	4.90	45.47
32753	Analysis.....	15.23	4.64	4.59	44.67
32850	Analysis.....	14.87	4.84	4.69	45.25
32898	Analysis.....	14.72	4.63	4.50	43.90
32904	Analysis.....	15.15	4.70	4.73	45.00
32922	Analysis.....	15.08	4.78	4.82	45.39
32972	Analysis.....	15.17	4.89	4.85	46.03
33014	Analysis.....	14.62	4.71	4.63	44.30
33140	Analysis.....	15.23	4.82	4.56	45.44
	Analysis.....	15.16	4.70	4.84	45.15
<b>Armour's Big Crop General Crop Maker—Guarantee.</b>					
32703	Analysis.....	8.00	4.00	4.00	32.40
32840	Analysis.....	8.64	3.86	3.90	32.42
33158	Analysis.....	8.00	3.82	3.86	31.42
	Analysis.....	8.16	4.05	4.00	32.82
<b>Armour's Big Crop King Cotton—Guarantee.</b>					
32336	Analysis.....	12.00	4.00	4.00	37.20
32437	Analysis.....	13.16	4.13	4.41	39.67
32468	Analysis.....	12.44	3.88	3.68	36.81
32477	Analysis.....	12.97	4.08	3.73	38.40
32489	Analysis.....	12.71	3.86	3.79	37.17
32536	Analysis.....	12.33	3.82	4.06	36.86
32705	Analysis.....	12.47	3.91	4.26	37.67
32728	Analysis.....	12.22	3.97	4.02	37.35
32740	Analysis.....	12.14	4.01	4.04	37.47
32752	Analysis.....	12.46	3.94	3.81	37.25
32785	Analysis.....	12.23	3.98	3.78	37.13
32884	Analysis.....	12.55	3.78	3.71	36.52
32903	Analysis.....	12.60	3.89	4.08	37.53
32971	Analysis.....	12.12	4.01	4.04	37.44
32991	Analysis.....	12.35	4.01	4.04	37.72
33015	Analysis.....	12.29	4.02	3.54	37.09
33078	Analysis.....	12.07	4.05	3.86	37.34
	Analysis.....	11.67	4.02	3.76	36.60
<b>Armour's Big Crop Lower Valley Special—Guarantee.</b>					
32366	Analysis.....	10.00	3.00	8.00	35.10
32369	Analysis.....	10.58	2.96	7.62	35.16
32370	Analysis.....	10.47	3.01	7.61	35.24
32381	Analysis.....	10.28	2.75	8.72	35.18
32410	Analysis.....	10.35	2.85	7.86	34.68
	Analysis.....	10.64	2.96	7.59	35.20
<b>Armour's Big Crop Muriate of Potash—Guarantee.</b>					
32537	Analysis.....	.....	.....	50.00	60.00
	Analysis.....	.....	.....	51.38	61.66
<b>Armour's Big Crop Nitrate of Soda—Guarantee.</b>					
32383	Analysis.....	.....	14.81	.....	66.65
	Analysis.....	.....	15.61	.....	70.25
<b>Armour's Big Crop Phosphate and Nitrogen—Guarantee.</b>					
32729	Analysis.....	12.00	4.00	.....	32.40
	Analysis.....	12.10	3.75	.....	31.40

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
	<b>Armour Fertilizer Works, Houston, Fort Worth, Texas, and New Orleans, La.—Continued.</b>				
	Armour's Big Crop Phosphate and Potash No. 1506—Guarantee.....	15.00		6.00	\$25.20
32363	Analysis.....	16.18		5.89	26.49
32400	Armour's Big Crop Potash Special—Guarantee.....	10.00	4.00	7.00	38.40
32849	Analysis.....	10.12	3.72	7.05	37.34
	Armour's Big Crop Raw Bone Meal—Guarantee.....	10.16	3.94	6.29	37.47
33072	Analysis.....	*22.00	3.70		34.25
	Armour's Big Crop Star Phosphate—Guarantee.....	*24.34	3.90		37.02
32490	Analysis.....	16.00			19.20
32784	Analysis.....	16.57			19.88
32615	Analysis.....	16.66			19.99
32835	Analysis.....	17.07			20.48
33081	Analysis.....	16.12			19.34
33133	Analysis.....	16.14			19.37
33139	Analysis.....	15.67			18.80
	Armour's Big Crop Sunny South Special—Guarantee.....	16.18			19.42
32790	Analysis.....	12.00	2.00	2.00	25.80
	Armour's Big Crop Sunshine Special—Guarantee.....	12.26	2.06	2.49	26.97
33077	Analysis.....	12.00	3.00	3.00	31.50
	Armour's Big Crop Superphosphate—Guarantee.....	12.35	3.09	2.97	32.29
32365	Analysis.....	20.00			24.00
32382	Analysis.....	20.15			24.18
32393	Analysis.....	20.94			25.13
32397	Analysis.....	20.67			24.80
32544	Analysis.....	20.63			24.76
32688	Analysis.....	20.82			24.98
32726	Analysis.....	21.28			25.54
32883	Analysis.....	20.61			24.73
32923	Analysis.....	20.35			24.42
	Armour's Big Crop Texas Trucker—Guarantee.....	20.65	3.00	3.00	26.70
32362	Analysis.....	9.15	2.87	3.76	28.41
32428	Analysis.....	8.09	2.76	2.97	25.69
32834	Analysis.....	8.11	2.87	2.68	25.87
33132	Analysis.....	7.74	2.92	2.76	25.74
	Armour's Big Crop Truck Producer—Guarantee.....	10.00	6.00	7.00	47.40
32358	Analysis.....	11.03	5.82	7.45	48.37
32368	Analysis.....	11.18	5.22	6.95	45.25
32402	Analysis.....	10.90	5.83	7.08	47.82
	Armour's Big Crop Truck Special—Guarantee.....	8.00	4.00	6.00	34.80
32341	Analysis.....	9.12	4.06	5.80	36.17
32342	Analysis.....	8.84	3.93	5.71	35.15
32343	Analysis.....	8.50	3.85	5.53	34.17
32344	Analysis.....	8.81	4.03	5.86	35.74
32345	Analysis.....	8.58	4.06	5.57	35.23
32354	Analysis.....	8.53	4.04	5.62	35.16
32355	Analysis.....	8.55	3.98	5.51	34.78
32364	Analysis.....	8.67	3.92	5.55	34.70
32380	Analysis.....	8.67	3.94	6.52	35.95
32386	Analysis.....	8.44	4.03	5.62	35.01
32539	Analysis.....	8.60	3.82	5.73	34.39
32685	Analysis.....	9.38	3.89	6.00	35.97
32704	Analysis.....	8.36	3.80	5.43	33.65
32736	Analysis.....	8.34	3.82	5.19	33.43
32841	Analysis.....	7.86	3.89	6.02	34.16
	Armour's Kainit—Guarantee.....			12.40	14.88
32538	Analysis.....			13.08	15.70
	Pulverized Sheep Manure—Guarantee.....	1.25	2.00	2.00	12.90
33071	Analysis.....	2.45	2.55	2.33	17.22
	<b>Geo. L. Barber &amp; Son, Jacksonville, Texas—</b>				
	Barber's 16% Acid Phosphate—Guarantee.....	16.00			19.20
32472	Analysis.....	16.78			20.14
32583	Analysis.....	17.11			20.53
32692	Analysis.....	16.88			20.26

\*Total Phosphoric Acid.

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
	<b>The Barrett Co., New York, N. Y.—</b>				
	Sulphate of Ammonia—Guarantee.....				\$92.25
32409	Analysis.....		20.50		92.66
32418	Analysis.....		20.64		92.88
32422	Analysis.....		20.82		93.69
	<b>Berryman Fertilizer Works, Palestine, Texas—</b>				
	Bo's Best—Guarantee.....	12.00	4.00	4.00	37.20
32744	Analysis.....	12.65	3.81	4.37	37.57
	Bo's Corn and Truck Special—Guarantee.....	8.00	4.00	4.00	32.40
32743	Analysis.....	9.84	3.72	4.00	33.35
	Bo's Texas King—Guarantee.....	10.00	3.00	3.00	29.10
32742	Analysis.....	10.69	3.30	3.93	32.40
	<b>Bryan Cotton Oil &amp; Fertilizer Co., Bryan, Texas—</b>				
	Star Brand Acid Phosphate—Guarantee.....	16.00			19.20
32448	Analysis.....	16.48			19.78
32803	Analysis.....	16.96			20.35
	Star Brand Cotton and Corn Fertilizer—Guarantee.....	10.00	2.00	2.00	23.40
32449	Analysis.....	12.69	1.81	2.41	25.74
32802	Analysis.....	12.26	1.82	2.42	25.80
	Star Brand Special Fertilizer—Guarantee.....	12.00	3.00	3.00	31.50
32447	Analysis.....	13.35	2.51	2.55	30.38
32804	Analysis.....	12.21	2.80	3.06	30.92
	<b>Cuero Cotton Oil Co., Cuero, Texas—</b>				
	Cottonseed Fertilizer—Guarantee.....		6.60		29.70
32792	Analysis.....		6.74		30.33
	<b>Douglass Fertilizer Co., Little Rock, Arkansas—</b>				
	4-Brand 10-2-2—Guarantee.....	10.00	2.00	2.00	23.40
33006	Analysis.....	10.30	1.93	1.79	23.20
	4-Brand 10-3-3—Guarantee.....	10.00	3.00	3.00	29.10
33007	Analysis.....	10.34	2.76	3.08	28.53
	4-Brand Nitrate of Soda 15—Guarantee.....		15.00		67.50
33008	Analysis.....		15.24		68.58
	<b>Farmers Cotton Oil Company, Texarkana, Texas—</b>				
	Cottonseed Fertilizer—Guarantee.....	1.50	6.50	1.00	32.25
32989	Analysis.....	1.52	6.27	1.62	31.98
	<b>Farmers Cotton Oil Company, Winnsboro, Texas—</b>				
	18 Per Cent Acid Phosphate—Guarantee.....	18.00			21.60
33031	Analysis.....	17.49			20.99
	Meal Mixture Fertilizer No. 844—Guarantee.....	8.00	4.00	4.00	32.40
33030	Analysis.....	9.28	3.93	4.50	34.23
	Meal Mixture Fertilizer No. 1033—Guarantee.....	10.00	3.00	3.00	29.10
33029	Analysis.....	10.63	2.73	3.39	29.12
	Meal Mixture Fertilizer No. 1244—Guarantee.....	12.00	4.00	4.00	37.20
33028	Analysis.....	12.05	4.12	3.70	37.44
	<b>Fidelity Chemical Corporation, Houston, Texas—</b>				
	Fidelity 8-4-6 Fertilizer—Guarantee.....	8.00	4.00	6.00	34.80
32396	Analysis.....	9.04	4.24	6.33	37.53
32426	Analysis.....	8.38	4.01	6.97	36.47
32822	Analysis.....	10.18	3.44	4.76	33.41
	Fidelity 12-0-4 Fertilizer—Guarantee.....	12.00		4.00	19.20
32800	Analysis.....	11.01		3.78	17.75
	Fidelity 12-2-2 Fertilizer—Guarantee.....	12.00	2.00	2.00	25.80
32799	Analysis.....	11.97	2.28	1.68	26.64
	Fidelity 12-3-3 Fertilizer—Guarantee.....	12.00	3.00	3.00	31.50
32424	Analysis.....	11.80	2.88	2.87	30.56
32826	Analysis.....	12.32	2.69	2.14	29.46
	Fidelity 12-4-4 Fertilizer—Guarantee.....	12.00	4.00	4.00	37.20
32425	Analysis.....	11.79	3.71	4.37	36.09

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid—Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
	<b>Fidelity Chemical Corporation, Houston, Texas—Con'td.</b>				
	Fidelity 16% Acid Phosphate—Guarantee.....	16.00			\$19.20
32727	Analysis.....	17.19			20.63
32786	Analysis.....	18.40			22.08
32827	Analysis.....	15.08			18.10
	Fidelity 18% Acid Phosphate—Guarantee.....	18.00			21.60
32828	Analysis.....	19.03			22.84
32864	Analysis.....	18.78			22.54
33123	Analysis.....	19.52			23.42
	Fidelity 20% Acid Phosphate—Guarantee.....	20.00			24.00
32423	Analysis.....	20.94			25.13
32801	Analysis.....	20.78			24.94
	Fidelity Cotton Special Fertilizer—Guarantee.....	10.00	2.00	2.00	23.40
32427	Analysis.....	9.54	2.11	2.18	23.57
32798	Analysis.....	8.49	1.87	1.89	20.88
32825	Analysis.....	8.61	1.69	1.56	19.81
	Fidelity 14% Kainit—Guarantee.....			14.00	16.80
32824	Analysis.....			14.18	17.02
	Fidelity Peerless Trucker—Guarantee.....	8.00	3.00	5.00	29.10
32823	Analysis.....	8.29	2.84	4.37	27.97
	<b>Ford Motor Co., Highland Park, Michigan—</b>				
	Ford Ammonium Sulphate—Guarantee.....		20.80		93.60
32833	Analysis.....		20.83		93.74
33073	Analysis.....		20.90		94.05
	<b>Gate City Fertilizer Co., Little Rock, Arkansas—</b>				
	Red Ball 10-3-3—Guarantee.....	10.00	3.00	3.00	29.10
32995	Analysis.....	10.16	2.69	2.60	27.42
	<b>Hope Fertilizer Co., Hope, Arkansas—</b>				
	Stork Brand 16% Acid Phosphate—Guarantee.....	16.00			19.20
32983	Analysis.....	17.12			20.54
	Stork Brand 18% Acid Phosphate—Guarantee.....	18.00			21.60
32806	Analysis.....	18.27			21.92
32986	Analysis.....	19.83			23.80
	Stork Brand 20% Acid Phosphate—Guarantee.....	20.00			24.00
32978	Analysis.....	20.29			24.35
	Stork Brand 15% Nitrate of Soda—Guarantee.....		15.00		67.50
33010	Analysis.....		14.67		66.02
	Stork Brand Eight Four Four—Guarantee.....	8.00	4.00	4.00	32.40
32985	Analysis.....	7.64	4.12	3.91	32.40
	Stork Brand Ten Three Three—Guarantee.....	10.00	3.00	3.00	29.10
32977	Analysis.....	9.29	3.10	3.00	28.70
32984	Analysis.....	9.51	3.31	2.63	29.47
33009	Analysis.....	9.68	3.32	3.16	30.35
	Stork Brand Twelve Four Four—Guarantee.....	12.00	4.00	4.00	37.20
33112	Analysis.....	12.17	4.00	3.91	37.29
	<b>Kelly Weber &amp; Co., Ltd., Lake Charles, La.—</b>				
	Muriate of Potash—Guarantee.....			50.00	60.00
32943	Analysis.....			46.75	56.10
	Weber-King Brand 16% Acid Phosphate—Guarantee.....	16.00			19.20
32518	Analysis.....	16.12			19.34
33135	Analysis.....	17.66			21.19
	Weber, King Brand 18% Acid Phosphate—Guarantee.....	18.00			21.60
32519	Analysis.....	17.96			21.55
32665	Analysis.....	17.52			21.02
32879	Analysis.....	17.64			21.17
33145	Analysis.....	17.08			20.50
	Weber King Brand Fertilizer Special No. 1233—				
	Guarantee.....	12.00	3.00	3.00	31.50
32878	Analysis.....	11.83	2.68	3.42	30.36



Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid—Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
33085	<b>Kerens Cotton Oil Co., Kerens, Texas—</b> Acid Phosphate—Guarantee.....	18.00			\$21.60
	Analysis.....	18.93			22.72
33086	Navarro Cotton Maker—Guarantee.....	10.00	3.00	3.00	29.10
	Analysis.....	9.72	2.09	4.12	26.01
33146	<b>Kreiss Potassium Phosphate Company, Tampa, Fla.—</b> Kreiss Calcium Potassium Phosphate 1204—Guarantee.....	12.00		4.00	19.20
	Analysis.....	8.22		6.89	18.13
32338	<b>Landa Industries, Inc., New Braunfels, Texas—</b> 43% Protein Cottonseed Meal—Guarantee.....		6.88		30.96
	Analysis.....		7.04		31.68
32339	Analysis.....		7.08		31.86
32340	Analysis.....		7.00		31.50
32498	<b>Longview Cotton Oil Co., Longview, Texas—</b> Cottonseed Meal Fertilizer—Guarantee.....	1.00	6.88	1.00	33.36
	Analysis.....	2.60	6.52	1.80	34.62
32897	Analysis.....	1.74	6.82	1.57	34.66
	Longview Acid Phosphate—Guarantee.....	18.00			21.60
33107	Analysis.....	19.35			23.22
	Longview Corn and Potato Special Fertilizer— Guarantee.....	8.00	3.00	3.00	26.70
32949	Analysis.....	9.24	3.00	3.73	29.07
33106	Analysis.....	9.12	3.23	3.26	29.39
33162	Analysis.....	9.08	3.10	3.85	29.47
32867	Longview Cotton and Corn Special Fertilizer— Guarantee.....	12.00	4.00	4.00	37.20
	Analysis.....	12.15	3.83	4.02	36.64
32951	Longview Cotton Special Fertilizer High Grade— Guarantee.....	10.00	3.00	3.00	29.10
	Analysis.....	11.09	2.91	3.05	30.07
32495	Longview East Texas Cotton Special Fertilizer— Guarantee.....	10.00	2.00	2.00	23.40
	Analysis.....	12.01	1.93	2.43	26.02
32868	Analysis.....	10.41	2.34	2.88	26.48
32944	Analysis.....	10.81	2.31	2.94	26.42
33109	Analysis.....	11.11	2.24	3.99	28.20
33164	Analysis.....	11.04	2.33	3.32	27.72
32496	Longview Gregg County Special High Grade— Guarantee.....	8.00	4.00	4.00	32.40
	Analysis.....	9.63	3.09	4.00	30.27
32963	Analysis.....	8.91	3.76	4.56	33.08
33163	Analysis.....	8.57	3.76	4.20	33.24
32950	Longview Kainit—Guarantee.....			12.40	14.88
	Analysis.....			14.47	17.36
33127	Analysis.....			13.43	16.12
33119	Longview Nitrate of Soda—Guarantee.....		15.00		67.50
	Analysis.....		15.34		69.03
33108	Longview Supreme Cotton Grower Fertilizer— Guarantee.....	10.00	4.00	2.00	32.40
	Analysis.....	10.87	3.97	2.29	33.66
32497	Longview Truck Special Fertilizer High Grade— Guarantee.....	8.00	4.00	6.00	34.80
	Analysis.....	8.54	3.86	6.39	35.29
32952	Analysis.....	8.98	3.69	6.24	34.88
33120	<b>Marshall Cotton Oil Co., Marshall, Texas—</b> 18% Acid Phosphate—Guarantee.....	18.00			21.60
	Analysis.....	19.55			23.46
32483	Marshall Corn and Potato Special—Guarantee.....	8.00	3.00	3.00	26.70
	Analysis.....	8.36	3.15	4.03	29.05

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid—Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
<b>Marshall Cotton Oil Co., Marshall, Texas—Continued.</b>					
	Marshall Eclipse Fertilizer—Guarantee.	10.00	3.00	3.00	\$29.10
32642	Analysis.	10.95	2.96	3.45	29.60
32966	Analysis.	10.37	3.18	3.52	30.97
32969	Analysis.	11.13	2.99	3.26	30.73
32974	Analysis.	10.60	3.09	3.01	30.24
33000	Analysis.	9.98	3.05	3.80	30.27
33003	Analysis.	10.59	3.04	3.12	30.13
	Marshall Fertilizer—Guarantee.	12.00	3.00	3.00	31.50
32956	Analysis.	11.95	3.02	3.29	31.88
	Marshall Garden Fertilizer—Guarantee.	8.00	4.00	6.00	34.80
32481	Analysis.	9.13	3.82	6.16	35.54
32957	Analysis.	8.73	3.69	5.89	34.16
	Marshall Regal Fertilizer—Guarantee.	10.00	2.00	2.00	23.40
32641	Analysis.	11.83	2.08	2.33	26.36
32958	Analysis.	10.56	2.28	2.49	25.92
33169	Analysis.	11.31	2.20	2.00	25.87
	Marshall Wonder Fertilizer—Guarantee.	12.00	4.00	4.00	37.20
32643	Analysis.	12.43	4.10	4.32	38.55
32959	Analysis.	12.06	3.86	3.94	36.57
32975	Analysis.	11.62	4.01	4.14	36.96
33168	Analysis.	12.68	3.63	3.80	36.12
	Muriate of Potash—Guarantee.			50.00	60.00
33001	Analysis.			46.54	55.85
	15% Nitrate of Soda—Guarantee.		15.00		67.50
32639	Analysis.		15.00		67.50
	Truckers Delight—Guarantee.	8.00	4.00	4.00	32.40
32491	Analysis.	9.37	3.41	4.73	32.27
	Quick Producer Fertilizer—Guarantee.	10.00	4.00	2.00	32.40
32482	Analysis.	10.87	3.91	2.32	33.42
32640	Analysis.	11.30	3.77	2.53	33.57
<b>Meridian Fertilizer Factory, Shreveport, La.—</b>					
	Kainit—Guarantee.			12.40	14.88
32939	Analysis.			13.78	16.54
	Magnolia State Formula—Guarantee.	8.00	4.00	4.00	32.40
32476	Analysis.	12.56	3.78	4.01	36.88
32492	Analysis.	13.26	3.48	4.65	37.15
32499	Analysis.	11.52	3.89	4.40	36.65
32661	Analysis.	10.24	3.79	4.83	35.15
32689	Analysis.	12.93	3.84	3.96	37.55
33045	Analysis.	12.92	4.10	4.93	39.88
	Meridian Blood & Bone—Guarantee.	10.00	2.00	2.00	23.40
32553	Analysis.	10.04	2.31	2.84	25.86
32796	Analysis.	10.90	1.80	2.40	24.06
32938	Analysis.	9.71	2.00	2.54	23.70
32940	Analysis.	9.68	2.08	2.32	23.76
	Meridian Golden West—Guarantee.	12.00	2.00	2.00	25.80
32719	Analysis.	11.90	2.30	2.50	27.63
	Meridian Great Western—Guarantee.	12.00	3.00	3.00	31.50
32681	Analysis.	13.21	3.01	3.09	33.11
32777	Analysis.	13.11	3.44	3.76	35.72
32942	Analysis.	11.41	3.16	4.81	33.68
	Meridian Home Mixture—Guarantee.	10.00	2.00	2.00	23.40
32479	Analysis.	11.55	2.04	2.38	25.90
32521	Analysis.	10.65	2.30	2.75	26.43
32542	Analysis.	10.82	2.14	2.60	25.73
32558	Analysis.	11.10	2.07	2.47	25.60
32632	Analysis.	10.97	2.13	2.62	25.89
32673	Analysis.	11.00	1.88	2.75	23.96
32730	Analysis.	10.34	2.26	2.54	25.63
32761	Analysis.	11.25	2.08	2.52	25.88
32787	Analysis.	11.02	2.10	2.62	26.81
32955	Analysis.	10.66	2.10	2.44	25.17
32981	Analysis.	9.54	2.18	2.82	24.64

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
	<b>Meridian Fertilizer Factory, Shreveport, La.—Continued.</b>				
	Meridian Home Mixture—Guarantee—Cont'd.				
32994	Analysis.....	9.89	2.25	2.79	\$25.35
33051	Analysis.....	9.85	1.64	3.16	22.99
33091	Analysis.....	10.77	2.20	2.48	25.80
33165	Analysis.....	10.23	2.39	2.58	26.14
	Meridian Improved Acid Phosphate—Guarantee.....	20.00			24.00
32522	Analysis.....	20.00			24.00
32633	Analysis.....	20.46			24.55
32683	Analysis.....	20.19			24.23
32982	Analysis.....	20.14			24.17
	Meridian Majestic Mixture—Guarantee.....	15.00	5.00	5.00	46.50
32556	Analysis.....	14.87	4.87	5.56	40.43
32725	Analysis.....	15.01	4.68	5.14	45.24
	Meridian Perfect Guano—Guarantee.....	10.00	3.00	3.00	29.10
32466	Analysis.....	10.23	3.12	3.73	30.80
32475	Analysis.....	11.80	2.93	3.25	31.25
32494	Analysis.....	11.98	2.90	2.92	30.93
32552	Analysis.....	10.46	3.10	3.28	30.44
32580	Analysis.....	10.67	3.11	3.30	30.76
32660	Analysis.....	11.06	3.07	3.78	31.63
32674	Analysis.....	10.70	2.80	3.87	30.08
32691	Analysis.....	12.03	3.04	3.96	32.87
32941	Analysis.....	10.53	2.79	3.51	29.41
32993	Analysis.....	11.39	3.02	2.90	30.74
33050	Analysis.....	11.03	2.91	3.18	30.16
33101	Analysis.....	11.46	2.88	3.75	31.21
33124	Analysis.....	11.45	3.00	3.49	31.43
33155	Analysis.....	11.06	2.97	3.22	30.50
33166	Analysis.....	10.93	3.00	2.96	30.17
	Meridian Perfection Acid Phosphate—Guarantee.....	18.00			21.60
32502	Analysis.....	18.75			22.50
32573	Analysis.....	19.48			23.38
32652	Analysis.....	19.88			23.86
32659	Analysis.....	20.76			24.91
32672	Analysis.....	19.38			23.26
32876	Analysis.....	20.06			24.07
33044	Analysis.....	18.78			22.54
33084	Analysis.....	19.26			23.11
33102	Analysis.....	18.80			22.56
33126	Analysis.....	19.19			23.03
33171	Analysis.....	20.38			24.46
	Meridian Perfection Compound—Guarantee.....	12.00	4.00	4.00	37.20
32467	Analysis.....	12.82	4.00	4.55	38.84
32474	Analysis.....	13.13	3.86	4.00	37.93
32520	Analysis.....	12.34	3.90	4.61	37.89
32582	Analysis.....	12.48	4.02	5.49	39.66
32662	Analysis.....	12.58	4.41	3.89	39.62
32690	Analysis.....	12.93	3.72	4.72	37.92
32778	Analysis.....	13.38	4.26	4.07	40.11
33125	Analysis.....	12.56	3.62	5.48	37.94
33156	Analysis.....	12.68	3.47	4.45	36.18
	Meridian Southern Standard—Guarantee.....	10.00	4.00	2.00	32.40
32473	Analysis.....	11.50	3.62	2.63	33.25
32741	Analysis.....	11.60	3.50	3.64	34.04
32788	Analysis.....	12.19	3.96	2.18	35.07
32964	Analysis.....	10.73	3.34	3.12	31.65
33167	Analysis.....	12.00	3.65	2.94	34.36
	Meridian Special Formula—Guarantee.....	12.00	4.00		32.40
32581	Analysis.....	10.66	3.17	2.79	30.41
	Meridian Trucker Special—Guarantee.....	8.00	4.00	6.00	34.80
32465	Analysis.....	12.47	4.33	5.52	41.07
32493	Analysis.....	12.61	3.57	5.72	38.03
32501	Analysis.....	12.13	3.73	5.81	38.32
32559	Analysis.....	12.51	3.71	2.90	35.19

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid—Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
<b>Meridian Fertilizer Factory, Sheveport, La.—Continued.</b>					
Meridian Trucker Special—Guarantee—Cont'd.					
32572	Analysis	12.88	3.53	6.32	\$38.93
32682	Analysis	12.03	4.16	5.60	39.88
32718	Analysis	11.72	4.19	6.53	40.76
32724	Analysis	12.59	4.18	6.04	41.17
33092	Analysis	12.16	3.45	6.52	37.94
Meridian Truck Grower—Guarantee					
32500	Analysis	8.00	3.00	3.00	26.70
32954	Analysis	10.90	3.24	4.15	32.64
Meridian Union Special Acid Phosphate—Guarantee					
32554	Analysis	9.99	3.92	1.99	32.02
32557	Analysis	16.00			19.20
32634	Analysis	19.05			22.86
32684	Analysis	18.84			22.61
32717	Analysis	19.04			22.85
32666	Analysis	19.36			23.23
32775	Analysis	17.65			21.18
Muriate of Potash—Guarantee					
32666	Analysis			50.00	60.00
32775	Analysis			48.71	58.45
	Analysis			50.40	60.48
<b>Mixson Brothers, Kirbyville, Texas—</b>					
18 Per Cent Acid Phosphate—Guarantee					
32523	Analysis	18.00			21.60
32842	Analysis	18.44			22.13
33128	Analysis	17.95			21.52
	Analysis	18.68			22.42
Mixson's 10-2-2—Guarantee					
32526	Analysis	10.00	2.00	2.00	23.40
32851	Analysis	10.43	2.30	2.33	25.65
	Analysis	9.27	2.20	1.73	23.10
Mixson's 10-3-3—Guarantee					
32525	Analysis	10.00	3.00	3.00	29.10
	Analysis	10.14	3.10	2.28	28.86
Mixson's 10-3-8—Guarantee					
32845	Analysis	10.00	3.00	8.00	35.10
33130	Analysis	10.80	3.11	5.21	33.21
	Analysis	10.77	3.52	8.20	38.60
Mixson's 12-4-4—Guarantee					
32524	Analysis	12.00	4.00	4.00	37.20
32853	Analysis	10.95	4.10	3.04	35.24
33129	Analysis	11.59	3.77	3.45	35.02
	Analysis	12.46	3.67	4.28	36.61
Mixson's 15-0-6—Guarantee					
32527	Analysis	15.00		6.00	25.20
32852	Analysis	13.71		3.63	20.81
33131	Analysis	14.52		4.08	22.32
	Analysis	14.69		5.84	24.64
<b>Robert Nicholson Seed Co., Dallas, Texas—</b>					
Nicholson Special Lawn Dressing—Guarantee					
33070	Analysis	6.00	10.00	4.00	57.00
	Analysis	6.72	9.84	3.71	56.79
<b>Nitrate Agencies Co., New Orleans, La.—</b>					
Nitrate of Soda—Guarantee					
32412	Analysis		15.00		67.50
32560	Analysis		15.51		69.80
32713	Analysis		15.73		70.79
33093	Analysis		15.40		69.30
	Analysis		15.44		69.48
<b>Oil Mill and Fertilizer Works, Henderson, Texas—</b>					
Henderson Best Phosphate—Guarantee					
32927	Analysis	20.00			24.00
	Analysis	19.59			23.51
Henderson Competitor 12-4-4—Guarantee					
32925	Analysis	12.00	4.00	4.00	37.20
	Analysis	11.32	4.04	4.03	36.60
Henderson Corn Grower—Guarantee					
32926	Analysis	10.00	4.00	2.00	32.40
	Analysis	10.81	3.94	2.83	34.10
Henderson's Favorite Phosphate—Guarantee					
32932	Analysis	18.00			21.60
	Analysis	18.00			21.60
Henderson King Cotton (Not registered)					
32929	Analysis	10.23	3.69	4.05	33.75
	Analysis	8.00	4.00	6.00	34.80
Henderson Potato Grower—Guarantee					
33104	Analysis	8.02	4.50	6.24	37.36

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid—Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
<b>Oil and Fertilizer Works, Henderson, Texas—Continued.</b>					
	Henderson Sandy Land—Guarantee.....	12.00	4.00	4.00	\$37.20
32931	Analysis.....	11.49	4.20	4.48	38.07
33103	Analysis.....	12.45	4.12	4.62	39.02
	Henderson Special—Guarantee.....	10.00	3.00	3.00	29.10
32928	Analysis.....	9.76	3.45	4.08	32.14
33099	Analysis.....	10.77	3.06	3.81	31.26
	Henderson Standard—Guarantee.....	10.00	2.00	2.00	23.40
32930	Analysis.....	9.84	1.96	2.44	23.56
33117	Analysis.....	10.36	1.80	2.26	23.24
	Henderson Truck—Guarantee.....	8.00	4.00	4.00	32.40
32924	Analysis.....	8.31	4.01	5.26	34.33
<b>Old Deerfield Fertilizer Co., Deerfield, Mass.—</b>					
	Old Deerfield 24-12-12—Not registered.....	24.24	9.48	11.30	85.25
32411	Analysis.....				
<b>Palestine Oil Mill and Fertilizer Co., Palestine, Texas—</b>					
	Corn and Cotton Special—Guarantee.....	10.00	4.00	2.00	32.40
32540	Analysis.....	10.21	3.77	2.88	32.68
32882	Analysis.....	9.85	3.62	2.27	30.83
	Cottonseed Meal Fertilizer—Guarantee.....	1.00	6.88	1.00	33.36
32745	Analysis.....	2.25	7.23	1.79	37.39
32762	Analysis.....	2.53	6.86	1.54	35.86
32766	Analysis.....	2.24	7.30	1.56	37.41
32817	Analysis.....	2.50	6.62	1.67	34.79
32908	Analysis.....	2.51	6.94	1.53	36.08
	Palestine Cotton Producer—Guarantee.....	10.00	2.00	2.00	23.40
32457	Analysis.....	11.12	2.33	2.04	26.28
32749	Analysis.....	10.38	1.96	1.87	23.52
32763	Analysis.....	10.29	1.94	2.22	23.74
32769	Analysis.....	11.32	1.82	2.12	24.31
32892	Analysis.....	10.12	2.08	1.92	23.80
	Palestine Deep Sandy—Guarantee.....	12.00	4.00	4.00	37.20
32455	Analysis.....	14.46	4.05	3.76	37.69
32463	Analysis.....	12.43	3.84	4.21	37.25
32471	Analysis.....	11.73	3.74	4.04	35.76
32535	Analysis.....	13.25	4.16	3.36	38.65
32564	Analysis.....	12.99	3.83	4.52	38.25
32613	Analysis.....	12.16	3.88	4.42	37.35
32698	Analysis.....	12.85	3.98	4.01	38.14
32907	Analysis.....	12.94	3.96	4.12	38.29
32918	Analysis.....	12.17	3.81	4.08	36.65
33161	Analysis.....	12.44	3.67	4.62	36.99
	Palestine Eighteen Per Cent Phosphate—Guarantee.....	18.00			21.60
32574	Analysis.....	19.21			23.05
32697	Analysis.....	19.31			23.17
	Palestine Low Land Fertilizer—Guarantee.....	12.00	3.00	3.00	31.50
32764	Analysis.....	12.90	3.15	2.69	32.89
32767	Analysis.....	12.72	3.12	2.85	32.72
	Palestine Manure Salts—Guarantee.....			20.00	24.00
32746	Analysis.....			20.44	24.53
	Palestine Muriate of Potash—Guarantee.....			50.00	60.00
32458	Analysis.....			46.94	56.33
	Palestine Nitrate of Soda—Guarantee.....		15.00		67.50
32905	Analysis.....		15.66		70.47
33154	Analysis.....		15.72		70.74
	Palestine Queen Fertilizer—Guarantee.....	15.00	5.00	5.00	46.50
32747	Analysis.....	16.69	5.20	4.03	48.27
	Palestine Sixteen Per Cent Phosphate—Guarantee.....	16.00			19.20
32454	Analysis.....	16.61			19.93
32768	Analysis.....	17.58			21.10
32890	Analysis.....	16.61			19.93

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid—Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
	<b>Palestine Cotton Mill and Fertilizer Co., Palestine, Texas</b>				
	—Continued.				
	Palestine Sandy Land—Guarantee.....	10.00	3.00	3.00	\$29.10
32456	Analysis.....	11.73	2.80	3.15	30.46
32543	Analysis.....	10.42	3.02	3.20	29.93
32555	Analysis.....	11.59	3.48	2.54	32.62
32612	Analysis.....	11.48	3.10	3.22	31.59
32675	Analysis.....	10.68	3.10	3.15	30.55
32760	Analysis.....	10.54	2.94	3.32	29.86
32919	Analysis.....	10.44	2.95	3.14	29.58
	Palestine Sulphate of Ammonia—Guarantee.....	20.00	.....	.....	90.00
32459	Analysis.....	20.56	.....	.....	92.52
	Palestine Trucker—Guarantee.....	8.00	4.00	6.00	34.80
32462	Analysis.....	8.76	3.86	6.55	35.74
32614	Analysis.....	9.02	4.08	5.88	36.24
32912	Analysis.....	9.78	3.63	4.93	34.00
32920	Analysis.....	8.35	3.88	6.19	34.91
	Palestine Twenty Per Cent Phosphate—Guarantee.....	20.00	.....	.....	24.00
32470	Analysis.....	21.30	.....	.....	25.56
32562	Analysis.....	20.44	.....	.....	24.53
32676	Analysis.....	20.35	.....	.....	24.64
32760	Analysis.....	21.60	.....	.....	25.92
	Sweet Potato Special—Guarantee.....	10.00	3.00	8.00	35.10
33159	Analysis.....	11.08	3.14	6.73	35.51
	Tomato and Cabbage Special—Guarantee.....	8.00	4.00	4.00	32.40
32512	Analysis.....	8.59	3.85	4.51	33.05
32563	Analysis.....	8.89	3.96	4.41	33.78
32611	Analysis.....	9.37	3.90	4.20	33.83
32699	Analysis.....	9.48	4.04	4.05	34.32
32748	Analysis.....	9.54	3.90	4.46	34.35
	Upland Cotton Special—Guarantee.....	8.00	4.00	4.00	32.40
33160	Analysis.....	9.74	3.53	4.14	32.55
	<b>Pate Brothers, Sulphur Springs, Texas—</b>				
	Pate's 8-3-3—Guarantee.....	8.00	3.00	3.00	26.70
33024	Analysis.....	9.78	3.19	3.39	30.17
	Pate's 8-3-5—Guarantee.....	8.00	3.00	5.00	29.10
33178	Analysis.....	10.79	3.00	5.60	33.17
	Pate's 8-4-4—Guarantee.....	8.00	4.00	4.00	34.40
32606	Analysis.....	9.69	4.22	4.44	35.85
32917	Analysis.....	9.20	4.07	4.59	34.87
33027	Analysis.....	11.13	4.26	3.85	37.15
	Pate's 8-4-6—Guarantee.....	8.00	4.00	6.00	34.80
32608	Analysis.....	10.85	4.17	6.48	39.57
33023	Analysis.....	10.68	3.64	6.60	37.11
	Pate's 10-2-2—Guarantee.....	10.00	2.00	2.00	23.40
32671	Analysis.....	11.37	2.10	2.84	26.50
32915	Analysis.....	10.84	2.26	2.85	26.60
33025	Analysis.....	10.83	2.18	2.78	26.15
33177	Analysis.....	11.36	2.10	2.60	26.20
	Pate's 10-3-3—Guarantee.....	10.00	3.00	3.00	29.10
32609	Analysis.....	11.97	3.27	3.10	32.80
32670	Analysis.....	11.99	3.28	3.17	32.95
33020	Analysis.....	11.37	3.04	3.26	31.23
33176	Analysis.....	11.23	2.96	3.50	31.00
	Pate's 10-4-2—Guarantee.....	10.00	4.00	2.00	32.40
32914	Analysis.....	10.84	4.18	2.54	34.87
	Pate's 12-4-4—Guarantee.....	12.00	4.00	4.00	37.20
32607	Analysis.....	12.58	4.33	4.14	39.56
32916	Analysis.....	13.05	4.12	4.36	39.43
33021	Analysis.....	12.22	4.23	4.70	39.34
	Pate's Acid Phosphate—Guarantee.....	16.00	.....	.....	19.20
32605	Analysis.....	17.01	.....	.....	20.41
	Pate's 18% Acid Phosphate—Guarantee.....	18.00	.....	.....	21.60
32610	Analysis.....	20.09	.....	.....	24.11
32628	Analysis.....	20.58	.....	.....	24.70

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
	<b>Pate Brothers, Sulphur Springs—Continued.</b>				
32627	Pate's 20% Acid Phosphate—Guarantee.....	20.00			\$24.00
	Analysis.....	21.48			25.78
32913	Pate's Nitrate of Soda—Guarantee.....		15.00		67.50
	Analysis.....		15.15		68.18
33069	Pate's Sulphate of Ammonia—Guarantee.....		20.00		90.00
	Analysis.....		20.79		93.56
	<b>Pelican Fertilizer Works, Shreveport, La.—</b>				
32750	Pelican Perfection Acid Phosphate—Guarantee.....	18.00			21.60
	Analysis.....	19.95			23.94
32751	Pelican Prolific Wonder—Guarantee.....	12.00	2.00	2.00	25.80
	Analysis.....	12.86	2.05	2.08	27.16
	<b>Pick-Fertilizer Service, Inc., New Orleans, La.—</b>				
32776	Bull Dog Acid Phosphate No. 20—Guarantee.....	20.00			24.00
	Analysis.....	21.30			25.56
	<b>Pittsburg Cotton Oil Co., Pittsburg, Texas—</b>				
32657	16% Acid Phosphate—Guarantee.....	16.00			19.20
33037	Analysis.....	18.12			21.74
	Analysis.....	18.20			21.84
33036	Eighteen Per Cent Acid Phosphate—Guarantee.....	18.00			21.60
	Analysis.....	20.52			24.62
32653	Half Meal and Half Phosphate Fertilizer—Guarantee.....	9.00	3.00		24.30
33049	Analysis.....	9.49	3.54		27.32
	Analysis.....	10.01	3.49		27.72
33034	Meal and Phosphate Fertilizer—Guarantee.....	12.00	4.00	4.00	37.20
	Analysis.....	13.00	4.24	3.21	38.53
33033	Meal and Phosphate Fertilizer No. 844—Guarantee.....	8.00	4.00	4.00	32.40
33038	Analysis.....	9.01	4.22	4.10	34.72
	Analysis.....	9.52	3.69	4.30	33.19
32654	Meal and Phosphate Fertilizer No. 846—Guarantee.....	8.00	4.00	6.00	34.80
	Analysis.....	8.82	3.97	5.57	35.13
32658	Meal and Phosphate Fertilizer No. 963—Guarantee.....	9.00	6.00	3.00	41.40
	Analysis.....	9.79	6.17	2.79	42.87
32656	Meal and Phosphate Fertilizer No. 1033—Guarantee.....	10.00	3.00	3.00	29.10
33035	Analysis.....	9.92	3.20	3.45	30.44
33040	Analysis.....	10.71	3.17	3.46	31.27
33048	Analysis.....	10.74	3.54	3.46	32.97
	Analysis.....	10.88	3.19	3.22	31.28
33041	Meal and Phosphate Fertilizer No. 1042—Guarantee.....	10.00	4.00	2.00	32.40
	Analysis.....	11.03	3.96	2.69	34.29
32655	Meal and Phosphate Fertilizer No. 1244—Guarantee.....	12.00	4.00	4.00	37.20
33039	Analysis.....	12.77	3.91	3.86	37.55
	Analysis.....	13.05	3.93	3.96	38.10
	<b>Planters Fertilizer and Chemical Co., Houston, Fort Worth, Texas, New Orleans, La.—</b>				
32723	Planters' Plow Brand African Cotton Grower—Guarantee.....	10.00	3.00	3.00	29.10
32934	Analysis.....	10.84	3.20	3.06	31.08
	Analysis.....	9.74	2.95	3.02	28.59
33059	Planters' Plow Brand Farmers Favorite—Guarantee.....	10.00	2.00	2.00	23.40
	Analysis.....	10.48	2.07	2.07	24.38
32935	Planters' Plow Brand Fertilizer No. 1555—Guarantee.....	15.00	5.00	5.00	46.50
	Analysis.....	15.15	4.80	4.55	45.24
32591	Planters' Plow Brand General Crop Maker—Guarantee.....	8.00	4.00	4.00	32.40
32708	Analysis.....	8.35	3.85	3.71	31.80
33060	Analysis.....	8.59	3.85	4.02	32.46
33087	Analysis.....	8.32	3.19	3.92	29.04
	Analysis.....	8.90	3.82	3.71	32.32
32722	Planters' Plow Brand King Cotton—Guarantee.....	12.00	4.00	4.00	37.20
32933	Analysis.....	12.18	3.93	4.00	37.11
32933	Analysis.....	11.92	3.79	4.23	36.44
33058	Analysis.....	12.50	4.23	4.03	38.05

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid—Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
<b>Planters Fertilizer and Chemical Co., Houston, Fort Worth, Texas, and New Orleans, La.—Continued.</b>					
	Planters' Plow Brand Star Phosphate—Guarantee.....	16.00			\$19.20
32709	Analysis.....	16.63			19.96
33088	Analysis.....	16.62			19.94
	Planters' Plow Brand Superphosphate—Guarantee.....	20.00			24.00
32592	Analysis.....	20.36			24.43
	Planters' Plow Brand Truck Special—Guarantee.....	8.00	4.00	6.00	34.80
32593	Analysis.....	8.85	3.87	5.65	34.72
32710	Analysis.....	8.43	3.74	5.51	33.56
<b>The Pulverized Manure Co., Chicago, Ill.—</b>					
	Wizard Brand Pulverized Sheep Manure—Guarantee..	1.25	2.00	2.00	12.90
33083	Analysis.....	1.00	1.73	1.72	11.05
<b>The H. Schumacher Oil Works, Navasota, Texas—</b>					
	Cottonseed Meal Fertilizer—Guarantee.....	2.00	6.88	1.00	34.56
32819	Analysis.....	2.29	6.34	1.67	33.32
<b>Thos. Self, Crockett, Texas—</b>					
	Crockett Cotton Standard—Guarantee.....	12.00	3.00	3.00	31.50
32759	Analysis.....	13.29	2.64	3.22	31.69
	Crockett High Grade Fertilizer—Guarantee.....	12.00	4.00	4.00	37.20
32758	Analysis.....	12.99	3.32	3.74	35.02
<b>Shreveport Fertilizer Works, Shreveport, La.—</b>					
	Lion Blood & Bone—Guarantee.....	10.00	2.00	2.00	23.40
32530	Analysis.....	10.96	2.10	2.22	25.26
32861	Analysis.....	11.73	1.94	2.33	25.61
33022	Analysis.....	9.92	1.84	2.20	22.82
	Lion Corn Food—Guarantee.....	8.00	3.00	3.00	26.70
32738	Analysis.....	11.41	2.01	1.85	24.96
	Lion Cotton Seed Meal Mixture—Guarantee.....	10.00	2.00	2.00	23.40
32862	Analysis.....	9.96	2.14	2.61	24.71
33061	Analysis.....	10.61	2.03	2.30	24.63
33149	Analysis.....	10.20	2.08	2.35	24.42
	Lion Muriate of Potash—Guarantee.....			50.00	60.00
32590	Analysis.....			50.05	60.06
	Lion Potato Producer—Guarantee.....	8.00	4.00	4.00	32.40
32602	Analysis.....	9.29	4.00	4.91	35.04
32667	Analysis.....	10.06	4.12	3.54	34.86
32693	Analysis.....	12.05	2.52	3.56	30.07
33063	Analysis.....	8.63	4.00	4.48	33.74
	Lion Superfine Acid Phosphate—Guarantee.....	20.00			24.00
32599	Analysis.....	19.58			23.50
32902	Analysis.....	20.00			24.00
	Lion Superfine Acid Phosphate—Guarantee.....	18.00			21.60
32601	Analysis.....	18.47			22.16
32668	Analysis.....	18.12			21.74
32696	Analysis.....	18.32			21.98
32739	Analysis.....	17.47			20.96
	Lion Superior Cotton Grower—Guarantee.....	12.00	4.00	4.00	37.20
32480	Analysis.....	11.82	3.49	3.80	34.45
32625	Analysis.....	11.15	3.59	5.16	35.73
32695	Analysis.....	11.50	3.71	3.23	34.38
33055	Analysis.....	11.95	3.45	4.06	34.74
33062	Analysis.....	12.08	4.01	4.22	37.61
33148	Analysis.....	12.46	3.70	5.14	37.77
	Lion Superior Meal Formula—Guarantee.....	10.00	3.00	3.00	29.10
32669	Analysis.....	10.25	2.75	3.95	29.42
33002	Analysis.....	10.07	3.06	3.04	29.50
33054	Analysis.....	10.09	3.37	2.85	30.70
	Lion Tomato Special—Guarantee.....	8.00	4.00	6.00	34.80
32694	Analysis.....	11.13	3.45	4.61	34.42



Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid—Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
	<b>Shreveport Fertilizer Works, Shreveport, La.—Continued.</b>				
	Lion Truck Grower—Guarantee.....	8.00	3.00	5.00	\$29.10
33589	Analysis.....	8.88	3.36	5.28	32.12
33089	Analysis.....	9.52	<b>2.30</b>	<b>4.64</b>	<b>27.32</b>
	Lion Xtra Good Acid Phosphate—Guarantee.....	16.00			19.20
32626	Analysis.....	17.10			20.52
32863	Analysis.....	16.63			19.96
33090	Analysis.....	16.97			20.36
	<b>Swift &amp; Co., Harvey, Shreveport, La., Houston, Texas—</b>				
	Swift's Blood, Bone and Potash—Guarantee.....	10.00	4.00	7.00	38.40
32357	Analysis.....	11.03	4.00	7.04	39.69
32359	Analysis.....	11.09	4.07	<b>6.69</b>	39.66
32371	Analysis.....	10.87	4.00	7.32	39.82
32374	Analysis.....	10.81	4.04	7.48	40.13
32385	Analysis.....	10.91	4.00	7.58	40.19
32404	Analysis.....	10.88	4.05	7.18	39.91
32407	Analysis.....	10.81	<b>3.98</b>	7.22	39.54
32584	Analysis.....	10.40	<b>3.87</b>	7.11	38.43
32622	Analysis.....	10.34	<b>3.96</b>	<b>6.36</b>	<b>37.86</b>
	Swift's High Grade Acid Phosphate Fertilizer 16%—Guarantee.....	16.00			19.20
32433	Analysis.....	17.73			21.28
32446	Analysis.....	17.27			20.72
32549	Analysis.....	16.85			20.22
32679	Analysis.....	18.08			21.70
32773	Analysis.....	17.67			21.20
32783	Analysis.....	16.98			20.38
32821	Analysis.....	17.71			21.25
32830	Analysis.....	16.35			19.62
32839	Analysis.....	17.14			20.57
32894	Analysis.....	17.78			21.34
33052	Analysis.....	17.79			21.34
33074	Analysis.....	17.21			20.65
33141	Analysis.....	17.51			21.01
33147	Analysis.....	17.85			21.42
	Swift's Kainit—Guarantee.....			12.40	14.88
32445	Analysis.....			13.18	15.82
32551	Analysis.....			12.88	15.46
32875	Analysis.....			12.78	15.34
	Swift's Muriate of Potash—Guarantee.....			50.00	60.00
32376	Analysis.....			48.46	58.15
32617	Analysis.....			48.21	57.85
32621	Analysis.....			46.75	56.10
33122	Analysis.....			48.73	58.48
	Swift's Nitrate of Soda—Guarantee.....		14.81		66.65
32361	Analysis.....		15.82		71.19
32408	Analysis.....		14.23		64.04
32416	Analysis.....		15.78		71.01
32420	Analysis.....		15.49		69.71
32421	Analysis.....		15.80		71.10
32644	Analysis.....		15.24		68.58
	Swift's Raw Bone Meal Fertilizer—Guarantee.....	*22.90	3.70		34.97
32432	Analysis.....	*23.30	4.09		37.05
	Swift's Red Steer 8-3-3—Guarantee.....	8.00	3.00	3.00	26.70
32431	Analysis.....	8.12	3.04	3.17	27.22
	Swift's Red Steer 8-3-5—Guarantee.....	8.00	3.00	5.00	29.10
32430	Analysis.....	8.30	3.10	5.10	30.03
32443	Analysis.....	9.70	3.10	4.10	30.51
	Swift's Red Steer 8-4-4—Guarantee.....	8.00	4.00	4.00	32.40
32375	Analysis.....	9.24	4.24	4.26	35.24
32391	Analysis.....	8.39	4.17	4.10	33.76
32394	Analysis.....	8.35	4.06	4.42	33.59
32349	Analysis.....	8.53	4.08	4.42	33.90
32348	Analysis.....	8.87	4.06	4.05	33.77

\*Total Phosphoric Acid.

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid—Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
	<b>Swift &amp; Co., Harvey, Shreveport, La., Houston, Texas—Continued.</b>				
	<b>Swift's Red Steer 8-4-6—Guarantee—Continued.</b>				
32413	Analysis.....	8.46	4.04	4.18	\$33.35
32415	Analysis.....	8.39	4.03	4.30	33.37
32450	Analysis.....	8.95	4.35	3.69	34.75
32469	Analysis.....	9.16	4.13	3.90	34.26
32485	Analysis.....	9.13	4.00	4.14	33.93
32568	Analysis.....	9.04	4.14	4.11	34.41
32647	Analysis.....	8.61	4.52	4.41	35.96
32720	Analysis.....	8.07	4.14	4.53	33.75
33032	Analysis.....	8.95	3.82	3.87	32.57
33046	Analysis.....	9.11	4.00	4.17	33.93
33121	Analysis.....	9.00	4.06	4.32	34.25
33138	Analysis.....	7.52	3.95	3.77	31.32
	<b>Swift's Red Steer 8-4-6—Guarantee.</b>	8.00	4.00	6.00	34.80
32351	Analysis.....	8.92	3.60	6.07	34.18
32352	Analysis.....	8.76	3.85	6.15	35.22
32372	Analysis.....	9.15	4.04	5.80	36.12
32395	Analysis.....	9.01	4.18	6.49	37.41
32398	Analysis.....	9.45	4.08	5.79	36.65
32636	Analysis.....	8.98	4.18	6.06	36.86
32829	Analysis.....	8.74	4.14	5.90	36.20
32960	Analysis.....	8.27	4.25	5.41	35.54
	<b>Swift's Red Steer 9-6-3—Guarantee.</b>	9.00	6.00	3.00	41.40
32452	Analysis.....	9.69	5.87	3.30	42.01
	<b>Swift's Red Steer 10-2-2—Guarantee.</b>	10.00	2.00	2.00	23.40
32444	Analysis.....	11.25	2.44	2.30	27.24
32533	Analysis.....	10.62	2.17	2.14	25.08
32569	Analysis.....	10.47	2.23	2.34	25.21
32737	Analysis.....	10.11	2.16	2.28	24.59
32770	Analysis.....	10.46	2.16	2.46	25.22
32793	Analysis.....	10.68	2.08	2.52	25.20
32805	Analysis.....	10.67	2.14	2.35	25.25
32871	Analysis.....	11.46	1.98	2.22	25.32
32893	Analysis.....	10.30	2.06	2.62	24.77
33067	Analysis.....	11.42	2.02	2.34	25.60
33075	Analysis.....	10.67	2.10	2.50	25.25
33118	Analysis.....	10.84	2.05	2.18	24.86
33151	Analysis.....	11.41	2.12	2.37	26.07
	<b>Swift's Red Steer 10-3-3—Guarantee.</b>	10.00	3.00	3.00	29.10
32487	Analysis.....	11.06	3.12	3.59	31.62
32510	Analysis.....	11.15	3.16	3.12	31.34
32531	Analysis.....	11.05	3.06	3.16	30.82
32534	Analysis.....	10.48	3.12	3.53	30.86
32638	Analysis.....	10.87	3.12	3.29	31.03
32756	Analysis.....	10.96	3.08	3.37	31.05
32815	Analysis.....	10.41	3.02	3.36	30.11
32856	Analysis.....	10.34	3.08	3.29	30.21
32872	Analysis.....	10.42	3.12	3.36	30.57
32936	Analysis.....	10.02	3.04	3.52	29.92
32961	Analysis.....	10.29	3.04	3.08	29.73
32968	Analysis.....	10.37	3.01	3.26	29.90
32970	Analysis.....	10.46	3.04	3.19	30.06
32976	Analysis.....	10.87	2.86	2.73	29.19
32980	Analysis.....	10.27	3.14	3.09	30.16
32996	Analysis.....	10.27	3.10	3.29	30.22
32999	Analysis.....	10.29	3.02	3.06	29.61
33004	Analysis.....	10.27	3.13	3.16	30.20
33018	Analysis.....	10.85	3.09	3.04	30.58
33100	Analysis.....	10.13	3.24	3.34	30.75
33110	Analysis.....	10.63	3.03	3.12	30.14
33153	Analysis.....	10.85	3.15	3.12	30.94
33172	Analysis.....	10.50	2.98	3.08	29.71
33174	Analysis.....	10.21	3.12	3.18	30.11

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid—Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
	<b>Swift &amp; Co., Harvey, Shreveport, La., Houston, Texas—Continued.</b>				
	Swift's Red Steer 10-3-8—Guarantee	10.00	3.00	8.00	\$35.10
32373	Analysis	10.61	3.65	7.07	37.64
32377	Analysis	10.89	3.20	8.17	37.27
	Swift's Red Steer 10-4-2—Guarantee	10.00	4.00	2.00	32.40
32387	Analysis	10.67	3.90	2.06	32.82
32637	Analysis	11.18	4.12	2.42	34.86
32807	Analysis	10.48	4.08	2.25	33.63
32953	Analysis	10.31	4.10	2.10	33.34
	Swift's Red Steer 10-4-4—Not registered.				
32900	Analysis	10.64	4.01	4.23	35.90
	Swift's Red Steer 10-6-7—Guarantee	10.00	6.00	7.00	47.40
32350	Analysis	11.02	6.30	7.17	50.17
32356	Analysis	10.80	6.06	7.14	48.80
32360	Analysis	11.18	6.18	7.22	49.89
32378	Analysis	10.80	6.07	7.03	48.72
32389	Analysis	10.95	6.02	6.77	48.35
32399	Analysis	10.88	5.77	6.36	46.66
32403	Analysis	10.97	5.83	7.38	48.26
32414	Analysis	10.45	5.93	7.20	47.87
32417	Analysis	10.44	6.17	7.26	49.01
32419	Analysis	10.85	5.77	7.40	47.87
32453	Analysis	10.48	6.03	6.77	47.83
32587	Analysis	10.79	5.32	7.20	45.54
32645	Analysis	11.81	5.45	5.00	44.70
	Swift's Red Steer 12-3-3—Guarantee	12.00	3.00	3.00	31.50
32678	Analysis	12.26	3.22	3.13	32.96
32755	Analysis	12.29	3.12	3.57	33.07
33066	Analysis	12.16	3.01	3.58	32.45
33173	Analysis	12.83	2.94	3.19	32.46
	Swift's Red Steer 12-0-4—Guarantee	12.00	4.00	4.00	19.20
32838	Analysis	12.78	4.10	4.10	20.26
	Swift's Red Steer 12-4-4—Guarantee	12.00	4.00	4.00	37.20
32390	Analysis	12.59	4.07	4.47	38.79
32406	Analysis	12.55	3.95	4.68	38.46
32451	Analysis	13.01	4.00	4.02	38.43
32464	Analysis	12.58	3.82	4.22	37.35
32478	Analysis	12.90	4.17	3.87	38.89
32484	Analysis	12.54	4.20	4.08	38.85
32508	Analysis	12.92	4.12	4.38	39.30
32511	Analysis	12.60	4.08	4.22	38.54
32528	Analysis	13.67	4.18	3.83	39.81
32532	Analysis	12.77	4.22	3.99	39.10
32550	Analysis	12.55	3.94	4.33	37.99
32620	Analysis	12.64	4.05	3.91	38.09
32635	Analysis	12.78	4.17	4.40	39.39
32646	Analysis	12.81	4.28	4.12	39.57
32677	Analysis	12.80	4.13	4.14	38.92
32771	Analysis	12.48	4.08	4.32	38.52
32794	Analysis	12.23	4.06	4.52	38.37
32809	Analysis	12.72	4.07	4.27	38.70
32820	Analysis	12.35	4.08	4.91	39.07
32857	Analysis	12.26	4.08	4.13	38.04
32873	Analysis	12.08	4.10	4.43	38.27
32895	Analysis	12.12	4.00	4.72	38.20
32901	Analysis	13.02	4.08	5.07	40.06
32910	Analysis	12.25	4.01	4.31	37.92
32979	Analysis	12.20	4.14	4.42	38.57
32990	Analysis	12.45	4.15	4.28	38.76
32997	Analysis	12.35	4.18	4.05	38.49
33026	Analysis	12.98	4.19	3.99	39.23
33047	Analysis	12.79	4.10	4.08	38.79
33137	Analysis	12.17	3.94	4.30	37.49
33170	Analysis	12.83	3.93	4.38	38.35

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid—Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
<b>Swift &amp; Co., Fertilizer Works, Harvey, Shreveport, La., Houston, Texas—Continued.</b>					
	Swift's Red Steer 15-5-5—Guarantee	15.00	5.00	5.00	\$46.50
32346	Analysis	15.31	4.79	5.39	46.40
32347	Analysis	15.49	4.74	5.14	46.09
32434	Analysis	15.57	4.62	4.44	44.80
	Swift's Red Steer 15-0-6—Guarantee	15.00		6.00	25.20
32384	Analysis	15.18		6.96	26.57
32429	Analysis	15.65		6.26	26.29
32529	Analysis	15.88		6.08	26.36
	Swift's Red Steer 18 % Acid Phosphate Fertilizer—Guarantee	18.00			21.60
32334	Analysis	20.05			24.06
32335	Analysis	20.01			24.01
32337	Analysis	20.74			24.89
32435	Analysis	18.44			22.13
32486	Analysis	18.55			22.26
32509	Analysis	18.57			22.28
32588	Analysis	18.38			22.06
32624	Analysis	19.82			23.47
32680	Analysis	19.61			23.53
32721	Analysis	19.10			22.92
32774	Analysis	19.37			23.24
32757	Analysis	19.55			23.46
32837	Analysis	19.49			23.39
32855	Analysis	18.66			22.39
32874	Analysis	18.03			21.64
32896	Analysis	19.66			23.59
32998	Analysis	19.32			23.18
33019	Analysis	19.23			23.08
33095	Analysis	18.25			21.90
33150	Analysis	18.83			22.60
33175	Analysis	18.76			22.51
	Swift's Red Steer 20% Acid Phosphate Fertilizer—Guarantee	20.00			24.00
32392	Analysis	20.18			24.22
32623	Analysis	20.95			25.14
32772	Analysis	22.12			26.54
32795	Analysis	21.01			25.21
32810	Analysis	20.81			24.97
	Swift's Sulphate of Ammonia—Guarantee		20.56		92.52
32616	Analysis		20.01		90.05
32811	Analysis		20.56		92.52
	Swift's Tankage—Guarantee	3.50	8.22		39.79
32388	Analysis	3.50	8.33		40.29
	Vigoro—Guarantee	12.00	4.00	4.00	37.20
32831	Analysis	13.27	4.03	4.45	39.40
33068	Analysis	12.86	3.78	4.14	37.41
<b>Temple Cotton Oil Co., North Little Rock, Ark.—</b>					
	Quapaw 10-3-3—Guarantee	10.00	3.00	3.00	29.10
32619	Analysis	10.47	2.95	3.20	29.68
	Quapaw 12-4-4—Guarantee	12.00	4.00	4.00	37.20
32618	Analysis	12.07	3.91	4.50	37.48
<b>Tennessee Coal, Iron and Railroad Co., Birmingham, Alabama—</b>					
	Sixteen Per Cent Duplex Basic Phosphate—Guarantee	*16.00			12.80
32836	Analysis	16.64			13.31
<b>Terrell Oil and Refining Co., Wills Point, Texas—</b>					
	Semper Fidelis 12-4-4 Fertilizer—Guarantee	12.00	4.00	4.00	37.20
33064	Analysis	12.36	5.13	4.18	42.94
	Semper Fidelis Special Fertilizer—Guarantee	10.00	2.00	2.00	23.40
33065	Analysis	11.98	2.10	2.18	26.45

\*Total Phosphoric Acid.

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid—Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
<b>Texas Chemical Co., Houston, Texas—</b>					
32832	T-C-C Bran Raw Bone Meal—Guarantee.....	*22.00	3.70		\$34.25
	Analysis.....	*22.92	3.80		35.44
33136	Analysis.....	*23.16	4.14		37.16
<b>Texas Farm Bureau Service Corp., Dallas, Texas—</b>					
32889	18% Farm Bureau Acid Phosphate—Guarantee.....	18.00			21.60
	Analysis.....	17.52			21.02
32888	No. 1244 Farm Bureau Fertilizer—Guarantee.....	12.00	4.00	4.00	37.20
	Analysis.....	11.02	3.90	4.24	35.86
<b>Louis Tobian &amp; Co., Dallas, Texas—</b>					
32733	Tobian Brand Fertilizer Cottonseed Meal—Guarantee.....		6.88		30.96
	Analysis.....		6.66		29.97
<b>Tri-State Fertilizer Co., Inc., Shreveport, La.—</b>					
32651	Muriate of Potash—Guarantee.....			50.00	60.00
	Analysis.....			48.63	58.36
32565	Red Diamond 8-4-4 Fertilizer—Guarantee.....	8.00	4.00	4.00	32.40
	Analysis.....	9.94	3.52	4.96	33.71
32575	Analysis.....	8.24	4.17	5.81	35.63
32567	Red Diamond 10-2-2 Fertilizer—Guarantee.....	10.00	2.00	2.00	23.40
	Analysis.....	10.34	2.02	2.10	24.02
32516	Red Diamond 10-3-3 Fertilizer—Guarantee.....	10.00	3.00	3.00	29.10
	Analysis.....	10.37	3.02	3.20	29.87
32566	Analysis.....	10.71	2.83	2.93	29.11
32865	Analysis.....	10.01	2.58	3.11	27.25
32585	Red Diamond 10-4-2 Fertilizer—Guarantee.....	10.00	4.00	2.00	32.40
	Analysis.....	10.45	3.95	2.24	32.91
32507	Red Diamond 12-4-4 Fertilizer—Guarantee.....	12.00	4.00	4.00	37.20
	Analysis.....	12.60	3.48	4.42	36.08
32576	Analysis.....	12.74	3.59	4.02	36.27
32866	Analysis.....	12.22	3.73	4.02	36.27
33082	Analysis.....	12.09	3.50	4.07	35.14
32586	Red Diamond 16% Acid Phosphate.....	16.00			19.20
	Analysis.....	16.29			19.55
32650	Analysis.....	17.10			20.52
32517	Red Diamond 18% Acid Phosphate.....	18.00			21.60
	Analysis.....	17.29			20.75
<b>Trinity Cotton Oil Co., Dallas, Texas—</b>					
32937	Cottonseed Meal—Guarantee.....		6.88		30.96
	Analysis.....		6.79		30.56
<b>Tyler Fertilizer Co., Tyler, Texas—</b>					
32597	Eighteen Per Cent Acid Phosphate—Guarantee.....	18.00			21.60
	Analysis.....	19.89			23.87
32921	Analysis.....	19.47			23.36
32604	Heart Brand Fertilizer No. 844—Guarantee.....	8.00	4.00	4.00	32.40
	Analysis.....	9.77	4.29	3.20	34.87
33096	Analysis.....	8.74	3.81	4.99	33.63
32594	Heart Brand Fertilizer No. 846—Guarantee.....	8.00	4.00	6.00	34.80
	Analysis.....	8.80	3.85	6.28	35.43
33098	Heart Brand No. 963—Guarantee.....	9.00	6.00	3.00	41.40
	Analysis.....	10.01	5.59	3.30	41.13
32596	Heart Brand Fertilizer No. 1033—Guarantee.....	10.00	3.00	3.00	29.10
	Analysis.....	11.58	4.04	2.76	35.39
33097	Heart Brand Fertilizer No. 1042—Guarantee.....	10.00	4.00	2.00	32.40
	Analysis.....	10.97	3.88	2.80	33.98
32716	Heart Brand Fertilizer No. 1222—Guarantee.....	12.00	2.00	2.00	25.80
	Analysis.....	12.76	2.11	2.22	27.47
32715	Heart Brand Fertilizer No. 1233—Guarantee.....	12.00	3.00	3.00	31.50
	Analysis.....	13.05	3.03	3.05	32.96
32714	Heart Brand Fertilizer No. 1240—Guarantee.....	12.00	4.00		32.40
	Analysis.....	14.65	3.25		32.21
32595	Heart Brand Fertilizer No. 1244—Guarantee.....	12.00	4.00	4.00	37.20
	Analysis.....	13.20	4.10	3.85	38.91

\*Total Phosphoric Acid.

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid—Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
	<b>Virginia-Carolina Chemical Corp., Shreveport, La.—</b>				
	Kainit—Guarantee.....			12.40	\$14.88
32440	Analysis.....			12.09	14.51
32712	Analysis.....			12.50	15.00
	Nitrate of Soda—Guarantee.....		15.00		67.50
32988	Analysis.....		15.18		68.29
	V-C 16% Acid Phosphate—Guarantee.....	16.00			19.20
32441	Analysis.....	16.63			19.96
32648	Analysis.....	18.10			21.72
32706	Analysis.....	17.19			20.63
32780	Analysis.....	17.05			20.46
32891	Analysis.....	16.75			20.10
	V-C 18% Acid Phosphate—Guarantee.....	18.00			21.60
32570	Analysis.....	18.99			22.79
32664	Analysis.....	18.43			22.12
32860	Analysis.....	18.06			21.67
32869	Analysis.....	18.13			21.76
32877	Analysis.....	18.56			22.27
32909	Analysis.....	19.39			23.27
	V-C 20% Acid Phosphate—Guarantee.....	20.00			24.00
32461	Analysis.....	19.93			23.92
32735	Analysis.....	18.76			22.51
32782	Analysis.....	18.10			21.72
	V-C Beef, Blood and Bone—Guarantee.....	8.00	3.00	3.00	26.70
32513	Analysis.....	8.62	3.07	4.06	29.03
32732	Analysis.....	10.52	3.79	4.98	35.66
32947	Analysis.....	10.10	2.77	2.69	27.82
33144	Analysis.....	8.98	2.39	3.79	26.09
	V-C Blood, Bone and Potash—Guarantee.....	10.00	2.00	2.00	23.40
32438	Analysis.....	10.19	1.77	2.09	22.71
32514	Analysis.....	10.37	2.69	2.36	27.38
32781	Analysis.....	10.48	1.82	1.79	22.92
32797	Analysis.....	9.13	2.08	1.87	22.56
32854	Analysis.....	9.14	1.89	2.85	22.90
32899	Analysis.....	9.77	2.06	1.96	23.34
	V-C Early Trucker—Guarantee.....	8.00	4.00	4.00	32.40
32504	Analysis.....	10.76	3.77	5.10	36.00
32707	Analysis.....	8.98	3.59	3.66	31.33
32711	Analysis.....	8.89	3.57	4.10	31.66
32948	Analysis.....	9.06	3.45	4.00	31.20
32987	Analysis.....	8.46	3.77	3.95	31.86
	V-C Good Luck Fertilizer—Guarantee.....	8.00	4.00	4.00	32.40
32663	Analysis.....	8.42	3.44	4.05	30.44
33056	Analysis.....	8.89	4.02	3.22	32.62
33080	Analysis.....	8.22	3.33	4.08	29.75
33094	Analysis.....	8.37	3.69	4.86	32.48
	V-C High Grade Potash Compound—Guarantee.....	15.00		6.00	25.20
32846	Analysis.....	13.06		4.50	21.07
33143	Analysis.....	14.09		4.12	21.45
	V-C Indian Brand Fertilizer—Guarantee.....	12.00	4.00	4.00	37.20
32506	Analysis.....	12.06	3.89	4.54	37.43
32561	Analysis.....	11.44	4.31	4.06	38.00
32649	Analysis.....	11.59	4.04	4.03	36.93
32779	Analysis.....	11.49	4.02	3.37	35.92
32844	Analysis.....	10.75	3.84	3.09	33.89
32847	Analysis.....	11.22	3.60	3.15	33.44
32858	Analysis.....	11.85	4.02	3.79	36.84
33042	Analysis.....	11.77	3.83	3.72	35.82
33057	Analysis.....	11.41	3.70	3.93	35.07
	V-C Mobile Double Eagle Guano—Guarantee.....	8.00	3.00	3.00	26.70
32571	Analysis.....	8.47	3.50	3.17	29.71
33105	Analysis.....	9.17	3.01	3.01	28.16
	V-C Monarch Guano—Guarantee.....	8.00	3.00	5.00	29.10
32442	Analysis.....	9.24	3.07	4.89	30.78
32505	Analysis.....	8.42	2.75	5.70	29.32

Table 10.—Analysis of Commercial Fertilizer, Season 1926-27—(continued)

Laboratory Number	Manufacturer, Place of Business and Brand	Phosphoric Acid Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent	Valuation—Per Ton
	<b>Virginia-Carolina Chemical Corporation, Shreveport, La.</b>				
	—Continued—				
	V-C Prolific Cotton Grower—Guarantee.....	10.00	3.00	3.00	\$29.10
32515	Analysis.....	10.16	2.78	2.99	28.29
32631	Analysis.....	9.84	2.93	2.71	28.25
32808	Analysis.....	9.58	2.93	2.89	28.16
32965	Analysis.....	9.77	2.92	2.84	28.27
33043	Analysis.....	10.01	3.11	2.96	29.56
	V-C Scotts Gossypium Phospho—Guarantee.....	10.00	2.00	2.00	23.40
32843	Analysis.....	9.86	1.66	1.73	21.38
32859	Analysis.....	10.10	1.79	2.00	22.58
32946	Analysis.....	10.07	1.77	1.64	22.02
	V-C Super 25 Fertilizer—Guarantee.....	15.00	5.00	5.00	46.50
33142	Analysis.....	14.66	4.70	4.53	44.18
	V-C Super 30 Fertilizer—Guarantee.....	18.00	6.00	6.00	55.80
32503	Analysis.....	18.09	4.64	4.72	48.25
32945	Analysis.....	18.07	6.02	6.09	56.04
33005	Analysis.....	16.54	4.49	5.21	46.31
	V-C Trucker's Special—Guarantee.....	8.00	4.00	6.00	34.80
32439	Analysis.....	9.38	3.70	5.74	34.80
32460	Analysis.....	9.23	3.51	5.10	32.00
32734	Analysis.....	8.61	4.03	5.74	35.36

Table 11.—Registration of Commercial Fertilizers, Season 1926-1927

Manufacturer, Place of Business and Brand	Phosphoric Acid— Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent
<b>Alice Cotton Oil Co., Alice, Texas—</b>			
Low Grade Fertilizer Cotton Seed Meal.....	2.40	5.68	1.40
<b>American Agricultural Chemical Co., St. Louis, Mo.—</b>			
A. A. 16% Acid Phosphate.....	16.00		
A. A. 18% Acid Phosphate.....	18.00		
A. A. 20% Acid Phosphate.....	20.00		
A. A. Coon Brand Fertilizer.....	10.00	3.00	3.00
A. A. Early Bird Fertilizer.....	12.00	2.00	2.00
A. A. Golden Crown Fertilizer.....	10.00	2.00	2.00
A. A. Sickle Fertilizer.....	12.00	3.00	3.00
A. A. Success Fertilizer.....	10.00	4.00	2.00
A. A. Triumph Fertilizer.....	12.00	4.00	4.00
A. A. Unicorn Fertilizer.....	8.00	4.00	6.00
Agrico Fertilizer for Cotton.....	12.00	4.00	4.00
Ammonium Sulphate.....		20.16	
Kainit.....			12.40
Muriate of Potash.....			50.00
Nitrate of Soda.....		15.00	
<b>American Cyanamid Co., New York, N. Y.—</b>			
Aero Brand Cyanamid.....		21.00	
<b>Arkansas Fertilizer Co., Little Rock, Ark.—</b>			
White Diamond 8-3-3.....	8.00	3.00	3.00
White Diamond 8-3-5.....	8.00	3.00	5.00
White Diamond 9-6-3.....	9.00	6.00	3.00
White Diamond 15-0-6.....	15.00		6.00
White Diamond 15-5-5.....	15.00	5.00	5.00
White Diamond 18-6-6.....	18.00	6.00	6.00
White Diamond Acid Phosphate.....	16.00		
White Diamond Blood and Bone.....	10.00	2.00	2.00
White Diamond Bobe-All Acid Phosphate.....	18.00		
White Diamond Cotton Seed Meal Fertilizer.....		6.58	
White Diamond Crop Getter.....	12.00	4.00	4.00
White Diamond Early Boll.....	10.00	3.00	3.00
White Diamond Eclipse Acid Phosphate.....	20.00		
White Diamond Gro Fast.....	12.00	4.00	
White Diamond Jack Rabbit.....	8.00	4.00	6.00
White Diamond Kainit.....			14.00
White Diamond Kali Superphosphate.....	12.00		4.00
White Diamond Moores Special Mixture.....	10.00	4.00	2.00
White Diamond Muriate of Potash.....			50.00
White Diamond Nitrate of Soda.....		15.00	
White Diamond Old Reliable.....	8.00	4.00	4.00
White Diamond Pioneer 10-6-7.....	10.00	6.00	7.00
White Diamond Safety First.....	12.00	3.00	3.00
White Diamond Southern King.....	12.00	2.00	2.00
White Diamond Sulphate of Ammonia.....		20.50	
<b>Armour Fertilizer Works, Houston, Fort Worth, Texas, and New Orleans, La.—</b>			
Armour's Big Crop African Cotton Grower.....	10.00	3.00	3.00
Armour's Big Crop Best Phosphate.....	18.00		
Armour's Big Crop Farmers' Favorite.....	10.00	2.00	2.00
Armour's Big Crop Fertilizer No. 835.....	8.00	3.00	5.00
Armour's Big Crop Fertilizer No. 963.....	9.00	6.00	3.00
Armour's Big Crop Fertilizer No. 1042.....	10.00	4.00	2.00
Armour's Big Crop Fertilizer No. 1555.....	15.00	5.00	5.00
Armour's Big Crop General Crop Maker.....	8.00	4.00	4.00
Armour's Big Crop King Cotton.....	12.00	4.00	4.00
Armour's Big Crop Lower Valley Special.....	10.00	3.00	8.00
Armour's Big Crop Manure Salts.....			20.00
Armour's Big Crop Muriate of Potash.....			50.00
Armour's Big Crop Nitrate of Soda.....		14.81	



Table 11.—Registration of Commercial Fertilizers, Season 1926-1927—(continued)

Manufacturer, Place of Business and Brand	Phosphoric Acid Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent
<b>Armour Fertilizer Works, Houston, Fort Worth, Texas, and New Orleans, La.—Continued.</b>			
Armour's Big Crop Phosphate and Nitrogen.....	12.00	4.00	.....
Armour's Big Crop Phosphate and Potash No. 124.....	12.00	.....	4.00
Armour's Big Crop Phosphate and Potash No. 1506.....	15.00	.....	6.00
Armour's Big Crop Potash Special.....	10.00	4.00	7.00
Armour's Big Crop Raw Bone Meal.....	*22.00	3.70	.....
Armour's Big Crop Star Phosphate.....	16.00	.....	.....
Armour's Big Crop Sulphate of Ammonia.....	.....	20.58	.....
Armour's Big Crop Sulphate of Potash.....	.....	.....	48.00
Armour's Big Crop Sunny South Special.....	12.00	2.00	2.00
Armour's Big Crop Sunshine Special.....	12.00	3.00	3.00
Armour's Big Crop Superphosphate.....	20.00	.....	.....
Armour's Big Crop Texas Trucker.....	8.00	3.00	3.00
Armour's Big Crop Truck Producer.....	10.00	6.00	7.00
Armour's Big Crop Truck Special.....	8.00	4.00	6.00
Armour's Kainit.....	.....	.....	12.4
Armour's Lawn and Garden Grower.....	8.00	5.00	6.00
Armour's Tankage.....	*4.58	8.23	.....
Pulv. Sheep Manure.....	1.25	2.00	2.00
<b>Geo. L. Barber, Jacksonville, Texas—</b>			
Barber's 16% Acid Phosphate.....	16.00	.....	.....
<b>The Barrett Co., Agent, New York, N. Y.—</b>			
Arcadian Sulphate of Ammonia.....	.....	20.75	.....
Sulphate of Ammonia.....	.....	20.50	.....
<b>Berryman Fertilizer Works, Palestine, Texas—</b>			
Bo's Best.....	12.00	4.00	4.00
Bo's Corn and Truck Special.....	8.00	4.00	4.00
Bo's Texas King.....	10.00	3.00	3.00
<b>Bryan Cotton Oil and Fertilizer Co., Bryan, Texas—</b>			
Star Brand Acid Phosphate.....	16.00	.....	.....
Star Brand Cotton and Corn Fertilizer.....	10.00	2.00	2.00
Star Brand Special Fertilizer.....	12.00	3.00	3.00
<b>Commercial Fertilizer Co., North Little Rock, Ark.—</b>			
Commercial 8-3-3.....	8.00	3.00	3.00
Commercial 8-3-5.....	8.00	3.00	5.00
Commercial 8-4-4.....	8.00	4.00	4.00
Commercial 8-4-6.....	8.00	4.00	6.00
Commercial 9-6-3.....	9.00	6.00	3.00
Commercial 10-2-2.....	10.00	2.00	2.00
Commercial 10-3-3.....	10.00	3.00	3.00
Commercial 10-4-2.....	10.00	4.00	2.00
Commercial 10-6-7.....	10.00	6.00	7.00
Commercial 12-0-4.....	12.00	.....	4.00
Commercial 12-2-2.....	12.00	2.00	2.00
Commercial 12-3-3.....	12.00	3.00	3.00
Commercial 12-4-0.....	12.00	4.00	.....
Commercial 12-4-4.....	12.00	4.00	4.00
Commercial 15-0-6.....	15.00	.....	6.00
Commercial 15-5-5.....	15.00	5.00	5.00
Commercial 18-6-6.....	18.00	6.00	6.00
Commercial 16% Acid Phosphate.....	16.00	.....	.....
Commercial 18% Acid Phosphate.....	18.00	.....	.....
Commercial 20% Acid Phosphate.....	20.00	.....	.....
Commercial Kainit 14%.....	.....	.....	14.00
Commercial Muriate of Potash 50.....	.....	.....	50.00
Commercial Nitrate of Soda 15.....	.....	15.00	.....
Commercial Sulphate of Ammonia 20.50.....	.....	20.50	.....

\*Total Acid Phosphate.

Table 11.—Registration of Commercial Fertilizers, Season 1926-1927—(continued)

Manufacturer, Place of Business and Brand	Phosphoric Acid Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent
<b>The Cudahy Packing Co., Chicago, Ill.—</b>			
Bigwin High Grade Fertilizer 16% Acid Phosphate.....	16.00	.....	.....
Bigwin Standard Grade Fertilizer Steamed Bone Meal.....	*24.00	2.47	.....
<b>Cuero Cotton Oil and Manufacturing Co., Cuero, Texas—</b>			
Cotton Seed Fertilizer.....	.....	6.60	.....
<b>Douglass Fertilizer Co., Little Rock, Ark.—</b>			
4—Brand 8-3-3.....	8.00	3.00	3.00
4—Brand 8-3-5.....	8.00	3.00	5.00
4—Brand 8-4-4.....	8.00	4.00	4.00
4—Brand 8-4-6.....	8.00	4.00	6.00
4—Brand 9-6-3.....	9.00	6.00	3.00
4—Brand 10-2-2.....	10.00	2.00	2.00
4—Brand 10-3-3.....	10.00	3.00	3.00
4—Brand 10-4-2.....	10.00	4.00	2.00
4—Brand 10-6-7.....	10.00	6.00	7.00
4—Brand 12-0-4.....	12.00	.....	4.00
4—Brand 12-2-2.....	12.00	2.00	2.00
4—Brand 12-3-3.....	12.00	3.00	3.00
4—Brand 12-4-0.....	12.00	4.00	.....
4—Brand 12-4-4.....	12.00	4.00	4.00
4—Brand 15-0-6.....	15.00	.....	6.00
4—Brand 15-5-5.....	15.00	5.00	5.00
4—Brand 18-6-6.....	18.00	6.00	6.00
4—Brand 16% Acid Phosphate.....	16.00	.....	.....
4—Brand 18% Acid Phosphate.....	18.00	.....	.....
4—Brand 20% Acid Phosphate.....	20.00	.....	.....
4—Brand Kainit 14.....	.....	.....	14.00
4—Brand Muriate of Potash 50.....	.....	.....	50.00
4—Brand Nitrate of Soda.....	.....	15.00	.....
4—Brand Sulphate of Ammonia 20.50.....	.....	20.50	.....
<b>Earp-Thomas Cultures Corporation, Long Island City, N. Y.—</b>			
Stimulant.....	12.00	11.00	15.00
<b>Farmers Cotton Oil Co., Winnsboro, Texas—</b>			
16 Per Cent Acid Phosphate.....	16.00	.....	.....
18 Per Cent Acid Phosphate.....	18.00	.....	.....
Meal Mixture Fertilizer No. 844.....	8.00	4.00	4.00
Meal Mixture Fertilizer No. 846.....	8.00	4.00	6.00
Meal Mixture Fertilizer No. 1033.....	10.00	3.00	3.00
Meal Mixture Fertilizer No. 1244.....	12.00	4.00	4.00
Muriate of Potash.....	.....	.....	50.00
Nitrate of Soda.....	.....	15.00	.....
<b>Farmers Cotton Oil Co., Texarkana, Texas—</b>			
Cotton Seed Fertilizer.....	1.50	6.50	1.00
<b>Fidelity Chemical Corporation, Houston, Texas—</b>			
Fidelity 8-4-4 Fertilizer.....	8.00	4.00	4.00
Fidelity 8-4-6 Fertilizer.....	8.00	4.00	6.00
Fidelity 10-3-3 Fertilizer.....	10.00	3.00	3.00
Fidelity 10-4-2 Fertilizer.....	10.00	4.00	2.00
Fidelity 10-4-7 Fertilizer.....	10.00	4.00	7.00
Fidelity 10-6-7 Fertilizer.....	10.00	6.00	7.00
Fidelity 12-0-4 Fertilizer.....	12.00	.....	4.00
Fidelity 12-2-2 Fertilizer.....	12.00	2.00	2.00
Fidelity 12-3-3 Fertilizer.....	12.00	3.00	3.00
Fidelity 12-4-0 Fertilizer.....	12.00	4.00	.....
Fidelity 12-4-4 Fertilizer.....	12.00	4.00	4.00
Fidelity 15-0-6 Fertilizer.....	15.00	.....	6.00
Fidelity 15-5-5 Fertilizer.....	15.00	5.00	5.00
Fidelity 16% Acid Phosphate.....	16.00	.....	.....
Fidelity 18% Acid Phosphate.....	18.00	.....	.....

Table 11.—Registration of Commercial Fertilizers, Season 1926-1927—(continued)

Manufacturer, Place of Business and Brand	Phosphoric Acid— Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent
<b>Fidelity Chemical Corporation, Houston, Texas—Continued.</b>			
Fidelity 20% Acid Phosphate.....	20.00		
Fidelity 14% Kainit.....			14.00
Fidelity Cotton Seed Meal Fertilizer.....	1.00	6.80	1.00
Fidelity Cotton Special Fertilizer.....	10.00	2.00	2.00
Fidelity Manure Salts.....			20.00
Fidelity Muriate of Potash.....			50.00
Fidelity Nitrate of Soda.....		15.00	
Fidelity Peerless Trucker.....	8.00	3.00	5.00
Fidelity Sulphate of Ammonia.....		20.00	
Fidelity Sulphate of Potash.....			48.00
<b>Ford Motor Co., Highland Park, Mich.—</b>			
Ford Ammonium Sulphate.....		20.8	
<b>Gate City Fertilizer Co., Little Rock, Ark.—</b>			
Gate City Muriate of Potash.....			50.00
Red Ball 8-3-3.....	8.00	3.00	3.00
Red Ball 8-3-5.....	8.00	3.00	5.00
Red Ball 8-4-4.....	8.00	4.00	4.00
Red Ball 8-4-6.....	8.00	4.00	6.00
Red Ball 9-6-3.....	9.00	6.00	3.00
Red Ball 10-2-2.....	10.00	2.00	2.00
Red Ball 10-3-3.....	10.00	3.00	3.00
Red Ball 10-4-2.....	10.00	4.00	2.00
Red Ball 10-6-7.....	10.00	6.00	7.00
Red Ball 12-0-4.....	12.00		4.00
Red Ball 12-2-2.....	12.00	2.00	2.00
Red Ball 12-3-3.....	12.00	3.00	3.00
Red Ball 12-4-0.....	12.00	4.00	
Red Ball 12-4-4.....	12.00	4.00	4.00
Red Ball 15-0-6.....	15.00		6.00
Red Ball 15-5-5.....	15.00	5.00	5.00
Red Ball 18-6-6.....	18.00	6.00	6.00
Red Ball 16% Acid Phosphate.....	16.00		
Red Ball 18% Acid Phosphate.....	18.00		
Red Ball 20% Acid Phosphate.....	20.00		
Red Ball Cotton Seed Meal Fertilizer.....			
Red Ball Kainit 14%.....		6.58	
Red Ball Nitrate of Soda.....		15.00	14.00
Red Ball Sulphate of Ammonia.....		20.50	
<b>Hope Fertilizer Co., Hope, Ark.—</b>			
Stork Brand Eight Three Three.....	8.00	3.00	3.00
Stork Brand Eight Four Four.....	8.00	4.00	4.00
Stork Brand Eight Four Six.....	8.00	4.00	6.00
Stork Brand Ten Two Two.....	10.00	2.00	2.00
Stork Brand Ten Three Three.....	10.00	3.00	3.00
Stork Brand Twelve Naught Four.....	12.00		4.00
Stork Brand Twelve Two Two.....	12.00	2.00	2.00
Stork Brand Twelve Three Three.....	12.00	3.00	3.00
Stork Brand Twelve Four Naught.....	12.00	4.00	
Stork Brand Twelve Four Four.....	12.00	4.00	4.00
Stork Brand 16% Acid Phosphate.....	16.00		
Stork Brand 18% Acid Phosphate.....	18.00		
Stork Brand 20% Acid Phosphate.....	20.00		
Stork Brand Kainit.....			12.50
Stork Brand 14% Kainit.....			14.00
Stork Brand 50% Muriate of Potash.....			50.00
Stork Brand 15% Nitrate of Soda.....		15.00	
Stork Brand Sulphate of Ammonia.....		20.56	
<b>Houston Packing Co., Houston, Texas—</b>			
Blood and Bone.....	*14.50	5.60	
Ground Raw Bone.....	*23.00	3.70	
Houston's B. & B. Fertilizer.....	*15.50	4.70	

\*Total Acid Phosphate.

Table 11.—Registration of Commercial Fertilizers, Season 1926-1927—(continued)

Manufacturer, Place of Business and Brand	Phosphoric Acid Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent
<b>Kelly, Weber &amp; Co., Ltd., Lake Charles, La.—</b>			
Cotton Seed Fertilizer.....		6.56	
Kainit.....			12.40
Kainit 14%.....			14.00
Manure Salts.....			20.00
Muriate of Potash.....			50.00
Nitrate of Potash.....		14.00	
Nitrate of Soda.....		15.00	
Raw Bone Meal.....	22.00	3.70	
Sulphate of Ammonia.....		20.00	
Weber-King Brand 16% Acid Phosphate.....	16.00		
Weber-King Brand 18% Acid Phosphate.....	18.00		
Weber-King Brand 20% Acid Phosphate.....	20.00		
Weber-King Brand Fertilizer Special No. 833.....	8.00	3.00	3.00
Weber-King Brand Fertilizer Special No. 835.....	8.00	3.00	5.00
Weber-King Brand Fertilizer Special No. 844.....	8.00	4.00	4.00
Weber-King Brand Fertilizer Special No. 846.....	8.00	4.00	6.00
Weber-King Brand Fertilizer Special No. 963.....	9.00	6.00	3.00
Weber-King Brand Fertilizer Special No. 1022.....	10.00	2.00	2.00
Weber-King Brand Fertilizer Special No. 1033.....	10.00	3.00	3.00
Weber-King Brand Fertilizer Special No. 1038.....	10.00	3.00	3.00
Weber-King Brand Fertilizer Special No. 1042.....	10.00	4.00	2.00
Weber-King Brand Fertilizer Special No. 1047.....	10.00	4.00	7.00
Weber-King Brand Fertilizer Special No. 1067.....	10.00	6.00	7.00
Weber-King Brand Fertilizer Special No. 1204.....	12.00		4.00
Weber-King Brand Fertilizer Special No. 1222.....	12.00	2.00	2.00
Weber-King Brand Fertilizer Special No. 1233.....	12.00	3.00	3.00
Weber-King Brand Fertilizer Special No. 1240.....	12.00	4.00	
Weber-King Brand Fertilizer Special No. 1244.....	12.00	4.00	4.00
Weber-King Brand Fertilizer Special No. 1506.....	15.00		6.00
Weber-King Brand Fertilizer Special No. 1555.....	15.00	5.00	5.00
Weber-King Brand Fertilizer Special No. 1866.....	18.00	6.00	6.00
<b>Kerens Cotton Oil Co., Kerens, Texas—</b>			
Acid Phosphate.....	18.00		
Navarro Cotton Maker.....	10.00	3.00	3.00
Navarro General Crop Maker.....	12.00	4.00	4.00
Navarro Sandy Land Fertilizer.....	8.00	4.00	4.00
Nitrate of Soda.....		15.00	
<b>Kreiss Potassium Phosphate Co., Tampa, Fla.—</b>			
Kreiss Calcium Potassium Phosphate, 1204.....	12.00		4.00
Kreiss Calcium Potassium Phosphate, 1506.....	15.00		6.00
<b>Kuttruff, Pickhardt &amp; Co., Inc., New York City, N. Y.—</b>			
Kalksalpeter (Nitrate of Lime).....		15.00	
Urea B. A. S. F. (Florandid).....		46.00	
<b>Longview Cotton Oil Co., Longview, Texas—</b>			
Cotton Seed Meal Fertilizer.....	1.00	6.88	1.00
Longview Acid Phosphate.....	18.00		
Longview Corn and Potato Special Fertilizer.....	8.00	3.00	3.00
Longview Cotton and Corn Special Fertilizer.....	12.00	4.00	4.00
Longview Cotton Special Fertilizer High Grade.....	10.00	3.00	3.00
Longview Crop Special High Grade.....	9.00	6.00	3.00
Longview East Texas Cotton Special Fertilizer.....	10.00	2.00	2.00
Longview Gregg County Special High Grade.....	8.00	4.00	4.00
Longview Kainit.....			12.40
Longview Muriate of Potash.....			50.00
Longview New Ground Special Fertilizer.....	12.00		4.00
Longview Nitrate of Soda.....		15.00	
Longview Nitrogen Special Fertilizer.....	12.00	4.00	
Longview Special Fertilizer High Grade.....	12.00	3.00	3.00
Longview Sulphate of Ammonia.....		20.00	
Longview Supreme Cotton Grower Fertilizer.....	10.00	4.00	2.00
Longview Truck Special Fertilizer High Grade.....	8.00	4.00	6.00

Table 11.—Registration of Commercial Fertilizers, Season 1926-1927—(continued)

Manufacturer, Place of Business and Brand	Phosphoric Acid— Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent
<b>Mar-Ater Fertilizer Co., San Antonio, Texas—</b>			
Bat Guano Compost.....	9.00	3.25	3.25
<b>Marshall Cotton Oil Co., Marshall, Texas—</b>			
18% Acid Phosphate.....	18.00		
Cotton Seed Meal Fertilizer.....	1.50	6.58	1.00
Farmers Potash Compound.....	12.00		4.00
Marshall Acid Phosphate.....	16.00		
Marshall Corn and Potato Special.....	8.00	3.00	3.00
Marshall Eclipse Fertilizer.....	10.00	3.00	3.00
Marshall Elite Fertilizer.....	12.00	2.00	2.00
Marshall Fertilizer.....	12.00	3.00	3.00
Marshall Flower Special.....	10.00	2.00	10.00
Marshall Garden Fertilizer.....	8.00	4.00	6.00
Marshall Nut Producer.....	9.00	6.00	3.00
Marshall Regal Fertilizer.....	10.00	2.00	2.00
Marshall Rose Fertilizer.....	10.00	4.00	
Marshall Special Kainit.....			12.40
Marshall Wonder Fertilizer.....	12.00	4.00	4.00
50% Muriate of Potash.....			50.00
15% Nitrate of Soda.....		15.00	
Nursery Special Fertilizer.....	12.00	4.00	
Our Acid Phosphate.....	20.00		
Quick Producer Fertilizer.....	10.00	4.00	2.00
Sulphate of Ammonia.....		20.00	
Truckers Delight.....	8.00	4.00	4.00
<b>Meridian Fertilizer Factory, Shreveport, La.—</b>			
Kainit.....			12.40
Magnolia State Formula.....	8.00	4.00	4.00
Manure Salts.....			20.00
Meridian Blood and Bone.....	10.00	2.00	2.00
Meridian Golden West.....	12.00	2.00	2.00
Meridian Great Western.....	12.00	3.00	3.00
Meridian Home Mixture.....	10.00	2.00	2.00
Meridian Improved Acid Phosphate.....	20.00		
Meridian Majestic Mixture.....	15.00	5.00	5.00
Meridian Perfect Guano.....	10.00	3.00	3.00
Meridian Perfection Acid Phosphate.....	18.00		
Meridian Perfection Compound.....	12.00	4.00	4.00
Meridian Perfection Formula.....	9.00	6.00	3.00
Meridian Potash Compound.....	15.00		6.00
Meridian Special Formula.....	12.00	4.00	
Meridian Southern Standard.....	10.00	4.00	2.00
Meridian Truck Grower.....	8.00	3.00	3.00
Meridian Truckers Special.....	8.00	4.00	6.00
Meridian Union Special Acid Phosphate.....	16.00		
Muriate of Potash.....			50.00
Nitrate of Soda.....		15.00	
Sulphate of Ammonia.....		20.00	
<b>Mixson Brothers, Kirbyville, Texas—</b>			
18 Per Cent Acid Phosphate.....	18.00		
Kainit.....			12.40
Mixson's 8:4:4.....	8.00	4.00	4.00
Mixson's 10:2:2.....	10.00	2.00	2.00
Mixson's 10:3:3.....	10.00	3.00	3.00
Mixson's 10:3:8.....	10.00	3.00	8.00
Mixson's 12:2:2.....	12.00	2.00	2.00
Mixson's 12:3:3.....	12.00	3.00	3.00
Mixson's 12:4:4.....	12.00	4.00	4.00
Mixson's 15:0:6.....	15.00		6.00
Muriate of Potash.....			50.00
Sulphate of Ammonia.....		20.00	

Table 11.—Registration of Commercial Fertilizers, Season 1926-1927—(continued)

Manufacturer, Place of Business and Brand	Phosphoric Acid— Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent
<b>H. K. Mulford Co., Philadelphia, Pa.—</b>			
Mulford Cultures for Legumes.....			
<b>Munger Oil and Cotton Co., Teague, Texas—</b>			
Munger Fertilizer Meal.....	2.00	6.88	1.25
<b>Robert Nicholson Seed Co., Dallas, Texas—</b>			
Nicholson's Special Lawn Dressing.....	6.00	10.00	4.00
<b>Nitrate Agencies Co., New Orleans, La.—</b>			
Nitrate of Potash and Soda (Nitrapo).....		15.00	12.40
Nitrate of Soda.....		15.00	
<b>Oil Mill and Fertilizer Works, Henderson, Texas—</b>			
Henderson Acid Phosphate.....	16.00		
Henderson Best Phosphate.....	20.00		
Henderson Competitor 844.....	8.00	4.00	4.00
Henderson Competitor 1022.....	10.00	2.00	2.00
Henderson Competitor 1033.....	10.00	3.00	3.00
Henderson Competitor 1244.....	12.00	4.00	4.00
Henderson Corn Grower.....	10.00	4.00	2.00
Henderson Cotton Seed Meal Fertilizer.....	1.00	6.88	1.00
Henderson Favorite Phosphate.....	18.00		
Henderson Kainit.....			12.00
Henderson Nursery Special.....	9.00	6.00	3.00
Henderson Potato Grower.....	8.00	4.00	6.00
Henderson Sandy Land.....	12.00	4.00	4.00
Henderson Special.....	10.00	3.00	3.00
Henderson Standard.....	10.00	2.00	2.00
Henderson Sulphate of Ammonia.....		20.00	
Henderson Tomato Grower.....	10.00	6.00	7.00
Henderson Truck.....	8.00	4.00	4.00
<b>Oleander Packing Company, Galveston, Texas—</b>			
Blood and Bone Tankage.....	*9.08	8.03	
<b>Palestine Oil Mill and Fertilizer Co., Palestine, Texas—</b>			
Cold Frame Special.....	12.00	4.00	4.00
Corn and Cotton Special.....	10.00	4.00	2.00
Cotton Rust Proof.....	10.00	4.00	7.00
Cotton Seed Meal Fertilizer.....	1.00	6.88	1.00
Garden Special.....	8.00	3.00	5.00
New Ground Special.....	12.00	4.00	
Palestine Cotton Producer.....	10.00	2.00	2.00
Palestine Deep Sandy.....	12.00	4.00	4.00
Palestine Eighteen Per Cent Phosphate.....	18.00		
Palestine Fifteen Per Cent Kainit.....			15.00
Palestine Fourteen Per Cent Kainit.....			14.00
Palestine Jumbo.....	18.00	6.00	6.00
Palestine Low Land Fertilizer.....	12.00	3.00	3.00
Palestine Manure Salts.....			20.00
Palestine Muriate of Potash.....			50.00
Palestine Nitrate of Soda.....		15.00	
Palestine Perfection.....	9.00	6.00	3.00
Palestine Sixteen Per Cent Phosphate.....	16.00		
Palestine Twenty Per Cent Phosphate.....	20.00		
Palestine Prolific Fertilizer.....	12.00	2.00	2.00
Palestine Queen Fertilizer.....	15.00	5.00	5.00
Palestine Sandy Land.....	10.00	3.00	3.00
Palestine Sulphate of Ammonia.....		20.00	
Palestine Trucker.....	8.00	4.00	6.00
Palestine Twelve Per Cent Kainit.....			12.00
Palestine Vegetable Fertilizer.....	8.00	3.00	3.00
Phosphate and Potash Mixture.....	12.00		4.00
Potash and Phosphate Mixture.....	15.00		6.00
Sandy Land Vegetable.....	10.00	6.00	7.00

Table 11.—Registration of Commercial Fertilizers Season 1926-1927—(continued)

Manufacturer, Place of Business and Brand	Phosphoric Acid— Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent
<b>Palestine Oil Mill and Fertilizer Co., Palestine, Texas—Continued.</b>			
Sweet Potato Special	10.00	3.00	8.00
Tomato and Cabbage Special	8.00	4.00	4.00
Upland Cotton Special	8.00	4.00	4.00
<b>Pate Brothers, Sulphur Springs, Texas—</b>			
Cotton Seed Meal Fertilizer	1.00	6.88	1.00
Pate's 8-3-3	8.00	3.00	3.00
Pate's 8-3-5	8.00	3.00	5.00
Pate's 8-4-4	8.00	4.00	4.00
Pate's 8-4-6	8.00	4.00	6.00
Pate's 9-6-3	9.00	6.00	3.00
Pate's 10-2-2	10.00	2.00	2.00
Pate's 10-3-3	10.00	3.00	3.00
Pate's 10-3-8	10.00	3.00	8.00
Pate's 10-4-2	10.00	4.00	2.00
Pate's 10-4-7	10.00	4.00	7.00
Pate's 12-0-4	12.00	.....	4.00
Pate's 12-2-2	12.00	2.00	2.00
Pate's 12-3-3	12.00	3.00	3.00
Pate's 12-4-0	12.00	4.00	.....
Pate's 12-4-4	12.00	4.00	4.00
Pate's 15-5-5	15.00	5.00	5.00
Pate's 18-6-6	18.00	6.00	6.00
Pate's 16% Acid Phosphate	16.00	.....	.....
Pate's 18% Acid Phosphate	18.00	.....	.....
Pate's 20% Acid Phosphate	20.00	.....	.....
Pate's Kainit	.....	.....	12.40
Pate's Kainit 14%	.....	.....	14.00
Pate's Manure Salts	.....	.....	20.00
Pate's Muriate of Potash	.....	.....	50.00
Pate's Nitrate of Soda	.....	15.00	.....
Pate's Sulphate of Ammonia	.....	20.00	.....
<b>Pelican Fertilizer Works, Shreveport, La.—</b>			
Kainit	.....	.....	12.40
Muriate of Potash	.....	.....	50.00
Nitrate of Soda	.....	15.00	.....
Pelican Compound	10.00	4.00	2.00
Pelican Improved Acid Phosphate	20.00	.....	.....
Pelican Improved Guano	8.00	4.00	4.00
Pelican Majestic Formula	15.00	5.00	5.00
Pelican Perfect Guano	10.00	3.00	3.00
Pelican Perfection Acid Phosphate	18.00	.....	.....
Pelican Perfection Formula	12.00	4.00	4.00
Pelican Potash Compound	15.00	.....	6.00
Pelican Prolific Wonder	12.00	2.00	2.00
Pelican Special Acid Phosphate	16.00	.....	.....
Pelican Star Formula	10.00	2.00	2.00
Pelican Truck Grower	8.00	3.00	3.00
Pelican Truckers Special	8.00	4.00	6.00
<b>Pick Fertilizer Service, Inc., New Orleans, La.—</b>			
Bull Dog Acid Phosphate No. 16	16.00	.....	.....
Bull Dog Acid Phosphate No. 18	18.00	.....	.....
Bull Dog Acid Phosphate No. 20	20.00	.....	.....
Bull Dog Blood and Bone No. 1022-N	10.00	2.00	2.00
Bull Dog Special No. 833-N	8.00	3.00	3.00
Bull Dog Special No. 835-N	8.00	3.00	5.00
Bull Dog Special No. 844-N	8.00	4.00	4.00
Bull Dog Special No. 846-N	8.00	4.00	6.00
Bull Dog Special No. 963-N	9.00	6.00	3.00
Bull Dog Special No. 1022-N	10.00	2.00	2.00
Bull Dog Special No. 1033-N	10.00	3.00	3.00
Bull Dog Special No. 1038-N	10.00	3.00	8.00

Table 11.—Registration of Commercial Fertilizers, Season 1926-1927—(continued)

Manufacturer, Place of Business and Brand	Phosphoric Acid— Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent
<b>Pick Fertilizer Service, Inc., New Orleans, La.—Continued.</b>			
Bull Dog Special No. 1042-N.....	10.00	4.00	2.00
Bull Dog Special No. 1047-N.....	10.00	4.00	7.00
Bull Dog Special No. 1067-N.....	10.00	6.00	7.00
Bull Dog Special No. 1204.....	12.00	.....	4.00
Bull Dog Special No. 1222-N.....	12.00	2.00	2.00
Bull Dog Special No. 1233-N.....	12.00	3.00	3.00
Bull Dog Special No. 1240-N.....	12.00	4.00	.....
Bull Dog Special No. 1244-N.....	12.00	4.00	4.00
Bull Dog Special No. 1506.....	15.00	.....	6.00
Bull Dog Special No. 1555-N.....	15.00	5.00	5.00
Bull Dog Special No. 1866-N.....	18.00	6.00	6.00
Goldsmith's Improved Mixture.....	10.00	2.00	2.00
Kainit No. 12.....	.....	.....	12.00
Kainit No. 14.....	.....	.....	14.00
Leunasalpeter.....	.....	26.00	.....
Manure Salts No. 20.....	.....	.....	20.00
Muriate of Potash.....	.....	.....	50.00
Nitrate of Soda.....	.....	15.00	.....
Sulphate of Ammonia.....	.....	20.00	.....
Sulphate of Potash.....	.....	.....	48.00
<b>Pittsburg Cotton Oil Co., Pittsburg, Texas—</b>			
16% Acid Phosphate.....	16.00	.....	.....
Eighteen Per Cent Acid Phosphate.....	18.00	.....	.....
Half Meal and Half Phosphate Fertilizer.....	9.00	3.00	.....
Manure Salts.....	.....	.....	20.00
Meal and Phosphate Fertilizer No. 833.....	8.00	3.00	3.00
Meal and Phosphate Fertilizer No. 844.....	8.00	4.00	4.00
Meal and Phosphate Fertilizer No. 846.....	8.00	4.00	6.00
Meal and Phosphate Fertilizer No. 963.....	9.00	6.00	3.00
Meal and Phosphate Fertilizer No. 1022.....	10.00	2.00	2.00
Meal and Phosphate Fertilizer No. 1033.....	10.00	3.00	3.00
Meal and Phosphate Fertilizer No. 1042.....	10.00	4.00	2.00
Meal and Phosphate Fertilizer No. 1222.....	12.00	2.00	2.00
Meal and Phosphate Fertilizer No. 1233.....	12.00	3.00	3.00
Meal and Phosphate Fertilizer No. 1244.....	12.00	4.00	4.00
Meal and Phosphate Fertilizer No. 1555.....	15.00	5.00	5.00
Meal and Phosphate Fertilizer No. 5102.....	5.00	10.00	2.00
Muriate of Potash.....	.....	.....	50.00
Nitrate of Soda.....	.....	15.00	.....
Prime Cottonseed Meal Fertilizer.....	2.00	6.88	1.00
Slightly Off Cottonseed Meal Fertilizer.....	1.00	6.50	1.00
Sulphate of Ammonia.....	.....	20.00	.....
<b>Planters Fertilizer and Chemical Co., Houston, Fort Worth, Texas, and New Orleans, La.—</b>			
Planters' Plow Brand American Cotton Grower.....	10.00	3.00	3.00
Planters' Plow Brand Best Phosphate.....	18.00	.....	.....
Planters' Plow Brand Farmers' Favorite.....	10.00	2.00	2.00
Planters' Plow Brand Fertilizer No. 835.....	8.00	3.00	5.00
Planters' Plow Brand Fertilizer No. 963.....	9.00	6.00	3.00
Planters' Plow Brand Fertilizer No. 1042.....	10.00	4.00	2.00
Planters' Plow Brand Fertilizer No. 1555.....	15.00	5.00	5.00
Planters' Plow Brand General Crop Maker.....	8.00	4.00	4.00
Planters' Plow Brand Kainit.....	.....	.....	12.40
Planters' Plow Brand King Cotton.....	12.00	4.00	4.00
Planters' Plow Brand Lower Valley Special.....	10.00	3.00	8.00
Planters' Plow Brand Manure Salts.....	.....	.....	20.00
Planters' Plow Brand Muriate of Potash.....	.....	.....	50.00
Planters' Plow Brand Nitrate of Soda.....	.....	14.81	.....
Planters' Plow Brand Phosphate and Nitrogen.....	12.00	4.00	.....
Planters' Plow Brand Phosphate and Potash No. 124.....	12.00	.....	4.00
Planters' Plow Brand Phosphate and Potash No. 15-6.....	15.00	.....	6.00
Planters' Plow Brand Potash Special.....	10.00	4.00	7.00



Table 11.—Registration of Commercial Fertilizers, Season 1926-1927—(continued)

Manufacturer, Place of Business and Brand	Phosphoric Acid— Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent
<b>Planters Fertilizer and Chemical Co., Houston, Fort Worth, Texas, and New Orleans, La.—Continued.</b>			
Planters' Plow Brand Raw Bone Meal.....	*22.00	3.70	.....
Planters' Plow Brand Star Phosphate.....	16.00	.....	.....
Planters' Plow Brand Sulphate of Ammonia.....	.....	20.58	.....
Planters' Plow Brand Sulphate of Potash.....	.....	.....	48.00
Planters' Plow Brand Sunny South Special.....	12.00	2.00	2.00
Planters' Plow Brand Sunshine Special.....	12.00	3.00	3.00
Planters' Plow Brand Superphosphate.....	20.00	.....	.....
Planters' Plow Brand Texas Trucker.....	8.00	3.00	3.00
Planters' Plow Brand Truck Producer.....	10.00	6.00	7.00
Planters' Plow Brand Truck Special.....	8.00	4.00	6.00
<b>The Pulverized Manure Co., Union Stock Yards, Chicago, Ill.—</b>			
Wizard Brand Pulverized Sheep Manure.....	1.25	2.00	2.00
<b>Thos. Self, Crockett, Texas—</b>			
Crockett 18% Acid Phosphate.....	18.00	.....	.....
Crockett 20% Acid Phosphate.....	20.00	.....	.....
Crockett Cotton Standard.....	12.00	3.00	3.00
Crockett High Grade Fertilizer.....	12.00	4.00	4.00
<b>The H. Schumacher Oil Works, Navasota, Texas—</b>			
Cotton Seed Meal Fertilizer.....	2.00	6.88	1.00
<b>Shreveport Fertilizer Works, Shreveport, La.—</b>			
Lion Allen's Choice.....	9.00	6.00	3.00
Lion Blood & Bone.....	10.00	2.00	2.00
Lion Corn Food.....	8.00	3.00	3.00
Lion Cotton Seed Meal Mixture.....	10.00	2.00	2.00
Lion Double Strength.....	18.00	6.00	6.00
Lion Extrafine Mixture.....	10.00	4.00	2.00
Lion Kainit.....	.....	.....	14.00
Lion La-Tex Special.....	10.00	6.00	7.00
Lion Manure Salts.....	.....	.....	20.00
Lion Muriate of Potash.....	.....	.....	50.00
Lion Nitrate of Soda.....	.....	15.00	.....
Lion Non-Potassiac.....	12.00	4.00	.....
Lion Potato Producer.....	8.00	4.00	4.00
Lion Prolific Fruiter.....	12.00	2.00	2.00
Lion Special Cotton.....	15.00	5.00	5.00
Lion Special Truck.....	10.00	3.00	8.00
Lion Sulphate of Ammonia.....	.....	20.00	.....
Lion Superfine Acid Phosphate.....	18.00	.....	.....
Lion Superior Acid Phosphate.....	20.00	.....	.....
Lion Superior Blood & Bone.....	10.00	3.00	3.00
Lion Superior Cotton Grower.....	12.00	4.00	4.00
Lion Superior Meal Formula.....	10.00	3.00	3.00
Lion Superior Potash.....	12.00	.....	4.00
Lion Superphos Potash.....	15.00	.....	6.00
Lion Sweet Potato Special.....	10.00	4.00	7.00
Lion Tomato Special.....	8.00	4.00	6.00
Lion Truck Grower.....	8.00	3.00	5.00
Lion Veribest.....	12.00	3.00	3.00
Lion Xtragood Acid Phosphate.....	16.00	.....	.....
<b>L. C. Stokes, Lockhart, Texas—</b>			
Marvelo.....	12.00	4.00	4.00
<b>Swift &amp; Co., Fertilizer Works, Ha-vey, Shreveport, La., and Houston, Texas—</b>			
Pioneer 8-3-3.....	8.00	3.00	3.00
Pioneer 8-3-5.....	8.00	3.00	5.00
Pioneer 8-4-4.....	8.00	4.00	4.00
Pioneer 8-4-6.....	8.00	4.00	6.00
Pioneer 9-6-3.....	9.00	6.00	3.00

\*Total Phosphoric Acid.

Table 11.—Registration of Commercial Fertilizers, Season 1926-1927—(continued)

Manufacturer, Place of Business and Brand	Phosphoric Acid—Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent
<b>Swift &amp; Co., Fertilizer Works, Harvey, Shreveport, La., and Houston, Texas—Continued.</b>			
Pioneer 10-2-2	10.00	2.00	2.00
Pioneer 10-3-3	10.00	3.00	3.00
Pioneer 10-4-2	10.00	4.00	2.00
Pioneer 10-3-8	10.00	3.00	8.00
Pioneer 10-6-7	10.00	6.00	7.00
Pioneer 12-0-4	12.00	4.00	4.00
Pioneer 12-2-2	12.00	2.00	2.00
Pioneer 12-3-3	12.00	3.00	3.00
Pioneer 12-4-0	12.00	4.00	4.00
Pioneer 12-4-4	12.00	4.00	4.00
Pioneer 15-0-6	15.00	6.00	6.00
Pioneer 15-5-5	15.00	5.00	5.00
Pioneer 18-6-6	18.00	6.00	6.00
Pioneer 18% Acid Phosphate Fertilizer	18.00		
Pioneer 20% Acid Phosphate Fertilizer	20.00		
Pioneer Blood & Bone 10-2-2	10.00	2.00	2.00
Pioneer Blood & Bone 10-3-3	10.00	3.00	3.00
Pioneer Blood, Bone & Potash	10.00	4.00	7.00
Pioneer Bone Meal Fertilizer	24.00	2.47	
Pioneer Cottonseed Meal Fertilizer		6.58	
Pioneer High Grade Acid Phosphate Fertilizer 16%	16.00		
Pioneer Kainit			12.40
Pioneer Muriate of Potash			50.00
Pioneer Nitrate of Soda		15.00	
Pioneer Raw Bone Meal Fertilizer	*22.90	3.70	
Pioneer Special Bone Meal Fertilizer	*22.90	3.00	
Pioneer Steamed Bone Meal Fertilizer	*29.00	1.86	
Pioneer Sulphate of Ammonia		20.56	
Pioneer Sulphate of Potash			50.00
Swift's Blood, Bone & Potash	10.00	4.00	7.00
Swift's Bone Meal Fertilizer	*24.00	2.47	
Swift's Cotton Seed Meal Fertilizer		6.58	
Swift's High Grade Acid Phosphate Fertilizer 16%	16.00		
Swift's Kainit			12.40
Swift's Muriate of Potash			50.00
Swift's Nitrate of Soda		15.00	
Swift's Raw Bone Meal Fertilizer	*22.90	3.70	
Swift's Raw Bone Meal Fertilizer	*23.00	3.27	
Swift's Red Steer 8-3-3	8.00	3.00	3.00
Swift's Red Steer 8-3-5	8.00	3.00	5.00
Swift's Red Steer 8-4-4	8.00	4.00	4.00
Swift's Red Steer 8-4-6	8.00	4.00	6.00
Swift's Red Steer 9-6-3	9.00	6.00	3.00
Swift's Red Steer 10-2-2	20.00	2.00	2.00
Swift's Red Steer 10-3-3	10.00	3.00	3.00
Swift's Red Steer 10-3-8	10.00	3.00	8.00
Swift's Red Steer 10-4-2	10.00	4.00	2.00
Swift's Red Steer 10-6-7	10.00	6.00	7.00
Swift's Red Steer 12-0-4	12.00	4.00	4.00
Swift's Red Steer 12-2-2	12.00	2.00	2.00
Swift's Red Steer 12-3-3	12.00	3.00	3.00
Swift's Red Steer 12-4-0	12.00	4.00	
Swift's Red Steer 12-4-4	12.00	4.00	4.00
Swift's Red Steer 15-0-6	15.00	6.00	6.00
Swift's Red Steer 15-5-5	15.00	5.00	5.00
Swift's Red Steer 18-6-6	18.00	6.00	6.00
Swift's Red Steer 18% Acid Phosphate Fertilizer	18.00		
Swift's Red Steer 20% Acid Phosphate Fertilizer	20.00		
Swift's Special Bone Meal Fertilizer	*22.90	3.00	
Swift's Steamed Bone Meal Fertilizer	*29.00	1.86	
Swift's Sulphate of Ammonia		20.56	
Swift's Sulphate of Potash			50.00
Swift's Tankage	*3.50	8.22	
Vigoro	12.00	4.00	4.00

\*Total Phosphoric Acid

Table 11.—Registration of Commercial Fertilizers, Season 1926-1927—(continued)

Manufacturer, Place of Business and Brand	Phosphoric Acid— Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent
<b>Tedford Brothers, Aransas Pass, Texas—</b>			
Bat Guano.....	3.00	9.00	.....
<b>Temple Cotton Oil Co., North Little Rock, Ark.—</b>			
Quapaw 8-4-4.....	8.00	4.00	4.00
Quapaw 8-4-6.....	8.00	4.00	6.00
Quapaw 10-2-2.....	10.00	2.00	2.00
Quapaw 10-3-3.....	10.00	3.00	3.00
Quapaw 10-4-2.....	10.00	4.00	2.00
Quapaw 12-0-4.....	12.00	.....	4.00
Quapaw 12-2-2.....	12.00	2.00	2.00
Quapaw 12-4-4.....	12.00	4.00	4.00
Quapaw 16% Acid Phosphate.....	16.00	.....	.....
Quapaw 18% Acid Phosphate.....	18.00	.....	.....
Quapaw Kainit.....	.....	.....	14.00
Quapaw Muriate of Potash.....	.....	.....	50.00
Quapaw Nitrate of Soda.....	.....	15.00	.....
<b>Tennessee Coal, Iron and Railroad Co., Birmingham, Ala.—</b>			
Sixteen Per Cent Duplex Basic Phosphate.....	*16.00	.....	.....
<b>Terrell Oil and Refining Co., Wills Point, Texas—</b>			
Cotton Seed Fertilizer.....	.....	5.76	.....
Semper-Fidelis 8-4-4 Fertilizer.....	8.00	4.00	4.00
Semper-Fidelis 12-3-3 Fertilizer.....	12.00	3.00	3.00
Semper-Fidelis 12-4-4 Fertilizer.....	12.00	4.00	4.00
Semper-Fidelis 16% Acid Phosphate.....	16.00	.....	.....
Semper-Fidelis 18% Acid Phosphate.....	18.00	.....	.....
Semper-Fidelis Extra Good Fertilizer.....	10.00	4.00	2.00
Semper-Fidelis Manure Salts.....	.....	.....	20.00
Semper-Fidelis Muriate of Potash.....	.....	.....	50.00
Semper-Fidelis Nitrate of Soda.....	.....	15.00	.....
Semper-Fidelis Phospho Meal Fertilizer.....	8.00	3.00	3.00
Semper-Fidelis Special Fertilizer.....	10.00	2.00	2.00
Semper-Fidelis Sulphate of Ammonia.....	.....	20.00	.....
Semper-Fidelis Sure Crop Fertilizer.....	10.00	3.00	3.00
<b>Texas Chemical Company, Houston, Texas—</b>			
T-C-T Brand Raw Bone Meal.....	*22.00	3.70	.....
<b>Texas Farm Bureau Service Corporation, Dallas, Texas—</b>			
16% Farm Bureau Acid Phosphate.....	16.00	.....	.....
18% Farm Bureau Acid Phosphate.....	18.00	.....	.....
No. 844 Farm Bureau Fertilizer.....	8.00	4.00	4.00
No. 846 Farm Bureau Fertilizer.....	8.00	4.00	6.00
No. 1042 Farm Bureau Fertilizer.....	10.00	4.00	2.00
No. 1233 Farm Bureau Fertilizer.....	12.00	3.00	3.00
No. 1240 Farm Bureau Fertilizer.....	12.00	4.00	.....
No. 1244 Farm Bureau Fertilizer.....	12.00	4.00	4.00
Farm Bureau Muriate of Potash.....	.....	.....	50.00
Farm Bureau Nitrate of Soda.....	.....	15.00	.....
Farm Bureau Sulphate of Ammonia.....	.....	20.00	.....
<b>Louis Tobian &amp; Company, Dallas, Texas—</b>			
Tobian Brand Fertilizer Cottonseed Meal.....	.....	6.88	.....
<b>Trinity Cotton Oil Co., Dallas, Texas—</b>			
Cottonseed Meal.....	.....	6.88	.....
<b>Tri-State Fertilizer Co., Shreveport, La.—</b>			
20% Acid Phosphate.....	20.00	.....	.....
Kainit.....	.....	.....	14.00
Muriate of Potash.....	.....	.....	50.00
15% Nitrate of Soda.....	.....	15.00	.....
Red Diamond 8-3-3 Fertilizer.....	8.00	3.00	3.00

Table 11.—Registration of Commercial Fertilizers, Season 1926-1927—(continued)

Manufacturer, Place of Business and Brand	Phosphoric Acid— Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent
<b>Tri-State Fertilizer Co., Inc., Shreveport, La.—Continued.</b>			
Red Diamond 8-4-4 Fertilizer.....	8.00	4.00	4.00
Red Diamond 8-4-6 Fertilizer.....	8.00	4.00	6.00
Red Diamond 10-2-2 Fertilizer.....	10.00	2.00	2.00
Red Diamond 10-3-3 Fertilizer.....	10.00	3.00	3.00
Red Diamond 10-4-2 Fertilizer.....	10.00	4.00	2.00
Red Diamond 12-0-4 Fertilizer.....	12.00	.....	4.00
Red Diamond 12-4-0 Fertilizer.....	12.00	4.00	.....
Red Diamond 12-4-4 Fertilizer.....	12.00	4.00	4.00
Red Diamond 15-5-5 Fertilizer.....	15.00	5.00	5.00
Red Diamond 16% Acid Phosphate.....	16.00	.....	.....
Red Diamond 18% Acid Phosphate.....	18.00	.....	.....
Red Diamond Big Boll Prolific.....	12.00	2.00	2.00
Sulphate of Ammonia.....	.....	20.80	.....
<b>Tyler Fertilizer Co., Tyler, Texas—</b>			
16% Acid Phosphate.....	16.00	.....	.....
Eighteen Per Cent Acid Phosphate.....	18.00	.....	.....
Heart Brand Fertilizer No. 844.....	8.00	4.00	4.00
Heart Brand Fertilizer No. 846.....	8.00	4.00	6.00
Heart Brand Fertilizer No. 963.....	9.00	6.00	3.00
Heart Brand Fertilizer No. 1022.....	10.00	2.00	2.00
Heart Brand Fertilizer No. 1033.....	10.00	3.00	3.00
Heart Brand Fertilizer No. 1042.....	10.00	4.00	2.00
Heart Brand Fertilizer No. 1047.....	10.00	4.00	7.00
Heart Brand Fertilizer No. 1067.....	10.00	6.00	7.00
Heart Brand Fertilizer No. 1222.....	12.00	2.00	2.00
Heart Brand Fertilizer No. 1233.....	12.00	3.00	3.00
Heart Brand Fertilizer No. 1240.....	12.00	4.00	.....
Heart Brand Fertilizer No. 1244.....	12.00	4.00	4.00
Heart Brand Fertilizer No. 1555.....	15.00	5.00	5.00
Heart Brand Fertilizer No. 5150.....	5.00	15.00	.....
Kainit.....	.....	.....	12.40
Manure Salts.....	.....	.....	20.00
Muriate of Potash.....	.....	.....	50.00
Nitrate of Soda.....	.....	15.00	.....
Prime Cottonseed Meal Fertilizer.....	2.00	6.88	1.00
Sulphate of Ammonia.....	.....	20.00	.....
<b>Virginia-Carolina Chemical Corporation, Shreveport, La.—</b>			
Kainit.....	.....	.....	12.40
Muriate of Potash.....	.....	.....	50.00
Nitrate of Soda.....	.....	15.00	.....
Sulphate of Ammonia.....	.....	20.65	.....
Sulphate of Potash.....	.....	.....	48.00
V-C 16% Acid Phosphate.....	16.00	.....	.....
V-C 18% Acid Phosphate.....	18.00	.....	.....
V-C 20% Acid Phosphate.....	20.00	.....	.....
V-C Beef, Blood & Bone.....	8.00	3.00	3.00
V-C Blood, Bone and Potash.....	10.00	2.00	2.00
V-C Bone and Potash Mixture.....	12.00	.....	4.00
V-C Champion Compound.....	12.00	3.00	3.00
V-C Champion Crop Grower.....	10.00	4.00	7.00
V-C Early Trucker.....	8.00	4.00	4.00
V-C Fruit and Truck Special.....	10.00	6.00	7.00
V-C Georgia State Grange.....	10.00	2.00	2.00
V-C Good Luck Fertilizer.....	8.00	4.00	4.00
V-C High Grade Potash Compound.....	15.00	.....	6.00
V-C High Grade Vegetable Compound.....	9.00	6.00	3.00
V-C Indian Brand Fertilizer.....	12.00	4.00	4.00
V-C Mobile Double Eagle Guano.....	8.00	3.00	3.00
V-C Monarch Guano.....	8.00	3.00	5.00
V-C Owl Brand Fertilizer.....	12.00	2.00	2.00

Table 11.—Registration of Commercial Fertilizers, Season 1926-1927—(continued)

Manufacturer, Place of Business and Brand	Phosphoric Acid— Available Per Cent	Nitrogen—Per Cent	Potash—Per Cent
<b>Virginia-Carolina Chemical Corporation, Shreveport, La.—Continued.</b>			
V-C Premium Fertilizer for Cotton	10.00	4.00	2.00
V-C Prolific Cotton Grower	10.00	3.00	3.00
V-C Satsuma Special	8.00	4.00	6.00
V-C Scott's Gossypium Phospho.	10.00	2.00	2.00
V-C 16% Scott's High Grade Acid Phosphate	16.00		
V-C Stonewall High Grade Guano	10.00	3.00	8.00
V-C Super 25 Fertilizer	15.00	5.00	5.00
V-C Super 30 Fertilizer	18.00	6.00	6.00
V-C Trucker's Special	8.00	4.00	6.00
V-C 20th Century Guano	10.00	3.00	3.00
<b>Waldo Fertilizer Co., Waldo, Ark.—</b>			
8-3-3	8.00	3.00	3.00
8-4-4	8.00	4.00	4.00
8-4-6	8.00	4.00	6.00
10-2-2	10.00	2.00	2.00
10-3-3	10.00	3.00	3.00
12-0-4	12.00		4.00
12-4-4	12.00	4.00	4.00
15-5-5	15.00	5.00	5.00
Cotton Seed Meal		7.00	
Kainit			14.00
Muriate of Potash			50.00
Nitrate of Soda		15.00	
Sulphate of Ammonia		20.00	
Victory 16 Per Cent Acid Phosphate	16.00		
Victory 18 Per Cent Acid Phosphate	18.00		