

Bulletin 726

COMMERCIAL FERTILIZERS IN 1949-50

J. F. FUDGE, State Chemist

T. L. OGIER, Associate State Chemist

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Digest

This is the 48th annual fertilizer bulletin. It contains information regarding the Texas fertilizer law, statistics concerning the sale of fertilizer during the 1949-50 season and analyses of 1,829 official samples of fertilizer sold by different manufacturers.

Fertilizer inspection fees equivalent to 545,899 tons of fertilizers were collected for fertilizers sold during the period from September 1, 1949 through August 31, 1950. This tonnage was about 11 percent higher than that sold in 1948-49. The 5-10-5 and 4-12-4 grades accounted for about three-fourths of the mixed goods sold. Superphosphate (20 percent) accounted for about two-thirds of the fertilizer materials sold.

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

CONTENTS

	Page
Introduction.....	5
Some Requirements of the Texas Fertilizer Law.....	5
Fertilizer Grades to Be Sold During 1950-51.....	7
The Texas Fertilizer Committee.....	9
Brands and Trade-marks Registered with the State Chemist.....	9
Inspection Fees Collected During 1949-50.....	10
Tonnage Sales of Different Grades of Fertilizers.....	11
Valuation per Ton.....	13
Composition and Selling Price of Different Grades of Fertilizers.....	15
Average Cost of Nitrogen, Available Phosphoric Acid and Potash....	15
Relation of Valuation Guaranteed to Valuation Found.....	17
How to Obtain Free Analysis of Fertilizers.....	17
Publications Dealing with the Use of Fertilizers.....	18
Analyses of Fertilizers, 1949-50.....	20
Summary.....	20

Commercial Fertilizers in 1949-50

J. F. FUDGE, State Chemist, and T. L. OGIER, Associate State Chemist

THIS IS THE 48th annual fertilizer bulletin published in compliance with the Texas fertilizer law, which requires that the State Chemist shall issue at least one bulletin annually setting forth the analyses of fertilizers made under the provisions of the fertilizer law, the operations of the law, and other information pertaining to the sale of fertilizer in Texas.

SOME REQUIREMENTS OF THE TEXAS FERTILIZER LAW

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

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

Registration. Before a fertilizer is offered for sale in Texas, it must be registered with the State Chemist of Texas. All registrations expire on August 31 of each year, and new applications for registration must be submitted for each year. Application blanks for registration are furnished by the State Chemist, College Station, Texas, upon request. The application blank must be filled out and sent to the State Chemist together with a copy of the printed bag or tag to be used. Such a bag or tag must meet the requirements of the fertilizer law. Wording

on the application for registration must agree exactly with the wording on the printed bag or tag, and no change may be made in the wording on the bag or tag after it has been registered. Any such change requires a new registration.

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

No brand name identical with or so similar to a brand name previously registered by another manufacturer as to lead to confusion can be accepted. No name which is misleading as to the ingredients of the fertilizer can be accepted. The grade of mixed fertilizers should be part of the brand name; for example, Jupiter Brand 20 Percent Superphosphate or Mars Brand 5-10-5 Fertilizer.

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

- Net weight of content of the bag.
- Name of fertilizer in full.
- Name and address of manufacturer, manipulator or guarantor.
- Guaranteed analysis (in the order given below):
 - Nitrogen, percent
 - Available phosphoric acid, percent
 - Potash, percent

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

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

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

Inspection fees. To finance the inspection of fertilizers and the collection and analyses of official samples of fertilizer, experiments relative to the value of fertilizers, and for certain other purposes, the law imposes an inspection tax of 25 cents per ton upon all fertilizers sold or offered for sale in Texas. This fertilizer inspection fee must be paid on the basis of and

accompany sworn quarterly statements of sales, due on the first day of September, December, March and June.

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

Fertilizer in bulk cannot be sold to dealers for resale or distribution.

Registered fertilizers may be sold in bulk by manufacturers to persons, individuals or firms for their own use on their own lands, but not for resale or distribution, under rules prescribed by the State Chemist. The inspection fee must be paid upon all such sales. All authorizations to sell fertilizer in bulk expire August 31 of each year.

Report of sales. The guarantor must mail a report of each sale or shipment of fertilizer within or into Texas to the State Chemist within 3 days after such sale or shipment. The report must be made by sending to the State Chemist a copy of the invoice used in billing the customer. The invoices must be numbered, and the same number cannot be used twice during the same year. Reports of sales in bulk to manufacturers must be marked "for manufacturing purposes." Reports of sales in bulk to individuals for their own land must be marked "bulk sale to consumer."

FERTILIZER GRADES APPROVED FOR 1950-51

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

The grades of mixed farm fertilizers sold in Texas have been limited in number for nearly 30 years. This limitation and standardization assists the farmer to become familiar with the different kinds of fertilizer, enables him to decide more

readily on the proper kind to be used, enables the agricultural specialist to make definite recommendations, and reduces the cost of manufacture and handling, thereby reducing the cost of the fertilizer to the consumer. The grades of mixed farm fertilizers to be approved in Texas during a given year are decided upon by the Texas Fertilizer Committee after a public hearing at which manufacturers and others interested may present recommendations. This public hearing is held in cooperation with fertilizer control officials, agricultural specialists and manufacturers of Texas, Louisiana, Arkansas, Oklahoma and New Mexico. The list of approved grades is published in the annual fertilizer bulletin and may also be obtained upon request to the State Chemist.

Following the annual public hearing on grades held at Galveston July 21, 1950, the Texas Fertilizer Committee met and approved the following ratios and minimum grades for use in Texas during the year beginning September 1, 1950:

Ratio approved	Minimum grade	Ratio approved	Minimum grade	Ratio approved	Minimum grade
0-1-1	0-12-12	1-2-2	5-10-10	2-2-1	10-10-5
0-2-1	0-14-7	1-2-3	4- 8-12	3-2-0	12- 8-0
1-1-0	10-10-0	1-3-1	4-12-4	3-4-6	6- 8-12
1-1-1	8- 8-8	1-3-2	4-12-8	3-5-2	6-10-4
1-2-0	7-14-0	1-4-4	3-12-12	4-5-0	12-15-0
1-2-1	5-10-5	2-1-1	10- 5-5		

Changes for next year include:

1. Deleting the 12-0-12 grade (no sale in 2 years).
2. Reducing the minimum grade for the 3-2-0 ratio from 21-14-0 to 12-8-0 (to agree with Louisiana).
3. Raising the minimum grade for the 1-2-2 ratio from 4-8-8 to 5-10-10.
4. Adding the 1-2-3 (4-8-12) and 2-1-1 (10-5-5) ratios.

Grades of mixed goods of the same ratios as those above but of higher guaranteed analysis were also approved. For example, a 12-24-12 would be approved as a higher analysis of the 1-2-1 ratio. A 16-20-0 has the same ratio (4-5-0) as a 12-15-0.

All materials were approved. A few grades such as 4-16-0 (ammoniated superphosphate), 16-20-0 (ammonium phosphate-sulphate) and 11-48-0 and 13-39-0 (ammonium phosphates) are approved as materials.

THE TEXAS FERTILIZER COMMITTEE

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

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

Brands and trade-marks registered with the State Chemist.

The law requires the State Chemist to publish annually a list of brands or trade-marks registered with him. The following is a list of brands and trade-marks registered with the State Chemist during 1949-50:

Advance	Capitol	G & O	Lone Star
Aero	Champion	Goldenrod	Lonfosco
Agco	Chief	Gold Medal	Longhorn
Agri-Chem	Chilean	Good Earth	Marshall
AleXite	Clark's	Green Acres	Maverick
All Crop	Collosfos	Green-Sol	Min-Coll
All-Weather	Co-op	Gro-Crop	Min-Sol
Arcadian	Cross Country	Gro-more	Min-Tex
Armstrong's	Davco	Gro-Nure	Milorganite
Prescription	Davey Tree Food	Heart	Mule
Arrow	Dogie Pickup	Heart of Texas	Na-Churs
Bactex	Double Circle	Heid Bros. (H.B.)	Niagara
Bem	DuPont Uramon	Hoseco	N. J.
Ben Franklin	Easy Going	Hu-Actinite	Nugreen
Best	Ecto	Hy-Gro	Old Black Joe
Best Bet	Es-Min-El	Hyponex	Ormico
Big Crop	Farmers	International	Ortho
Blenn	Ferti-Lome	Interstate	Ovene
Bonro	Fertl-Spray	K-W	Owl
Boostaplant	Fidelity	La-Tex	Pabak
Blumes	Ford	Life	Pecos Orla
Burbank	Fourleaf	Lion	Phillips
C. C. I	Ful-O-Vim	Liqua-Vita	Plainsman
Cal-Nitro	Garden Master	Loma	Plantabbs

Plant-Chem	Smith	Stauffer's	Valley
Purina	Commander	Sul-Po-Mag	Valley Gro
Rab-Bit	Smith Gro-Grain	Sul-Tech	Valley Port
Ra-Pid-Gro	Smith Gro-Green	Sul-Tex	V-C
Red Seal	Smith	Swift's Red Steer	Velvet Green
Red Star	Square Deal	T. C. C.	Victory
Red Tomato	Smith	Terra Food	Vigoro
Reliance	Money Maker	Terra Life	Vita-Gro
Robin	Smith	Texas Liquid	Weber-King
Sasco	Nitro-Phos	Texas Longhorn	Wesco
Scott's	Smith	Thorobred	Westex
Schrock	Top Notch	Three Star	White Diamond
Se-Bo-Phos	Soil-Pep	Top Crop	Winter Garden
Silver Tip	Soil Prescription	Top-O-Texas	Wizard
Smith Big Yield	Soylaid	Topper	Wolf
	Star	Twin Rose	

INSPECTION FEES COLLECTED DURING 1949-50

Fertilizer inspection fees equivalent to 545,899 tons of fertilizer were collected for fertilizer sold during the Texas fiscal year from September 1, 1949 through August 31, 1950. This tonnage is compared in Table 1 with tonnages sold during other periods.

Fees collected for the 1949-50 period were about 11 percent higher than for 1948-49. Significant increases in sales have occurred nearly every year since the 1932-33 season, when the fees collected were equivalent to only 30,845 tons.

All fees collected are used for the administration of the fertilizer law and for research on the agricultural value of commercial fertilizers.

Table 1. Fertilizer inspection fees collected calculated to tonnage basis, during different periods (September 1 of one year through August 31 of next year)

Year	Tonnage equivalent
1905-06	13,500
1910-18 (8-year average)	48,861
1918-23 (5-year average)	44,770
1923-28 (5-year average)	112,927
1928-33 (5-year average)	90,962
1933-38 (5-year average)	66,255
1938-43 (5-year average)	125,678
1943-44	196,877
1944-45	217,760
1945-46	305,510
1946-47	401,297
1947-48	451,132
1948-49	492,541
1949-50	545,899

TONNAGE SALES OF DIFFERENT GRADES OF FERTILIZERS

The tonnage sales of different grades of mixed fertilizers and fertilizer materials for periods extending from July 1 through December 31, 1949, from January 1 through June 30, 1950 and from July 1, 1949 through June 30, 1950, are given in Table 2. These periods, rather than those based on the Texas fiscal year, are used because they are in accord with the periods almost universally used by fertilizer manufacturers, by the United States Department of Agriculture and by many states, and are those recommended by the Committee on Fertilizer Grades and Ratios of the American Society of Agronomy to provide a uniform basis for estimating the needs of the fertilizer industry in the United States. The tonnages were compiled from current reports of sales of fertilizers required by law to be sent to the State Chemist by fertilizer guarantors within 3 days after sale.

Mixed goods accounted for about one-fifth of the fertilizers sold in the fall, two-thirds of those sold in the spring and one-half of those sold during the entire year. The 5-10-5 grade accounted for 51 percent, and the 4-12-4 grade for 23

Table 2. Principal mixed goods and materials sold from July 1, 1949 through June 30, 1950, as reported currently by guarantors

	July 1 to Dec. 31, 1949	Jan. 1 to June 30, 1950	Total Tonnage	
			actual	relative 1948-49 = 100
Mixed goods	42,656	210,133	252,789	109
0-14-7	15,141	10,494	25,635	474
4-8-8	181	6,513	6,694	111
4-12-4	6,797	51,277	58,074	67
5-10-5	14,204	116,028	130,232	111
6-10-4	1,373	8,505	9,878	258
7-14-0 (6-12-0)	727	1,330	2,057	63
8-8-8	147	6,742	6,889	185
10-10-0	1,672	1,204	2,876	108
10-20-10	213	3,362	3,575	1074
Liquid	593	680	1,273	149
Others	1,608	3,998	5,606	241
Materials	161,956	113,297	275,253	121
Ammonium nitrate	6,338	12,633	18,971	172
Ammonium sulfate	1,028	4,290	5,318	308
Ammonium phosphates	4,509	34,262	38,771	116
Nitrate of soda	535	1,517	2,052	116
Other nitrogen materials	4,814	1,396	6,210	222
Superphosphates, normal	131,877	44,395	176,272	103
Superphosphates, concentrated	12,513	13,494	26,007	599
Potash carriers	342	459	804	241
Other products under law	11,948	13,191	25,139	125
Unacidulated phosphates	8,130	8,487	16,617	140
Manures	817	1,110	1,927	111
Sulfur	1,819	2,258	4,077	94
Others	1,182	1,336	2,518	78
Total fertilizer	216,560	336,621	553,181	115

percent of the mixed goods sold. These two grades thus accounted for nearly three-fourths of the mixed goods sold, although 16 grades were approved by the Texas Fertilizer Committee. Significant increases occurred in sales of the 0-14-7, 6-10-4, 8-8-8 and 10-20-10 grades; decreases occurred in the 4-12-4 and 7-14-0 grades.

The tonnage of materials sold was 2 percent higher than a year ago. Normal superphosphate (20 percent) accounted for nearly two-thirds of the materials sold; about two-thirds of this tonnage was sold in the fall. Concentrated superphosphates in important quantity appeared on the Texas market for the first time this year and the demand for this product was greatly in excess of the supply. Sales of ammonium phosphates such as 16-20-0, 11-48-0 and 13-39-0 were second only to those of superphosphate, even though production in the fall was greatly restricted by labor troubles of one of the larger producers. Sales of ammonium sulfate, ammonium nitrate and cyanamid were much higher than a year ago.

The data given in Tables 2 and 3 emphasize the desirability of early purchase of fertilizers where such action is at all practicable. The mixing of commercial fertilizers requires a large investment in equipment and much labor. Restricted seasonal use of this equipment and labor is economically unsound. Furthermore, the demand for fertilizers during the past several years has been considerably greater than the supply. Improvement in time distribution of sales would

Table 3. Primary fertilizer components sold between July 1, 1949 and June 30, 1950, as reported currently by guarantors

	July 1 to Dec. 31, 1949	Jan. 1 to June 30, 1950	Total Tonnage	
			actual	relative 1948-49 = 100
Nitrogen, tons				
In mixed goods	1,609	10,823	12,432	115
In materials	4,054	11,418	15,472	150
Total	5,663	22,241	27,904	132
Available phosphoric acid, tons				
In mixed goods	5,185	16,850	22,035	86
In materials	32,826	22,566	55,392	129
Total	38,011	39,416	77,427	113
Soluble potash, tons				
In mixed goods	2,214	8,759	10,973	102
In materials	194	268	462	273
Total	2,408	9,027	11,435	105
Average over-all composition, percent				
Nitrogen	2.77	6.88	5.28	115
Available phosphoric acid	18.58	12.19	14.66	98
Potash	1.18	2.79	2.17	91
Total	22.53	21.86	22.11	101

make possible the manufacture of a much larger tonnage of fertilizer without additional expenditure for equipment or labor, which in turn would result in a lower cost per ton of fertilizer to the farmer.

VALUATION PER TON

The Texas fertilizer law requires that a refund be made to all purchasers of fertilizer if the valuation found on analysis is 4 percent or more below the valuation guaranteed, and that if the valuation found is 10 percent or more below the valuation, the fertilizer shall be considered as being adulterated. The rebate must be paid by the guarantor to the dealer and by the dealer to the individual purchasers of the lot of fertilizer concerned. A calculation of the guaranteed valuation and of the valuation found by analysis must, therefore, be made. The valuation also sums up the valuation of the three principal constituents (nitrogen, available phosphoric acid and soluble potash) shown in the guarantee or found in the analysis, into a single figure which is convenient for comparative purposes.

The calculation of the valuation requires a specific valuation for each of the three constituents. The following prices per pound and per unit (1 percent of a ton, or 20 pounds) were used for this calculation in 1949-50:

	Prices per pound	Prices per unit
Nitrogen	\$.15	\$3.00
Available phosphoric acid.....	.05	1.00
Total phosphoric acid in tankage and bone meal.....	.06	1.20
Total phosphoric acid in rock phosphate.....	.02	.40
Soluble potash.....	.05	1.00

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

Nitrogen	5 x \$3.00 =	\$15.00
Available phosphoric acid.....	10 x 1.00 =	10.00
Soluble potash.....	5 x 1.00 =	5.00
Guaranteed valuation.....		<u>\$30.00</u>

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

Table 4. Average composition, valuation and selling price of various grades of fertilizer, 1949-50

	Number, averaged	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation guaranteed per ton	Valuation found per ton	Selling price per ton
0-14-7	67	0	14.50	7.53	21.00	22.03	31.80
4-8-8	52	4.07	8.73	8.17	28.00	29.11	39.37
4-12-4	383	4.07	12.26	4.37	28.00	28.84	39.76
5-10-5	657	4.95	10.60	5.21	30.00	30.66	42.48
6-8-12	7	5.76	8.59	11.44	38.00	37.31	48.50
6-10-4	22	5.87	10.22	4.27	32.00	32.10	53.87
6-12-0	6	5.82	12.70	0	30.00	30.16	46.88
7-14-0	13	6.82	15.00	0	35.00	35.46	48.03
8-8-8	124	7.62	8.81	8.40	40.00	40.07	49.96
10-10-0	28	9.59	11.11	0	40.00	39.88	57.32
12-15-0	4	11.18	14.65	0	51.00	48.19	74.06
10-20-10	43	9.27	20.62	9.64	60.00	58.07	77.30
8-16-16	3	6.87	16.35	15.01	56.00	51.97	72.33
12-12-12	4	10.76	12.32	13.68	60.00	58.28	76.00
12-24-12	12	11.27	25.30	11.66	72.00	70.77	91.96
10-30-10	13	10.50	31.55	9.47	70.00	72.52	89.97
Ammonium Nitrate Sulfate of Ammonia	15	33.18	0	0	100.20	99.54	70.75
Nitrate of Soda	4	16.15	0	0	48.00	48.45	70.25
11-48-0	13	11.51	48.93	0	81.00	83.46	98.43
16-20-0	62	16.87	20.31	0	68.00	70.92	81.76
Superphosphate 20%	153	0	20.66	0	20.00	20.66	30.45
Superphosphate 45%	58	0	45.85	0	45.00	45.85	65.96
Liquid Fertilizers	14	8.86	12.29	2.31	43.64	41.18	251.43

Table 5. Approximate average cost (cents per pound) of nitrogen, available phosphoric acid and potash during 1949-50

	Nitrogen	Total phosphoric acid	Potash
Ammonium nitrate	10.66	—	—
Sulfate of ammonia	14.40	—	—
16-20-0	18.03	6.01	—
11-48-0	18.23	6.08	—
8-8-8	18.73	6.24	6.24
12-12-12	19.00	6.33	6.33
6-8-12	19.14	6.38	6.38
12-24-12	19.15	6.38	6.38
10-30-10	19.28	6.42	6.42
10-20-10	19.32	6.44	6.44
8-16-16	19.38	6.46	6.46
7-14-0	20.58	6.86	—
4-8-8	21.09	7.03	7.03
5-10-5	21.24	7.08	7.08
4-12-4	21.30	7.10	7.10
10-10-0	21.50	7.17	7.17
Superphosphate, 45%	—	7.19	—
12-15-0	21.78	7.26	7.26
Nitrate of soda	21.78	—	—
Superphosphate, 20%	—	7.37	—
0-14-7	—	7.57	7.57
6-12-0	23.45	7.82	—
6-10-4	25.25	8.42	8.42
Liquid fertilizers	86.42	28.81	28.81

COMPOSITION AND SELLING PRICE OF DIFFERENT GRADES OF FERTILIZERS

The average composition, the guaranteed valuation, the valuation found by analysis and the average retail selling price per ton of various grades of fertilizers are shown in Table 4. The average retail selling price is the average of the cash retail price furnished to the fertilizer inspectors by the dealers. The prices of the same fertilizer may vary between towns on account of differences in cost of transportation or for other causes. The retail price includes handling costs, carrying charges and the dealer's profit, as well as the wholesale cost of the materials from which the fertilizer is made, and from which the valuations guaranteed and found are calculated.

The average valuation found by analysis is slightly above the guaranteed valuation in most cases.

AVERAGE COST OF NITROGEN, AVAILABLE PHOSPHORIC ACID AND POTASH

The calculated retail costs in cents per pound of nitrogen, available phosphoric acid and potash, as calculated from the average selling price and guaranteed valuation of the various grades of fertilizer given in Table 4, are shown in Table 5. The cash selling prices used in the calculations were those given to the fertilizer inspectors by the retail merchants at the time of inspection. For the purpose of these calculations, it was assumed that the prices were in the same ratios as the valuations. As the price of the same fertilizer may vary in different places, these figures may not be correct for any particular locality, but represent averages only, and are for purposes of comparison. For example, grades used extensively near the factories might average lower in price than those used at a distance on account of the lower transportation costs. The fertilizers with the lowest cost per unit of plant food to the farmer are given first in the table.

Cost of Nitrogen. The cheapest source of nitrogen was ammonium nitrate, followed by ammonium sulfate and ammonium phosphate (16-20-0 and 11-48-0). Nitrogen in ammonium nitrate cost less than half as much as nitrogen in nitrate of soda or the important grades of mixed goods, and only about one-eighth as much as nitrogen in liquid fertilizers, many of which used ammonium nitrate as the source of nitrogen.

Cost of available phosphoric acid. The cheapest sources of available phosphoric acid were the ammonium phosphates. Available phosphoric acid in the concentrated grades of super-

phosphate cost more than that in important grades of mixed goods, and about one-fourth as much as that in liquid fertilizers.

Cost of potash. Only a small amount of potash materials was sold, and no samples were obtained. The cheapest source of potash in mixed goods was 8-8-8, followed by 12-12-12. Potash in the important grades of mixed goods cost less than one-fourth as much as potash in liquid fertilizers.

Higher multiples. Plant food in fertilizers of high analysis cost less than that in lower analyses of the same ratio.

Table 6. Average valuations guaranteed and found (dollars per ton) in samples of fertilizers guaranteed by different companies

	Valuation guaranteed	Valuation found	Number, averaged	Rebates
American Agricultural Chemical Company	12.00	12.22	1	0
American Cyanamid Company	63.00	63.90	2	0
Arkansas Fertilizer Company	58.88	58.13	25	4
Armour Fertilizer Works, Dallas	30.46	30.92	114	0
Armour Fertilizer Works, Houston	32.17	32.42	339	9
Associated Cooperatives, Inc.	69.29	69.09	7	0
Best Fertilizer Company	63.00	63.17	5	0
Bryan Cotton Oil and Fertilizer Company	29.00	30.13	4	0
Central Texas Fertilizer Company	30.62	31.79	44	1
Chilean Nitrate Sales Corporation	48.00	48.30	2	0
Consolidated Chemical Industries	24.30	25.00	4	0
Crawford Liquid Fertilizer Company	55.00	40.97	2	2
DuPont de Nemours and Company	127.50	126.78	4	0
East Texas Products Company	30.83	31.21	48	1
Farm Service, Incorporated	35.00	35.62	2	0
Farmers Fertilizer Company	27.64	28.37	13	0
Fidelity Chemical Corporation	29.89	30.95	86	0
Ford Motor Company	62.40	62.40	1	0
Gilmer Cotton Oil and Fertilizer Company	25.25	26.45	4	0
Gorman Peanut Company	29.50	28.72	12	3
International Minerals and Chemical Corporation	30.15	31.16	57	2
Jacksonville Fertilizer Company	32.10	32.36	31	3
Kelley-Weber and Company	27.80	29.00	15	0
Kipfer Chemical Company	30.00	31.83	2	0
Lake Charles Feed Company	28.00	29.05	3	0
Lion Oil Company	97.08	95.78	11	0
Marshall Cotton Oil Company	31.60	32.98	5	0
Mathieson Chemical Corporation	58.93	60.92	102	0
Milwaukee Sewerage Commission	20.00	21.33	1	0
Oil Mill and Fertilizer Works	33.82	32.98	12	2
Phillips Chemical Company	72.38	72.69	4	0
Red Star Fertilizer Company	31.21	31.95	73	0
E. W. Rugh	34.60	36.71	1	0
Schrock Fertilizer Service	12.80	13.04	1	0
Shreveport Fertilizer Works	30.47	31.53	97	0
Smith-Douglass Company, Incorporated	30.67	31.61	43	0
Southwest Chemical Company	38.66	41.98	3	0
Southwest Fertilizer and Chemical Company	46.00	46.34	2	0
Spencer Chemical Company	100.50	100.42	4	0
Swift and Company, Houston & Harvey	30.16	30.30	202	5
Swift and Company, Shreveport	30.66	31.19	88	2
Terra Food Fertilizer Company	93.80	94.72	5	0
Texas Farm Products	30.91	31.77	148	0
Texas Liquid Fertilizer Company	42.77	41.00	9	2
Thomson Phosphate Company	13.40	13.51	5	0
Thurston Chemical Company	20.00	20.95	1	0
Tyler Fertilizer Company	46.33	46.14	39	4
Virginia-Carolina Chemical Corporation	28.63	29.20	126	0
Waldo Fertilizer Works	32.50	34.20	4	0
Western Fertilizer Company	40.00	41.29	2	0

The difference may be illustrated by a comparison of costs for the 1-2-1 ratio (5-10-5 vs. 12-24-12 and 10-20-10) the 1-3-1 ratio (4-12-4 vs. 10-30-10) and the 1-2-0 ratio (16-20-0 vs. 7-14-0). This is also true with respect to materials. Nitrogen in ammonium nitrate (33 percent or 33.5 percent N) cost less than half as much as nitrogen in nitrate of soda (16 percent N).

RELATION OF VALUATION GUARANTEED TO VALUATION FOUND

The average valuation guaranteed by guarantors of fertilizers doing business in Texas, compared with the valuation found upon analysis of official samples, is shown in Table 6. In the preparation of this table, all analyses made were averaged, even though several were made of each brand. Fertilizer materials, as well as mixed fertilizers, were included in the calculation of the averages given. In nearly all cases, the valuation found exceeded the valuation guaranteed.

Rebates found to be due must be paid to the purchasers of the deficient fertilizers if they can be located. If all the purchasers cannot be located by the dealers records, the rebates must be paid to some local public group such as a 4-H Club, Boy Scout troop or church. The number of lots on which such rebates were paid by each guarantor is shown in Table 6. Only 40 samples were found to be more than 4 percent below the guarantee, and rebates amounting to \$1,534.62 were made to the purchasers.

The proportion of samples on which rebates were required was considerably less than for the 1948-49 year. The record this year was by far the best of any year in the history of fertilizer control in Texas. Particular commendation should be given to one of the larger guarantors, of whom no rebates were required although samples were obtained from 470 lots of fertilizers guaranteed by this concern.

HOW TO OBTAIN FREE ANALYSIS OF FERTILIZERS

Purchasers of commercial fertilizers for their own use on their own land (but not for sale) may obtain a free analysis of a sample, provided they take a sample in accordance with the requirements of the Texas fertilizer law governing such a case. This privilege of a free analysis applies only to fertilizers tagged and sold under the fertilizer law and to samples properly taken so that they represent the goods sampled. If

the sample is not properly taken, it may not truly represent the fertilizer sampled, and the results may be better or poorer than the goods actually are. The proper sampling of a fertilizer must be done carefully, and the law requires that it be taken in a certain way to insure a fair sample. Those who desire the free analysis of a sample of commercial fertilizer should write to the State Chemist, College Station, and request a copy of the form entitled "Application for Free Fertilizer Analysis." No samples will be analyzed unless the sample is accompanied by this form, properly executed.

PUBLICATIONS DEALING WITH THE USE OF FERTILIZERS

Some publications dealing with the value and use of commercial fertilizers and issued by the Texas Agricultural Experiment Station are listed following. Single copies of these publications will be sent free upon request to the Publications Office, Texas Agricultural Experiment Station, College Station, Texas. To avoid errors, both the number and the title of the publication should be given.

CIRCULARS:

- 90 Rose growing for the home gardener.

BULLETINS:

- 212 The availability of phosphoric acid in rock phosphate.
- 408 The effect of sulphur on yield of certain crops.
- 414 Possibilities of sulphur as a soil amendment.
- 428 The fertilizing value of greensand.
- 432 Manganese in Texas soils and its relation to crops.
- 445 The composition and fertilizing value of sewage sludge.
- 509 Availability of the phosphoric acid of finely-divided rock phosphate.
- 524 Fertilizer experiments with yellow Bermuda onions in the Winter Garden region of Texas.
- 596 Onion fertilizer experiments at Laredo, Big Wells and Eagle Pass, Texas
- 627 Cottons resistant to wilt and root knot and the effect of potash fertilizer in East Texas.
- 647 Some factors affecting the utilization of phosphoric acid in soils by plants in pot experiments.

- 672 The value of different phosphates for various Texas soils and grasses as indicated by pot experiments.
- 693 Nitrification capacities of typical Texas soils and factors which affect nitrification.
- 699 Control of cotton root rot by sweetclover in rotation.

PROGRESS REPORTS:

- 675 Acid production in composts of sulphur and organic matter.
- 875 Yield, chemical analysis and fertilizer response of eleven forage grasses.
- 963 The need for lime on some East Texas soils.
- 983 Effect of large amounts of phosphate upon yield and composition of grasses.
- 989 Fertilizers for white potatoes in the High Plains of Texas.
- 993 Fertilizer tests with cotton and corn at the El Paso Valley substation, 1943-45.
- 996 The effect of phosphate upon the percentage of phosphoric acid in pasture grasses.
- 1025 Fertilizer studies with vegetables in Cameron County.
- 1055 Nitrogen fertilizers for rice.
- 1071 Superphosphate increases yield of alfalfa in the Wichita Irrigated Valley.
- 1074 Fertilizer studies with sweet potatoes.
- 1090 Fertilizer experiments with spinach in the Texas Winter Garden.
- 1096 The use of fertilizer and supplemental materials in the production of Bermuda onions.
- 1100 Phosphorus for range cattle.
- 1118 Increasing oat yields with topdressing of nitrogen.
- 1173 Effect of fertilizers upon the yield, size and grade of tomatoes.
- 1175 Effect of fertilizers upon the yield, grade, head size and marketability of Early Round Dutch cabbage.
- 1207 Effect on rice yields of nitrogenous fertilizers applied as a topdressing to dry, wet and flooded soils.
- 1208 Effect of nitrogen and phosphorus on the winter hardiness and yield of oats at the Blackland Station.
- 1210 Fertilizer requirements for rice of Texas Gulf Coast soils, 1947-1949.
- 1215 Corn fertility and spacing studies at the Blackland Station.
- 1217 Growth and yield of cotton on Willacy loam as affected by different irrigation levels.

- 1218 Effect on yields of rice of different nitrogenous fertilizers applied as topdressings.
- 1219 Effect of fertilizers on yield of lint cotton on Miles fine sand at Chillicothe, Texas.
- 1222 Distribution of fertilizer sales in Texas, July 1-December 31, 1949.
- 1226 Time and rate of application of various fertilizers on yield of rice varieties of different maturity.
- 1228 Effect of sulphur, nitrogen and phosphorus amendments on cotton production at the Blackland Station, 1949.
- 1230 Cotton fertilizer tests in the El Paso Valley, 1949.
- 1233 Effect of fertilizers on yield and quality of sweet potatoes in central East Texas, 1949.
- 1247 Effect of fertilizers and seeding on the establishment of grazed firebreaks.
- 1255 Effect of fertilizers upon the yield, grade and marketability of cabbage.
- 1272 Distribution of fertilizer sales in Texas, January 1-June 30, 1950.

ANALYSES OF FERTILIZERS, 1949-50

A total of 1,829 samples of fertilizers and fertilizer materials was collected during the year by fertilizer inspectors from the goods being sold in many towns and cities of Texas. The chief places of sale were inspected several times. These samples were analyzed by the official methods of the Association of Official Agricultural Chemists of North America, as is required by law. Inspections were made by C. B. McLarry and H. W. Greene and the analytical work was done by Mrs. Elora Dale, Mrs. Natalie Nichols, Mrs. Dorothy Dunn, Mrs. Katherine Saunders, Mrs. Jean King, Mrs. Vera Quinn and Waldo Walker. The analyses are shown in Table 7.

SUMMARY

This bulletin is the 48th annual report of the operation of the Texas fertilizer law, and covers the period from September 1, 1949 through August 31, 1950.

The tonnage of fertilizers and fertilizer materials sold during the period from July 1, 1949 through June 30, 1950 amounted to 553,181 tons, an increase of about 15 percent over the tonnage sold during the preceding year. The 5-10-5

grade accounted for 51 percent and the 4-12-4 grade for 23 percent of the total of 252,789 tons of mixed goods sold. Superphosphate 20 percent represented about 64 percent and ammonium phosphates about 16 percent of the total of 275,253 tons of unmixed fertilizer sold.

Fertilizer inspection fees equivalent to 545,899 tons of fertilizer were collected on fertilizers sold during the Texas fiscal year ending August 31, 1950, as compared with 492,541 tons sold during the preceding year.

Grades of mixed fertilizers approved by the Texas Fertilizer Committee for the year beginning September 1, 1950 are listed.

The analyses of 1,829 official samples of fertilizers are given. The valuations found upon analysis are compared with the analyses guaranteed by the registrants. Rebates totaling \$1,534.62 were paid upon 40 lots of fertilizer for which the valuation found was 4 percent or more below the valuation guaranteed.

Lot No.	Registrant	Grade	Valuation Found	Valuation Guaranteed	Rebate
1000	White Diamond	10-20-10	10.00	10.00	0.00
1001	White Diamond	10-20-10	10.00	10.00	0.00
1002	White Diamond	10-20-10	10.00	10.00	0.00
1003	White Diamond	10-20-10	10.00	10.00	0.00
1004	White Diamond	10-20-10	10.00	10.00	0.00
1005	White Diamond	10-20-10	10.00	10.00	0.00
1006	White Diamond	10-20-10	10.00	10.00	0.00
1007	White Diamond	10-20-10	10.00	10.00	0.00
1008	White Diamond	10-20-10	10.00	10.00	0.00
1009	White Diamond	10-20-10	10.00	10.00	0.00
1010	White Diamond	10-20-10	10.00	10.00	0.00
1011	White Diamond	10-20-10	10.00	10.00	0.00
1012	White Diamond	10-20-10	10.00	10.00	0.00
1013	White Diamond	10-20-10	10.00	10.00	0.00
1014	White Diamond	10-20-10	10.00	10.00	0.00
1015	White Diamond	10-20-10	10.00	10.00	0.00
1016	White Diamond	10-20-10	10.00	10.00	0.00
1017	White Diamond	10-20-10	10.00	10.00	0.00
1018	White Diamond	10-20-10	10.00	10.00	0.00
1019	White Diamond	10-20-10	10.00	10.00	0.00
1020	White Diamond	10-20-10	10.00	10.00	0.00
1021	White Diamond	10-20-10	10.00	10.00	0.00
1022	White Diamond	10-20-10	10.00	10.00	0.00
1023	White Diamond	10-20-10	10.00	10.00	0.00
1024	White Diamond	10-20-10	10.00	10.00	0.00
1025	White Diamond	10-20-10	10.00	10.00	0.00
1026	White Diamond	10-20-10	10.00	10.00	0.00
1027	White Diamond	10-20-10	10.00	10.00	0.00
1028	White Diamond	10-20-10	10.00	10.00	0.00
1029	White Diamond	10-20-10	10.00	10.00	0.00
1030	White Diamond	10-20-10	10.00	10.00	0.00
1031	White Diamond	10-20-10	10.00	10.00	0.00
1032	White Diamond	10-20-10	10.00	10.00	0.00
1033	White Diamond	10-20-10	10.00	10.00	0.00
1034	White Diamond	10-20-10	10.00	10.00	0.00
1035	White Diamond	10-20-10	10.00	10.00	0.00
1036	White Diamond	10-20-10	10.00	10.00	0.00
1037	White Diamond	10-20-10	10.00	10.00	0.00
1038	White Diamond	10-20-10	10.00	10.00	0.00
1039	White Diamond	10-20-10	10.00	10.00	0.00
1040	White Diamond	10-20-10	10.00	10.00	0.00
1041	White Diamond	10-20-10	10.00	10.00	0.00
1042	White Diamond	10-20-10	10.00	10.00	0.00
1043	White Diamond	10-20-10	10.00	10.00	0.00
1044	White Diamond	10-20-10	10.00	10.00	0.00
1045	White Diamond	10-20-10	10.00	10.00	0.00
1046	White Diamond	10-20-10	10.00	10.00	0.00
1047	White Diamond	10-20-10	10.00	10.00	0.00
1048	White Diamond	10-20-10	10.00	10.00	0.00
1049	White Diamond	10-20-10	10.00	10.00	0.00
1050	White Diamond	10-20-10	10.00	10.00	0.00

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
American Agricultural Chemical Co., Pierce, Fla.					
Ground Phosphate Rock					
173	Guaranteed	0.00	30.00*	0.00	12.00
	Analysis	0.00	30.55*	0.00	12.22
American Cyanamid Co., New York, N. Y.					
Aero Cyanamid Granular					
805	Guaranteed	20.60	0.00	0.00	61.80
	Analysis	20.60	0.00	0.00	61.80
Aero Cyanamid Special Grade					
4	Guaranteed	21.00	0.00	0.00	63.00
	Analysis	22.00	0.00	0.00	66.00
Arkansas Fertilizer Co., Little Rock, Ark.					
White Diamond 4-12-4					
1584	Guaranteed	4.00	12.00	4.00	28.00
	Analysis	4.00	12.34	4.14	28.48
White Diamond 5-10-5					
1587	Guaranteed	5.00	10.00	5.00	30.00
	Analysis	5.20	10.47	5.03	31.10
1796	Analysis	5.04	10.82	5.66	31.60
White Diamond 8-8-8					
1585	Guaranteed	8.00	8.00	8.00	40.00
	Analysis	7.16	9.38	8.88	39.34
1591	Analysis	6.33	9.69	8.42	37.10
1632	Analysis	8.01	8.76	7.91	40.70
White Diamond 10-30-10					
1377	Guaranteed	10.00	30.00	10.00	70.00
	Analysis	11.54	33.57	5.20	73.39
1498	Analysis	9.42	30.29	10.48	69.03
White Diamond 12-12-12					
959	Guaranteed	12.00	12.00	12.00	60.00
	Analysis	11.67	11.85	15.98	62.84
1633	Analysis	10.66	12.54	13.34	57.86
1793	Analysis	10.12	12.09	13.16	55.61
1797	Analysis	10.60	12.79	12.24	56.88
White Diamond 12-24-12					
958	Guaranteed	12.00	24.00	12.00	72.00
	Analysis	11.68	24.72	11.52	71.28
1376	Analysis	11.29	26.72	11.00	71.59
1453	Analysis	11.59	25.11	9.55	69.43
1499	Analysis	11.76	25.57	10.66	71.54
1540	Analysis	11.20	25.39	11.88	70.87
1559	Analysis	11.41	26.57	11.82	72.62
1564	Analysis	11.40	24.14	12.31	70.65
1570	Analysis	10.04	24.14	14.51	68.77
1586	Analysis	11.20	24.78	12.22	70.60
1597	Analysis	10.80	24.10	12.67	69.17
1794	Analysis	10.94	24.24	13.55	70.61
1806	Analysis	12.00	28.20	8.34	72.54
White Diamond 20% Superphosphate					
530	Guaranteed	0.00	20.00	0.00	20.00
	Analysis	0.00	20.81	0.00	20.81
Armour Fertilizer Works, Dallas, Texas					
Armour's Big Crop 0-14-7 Fertilizer					
346	Guaranteed	0.00	14.00	7.00	21.00
	Analysis	0.00	14.81	7.32	22.13
355	Analysis	0.00	14.36	6.51	20.87
1589	Analysis	0.00	14.45	7.04	21.49

*Total phosphoric acid

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Armour's Big Crop 4-8-8 Fertilizer				
	Guaranteed	4.00	8.00	8.00	28.00
1516	Analysis	4.00	9.08	8.00	29.08
1523	Analysis	3.66	9.29	8.00	28.27
1684	Analysis	4.00	9.13	7.34	28.47
	Armour's Big Crop 4-12-4 Fertilizer				
	Guaranteed	4.00	12.00	4.00	28.00
357	Analysis	3.88	11.98	4.21	27.83
467	Analysis	3.56	12.04	4.21	26.93
469	Analysis	3.84	11.77	4.03	27.32
477	Analysis	3.60	12.02	4.22	27.04
506	Analysis	4.00	12.10	4.01	28.11
508	Analysis	3.64	12.43	4.19	27.54
620	Analysis	3.60	12.55	4.29	27.64
626	Analysis	4.62	12.00	3.47	29.33
676	Analysis	3.66	11.94	4.08	27.00
679	Analysis	3.50	13.17	3.66	27.33
683	Analysis	4.08	12.32	4.17	28.73
688	Analysis	5.00	11.43	5.37	31.80
697	Analysis	3.63	12.06	4.20	27.15
701	Analysis	3.82	13.93	4.24	29.63
702	Analysis	3.91	12.05	4.10	27.88
704	Analysis	4.00	12.44	4.21	28.65
714	Analysis	3.83	13.48	4.28	29.25
872	Analysis	4.18	12.20	4.74	29.48
949	Analysis	4.00	12.22	4.18	28.40
1035	Analysis	4.04	12.68	4.39	29.19
1496	Analysis	4.24	12.01	4.54	29.27
1545	Analysis	4.11	12.61	4.42	29.36
1550	Analysis	4.22	12.53	4.51	29.70
1569	Analysis	4.00	12.52	4.30	28.82
1599	Analysis	4.11	12.40	4.47	29.20
1665	Analysis	4.06	12.23	4.52	28.93
1676	Analysis	4.00	12.39	4.40	28.79
1686	Analysis	4.16	12.08	4.50	29.06
1735	Analysis	4.00	12.37	4.25	28.62
1738	Analysis	4.00	12.52	4.51	29.03
1814	Analysis	4.20	12.30	4.47	29.37
	Armour's Big Crop 6-8-12 Fertilizer				
	Guaranteed	6.00	8.00	12.00	38.00
434	Analysis	5.63	8.77	10.96	36.62
	Armour's Big Crop 7-14-0 Fertilizer				
	Guaranteed	7.00	14.00	0.00	35.00
707	Analysis	6.66	15.97	0.00	35.95
1739	Analysis	7.16	14.49	0.00	35.97
	Armour's Big Crop 8-8-8 Fertilizer				
	Guaranteed	8.00	8.00	8.00	40.00
705	Analysis	7.62	8.19	8.45	39.50
	Armour's Big Crop 10-20-10 Fertilizer				
	Guaranteed	10.00	20.00	10.00	60.00
529	Analysis	8.70	20.75	9.11	55.96
680	Analysis	9.40	20.16	9.91	58.27
1535	Analysis	9.26	20.83	9.09	57.70
	Armour's Big Crop 45% Superphosphate				
	Guaranteed	0.00	45.00	0.00	45.00
44	Analysis	0.00	46.19	0.00	46.19
406	Analysis	0.00	45.02	0.00	45.02
443	Analysis	0.00	45.95	0.00	45.95
465	Analysis	0.00	45.24	0.00	45.24
480	Analysis	0.00	45.67	0.00	45.67
511	Analysis	0.00	46.39	0.00	46.39

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Armour's Big Crop 45% Superphosphate, Guaranteed	0.00	45.00	0.00	45.00
512	Analysis	0.00	45.55	0.00	45.55
526	Analysis	0.00	46.16	0.00	46.16
539	Analysis	0.00	46.16	0.00	46.16
710	Analysis	0.00	45.77	0.00	45.77
716	Analysis	0.00	45.92	0.00	45.92
718	Analysis	0.00	46.34	0.00	46.34
	Armour's Big Crop 20% Superphosphate				
	Guaranteed	0.00	20.00	0.00	20.00
221	Analysis	0.00	20.00	0.00	20.00
287	Analysis	0.00	20.67	0.00	20.67
345	Analysis	0.00	20.62	0.00	20.62
372	Analysis	0.00	19.77	0.00	19.77
440	Analysis	0.00	20.77	0.00	20.77
468	Analysis	0.00	20.32	0.00	20.32
473	Analysis	0.00	20.21	0.00	20.21
475	Analysis	0.00	20.03	0.00	20.03
481	Analysis	0.00	20.61	0.00	20.61
507	Analysis	0.00	21.53	0.00	21.53
540	Analysis	0.00	21.79	0.00	21.79
687	Analysis	0.00	20.99	0.00	20.99
708	Analysis	0.00	22.01	0.00	22.01
715	Analysis	0.00	20.75	0.00	20.75
1036	Analysis	0.00	20.58	0.00	20.58
	Armour's Old Black Joe 5-10-5 Fertilizer				
	Guaranteed	5.00	10.00	5.00	30.00
286	Analysis	4.28	10.94	5.07	28.85
356	Analysis	4.68	10.02	5.36	29.42
386	Analysis	4.66	10.29	5.02	29.29
433	Analysis	4.84	10.54	5.19	30.25
466	Analysis	4.88	10.51	5.00	30.15
472	Analysis	4.67	10.47	4.42	28.90
474	Analysis	5.04	10.19	5.07	30.38
478	Analysis	4.85	10.27	5.13	29.95
623	Analysis	5.00	10.32	5.34	30.66
627	Analysis	4.82	10.35	5.30	29.81
677	Analysis	5.10	10.20	5.69	31.19
678	Analysis	4.65	10.52	5.09	29.56
684	Analysis	5.15	10.56	5.44	31.45
703	Analysis	5.01	10.43	5.04	30.50
706	Analysis	5.22	10.07	5.03	30.76
713	Analysis	5.16	10.25	5.07	30.80
721	Analysis	5.06	10.18	5.21	30.57
843	Analysis	4.86	11.04	5.27	30.89
870	Analysis	5.06	10.31	5.02	30.51
898	Analysis	4.89	10.35	5.11	30.13
908	Analysis	5.00	10.59	4.45	30.04
919	Analysis	5.02	10.05	5.10	30.21
1282	Analysis	5.30	10.60	5.46	31.96
1292	Analysis	4.82	10.97	4.59	30.02
1306	Analysis	5.10	10.29	5.24	30.83
1446	Analysis	5.16	10.22	5.02	30.72
1526	Analysis	5.00	10.07	5.15	30.22
1546	Analysis	5.02	10.22	5.09	30.37
1549	Analysis	5.16	10.04	5.22	30.74
1568	Analysis	5.14	10.39	5.31	31.12
1582	Analysis	5.28	10.21	5.10	31.15
1590	Analysis	5.00	10.32	5.37	30.69
1627	Analysis	5.26	10.65	4.97	31.40
1630	Analysis	5.02	10.50	5.06	30.62
1714	Analysis	4.43	10.93	4.76	28.98
1724	Analysis	4.84	10.52	5.04	30.08

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Armour's Old Black Joe 5-10-5 Fertilizer, Guaranteed..	5.00	10.00	5.00	30.00
1727	Analysis	5.00	10.57	5.53	31.10
1734	Analysis	4.60	10.69	4.47	28.96
1737	Analysis	5.04	10.43	5.12	30.67
1815	Analysis	5.20	10.93	5.24	31.77
1820	Analysis	5.05	10.86	5.02	31.03
1821	Analysis	4.80	10.85	4.53	29.78
1826	Analysis	5.02	10.73	5.10	30.89
	Armour Fertilizer Works, Houston, Texas				
	Armour's Big Crop 0-14-7 Fertilizer				
	Guaranteed	0.00	14.00	7.00	21.00
191	Analysis	0.00	14.81	6.82	21.13
202	Analysis	0.00	14.49	6.80	20.79
727	Analysis	0.00	14.96	6.81	21.77
845	Analysis	0.00	14.09	7.00	21.09
858	Analysis	0.00	14.25	7.48	21.73
861	Analysis	0.00	14.38	7.09	21.47
	Armour's Big Crop 4-8-8 Fertilizer				
	Guaranteed	4.00	8.00	8.00	28.00
1713	Analysis	3.55	10.00	6.74	27.39
	Armour's Big Crop 4-12-4 Fertilizer				
	Guaranteed	4.00	12.00	4.00	28.00
22	Analysis	3.74	12.15	4.48	27.85
26	Analysis	4.04	12.35	4.12	28.59
30	Analysis	3.92	12.33	4.25	28.34
34	Analysis	4.08	12.74	4.45	29.43
49	Analysis	4.18	12.34	4.45	29.33
52	Analysis	4.00	12.40	4.32	28.72
66	Analysis	4.02	12.51	4.42	28.99
71	Analysis	4.16	12.57	4.45	29.50
86	Analysis	4.04	12.33	4.00	28.35
94	Analysis	4.06	12.62	4.11	28.91
98	Analysis	3.90	12.37	4.23	28.30
123	Analysis	3.68	12.76	4.28	28.08
162	Analysis	3.58	12.32	4.01	27.07
186	Analysis	4.00	12.69	4.23	28.92
188	Analysis	3.83	12.64	4.30	28.43
195	Analysis	3.73	12.09	4.08	27.36
278	Analysis	3.90	12.56	4.02	28.28
305	Analysis	4.02	12.67	4.23	28.96
310	Analysis	4.15	12.17	4.17	28.79
324	Analysis	4.00	12.54	4.14	28.68
331	Analysis	3.80	12.35	4.03	27.78
336	Analysis	4.00	12.39	4.36	28.75
456	Analysis	4.00	11.82	4.27	28.09
548	Analysis	4.02	11.96	4.02	28.18
648	Analysis	4.96	12.50	4.86	32.24
652	Analysis	4.06	12.17	4.28	28.63
657	Analysis	4.22	12.37	4.53	29.56
663	Analysis	4.20	12.71	3.62	28.93
667	Analysis	3.67	12.26	4.28	27.55
669	Analysis	3.78	12.31	4.00	27.65
672	Analysis	4.00	12.21	4.19	28.40
730	Analysis	4.00	12.55	4.26	28.81
732	Analysis	4.06	12.57	3.81	28.56
742	Analysis	3.92	12.17	4.14	28.07
765	Analysis	3.86	12.24	3.76	27.58
786	Analysis	4.04	12.24	4.38	28.74
791	Analysis	4.02	12.05	4.12	28.23
795	Analysis	3.90	11.89	4.34	27.93
796	Analysis	4.01	12.16	4.09	28.23
807	Analysis	4.06	12.12	4.05	28.25

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Armour's Big Crop 4-12-4 Fertilizer, Guaranteed	4.00	12.00	4.00	28.00
817	Analysis	3.90	12.29	4.00	27.99
822	Analysis	4.00	12.78	4.06	28.84
827	Analysis	4.06	12.22	4.22	28.62
831	Analysis	4.00	12.10	4.14	28.24
866	Analysis	3.78	12.42	3.88	27.64
885	Analysis	4.04	12.30	4.39	28.81
992	Analysis	4.02	12.37	4.24	28.67
1005	Analysis	4.01	12.40	4.38	28.81
1045	Analysis	4.02	12.09	4.02	28.17
1066	Analysis	4.32	13.40	4.21	30.57
1078	Analysis	3.76	12.71	4.02	28.01
1096	Analysis	3.72	12.37	4.45	27.98
1104	Analysis	4.02	12.35	4.30	28.71
1113	Analysis	4.04	12.17	4.42	28.71
1127	Analysis	4.02	12.10	4.05	28.21
1131	Analysis	4.04	11.89	4.37	28.38
1135	Analysis	3.81	12.10	4.28	27.81
1139	Analysis	4.02	11.65	4.39	28.10
1144	Analysis	4.02	12.22	4.40	28.68
1189	Analysis	4.06	12.47	3.84	28.49
1205	Analysis	4.10	12.36	4.53	29.19
1219	Analysis	4.14	13.72	3.38	29.52
1225	Analysis	4.06	12.29	4.06	28.53
1360	Analysis	4.18	12.15	4.51	29.20
1363	Analysis	4.06	12.65	4.19	29.02
1369	Analysis	4.05	12.48	4.48	29.11
1370	Analysis	4.16	12.75	4.06	29.29
1374	Analysis	4.04	12.47	4.62	29.21
1385	Analysis	4.04	12.52	4.17	28.81
1399	Analysis	4.04	11.99	4.10	28.21
1407	Analysis	4.02	11.70	4.44	28.20
1408	Analysis	4.18	11.87	4.40	28.81
1450	Analysis	4.20	12.58	4.31	29.49
1462	Analysis	4.24	12.85	4.06	29.63
1467	Analysis	4.02	12.12	4.37	28.55
1474	Analysis	4.28	12.32	4.33	29.49
1482	Analysis	4.14	12.49	4.28	29.19
1487	Analysis	4.01	12.51	4.14	28.68
1491	Analysis	4.00	12.22	4.16	28.38
1501	Analysis	4.00	11.80	4.33	28.13
1503	Analysis	4.20	12.06	4.56	29.22
1612	Analysis	4.10	12.75	4.30	29.35
1613	Analysis	3.75	11.85	4.62	27.72
1619	Analysis	4.02	12.15	4.37	28.58
1771	Analysis	4.00	12.21	4.50	28.71
	Armour's Big Crop 5-10-5 Fertilizer				
	Guaranteed	5.00	10.00	5.00	30.00
12	Analysis	5.00	10.64	5.71	31.35
1765	Analysis	4.80	10.69	5.01	30.10
	Armour's Big Crop 6-12-0 Fertilizer				
	Guaranteed	6.00	12.00	0.00	30.00
87	Analysis	6.00	13.03	0.00	31.03
164	Analysis	5.54	12.89	0.00	29.51
	Armour's Big Crop 7-14-0 Fertilizer				
	Guaranteed	7.00	14.00	0.00	35.00
392	Analysis	6.41	14.57	0.00	33.80
653	Analysis	6.84	14.55	0.00	35.07
741	Analysis	6.62	14.11	0.00	33.97

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Armour's Big Crop 8-8-8 Fertilizer				
	Guaranteed	8.00	8.00	8.00	40.00
279	Analysis	7.79	8.93	8.47	40.77
731	Analysis	7.80	8.97	8.44	40.81
974	Analysis	7.62	8.31	8.39	39.56
1025	Analysis	8.24	8.89	8.12	41.73
1373	Analysis	7.84	8.55	8.52	40.59
1629	Analysis	7.32	8.63	8.02	38.61
	Armour's Big Crop 10-10-0 Fertilizer				
	Guaranteed	10.00	10.00	0.00	40.00
40	Analysis	10.04	10.98	0.00	41.10
51	Analysis	9.02	10.77	0.00	37.83
64	Analysis	9.60	10.77	0.00	39.57
83	Analysis	10.32	10.43	0.00	41.39
84	Analysis	9.04	11.53	0.00	38.65
92	Analysis	10.00	10.35	0.00	40.35
96	Analysis	10.00	10.92	0.00	40.92
105	Analysis	8.08	11.50	0.00	35.74
115	Analysis	9.60	11.84	0.00	40.64
119	Analysis	9.24	11.25	0.00	38.87
122	Analysis	9.54	10.75	0.00	39.37
135	Analysis	9.90	11.29	0.00	40.99
182	Analysis	10.00	10.64	0.00	40.64
329	Analysis	8.50	12.58	0.00	38.08
454	Analysis	9.36	11.34	0.00	39.42
495	Analysis	9.38	11.83	0.00	39.97
550	Analysis	9.44	10.54	0.00	38.86
566	Analysis	9.77	11.18	0.00	40.49
585	Analysis	9.58	11.60	0.00	40.34
743	Analysis	10.20	11.45	0.00	42.05
1455	Analysis	8.80	12.01	0.00	38.41
1490	Analysis	9.58	11.14	0.00	39.88
	Armour's Big Crop 5-10-10 Fertilizer				
	Guaranteed	5.00	10.00	10.00	35.00
857	Analysis	4.87	10.70	10.34	35.65
	Armour's Big Crop 10-20-10				
	Guaranteed	10.00	20.00	10.00	60.00
281	Analysis	8.44	20.34	8.84	54.95
301	Analysis	8.95	20.38	9.56	56.79
483	Analysis	8.56	19.62	9.58	54.88
664	Analysis	9.22	20.22	9.92	57.80
729	Analysis	9.30	21.14	10.69	58.73
844	Analysis	5.01	14.43	2.50	31.96
1372	Analysis	9.34	21.15	9.47	58.64
1454	Analysis	8.52	19.82	8.80	54.18
1457	Analysis	8.80	19.77	8.10	54.27
1575	Analysis	9.30	21.13	9.34	58.37
1628	Analysis	9.04	20.32	8.38	55.82
	Armour's Big Crop Sulphate of Ammonia				
	Guaranteed	20.50	0.00	0.00	61.50
97	Analysis	20.76	0.00	0.00	62.28
129	Analysis	20.77	0.00	0.00	62.31
	Armour's Big Crop 45% Superphosphate				
	Guaranteed	0.00	45.00	0.00	45.00
11	Analysis	0.00	45.02	0.00	45.02
24	Analysis	0.00	46.37	0.00	46.37
28	Analysis	0.00	46.13	0.00	46.13
43	Analysis	0.00	46.29	0.00	46.29
59	Analysis	0.00	46.43	0.00	46.43
65	Analysis	0.00	46.48	0.00	46.48
70	Analysis	0.00	46.03	0.00	46.03

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Armour's Big Crop 45% Superphosphate, Guaranteed..	0.00	45.00	0.00	45.00
99	Analysis	0.00	46.77	0.00	46.77
107	Analysis	0.00	46.06	0.00	46.06
114	Analysis	0.00	45.25	0.00	45.25
117	Analysis	0.00	46.36	0.00	46.36
133	Analysis	0.00	45.71	0.00	45.71
140	Analysis	0.00	46.23	0.00	46.23
161	Analysis	0.00	45.52	0.00	45.52
166	Analysis	0.00	44.77	0.00	44.77
307	Analysis	0.00	45.59	0.00	45.59
312	Analysis	0.00	45.26	0.00	45.26
313	Analysis	0.00	45.20	0.00	45.20
394	Analysis	0.00	45.58	0.00	45.58
403	Analysis	0.00	46.04	0.00	46.04
404	Analysis	0.00	45.04	0.00	45.04
418	Analysis	0.00	45.35	0.00	45.35
420	Analysis	0.00	44.88	0.00	44.88
421	Analysis	0.00	45.25	0.00	45.25
492	Analysis	0.00	45.51	0.00	45.51
497	Analysis	0.00	45.70	0.00	45.70
559	Analysis	0.00	47.35	0.00	47.35
571	Analysis	0.00	46.32	0.00	46.32
593	Analysis	0.00	46.21	0.00	46.21
600	Analysis	0.00	45.71	0.00	45.71
617	Analysis	0.00	46.89	0.00	46.89
651	Analysis	0.00	46.20	0.00	46.20
656	Analysis	0.00	45.89	0.00	45.89
665	Analysis	0.00	46.00	0.00	46.00
728	Analysis	0.00	46.44	0.00	46.44
739	Analysis	0.00	46.15	0.00	46.15
748	Analysis	0.00	45.99	0.00	45.99
775	Analysis	0.00	45.58	0.00	45.58
782	Analysis	0.00	45.82	0.00	45.82
1048	Analysis	0.00	45.80	0.00	45.80
	Armour's Big Crop 20% Superphosphate				
	Guaranteed	0.00	20.00	0.00	20.00
3	Analysis	0.00	20.41	0.00	20.41
10	Analysis	0.00	20.96	0.00	20.96
20	Analysis	0.00	19.62	0.00	19.62
23	Analysis	0.00	20.71	0.00	20.71
27	Analysis	0.00	20.95	0.00	20.95
31	Analysis	0.00	20.51	0.00	20.51
37	Analysis	0.00	20.09	0.00	20.09
38	Analysis	0.00	20.80	0.00	20.80
41	Analysis	0.00	20.24	0.00	20.24
48	Analysis	0.00	20.84	0.00	20.84
88	Analysis	0.00	20.44	0.00	20.44
93	Analysis	0.00	20.75	0.00	20.75
104	Analysis	0.00	20.51	0.00	20.51
132	Analysis	0.00	20.87	0.00	20.87
138	Analysis	0.00	20.87	0.00	20.87
139	Analysis	0.00	20.06	0.00	20.06
153	Analysis	0.00	21.03	0.00	21.03
165	Analysis	0.00	20.66	0.00	20.66
167	Analysis	0.00	20.14	0.00	20.14
172	Analysis	0.00	20.29	0.00	20.29
176	Analysis	0.00	21.25	0.00	21.25
192	Analysis	0.00	20.81	0.00	20.81
201	Analysis	0.00	20.21	0.00	20.21
209	Analysis	0.00	21.42	0.00	21.42
277	Analysis	0.00	20.05	0.00	20.05
430	Analysis	0.00	20.85	0.00	20.85

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Armour's Big Crop 20% Superphosphate, Guaranteed..	0.00	20.00	0.00	20.00
586	Analysis	0.00	20.41	0.00	20.41
637	Analysis	0.00	20.54	0.00	20.54
649	Analysis	0.00	20.39	0.00	20.39
654	Analysis	0.00	19.92	0.00	19.92
659	Analysis	0.00	20.91	0.00	20.91
671	Analysis	0.00	20.12	0.00	20.12
673	Analysis	0.00	19.30	0.00	19.30
771	Analysis	0.00	20.27	0.00	20.27
773	Analysis	0.00	21.00	0.00	21.00
774	Analysis	0.00	20.21	0.00	20.21
815	Analysis	0.00	20.56	0.00	20.56
1644	Analysis	0.00	20.21	0.00	20.21
	Armour's Big Crop 44% Superphosphate				
	Guaranteed	0.00	44.00	0.00	44.00
424	Analysis	0.00	44.08	0.00	44.08
	Armour's Sheep Manure				
	Guaranteed	1.50	1.00	2.00	7.50
402	Analysis	1.18	1.13	3.30	7.97
	Armour's Old Black Joe 5-10-5 Fertilizer				
	Guaranteed	5.00	10.00	5.00	30.00
25	Analysis	4.68	10.64	5.10	29.78
35	Analysis	5.00	10.19	6.06	31.25
36	Analysis	4.59	10.25	5.52	29.54
39	Analysis	4.68	10.40	5.37	29.81
50	Analysis	4.70	10.74	5.30	30.14
63	Analysis	5.00	10.84	5.37	30.64
72	Analysis	5.12	11.37	5.01	31.74
100	Analysis	4.77	10.09	5.01	29.41
106	Analysis	4.16	12.07	4.42	28.97
116	Analysis	4.84	10.42	5.18	30.12
120	Analysis	5.00	10.91	5.53	31.44
149	Analysis	4.60	11.09	5.03	29.92
152	Analysis	5.00	11.60	4.80	31.40
159	Analysis	5.04	10.73	5.06	30.91
168	Analysis	5.02	10.49	5.09	30.64
171	Analysis	4.57	10.62	5.02	29.35
187	Analysis	4.74	9.80	5.02	29.04
196	Analysis	5.04	10.36	5.04	30.52
280	Analysis	5.18	11.26	5.03	31.83
282	Analysis	4.37	10.72	5.01	28.84
302	Analysis	5.02	10.99	5.15	31.20
311	Analysis	4.90	10.25	5.13	30.03
325	Analysis	4.72	10.73	5.42	30.31
332	Analysis	5.04	10.85	5.21	31.18
393	Analysis	4.89	10.29	5.07	30.03
457	Analysis	4.87	9.58	5.43	29.62
484	Analysis	4.85	10.47	5.10	30.12
491	Analysis	5.04	11.10	4.38	30.50
496	Analysis	5.02	10.89	4.75	30.70
500	Analysis	5.02	10.66	5.17	30.89
502	Analysis	4.87	10.42	4.66	29.69
572	Analysis	4.96	11.03	5.04	30.95
576	Analysis	4.84	10.69	5.13	30.34
599	Analysis	4.72	10.69	4.98	29.83
601	Analysis	4.85	10.25	5.36	30.16
603	Analysis	4.93	10.03	5.02	29.84
605	Analysis	4.93	10.19	4.94	29.92
658	Analysis	5.00	10.06	5.12	30.18
670	Analysis	5.12	9.81	5.35	30.52

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Armour's Old Black Joe 5-10-5 Fertilizer, Guaranteed..	5.00	10.00	5.00	30.00
733	Analysis	4.92	10.62	5.14	30.52
750	Analysis	5.02	10.67	4.73	30.46
752	Analysis	5.14	10.63	4.71	30.76
754	Analysis	4.87	11.35	4.69	30.65
762	Analysis	5.04	10.14	5.00	30.26
788	Analysis	5.00	10.11	5.27	30.38
803	Analysis	4.68	10.06	5.28	29.38
808	Analysis	5.01	10.16	4.77	29.96
813	Analysis	4.79	10.73	5.03	30.13
856	Analysis	4.87	10.44	4.60	29.65
865	Analysis	4.86	10.29	5.01	29.88
931	Analysis	4.93	10.49	5.27	29.55
954	Analysis	5.04	10.14	5.13	30.39
1000	Analysis	5.04	10.34	4.65	30.11
1004	Analysis	4.72	10.00	5.65	29.81
1023	Analysis	5.06	10.11	5.02	30.31
1024	Analysis	5.01	10.97	4.87	30.87
1077	Analysis	5.16	10.87	5.00	31.35
1095	Analysis	5.01	10.65	5.04	30.72
1105	Analysis	5.04	10.21	5.00	30.33
1112	Analysis	5.00	10.07	5.32	30.39
1126	Analysis	5.04	10.99	4.72	30.83
1130	Analysis	5.12	10.45	5.03	30.84
1134	Analysis	5.00	10.73	4.66	30.39
1138	Analysis	4.77	10.34	5.02	29.67
1147	Analysis	5.04	10.64	5.41	31.17
1163	Analysis	5.10	10.67	5.03	31.00
1188	Analysis	4.76	9.91	5.41	29.60
1193	Analysis	5.04	10.48	5.18	30.78
1199	Analysis	5.39	10.42	5.10	31.69
1218	Analysis	5.02	10.35	5.05	30.46
1224	Analysis	4.30	11.99	4.40	29.29
1233	Analysis	5.08	10.58	5.46	31.28
1253	Analysis	5.06	10.82	5.07	31.07
1275	Analysis	5.08	11.06	5.01	31.31
1361	Analysis	5.30	10.02	5.92	31.84
1371	Analysis	5.05	10.69	5.27	31.11
1375	Analysis	5.08	10.39	5.12	30.75
1382	Analysis	5.38	10.77	5.21	32.12
1387	Analysis	5.22	11.67	4.54	31.87
1395	Analysis	5.14	10.81	5.01	31.24
1398	Analysis	5.02	10.55	5.56	31.17
1405	Analysis	5.04	10.56	5.00	30.68
1406	Analysis	5.00	10.38	5.25	30.63
1409	Analysis	5.20	10.53	5.30	31.43
1413	Analysis	5.16	10.19	5.28	30.95
1463	Analysis	5.10	10.53	5.21	31.04
1464	Analysis	5.04	10.39	5.23	30.74
1485	Analysis	5.00	10.71	5.10	30.81
1494	Analysis	5.08	10.65	5.19	31.08
1495	Analysis	4.44	10.42	5.19	28.83
1608	Analysis	5.02	10.36	5.03	30.45
1618	Analysis	4.62	11.23	5.06	30.15
1626	Analysis	5.00	10.09	5.28	30.37
1668	Analysis	5.12	10.44	5.64	31.44
1778	Analysis	5.02	10.70	5.64	31.40
	Armour's Velvetgreen Plantfood 5-10-5				
	Guaranteed	5.00	10.00	5.00	30.00
306	Analysis	5.00	10.25	5.30	30.55
552	Analysis	5.12	11.12	5.40	31.88

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Armour's Vertagreen Plantfood 5-10-5				
	Guaranteed	5.00	10.00	5.00	30.00
180	Analysis	5.08	10.04	5.10	30.38
315	Analysis	4.90	10.25	5.20	30.15
330	Analysis	4.84	11.07	5.34	30.93
400	Analysis	4.88	10.83	5.00	30.47
401	Analysis	5.26	10.39	5.24	31.41
455	Analysis	5.08	10.20	5.02	30.46
501	Analysis	5.00	10.19	5.12	30.31
503	Analysis	5.10	10.30	4.72	30.32
567	Analysis	5.01	10.08	5.23	30.34
570	Analysis	5.14	10.91	5.08	31.41
584	Analysis	5.00	10.79	5.25	31.04
592	Analysis	5.00	10.70	5.13	30.83
634	Analysis	4.90	10.16	5.11	29.97
636	Analysis	5.02	10.07	5.02	30.15
638	Analysis	4.92	10.12	5.09	29.97
641	Analysis	4.93	10.10	5.33	30.22
802	Analysis	4.83	10.12	5.26	29.87
812	Analysis	5.02	10.12	5.09	30.27
814	Analysis	5.00	10.05	5.16	30.21
1067	Analysis	5.16	10.32	5.38	31.18
	Associated Cooperatives Inc., Sheffield, Ala.				
	Ammonium Nitrate Fertilizer				
	Guaranteed	33.00	0.00	0.00	99.00
112	Analysis	32.88	0.00	0.00	98.64
598	Analysis	32.92	0.00	0.00	98.76
1445	Analysis	33.20	0.00	0.00	99.60
	Concentrated 46% Superphosphate				
	Guaranteed	0.00	46.00	0.00	46.00
82	Analysis	0.00	46.03	0.00	46.03
	Concentrated 47% Superphosphate				
	Guaranteed	0.00	47.00	0.00	47.00
423	Analysis	0.00	47.02	0.00	47.02
425	Analysis	0.00	46.32	0.00	46.32
	Concentrated 48% Superphosphate				
	Guaranteed	0.00	48.00	0.00	48.00
579	Analysis	0.00	47.23	0.00	47.23
	Best Fertilizer Co., Houston, Texas				
	Best Fertilizer Sulphate of Ammonia				
	Guaranteed	21.00	0.00	0.00	63.00
111	Analysis	20.98	0.00	0.00	62.94
137	Analysis	20.90	0.00	0.00	62.70
504	Analysis	20.57	0.00	0.00	61.71
590	Analysis	21.80	0.00	0.00	65.40
823	Analysis	21.03	0.00	0.00	63.09
	Bryan Cotton Oil and Fertilizer Co., Bryan, Texas				
	Star Brand 4-12-4 Fertilizer				
	Guaranteed	4.00	12.00	4.00	28.00
1211	Analysis	3.84	12.73	4.30	28.55
1227	Analysis	3.83	12.74	4.28	28.51
	Star Brand 5-10-5 Fertilizer				
	Guaranteed	5.00	10.00	5.00	30.00
1210	Analysis	5.26	11.18	5.82	32.78
1226	Analysis	4.91	11.01	4.93	30.67
	Central Texas Fertilizer Co., Comanche, Texas				
	Topper Brand 4-12-4 Fertilizer				
	Guaranteed	4.00	12.00	4.00	28.00
333	Analysis	4.32	12.94	4.03	29.93
446	Analysis	4.18	12.46	4.28	29.28
448	Analysis	4.30	12.45	4.01	29.36
461	Analysis	4.52	12.60	4.50	30.66

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Topper Brand 4-12-4 Fertilizer, Guaranteed	4.00	12.00	4.00	28.00
485	Analysis	4.60	12.64	4.14	30.58
493	Analysis	4.08	12.40	4.13	28.67
534	Analysis	4.20	12.90	4.20	29.70
616	Analysis	4.18	12.29	4.00	28.83
622	Analysis	4.38	12.05	4.36	29.55
674	Analysis	3.44	11.85	3.57	25.74
849	Analysis	3.64	12.31	3.65	26.88
1473	Analysis	4.38	12.03	4.48	29.65
1497	Analysis	4.44	12.67	4.40	30.39
1543	Analysis	4.36	12.41	4.33	29.82
1548	Analysis	4.44	13.36	4.56	31.24
1554	Analysis	4.18	12.49	4.36	29.39
1567	Analysis	4.46	12.40	4.70	30.48
1598	Analysis	4.68	12.57	4.17	28.78
1736	Analysis	4.01	13.07	4.24	29.34
	Topper Brand 5-10-5 Fertilizer				
	Guaranteed	5.00	10.00	5.00	30.00
334	Analysis	4.85	11.31	5.22	31.08
395	Analysis	4.81	11.16	4.75	30.34
447	Analysis	5.06	10.85	5.15	31.18
450	Analysis	5.20	11.20	4.46	31.26
462	Analysis	5.00	10.80	5.14	30.94
486	Analysis	5.00	11.42	5.00	31.42
618	Analysis	5.10	10.91	4.93	31.14
675	Analysis	5.02	10.77	5.02	30.85
738	Analysis	5.00	11.25	5.20	31.45
838	Analysis	5.20	11.41	5.38	32.39
850	Analysis	5.24	10.61	5.00	31.33
1483	Analysis	5.02	10.64	5.59	31.29
1500	Analysis	5.08	11.34	4.89	31.47
1547	Analysis	5.30	10.77	5.16	31.83
1553	Analysis	5.10	10.48	4.88	30.66
1572	Analysis	5.20	11.48	5.24	32.32
	Topper Brand 6-12-0 Fertilizer				
	Guaranteed	6.00	12.00	0.00	30.00
397	Analysis	6.26	12.15	0.00	30.93
	Topper Brand 7-14-0 Fertilizer				
	Guaranteed	7.00	14.00	0.00	35.00
53	Analysis	6.68	14.37	0.00	34.41
57	Analysis	6.87	15.29	0.00	35.90
335	Analysis	6.48	16.70	0.00	36.14
426	Analysis	6.92	14.62	0.00	35.38
449	Analysis	6.26	15.86	0.00	34.64
487	Analysis	7.24	15.33	0.00	37.05
494	Analysis	7.40	15.15	0.00	37.35
	Topper 10-20-10 Fertilizer				
	Guaranteed	10.00	20.00	10.00	60.00
839	Analysis	9.43	19.93	9.40	57.62
	Chilean Nitrate Sales Corp., New York, N. Y.				
	Champion Brand Chilean Nitrate of Soda				
	Guaranteed	16.00	0.00	0.00	48.00
568	Analysis	16.10	0.00	0.00	48.30
633	Analysis	16.10	0.00	0.00	48.30
	Consolidated Chemical Industries, Houston, Texas				
	T C C Brand Raw Bone Meal				
	Guaranteed	3.70	22.00*	0.00	24.30
793	Analysis	4.25	22.00*	0.00	25.95
797	Analysis	3.80	21.55*	0.00	24.33
801	Analysis	4.10	22.30*	0.00	25.68
810	Analysis	3.62	20.41*	0.00	24.03

* Total Phosphoric Acid

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
Crawford Liquid Fertilizer Co., Carrizo Springs, Texas					
Vita-Gro Liquid 10-20-0 Fertilizer					
252	Guaranteed	10.00	20.00	0.00	50.00
	Analysis	8.22	13.59	0.00	38.25
Vita-Gro Liquid 20-0-0 Fertilizer					
253	Guaranteed	20.00	0.00	0.00	60.00
	Analysis	14.56	0.00	0.00	43.68
E. I. du Pont de Nemours and Co., Wilmington 98, Delaware					
Uramon Fertilizer Compound					
128	Guaranteed	42.00	0.00	0.00	126.00
	Analysis	41.48	0.00	0.00	124.44
143	Analysis	42.04	0.00	0.00	126.12
408	Analysis	41.20	0.00	0.00	123.60
Nu Green Fertilizer Compound					
1810	Guaranteed	44.00	0.00	0.00	132.00
	Analysis	44.32	0.00	0.00	132.96
East Texas Products Co., Tyler, Texas					
Goldenrod 0-14-7 Plantfood					
300	Guaranteed	0.00	14.00	7.00	21.00
	Analysis	0.00	14.12	7.24	21.36
337	Analysis	0.00	14.09	8.39	22.48
Goldenrod 4-8-8 Plantfood					
917	Guaranteed	4.00	8.00	8.00	28.00
	Analysis	4.00	8.33	8.28	28.61
930	Analysis	4.04	8.32	7.88	28.32
1011	Analysis	4.07	8.64	8.00	28.85
1710	Analysis	3.81	8.67	8.32	28.42
Goldenrod 4-12-4 Plantfood					
887	Guaranteed	4.00	12.00	4.00	28.00
	Analysis	4.06	11.89	4.19	28.26
892	Analysis	4.03	12.00	4.20	28.29
929	Analysis	4.01	12.17	4.37	28.57
945	Analysis	4.08	11.85	4.14	28.23
975	Analysis	4.01	12.29	4.44	28.76
1012	Analysis	4.12	12.23	4.40	28.99
1202	Analysis	4.00	12.28	4.46	28.74
1327	Analysis	4.02	11.85	4.42	28.33
1656	Analysis	3.83	12.31	4.42	28.22
1690	Analysis	4.10	12.65	4.47	29.42
Goldenrod 5-10-5 Plantfood					
285	Guaranteed	5.00	10.00	5.00	30.00
	Analysis	4.82	10.34	5.02	29.82
299	Analysis	4.57	10.57	5.35	29.63
543	Analysis	4.76	10.09	5.21	29.58
886	Analysis	5.08	10.11	5.19	30.64
891	Analysis	5.00	10.18	5.07	30.25
916	Analysis	5.01	10.27	5.00	30.30
925	Analysis	4.81	10.13	4.89	29.45
928	Analysis	5.02	10.34	5.15	30.55
944	Analysis	5.12	10.00	5.05	30.41
999	Analysis	5.02	10.30	5.27	30.63
1020	Analysis	5.06	10.17	5.46	30.81
1181	Analysis	4.94	10.60	5.00	30.42
1203	Analysis	5.00	10.87	5.04	30.91
1206	Analysis	5.00	10.62	5.23	30.85
1304	Analysis	5.00	10.41	5.13	30.54
1657	Analysis	5.02	10.19	5.35	30.60
1663	Analysis	4.72	10.39	5.02	29.57

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Goldenrod 5-10-5 Plantfood, Guaranteed	5.00	10.00	5.00	30.00
1691	Analysis	5.02	10.94	5.29	31.29
1707	Analysis	5.02	10.59	5.02	30.67
1758	Analysis	5.06	10.45	5.25	30.88
1761	Analysis	4.81	10.60	5.39	30.42
1787	Analysis	5.08	10.69	5.27	31.20
1825	Analysis	5.04	10.51	5.06	30.69
	Goldenrod 6-10-4 Plantfood				
	Guaranteed	6.00	10.00	4.00	32.00
918	Analysis	5.82	10.31	4.45	32.22
939	Analysis	6.02	10.45	4.42	32.93
1018	Analysis	5.82	10.47	4.49	32.42
	Goldenrod 8-8-8 Plantfood				
	Guaranteed	8.00	8.00	8.00	40.00
924	Analysis	7.56	8.26	8.09	39.03
1019	Analysis	7.92	8.04	8.23	40.13
1176	Analysis	7.73	8.58	8.46	40.23
1303	Analysis	8.04	8.38	8.30	40.80
1331	Analysis	6.54	8.77	7.34	35.73
	Goldenrod 10-20-10 Plantfood				
	Guaranteed	10.00	20.00	10.00	60.00
991	Analysis	10.00	22.13	8.76	60.89
	Farm Service Inc., Opelousas, La.				
	Thorobred 5-10-5 Fertilizer				
	Guaranteed	5.00	10.00	5.00	30.00
609	Analysis	4.76	10.14	5.04	29.46
	Thorobred Brand 10-10-0 Fertilizer				
	Guaranteed	10.00	10.00	0.00	40.00
136	Analysis	10.60	9.98	0.00	41.78
	Farmer's Fertilizer Co., Texarkana, Texas				
	Farmer's 4-8-8 Fertilizer				
	Guaranteed	4.00	8.00	8.00	28.00
379	Analysis	4.10	8.71	6.60	27.61
	Farmer's 4-12-4 Fertilizer				
	Guaranteed	4.00	12.00	4.00	28.00
380	Analysis	4.82	10.65	5.90	31.01
	Mule Brand 0-14-7 Fertilizer				
	Guaranteed	0.00	14.00	7.00	21.00
377	Analysis	0.00	9.36	14.59	23.95
	Mule Brand 5-10-5 Fertilizer				
	Guaranteed	5.00	10.00	5.00	30.00
376	Analysis	4.84	10.11	5.50	30.13
1348	Analysis	5.18	9.93	5.84	31.31
1352	Analysis	5.22	10.24	5.49	31.39
1356	Analysis	5.04	10.20	5.20	30.52
1358	Analysis	5.08	10.47	5.25	30.96
1420	Analysis	5.30	10.02	5.64	31.56
1631	Analysis	5.01	10.44	5.15	30.62
	Mule Brand 8-8-8 Fertilizer				
	Guaranteed	8.00	8.00	8.00	40.00
378	Analysis	7.57	8.14	8.14	39.17
1347	Analysis	7.72	8.45	8.03	39.64
	Mule Brand 20% Superphosphate				
	Guaranteed	0.00	20.00	0.00	20.00
436	Analysis	0.00	19.26	0.00	19.26

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
Fidelity Chemical Corp., Houston, Texas					
Fertilome					
121	Guaranteed	6.00	12.00	4.00	34.00
	Analysis	6.14	13.54	4.96	36.92
Fidelity 0-14-7 Fertilizer					
	Guaranteed	0.00	14.00	7.00	21.00
1801	Analysis	0.00	14.70	7.88	22.58
Fidelity 4-12-4 Fertilizer					
	Guaranteed	4.00	12.00	4.00	28.00
62	Analysis	4.00	12.49	4.84	29.33
186	Analysis	4.00	12.29	4.63	28.92
185	Analysis	3.85	12.16	4.13	27.84
189	Analysis	4.00	12.72	4.42	29.14
211	Analysis	3.90	12.07	4.47	28.24
265	Analysis	4.44	12.81	4.93	31.06
644	Analysis	3.88	12.72	4.28	28.64
764	Analysis	4.30	12.74	4.01	29.65
781	Analysis	4.71	12.29	4.47	30.89
818	Analysis	4.46	11.62	3.94	28.94
998	Analysis	3.89	12.76	4.54	28.97
1030	Analysis	4.02	12.35	4.18	28.59
1052	Analysis	4.30	12.34	4.22	29.46
1087	Analysis	4.12	12.19	4.11	28.66
1094	Analysis	4.55	12.05	4.43	30.13
1109	Analysis	4.97	12.39	4.37	31.67
1149	Analysis	4.22	12.30	4.55	29.51
1177	Analysis	3.68	13.09	4.47	28.60
1186	Analysis	4.12	12.30	4.02	28.68
1192	Analysis	4.02	12.70	4.28	29.04
1239	Analysis	4.10	12.65	4.46	29.41
1272	Analysis	4.04	12.24	4.22	28.58
1277	Analysis	5.20	11.25	5.59	32.44
1283	Analysis	4.50	12.24	5.28	31.02
1388	Analysis	5.85	10.94	2.67	31.16
1389	Analysis	4.10	12.92	4.22	29.44
1412	Analysis	4.30	12.43	4.58	29.91
1458	Analysis	4.00	12.53	4.31	28.84
1470	Analysis	4.20	12.84	4.42	29.86
1486	Analysis	4.02	12.10	4.59	28.75
1556	Analysis	4.10	12.34	4.14	28.78
1562	Analysis	4.08	12.21	4.29	28.74
1616	Analysis	4.00	11.99	4.74	28.73
1770	Analysis	4.00	12.45	4.33	28.78
1783	Analysis	4.22	12.01	4.86	29.53
Fidelity 5-10-5 Fertilizer					
	Guaranteed	5.00	10.00	5.00	30.00
61	Analysis	4.62	10.80	5.52	30.18
151	Analysis	5.02	10.09	5.46	30.61
155	Analysis	4.86	10.81	5.06	30.45
184	Analysis	5.08	10.39	5.25	30.88
212	Analysis	5.10	11.88	5.47	32.65
218	Analysis	4.62	10.18	5.09	29.13
303	Analysis	4.54	11.65	5.27	30.54
458	Analysis	5.00	10.73	5.19	30.92
610	Analysis	5.00	10.27	5.27	30.54
612	Analysis	4.76	10.42	4.42	29.12
645	Analysis	5.28	9.47	5.44	30.75
763	Analysis	5.02	10.82	5.46	31.34
798	Analysis	4.88	10.50	5.07	30.21
804	Analysis	5.08	9.90	5.33	30.47
956	Analysis	4.88	11.30	5.06	31.00
997	Analysis	5.04	10.77	5.08	30.97

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Fidelity 5-10-5 Fertilizer, Guaranteed	5.00	10.00	5.00	30.00
1053	Analysis	5.18	10.82	5.48	31.84
1086	Analysis	4.30	11.79	5.70	30.39
1093	Analysis	5.06	10.91	4.96	31.05
1108	Analysis	5.14	10.16	5.46	31.04
1150	Analysis	4.77	11.42	5.06	30.79
1185	Analysis	5.06	10.89	5.56	31.63
1191	Analysis	5.03	11.35	5.04	31.48
1217	Analysis	5.10	10.98	5.53	31.81
1273	Analysis	4.93	10.96	5.16	30.91
1284	Analysis	5.26	10.91	5.36	32.05
1380	Analysis	5.00	10.62	5.23	30.85
1381	Analysis	4.20	12.09	4.64	29.33
1403	Analysis	5.04	11.12	5.19	31.43
1404	Analysis	4.55	11.37	4.70	29.72
1411	Analysis	5.16	10.77	5.66	31.91
1477	Analysis	5.08	11.34	5.02	31.60
1484	Analysis	5.18	10.65	5.02	31.21
1490	Analysis	5.44	9.99	5.02	31.33
1555	Analysis	5.30	10.45	5.40	31.75
1561	Analysis	5.08	10.66	5.17	31.07
1617	Analysis	5.02	10.35	5.20	30.61
1792	Analysis	5.02	10.30	5.35	30.71
1802	Analysis	5.05	10.80	5.27	31.22
	Fidelity 6-12-0 Fertilizer				
	Guaranteed	6.00	12.00	0.00	30.00
158	Analysis	6.08	12.98	0.00	31.22
	Fidelity 7-14-0 Fertilizer				
	Guaranteed	7.00	14.00	0.00	35.00
1390	Analysis	7.12	14.07	0.00	35.43
	Fidelity 8-8-8 Fertilizer				
	Guaranteed	8.00	8.00	8.00	40.00
1006	Analysis	7.62	8.20	8.48	39.54
	Fidelity 10-10-0 Fertilizer				
	Guaranteed	10.00	10.00	0.00	40.00
459	Analysis	9.55	10.41	0.00	39.06
1478	Analysis	9.20	10.90	0.00	38.50
	Fidelity 10-20-10 Fertilizer				
	Guaranteed	10.00	20.00	10.00	60.00
460	Analysis	9.88	21.72	10.09	61.45
611	Analysis	9.30	19.80	10.48	58.18
	Fidelity 20% Superphosphate				
	Guaranteed	0.00	20.00	0.00	20.00
190	Analysis	0.00	21.61	0.00	21.61
304	Analysis	0.00	21.10	0.00	21.10
792	Analysis	0.00	20.14	0.00	20.14
	Ford Motor Co., Dearborn, Michigan				
	Ford Ammonium Sulphate				
	Guaranteed	20.80	0.00	0.00	62.40
709	Analysis	20.80	0.00	0.00	62.40
	Gilmer Cotton Oil and Fertilizer Co., Gilmer, Texas				
	Texas Longhorn 0-14-7 Fertilizer				
	Guaranteed	0.00	14.00	7.00	21.00
1328	Analysis	0.00	14.52	8.08	22.60
	Texas Longhorn 5-10-5 Fertilizer				
	Guaranteed	5.00	10.00	5.00	30.00
1329	Analysis	4.56	10.89	6.08	30.65
1437	Analysis	5.41	10.39	5.23	31.85

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Texas Longhorn 20% Superphosphate				
1537	Guaranteed	0.00	20.00	0.00	20.00
	Analysis	0.00	20.70	0.00	20.70
	Gorman Peanut Co., Gorman, Texas				
	Heart of Texas Brand 4-8-8 Fertilizer				
1366	Guaranteed	4.00	8.00	8.00	28.00
	Analysis	3.60	7.68	6.47	24.95
	Pabak Brand 4-12-4 Fertilizer				
625	Guaranteed	4.00	12.00	4.00	28.00
1558	Analysis	4.10	12.44	4.12	28.86
	Analysis	4.10	11.51	4.54	28.35
	Pabak Brand 5-10-5 Fertilizer				
624	Guaranteed	5.00	10.00	5.00	30.00
632	Analysis	5.14	11.28	5.43	32.13
1368	Analysis	4.66	11.37	5.38	30.73
1557	Analysis	4.38	11.04	4.24	28.42
1565	Analysis	4.51	9.57	4.58	27.86
1566	Analysis	4.16	10.28	4.13	26.89
1595	Analysis	4.18	12.04	4.38	28.96
1733	Analysis	4.10	11.48	4.39	28.17
1811	Analysis	4.31	12.86	4.65	30.44
	Analysis	4.82	10.25	4.27	28.98
	International Minerals and Chemical Corp., Texarkana, Ark.				
	International 0-14-7 Fertilizer				
219	Guaranteed	0.00	14.00	7.00	21.00
230	Analysis	0.00	14.72	8.10	22.82
237	Analysis	0.00	14.55	7.40	21.95
342	Analysis	0.00	14.67	7.21	21.88
349	Analysis	0.00	14.44	7.58	22.02
373	Analysis	0.00	14.61	7.99	22.60
383	Analysis	0.00	14.20	7.16	21.36
	Analysis	0.00	14.18	7.99	22.17
	International 4-8-8 Fertilizer				
1449	Guaranteed	4.00	8.00	8.00	28.00
1509	Analysis	4.02	8.29	8.11	28.46
1647	Analysis	4.00	8.54	7.63	28.17
	Analysis	4.24	8.71	8.97	30.40
	International 4-12-4 Fertilizer				
1827	Guaranteed	4.00	12.00	4.00	28.00
	Analysis	4.08	12.06	4.08	28.38
	International 5-10-5 Fertilizer				
375	Guaranteed	5.00	10.00	5.00	30.00
382	Analysis	4.45	10.79	5.46	29.60
387	Analysis	4.77	10.00	5.29	29.60
396	Analysis	4.75	11.07	5.24	30.56
441	Analysis	4.16	11.55	4.84	28.87
696	Analysis	4.83	10.55	5.03	30.07
904	Analysis	4.88	10.45	5.23	30.32
995	Analysis	5.02	10.45	5.16	30.67
1009	Analysis	4.66	10.95	5.18	30.11
1266	Analysis	5.02	10.04	5.15	30.25
1307	Analysis	4.70	10.46	5.08	29.64
1312	Analysis	4.70	11.19	5.11	30.40
1416	Analysis	4.90	10.51	5.56	30.77
1432	Analysis	4.77	11.39	5.48	31.18
1441	Analysis	4.80	10.81	5.26	30.47
1581	Analysis	4.65	10.91	5.21	30.07
1642	Analysis	4.73	11.02	5.33	30.54
1648	Analysis	4.68	10.82	5.43	30.29
1648	Analysis	5.36	9.60	5.03	30.71
1696	Analysis	4.54	10.61	5.50	29.73

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	International 5-10-5 Fertilizer, Guaranteed	5.00	10.00	5.00	30.00
1753	Analysis	4.80	11.28	5.79	31.47
1777	Analysis	5.00	11.02	5.74	31.76
1782	Analysis	5.10	11.18	5.63	31.81
1795	Analysis	5.02	10.84	5.20	31.10
1829	Analysis	5.30	10.81	5.25	31.96
	International 8-8-8 Fertilizer				
	Guaranteed	8.00	8.00	8.00	40.00
994	Analysis	7.80	8.83	8.00	40.23
1311	Analysis	7.25	8.44	8.16	38.45
1345	Analysis	7.60	9.24	8.00	40.04
1510	Analysis	6.05	8.51	6.18	32.84
1577	Analysis	7.20	9.22	7.79	38.61
1781	Analysis	7.48	9.32	7.70	39.46
1828	Analysis	7.10	9.77	7.50	38.57
	International 10-20-10 Fertilizer				
	Guaranteed	10.00	20.00	10.00	60.00
905	Analysis	9.30	21.23	10.75	59.88
993	Analysis	9.06	21.12	9.54	57.84
1583	Analysis	9.40	22.01	9.35	59.56
1643	Analysis	8.30	22.61	9.19	56.70
	International 20% Superphosphate				
	Guaranteed	0.00	20.00	0.00	20.00
21	Analysis	0.00	20.46	0.00	20.46
220	Analysis	0.00	20.35	0.00	20.35
236	Analysis	0.00	20.50	0.00	20.50
344	Analysis	0.00	22.15	0.00	22.15
350	Analysis	0.00	20.24	0.00	20.24
374	Analysis	0.00	19.26	0.00	19.26
388	Analysis	0.00	19.93	0.00	19.93
431	Analysis	0.00	19.77	0.00	19.77
442	Analysis	0.00	20.50	0.00	20.50
479	Analysis	0.00	20.57	0.00	20.57
747	Analysis	0.00	20.96	0.00	20.96
	Jacksonville Fertilizer Co., Jacksonville, Texas				
	Chief Brand 0-14-7				
	Guaranteed	0.00	14.00	7.00	21.00
228	Analysis	0.00	14.50	6.80	21.30
242	Analysis	0.00	14.35	8.29	22.64
896	Analysis	0.00	13.97	7.21	21.18
906	Analysis	0.00	14.07	7.00	21.07
986	Analysis	0.00	14.94	8.69	23.63
	Chief Brand 4-8-8				
	Guaranteed	4.00	8.00	8.00	28.00
965	Analysis	4.44	9.85	9.61	32.78
	Chief Brand 4-12-4				
	Guaranteed	4.00	12.00	4.00	28.00
239	Analysis	5.98	12.92	5.52	36.38
240	Analysis	6.06	12.87	5.56	36.61
895	Analysis	3.88	11.89	4.26	27.79
953	Analysis	3.56	12.04	4.65	27.37
	Chief Brand 5-10-5				
	Guaranteed	5.00	10.00	5.00	30.00
238	Analysis	5.94	11.99	5.95	35.76
241	Analysis	5.96	12.67	5.67	36.22
893	Analysis	4.75	12.04	5.12	31.41
911	Analysis	4.80	10.13	5.39	29.92
951	Analysis	5.00	11.22	5.20	31.48
967	Analysis	4.84	10.39	5.16	30.07
989	Analysis	5.02	11.05	5.00	31.11

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Chief Brand 5-10-5, Guaranteed	5.00	1.00	5.00	30.00
1242	Analysis	4.10	12.20	4.35	28.85
1689	Analysis	4.50	12.02	4.04	29.56
1746	Analysis	4.08	12.71	4.27	29.22
1800	Analysis	4.16	12.45	4.19	29.12
	Chief Brand 8-8-8				
	Guaranteed	8.00	8.00	8.00	40.00
894	Analysis	7.60	8.52	7.51	38.83
910	Analysis	7.70	9.07	6.99	39.16
957	Analysis	7.36	8.46	8.12	38.68
990	Analysis	7.38	9.24	7.22	38.60
1129	Analysis	5.50	10.37	8.17	35.04
1745	Analysis	4.54	8.79	6.15	28.56
1799	Analysis	4.68	11.59	6.85	31.98
	Chief Brand 10-20-10				
	Guaranteed	10.00	20.00	10.00	60.00
966	Analysis	9.69	20.01	10.06	59.14
1128	Analysis	9.70	20.36	9.74	59.20
	Chief Brand 20% Superphosphate				
	Guaranteed	0.00	20.00	0.00	20.00
235	Analysis	0.00	20.40	0.00	20.40
	Kelley, Weber and Co., Inc., Lake Charles, La.				
	Weber-King Brand 0-14-7 Special				
	Guaranteed	0.00	14.00	7.00	21.00
205	Analysis	0.00	14.37	8.30	22.67
1159	Analysis	0.00	14.58	7.02	21.60
1164	Analysis	0.00	14.87	7.27	22.14
	Weber-King Brand Fertilizer Special 4-12-4				
	Guaranteed	4.00	12.00	4.00	28.00
1072	Analysis	5.20	10.81	5.40	31.81
1157	Analysis	4.04	12.09	4.32	28.53
1168	Analysis	4.32	12.22	5.00	30.18
	Weber-King Brand Fertilizer Special 5-10-5				
	Guaranteed	5.00	10.00	5.00	30.00
204	Analysis	4.73	10.86	5.60	30.65
1044	Analysis	5.30	10.08	5.02	31.00
1062	Analysis	5.18	10.65	5.27	31.46
1071	Analysis	4.28	11.61	4.87	29.32
1158	Analysis	5.20	10.23	5.20	31.03
1169	Analysis	5.10	10.09	5.47	30.86
1252	Analysis	5.20	10.46	5.20	31.26
	Weber-King Brand Fertilizer Special 8-8-8				
	Guaranteed	8.00	8.00	8.00	40.00
1167	Analysis	8.02	9.45	8.74	42.25
	Weber-King Brand 20% Superphosphate				
	Guaranteed	0.00	20.00	0.00	20.00
206	Analysis	0.00	20.28	0.00	20.28
	Kipfer Chemical Co., Harlingen, Texas				
	K W Brand 10-10-0				
	Guaranteed	10.00	10.00	0.00	40.00
125	Analysis	10.60	10.52	0.00	42.32
	K W Brand Superphosphate 20%				
	Guaranteed	0.00	20.00	0.00	20.00
595	Analysis	0.00	21.34	0.00	21.34
	Lake Charles Feed Co., Lake Charles, La.				
	Best Bet Brand Fertilizer Special 4-12-4				
	Guaranteed	4.00	12.00	4.00	28.00
1040	Analysis	4.18	12.56	4.32	29.42
1042	Analysis	4.20	12.27	4.63	29.50
1049	Analysis	4.06	12.00	4.07	28.25

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
Lion Oil Co., El Dorado, Ark.					
Lion Ammonium Nitrate Fertilizer					
	Guaranteed	33.50	0.00	0.00	100.50
145	Analysis	33.60	0.00	0.00	100.80
407	Analysis	32.80	0.00	0.00	98.40
410	Analysis	32.99	0.00	0.00	98.97
413	Analysis	33.19	0.00	0.00	99.57
417	Analysis	32.84	0.00	0.00	98.52
419	Analysis	32.87	0.00	0.00	98.61
422	Analysis	32.84	0.00	0.00	98.52
451	Analysis	32.90	0.00	0.00	98.70
498	Analysis	32.99	0.00	0.00	98.97
1419	Analysis	33.20	0.00	0.00	99.60
Lion Sulphate of Ammonia					
	Guaranteed	21.00	0.00	0.00	63.00
582	Analysis	21.00	0.00	0.00	63.00
Marshall Cotton Oil Co., Marshall, Texas					
Maverick Brand 4-8-8 Fertilizer					
	Guaranteed	4.00	8.00	8.00	28.00
1338	Analysis	4.46	8.35	8.00	29.73
Maverick Brand 5-10-5 Fertilizer					
	Guaranteed	5.00	10.00	5.00	30.00
364	Analysis	5.05	10.36	5.04	30.55
1245	Analysis	5.16	10.46	5.20	31.14
1332	Analysis	5.42	10.65	4.72	31.63
Maverick Brand 8-8-8 Fertilizer					
	Guaranteed	8.00	8.00	8.00	40.00
1340	Analysis	8.34	8.58	8.26	41.86
Mathieson Chemical Corp., Pasadena, Texas					
Mathieson's 10-30-10 Fertilizer					
	Guaranteed	10.00	30.00	10.00	70.00
1456	Analysis	10.00	31.14	9.56	70.70
1468	Analysis	10.28	30.09	11.38	72.31
1479	Analysis	10.50	30.37	10.30	72.17
1481	Analysis	10.58	32.34	8.76	72.84
1541	Analysis	10.40	31.32	10.14	72.66
1551	Analysis	10.14	30.69	10.91	72.02
1560	Analysis	10.87	33.27	8.55	74.43
1563	Analysis	10.40	30.17	10.27	71.64
1571	Analysis	10.70	32.07	10.30	74.47
1596	Analysis	10.86	33.32	8.21	74.11
1805	Analysis	10.91	31.64	9.06	73.43
Mathieson's Nitrate of Soda					
	Guaranteed	16.00	0.00	0.00	48.00
602	Analysis	16.32	0.00	0.00	48.96
635	Analysis	16.08	0.00	0.00	48.24
Mathieson's Ammonium Sulphate					
	Guaranteed	21.00	0.00	0.00	63.00
725	Analysis	20.70	0.00	0.00	62.10
Sasco-Phos Brand Pelleted 16-20-0					
	Guaranteed	16.00	20.00	0.00	68.00
45	Analysis	15.30	20.82	0.00	66.72
67	Analysis	16.00	20.47	0.00	68.47
85	Analysis	15.86	20.23	0.00	67.81
95	Analysis	16.28	20.54	0.00	69.38
113	Analysis	16.08	21.82	0.00	70.06
118	Analysis	16.00	20.49	0.00	68.49
134	Analysis	16.04	20.69	0.00	68.71
141	Analysis	15.94	20.39	0.00	68.21
160	Analysis	16.20	21.39	0.00	69.99
314	Analysis	16.02	21.40	0.00	69.46

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Sasco-Phos Brand Pelleted 16-20-0, Guaranteed	16.00	20.00	0.00	68.00
316	Analysis	15.53	21.11	0.00	67.70
326	Analysis	16.35	21.96	0.00	71.01
409	Analysis	16.10	20.52	0.00	68.82
412	Analysis	15.60	20.81	0.00	67.61
463	Analysis	15.90	21.44	0.00	69.14
476	Analysis	16.14	20.65	0.00	69.72
482	Analysis	16.34	21.39	0.00	70.41
490	Analysis	16.32	22.27	0.00	71.23
513	Analysis	16.23	20.81	0.00	69.50
515	Analysis	16.34	20.40	0.00	69.42
519	Analysis	16.30	20.92	0.00	69.82
523	Analysis	16.20	21.23	0.00	68.83
524	Analysis	16.32	21.42	0.00	70.38
527	Analysis	16.18	22.01	0.00	70.54
535	Analysis	15.91	20.64	0.00	68.37
541	Analysis	16.42	21.37	0.00	70.63
553	Analysis	16.12	20.94	0.00	69.30
577	Analysis	16.72	21.69	0.00	71.85
581	Analysis	16.20	21.40	0.00	70.00
588	Analysis	16.36	21.08	0.00	70.16
591	Analysis	16.30	21.46	0.00	70.36
594	Analysis	16.27	21.83	0.00	70.64
604	Analysis	16.30	21.35	0.00	70.25
614	Analysis	15.91	21.65	0.00	69.38
615	Analysis	16.34	21.31	0.00	70.33
639	Analysis	16.05	22.22	0.00	70.37
640	Analysis	16.26	21.62	0.00	70.40
655	Analysis	16.14	22.32	0.00	70.74
666	Analysis	16.02	22.06	0.00	70.12
668	Analysis	16.00	22.61	0.00	70.61
685	Analysis	16.18	22.15	0.00	70.69
711	Analysis	16.46	21.82	0.00	71.20
717	Analysis	16.52	21.17	0.00	70.73
726	Analysis	15.59	21.22	0.00	67.99
800	Analysis	16.28	22.24	0.00	71.08
806	Analysis	16.34	22.97	0.00	71.99
816	Analysis	16.18	21.78	0.00	70.32
1047	Analysis	16.46	20.56	0.00	69.94
1051	Analysis	16.16	21.65	0.00	70.13
1362	Analysis	16.83	20.99	0.00	71.48
1378	Analysis	16.44	20.99	0.00	70.31
1440	Analysis	16.60	21.39	0.00	71.19
1807	Analysis	16.28	22.61	0.00	71.45
	Sasco-Phos Brand 20% Superphosphate				
	Guaranteed	0.00	20.00	0.00	20.00
42	Analysis	0.00	20.85	0.00	20.85
46	Analysis	0.00	21.39	0.00	21.39
47	Analysis	0.00	20.74	0.00	20.74
58	Analysis	0.00	22.16	0.00	22.16
174	Analysis	0.00	21.44	0.00	21.44
178	Analysis	0.00	21.61	0.00	21.61
180	Analysis	0.00	20.02	0.00	20.02
321	Analysis	0.00	21.85	0.00	21.85
398	Analysis	0.00	20.31	0.00	20.31
488	Analysis	0.00	21.51	0.00	21.51
489	Analysis	0.00	19.47	0.00	19.47
522	Analysis	0.00	21.22	0.00	21.22
528	Analysis	0.00	21.75	0.00	21.75
554	Analysis	0.00	20.17	0.00	20.17
583	Analysis	0.00	20.94	0.00	20.94
613	Analysis	0.00	21.14	0.00	21.14
619	Analysis	0.00	21.30	0.00	21.30

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Sasco-Phos Brand 20% Superphosphate, Guaranteed...	0.00	20.00	0.00	20.00
724	Analysis	0.00	21.68	0.00	21.68
772	Analysis	0.00	22.33	0.00	22.33
779	Analysis	0.00	21.09	0.00	21.09
1141	Analysis	0.00	21.29	0.00	21.29
1235	Analysis	0.00	21.57	0.00	21.57
	Sasco-Phos Brand 11-48-0 Fertilizer				
	Guaranteed	11.00	48.00	0.00	81.00
514	Analysis	11.54	50.45	0.00	85.07
516	Analysis	11.30	50.64	0.00	84.54
520	Analysis	11.40	50.41	0.00	84.61
521	Analysis	11.02	50.47	0.00	83.53
525	Analysis	11.50	50.67	0.00	85.17
556	Analysis	11.53	50.07	0.00	84.66
575	Analysis	11.44	50.52	0.00	84.84
580	Analysis	11.60	49.55	0.00	84.35
841	Analysis	10.42	47.29	0.00	78.55
1452	Analysis	11.34	48.56	0.00	82.58
1469	Analysis	11.55	48.72	0.00	83.37
1492	Analysis	11.76	48.87	0.00	84.15
1493	Analysis	13.40	40.12	0.00	80.82
	Milwaukee Sewerage Commission, Milwaukee, Wisc.				
	Milorganite				
	Guaranteed	6.00	2.00	0.00	20.00
510	Analysis	6.03	3.24	0.00	21.33
	Oil Mill and Fertilizer Works, Henderson, Texas				
	Wolf Brand 4-12-4				
	Guaranteed	4.00	12.00	4.00	28.00
354	Analysis	3.62	11.96	4.45	27.27
1683	Analysis	3.68	12.11	4.61	27.76
	Wolf Brand 5-10-5				
	Guaranteed	5.00	10.00	5.00	30.00
352	Analysis	4.29	10.65	5.45	28.97
871	Analysis	5.10	11.48	4.38	31.16
1290	Analysis	5.06	10.39	5.14	30.71
1310	Analysis	4.76	10.80	5.42	30.50
1339	Analysis	5.36	10.67	5.02	31.77
	Wolf Brand 8-8-8				
	Guaranteed	8.00	8.00	8.00	40.00
353	Analysis	8.00	8.56	8.04	40.60
1196	Analysis	7.01	9.55	8.03	38.61
1291	Analysis	6.64	8.55	7.46	35.93
1309	Analysis	6.80	8.97	7.75	37.12
1682	Analysis	6.42	9.05	7.19	35.50
	Phillips Chemical Co., Bartlesville, Okla.				
	Phillips 66 Ammonium Nitrate				
	Guaranteed	33.50	0.00	0.00	100.50
1779	Analysis	33.40	0.00	0.00	100.20
	Phillips 66 Ammonium Sulphate				
	Guaranteed	21.00	0.00	0.00	63.00
557	Analysis	21.03	0.00	0.00	63.09
569	Analysis	21.10	0.00	0.00	63.30
587	Analysis	21.12	0.00	0.00	63.36
	Red Star Fertilizer Co., Sulphur Springs, Texas				
	Red Star Brand 0-14-7				
	Guaranteed	0.00	14.00	7.00	21.00
6	Analysis	0.00	13.52	7.23	20.75
1653	Analysis	0.00	14.10	7.62	21.72

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Red Star Brand 4-8-8				
	Guaranteed	4.00	8.00	8.00	28.00
1443	Analysis	4.30	8.72	8.26	29.88
1514	Analysis	4.30	8.96	8.52	29.38
1641	Analysis	4.01	9.09	8.50	29.62
	Red Star Brand 4-12-4				
	Guaranteed	4.00	12.00	4.00	28.00
271	Analysis	3.90	12.27	5.35	29.32
470	Analysis	3.52	13.09	4.28	27.93
537	Analysis	4.00	12.11	4.14	28.25
574	Analysis	4.02	12.11	4.77	28.94
736	Analysis	4.00	12.45	4.36	28.81
864	Analysis	3.64	12.09	3.89	26.90
899	Analysis	4.14	11.71	4.57	28.70
1119	Analysis	4.57	11.77	4.99	30.47
1592	Analysis	4.86	11.79	4.92	29.79
1605	Analysis	3.84	12.27	4.54	28.33
1651	Analysis	3.88	12.80	4.56	29.00
1732	Analysis	4.00	12.00	4.42	28.42
1759	Analysis	4.44	12.45	4.78	30.55
1818	Analysis	4.02	12.02	4.52	28.60
	Red Star Brand 5-10-5				
	Guaranteed	5.00	10.00	5.00	30.00
7	Analysis	5.20	10.23	5.39	31.22
108	Analysis	5.02	10.57	5.00	30.63
272	Analysis	5.12	10.49	5.15	31.00
288	Analysis	5.18	10.32	5.24	31.10
303	Analysis	5.08	10.54	5.11	30.89
428	Analysis	4.84	10.24	5.38	30.14
471	Analysis	5.18	10.41	5.34	31.29
538	Analysis	5.10	10.39	5.00	30.69
737	Analysis	5.10	10.32	5.34	30.96
770	Analysis	5.14	10.16	5.50	31.08
900	Analysis	5.36	10.32	5.26	31.66
1120	Analysis	5.10	10.38	5.43	31.11
1230	Analysis	5.12	10.46	5.32	31.14
1365	Analysis	5.14	10.51	5.40	31.33
1418	Analysis	5.20	9.59	5.30	30.49
1423	Analysis	5.26	10.39	5.37	31.54
1431	Analysis	5.26	10.57	5.38	31.73
1506	Analysis	5.02	10.67	5.14	30.87
1515	Analysis	5.10	10.07	5.38	30.75
1533	Analysis	5.20	10.44	5.48	31.52
1576	Analysis	5.20	10.20	5.51	31.31
1593	Analysis	5.00	10.39	5.26	30.65
1604	Analysis	5.00	10.29	5.49	30.78
1640	Analysis	5.00	10.57	5.56	31.13
1652	Analysis	5.00	10.00	5.32	30.32
1754	Analysis	5.10	10.21	5.26	30.77
1760	Analysis	5.02	10.02	5.58	30.66
1822	Analysis	5.08	10.17	5.73	31.14
1823	Analysis	5.00	10.20	5.45	30.65
1824	Analysis	5.00	10.37	5.44	30.81
	Red Star Brand 8-8-8				
	Guaranteed	8.00	8.00	8.00	40.00
1534	Analysis	8.04	8.13	8.53	40.78
1639	Analysis	7.57	8.12	8.44	39.27
1654	Analysis	7.63	8.81	8.01	39.71

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Red Star Brand 10-20-10				
	Guaranteed	10.00	20.00	10.00	60.00
1121	Analysis	9.46	21.18	10.44	59.85
1364	Analysis	10.04	20.87	9.78	60.77
1417	Analysis	9.74	20.66	10.05	59.93
1422	Analysis	9.82	21.09	10.11	60.66
1442	Analysis	9.60	21.44	10.02	60.26
1578	Analysis	9.63	20.77	9.78	59.44
1636	Analysis	9.88	21.94	10.00	61.58
1655	Analysis	9.63	20.91	10.33	60.13
	Red Star 20% Superphosphate				
	Guaranteed	0.00	20.00	0.00	20.00
5	Analysis	0.00	20.04	0.00	20.04
29	Analysis	0.00	20.09	0.00	20.09
109	Analysis	0.00	20.70	0.00	20.70
269	Analysis	0.00	20.40	0.00	20.40
273	Analysis	0.00	20.34	0.00	20.34
289	Analysis	0.00	20.00	0.00	20.00
309	Analysis	0.00	19.61	0.00	19.61
429	Analysis	0.00	20.59	0.00	20.59
437	Analysis	0.00	20.07	0.00	20.07
536	Analysis	0.00	21.06	0.00	21.06
597	Analysis	0.00	20.79	0.00	20.79
712	Analysis	0.00	20.76	0.00	20.76
749	Analysis	0.00	20.46	0.00	20.46
	E. H. Rugh, Bandera, Texas				
	Bat Guano				
	Guaranteed	10.00	3.40	1.20	34.60
91	Analysis	10.40	3.66	1.85	36.71
	Schrock Fertilizer Service, Congerville, Illinois				
	Schrock Natural Phosphate Rock				
	Guaranteed	0.00	32.00*	0.00	12.80
1220	Analysis	0.00	32.60*	0.00	13.04
	Shreveport Fertilizer Works, Shreveport, La.				
	La-Tex 0-14-7 Fertilizer				
	Guaranteed	0.00	14.00	7.00	21.00
207	Analysis	0.00	14.94	5.38	20.32
883	Analysis	0.00	13.80	9.77	23.57
1033	Analysis	0.00	15.93	6.05	21.98
	La-Tex 4-8-8 Fertilizer				
	Guaranteed	4.00	8.00	8.00	28.00
1313	Analysis	4.65	9.28	9.58	32.81
1522	Analysis	5.00	9.42	7.02	31.44
	La-Tex 4-12-4 Fertilizer				
	Guaranteed	4.00	12.00	4.00	28.00
1151	Analysis	4.20	11.89	5.03	29.52
1201	Analysis	3.64	12.17	4.38	27.47
1208	Analysis	4.02	12.22	4.94	29.22
	La-Tex 5-10-5 Fertilizer				
	Guaranteed	5.00	10.00	5.00	30.00
246	Analysis	3.81	11.89	5.70	29.02
869	Analysis	5.18	9.26	5.72	30.52
968	Analysis	4.87	10.01	5.39	30.01
1152	Analysis	5.12	10.06	5.03	30.45
1314	Analysis	5.02	10.18	5.47	30.71
1421	Analysis	5.07	10.64	5.63	31.53
1438	Analysis	5.00	10.02	5.71	30.73
1538	Analysis	5.30	10.52	5.08	31.50
1693	Analysis	5.16	10.48	5.01	30.97

*Total phosphoric acid

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
La-Tex 8-8-8 Fertilizer					
	Guaranteed	8.00	8.00	8.00	40.00
969	Analysis	8.02	8.34	8.42	40.82
1153	Analysis	7.53	8.87	8.28	39.74
1200	Analysis	6.84	9.17	8.79	38.48
1207	Analysis	7.68	8.61	8.02	39.67
1264	Analysis	8.04	8.53	8.69	41.84
1439	Analysis	7.08	8.71	8.90	38.85
La-Tex 20% Superphosphate					
	Guaranteed	0.00	20.00	0.00	20.00
884	Analysis	0.00	20.88	0.00	20.88
Lion 3-12-12 Fertilizer					
	Guaranteed	3.00	12.00	12.00	33.00
1607	Analysis	3.79	10.34	12.02	33.73
Lion 4-8-8 Fertilizer					
	Guaranteed	4.00	8.00	8.00	28.00
1297	Analysis	4.36	9.35	10.82	33.25
1353	Analysis	3.72	8.06	8.21	27.43
Lion 4-12-4 Fertilizer					
	Guaranteed	4.00	12.00	4.00	28.00
245	Analysis	3.77	11.81	5.76	28.88
1017	Analysis	4.26	12.04	4.42	29.24
1063	Analysis	4.51	10.58	5.06	29.17
1069	Analysis	4.02	12.57	4.39	29.02
1076	Analysis	4.76	11.41	5.56	31.25
1251	Analysis	4.00	12.40	4.83	29.23
Lion 5-10-5 Fertilizer					
	Guaranteed	5.00	10.00	5.00	30.00
361	Analysis	4.52	10.07	5.96	29.59
384	Analysis	4.52	10.52	5.27	29.35
751	Analysis	5.26	9.89	5.36	31.03
943	Analysis	5.08	9.92	5.36	30.52
947	Analysis	5.08	9.76	5.48	30.48
1016	Analysis	5.16	9.78	5.36	30.62
1085	Analysis	5.03	9.85	5.25	30.19
1098	Analysis	5.02	10.09	5.94	31.09
1260	Analysis	5.06	9.74	6.45	31.37
1279	Analysis	5.02	11.22	5.55	31.33
1298	Analysis	5.64	11.35	6.15	34.42
1330	Analysis	5.76	11.55	6.46	35.29
1337	Analysis	6.22	11.60	6.14	36.40
1354	Analysis	5.52	9.51	5.96	32.03
1434	Analysis	5.73	11.70	5.43	34.32
1606	Analysis	5.14	10.15	5.00	30.57
1729	Analysis	5.08	11.16	5.63	32.03
1763	Analysis	4.28	11.27	5.02	29.13
1790	Analysis	4.87	10.35	5.02	29.98
Lion 8-8-8 Fertilizer					
	Guaranteed	8.00	8.00	8.00	40.00
360	Analysis	7.43	8.65	8.20	39.14
385	Analysis	7.82	8.05	8.15	39.66
435	Analysis	7.57	8.90	8.08	39.69
946	Analysis	8.00	8.17	8.32	40.49
1015	Analysis	8.04	8.68	8.01	40.81
1097	Analysis	8.60	8.26	7.32	41.38
1259	Analysis	7.60	8.35	8.15	39.30
1335	Analysis	8.02	8.93	8.27	41.26
1706	Analysis	8.24	8.80	8.06	41.58
1728	Analysis	8.56	8.24	9.59	43.51

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
Lion 20% Superphosphate					
	Guaranteed	0.00	20.00	0.00	20.00
150	Analysis	0.00	20.65	0.00	20.65
183	Analysis	0.00	20.54	0.00	20.54
213	Analysis	0.00	20.12	0.00	20.12
363	Analysis	0.00	20.05	0.00	20.05
Longhorn 0-14-7 Fertilizer					
	Guaranteed	0.00	14.00	7.00	21.00
348	Analysis	0.00	14.24	7.43	21.67
362	Analysis	0.00	14.15	7.42	21.57
926	Analysis	0.00	14.24	9.16	23.40
1022	Analysis	0.00	14.78	7.81	22.59
1336	Analysis	0.00	14.40	7.90	22.30
1660	Analysis	0.00	14.44	7.25	21.69
1697	Analysis	0.00	15.08	7.26	22.34
1715	Analysis	0.00	14.88	7.02	21.90
Longhorn 4-12-4 Fertilizer					
	Guaranteed	4.00	12.00	4.00	28.00
757	Analysis	4.30	11.63	4.60	29.13
767	Analysis	4.44	12.69	4.68	30.69
982	Analysis	4.10	12.02	4.64	28.64
1084	Analysis	3.95	12.28	4.18	28.31
1182	Analysis	5.14	11.27	5.40	32.09
1278	Analysis	3.42	12.89	4.27	27.42
Longhorn 5-10-5 Fertilizer					
	Guaranteed	5.00	10.00	5.00	30.00
694	Analysis	4.59	10.40	5.44	29.61
756	Analysis	5.18	10.52	5.78	31.84
768	Analysis	5.00	10.23	5.26	30.49
981	Analysis	5.02	10.16	5.46	30.68
1039	Analysis	5.18	10.06	5.30	30.90
1256	Analysis	4.70	11.64	5.14	30.88
1661	Analysis	4.49	11.54	5.69	30.70
1808	Analysis	5.16	10.29	5.34	31.11
Longhorn 8-8-8 Fertilizer					
	Guaranteed	8.00	8.00	8.00	40.00
695	Analysis	8.03	8.70	8.14	40.93
755	Analysis	7.09	9.17	8.07	38.51
769	Analysis	8.06	9.23	7.44	40.85
1183	Analysis	8.02	8.03	8.15	40.24
1255	Analysis	7.74	8.42	9.78	41.42
1280	Analysis	8.60	8.19	8.10	42.09
1315	Analysis	8.32	8.30	8.81	42.07
1662	Analysis	8.15	8.24	8.04	40.73
Longhorn 20% Superphosphate					
	Guaranteed	0.00	20.00	0.00	20.00
347	Analysis	0.00	20.24	0.00	20.24
Smith-Douglass Co., Inc., Shreveport, La.					
Smith Gro Grain					
	Guaranteed	0.00	14.00	7.00	21.00
210	Analysis	0.00	15.07	7.73	22.80
1308	Analysis	0.00	14.65	7.32	21.97
1695	Analysis	0.00	15.78	8.06	23.84
Smith Money Maker					
	Guaranteed	4.00	8.00	8.00	28.00
964	Analysis	4.36	8.02	8.00	29.10
987	Analysis	4.14	8.44	8.86	29.72
1426	Analysis	4.48	8.66	8.86	30.96

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Smith Big Yield				
	Guaranteed	4.00	12.00	4.00	28.00
881	Analysis	4.16	12.08	4.76	29.32
1029	Analysis	4.10	12.22	4.55	29.07
1221	Analysis	4.14	11.85	4.66	28.93
1246	Analysis	4.16	11.64	5.19	29.31
1325	Analysis	4.24	11.75	5.26	29.73
1341	Analysis	4.26	12.11	4.49	29.38
	Smith Square Deal				
	Guaranteed	5.00	10.00	5.00	30.00
882	Analysis	5.03	10.66	5.40	31.15
888	Analysis	5.02	10.38	5.24	30.68
914	Analysis	5.02	10.00	5.28	30.34
962	Analysis	5.02	10.01	5.25	30.32
972	Analysis	5.02	9.93	5.53	30.52
996	Analysis	5.00	10.17	5.49	30.66
1021	Analysis	5.02	10.21	5.29	30.56
1028	Analysis	5.08	10.37	5.76	31.37
1172	Analysis	5.00	10.22	5.49	30.71
1222	Analysis	5.14	10.69	5.42	31.53
1247	Analysis	5.00	10.55	5.20	30.75
1258	Analysis	5.02	10.63	5.56	31.25
1268	Analysis	5.04	10.55	5.02	30.69
1293	Analysis	5.20	10.64	5.31	31.55
1326	Analysis	5.06	10.14	5.88	31.20
1342	Analysis	5.10	10.40	5.48	31.18
1424	Analysis	5.06	10.22	5.26	30.66
1511	Analysis	5.10	10.39	5.02	30.71
1580	Analysis	5.04	10.39	5.28	30.79
1692	Analysis	5.02	10.77	5.25	31.08
1748	Analysis	5.02	10.30	5.72	31.08
	Smith Gro Green				
	Guaranteed	8.00	8.00	8.00	40.00
963	Analysis	7.73	8.62	7.81	39.62
988	Analysis	7.22	8.74	8.42	38.82
1171	Analysis	8.02	8.39	9.00	41.45
1257	Analysis	7.32	8.86	8.48	39.30
1425	Analysis	8.28	9.03	8.26	42.13
1579	Analysis	8.02	9.86	8.22	42.14
	Smith 6-8-12 Fertilizer				
	Guaranteed	6.00	8.00	12.00	38.00
1505	Analysis	5.47	8.16	11.23	37.80
1521	Analysis	6.06	8.30	12.27	38.75
1704	Analysis	5.29	10.02	10.76	36.65
	Smith 20% Superphosphate				
	Guaranteed	0.00	20.00	0.00	20.00
432	Analysis	0.00	19.83	0.00	19.83
	Southwest Chemical Co., Inc., McAllen, Texas				
	Top Crop Liquid 10-10-0 Fertilizer				
	Guaranteed	10.00	10.00	0.00	40.00
249	Analysis	10.26	10.80	0.00	41.58
	Top Crop Liquid 6-12-6 Fertilizer				
	Guaranteed	6.00	12.00	6.00	36.00
250	Analysis	9.67	9.60	4.46	43.07
	Top Crop Liquid 8-16-0 Fertilizer				
	Guaranteed	8.00	16.00	0.00	40.00
251	Analysis	8.14	16.89	0.00	41.31
	Southwest Fertilizer and Chemical Co., Clint, Texas				
	Valley Brand 0-46-0 Fertilizer				
	Guaranteed	0.00	46.00	0.00	46.00
405	Analysis	0.00	46.59	0.00	46.59
414	Analysis	0.00	46.09	0.00	46.09

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
Spencer Chemical Co., Kansas City, Mo.					
Ammonium Nitrate					
	Guaranteed	33.50	0.00	0.00	100.50
60	Analysis	33.56	0.00	0.00	100.63
90	Analysis	33.54	0.00	0.00	100.62
558	Analysis	33.29	0.00	0.00	99.87
1305	Analysis	33.50	0.00	0.00	100.50
Swift and Company, Houston, Texas, and Harvey, La.					
Red Steer Brand 4-8-8					
	Guaranteed	4.00	8.00	8.00	28.00
1649	Analysis	4.02	8.41	8.31	28.78
1803	Analysis	3.76	9.14	7.67	28.09
Red Steer Brand 4-12-4					
	Guaranteed	4.00	12.00	4.00	28.00
14	Analysis	3.73	12.20	4.36	27.75
18	Analysis	4.00	11.83	4.26	28.09
54	Analysis	4.14	12.35	4.39	29.16
194	Analysis	3.79	12.04	4.33	27.74
276	Analysis	3.80	12.37	4.03	27.80
318	Analysis	4.36	10.39	5.09	28.56
322	Analysis	3.85	12.25	4.29	28.09
327	Analysis	4.06	12.67	4.53	29.88
544	Analysis	4.02	12.10	4.33	28.49
546	Analysis	3.74	12.37	4.18	27.77
607	Analysis	3.62	12.00	4.08	26.94
629	Analysis	3.91	12.49	4.60	28.82
630	Analysis	3.65	12.20	4.28	27.43
660	Analysis	3.76	12.13	4.15	27.56
693	Analysis	3.40	12.73	4.19	27.12
734	Analysis	3.84	12.22	4.40	28.14
776	Analysis	3.93	12.17	4.18	28.14
784	Analysis	3.73	12.57	4.35	28.11
788	Analysis	3.60	12.09	4.12	27.01
811	Analysis	3.66	12.10	4.06	27.14
819	Analysis	4.06	11.79	4.00	27.97
878	Analysis	3.36	12.30	4.59	26.97
890	Analysis	3.63	12.17	4.16	27.22
1027	Analysis	4.36	12.83	4.14	30.05
1038	Analysis	3.84	12.23	4.27	28.02
1043	Analysis	4.08	11.61	4.38	28.23
1054	Analysis	4.08	12.25	4.29	28.78
1057	Analysis	4.50	11.10	4.23	28.83
1082	Analysis	4.28	12.36	4.49	29.69
1100	Analysis	4.02	12.30	4.76	29.12
1102	Analysis	3.88	12.54	4.18	28.36
1110	Analysis	4.02	12.73	4.30	29.09
1132	Analysis	3.51	12.31	4.14	26.98
1137	Analysis	3.77	12.20	4.32	27.83
1146	Analysis	4.06	12.46	4.28	28.92
1175	Analysis	3.88	12.28	4.43	28.35
1281	Analysis	4.10	11.79	4.65	28.74
1384	Analysis	4.14	11.59	4.58	28.59
1393	Analysis	3.76	12.95	4.02	28.25
1461	Analysis	4.24	12.40	4.19	29.31
1466	Analysis	4.32	12.49	4.39	29.84
1489	Analysis	3.69	12.12	5.02	28.21
1502	Analysis	4.04	12.37	4.42	28.91
1544	Analysis	4.02	12.21	4.14	28.41
1601	Analysis	4.00	12.72	4.20	28.92
1603	Analysis	4.01	12.00	4.07	28.10
1671	Analysis	4.02	12.62	4.30	28.98
1741	Analysis	4.08	12.57	4.38	29.19

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Red Steer Brand 4-12-4, Guaranteed.....	4.00	12.00	4.00	28.00
1744	Analysis	4.02	12.26	4.60	28.92
1768	Analysis	4.14	12.85	4.26	29.53
1775	Analysis	4.02	12.05	4.56	28.67
1809	Analysis	3.74	12.91	3.93	28.06
1812	Analysis	4.30	12.47	4.73	30.10
1816	Analysis	4.10	12.94	4.75	29.99
	Red Steer Brand 5-10-5				
	Guaranteed.....	5.00	10.00	5.00	30.00
17	Analysis	4.42	10.17	5.48	28.91
69	Analysis	4.84	10.20	5.24	29.96
124	Analysis	4.51	10.80	5.11	29.44
127	Analysis	4.65	10.52	5.20	29.67
148	Analysis	4.42	10.99	5.02	29.27
193	Analysis	4.30	10.94	5.10	28.94
243	Analysis	5.09	11.22	5.64	32.13
266	Analysis	4.70	10.57	5.37	30.04
320	Analysis	4.67	10.63	5.52	30.16
323	Analysis	4.80	10.64	5.39	30.43
328	Analysis	4.48	10.31	5.39	29.14
452	Analysis	4.56	11.37	4.54	29.59
549	Analysis	4.63	10.37	4.61	28.87
606	Analysis	4.76	10.45	5.71	30.44
628	Analysis	5.01	10.74	5.38	31.15
631	Analysis	4.30	10.59	5.32	28.81
661	Analysis	4.42	11.67	5.00	29.93
735	Analysis	4.60	9.66	5.43	28.89
740	Analysis	5.10	9.94	5.32	30.56
753	Analysis	5.02	11.04	5.57	31.67
777	Analysis	2.75	14.67	3.23	26.20
785	Analysis	4.82	10.56	5.08	30.10
820	Analysis	5.00	10.51	5.48	30.99
829	Analysis	4.55	10.61	4.54	28.80
835	Analysis	5.00	10.36	5.31	30.67
851	Analysis	4.76	10.11	5.26	29.65
955	Analysis	5.02	10.15	5.50	30.71
970	Analysis	4.78	10.46	4.65	29.45
1003	Analysis	5.04	10.57	5.58	31.27
1014	Analysis	4.85	10.08	5.63	30.26
1026	Analysis	4.76	10.68	4.30	29.76
1037	Analysis	4.73	10.53	5.10	29.82
1055	Analysis	4.86	10.10	5.10	29.78
1058	Analysis	5.01	10.13	5.34	30.50
1070	Analysis	4.82	10.07	5.52	30.05
1081	Analysis	5.02	10.70	5.18	30.94
1101	Analysis	4.52	11.48	4.72	29.76
1103	Analysis	4.58	10.31	5.27	29.32
1111	Analysis	4.76	10.37	4.58	29.23
1116	Analysis	5.01	11.23	4.59	30.85
1133	Analysis	4.35	11.33	4.60	29.03
1136	Analysis	4.60	9.36	5.76	28.92
1140	Analysis	4.90	10.47	5.18	30.35
1145	Analysis	4.80	10.94	4.87	30.21
1156	Analysis	4.52	11.32	5.08	29.96
1180	Analysis	4.61	10.62	5.16	29.61
1190	Analysis	4.86	11.89	5.32	31.79
1198	Analysis	4.60	10.88	5.23	29.91
1209	Analysis	5.14	10.52	5.16	31.10
1212	Analysis	4.80	10.35	5.27	30.02
1223	Analysis	4.66	11.05	5.01	30.04
1274	Analysis	5.00	12.27	5.00	32.27
1287	Analysis	5.02	11.84	5.09	31.99
1383	Analysis	4.73	11.48	4.72	30.39

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Red Steer Brand 5-10-5, Guaranteed	5.00	10.00	5.00	30.00
1394	Analysis	4.60	10.49	5.42	29.71
1397	Analysis	4.65	11.08	5.19	30.22
1410	Analysis	4.63	10.75	5.06	29.70
1448	Analysis	5.00	10.42	5.14	30.56
1451	Analysis	5.04	10.74	5.42	31.19
1465	Analysis	5.00	10.62	4.89	30.51
1472	Analysis	4.80	10.44	5.29	30.13
1476	Analysis	4.80	10.27	5.42	30.09
1552	Analysis	4.54	10.74	5.01	29.37
1594	Analysis	4.81	10.42	5.19	30.04
1600	Analysis	4.82	10.54	5.06	30.06
1602	Analysis	4.74	10.42	5.20	29.84
1625	Analysis	4.66	10.29	5.49	29.76
1638	Analysis	6.23	12.52	6.11	37.22
1670	Analysis	5.00	10.32	5.29	30.61
1740	Analysis	4.48	11.08	5.52	30.04
1747	Analysis	5.00	10.80	5.12	30.92
1751	Analysis	5.02	10.62	4.82	30.50
1762	Analysis	4.88	10.23	6.59	31.46
1764	Analysis	4.66	10.52	5.15	29.65
1769	Analysis	4.64	10.41	5.33	29.66
1776	Analysis	4.86	10.50	5.71	30.79
1784	Analysis	5.04	10.02	5.59	30.73
1789	Analysis	4.72	10.60	5.08	29.84
1798	Analysis	4.79	10.95	5.06	30.38
1804	Analysis	4.70	10.71	4.62	29.43
1813	Analysis	4.49	11.47	5.00	29.94
1817	Analysis	4.65	10.37	5.33	29.65
	Red Steer Brand 6-12-0				
	Guaranteed	6.00	12.00	0.00	30.00
68	Analysis	5.03	12.01	0.00	27.10
126	Analysis	6.00	13.10	0.00	31.10
	Red Steer Brand 8-8-8				
	Guaranteed	8.00	8.00	8.00	40.00
267	Analysis	7.14	10.03	7.01	39.46
971	Analysis	7.92	8.40	8.34	40.50
1083	Analysis	7.30	9.07	7.52	38.49
1117	Analysis	8.04	8.90	8.42	41.44
1285	Analysis	8.04	8.58	8.69	41.39
1379	Analysis	7.68	8.54	8.14	39.72
1396	Analysis	7.46	8.26	8.10	38.74
1475	Analysis	7.53	8.90	8.39	39.88
1669	Analysis	7.68	8.71	8.11	39.86
	Red Steer Brand 12-15-0				
	Guaranteed	12.00	15.00	0.00	51.00
147	Analysis	10.95	14.00	0.00	46.97
453	Analysis	10.80	14.61	0.00	47.01
545	Analysis	11.52	14.88	0.00	49.44
642	Analysis	11.46	15.10	0.00	49.48
650	Analysis	7.46	10.06	5.46	37.90
1471	Analysis	9.84	15.57	2.04	47.13
	Sulphate of Ammonia				
	Guaranteed	20.50	0.00	0.00	61.50
643	Analysis	19.76	0.00	0.00	59.28
	Red Steer Brand 0-45-0				
	Guaranteed	0.00	45.00	0.00	45.00
317	Analysis	0.00	45.17	0.00	45.17
415	Analysis	0.00	45.54	0.00	45.54
518	Analysis	0.00	45.67	0.00	45.67
720	Analysis	0.00	47.03	0.00	47.03
783	Analysis	0.00	45.67	0.00	45.67

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
Red Steer Brand 0-20-0					
	Guaranteed	0.00	20.00	0.00	20.00
2	Analysis	0.00	20.61	0.00	20.61
13	Analysis	0.00	21.50	0.00	21.50
16	Analysis	0.00	21.28	0.00	21.28
32	Analysis	0.00	20.72	0.00	20.72
33	Analysis	0.00	21.37	0.00	21.37
55	Analysis	0.00	20.09	0.00	20.09
56	Analysis	0.00	21.60	0.00	21.60
74	Analysis	0.00	20.47	0.00	20.47
80	Analysis	0.00	21.87	0.00	21.87
103	Analysis	0.00	21.04	0.00	21.04
144	Analysis	0.00	21.14	0.00	21.14
146	Analysis	0.00	19.60	0.00	19.60
154	Analysis	0.00	20.90	0.00	20.90
157	Analysis	0.00	21.30	0.00	21.30
163	Analysis	0.00	21.41	0.00	21.41
175	Analysis	0.00	20.76	0.00	20.76
268	Analysis	0.00	21.23	0.00	21.23
416	Analysis	0.00	20.57	0.00	20.57
621	Analysis	0.00	21.07	0.00	21.07
662	Analysis	0.00	21.73	0.00	21.73
852	Analysis	0.00	20.66	0.00	20.66
Vigoro 6-10-4					
	Guaranteed	6.00	10.00	4.00	32.00
73	Analysis	5.78	10.17	4.10	31.61
499	Analysis	5.70	10.35	4.21	31.66
543	Analysis	5.64	10.42	4.27	31.61
547	Analysis	6.00	10.41	4.32	32.73
551	Analysis	5.86	10.25	4.01	31.84
555	Analysis	6.00	9.95	4.19	32.14
589	Analysis	5.83	10.08	4.20	31.77
608	Analysis	5.90	10.14	4.09	31.93
646	Analysis	5.86	10.01	4.20	31.79
809	Analysis	5.64	10.15	4.07	31.14
1046	Analysis	5.88	10.00	4.17	31.81
1056	Analysis	6.12	9.58	4.30	32.24
1059	Analysis	6.14	10.15	4.26	32.83
1286	Analysis	6.00	10.70	4.40	33.10
1542	Analysis	5.88	10.06	4.52	32.22
Blenn					
	Guaranteed	5.00	10.00	5.00	30.00
319	Analysis	4.74	10.28	5.52	30.01
692	Analysis	4.68	10.42	5.86	30.32
821	Analysis	5.01	9.96	5.56	30.55
840	Analysis	4.79	10.17	5.02	29.56
1118	Analysis	4.70	11.38	4.46	29.94
Swift and Company, Shreveport, La.					
Red Steer Brand 0-14-7					
	Guaranteed	0.00	14.00	7.00	21.00
208	Analysis	0.00	14.27	7.26	21.53
290	Analysis	0.00	14.45	6.71	21.16
367	Analysis	0.00	14.21	7.01	21.22
1320	Analysis	0.00	14.68	7.45	22.13
1658	Analysis	0.00	14.47	7.42	21.89
Red Steer Brand 4-8-8					
	Guaranteed	4.00	8.00	8.00	28.00
942	Analysis	4.02	8.06	8.02	28.14
Red Steer Brand 4-12-4					
	Guaranteed	4.00	12.00	4.00	28.00
284	Analysis	4.02	11.66	4.12	27.84
291	Analysis	3.66	11.76	4.25	26.99

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Red Steer Brand 4-12-4, Guaranteed.....	4.00	12.00	4.00	28.00
340	Analysis	4.02	11.67	4.73	28.46
444	Analysis	4.08	12.33	4.35	28.92
464	Analysis	4.50	12.04	4.07	29.61
686	Analysis	3.55	12.17	4.23	27.05
698	Analysis	5.95	13.20	6.07	37.12
976	Analysis	4.36	11.88	4.80	29.76
1249	Analysis	4.01	12.05	4.31	28.39
1261	Analysis	4.26	12.20	4.12	29.10
1289	Analysis	3.75	12.42	4.74	28.41
1299	Analysis	4.04	12.58	4.38	29.08
1302	Analysis	4.10	11.89	4.38	28.57
1359	Analysis	4.26	12.15	4.31	29.24
1427	Analysis	4.04	12.12	4.55	28.79
1507	Analysis	3.83	8.71	7.58	27.78
1588	Analysis	4.11	12.01	4.25	28.59
1637	Analysis	3.84	13.18	4.24	28.94
1677	Analysis	3.90	12.29	4.47	28.46
1725	Analysis	4.00	12.27	4.82	29.09
1731	Analysis	4.00	12.53	4.02	28.55
1819	Analysis	4.00	12.74	4.26	29.00
	Red Steer Brand 5-10-5				
	Guaranteed	5.00	10.00	5.00	30.00
231	Analysis	4.70	10.42	5.20	29.72
283	Analysis	4.85	10.10	4.80	29.45
341	Analysis	4.80	10.37	5.21	29.98
351	Analysis	4.83	10.13	5.16	29.78
365	Analysis	4.56	10.51	5.02	29.21
371	Analysis	5.02	10.31	5.20	30.57
381	Analysis	5.00	9.27	5.28	30.55
438	Analysis	4.89	10.45	5.00	30.20
439	Analysis	4.68	10.78	4.71	29.53
445	Analysis	5.16	10.72	5.02	31.22
699	Analysis	5.00	10.59	4.76	30.35
719	Analysis	4.62	11.06	6.22	31.14
907	Analysis	5.00	10.63	5.08	30.71
920	Analysis	4.84	10.32	5.15	29.99
941	Analysis	5.01	10.02	5.12	30.17
977	Analysis	4.85	10.50	5.20	30.25
1243	Analysis	5.00	10.23	5.01	30.24
1250	Analysis	5.02	10.38	5.14	30.58
1263	Analysis	5.00	10.65	5.00	30.65
1269	Analysis	5.02	10.72	5.35	31.13
1288	Analysis	5.02	10.85	5.08	30.99
1294	Analysis	5.06	10.64	4.86	30.68
1300	Analysis	5.06	10.52	5.80	31.50
1301	Analysis	5.10	10.34	5.55	31.19
1316	Analysis	5.12	10.29	5.39	31.04
1320	Analysis	5.04	9.71	5.01	29.84
1346	Analysis	5.24	10.69	5.77	32.18
1350	Analysis	5.10	10.46	5.02	30.78
1414	Analysis	5.30	10.05	5.02	30.97
1508	Analysis	5.10	10.20	6.10	31.60
1519	Analysis	5.38	10.23	5.16	31.53
1536	Analysis	5.10	10.56	5.30	31.16
1635	Analysis	5.04	10.69	5.14	30.95
1659	Analysis	4.79	10.30	5.13	29.80
1687	Analysis	5.04	10.21	5.50	30.83
1720	Analysis	5.00	10.04	5.13	30.17
1722	Analysis	5.11	10.51	5.28	31.12
1726	Analysis	5.20	10.43	5.89	31.92

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Red Steer Brand 8-8-8				
	Guaranteed	8.00	8.00	8.00	40.00
370	Analysis	7.30	8.52	8.01	38.43
952	Analysis	7.82	8.12	8.64	40.22
1244	Analysis	7.74	8.85	7.49	39.56
1262	Analysis	8.10	8.64	8.40	41.34
1319	Analysis	8.48	8.53	9.43	43.40
1351	Analysis	8.00	8.48	8.30	40.78
1435	Analysis	8.23	8.50	8.01	41.35
1634	Analysis	7.73	8.83	8.09	40.11
1650	Analysis	6.80	9.84	7.22	37.46
1721	Analysis	7.51	9.14	7.22	38.89
1730	Analysis	7.02	9.39	6.86	37.31
	Red Steer Brand 10-20-10				
	Guaranteed	10.00	20.00	10.00	60.00
292	Analysis	9.03	20.73	9.83	57.65
	Red Steer Brand Plantfood 6-8-12				
	Guaranteed	6.00	8.00	12.00	38.00
1415	Analysis	5.86	8.35	12.15	38.08
1436	Analysis	6.00	8.44	11.28	37.72
1520	Analysis	6.02	8.09	11.42	37.57
	Red Steer Brand 0-20-0				
	Guaranteed	0.00	20.00	0.00	20.00
366	Analysis	0.00	20.62	0.00	20.62
700	Analysis	0.00	20.86	0.00	20.86
	Vigoro 6-10-4				
	Guaranteed	6.00	10.00	4.00	32.00
921	Analysis	6.02	10.36	4.18	32.60
940	Analysis	5.66	10.10	4.18	31.26
1295	Analysis	5.24	10.66	4.44	30.82
	Blenn 5-10-5 Fertilizer				
	Guaranteed	5.00	10.00	5.00	30.00
1349	Analysis	5.32	10.34	5.28	31.58
1518	Analysis	5.24	10.14	5.53	31.39
	Terra Food Fertilizer Co., El Monte, Cal.				
	Terra Food 11-28-28 Fertilizer				
	Guaranteed	11.00	28.00	28.00	89.00
76	Analysis	9.02	25.84	35.26	88.16
505	Analysis	10.92	28.54	28.22	89.52
	Terra Food 16-32-16 Fertilizer				
	Guaranteed	16.00	32.00	16.00	96.00
77	Analysis	15.04	32.50	20.15	97.77
560	Analysis	15.69	33.52	16.69	97.28
	Terra Food 22-22-11				
	Guaranteed	22.00	22.00	11.00	99.00
75	Analysis	22.20	22.50	11.76	100.86
	Texas Farm Products Co., Nacogdoches, Texas				
	Lone Star Brand 0-14-7 Fertilizer				
	Guaranteed	0.00	14.00	7.00	21.00
199	Analysis	0.00	14.46	7.50	21.96
233	Analysis	0.00	15.43	7.96	23.39
	Lone Star Brand 4-8-8 Fertilizer				
	Guaranteed	4.00	8.00	8.00	28.00
225	Analysis	4.08	9.22	7.55	29.01
853	Analysis	4.14	8.62	8.24	29.28
875	Analysis	4.24	8.29	8.64	29.75
1064	Analysis	4.26	8.65	8.32	29.75

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Lone Star Brand 4-8-8 Fertilizer, Guaranteed.....	4.00	8.00	8.00	28.00
1160	Analysis	4.28	8.21	8.38	29.43
1433	Analysis	4.09	8.74	7.79	28.80
1448	Analysis	4.04	8.43	8.00	28.55
1645	Analysis	4.08	8.74	7.74	28.72
1673	Analysis	4.00	8.90	8.23	29.13
1694	Analysis	4.00	9.07	8.05	29.12
1705	Analysis	4.00	9.18	8.40	29.58
	Lone Star Brand 4-12-4 Fertilizer				
	Guaranteed	4.00	12.00	4.00	28.00
203	Analysis	4.00	12.06	4.52	28.53
215	Analysis	4.08	12.78	4.45	29.47
247	Analysis	4.10	12.24	4.50	29.04
293	Analysis	3.91	12.08	4.39	28.20
368	Analysis	4.12	11.31	4.31	27.98
723	Analysis	4.04	12.48	4.33	28.93
760	Analysis	4.02	12.10	4.38	28.54
834	Analysis	4.36	12.21	4.37	29.66
855	Analysis	4.04	12.33	4.37	28.82
860	Analysis	4.28	12.41	4.19	29.44
863	Analysis	4.06	11.89	4.31	28.38
868	Analysis	4.04	12.06	4.26	28.44
873	Analysis	4.08	12.42	4.81	29.81
876	Analysis	4.10	12.04	4.34	28.68
927	Analysis	4.32	12.22	4.36	29.54
980	Analysis	4.28	12.07	4.48	29.39
1008	Analysis	4.00	12.15	4.38	28.53
1010	Analysis	4.10	12.42	5.30	30.02
1013	Analysis	4.02	12.19	4.57	28.82
1060	Analysis	4.32	12.55	4.41	29.92
1063	Analysis	4.16	10.38	4.33	27.19
1073	Analysis	4.02	12.18	4.28	28.52
1089	Analysis	4.14	12.49	4.29	29.20
1091	Analysis	4.18	12.16	4.37	29.07
1092	Analysis	4.08	12.07	4.52	28.83
1143	Analysis	4.04	12.53	4.34	28.99
1148	Analysis	4.20	12.48	4.31	29.39
1165	Analysis	4.20	12.37	4.50	29.47
1173	Analysis	4.14	12.06	4.61	29.09
1195	Analysis	4.28	12.08	4.30	29.22
1229	Analysis	4.06	12.02	4.40	28.60
1236	Analysis	4.08	12.50	4.45	29.19
1248	Analysis	4.04	12.49	4.08	28.69
1317	Analysis	4.26	12.32	4.24	29.34
1615	Analysis	4.00	12.84	4.40	29.24
1623	Analysis	4.00	12.43	4.24	28.67
1674	Analysis	3.76	12.48	4.32	28.08
1681	Analysis	4.06	12.25	4.26	28.69
1708	Analysis	4.10	12.65	4.30	29.25
1749	Analysis	4.20	12.66	4.38	29.64
1757	Analysis	4.14	12.61	4.53	29.56
1766	Analysis	4.02	12.56	5.08	29.70
1772	Analysis	4.18	12.70	4.16	29.40
	Lone Star Brand 5-10-5 Fertilizer				
	Guaranteed	5.00	10.00	5.00	30.00
216	Analysis	4.33	10.64	5.66	29.29
227	Analysis	4.54	10.74	5.29	29.65
248	Analysis	4.71	10.48	5.32	29.93
294	Analysis	5.00	10.25	5.39	30.64
369	Analysis	4.94	10.12	5.45	30.39
722	Analysis	5.00	10.05	5.26	30.31

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Lone Star Brand 5-10-5 Fertilizer, Guaranteed.....	5.00	10.00	5.00	30.00
759	Analysis	5.06	10.17	5.34	30.69
766	Analysis	4.88	10.32	5.20	30.16
832	Analysis	5.08	10.15	5.34	30.73
833	Analysis	5.08	10.30	5.28	30.83
842	Analysis	5.06	10.50	5.29	30.97
854	Analysis	4.88	10.35	5.27	30.26
859	Analysis	5.05	10.40	5.47	31.02
862	Analysis	5.01	10.12	5.35	30.50
867	Analysis	5.18	10.36	5.36	31.26
877	Analysis	5.16	10.36	5.40	31.24
889	Analysis	4.61	11.09	4.86	29.78
912	Analysis	5.12	9.46	5.32	29.14
913	Analysis	5.08	10.07	5.26	30.57
915	Analysis	5.16	10.07	5.45	31.00
923	Analysis	5.14	10.39	5.72	31.53
979	Analysis	5.02	10.55	5.35	30.96
984	Analysis	5.00	10.59	5.39	30.98
1007	Analysis	5.06	10.17	5.54	31.89
1031	Analysis	5.01	10.55	5.41	30.99
1034	Analysis	4.83	10.86	5.46	30.81
1061	Analysis	5.32	10.55	5.41	31.92
1065	Analysis	5.26	10.62	5.50	31.90
1075	Analysis	5.06	10.27	5.50	30.96
1088	Analysis	5.08	10.55	5.13	30.92
1090	Analysis	5.02	10.01	5.18	30.25
1099	Analysis	5.02	10.25	5.30	30.61
1142	Analysis	4.86	10.10	5.19	29.87
1161	Analysis	5.16	10.31	5.46	31.25
1166	Analysis	5.00	10.32	5.15	30.47
1170	Analysis	5.12	10.44	5.36	31.16
1174	Analysis	5.10	10.47	5.69	31.46
1187	Analysis	5.04	10.04	5.26	30.42
1194	Analysis	5.10	11.02	5.18	31.50
1216	Analysis	4.84	10.50	5.31	30.33
1228	Analysis	5.12	10.55	5.27	31.18
1234	Analysis	5.06	10.69	5.34	31.21
1237	Analysis	5.08	10.53	5.43	31.20
1265	Analysis	4.84	10.10	5.52	30.14
1270	Analysis	4.86	10.84	5.17	30.59
1276	Analysis	5.00	10.44	5.44	30.88
1318	Analysis	5.08	10.50	5.55	31.29
1447	Analysis	5.00	10.13	5.00	30.13
1525	Analysis	5.00	10.33	5.19	30.52
1614	Analysis	4.73	10.02	5.22	29.43
1622	Analysis	4.76	10.08	5.55	29.91
1646	Analysis	5.00	10.44	5.53	30.97
1667	Analysis	5.04	10.77	5.18	31.07
1672	Analysis	4.00	12.47	5.00	29.47
1675	Analysis	5.00	10.71	5.40	31.11
1680	Analysis	4.46	10.46	5.51	29.89
1688	Analysis	5.00	10.56	5.21	30.77
1709	Analysis	4.81	10.47	5.15	30.05
1719	Analysis	5.07	10.77	5.36	31.34
1723	Analysis	4.83	10.92	5.25	30.66
1742	Analysis	5.04	10.76	5.34	31.22
1750	Analysis	5.00	11.20	5.52	31.72
1752	Analysis	5.05	10.98	5.63	31.76
1767	Analysis	5.14	10.60	5.38	31.40
1773	Analysis	5.00	10.41	5.41	30.82
1774	Analysis	5.02	10.84	5.48	31.38
1780	Analysis	5.06	10.54	5.57	31.29
1791	Analysis	5.00	10.62	5.36	30.98

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Lone Star Brand 8-8-8 Fertilizer				
	Guaranteed	8.00	8.00	8.00	40.00
758	Analysis	7.68	8.77	8.22	40.03
922	Analysis	7.90	8.53	8.52	40.75
950	Analysis	8.20	8.24	8.13	40.97
978	Analysis	8.01	9.05	8.00	41.08
985	Analysis	7.57	8.21	9.27	40.19
1001	Analysis	7.71	8.15	9.00	40.28
1074	Analysis	8.01	8.68	8.41	41.12
1204	Analysis	7.52	8.49	9.36	40.41
1238	Analysis	8.02	8.51	9.11	41.68
1254	Analysis	7.84	8.80	8.17	40.49
1271	Analysis	7.86	8.85	8.74	41.17
1666	Analysis	8.02	8.69	8.54	41.29
1685	Analysis	7.55	8.75	7.65	39.05
1718	Analysis	8.10	8.75	8.00	41.05
1743	Analysis	7.29	9.54	8.01	39.42
1756	Analysis	7.60	10.07	8.04	40.91
	Lone Star Brand 10-10-0 Fertilizer				
	Guaranteed	10.00	10.00	0.00	40.00
226	Analysis	10.02	10.72	0.00	40.78
	Lone Star Brand 10-20-10 Fertilizer				
	Guaranteed	10.00	20.00	10.00	60.00
874	Analysis	9.85	19.99	10.61	60.15
983	Analysis	10.02	20.07	10.86	60.99
1197	Analysis	10.26	20.22	10.64	61.64
1624	Analysis	10.20	20.07	10.08	61.88
	Lone Star Brand 20% Superphosphate				
	Guaranteed	0.00	20.00	0.00	20.00
1	Analysis	0.00	21.13	0.00	21.13
214	Analysis	0.00	19.89	0.00	19.89
232	Analysis	0.00	21.62	0.00	21.62
	Texas Liquid Fertilizer Co., La Feria, Texas				
	Texas Liquid 10-10-5 Fertilizer				
	Guaranteed	10.00	10.00	5.00	45.00
257	Analysis	10.04	9.86	3.34	43.32
	Texas Liquid 10-20-0 Fertilizer				
	Guaranteed	10.00	20.00	0.00	50.00
254	Analysis	9.61	19.88	0.00	48.71
	Texas Liquid 15-8-4 Fertilizer				
	Guaranteed	15.00	8.00	4.00	57.00
255	Analysis	14.90	7.84	2.61	55.15
	Texas Liquid 0-25-5 Fertilizer				
	Guaranteed	0.00	25.00	5.00	30.00
261	Analysis	0.00	24.54	5.52	30.06
	Texas Liquid 12-15-0 Fertilizer				
	Guaranteed	12.00	15.00	0.00	51.00
258	Analysis	11.66	15.17	0.00	50.15
	Texas Liquid 5-15-5 Fertilizer				
	Guaranteed	5.00	15.00	5.00	35.00
260	Analysis	5.06	14.69	5.78	36.05
	Texas Liquid Acid Plant Food				
	Guaranteed	2.00	10.00	10.00	26.00
263	Analysis	2.16	9.77	6.66	22.91
	Texas Liquid 15-10-0 Fertilizer				
	Guaranteed	15.00	10.00	0.00	55.00
256	Analysis	14.91	10.41	0.00	55.14
	Cash Brand Liquid 8-8-4 Fertilizer				
	Guaranteed	8.00	8.00	4.00	36.00
259	Analysis	4.89	9.04	3.94	27.65

*Total phosphoric acid

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
Thomson Phosphate Co., Chicago, Ill.					
Four Leaf Powdered Rock Phosphate					
	Guaranteed	0.00	31.00*	0.00	12.40
169	Analysis	0.00	31.64*	0.00	12.65
177	Analysis	0.00	30.55*	0.00	12.22
179	Analysis	0.00	31.25*	0.00	12.50
780	Analysis	0.00	31.44*	0.00	12.58
824	Analysis	0.00	31.45*	0.00	12.58
Thurston Chemical Co., Joplin, Mo.					
Bem Brand 0-20-0					
	Guaranteed	0.00	20.00	0.00	20.00
533	Analysis	0.00	20.95	0.00	20.95
Tyler Fertilizer Co., Tyler, Texas					
Heart Brand 0-14-7					
	Guaranteed	0.00	14.00	7.00	21.00
295	Analysis	0.00	14.47	7.14	21.61
Heart Brand 4-8-8					
	Guaranteed	4.00	8.00	8.00	28.00
131	Analysis	4.41	8.63	6.82	28.68
934	Analysis	4.18	8.33	8.05	28.92
1703	Analysis	4.10	8.56	8.13	28.99
1711	Analysis	4.11	8.31	8.27	28.91
Heart Brand 4-12-4					
	Guaranteed	4.00	12.00	4.00	28.00
563	Analysis	3.82	12.30	4.03	27.79
Heart Brand 5-10-5					
	Guaranteed	5.00	10.00	5.00	30.00
296	Analysis	4.81	11.34	5.30	31.06
565	Analysis	5.26	11.34	5.34	32.46
932	Analysis	5.30	10.57	5.84	32.31
933	Analysis	5.80	11.46	4.32	33.18
948	Analysis	5.93	12.16	6.39	36.34
1702	Analysis	5.36	10.96	5.27	32.31
1712	Analysis	5.12	10.94	5.70	32.00
Heart Brand 6-10-4					
	Guaranteed	6.00	10.00	4.00	32.00
938	Analysis	6.40	10.14	4.45	33.79
Heart Brand 8-8-8					
	Guaranteed	8.00	8.00	8.00	40.00
937	Analysis	8.00	10.56	8.76	43.32
1699	Analysis	8.02	10.33	8.18	42.57
1716	Analysis	8.00	9.18	8.00	41.18
Heart Brand 10-10-0					
	Guaranteed	10.00	10.00	0.00	40.00
562	Analysis	10.16	10.99	0.00	41.47
596	Analysis	10.04	10.99	0.00	41.11
Heart Brand Economy 10-20-0					
	Guaranteed	10.00	20.00	0.00	50.00
81	Analysis	9.35	20.95	0.00	49.00
102	Analysis	9.45	21.41	0.00	49.76
Heart Brand Economy 10-20-10					
	Guaranteed	10.00	20.00	10.00	60.00
297	Analysis	9.44	20.72	10.35	59.39
564	Analysis	9.44	21.21	10.02	59.55
573	Analysis	9.24	21.44	9.91	59.07
936	Analysis	9.72	20.14	10.60	59.90
1539	Analysis	8.85	21.23	10.61	58.39
1700	Analysis	8.92	20.85	10.01	57.61

* Total phosphoric acid

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	Heart Brand Economy 8-16-16				
	Guaranteed	8.00	16.00	16.00	56.00
1698	Analysis	6.47	16.42	13.94	48.77
1701	Analysis	7.08	17.02	16.00	54.26
1717	Analysis	7.07	15.61	15.09	51.91
	Heart Brand Economy 16-20-0				
	Guaranteed	16.00	20.00	0.00	68.00
79	Analysis	14.44	21.04	0.00	64.36
101	Analysis	15.20	20.61	0.00	66.21
110	Analysis	15.92	21.60	0.00	69.36
542	Analysis	15.08	20.19	0.00	65.43
578	Analysis	14.50	22.04	0.00	65.54
935	Analysis	14.64	21.57	0.00	65.49
	Heart Brand Economy 8-24-8				
	Guaranteed	8.00	24.00	8.00	56.00
78	Analysis	6.18	24.11	8.11	50.76
298	Analysis	6.29	23.80	8.02	50.69
561	Analysis	8.56	23.76	6.53	55.97
	Virginia Carolina Chemical Corp., Shreveport, La.				
	V. C. Fertilizer 0-14-7				
	Guaranteed	0.00	14.00	7.00	21.00
8	Analysis	0.00	14.25	7.76	22.01
198	Analysis	0.00	14.18	7.30	21.48
223	Analysis	0.00	15.96	5.71	21.67
229	Analysis	0.00	14.21	7.06	21.27
234	Analysis	0.00	14.66	7.97	22.63
338	Analysis	0.00	14.44	7.18	21.62
359	Analysis	0.00	14.02	7.48	21.50
761	Analysis	0.00	14.74	7.54	22.18
1002	Analysis	0.00	14.61	8.42	23.03
1032	Analysis	0.00	15.25	7.86	23.11
1178	Analysis	0.00	14.84	7.00	21.84
1429	Analysis	0.00	14.83	7.39	22.22
1664	Analysis	0.00	14.84	7.89	22.73
1755	Analysis	0.00	15.65	7.19	22.84
	V. C. Fertilizer 3-12-12				
	Guaranteed	3.00	12.00	12.00	33.00
1125	Analysis	3.18	12.14	12.09	33.77
	V. C. Fertilizer 4-8-8				
	Guaranteed	4.00	8.00	8.00	28.00
830	Analysis	3.82	8.66	8.19	28.31
848	Analysis	3.38	9.22	8.57	27.93
1114	Analysis	3.80	8.32	9.16	28.88
1214	Analysis	3.90	9.25	8.31	29.26
1401	Analysis	4.04	8.37	8.37	28.56
1504	Analysis	4.00	8.56	8.49	29.05
1512	Analysis	4.00	8.47	8.26	28.73
1528	Analysis	4.02	9.10	8.02	29.18
1609	Analysis	3.76	8.93	8.09	28.30
	V. C. Fertilizer 4-12-4				
	Guaranteed	4.00	12.00	4.00	28.00
274	Analysis	3.74	12.67	4.35	29.24
681	Analysis	3.85	12.32	4.20	28.07
744	Analysis	3.73	13.37	4.15	28.71
778	Analysis	4.06	12.32	4.38	28.88
789	Analysis	4.00	12.03	4.32	28.35
790	Analysis	4.01	12.20	4.37	28.60
799	Analysis	4.02	12.13	4.10	28.29
826	Analysis	4.01	12.64	4.48	29.15
837	Analysis	4.00	12.36	4.51	28.87

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	V. C. Fertilizer 4-12-4, Guaranteed	4.00	12.00	4.00	28.00
847	Analysis	4.02	12.18	4.28	28.52
879	Analysis	3.80	12.31	3.89	27.60
902	Analysis	4.00	12.34	4.20	28.54
1041	Analysis	4.22	12.32	4.29	29.27
1080	Analysis	4.01	12.55	4.26	28.84
1107	Analysis	4.04	12.20	4.37	28.69
1122	Analysis	4.02	12.34	4.25	28.65
1154	Analysis	4.02	12.35	4.26	28.67
1213	Analysis	4.02	12.29	4.12	28.47
1215	Analysis	4.06	12.71	4.26	29.15
1322	Analysis	4.02	12.77	4.22	29.05
1386	Analysis	4.00	12.99	4.26	29.25
1391	Analysis	4.06	12.71	4.52	29.41
1459	Analysis	4.00	12.55	4.25	28.80
1530	Analysis	4.00	12.09	4.47	28.56
1574	Analysis	4.02	12.29	4.43	28.78
1611	Analysis	3.81	12.24	4.15	27.82
1679	Analysis	3.60	12.41	4.56	27.77
1785	Analysis	4.03	12.68	4.53	29.30
	V. C. Fertilizer 5-10-5				
	Guaranteed	5.00	10.00	5.00	30.00
170	Analysis	4.66	10.41	5.02	29.41
224	Analysis	4.37	10.97	5.01	29.09
244	Analysis	4.55	11.09	5.11	29.85
270	Analysis	4.77	11.76	5.35	31.42
275	Analysis	4.38	11.63	5.02	29.79
339	Analysis	4.44	11.49	5.20	30.01
389	Analysis	4.90	10.58	5.26	30.51
682	Analysis	4.75	10.52	5.04	29.81
690	Analysis	4.80	10.63	5.16	30.19
746	Analysis	4.84	10.53	5.16	30.21
794	Analysis	4.68	10.80	5.08	29.92
825	Analysis	4.70	10.91	5.00	30.01
828	Analysis	4.80	10.42	5.00	29.82
836	Analysis	4.92	10.86	5.04	30.66
846	Analysis	5.00	10.16	5.03	30.19
880	Analysis	4.81	10.50	5.17	30.10
897	Analysis	5.02	10.31	5.16	30.53
901	Analysis	4.72	10.55	5.08	29.79
909	Analysis	5.02	10.30	5.10	30.46
961	Analysis	4.83	10.58	5.12	30.19
973	Analysis	4.85	10.50	5.44	30.49
1079	Analysis	5.01	10.77	5.26	31.06
1106	Analysis	4.90	10.84	5.05	30.59
1115	Analysis	5.01	10.35	5.27	30.65
1123	Analysis	4.70	11.34	4.77	30.21
1155	Analysis	4.76	10.86	5.06	30.20
1162	Analysis	4.63	11.69	4.83	30.41
1179	Analysis	4.84	10.56	5.02	30.10
1184	Analysis	4.73	11.00	5.19	30.38
1231	Analysis	4.90	11.03	5.01	30.74
1241	Analysis	4.78	11.59	4.61	30.54
1267	Analysis	4.86	10.48	5.14	30.13
1323	Analysis	5.04	10.71	4.88	30.71
1334	Analysis	5.05	10.83	5.02	31.00
1344	Analysis	5.01	10.94	5.33	31.30
1355	Analysis	5.02	10.62	5.03	30.71
1392	Analysis	5.02	10.44	5.26	30.76
1402	Analysis	5.04	10.91	5.30	31.33
1428	Analysis	4.80	10.74	5.34	30.48
1444	Analysis	4.76	10.51	5.24	30.03
1460	Analysis	5.02	10.54	5.00	30.60

Table 7. Analyses of commercial fertilizers sampled during 1949-50

Laboratory number	Manufacturer, place of business and brand	Nitrogen, percent	Available phosphoric acid, percent	Potash, percent	Valuation found, per ton
	V. C. Fertilizer 5-10-5, Guaranteed	5.00	10.00	5.00	30.00
1513	Analysis	4.81	10.60	5.23	30.26
1529	Analysis	5.02	10.64	5.00	30.70
1531	Analysis	5.01	10.25	5.28	30.56
1573	Analysis	4.80	10.59	4.92	29.91
1610	Analysis	4.84	10.77	4.78	30.07
1620	Analysis	5.00	10.68	5.19	30.87
1678	Analysis	5.02	10.51	5.03	30.60
1786	Analysis	5.04	10.66	5.34	31.12
1788	Analysis	4.80	11.05	5.28	30.73
	V. C. Triple 8 Fertilizer				
	Guaranteed	8.00	8.00	8.00	40.00
689	Analysis	7.11	9.17	8.36	38.86
960	Analysis	7.54	8.70	8.58	39.90
1124	Analysis	8.15	8.69	8.67	41.81
1232	Analysis	7.60	9.27	8.21	40.28
1240	Analysis	7.75	8.87	8.66	40.78
1324	Analysis	7.76	8.98	8.80	41.06
1333	Analysis	8.01	8.49	9.03	41.55
1367	Analysis	8.02	8.92	8.10	41.08
1400	Analysis	7.60	9.03	8.30	40.13
1430	Analysis	8.08	8.85	7.72	40.81
1527	Analysis	7.55	8.75	8.57	39.97
1621	Analysis	7.61	8.85	8.01	39.69
	V. C. Fertilizer 10-10-5				
	Guaranteed	10.00	10.00	5.00	45.00
1050	Analysis	10.02	10.89	5.07	46.02
	V. C. 20% Superphosphate				
	Guaranteed	0.00	20.00	0.00	20.00
9	Analysis	0.00	20.31	0.00	20.31
19	Analysis	0.00	20.51	0.00	20.51
181	Analysis	0.00	20.19	0.00	20.19
197	Analysis	0.00	20.24	0.00	20.24
200	Analysis	0.00	20.35	0.00	20.35
217	Analysis	0.00	20.04	0.00	20.04
222	Analysis	0.00	20.80	0.00	20.80
358	Analysis	0.00	19.46	0.00	19.46
390	Analysis	0.00	20.01	0.00	20.01
745	Analysis	0.00	20.16	0.00	20.16
1532	Analysis	0.00	20.06	0.00	20.06
	Waldo Fertilizer Works, Waldo, Ark.				
	Victory Brand 5-10-5 Fertilizer				
	Guaranteed	5.00	10.00	5.00	30.00
1296	Analysis	5.03	10.72	4.77	30.58
1357	Analysis	5.83	11.36	6.29	35.14
1524	Analysis	5.04	10.15	5.14	30.41
	Victory Brand 8-8-8 Fertilizer				
	Guaranteed	8.00	8.00	8.00	40.00
1343	Analysis	8.00	8.77	7.89	40.66
	Western Fertilizer Co., Inc., Muleshoe, Texas				
	Wesco Brand Fertilizer 20-0-0				
	Guaranteed	20.00	0.00	0.00	60.00
531	Analysis	20.57	0.00	0.00	61.71
	Wesco Brand Fertilizer 0-20-0				
	Guaranteed	0.00	20.00	0.00	20.00
532	Analysis	0.00	20.86	0.00	20.86