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W. B. BIZZELL, President

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Commercial Fertilizers in 1918-1919



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†As of August 1, 1919.

‡In cooperation with School of Agriculture, A. & M. College of Texas.

*In cooperation with the School of Veterinary Medicine, A. & M. College of Texas.

**In cooperation with the United States Department of Agriculture.

COMMERCIAL FERTILIZERS IN 1918-1919.

G. S. FRAPS, PH. D., CHIEF, DIVISION OF CHEMISTRY; STATE CHEMIST.

This bulletin deals with the State control of commercial fertilizers. Information concerning the nature and use of fertilizers is to be found in Bulletin 167, copies of which will be sent free on application.

The quantities of commercial fertilizers sold in Texas for several seasons are as follows:

1905-06.....	13,500 tons.
1910-11.....	52,985 tons.
1911-12.....	46,000 tons.
1912-13.....	75,500 tons.
1913-14.....	77,400 tons.
1914-15.....	17,500 tons.
1915-16.....	21,500 tons.
1916-17.....	42,000 tons.
1917-18.....	58,000 tons.
1918-19.....	46,000 tons.

FERTILIZER LAW.

The present fertilizer law went into effect September 1, 1911. Copies of the law, and information as to how to comply with it will be sent on application.

INFORMATION ON THE BAG.

The manufacturer must print the guaranteed analysis of the fertilizer either on the bag or on a tag attached to the bag. The information required to be printed on the bag, or tag, 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.

Total phosphoric acid may be guaranteed in place of available in bone or tankage.

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. Samples not taken as required by the law cannot be accepted for analysis.

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 fertilizers, sold or offered for sale within the State of Texas, and shall publish his results as he may find." The results of such investigations will be published from time to time as the experiments are completed.

RELATION TO 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 the fertilizers, and is connected with the investigations as to the agricultural values of fertilizers required by the fertilizer control, for fertilizers vary in effect upon the different soils.

POTASH IN FERTILIZERS.

Texas soils are, as a general rule, well supplied with potash and are much more likely to be deficient in phosphoric acid or in nitrogen than they are to be deficient in potash. This fact is clearly established by numerous analyses of soils and by pot experiments made at the Texas Experiment Station, as well as by co-operative field experiments.

A number of co-operative fertilizer experiments have been conducted by the chemical division of the Experiment Station, and it has been found that phosphoric acid and nitrogen are much more likely to give results than potash. In sixty-eight out of 114 experiments described in Bulletin 184, potash had no effect. The chances are, therefore, against the potash having any effect if generally used in complete fertilizers on Texas soils. Other co-operative fertilizer experiments are reported in Bulletin 235.

The quantity of potash in ordinary corn and cotton fertilizer is so small that it is very doubtful if the quantity is sufficient to be of advantage even where potash is needed. It would be better to increase the quantity of phosphoric acid or nitrogen, and leave out the potash. Of course there are soils and crops on which potash is of advantage. Light sandy soils may be deficient in potash, but it is a question if corn or cotton should be grown at all on such soils, as often the yield is not sufficient to pay. Tobacco, cabbages, potatoes, onions, and certain other truck crops, grown on light sandy soils, may give favorable returns for potash. On heavier soils they may, or may not give returns for the potash. A great deal depends upon the possible yield, as the greater the possible yield permitted by soil and climatic conditions (including soil moisture) the greater the possibility of returns for potash.

From these considerations it is evident that Texas farmers can well afford to eliminate potash from general fertilizers, especially for cotton

and corn. Potash should be used only in exceptional cases, where soil conditions and special crops promise returns on the investment. The haphazard use of potash in fertilizer under all conditions should be discontinued. In the majority of cases, potash is not needed, being supplied by the soil in sufficient quantity, and no returns are secured on the investment. Potash should be used only when it is known to be needed for the soil, and for the crops to be grown on it. If potash is not known to be needed, then the chances are there will be no return on the money expended for it. Texas soils can get on much better without fertilizer potash than without phosphoric acid or nitrogen. There has been in the past much waste of potash.

There is no doubt that the advertisements of potash have given many people an exaggerated idea of the importance of potash.

HOME MIXING.

It is often possible for consumers of fertilizers to save money by purchasing acid phosphate, cottonseed meal, or other fertilizer ingredients, and make their own mixtures. Information concerning this topic is given in bulletins of the Texas Experiment Station, free on application (see especially Bulletin 167).

BULK SALES.

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

LOW GRADE FERTILIZERS.

Purchasers are advised not to buy low grade fertilizers. The words "low grade" appear on the sack. The plant food in such fertilizers usually costs much more per pound than in standard grade or high grade goods, although the price per ton or sack may be a little lower.

Freight, cost of handling and other expenses, are high in proportion to the plant food present.

COTTONSEED PRODUCTS.

Cottonseed meal sold for fertilizer purposes comes under the fertilizer law. A cottonseed product containing less than 6.88 per cent. nitrogen may not be sold as cottonseed meal, but must be termed cottonseed fertilizer, cottonseed meal and hulls, or given some other name to indicate that it is below the requirement for cottonseed meal. It is an economic error to use cottonseed hulls as a fertilizer. Their feed value is greater than their fertilizer value. Better returns may also be secured with cottonseed meal by feeding it to animals on the land to be fertilized.

ANALYSIS BELOW GUARANTEE.

Whenever any lot of fertilizer is four per cent. or more below guarantee, all persons who have sold this lot of fertilizer must make good the deficiency to all purchasers. The rebate is paid by the manufacturer to the dealer and by the dealer to the consumer.

A number of rebates have been paid under this provision of the law.

LIMESTONE FILLER.

Some manufacturers of acid phosphate make a high grade phosphate and reduce it to 16 or 14 per cent. grade by means of limestone or carbonate of lime. The use of limestone dries out the fertilizer and permits it to be drilled very easily, but the use of more than small amounts is likely to cause reversion of the acid phosphate and throw it below the guaranteed analysis. The reversion does not occur all at once, so that an early analysis may show the goods up to guarantee and a later analysis show them below guarantee. This matter is discussed in Bulletin 223.

In the fertilizer bulletin for 1915-16 are printed two analyses of acid phosphate guaranteed at sixteen per cent., but found to contain thirteen per cent. available phosphoric acid associated with over five per cent. insoluble and eighteen per cent. total phosphoric acid. Examination showed the samples to contain carbonate of lime. The deficiency was clearly due to the reversion of the acid phosphate due to the use of a quantity of limestone as a filler. A number of analyses of complete fertilizers are printed in this Bulletin, which are below guarantee probably on account of the presence of limestone.

ARTIFICIAL COLORING.

A concern in Georgia is offering yellow clay for sale to fertilizer manufacturers for the purpose of making fertilizers appear to contain cottonseed meal. In a letter they say, "We understand that as a partial substitute for cottonseed, which is just now a very costly article, our oxide gives about the same shade to certain fertilizers that cottonseed (meal) gives."

Any fertilizer containing this substance is adulterated under the Texas law. Its use is clearly for the purpose of deceiving the purchaser. Fertilizer containing it is liable to seizure and the manufacturer of such fertilizer is liable to a fine.

PRICES OF FERTILIZERS.

The United States Department of Agriculture announces that farmers of the Southern States should obtain their mixed fertilizers for the fall season of 1919 at an average price about 30 per cent. lower than for the spring season this year.

This announcement for the Southern States follows a similar one made on June 7 for the Northern States. It follows conferences with individual manufacturers which placed the Department in a position to state

that the basic price of mixed fertilizers, f. o. b. the South Atlantic and Gulf ports of Baltimore, Norfolk, Wilmington, Charleston, Savannah, Jacksonville, Pensacola and Mobile will be the same as f. o. b. prices at Baltimore, Philadelphia and Carteret, which established the prices for the Northern States. The accompanying table gives the maximum f. o. b. prices at which mixed fertilizers can be obtained for the South Atlantic and Gulf ports mentioned.

These prices are based upon delivery in 200-pound bags. If in 167-pound bags, 25 cents per ton will be added; if in 125-pound bags, 50 cents per ton; and if in 100-pound bags, 75 cents per ton. The prices are to wholesale dealers and to farmers ordering 30 tons or more.

In general, flat delivered prices prevail in Virginia, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Louisiana east of the Mississippi River, and Florida west of the Apalachicola River, for which a flat rate of \$2.50 per ton will be added to the port prices. For flat delivered prices in Louisiana west of the Mississippi River, Arkansas, Texas, Oklahoma, and Tennessee, \$3.75 per ton will be added to the port prices.

In most cases a discount of 50 cents per ton or a f. o. b. factory price of \$2 per ton is allowed at interior factory points where delivery is made at the warehouse.

Where deliveries are made in less than carload lots the difference in freight is also to be added. In cases where farmers buy in less than 30-ton lots and buy through dealers the dealer's price for handling the goods (usually \$2 per ton) is to be added.

The prices include a 5 per cent. discount if paid in cash on December 1, and usually an additional 1/2 per cent. is granted for each full month when cash settlement is made before that date.

The plant food in this table is valued at approximately 8.6 cents a pound for phosphoric acid, 30 cents for nitrogen, and 15 cents for potash.

Table 1—Maximum F. O. B. prices at which principal grades of mixed fertilizer may be obtained in 30-ton lots at the South Atlantic and Gulf Coast Ports, fall of 1919.

Nitrogen	Phosphoric acid P ₂ O ₅	Potash K ₂ O	Price per ton	Nitrogen	Phosphoric acid P ₂ O ₅	Potash K ₂ O	Price per ton
0	12	1	\$23.75	2.47	7	0	\$31.00
		2	26.25			1	33.75
.82	8	0	21.75	2.47	8	0	31.75
		3	30.50			2	37.75
		4	33.50			3	40.50
		5	36.50			4	43.50
.82	9	2	28.50			5	46.50
		3	31.50			6	49.25
.82	10	0	25.50	2.47	9	0	32.75
		1	26.50			1	35.50
		2	29.50			2	38.50
		3	32.25			3	41.50
.82	12	0	25.25	2.47	10	0	33.50
1.65	8	0	26.75			1	36.50
		1	29.75			2	39.50
		2	32.75			3	41.75
		3	35.50			4	45.25
		4	38.50			6	51.00
		5	41.50	2.47	12	0	36.25
		6	44.50	3.29	7	0	35.75
1.65	9	0	27.75			1	38.75

Table 1—Maximum F. O. B. prices at which principal grades of mixed fertilizer may be obtained in 30-ton lots at The South Atlantic and Gulf Coast Ports, fall of 1919.

Nitrogen	Phosphoric acid P ₂ O ₅	Potash K ₂ O	Price per ton	Nitrogen	Phosphoric acid P ₂ O ₅	Potash K ₂ O	Price per ton
.....	1	30.50	.....	.....	3	\$44.75
.....	2	33.50	3.29	8	0	36.75
.....	3	36.50	.....	.....	1	39.75
.....	4	39.50	.....	.....	2	42.50
1.65	10	0	28.50	.....	.....	3	45.50
.....	1	31.50	.....	.....	4	48.50
.....	2	34.50	.....	.....	5	51.50
.....	6	46.25	3.29	10	0	38.50
1.65	12	0	30.25	.....	.....	3	47.25
.....	1	33.25	.....	.....	4	50.25
.....	2	36.25	.....	.....	6	56.00
.....	3	39.00	3.29	12	0	40.25

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 fertilizers on such soils is a useless expense. Potash, like nitrogen, is needed by all parts of the plants, 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 fruit.

Valuation per ton represents the cost of the plant food in the un-mixed 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. On account of the variations in prices which have occurred since the war broke out, valuations given in this bulletin do not represent closely the cost of the plant food.

FERTILIZER VALUATIONS, 1918-1919.

	Cents per pound.
Available Phosphoric Acid.....	7½
Total Phosphoric Acid in Tankage and Bone.....	5
Nitrogen	35
Potash	25

The valuations are not closely related to the prices of the fertilizer, on account of the decided variations and changes due to the war. The

relation between the valuation and the retail selling price by merchants is given in table 2.

The valuations are decided on about September 1, and the prices may change before the active fertilizer season, from February to April.

Table 2—Relation of valuation and selling price, 1918-1919.

	Number averaged	Average valuation	Average selling price
Acid Phosphate 14 per cent.....	4	\$21.00	\$30.25
Acid Phosphate 16 per cent.....	115	24.00	29.72
Standard Grade Phosphate and Nitrogen.....	164	26.86	44.11
High Grade Phosphate and Nitrogen.....	55	31.96	48.78
Standard Grade Complete Fertilizer.....	37	32.32	51.91
High Grade Complete Fertilizer.....	17	40.50	61.56

GUARANTEED AND DELIVERED FERTILIZER.

Table 3 contains the averaged guaranteed valuation, and the average valuation found by our analyses, for all manufacturers doing business in Texas. In preparing the table, all analyses made are averaged, even though several were made of each brand.

Table 3—Guaranteed and delivered fertilizer.

Manufacturers	Number averaged	Valuation guaranteed	Valuation found
Arkansas Fertilizer Company.....	23	\$26.52	\$28.54
Armour Fertilizer Works.....	65	29.15	28.23
Bryan Cotton Oil & Fertilizer Co.....	4	33.18	35.21
East Texas Fertilizer Co.....	21	27.41	27.68
Gate City Fertilizer Co.....	7	28.30	28.23
Henderson Cotton Oil & Gin Co.....	3	30.18	35.60
Hope Fertilizer Co.....	1	28.05	30.51
Houston County Cotton Oil Mill and Mfg. Co.....	2	35.52	36.87
Houston Packing Co.....	1	53.70	56.02
Longview Cotton Oil Co.....	3	30.42	33.77
Marshall Fertilizer Factory.....	3	24.85	27.22
Meridian Fertilizer Factory.....	97	28.19	30.36
Palestine Oil and Manufacturing Co.....	1	24.00	25.23
Pelican Fertilizer Works.....	8	26.99	29.46
Planters Fertilizer and Chemical Co.....	34	26.72	26.54
Shreveport Fertilizer Works.....	6	26.20	28.85
Sulphur Springs Acid and Fertilizer Co.....	7	28.44	32.62
Swift & Co.....	84	29.44	29.53
Tennessee Coal, Iron and Railroad Co.....	1	14.00	15.30
Union Seed and Fertilizer Co.....	10	25.36	27.43
Virginia-Carolina Chemical Co.....	50	28.20	30.27
Wills Point Cotton Oil Co.....	5	35.75	36.37

ANALYSIS OF FERTILIZERS, 1918-1919.

Table 4 contains a list of all samples of fertilizer subjected to analysis in the season beginning September 1, 1918, to date. The table gives the name and address of the manufacturer, the name of the brand, the guaranteed analysis, and the analysis. Analyses below guarantee are

brought out in heavy type. Practically all the samples were collected by our inspectors. Analyses and inspection were made by S. E. Asbury, S. Lomanitz, H. B. Smith, and Dona Newland.

REGISTRATION, 1918-1919.

A list of brands registered for sale in the season of 1918-1919 is given in table 5. Many of the brands so registered were sold only in lots of a few sacks, or were not sold at all in the State.

Table 4—Analysis of commercial fertilizers, season 1918-1919.

Laboratory Number.	Manufacturer, Place of Business and Brand.	Phosphoric Acid—Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
Arkansas Fertilizer Co., Little Rock, Ark.—					
	White Diamond Corn Grower Without Potash—				
	Guarantee.....	11.00	1.65		\$28.05
27703	Analysis.....	13.25	1.38		29.53
	White Diamond Cotton Fertilizer Without Potash—				
	Guarantee.....	13.00	2.00		33.50
27737	Analysis.....	14.37	1.90		34.85
	White Diamond East Texas Truck Fertilizer—				
	Guarantee.....	10.00	2.47	1.00	37.29
27891	Analysis.....	11.01	2.81	2.03	46.35
	White Diamond Grofast Fertilizer Without Potash—				
	Guarantee.....	10.00	1.65		26.55
27591	Analysis.....	10.42	1.93		29.14
27700	Analysis.....	11.46	1.85		30.14
27701	Analysis.....	10.58	1.62		27.21
27702	Analysis.....	10.41	1.69		27.44
27735	Analysis.....	9.62	2.05		28.78
27830	Analysis.....	10.41	1.48		25.97
27892	Analysis.....	10.98	1.70		28.37
	White Diamond New South—Guarantee.....	10.00	1.65		26.55
27532	Analysis.....	10.78	1.97		29.96
27705	Analysis.....	11.61	1.91		30.78
	White Diamond Special Acid Phosphate—Guarantee.....	16.00			24.00
27529	Analysis.....	16.35			24.52
27594	Analysis.....	17.39			26.08
27651	Analysis.....	16.00			24.00
27652	Analysis.....	15.92			23.88
27653	Analysis.....	16.18			24.27
27654	Analysis.....	14.55			21.82
27699	Analysis.....	18.02			27.03
27704	Analysis.....	17.09			25.53
27736	Analysis.....	16.12			24.18
	White Diamond Twentieth Century Fertilizer Without				
	Potash—Guarantee.....	11.00	1.65		28.05
27581	Analysis.....	10.92	2.21		31.85
27709	Analysis.....	11.41	2.23		32.72
Armour Fertilizer Works, New Orleans, La.—					
	Armour's Onion Fertilizer No. 16—Guarantee.....	8.00	2.47		29.29
27505	Analysis.....	7.71	2.04		25.84
	Armour's Tomato Grower—Guarantee.....	10.00	2.47		32.29
27559	Analysis.....	10.01	2.15		30.06
27759	Analysis.....	9.73	2.19		29.92
	Armour's Texas Trucker—Guarantee.....	10.00	2.47		32.29
27526	Analysis.....	9.51	2.08		28.82
	Blood and Bone Special Without Potash—Guarantee.....	10.00	1.65		26.55
27788	Analysis.....	8.63	1.52		23.58
	Farmer's Choice With Potash—Guarantee.....	10.00	1.65	1.00	31.55
27686	Analysis.....	9.53	1.72	1.00	31.33
	Farmer's Favorite Without Potash—Guarantee.....	12.00	1.65		29.55
27836	Analysis.....	10.46	1.82		28.40
	King Cotton Without Potash—Guarantee.....	10.00	1.65		26.55
27485	Analysis.....	9.74	1.64		26.09
27510	Analysis.....	8.38	1.61		23.84
27525	Analysis.....	8.69	1.68		24.79
27555	Analysis.....	10.64	1.77		28.35
27600	Analysis.....	9.56	1.63		25.75
27632	Analysis.....	9.24	1.74		26.04
27645	Analysis.....	9.18	1.57		24.76
27650	Analysis.....	9.40	1.74		26.28
27667	Analysis.....	8.02	1.46		22.25
27668	Analysis.....	9.46	1.74		26.37
27679	Analysis.....	9.43	1.64		25.62
27690	Analysis.....	9.16	1.69		25.57
27691	Analysis.....	8.45	1.52		23.31
27723	Analysis.....	8.84	1.70		25.16
27750	Analysis.....	9.11	1.64		25.14
27760	Analysis.....	10.42	1.79		28.16
27835	Analysis.....	8.12	1.55		23.03
27820	Analysis.....	8.86	1.67		24.98
	Nitrate of Soda—Guarantee.....		14.81		103.67
27501	Analysis.....		15.08		105.56
	Raw Bone Meal—Guarantee.....	*22.00	3.70		47.90
27807	Analysis.....	23.25	3.92		50.69

*Total Phosphoric Acid.

Table 4—Analysis of commercial fertilizers, season 1918-1919.

Laboratory Number.	Manufacturer, Place of Business and Brand.	Phosphoric Acid Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
Armour Fertilizer Works, New Orleans, La.—Continued.					
	Royal Mixture With Potash—Guarantee	10.00	1.65	1.00	\$31.55
27606	Analysis	10.95	1.07	.82	28.01
27655	Analysis	9.06	1.75	1.09	31.29
27666	Analysis	8.82	1.35	.62	25.78
27678	Analysis	8.38	1.62	1.30	30.41
27708	Analysis	8.55	1.62	1.29	30.61
27752	Analysis	9.75	1.83	1.06	32.73
	Sandy Highland Special—Guarantee	10.00	1.65	1.50	34.05
27781	Analysis	8.88	1.58	1.62	32.48
	Shield Phosphate—Guarantee	14.00	.....	.....	21.00
27805	Analysis	13.60	.....	.....	20.40
	Special Farm Mixture—Guarantee	8.00	1.65	2.00	33.55
27722	Analysis	8.16	1.62	1.78	32.48
	Special Farm Mixture Without Potash—Guarantee	10.00	1.65	.....	26.55
27487	Analysis	9.68	1.64	.....	26.00
27547	Analysis	10.32	1.73	.....	27.59
27556	Analysis	10.58	1.71	.....	27.84
27656	Analysis	9.83	1.66	.....	26.36
27676	Analysis	9.65	1.72	.....	26.51
27687	Analysis	9.24	1.49	.....	24.29
27689	Analysis	9.70	1.64	.....	26.03
27756	Analysis	10.85	1.45	.....	26.42
27819	Analysis	9.47	1.66	.....	25.82
27834	Analysis	10.58	1.59	.....	27.00
	Star Phosphate—Guarantee	16.00	.....	.....	24.00
27471	Analysis	15.93	.....	.....	23.89
27521	Analysis	17.08	.....	.....	25.62
27565	Analysis	16.42	.....	.....	24.63
27568	Analysis	18.27	.....	.....	27.40
27614	Analysis	16.42	.....	.....	24.63
27620	Analysis	16.78	.....	.....	25.17
27677	Analysis	17.28	.....	.....	25.92
27688	Analysis	16.80	.....	.....	25.20
27724	Analysis	16.11	.....	.....	24.16
27751	Analysis	16.81	.....	.....	25.21
27757	Analysis	18.03	.....	.....	27.04
27782	Analysis	15.45	.....	.....	23.17
27786	Analysis	16.28	.....	.....	24.42
27793	Analysis	15.75	.....	.....	23.62
27797	Analysis	14.92	.....	.....	22.38
27854	Analysis	14.57	.....	.....	21.85
	Texas Vegetable Grower—Guarantee	9.00	2.05	3.00	42.85
27522	Analysis	9.04	1.82	1.53	33.95
27603	Analysis	9.79	1.80	1.42	34.39
	Truck Special No. 2—Guarantee	8.00	1.65	3.00	38.55
27758	Analysis	7.83	1.78	1.46	31.50
Bryan Cotton Oil and Fertilizer Co., Bryan, Texas—					
	Star Brand Cotton and Corn Fertilizer—Guarantee	11.50	1.80	.....	29.85
27624	Analysis	11.94	1.69	.....	29.74
27835	Analysis	15.03	1.63	.....	33.95
	Star Brand Potato Fertilizer—Guarantee	8.00	3.05	.....	36.50
27617	Analysis	10.90	3.09	.....	37.98
27884	Analysis	10.72	3.30	.....	39.18
East Texas Fertilizer Co., Tyler, Texas—					
	Tomato Grower—Guarantee	10.00	2.47	.....	32.29
27491	Analysis	10.15	2.10	.....	29.93
27567	Analysis	10.85	2.25	.....	32.02
27569	Analysis	11.14	2.04	.....	30.99
27589	Analysis	10.20	1.92	.....	28.74
	Wiley's Farm Mixture—Guarantee	10.00	1.65	.....	26.55
27553	Analysis	9.95	1.38	.....	24.58
27558	Analysis	10.00	1.57	.....	25.99
27562	Analysis	10.28	1.59	.....	26.55
27576	Analysis	10.60	1.51	.....	26.47
27821	Analysis	9.63	1.75	.....	26.69
27866	Analysis	11.10	1.47	.....	26.94
27897	Analysis	10.67	2.00	.....	30.00
27899	Analysis	10.29	1.50	.....	25.93
	Wiley's Tomato Special—Guarantee	9.00	2.80	.....	33.10
27563	Analysis	10.44	2.40	.....	32.46

Table 4—Analysis of commercial fertilizers, season 1918-1919.

Laboratory Number.	Manufacturer, Place of Business and Brand.	Phosphoric Acid—Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
East Texas Fertilizer Co., Tyler, Texas—Continued.					
27900	Analysis.....	11.03	2.68		\$35.30
	16 Per Cent Acid Phosphate—Guarantee.....	16.00			24.00
27490	Analysis.....	16.64			24.96
27544	Analysis.....	16.28			24.42
27570	Analysis.....	17.03			25.54
27580	Analysis.....	17.47			26.20
27860	Analysis.....	16.68			25.02
27867	Analysis.....	17.49			26.23
27901	Analysis.....	17.53			26.29
Gate City Fertilizer Co., Texarkana, Ark.—					
	Red Ball Complete Fertilizer, 1916—Guarantee.....	10.00	1.65		26.55
27712	Analysis.....	10.11	1.63		26.65
	Red Ball Cotton Grower Without Potash—Guarantee..	11.00	1.65		28.05
27711	Analysis.....	10.92	1.55		27.23
	Red Ball Cotton and Corn Fertilizer Without Potash—Guarantee.....	13.00	2.00		33.50
27842	Analysis.....	12.76	2.18		34.40
	Red Ball Early Trucker Without Potash—Guarantee..	12.00	2.50		35.50
27713	Analysis.....	12.55	2.42		35.76
	Red Ball Extra Acid Phosphate—Guarantee.....	16.00			24.00
27528	Analysis.....	16.20			24.30
27710	Analysis.....	16.04			24.06
	Red Ball Old Reliable Fertilizer Without Potash—Guarantee.....	10.00	1.65		26.55
27880	Analysis.....	10.66	1.32		25.23
Hope Fertilizer Co., Hope, Arkansas—					
	Hope Fertilizer No. 10 Without Potash—Guarantee...	11.00	1.65		28.05
27697	Analysis.....	11.94	1.80		30.51
Henderson Cotton Oil and Gin Co., Henderson, Texas—					
	Henderson Acid Phosphate—Guarantee.....	16.00			24.00
27847	Analysis.....	17.68			26.52
	Henderson Half and Half—Guarantee.....	8.70	3.50		37.55
27845	Analysis.....	10.65	3.86		42.99
	Henderson Staple—Guarantee.....	10.00	2.00		29.00
27846	Analysis.....	12.73	2.60		37.29
Houston County Cotton Oil Mill and Manufacturing Co., Crockett, Texas—					
	Crockett Compound—Guarantee.....	9.00	3.50	1.00	43.00
27629	Analysis.....	11.87	3.15	.71	43.40
	Crockett Phosphate Meal Mixture—Guarantee.....	11.00	1.65		28.05
27642	Analysis.....	11.29	1.92		30.34
Houston Packing Co., Houston, Texas—					
	Blood and Bone—Guarantee.....	*14.50	5.60		53.70
27812	Analysis.....	15.70	5.76		56.02
Longview Cotton Oil Co., Longview, Texas—					
	Longview Acid Phosphate—Guarantee.....	16.00			24.00
27833	Analysis.....	18.23			27.34
	Longview Cotton Grower—Guarantee.....	11.50	2.00		31.25
27831	Analysis.....	13.57	2.16		35.47
	Longview Corn and Potato Special—Guarantee.....	10.00	3.00		36.00
27832	Analysis.....	11.99	2.93		38.49
Marshall Fertilizer Factory, Marshall, Texas—					
	High Grade Acid Phosphate—Guarantee.....	16.00			24.00
27743	Analysis.....	17.43			26.59
27868	Analysis.....	17.28			25.92
	Standard Grade Cotton and Corn Special—Guarantee..	10.00	1.65		26.55
27721	Analysis.....	10.61	1.89		29.14
Meridian Fertilizer Factory, Shreveport, La.—					
	Caddo Cotton Non-Potassic—Guarantee.....	10.35	1.90		28.83
27479	Analysis.....	12.19	2.09		32.91
27542	Analysis.....	12.08	1.74		30.30
27611	Analysis.....	7.92	1.98		25.74

*Total Phosphoric Acid.

Table 4—Analysis of commercial fertilizers, season 1918-1919.

Laboratory Number.	Manufacturer, Place of Business and Brand.	Phosphoric Acid Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
Meridian Fertilizer Factory, Shreveport, La.—Continued.					
	Meridian Blood and Bone Non-Potassic—Guarantee. . .	11.00	1.65		\$28.05
27612	Analysis.	11.89	1.88		30.99
27774	Analysis.	13.63	1.68		32.20
27863	Analysis.	11.83	1.96		31.46
27876	Analysis.	12.88	1.66		30.94
	Meridian Corn Club Special Non-Potassic—Guarantee. . .	8.50	2.47		30.04
27507	Analysis.	8.39	2.67		31.27
27550	Analysis.	10.28	2.14		30.40
27706	Analysis.	10.08	2.07		29.61
27707	Analysis.	9.70	2.12		29.39
	Meridian Easy Driller Phosphate—Guarantee.	16.00			24.00
27792	Analysis.	16.96			25.44
	Meridian Farm Special—Guarantee.	10.00	1.65		26.55
27504	Analysis.	11.49	1.79		29.76
27608	Analysis.	11.43	1.53		27.85
27625	Analysis.	10.79	1.67		27.87
27663	Analysis.	11.15	1.60		27.92
27682	Analysis.	11.28	1.76		29.24
27811	Analysis.	11.02	1.66		28.15
27816	Analysis.	11.36	1.82		29.78
27870	Analysis.	12.54	1.90		32.11
	Meridian Home Mixture Non-Potassic—Guarantee.	11.00	1.65		28.05
27484	Analysis.	11.86	1.85		30.74
27517	Analysis.	11.46	1.72		29.23
27536	Analysis.	10.88	1.74		28.50
27571	Analysis.	11.71	1.77		29.95
27587	Analysis.	13.10	1.56		30.57
27593	Analysis.	10.93	1.90		29.69
27604	Analysis.	11.18	1.73		28.88
27628	Analysis.	12.90	1.69		31.18
27630	Analysis.	11.68	1.65		29.07
27639	Analysis.	11.00	1.75		28.75
27641	Analysis.	11.58	1.66		28.99
27644	Analysis.	11.82	1.68		29.49
27657	Analysis.	12.66	1.69		30.82
27675	Analysis.	12.79	1.64		30.66
27744	Analysis.	13.50	1.09		27.88
27753	Analysis.	12.53	1.79		31.32
27755	Analysis.	12.10	1.72		30.19
27818	Analysis.	12.98	1.63		30.88
27864	Analysis.	12.00	2.02		32.14
27874	Analysis.	12.08	1.97		31.91
27877	Analysis.	12.06	1.75		30.34
	Meridian Nitrated Bone and Potash—Guarantee.	10.00	1.65	2.00	36.55
27506	Analysis.	10.43	1.84	1.32	35.12
27615	Analysis.	11.11	1.74	1.71	37.39
27810	Analysis.	11.06	1.68	1.39	35.30
	Meridian Southern Acid Phosphate—Guarantee.	14.00			21.00
27508	Analysis.	15.68			23.52
27626	Analysis.	15.34			23.01
	Meridian Standard Cotton and Corn Non-Potassic—Guarantee.	10.35	1.90		28.83
27694	Analysis.	11.42	2.19		32.46
27776	Analysis.	13.17	1.84		32.63
	Meridian Special Meal Compound—Guarantee.	12.00	2.00		32.00
27839	Analysis.	13.00	1.99		33.43
27840	Analysis.	14.23	2.16		36.46
27841	Analysis.	14.15	2.06		35.64
	Meridian Truck Grower—Guarantee.	10.00	2.47		32.29
27633	Analysis.	11.72	1.96		31.30
	Meridian Tomato Special Non-Potassic—Guarantee.	11.00	2.47		33.79
27478	Analysis.	11.91	2.65		36.42
	Meridian Tomato Special—Guarantee.	10.00	2.47	1.00	37.29
27661	Analysis.	12.05	2.26	1.17	39.74
	Nitrate of Soda—Guarantee.	15.00			105.00
27635	Analysis.	15.44			108.08
	Special Cotton Formula—Guarantee.	10.00	1.65		26.55
27538	Analysis.	10.39	1.73		27.69
27674	Analysis.	11.91	1.50		28.36
27684	Analysis.	11.81	1.81		30.38
27695	Analysis.	13.36	1.65		31.59
27696	Analysis.	13.79	1.60		31.88
27717	Analysis.	12.89	1.73		31.44
27720	Analysis.	12.97	1.62		30.79

Table 4—Analysis of commercial fertilizers, season 1918-1919.

Laboratory Number.	Manufacturer, Place of Business and Brand.	Phosphoric Acid—Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
Meridian Fertilizer Works, Shreveport, La.—Continued.					
27734	Analysis.....	12.49	1.66		\$30.35
27862	Analysis.....	11.92	1.74		30.06
27869	Analysis.....	12.07	1.84		30.98
	Star—Guarantee.....	10.00	1.65	1.00	31.55
27662	Analysis.....	10.92	1.64	1.08	33.26
	Star Non-Potassic—Guarantee.....	11.00	1.65		28.05
27664	Analysis.....	12.38	1.47		28.86
27861	Analysis.....	12.36	1.47		31.84
	Union Special Acid Phosphate—Guarantee.....	16.00			24.00
27495	Analysis.....	16.82			25.23
27534	Analysis.....	17.24			25.86
27552	Analysis.....	16.58			24.87
27572	Analysis.....	16.65			24.97
27590	Analysis.....	16.34			24.51
27599	Analysis.....	17.05			25.57
27627	Analysis.....	17.09			25.63
27638	Analysis.....	18.03			27.04
27673	Analysis.....	16.74			25.11
27683	Analysis.....	16.82			25.23
27685	Analysis.....	16.47			24.70
27716	Analysis.....	16.78			25.17
27733	Analysis.....	17.10			25.65
27754	Analysis.....	17.25			25.87
27769	Analysis.....	17.46			26.19
27775	Analysis.....	17.29			25.93
27838	Analysis.....	17.51			26.26
27843	Analysis.....	17.76			26.64
27844	Analysis.....	17.80			26.70
27865	Analysis.....	17.33			25.99
27871	Analysis.....	17.24			25.86
27875	Analysis.....	17.90			26.85
27878	Analysis.....	17.61			26.41
Palestine Oil and Manufacturing Co., Palestine, Texas—					
	Acid Phosphate—Guarantee.....	16.00			24.00
27512	Analysis.....	16.82			25.23
Pelican Fertilizer Works, Shreveport, La.—					
	Pelican Corn Grower—Guarantee.....	8.00	2.47	1.00	34.29
27896	Analysis.....	11.86	2.26	1.11	39.16
	Pelican Meal Compound Non-Potassic—Guarantee.....	11.00	1.65		28.05
27524	Analysis.....	11.10	1.66		28.17
27585	Analysis.....	12.57	1.86		31.86
27646	Analysis.....	11.89	1.70		29.73
27893	Analysis.....	12.02	1.68		29.79
	Pelican Special Formula—Guarantee.....	10.00	1.65		26.55
27586	Analysis.....	10.69	1.86		29.05
	Pelican Special Phosphate—Guarantee.....	16.00			24.00
27523	Analysis.....	17.49			26.23
27584	Analysis.....	17.81			26.71
27824	Analysis.....	17.14			25.71
27894	Analysis.....	18.59			27.88
	Pelican Tomato Special—Guarantee.....	10.00	2.47	1.00	37.29
27895	Analysis.....	12.71	2.25	1.16	40.61
Planters' Fertilizer and Chemical Co., Houston and Fort Worth, Texas; New Orleans, La.—					
	Blood and Bone With Potash—Guarantee.....	10.00	1.65	1.00	31.55
27472	Analysis.....	9.67	1.87	1.53	35.24
27530	Analysis.....	9.56	1.82	1.00	32.08
27631	Analysis.....	9.28	1.42	1.34	30.56
	Farmers Champion With Potash—Guarantee.....	10.00	1.65	1.00	31.55
27476	Analysis.....	10.46	1.71	1.42	34.76
27634	Analysis.....	10.04	1.68	1.15	32.57
	Farm Special Without Potash—Guarantee.....	10.00	1.65		26.55
27477	Analysis.....	11.75	1.31		26.79
27613	Analysis.....	10.61	1.66		27.53
27621	Analysis.....	9.94	1.41		24.58
27637	Analysis.....	9.77	1.64		26.13
27659	Analysis.....	10.65	1.37		25.56
27681	Analysis.....	10.86	1.50		26.78
27813	Analysis.....	9.99	1.52		25.62
27817	Analysis.....	9.26	1.53		24.60

Table 4—Analysis of commercial fertilizers, season 1918-1919.

Laboratory Number.	Manufacturer, Place of Business and Brand.	Phosphoric Acid—Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
	Planters' Fertilizer and Chemical Co., Houston and Fort Worth; New Orleans, La.—Continued.				
	Imperial Cotton Mixture Without Potash—Guarantee	10.00	1.65		\$26.55
27492	Analysis	9.64	1.79		26.99
27533	Analysis	8.58	1.61		24.14
27618	Analysis	9.71	1.56		25.49
27658	Analysis	9.10	1.71		25.62
27729	Analysis	8.50	1.38		22.41
27857	Analysis	9.29	1.62		25.27
27859	Analysis	9.04	1.76		25.88
	Planters Texas Trucker—Guarantee	10.00	2.47		32.29
27475	Analysis	9.00	2.46		30.72
	Planter's Tomato Grower—Guarantee	10.00	2.47		32.29
27473	Analysis	10.27	2.26		31.22
	Planter's 16 Per Cent Acid Phosphate—Guarantee	16.00			24.00
27470	Analysis	16.13			24.20
27474	Analysis	15.84			23.76
27527	Analysis	16.77			25.15
27531	Analysis	16.07			24.10
27566	Analysis	16.44			24.66
27616	Analysis	17.03			25.54
27660	Analysis	15.42			23.13
27680	Analysis	16.04			24.06
27728	Analysis	16.96			25.44
27749	Analysis	15.65			23.47
27829	Analysis	16.36			24.64
27858	Analysis	15.89			23.83
	Shreveport Fertilizer Works, Shreveport, La.—				
	Lion Acid Phosphate and Limestone—Guarantee	16.00			24.00
27785	Analysis	17.26			25.89
27882	Analysis	17.79			26.68
	Lion Blood and Bone—Guarantee	11.00	1.65		28.05
27784	Analysis	12.40	1.83		31.41
	Lion Meal Formula—Guarantee	10.00	1.65		26.55
27605	Analysis	10.21	1.87		28.40
27883	Analysis	11.60	1.50		27.90
	Lion Success Mixture—Guarantee	11.00	1.65		28.05
27783	Analysis	12.41	2.03		32.82
	Sulphur Springs Acid and Fertilizer Co., Sulphur Springs, Texas—				
	Acid Phosphate—Guarantee	16.00			24.00
27554	Analysis	17.43			26.14
27853	Analysis	17.30			25.95
	Plantation Fertilizer—Guarantee	11.00	1.65		28.05
27551	Analysis	11.44	1.97		30.95
27851	Analysis	12.15	1.90		31.52
	Planter's Special Fertilizer—Guarantee	8.00	3.00		33.00
27545	Analysis	9.68	3.55		39.37
27850	Analysis	9.50	3.08		35.81
	Plantation Special Grower—Guarantee	10.00	2.00		29.00
27852	Analysis	11.81	2.41		34.58
	Swift & Co., Fort Worth, Texas; Harvey, La.—				
	Swift's Ammoniated Phosphate—Guarantee	12.00	1.65		29.55
27489	Analysis	9.43	2.03		28.36
27511	Analysis	11.10	1.48		27.01
27771	Analysis	11.54	1.62		28.65
27777	Analysis	12.36	1.64		30.02
	Swift's Ammoniated Raw Bone Superphosphate—Guarantee	9.50	1.65	1.50	33.30
27497	Analysis	10.30	1.90	1.33	35.40
27778	Analysis	10.07	1.66	1.51	34.27
27800	Analysis	9.44	1.76	1.03	31.63
27804	Analysis	8.87	1.54	1.96	33.87
	Swift's Bone Meal Fertilizer—Guarantee	*24.00	2.47		41.29
27780	Analysis	28.48	2.47		45.77
	Swift's Blood and Bone—Guarantee	12.00	1.65		29.55
27779	Analysis	11.30	1.67		28.64
	Swift's Blood and Bone Special—Guarantee	10.00	2.47		32.29
27481	Analysis	10.61	2.05		30.26

*Total Phosphoric Acid.

Table 4—Analysis of commercial fertilizers, season 1918-1919.

Laboratory Number.	Manufacturer, Place of Business and Brand.	Phosphoric Acid—Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
	Swift & Co., Fort Worth, Texas; Harvey, La.—Continued.				
27535	Analysis.....	10.64	2.34	.....	\$32.34
27541	Analysis.....	9.47	2.51	.....	31.77
27741	Analysis.....	10.33	2.43	.....	32.50
27747	Analysis.....	10.68	2.28	.....	31.98
27764	Analysis.....	9.71	2.18	.....	29.82
27766	Analysis.....	8.65	2.30	.....	29.07
27825	Analysis.....	10.36	2.57	.....	33.53
27856	Analysis.....	10.41	2.40	.....	32.41
	Swift's Cottonseed Meal and Hulls No. 5—Guarantee.....	6.17	.....	.....	43.19
27827	Analysis.....	5.92	.....	.....	41.44
	Swift's Diamond S Compound—Guarantee.....	10.00	2.47	.....	32.29
27539	Analysis.....	10.40	2.48	.....	32.96
27564	Analysis.....	10.29	2.39	.....	32.16
	Swift's Excelsior Crop Producer—Guarantee.....	10.00	1.65	.....	26.55
27493	Analysis.....	11.68	1.98	.....	31.38
27520	Analysis.....	10.16	1.49	.....	25.67
27560	Analysis.....	9.66	1.65	.....	26.04
27588	Analysis.....	10.04	1.78	.....	27.52
27598	Analysis.....	9.98	2.54	.....	32.75
27609	Analysis.....	11.30	1.60	.....	28.15
27643	Analysis.....	10.37	1.79	.....	28.08
27693	Analysis.....	10.14	1.67	.....	26.90
27725	Analysis.....	10.34	1.62	.....	26.85
27740	Analysis.....	10.13	1.70	.....	27.09
27745	Analysis.....	10.40	1.78	.....	28.06
	Swift's Favorite Crop Producer—Guarantee.....	12.00	1.65	.....	29.55
27546	Analysis.....	12.68	1.51	.....	29.59
	Swift's Garden City Acid Phosphate 14 Per Cent—Guarantee.....	14.00	.....	.....	21.00
27799	Analysis.....	14.48	.....	.....	21.72
	Swift's Good Luck Compound—Guarantee.....	10.00	1.65	2.00	36.55
27672	Analysis.....	10.51	1.64	2.00	37.24
	Swift's General Crop Producer—Guarantee.....	11.00	1.65	.....	28.05
27549	Analysis.....	11.50	1.52	.....	27.89
	Swift's High Grade Acid Phosphate 16 Per Cent—Guarantee.....	16.00	.....	.....	24.00
27498	Analysis.....	17.33	.....	.....	25.99
27515	Analysis.....	16.49	.....	.....	24.73
27537	Analysis.....	17.25	.....	.....	25.37
27543	Analysis.....	15.62	.....	.....	23.43
27548	Analysis.....	17.19	.....	.....	25.78
27557	Analysis.....	16.85	.....	.....	25.27
27574	Analysis.....	16.80	.....	.....	25.20
27597	Analysis.....	16.75	.....	.....	25.12
27692	Analysis.....	17.96	.....	.....	26.94
27726	Analysis.....	16.98	.....	.....	25.47
27727	Analysis.....	16.73	.....	.....	25.09
27739	Analysis.....	16.34	.....	.....	24.51
27746	Analysis.....	16.65	.....	.....	24.97
27767	Analysis.....	16.74	.....	.....	25.11
27794	Analysis.....	17.15	.....	.....	25.72
27802	Analysis.....	16.55	.....	.....	24.82
27828	Analysis.....	17.11	.....	.....	25.65
27890	Analysis.....	18.12	.....	.....	27.19
	Swift's Plow Boy Compound—Guarantee.....	8.00	2.47	3.00	44.29
27499	Analysis.....	7.66	2.15	3.06	41.84
27519	Analysis.....	8.51	2.07	2.91	41.80
	Swift's Non-Potassic Cotton and Corn Grower—Guarantee.....	11.00	1.65	.....	28.05
27602	Analysis.....	11.04	1.54	.....	27.34
27742	Analysis.....	10.27	1.63	.....	26.81
	Swift's Non-Potassic Raw Bone Special—Guarantee.....	11.00	1.65	.....	28.05
27748	Analysis.....	11.52	1.77	.....	29.67
	Swift's Special Cotton and Corn Grower—Guarantee.....	10.00	1.65	1.00	31.55
27494	Analysis.....	9.51	2.06	.97	33.53
27500	Analysis.....	10.00	1.65	1.10	31.42
27763	Analysis.....	11.02	1.50	1.23	33.18
27765	Analysis.....	9.95	1.50	1.08	30.82
27801	Analysis.....	9.97	1.67	.76	30.44
27803	Analysis.....	9.75	1.70	.84	30.72
	Swift's Special Mixture—Guarantee.....	10.00	1.65	.....	26.55
27482	Analysis.....	11.06	1.55	.....	27.45
27514	Analysis.....	9.61	1.74	.....	26.59

Table 4—Analysis of commercial fertilizers, season 1918-1919.

Laboratory Number.	Manufacturer, Place of Business and Brand.	Phosphoric Acid Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
Swift & Co., Fort Worth, Texas; Harvey, La.—Continued.					
Swift's Special Mixture—Guarantee—Continued.					
27540	Analysis.....	10.37	1.71		\$27.52
27592	Analysis.....	10.20	1.62		26.64
27640	Analysis.....	10.57	1.74		28.03
27715	Analysis.....	11.88	1.61		29.09
27730	Analysis.....	11.85	1.63		29.18
27826	Analysis.....	9.76	1.60		25.84
27872	Analysis.....	7.73	1.45		21.74
27879	Analysis.....	7.84	1.78		24.22
27889	Analysis.....	9.90	1.58		25.56
Swift's Trucker's Favorite—Guarantee.....					
27496	Analysis.....	8.00	2.47	1.00	34.29
27513	Analysis.....	8.87	2.14	1.13	33.93
27518	Analysis.....	8.76	1.54	.99	28.87
27714	Analysis.....	9.36	2.30	1.17	35.99
27714	Analysis.....	6.39	2.45	1.01	31.78
27798	Analysis.....	7.67	2.31	.93	32.32
Swift's Special Tankage Fertilizer—Guarantee.....					
27573	Analysis.....	4.80	5.27		44.09
27575	Analysis.....	3.84	4.56		37.68
	Analysis.....	4.02	4.83		39.84
Tennessee Coal, Iron and Railroad Co., Birmingham, Alabama					
14 Per Cent Duplex Basic Phosphate—Guarantee.....					
27806	Analysis.....	*14.00			14.00
	Analysis.....	15.30			15.30
Union Seed and Fertilizer Co., New Orleans, La.—					
Blood and Bone—Guarantee.....					
27855	Analysis.....	11.00	1.65		28.05
	Analysis.....	12.90	1.88		32.51
	Bull Dog Acid Phosphate—Guarantee.....	16.00			24.00
27469	Analysis.....	17.64			26.46
27516	Analysis.....	16.60			24.90
27601	Analysis.....	16.24			24.36
27665	Analysis.....	17.48			26.22
27698	Analysis.....	18.45			27.67
27762	Analysis.....	18.80			27.30
27898	Analysis.....	16.48			24.72
Economizer Without Potash—Guarantee.....					
27837	Analysis.....	12.00	1.65		29.55
	Analysis.....	10.07	1.76		27.42
Goldsmith's Improved Mixture Without Potash—Guarantee.....					
27561	Analysis.....	11.00	1.65		28.05
	Analysis.....	13.57	1.77		32.74
Virginia-Carolina Chemical Co., Shreveport, La.—					
B.B.B. Beef, Blood and Bone Non-Potassic—Guarantee.....					
27488	Analysis.....	11.00	1.65		28.05
27622	Analysis.....	10.53	3.23		38.40
27773	Analysis.....	12.98	1.52		30.11
	Analysis.....	12.88	1.49		29.75
Eureka Complete Fertilizer—Guarantee.....					
27503	Analysis.....	10.00	1.65	4.00	46.55
	Analysis.....	11.91	1.82	3.96	50.40
Georgia State Grange—Guarantee.....					
27595	Analysis.....	10.00	1.65	1.00	31.55
27596	Analysis.....	10.50	1.47	1.27	32.39
27607	Analysis.....	10.99	1.75	1.05	33.98
27577	Analysis.....	11.17	1.28	1.24	31.91
27578	Analysis.....	11.52	1.61	1.09	34.00
27814	Analysis.....	11.03	1.69	.76	32.18
27823	Analysis.....	10.43	1.62	.80	30.98
	Analysis.....	11.28	1.86	.97	34.79
Georgia State Grange Non-Potassic—Guarantee.....					
27582	Analysis.....	11.00	1.65		28.05
27647	Analysis.....	13.23	1.53		30.55
27648	Analysis.....	11.86	1.37		27.38
27649	Analysis.....	12.26	1.27		27.28
27732	Analysis.....	12.60	1.53		29.61
27815	Analysis.....	13.44	1.18		28.32
	Analysis.....	12.04	1.30		27.16
Royal Cotton Boll Guano Non-Potassic—Guarantee.....					
27480	Analysis.....	10.00	1.65		26.55
27719	Analysis.....	10.20	2.16		30.42
	Analysis.....	10.98	1.64		27.95
Royal Vegetable Non-Potassic—Guarantee.....					
27483	Analysis.....	12.00	2.47		35.29
	Analysis.....	12.69	2.98		39.90
Scott's Gossypium Phospho Special Non-Potassic—Guarantee.....					
27849	Analysis.....	12.00	1.65		29.55
	Analysis.....	12.76	1.64		30.62

*Total Phosphoric Acid.

Table 4—Analysis of commercial fertilizers, season 1918-1919.

Laboratory Number.	Manufacturer, Place of Business and Brand.	Phosphoric Acid Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
Virginia-Carolina Chemical Co., Shreveport, La.—					
Continued.					
	Scott's State Standard Guano Non-Potassic—Guarantee	10.00	1.65		\$26.55
27718	Analysis	12.30	1.65		30.00
27822	Analysis	11.19	1.61		28.05
27873	Analysis	10.58	1.97		29.66
	V. C. Ammoniated Bone Non-Potassic—Guarantee	10.00	1.65		26.55
27791	Analysis	12.18	1.56		29.19
	V. C. C. Co.'s 16 Per Cent Acid Phosphate—Guarantee	16.00			24.00
27486	Analysis	17.89			26.83
27502	Analysis	16.83			25.24
27579	Analysis	18.09			27.13
27610	Analysis	17.13			25.69
27619	Analysis	16.09			24.13
27636	Analysis	16.61			24.91
27731	Analysis	16.04			24.06
27761	Analysis	18.71			28.06
27770	Analysis	18.63			27.94
27772	Analysis	17.78			26.67
27787	Analysis	17.37			26.05
27789	Analysis	18.19			27.28
27790	Analysis	17.67			26.50
27795	Analysis	18.14			27.21
27809	Analysis	18.30			27.45
27881	Analysis	17.00			25.50
27888	Analysis	18.39			27.58
	V. C. High Grade Guano Non-Potassic—Guarantee	12.00	1.65		29.55
27509	Analysis	13.25	1.46		30.09
27623	Analysis	12.58	1.92		32.31
	V. C. Meal Formula Non-Potassic—Guarantee	10.00	1.65		26.55
27738	Analysis	10.90	1.60		27.55
	V. C. Rice Special—Guarantee	10.00	1.65	2.00	36.55
27796	Analysis	10.36	1.53	1.72	34.85
	V. C. XXX Special Non-Potassic—Guarantee	9.00	2.47		30.79
27768	Analysis	12.68	1.47		29.31
27848	Analysis	10.36	2.77		34.93
	V. C. Tomato Special—Guarantee	10.00	2.47	1.50	39.79
27583	Analysis	11.56	2.49	1.53	42.42
27808	Analysis	12.25	2.50	.66	39.17
Wills Point Cotton Oil Co., Wills Point, Texas—					
	Semper Fidelis Special Fertilizer—Guarantee	11.00	1.65	1.00	33.05
27669	Analysis	11.10	1.64	1.22	34.23
27886	Analysis	11.89	1.74	1.07	35.35
	Semper Fidelis Phospho Meal—Guarantee	9.00	3.50	1.00	43.00
27887	Analysis	9.00	3.56	.86	42.72
27671	Analysis	8.79	3.56	1.00	43.10
	Semper Fidelis Royal Fertilizer—Guarantee	10.00	1.65		26.55
27670	Analysis	11.56	1.30		26.44

Table 2—Registration of commercial fertilizers, season 1918-1919.

Manufacturer, Place of Business and Brand.	Phosphoric Acid Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
Arkansas Fertilizer Co., Little Rock, Ark.—				
White Diamond Acid Phosphate	14.00			\$21.00
White Diamond Ammoniated Bone Sugar Phosphate Without Potash	11.00	1.65		28.05
White Diamond Blood and Bone Fertilizer	11.00	1.50	1.50	37.50
White Diamond Blood and Bone and Potash	12.00	2.00	1.50	39.50
White Diamond Cotton Fertilizer Without Potash	13.00	2.00		33.50
White Diamond Corn Grower Without Potash	11.00	1.65		28.05
White Diamond Early Boll Without Potash	11.00	1.65		28.05
White Diamond Early Potato and Truck Without Potash	12.00	2.50		35.50
White Diamond East Texas Truck Fertilizer	10.00	2.47	1.00	37.29
White Diamond Gro-Fast Fertilizer Without Potash	10.00	1.65		26.55
White Diamond New South	10.00	1.65		26.55
White Diamond Soluble Bone and Blood Without Potash	10.00	1.65		26.55
White Diamond Special Acid Phosphate	16.00			24.00
White Diamond Vegetable Fertilizer	7.50	2.00	3.00	40.25
White Diamond Queen of the South	12.00	1.65		30.55
White Diamond Southern Queen Fertilizer	10.00	1.65	2.00	36.55
White Diamond Southern Queen Without Potash	12.00	1.65		29.55
White Diamond 20th Century Fertilizer Without Potash	11.00	1.65		28.05
White Diamond 20th Century Fertilizer	9.00	1.65	2.00	35.05
White Diamond Texas Special	10.00	1.65	1.00	31.55
Armour Fertilizer Works, Houston and Fort Worth, Texas; New Orleans, La.—				
African Cotton Grower	9.00	2.47	3.00	45.79
Armour's Best Phosphate	18.00			27.00
Armour's Grain Grower	8.00	1.65	2.00	33.55
Armour's Grain Grower Without Potash	10.00	1.65		26.55
Armour's Onion Fertilizer No. 1	8.00	3.29	8.00	75.03
Armour's Onion Fertilizer No. 2	8.00	2.47	4.00	49.29
Armour's Onion Fertilizer No. 3	8.00	3.29	6.00	65.03
Armour's Onion Fertilizer No. 4	3.00	4.11	5.00	58.27
Armour's Onion Fertilizer No. 5	5.00	4.94	3.00	57.08
Armour's Onion Fertilizer No. 6	4.00	4.94	7.00	75.58
Armour's Onion Fertilizer No. 7	6.00	3.29	3.00	47.03
Armour's Onion Fertilizer No. 8	6.00	3.29	6.00	62.03
Armour's Onion Fertilizer No. 9	10.00	2.47	6.00	62.29
Armour's Onion Fertilizer No. 10	3.00	4.94	5.00	64.08
Armour's Onion Fertilizer No. 11	5.00	4.11	3.00	51.27
Armour's Onion Fertilizer No. 12	6.00	3.29	4.00	52.03
Armour's Onion Fertilizer No. 13	1.00	4.94	1.00	41.08
Armour's Onion Fertilizer No. 14	7.00	4.94		45.08
Armour's Onion Fertilizer No. 15	10.00	2.47	1.00	37.29
Armour's Onion Fertilizer No. 16	8.00	2.47		29.29
Armour's Onion Fertilizer No. 17	10.00	3.29		38.03
Armour's Onion Fertilizer No. 18	4.00	4.94		40.58
Armour's Onion Fertilizer No. 19	6.00	3.29		32.03
Armour's Onion Fertilizer No. 20	7.00	4.11		39.27
Armour's Onion Fertilizer No. 21	8.00	4.11		40.77
Armour's Strawberry King	10.00	2.47	4.00	52.29
Armour's Texas Trucker	10.00	2.47		32.29
Armour's Tomato Grower	10.00	2.47		32.29
Blood and Bone Special Without Potash	10.00	1.65		26.55
Champion Meal Mixture Without Potash	12.00	1.65		29.55
Champion Meal Mixture With Potash	10.00	1.65	2.00	36.55
Corn King	8.00	2.47	2.00	39.29
Cottonseed Meal Special	10.00	1.65	1.50	34.05
Dried Blood		13.16		92.12
Delta Special	6.00	4.11	2.00	47.77
Farmers Choice Without Potash	10.00	1.95		28.65
Farmers Choice With Potash	10.00	1.65	1.00	31.55
Farmers Favorite With Potash	10.00	1.65	2.00	36.55
Farmers Favorite Without Potash	12.00	1.65		29.55
Gold Medal	9.50	1.65	1.50	33.30
Gold Medal Without Potash	11.00	1.65		28.05
Helmet Phosphate	12.00			18.00
King Cotton	8.00	1.65	2.00	33.55
King Cotton Without Potash	10.00	1.65		26.55
Meal and Potash Mixture	10.00	1.65	3.00	41.55
Nitrate of Soda		14.81		103.67
Raw Bone Meal	*22.00	3.70		47.90
Rice King	8.00	1.65	2.00	33.55
Rice King Without Potash	10.00	1.65		26.55
Royal Mixture With Potash	10.00	1.65	1.00	31.55

*Total Phosphoric Acid.

Table 2—Registration of commercial fertilizers, season 1918-1919.

Manufacturer, Place of Business and Brand.	Phosphoric Acid Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
Armour Fertilizer Works, Houston and Fort Worth, Texas; New Orleans, La.—Continued.				
Royal Mixture Without Potash	10.00	1.95		\$28.65
Sandy Highland Special	10.00	1.65	1.50	34.05
Shield Phosphate	14.00			21.00
Special Blood and Bone Mixture	9.50	1.65	1.50	33.30
Special Blood Mixture Without Potash	11.00	1.65		28.05
Special Farm Mixture	8.00	1.65	2.00	33.55
Special Farm Mixture Without Potash	10.00	1.65		26.55
Special Formula No. 84	8.00	3.29		35.03
Star Phosphate	16.00			24.00
Strawberry Grower	8.00	1.65	3.00	38.55
Sulphate of Ammonia		20.58		144.06
Tankage No. 1	* 6.87	6.58		52.93
Tankage No. 2	* 6.87	7.40		58.67
Tankage No. 3	* 4.58	8.23		62.19
Texas Berry King	8.00	2.47	4.00	49.29
Texas Vegetable Grower	9.00	2.05	3.00	42.85
Truck Special No. 1	7.00	4.11	6.00	69.27
Truck Special No. 2	8.00	1.65	3.00	38.55
Truck and Berry Special	10.00	1.65	3.00	41.55
Bryan Cotton Oil and Fertilizer Co., Bryan, Texas—				
Star Brand 16 Per Cent Acid Phosphate	16.00			24.00
Star Brand Cotton and Corn Fertilizer	11.50	1.80		29.85
Star Brand Potato Fertilizer	8.00	3.50		36.50
Star Brand Phospho Special	11.00	2.00		30.50
The Cudahy Packing Co., Chicago, Ill.—				
Blue Ribbon Steamed Bone Meal	*24.00	2.47		41.29
Dallas Fertilizer and Reduction Co., Dallas, Texas—				
Beaver Brand Acid Phosphate	16.00			24.00
Beaver Brand Cotton and Corn Grower Non-Potassic	10.00	2.47		32.29
Beaver Brand Steam Bone Meal	*22.00	2.00		36.00
Beaver Brand Vegetable Grower	9.00	2.47	3.00	45.79
East Texas Fertilizer Co., Tyler, Texas—				
16 Per Cent Acid Phosphate	13.00			24.00
Tomato Grower	10.00	2.47		32.29
Wiley's Farm Mixture	10.00	1.65		26.55
Wiley's 10-35-1.90 Farm Mixture	10.35	1.90		28.82
Wiley's 11-1.65 Farm Mixture	11.00	1.65		28.05
Wiley's 12-1.65 Farm Mixture	12.00	1.65		29.55
Wiley's Tomato Special	9.00	2.80		33.10
The Fertile Chemical Co., Cleveland, Ohio—				
Nitro-Fertile	3.00	2.00	3.00	
Fidelity Chemical Corporation, Houston, Texas—				
Fidelity Bone Meal Fertilizer	*27.00	1.00		34.00
Fidelity 14 Per Cent Acid Phosphate	14.00			21.00
Fidelity 16 Per Cent Acid Phosphate	16.00			24.00
Fidelity Cotton Special Fertilizer	10.00	1.65	2.00	36.55
Non-Potassic Fidelity Cotton Fertilizer	8.00	2.63		30.41
Non-Potassic Fidelity Cotton Grower Fertilizer	10.00	2.00		29.00
Non-Potassic Fidelity Laredo Trucker Fertilizer	5.00	3.87		34.59
Fidelity Victory Special Fertilizer	8.00	1.65	3.00	38.55
Gate City Fertilizer Co., Texarkana, Ark.—				
Red Ball Acid Phosphate	14.00			21.00
Red Ball Complete Fertilizer	10.00	1.65	1.00	31.55
Red Ball Cotton and Corn Fertilizer Without Potash	13.00	2.00		33.50
Red Ball Cotton Grower	9.00	1.65	2.00	35.05
Red Ball Cotton Grower Without Potash	11.00	1.65		28.05
Red Ball Diversified Cropper	10.00	1.65	2.00	36.55
Red Ball Diversified Cropper Without Potash	12.00	1.65		29.55
Red Ball Early Trucker	8.00	2.50	4.00	49.50
Red Ball Early Trucker Without Potash	12.00	2.50		35.50
Red Ball Extra Acid Phosphate	16.00			24.00
Red Ball Four States' Standard Without Potash	11.00	1.65		28.05
Red Ball Old Reliable Fertilizer	8.00	1.65	2.00	33.55
Red Ball Old Reliable Without Potash	10.00	1.65		26.55
Red Ball Old Time Vegetable Grower Without Potash	10.50	2.00		29.75
Red Ball Old Time Vegetable Grower	7.50	2.00	3.00	40.25
Red Ball Soluble Bone Without Potash	10.00	1.65		26.55

*Total Phosphoric Acid.

Table 2—Registration of commercial fertilizers, season 1918-1919.

Manufacturer, Place of Business and Brand.	Phosphoric Acid Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
Henderson Cotton Oil and Gin Co., Henderson, Texas—				
Acid Phosphate.....	16.00			\$24.00
Henderson Half and Half.....	8.70	3.50		37.55
Henderson Staple.....	10.00	2.00		29.00
Hope Fertilizer Co., Hope, Ark.—				
Cotton Phos.....	8.50	3.30	1.00	40.85
Our Cotton Grower.....	10.00	1.65	1.00	31.55
Our Corn Grower.....	12.00	1.70		29.90
Our Early Fruiter.....	10.00	.90	1.00	26.30
Our Extra Cotton Grower.....	10.00	1.65	2.00	36.55
Hope Fertilizer No. 10.....	11.00	1.65		28.05
Hope Fertilizer No. 12.....	10.00	1.65		26.55
Hope Hustler.....	10.00	1.65		26.55
Hope Standard.....	11.00	1.65		28.05
Stock Brand 16 Per Cent Acid Phosphate.....	16.00			24.00
Stock Brand Nitrate of Soda.....		15.00		105.00
Houston County Oil and Manufacturing Co., Crockett, Texas—				
Crockett Compound.....	9.00	3.50	1.00	43.00
Crockett 14 Per Cent Acid Phosphate.....	14.00			21.00
Crockett 16 Per Cent Acid Phosphate.....	16.00			24.00
Crockett Phosphate Meal Mixture.....	11.00	1.65		28.05
Houston Packing Co., Houston, Texas—				
Blood and Bone.....	*14.50	5.60		53.70
Longview Cotton Oil Co., Longview, Texas—				
Longview Acid Phosphate.....	16.00			24.00
Longview Cotton Grower.....	11.50	2.00		31.25
Longview Corn and Potato Special.....	10.00	3.00		36.00
John Marbach, New Braunfels, Texas—				
Bat Guano.....	3.50	8.40		64.05
Marshall Fertilizer Factory, Marshall, Texas—				
High Grade Acid Phosphate.....	16.00			24.00
Standard Grade Cotton and Corn Special.....	10.00	1.65		26.35
Truck Special.....	7.00	2.47		27.79
Meridian Fertilizer Factory, Shreveport, La.—				
Caddo Cotton.....	9.35	1.90	1.00	32.33
Caddo Cotton Non-Potassic.....	10.35	1.90		28.83
Caddo Queen Non-Potassic.....	12.00	1.65		29.55
Caddo Special.....	6.00	2.47	7.00	61.29
Caddo Vegetable.....	8.00	3.30	4.00	55.10
Cottonseed Fertilizer.....		5.76		40.32
Meridian Blood and Bone.....	10.00	1.65	1.00	31.55
Meridian Blood and Bone Non-Potassic.....	11.00	1.65		28.05
Meridian Bone and Potash.....	12.00	2.00		28.00
Meridian Cane Special No. 1.....	4.00	5.35		43.45
Meridian Cantalope Special.....	8.00	2.47	1.00	34.29
Meridian Corn Club Special.....	7.50	2.47	1.00	33.54
Meridian Corn Club Special Non-Potassic.....	8.50	2.47		30.04
Meridian Corn Grower.....	7.50	2.88	1.00	36.41
Meridian Corn Grower Non-Potassic.....	8.50	2.88		32.91
Meridian Cotton and Corn Special.....	9.00	2.47	3.00	45.79
Meridian Easy Driller Phosphate.....	16.00			24.00
Meridian English Acid Phosphate.....	12.00			18.00
Meridian Farm Special.....	10.00	1.65		26.55
Meridian Golden Harvester.....	10.00	3.30	4.00	58.10
Meridian Ham and Bone Guano.....	10.00	1.65	1.50	34.05
Meridian Home Mixture.....	10.00	1.65	1.00	31.55
Meridian Home Mixture Non-Potassic.....	11.00	1.65		28.05
Meridian Improved Meal Compound.....	8.50	2.88		32.91
Meridian Meal Mixture.....	10.00	1.65	1.00	31.55
Meridian Meal Mixture Non-Potassic.....	11.00	1.65		28.05
Meridian Melon Grower.....	8.50	2.47		30.04
Meridian Nitrated Bone and Potash.....	10.00	1.65	2.00	36.55
Meridian Perfection Acid Phosphate.....	18.00			27.00
Meridian Perfection Blood Compound.....	10.00	2.47	3.00	47.29
Meridian Perfection Cotton and Corn.....	12.00	2.47		35.29
Meridian Perfection Cotton Formula.....	11.00	2.47		33.79

*Total Phosphoric Acid.

Table 2—Registration of commercial fertilizers, season 1918-1919.

Manufacturer, Place of Business and Brand.	Phosphoric Acid— Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
Meridian Fertilizer Factory, Shreveport, La.—Continued.				
Meridian Perfection Meal Compound	\$10.00	2.47	3.00	47.79
Meridian Perfection Potash Formula	12.00	.....	4.00	38.00
Meridian Potash Compound	10.00	.....	4.00	35.00
Meridian Potato Grower	8.00	3.30	.....	35.10
Meridian Potato Special	8.00	3.30	2.00	45.10
Meridian Prolific Wonder	9.25	2.63	1.00	37.29
Meridian Raw Bone Mixture	10.00	1.65	1.00	31.55
Meridian Raw Bone Mixture Non-Potassic	11.00	1.65	.....	28.05
Meridian Rice Grower	10.00	.....	2.00	25.00
Meridian Standard Cotton and Corn	9.35	1.90	1.00	32.33
Meridian Standard Cotton and Corn Non-Potassic	10.35	1.90	.....	28.83
Meridian Soluble Guano	10.00	1.65	1.50	34.05
Meridian Southern Acid Phosphate	14.00	.....	.....	21.00
Meridian Southern Standard	10.00	2.00	.....	29.00
Meridian Special Meal Compound	12.00	2.00	.....	32.00
Meridian Special Top Dressing	5.00	4.25	2.00	47.25
Meridian Special Truck Formula	6.00	3.00	4.00	50.00
Meridian Tankage Compound	8.50	2.47	.....	30.04
Meridian Tomato Special	10.00	2.47	1.00	37.29
Meridian Tomato Non-Potassic	11.00	2.47	.....	33.79
Meridian Truck Grower	10.00	2.47	.....	32.29
Meridian Truckers Special	9.00	1.65	2.00	35.05
Meridian Vegetable Grower	8.00	2.47	5.00	54.29
Nitrate of Soda	.....	15.00	.....	105.00
Special Cotton Formula	10.00	1.65	.....	26.55
Star	10.00	1.65	1.00	31.55
Star Non-Potassic	11.00	1.65	.....	28.05
Texas Special	10.00	2.72	.....	34.04
Union Special Acid Phosphate	16.00	.....	.....	24.00
Weevil Beater Guano	10.00	1.65	1.00	31.55
Weevil Beater Guano Non-Potassic	11.00	1.65	.....	28.05
Navarro Cotton Oil Co., Corsicana, Texas—				
Cottonseed Fertilizer	.....	6.40	.....	44.80
Nitrate Agencies, Houston, Texas—				
N. A. C. Brand 16 Per Cent Acid Phosphate	16.00	.....	.....	24.00
N. A. C. Brand Nitrate of Soda	.....	15.00	.....	100.00
Palestine Oil and Manufacturing Co., Palestine, Texas—				
Acid Phosphate	16.00	.....	.....	24.00
Palestine Cotton Fertilizer	12.00	1.65	.....	45.00
Palestine Corn and Vegetable Fertilizer	8.00	3.50	1.00	55.00
Pelican Fertilizer Works, Shreveport, La.—				
Pelican Blood and Bone Non-Potassic	11.00	1.65	.....	28.05
Pelican Corn Grower	8.00	2.47	1.00	34.29
Pelican Corn Grower Non-Potassic	9.00	2.47	.....	30.79
Pelican Cotton and Corn	8.00	2.00	2.00	36.00
Pelican Cotton Grower	10.00	1.65	.....	26.55
Pelican Cotton Producer	11.50	1.65	.....	28.80
Pelican Cotton Special	10.00	1.65	2.00	36.55
Pelican Fish Bone Fertilizer	10.00	1.65	2.00	36.55
Pelican Fish Formula	10.00	1.65	1.00	31.55
Pelican Fish Formula Non-Potassic	11.00	1.65	.....	28.05
Pelican Golden West	10.00	1.65	1.00	31.55
Pelican Golden West Non-Potassic	11.00	1.65	.....	28.05
Pelican High Grade	9.00	2.47	3.00	45.75
Pelican High Grade Acid Phosphate	14.00	.....	.....	21.00
Pelican Meal Compound	10.00	1.65	1.00	31.55
Pelican Meal Compound Non-Potassic	11.00	1.65	.....	28.05
Pelican Potash and Bone	12.00	.....	2.00	28.00
Pelican Potash and Superphosphate	10.00	.....	4.00	35.00
Pelican Potato Grower	8.00	3.30	.....	35.10
Pelican Potato Special	8.00	3.30	2.00	45.10
Pelican Rice Formula	10.00	.....	2.00	25.00
Pelican Rice Phosphate	16.00	.....	.....	24.00
Pelican Special Formula	10.00	1.65	.....	26.55
Pelican Special Phosphate	16.00	.....	.....	24.00
Pelican Tomato Special	10.00	2.47	1.00	37.29
Pelican Tomato Special Non-Potassic	11.00	2.47	.....	37.79
Pelican Truck Grower Non-Potassic	10.00	2.47	.....	32.29
Pelican Vegetable Grower	8.00	2.47	4.00	49.29

Table 2—Registration of commercial fertilizers, season 1918-1919.

Manufacturer, Place of Business and Brand.	Phosphoric Acid Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
Planters' Fertilizer and Chemical Co., Houston and Fort Worth, Texas; New Orleans, La.—				
Ammoniated Superphosphate with Potash.....	10.00	1.65	2.00	\$36.55
Ammoniated Superphosphate Without Potash.....	12.00	1.65		29.55
Blood and Bone with Potash.....	10.00	1.65	1.00	31.55
Blood and Bone Without Potash.....	10.00	1.95		28.65
Crescent Acid Phosphate.....	12.00			18.00
Dried Blood.....		13.16		92.12
18 Per Cent Acid Phosphate.....	18.00			27.00
Farmer's Champion With Potash.....	10.00	1.65	1.00	31.55
Farmer's Champion Without Potash.....	10.00	1.95		28.65
Farm Special.....	8.00	1.65	2.00	33.55
Farm Special Without Potash.....	10.00	1.65		26.55
14 Per Cent Acid Phosphate.....	14.00			21.00
Fruit and Truck Special.....	8.00	2.47	4.00	49.29
Fruit and Vegetable Formula.....	8.00	1.65	3.00	38.55
Golden Mixture with Potash.....	9.50	1.65	1.50	33.30
Golden Mixture Without Potash.....	11.00	1.65		28.05
Ground Bone Meal.....	*22.00	1.65		33.55
Imperial Cotton Mixture.....	8.00	1.65	2.00	33.55
Imperial Cotton Mixture Without Potash.....	10.00	1.65		26.55
Imperial Grain Grower.....	8.00	1.65	2.00	33.55
Imperial Rice Mixture.....	8.00	1.65	2.00	33.55
Imperial Truck Grower.....	8.00	2.47	2.00	39.29
Magic Strawberry Producer.....	10.00	2.47	4.00	52.29
Meal Mixture Without Potash.....	12.00	1.65		29.55
Nitrate of Soda.....		14.81		103.67
Planters' Texas Trucker.....	10.00	2.47		32.29
Planters' Tomato Grower.....	10.00	2.47		32.29
Raw Bone Meal.....	*22.00	3.70		47.90
Raw Bone Superphosphate With Potash.....	9.50	1.65	1.50	33.30
Raw Bone Superphosphate Without Potash.....	11.00	1.65		28.05
16 Per Cent Acid Phosphate.....	16.00			24.00
Strawberry Special With Potash.....	10.00	1.65	2.00	36.55
Sulphate of Ammonia.....		20.58		144.06
Vegetable Grower.....	7.00	2.47	3.50	45.29
Shreveport Fertilizer Works, Shreveport, La.—				
Lion Acid Phosphate and Limestone.....	16.00			24.00
Lion Blood and Bone.....	11.00	1.65		28.05
Lion Double "B".....	10.00	1.65		26.55
Lion Double "C".....	10.00	1.65		26.55
Lion Double "S".....	9.00	2.00		27.50
Lion Corn Food.....	9.00	2.50		31.00
Lion Cotton Food.....	10.00	1.88		28.16
Lion Fruiter.....	10.00	2.00		29.00
Lion Georgia Special.....	8.00	3.00	3.00	48.00
Lion Gold Corn Guano.....	10.00	1.65	2.00	36.55
Lion Meal Formula.....	10.00	1.65		26.55
Lion Potash Mixture.....	10.00	1.65	1.00	31.55
Lion Red Land Cotton Grower.....	12.00	1.65		29.55
Lion Special.....	8.50	2.50		30.25
Lion Success Mixture.....	11.00	1.65		28.05
Lion Superfine Acid Phosphate.....	18.00			27.00
Lion Superior Acid Phosphate.....	17.00			25.50
Lion Superior Meal Formula.....	10.00	2.50		32.50
Lion Tomato Special.....	10.00	2.50		32.50
Lion Veribest.....	12.00	3.00		39.00
Lion Extragood Acid Phosphate.....	16.00			24.00
Nitrate of Soda.....		15.00		105.00
Sulphur Springs Acid and Fertilizer Co., Sulphur Springs, Texas.				
Acid Phosphate.....	16.00			24.00
Cotton Fertilizer.....	10.00	1.65		26.55
Plantation Acid Phosphate.....	14.00			21.00
Plantation Fertilizer.....	11.00	1.65		28.05
Plantation Special Fertilizer.....	8.00	3.00		33.00
Plantation Special Grower.....	10.00	2.00		29.00
Standard Cotton Fertilizer.....	10.00	2.00		29.00
Swift & Co., Fort Worth, Texas; Harvey and Shreveport, La.—				
Swift's Acid Phosphate 12 Per Cent.....	12.00			18.00
Swift's Ammoniated Phosphate.....	12.00	1.65		29.55

*Total Phosphoric Acid.

Table 2—Registration of commercial fertilizers, season 1918-1919.

Manufacturer, Place of Business and Brand.	Phosphoric Acid— Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
Swift & Co., Fort Worth, Texas; Harvey and Shreveport, La.—				
Continued.				
Swift's Ammoniated Raw Bone Superphosphate.....	9.50	1.65	1.50	\$33.30
Swift's Blood and Bone.....	12.00	1.65	.....	29.55
Swift's Blood and Bone Special.....	10.00	2.47	.....	32.29
Swift's Blood and Bone Trucker.....	8.00	2.47	.....	29.29
Swift's Bone Meal Fertilizer.....	*24.00	2.47	.....	41.29
Swift's Champion Vegetable Grower.....	8.00	3.29	3.00	50.03
Swift's Cotton Seed Meal and Hulls No. 5.....	.....	6.17	.....	43.19
Swift's Diamond "A" Fertilizer.....	8.00	1.65	3.00	38.55
Swift's Diamond "C" Fertilizer.....	8.00	2.47	2.00	39.29
Swift's Diamond "G" Onion Grower.....	6.00	2.47	2.00	36.29
Swift's Diamond "S" Compound.....	10.00	2.47	.....	32.29
Swift's Eagle Guano.....	10.00	1.65	2.00	36.55
Swift's Early Vegetable and Fruit Fertilizer.....	10.00	3.29	.....	38.03
Swift's East Texas Trucker.....	8.00	2.47	3.00	44.29
Swift's Excelsior Crop Producer.....	10.00	1.65	.....	26.55
Swift's Favorite Crop Producer.....	12.00	1.65	.....	29.55
Swift's Garden City Phosphate 14 Per Cent.....	14.00	.....	.....	21.00
Swift's General Crop Producer.....	11.00	1.65	.....	28.05
Swift's Good Luck Compound.....	10.00	1.65	2.00	36.55
Swift's Golden Harvest Compound.....	9.00	1.65	2.00	35.05
Swift's Ground Beef Bone Fertilizer.....	*27.00	2.06	.....	41.42
Swift's High Grade Acid Phosphate 16 Per Cent.....	16.00	.....	.....	24.00
Swift's High Grade Mixture.....	4.00	7.40	.....	57.80
Swift's High Grade Onion Fertilizer.....	7.00	4.94	2.00	55.08
Swift's Laredo Mixture.....	8.00	3.29	.....	35.03
Swift's Laredo Special.....	3.00	4.94	3.00	54.08
Swift's Nitrate of Soda.....	.....	14.81	.....	103.67
Swift's Non-Potassic Cotton and Corn Grower.....	11.00	1.65	.....	28.05
Swift's Non-Potassic Raw Bone Special.....	11.00	1.65	.....	28.05
Swift's Onion Grower.....	7.00	3.70	3.00	51.40
Swift's Onion Growers' Special.....	7.00	4.94	.....	45.08
Swift's Planters' Special.....	10.00	1.65	1.00	31.55
Swift's Plow Boy Compound.....	8.00	2.47	3.00	44.29
Swift's Raw Bone Meal Fertilizer.....	*22.00	3.70	.....	47.90
Swift's Red Steer Guano.....	9.00	1.65	2.00	35.05
Swift's Special Acid Phosphate 18 Per Cent.....	18.00	.....	.....	27.00
Swift's Special Cotton and Corn Grower.....	10.00	1.65	1.00	31.55
Swift's Special Mixture.....	10.00	1.65	.....	26.55
Swift's Special Onion Grower.....	6.00	3.29	.....	32.03
Swift's Special Onion Mixture.....	4.00	4.94	.....	40.58
Swift's Special Phosphate and Potash.....	10.00	.....	2.00	25.00
Swift's Special Tankage Fertilizer.....	4.80	5.27	.....	44.09
Swift's Superphosphate Compound.....	9.50	1.65	1.50	33.30
Swift's Superphosphate Potash Ammoniated.....	8.00	1.65	2.00	33.55
Swift's Tankage Formula.....	*6.87	7.40	.....	58.67
Swift's Tankage Mixture.....	9.00	3.29	.....	36.53
Swift's Tomato Special.....	10.00	2.47	1.00	37.29
Swift's Truckers' Favorite.....	8.00	2.47	1.00	34.29
Swift's Truckers' Favorite Compound.....	8.00	2.47	1.00	34.29
Tennessee Coal, Iron and Railroad Co., Birmingham, Ala.—				
Duplex Basic Phosphate.....	*18.00	.....	.....	27.00
14 Per Cent Duplex Basic Phosphate.....	*14.00	.....	.....	21.00
Union Seed and Fertilizer Co., New Orleans, La.—				
Ammoniated Raw Bone Superphosphate and Potash.....	10.00	1.65	1.00	31.55
Ammoniated Raw Bone Superphosphate.....	11.00	1.65	.....	28.05
Black Diamond Acid Phosphate.....	12.00	.....	.....	18.00
Blood and Bone.....	11.00	1.65	.....	28.05
Blood, Bone and Beef.....	10.00	1.65	1.00	31.55
Blood, Bone and Beef (Without Potash).....	11.00	1.65	.....	28.05
Blood, Bone and Potash.....	10.00	1.65	1.00	31.55
Blue Rose Rice Grower.....	12.00	.....	2.00	28.00
Bull Dog Acid Phosphate.....	16.00	.....	.....	24.00
Crescent City Acid Phosphate.....	12.00	.....	.....	18.00
Cynamid 15 Per Cent.....	.....	15.00	.....	105.00
Dissolved Bone and Potash 10-4.....	10.00	.....	4.00	35.00
Economizer.....	10.00	1.65	2.00	36.55

*Total Phosphoric Acid.

Table 2—Registration of commercial fertilizers, season 1918-1919.

Manufacturer, Place of Business and Brand.	Phosphoric Acid Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
Union Seed and Fertilizer Co., New Orleans, La.—Continued.				
Economizer (Without Potash)	12.00	1.65		\$29.55
Excelsior	10.00	1.65	2.00	36.55
Excelsior (Without Potash)	12.00	1.65		29.55
Golden Guano	10.00	1.65	1.00	31.55
Golden Guano (Without Potash)	11.00	1.65		28.05
Goldsmith's Improved Mixture	10.00	1.65	1.00	31.55
Goldsmith's Improved Mixture (Without Potash)	11.00	1.65		28.05
Honduras Rice Grower	12.00		4.00	38.00
Lone Star Blood Mixture	10.00	0.82	1.00	25.74
Lone Star Meal Mixture	10.00	0.82	1.00	25.74
Louisiana Plant Cane Grower	6.00	3.30		32.10
Louisiana Rice Grower	10.00		2.00	25.00
Louisiana Stubble Cane Grower	4.00	4.94		40.58
Meal Ammoniated Superphosphate	11.00	1.65		28.05
Meal Ammoniated Superphosphate and Potash	10.00	1.65	1.00	31.55
New Orleans Acid Phosphate	14.00			21.00
Nitrate of Soda		15.00		105.00
Special Sugar Cane Grower No. 67	7.00	5.00		45.50
Supreme Acid Phosphate	18.00			27.00
Texas Guano	10.00	1.65		26.55
Truck Grower	6.00	3.30	1.00	37.10
Texas Onion Grower	6.00	3.30	6.00	62.10
Vegetable Fertilizer (Without Potash)	6.00	3.30		32.10
Vegetable Grower	6.00	2.47	4.00	46.29
Virginia-Carolina Chemical Co., Shreveport, La.—				
B. B. B. Beef, Blood and Bone	10.00	1.65	1.00	31.55
B. B. B. Beef, Blood and Bone Non-Potassic	11.00	1.65		28.05
Eureka Complete Fertilizer	10.00	1.65	4.00	46.55
Georgia State Grange	10.00	1.65	1.00	31.55
Georgia State Grange Non-Potassic	11.00	1.65		28.05
Kainit			12.00	60.00
Mobile Double Eagle Guano	10.00	1.65	1.50	34.05
Mobile Double Eagle Guano Non-Potassic	11.50	1.65		28.80
Mobile Raw Bone Ammoniated Superphosphate	10.00	1.65	1.50	34.05
Mobile Raw Bone Ammoniated Superphosphate Non-Potassic	11.50	1.65		28.80
Muriate of Potash			48.00	240.00
Nitrate of Soda		14.81		103.67
Royal Blood, Bone and Potash	10.00	1.65	1.50	34.05
Royal Blood and Bone Non-Potassic	11.50	1.65		28.80
Royal Compound	10.00		2.00	25.00
Royal Cotton Boll Guano	8.00	1.65	2.00	33.55
Royal Cotton Boll Guano Non-Potassic	10.00	1.65		26.55
Royal Fruit Grower	8.00	2.47	5.00	54.29
Royal High Grade Guano	10.00	1.65	2.00	36.55
Royal High Grade Guano Non-Potassic	12.00	1.65		29.55
Royal Potash Compound	10.00		4.00	35.00
Royal Tomato Formula	10.00	2.47	1.00	37.29
Royal Tomato Formula Non-Potassic	11.00	2.47		33.79
Royal Vegetable Fertilizer	8.00	2.47	4.00	49.29
Royal Vegetable Fertilizer Non-Potassic	12.00	2.47		35.29
Scott's Gossypium Phospho	10.00	1.65	1.50	34.05
Scott's Gossypium Phospho Non-Potassic	11.50	1.65		28.80
Scott's Gossypium Phospho Special	10.00	1.65	2.00	36.55
Scott's Gossypium Phospho Special Non-Potassic	12.00	1.65		29.55
Scott's High Grade Acid Phosphate	14.00			21.00
Scott's Potasso Phospho	12.00		2.00	28.00
Scott's State Standard Guano	8.00	1.65	2.00	33.55
Scott's State Standard Guano Non-Potassic	10.00	1.65		26.55
Sulphate of Potash			48.00	240.00
Tip Top Nitrogen Compound	2.00	13.16		95.12
V. C. Ammoniated Bone Non-Potassic	10.00	1.65		26.55
V. C. Co.'s 18 Per Cent Acid Phosphate	18.00			27.00
V. C. Co.'s 16 Per Cent Acid Phosphate	16.00			24.00
V. C. Co.'s Truck Grower	8.00	2.06	6.00	56.42
V. C. High Grade Champion Compound	9.00	3.00	3.00	49.50
V. C. High Grade Champion Compound Non-Potassic	12.00	3.00		39.00
V. C. High Grade Dixie Special	7.00	3.00	1.00	36.50
V. C. High Grade Dixie Special Non-Potassic	8.00	3.00		33.00
V. C. High Grade Guano	10.00	1.65	2.00	36.55
V. C. High Grade Guano Non-Potassic	12.00	1.65		29.55
V. C. High Grade Potash Compound	12.00		4.00	38.00
V. C. High Grade Top Dresser	4.00	6.17	2.50	61.69

Table 2—Registration of commercial fertilizers, season 1918-1919.

Manufacturer, Place of Business and Brand.	Phosphoric Acid— Available Per Cent.	Nitrogen—Per Cent.	Potash—Per Cent.	Valuation—Per Ton.
Virginia-Carolina Chemical Co., Shreveport, La.—				
V. C. High Grade Top Dresser Non-Potassic.....	6.50	6.17	.....	\$52.94
V. C. Meal Formula Non-Potassic.....	10.00	1.65	.....	26.55
V. C. Plant Food (for Vegetable, Lawn and Flower).....	8.00	4.92	2.00	56.44
V. C. Rice Special.....	10.00	1.65	2.00	36.55
V. C. Rice Special Non-Potassic.....	12.00	1.65	.....	29.55
V. C. Special Potash Compound.....	12.00	.....	8.00	58.00
V. C. Tomato Special.....	10.00	2.47	1.50	39.79
V. C. XXX Special.....	8.00	2.47	1.00	34.29
V. C. XXX Special Non-Potassic.....	9.00	2.47	.....	30.79
V. C. Fruit and Truck Special.....	6.00	3.29	8.00	72.03
Wills Point Cotton Oil Co., Wills Point, Texas—				
Semper Fidelis Special Fertilizer.....	11.00	1.65	1.00	33.05
Semper Fidelis Phospho Meal.....	9.00	3.50	1.00	43.00
Semper Fidelis Royal Fertilizer.....	10.00	1.65	.....	26.55
Semper Fidelis Standard Acid Phosphate.....	14.00	.....	.....	21.00