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- Analyses of
- Commercial Fertilizers
- Sold during 1955-56

October 1956

D I G E S T

This is the 54th annual report of the operation of the Texas fertilizer law, and covers the period from September 1, 1955 through August 31, 1956.

Fertilizers and fertilizer materials sold during the fertilizer year beginning July 1, 1955 amounted to 566,399 tons, which was a 4 percent decrease over the tonnage sold during the preceding year. Grades of the 1-2-1 ratio accounted for 67 percent and the 1-1-1 ratio for 11 percent of the total of 281,797 tons of mixed goods sold. Nitrogenous materials accounted for 44 percent, superphosphates for 27 percent and ammoniated phosphates for 24 percent of the total of 284,602 tons of materials sold.

Analyses are given of 1,790 official samples of fertilizers. Valuations found on analyses are compared with the analyses guaranteed by the registrants. Rebates totaling \$1,585.26 were paid on 51 lots of fertilizer for which the valuation found was 4 percent or more below the valuation guaranteed.

C O N T E N T S

Digest	2
Introduction	3
Some Requirements of the Law	3
Materials Covered by the Law	3
Registration	3
Labels	3
Inspection Fees	3
Bulk Sales	4
Report of Sales	4
Grades Approved for 1956-57	4
Texas Fertilizer Committee	4
Brands and Trade-marks	5
Inspection Fees Collected	5
Tonnage Sales	6
Valuation per Ton	8
Valuation Guaranteed and Found	8
To Obtain a Free Analysis	9
Analyses of Fertilizers	9
Publications on Fertilizers	9
Fertilizer Guarantors Registered in Texas, 1955-56	28
Located in Texas	28
Located Elsewhere	30

Analyses of Commercial Fertilizers Sold during 1955-56

J. F. FUDGE, State Chemist

THIS IS THE 54TH 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 LAW

The law governing the sale of commercial fertilizers in Texas is found in Chapter Twelve of Title Nineteen of Vernon's Revised Criminal Statutes, 1925, and in Chapter Five of Title Four of Vernon's Texas Civil Statutes, 1925. A summary of some important requirements of the law follows. For further requirements, penalties, definitions and other detailed information, reference should be made to the full text of the law, which will be furnished by the State Chemist on 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, agricultural gypsum, 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 a ton.

Registration

Before a fertilizer is offered for sale in Texas, it must be registered with the State Chemist of Texas, College Station, 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, on 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 can be made in the wording on the bag or tag after it has been registered. Such change requires a new registration.

The application for registration must state all 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 contents of the bag.
- Name of fertilizer in full.
- Name and address of manufacturer, manipulator or guarantor.
- Guaranteed analysis (in order given below):
 - Nitrogen, percent
 - Available phosphoric acid, percent.
 - Potash, percent.

Nitrogen refers to the total nitrogen (N) present.

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

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

Inspection Fees

To finance the inspection of fertilizers and the collection and analysis of official samples of fertilizer, experiments relative to the value of fertilizers, and for certain other purposes, the law imposes an inspection fee of 25 cents per ton on 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 in the office of the State Chemist on the first day of September, December, March and June. A collection fee equal to 10

percent of the amount due is charged against all reports more than 20 days in arrears.

Bulk Sales

Fertilizer in bulk for manufacturing proposes 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 on 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 use on their own land must be marked "bulk sale to consumer."

GRADES APPROVED FOR 1956-57

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 water-soluble potash. The term grade also may refer to the percentage of a primary component 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.

Fertilizers also may be described by a numerical statement expressing the relation among the primary components in its simplest form, called a ratio. For example, a 5-10-5 fertilizer contains 1 part of nitrogen to 2 parts of available phosphoric acid and to 1 part of potash. Consequently, this fertilizer has a 1-2-1 ratio; other grades having this ratio include 6-12-6, 10-20-10 and 12-24-12.

The grades of mixed farm fertilizers sold in Texas have been limited in number for nearly 30 years. Limitation and standardization of grades reduce the cost of manufacturing and handling, thereby permitting the fertilizer to be sold to the consumer at a lower cost. They also assist the

farmer to become familiar with the different grades of fertilizer, enable him to decide more readily on the proper grade to be used and enable agricultural specialists to make definite recommendations. The ratios and minimum grades of mixed farm fertilizers to be approved in Texas during a given year are decided by the Texas Fertilizer Committee after a public hearing at which manufacturers and others interested may present recommendations. This public hearing is held annually 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 on request to the State Chemist.

Following the annual public hearing on grades held at Galveston July 20, 1956, the Texas Fertilizer Committee approved the following ratios and minimum grades for use in Texas during the year beginning September 1, 1956:

Ratio approved	Minimum grade	Ratio approved	Minimum grade
0-1-1	0-14-14	1-2-3	4-8-12
0-2-1	0-16-8	1-3-1	4-12-4
1-1-0	10-10-0	1-4-4	3-12-12
1-1-1	8-8-8	2-1-0	14-7-0
1-2-0	7-14-0	2-1-1	10-5-5
1-2-1	5-10-5	2-2-1	10-10-5
1-2-2	5-10-10		

Grades of mixed goods of the same ratios as those above, but of higher guaranteed analysis also were approved. For example, a 12-24-12 is approved as a higher analysis of the 1-2-1 ratio.

All fertilizer materials were approved. A few products containing both nitrogen and available phosphoric acid, such as 4-16-0 (ammoniated superphosphate), 16-20-0, 11-48-0 and 13-39-0 (ammonium phosphates) also were approved as materials.

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 U. S. 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 ratios and grades of mixed fertilizer to be approved for registration during the coming year. In the period covered by this report, the committee was composed of the following:

- J. F. Fudge, State Chemist, Chairman
- J. E. Adams, Dean, School of Agriculture
- J. B. Page, Head, Department of Agronomy
- G. W. Adriance, Head, Department of Horticulture

F. R. Brison, Professor of Horticulture
 J. E. Hutchison, Extension State Agricultural Leader
 O. J. Moss, Agricultural Conservation and Stabilization, U. S. Department of Agriculture
 Donald R. Paterson, Associate Horticulturist
 Ben R. Spears, Extension Agronomist
 M. K. Thornton, Extension Agricultural Chemist

Nichols
 Nitro-Sul
 N. O. M.
 Nu-Green
 Nurish
 Nu-Z
 Old Black Joe
 Oleander
 Orga-Min
 Orgro
 Ortho
 Ortho-Gro
 Ovene
 Owl
 Pabak
 Page
 Palo Duro
 Panhandle
 Pasturgro
 Pelleform
 Phillips 66
 Plainsman
 Plantabbs
 Plant-Chem
 Plentrons
 P M
 Port
 Pride of the Garden
 Rainbow
 Ra-Pid-Gro
 Ramshorn
 Red Stag
 Red Star
 Red Steer
 Reliance
 Reuter's Special
 Richlawn
 Ruhm's
 RX-15
 Scott's
 Sequestrine
 Silver Tip
 Shur-Gro
 Sod-Gro
 Soil Booster
 Soil Nu
 Sou-Tex
 Soyland
 S S S
 Sta-Green
 Star
 Start Rite
 Staffer's
 Stauffer
 Steamboat
 Stimu-Plant
 Sul-PO-Mag
 Sun-King
 Sunnyland
 Sunshine
 Swfg
 Swfgro
 Swfphos
 Take-Hold
 T. C. C.
 Tencor
 Terra Lite
 Terra-Sul
 Texas Green Acres
 Texas Liquid
 Texas Longhorn
 Texaphos
 Tex-Hi
 Thorobred
 Tide Green
 Top Crop
 Top-O-Texas
 Top of the World
 Topper
 Tren
 Umbaugh
 Uramite
 Viking Ship
 V-C
 V-O
 Versene
 Versen-ol
 Vertagreen
 Victory
 Vigoro
 Vito-Gro
 Vitrea
 Walker's
 Water Feed
 Weber-King
 Wesco
 Wolf
 Wonder-Gro
 Woodgrow
 Zebra Di-n-cal

BRANDS AND TRADE-MARKS

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 1955-56;

AA Quality	Co-Op	Gro-Tex
AC I-42	Cross Country	Gulf
Acid-Gro	Davco Bulldog	Heart
Aero	Davey	Heart of Texas
Aero-Phos	De-Pester	Heller-Gro
Ag Amm	Dixie	Hereford
Agco	Dixsol	Hills
Agri-Chem	Double Circle	Hi-Yield
Agri-Sul	Doubleton	Hi-Vita
Alamo	Dow	Hoffman's
All-Weather	Driconure	Hoseco
Ammo-Phos	Dri-Flo	Hy-Gro
Anaconda	Dupont	Hyponex
Anchor	Easy Going	Imperial Indian
Aquadry	Ebony	International
Arcadian	Es Min-El	Interstate
Arkansas	Fertichem	Ivy
Farmers	Fertigro	K-W
Quality	Fertilaid	La-Tex
Ark-Mo	Fertilene	Lawn Green
Armour Pebble	Fertil-Gro	Lawnscap
Armour Big Crop	Ferti-Lome	Loma
Arrow	Fidelity	Leeloam
Atlas	Flo-Crop	Leon's
Bactex	Flora-Gro	Life
Belinitral	Flora-Phos	Lion
Best	Folium	Liqua-food
Best Bet	Ford	Liqualawn
BFC	Fourleaf	Liqua Vita
Big Boy	F T E	Liquidry
Bigrow	Garden Gro	Liquikik
Big N	General	Little Geni
Big Steer	G. & O.	Loamium
Blackland	Golden Nugget	Loma
Booster	Goldenrod	Lone Star
Black Magic	Goldenrod	Longhorn
Blenn	Gran-u-pels	Lush
Blumes	Gold Medal	M C C
Borden's 38	Goldthwaites	Magnite
Boyer	Grace	Magnolia
Brimm	Green Acres	Magic Gro
Bumpero	Green Dot	Marco
C. C. I. I.	Green-Glo	Mathieson
Cal-Nitro	Greenlawn	Math-Craft
Calumite	Greenlight	Achiever
Campbell's	Green Thumb	Maverick
Granulated	Green Valley	M. G.
Cash	GRL Greenez	Mid-West
C F & I	Gro-Best	Milorganite
Champion	Gro-Crop	Min-Coll
Chatelier's	Gro-Green	Min-Hu-Nite
Chik-a-lizer	Gro Mo	Min-Sol
Chik-a-nure	Gro-Plus	Mission
Chief	Gro-Rite	Mr. N.
Chagro	Groso	Mule
Coastal Bend	Gro-stuf	Na-Churs

INSPECTION FEES COLLECTED

Fertilizer inspection fees equivalent to 570,691 tons of fertilizer were collected for fertilizer sold during the Texas fiscal year from September 1, 1955 through August 31, 1956. This tonnage is compared in Table 1 with tonnages on which fees were collected in previous periods.

All fees collected are used for the administration of the Texas fertilizer law and for research on various factors which influence the agricultural value of commercial fertilizers.

TABLE 1. FERTILIZER INSPECTION FEES COLLECTED, CALCULATED ON A TONNAGE BASIS, DURING DIFFERENT PERIODS (SEPTEMBER 1 OF ONE YEAR THROUGH AUGUST 31 OF THE 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
1950-51	598,274
1951-52	621,943
1952-53	558,808
1953-54	543,518
1954-55	603,828
1955-56	570,691

TONNAGE SALES

The tonnages of different grades of mixed fertilizers and fertilizer materials sold in different areas of Texas (Figure 1) during the year, and in the State during the fall and spring seasons, are shown in Table 2. These data 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 date of sales. Detailed reports of sales by counties are given in Progress Reports 1843 (fall sales) and 1890 (spring sales).

Total sales for the year were down about 4 percent from the preceding year. This reduction

was largely because of drops in sales of mixed goods during the fall season (84,784 tons in 1956 compared with 98,574 tons in 1955). Sales of mixed goods of the 1-2-1 ratio accounted for over two-thirds of the mixed goods sold during the year; sales of the 5-10-5 grade were down significantly, but those of 10-20-10 were over 50 percent greater than they were a year ago. Sales of the 1-1-1 ratio were down significantly, but they still accounted for over one-tenth of the total. Sales of the 12-12-12 grade showed a highly significant increase. Combined sales of the 1-2-1 and 1-1-1 ratios accounted for over three-fourths of the total tonnage of mixed goods. East Texas used 42 percent of the mixed goods and 61 percent of

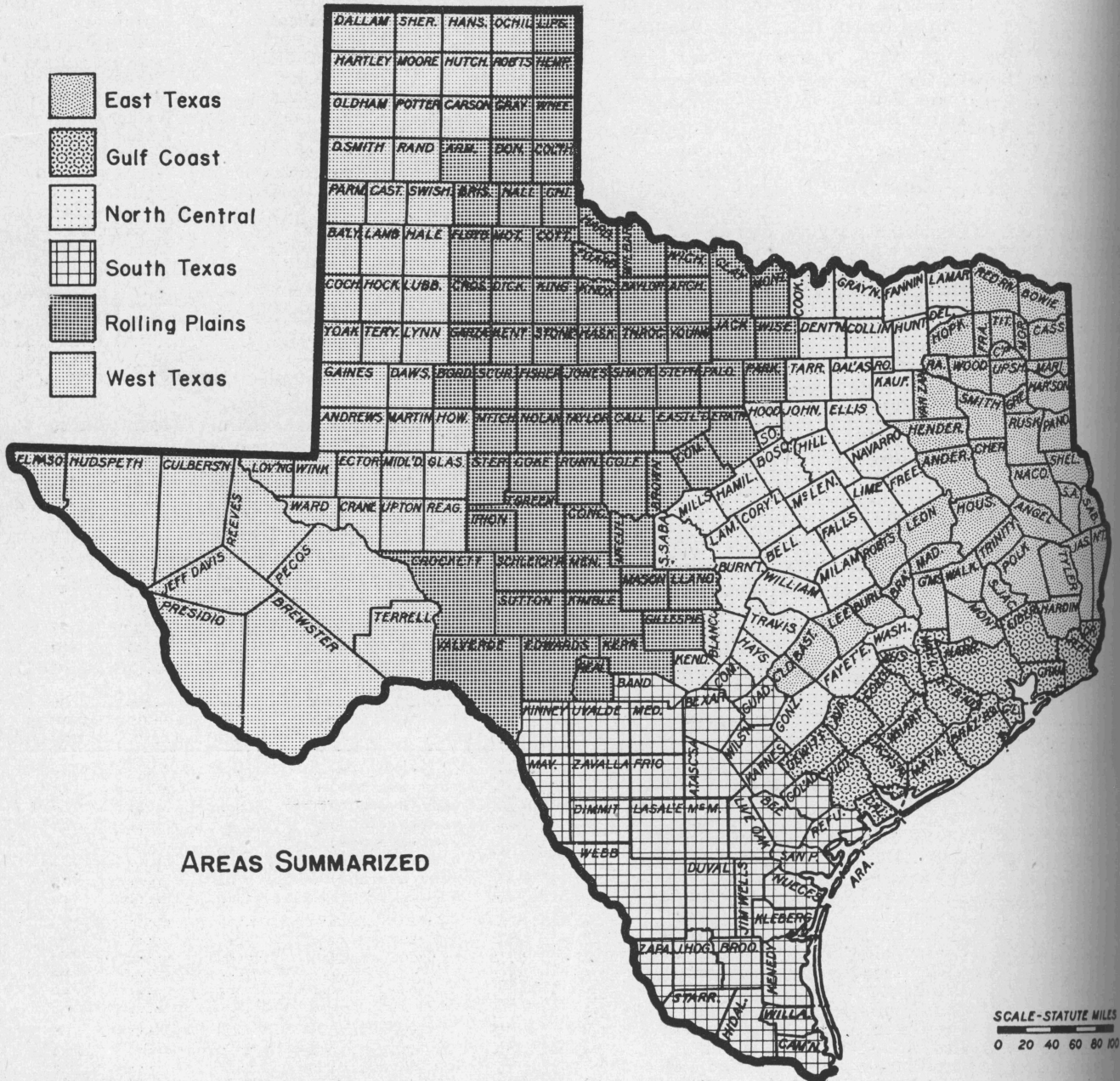


Figure 1. Geographic regions of Texas for which fertilizer data are summarized.

the goods of the 1-2-1 ratio sold in the State. East Texas, the Gulf Coast and the North Central area used 84 percent of the total mixed goods sold.

The total tonnage of materials sold during the year was only slightly higher (1 percent) than the total of mixed goods, but fall sales of materials were significantly higher (28 percent) and spring sales lower (11 percent) than those of mixed goods. Materials accounted for 16 percent of the total sold in East Texas, 57 percent of the sales in the Gulf Coast and 92 percent of the sales in West Texas. East Texas used over half (53 percent) of the ammonium nitrate sold in the State, the Gulf Coast used nearly half (47 percent) of the ammonium sulfate, West Texas used two-thirds (66 percent) of the anhydrous ammonia and West and South Texas together used nearly all (88 percent) of the nitrogen solutions used in the State. Sales of superphosphate were only about three-fourths as great as they were during the preceding year, thus continuing a trend which has been important for several years. The total of 47,424 tons of ordinary superphosphate sold during 1955-56 is only about one-

fourth of the total of 176,272 tons sold during 1949-50. Concurrent with this decrease in the consumption of superphosphates has been the marked increase in the use of nitrogenous materials, amounting to 123,851 tons in 1955-56 as compared with 32,551 tons in 1949-50, a year before anhydrous ammonia was sold on the Texas market as a fertilizer material.

The tonnages of the primary fertilizer components sold during the year, calculated from the current reports of guarantors and the guaranteed analyses, are shown in Table 3. Sales in the fall accounted for 31 percent of the nitrogen, 40 percent of the available phosphoric acid and 30 percent of the potash used during the entire year. Stated in another way, sales of nitrogen, available phosphoric acid and potash in the spring were about twice as great as in the fall. Mixed goods supplied 24 percent of the nitrogen, 50 percent of the available phosphoric acid and 97 percent of the potash. For the first time, the tonnage of nitrogen was significantly higher than that of available phosphoric acid.

TABLE 2. TONNAGES OF PRINCIPAL MIXED GOODS AND MATERIALS SOLD IN DIFFERENT AREAS AND SEASONS, AS REPORTED CURRENTLY BY GUARANTORS

Grade	By areas July 1, 1955 to June 30, 1956						Entire State			
	East Texas	Gulf Coast	North Central	South Texas	Rolling Plains	West Texas	July 1 to Dec. 31	Jan. 1 to June 30	Full year	
									Actual	Relative 1955 = 100
Mixed goods	147928	51898	36613	25715	12402	7240	84784	197013	281797	92
1-2-1 Ratio (total)	115753	26267	23943	14311	7295	2108	60868	128809	189677	99
5-10-5	82138	9353	15529	6779	3934	506	33126	85113	118239	87
6-12-6	262	1175	316	1093	88	10	687	2257	2944	56
10-20-10	31151	8589	6938	3437	2438	1146	22969	30730	53699	152
Other grades	2202	7150	1160	3002	835	446	4086	10709	14795	102
1-1-1 Ratio (total)	15542	8816	2206	924	278	778	3306	25207	28513	86
8-8-8	12367	1914	845	351	21	57	1537	13988	15525	76
12-12-12	1709	1574	459	34	11	1	467	3320	3787	122
Other grades	1466	5328	902	539	246	720	1302	7899	9201	94
1-2-0 Ratio	2651	2088	3769	2067	892	1578	6762	6283	13045	91
1-3-1 Ratio	2688	837	1092	1698	2513	33	1102	7759	8861	75
1-1-0 Ratio	378	2624	1510	1703	248	1375	2315	5623	7938	77
1-4-4 Ratio	3182	2509	127	621	375	45	2709	4150	6859	295
1-2-2 Ratio	4368	1412	130	52	41	17	1919	4101	6020	97
2-2-1 Ratio	177	2682	72	595	16	154	405	3291	3696	103
0-2-1 Ratio	1275	293	510	38	208	27	1809	842	2651	34
Turf and garden specialties	1236	3113	3067	2699	519	669	2666	8637	11303	98
All other grades	609	956	187	1006	17	456	923	2309	3232	107
Materials	29166	68703	43621	47082	15642	80388	108920	175682	284602	101
Nitrogen materials (total)	16077	29991	11743	18723	4779	42574	35628	88223	123851	112
Ammonium sulfate	1582	20306	6383	6361	1178	7285	11178	31917	43095	106
Anhydrous ammonia	1510	2902	1373	5943	2613	27248	13103	28486	41589	153
Ammonium nitrate	11869	928	3820	1889	897	2885	4067	18221	22288	67
Urea	965	615	47	955	3	270	657	2162	2819	98
Other solid N	151	4496	115	1578	31	1163	2895	4639	7534	275
N solutions	0	744	5	1997	57	3723	3728	2798	6526	155
Superphosphates (total)	9116	9683	21597	11185	4229	20278	43738	32350	76088	83
0-20-0	7591	3976	13949	5482	2704	13722	27401	20203	47424	78
0-30-0 and up	1525	5707	7648	5703	1525	6556	16337	12327	28664	93
N-P materials (total)	2433	23554	6604	12062	5805	16504	22562	44400	66962	110
16-20-0	2226	21327	5109	6891	3934	8177	15004	32660	47664	99
Others	207	2227	1495	5171	1871	8327	7558	11740	19298	156
Rock phosphates	1106	4055	715	816	0	0	3204	3492	6696	78
Potash materials	202	287	77	229	65	186	324	722	1046	98
Manures & composts	172	1089	2801	1899	722	754	2621	4876	7497	114
Other products	0	0	120	2170	41	93	846	1622	2468	109
Total	177094	120600	80234	72797	28046	87628	193704	372695	566399	96
Relative to 1955	90	99	84	96	104	125	91	99	96	96

Geographic regions of Texas differed widely in the amount of primary components used. Nitrogen consumption increased markedly in all regions and particularly in West Texas, which used nearly twice as much nitrogen as was used in the East Texas or the Gulf Coast areas. East Texas and the Gulf Coast used almost half of the tonnage of available phosphoric acid. As usual, about half of the potash put out in the State was used in East Texas.

	Prices per unit
Nitrogen	\$2.75
Available phosphoric acid.....	1.75
Total phosphoric acid in tankage and bone meal70
Total phosphoric acid in rock phosphate50
Soluble potash	1.00

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

Nitrogen	5 x \$2.75 = \$13.75
Available phosphoric acid 10 x \$1.75 = \$17.50	
Soluble potash	5 x \$1.00 = \$ 5.00
Guaranteed valuation.....	\$36.25

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 the fertilizer shall be considered as being adulterated if the valuation found is 10 percent or more below the valuation guaranteed. A calculation of the valuation guaranteed and of the valuation found by analysis must, therefore, be made. The valuation also sums up the valuation of the three primary components (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 total valuation requires a specific valuation for each of the three constituents. The following prices per unit (1 percent of a ton, or 20 pounds) were used for this calculation in 1955-56:

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

VALUATION GUARANTEED AND FOUND

A comparison of the average valuation guaranteed by fertilizer manufacturers doing business in Texas with the valuation found upon analysis of official samples is shown in Table 4. In the preparation of this table, all analyses made were averaged, even though several were made of each brand. Fertilizer materials and mixed fertilizers were included in the calculation of the

TABLE 3. TONNAGE OF PRIMARY FERTILIZER COMPONENTS SOLD JULY 1, 1955 TO JUNE 30, 1956, AS REPORTED CURRENTLY BY GUARANTORS AND CALCULATED FROM GUARANTEED ANALYSES

	Nitrogen			Available phosphoric acid			Potash		
	Mixed	Materials	All	Mixed	Materials	All	Mixed	Materials	All
Fall season, July 1 to Dec. 31, 1955									
East Texas	3243	814	4057	6674	1749	8423	3507	29	3536
Gulf Coast	1002	2885	3887	1804	3362	5166	839	65	904
North Central	1051	1467	2518	2019	6053	8072	733	35	738
South Texas	856	2844	3700	1529	3370	4899	631	29	6660
Rolling Plains	192	2129	2321	376	1634	2010	125	5	130
West Texas	107	9696	9803	147	2139	2286	39	23	62
Entire State	6451	19835	26286	12549	18307	30856	5874	186	6060
Relative to 1955	103	138	127	95	118	107	88	66	87
Spring season, Jan. 1 to June 30, 1956									
East Texas	6520	5309	11829	11954	950	12904	6642	91	6733
Gulf Coast	3794	9790	13584	6231	4982	11213	3633	101	3734
North Central	1688	3363	5051	2992	1741	4733	1385	19	1404
South Texas	1330	6879	8209	2311	3216	5527	985	92	1077
Rolling Plains	670	1435	2105	1440	1062	2502	662	31	693
West Texas	679	19253	19932	973	8459	9432	301	88	389
Entire State	14681	46029	60710	25901	20410	46311	13608	422	14030
Relative to 1955	96	117	111	99	103	101	101	125	102
Full year, July 1, 1955 to June 30, 1956									
East Texas	9763	6123	15886	18628	2699	21327	10149	120	10269
Gulf Coast	4796	12675	17471	8035	8344	16379	4472	166	4638
North Central	2739	4830	7569	5011	7794	12805	2118	54	2172
South Texas	2186	9723	11909	3840	6586	10426	1616	121	1737
Rolling Plains	862	3564	4426	1816	2696	4512	787	36	823
West Texas	786	28949	29735	1120	10598	11718	340	111	451
Entire State	21132	65864	86996	38450	38717	77167	19482	608	20090
Relative to 1955	98	122	116	98	110	103	97	99	97

*Excluding unacidulated phosphates, manures and composts and "other products."

averages given. In nearly all cases, the valuation found exceeded the valuation guaranteed.

Rebates found due must be paid to the purchasers of the deficient fertilizers if they can be located. If all purchasers cannot be located by the dealers' records, the rebates must be paid to some recognized local agricultural, religious or charitable organization. The number of lots on which such rebates were paid by each guarantor is shown in Table 4. Fifty-one samples were more than 4 percent below the guaranteed valuation. Most of these were of high analysis grades. Further work is needed on the technology of manufacturing these grades. Rebates amounting to \$1,585.26 were made to the purchasers.

TO OBTAIN A FREE ANALYSIS

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 it in accordance with the requirements of the Texas fertilizer law. This privilege of a free analysis applies only to fertilizers sold under the fertilizer law and to samples taken properly so that they represent the goods sampled. 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 true sample. Those who

desire the free analysis of a sample of commercial fertilizer should write to the State Chemist, College Station, Texas, 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.

ANALYSES OF FERTILIZERS

A total of 1,790 official samples of fertilizers and fertilizer materials was collected during 1955-56 by fertilizer inspectors in practically every town and city in the State where fertilizer was being sold. They visited the principal points of distribution several times during the year. In every case, they collected official samples of all products being sold in the towns visited. These samples were analyzed by official methods of the Association of Official Agricultural Chemists of North America, as is required by Article 98 of the Texas Civil Statutes. The analyses of these samples are given in detail in Table 5.

PUBLICATIONS ON FERTILIZERS

Two reports showing the tonnages of different fertilizers sold in each county in the State were published during the year. Fall sales are shown

TABLE 4. AVERAGE VALUATIONS GUARANTEED AND FOUND IN SAMPLES OF FERTILIZERS GUARANTEED BY DIFFERENT COMPANIES

Company	Valuation guaranteed, \$ per ton	Valuation found, \$ per ton	Number averaged	Rebates
Agri-Chem of Texas	114.00	121.45	4	0
Agricultural Chemicals Inc.	53.91	56.36	11	1
Ark-Mo Plant Food Co.	55.69	57.28	4	0
Armour Fertilizer Works, Dallas	52.00	52.90	118	1
Armour Fertilizer Works, Houston	53.94	55.42	164	0
Best Fertilizer Co.	60.07	59.35	8	0
Campbell Fertilizer Co.	54.86	59.16	16	2
Central Texas Fertilizer Co.	62.50	65.75	34	3
Dixie Fertilizer Co.	49.75	51.58	34	1
East Texas Products Co.	53.06	55.01	37	0
Farmers Fertilizer Co.	51.08	52.76	31	0
Fidelity Chemical Corporation	38.83	40.33	12	0
Gilmer Cotton Oil & Fertilizer	50.61	51.95	9	0
Hayes-Sammons Co.	51.06	54.56	18	0
Hi-Yield Fertilizer Co., Mt. Pleasant	46.94	46.51	39	7
Hi-Yield Fertilizer Co., Bonham	56.76	58.20	104	5
International Minerals & Chemical Corp., Fort Worth	56.81	57.94	147	9
International Minerals & Chemical Corp., Texarkana	51.81	53.60	42	0
Jacksonville Fertilizer Co.	44.12	45.74	12	0
Kelley, Weber & Co.	38.80	41.09	5	0
Marshall Cotton Oil Co.	40.12	42.19	4	0
Mathieson Chemical Corp.	82.72	86.75	342	0
Nichols Fertilizer & Chemical Co.	61.88	62.12	10	2
Phillips Chemical Co.	81.04	83.54	4	0
Red Star Fertilizer Co.	58.02	58.75	132	14
Shreveport Fertilizer Works	40.03	42.49	9	0
Smith-Douglass Co., Inc.	78.80	88.08	20	0
Southwest Chemical Co., McAllen	50.71	54.61	6	0
Southwest Fertilizer Chemical Co., El Paso	43.12	42.96	4	1
Swift & Company Plant Food Div., Houston	58.88	63.01	116	0
Swift & Company Plant Food Div., Shreveport	46.47	48.16	61	0
Texas Farm Products	49.40	51.23	55	1
Texas Liquid Fertilizer Co.	67.33	72.71	3	0
Tide Petroleum Products	62.62	68.69	6	0
Tyler Fertilizer Co.	51.00	50.83	13	3
Virginia-Carolina Chemical Corp.	51.63	53.36	117	1

in Progress Report 1843 and spring sales in Progress Report 1890. Other publications dealing with the value and use of commercial fertilizers are issued frequently by the Texas Agricultural Experiment Station and the Texas Agricultural Extension Service. Check lists of these publications will be sent free upon request to the

Agricultural Information Office, College Station, Texas. To prevent needless waste, and to insure the best distribution possible of these publications, requesters are urged to limit their requests to publications they have reason to believe will be useful immediately, and which they will take the time to study.

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
AGRI-CHEM OF TEXAS, SAN ANTONIO, TEXAS					
Agri-Chem 16-32-16 Fertilizer					
Guaranteed		16.00	32.00	16.00	116.00
71		15.20	34.00	16.48	117.78
Agri-Chem 24-24-12 Fertilizer					
Guaranteed		24.00	24.00	12.00	120.00
72		25.20	27.50	12.02	129.45
913		23.12	26.50	13.60	123.56
Agri-Chem 30-10-0 Fertilizer					
Guaranteed		30.00	10.00	00.00	100.00
914		25.40	25.80	00.00	115.00
AGRICULTURAL CHEMICALS, INC., HENDERSON, TEXAS					
Wolf Brand Fertilizer 8-8-8					
Guaranteed		8.00	8.00	8.00	44.00
387		11.04	12.15	8.00	59.62
Wolf Brand Fertilizer 5-10-5					
Guaranteed		5.00	10.00	5.00	36.25
321		4.16	11.20	6.15	37.19
746		5.56	11.52	5.30	40.75
1311		6.79	10.30	5.30	42.00
1733		5.42	12.62	5.81	42.80
Wolf Brand Fertilizer 10-20-10					
Guaranteed		10.00	20.00	10.00	72.50
323		9.32	18.72	11.78	70.19
645		10.02	21.35	10.24	75.16
747		8.35	18.64	10.56	66.14
1312		8.20	21.14	10.25	69.80
Wolf Brand Fertilizer 16-20-0					
Guaranteed		16.00	20.00	00.00	79.00
555		17.63	18.00	00.00	79.98
Wolf Brand Fertilizer 0-20-0					
Guaranteed		00.00	20.00	00.00	35.00
593		00.00	20.75	00.00	36.31
ALLIED CHEMICAL CORP., NITROGEN DIVISION, OMAHA, NEB.					
Arcadian Urea					
Guaranteed		45.00	00.00	00.00	123.75
915		45.02	00.00	00.00	123.81
ARK-LA FEED AND FERTILIZER CO., MAGNOLIA, ARK.					
Magnolia Brand Plant Food 5-10-5					
Guaranteed		5.00	10.00	5.00	36.25
373		4.88	10.10	5.10	36.20
ARKMO PLANT FOOD COMPANY, WALNUT RIDGE, ARK.					
Doublton Two in One Granular 10-20-10					
Guaranteed		10.00	20.00	10.00	72.50
878		9.32	23.85	12.86	80.23
Arkmo General Fertilizer 16-20-0					
Guaranteed		16.00	20.00	00.00	79.00
877		14.88	20.50	00.00	76.80
Arkmo Brand 0-20-0					
Guaranteed		00.00	20.00	00.00	35.00
879		00.00	20.50	00.00	35.88

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
ARMOUR FERTILIZER WORKS, DALLAS, TEXAS					
Armour's Big Crop 8-8-8 Fertilizer					
Guaranteed		8.00	8.00	8.00	44.00
1590		7.54	8.70	8.15	44.11
1749		7.70	8.90	8.30	45.05
Armour's Big Crop 5-10-10 Fertilizer					
Guaranteed		5.00	10.00	10.00	41.25
32		4.40	11.50	8.76	40.99
1616		5.00	10.50	11.00	43.13
Armour's Big Crop 4-12-4 Fertilizer					
Guaranteed		4.00	12.00	4.00	36.00
457		4.01	12.00	5.08	37.11
1525		3.58	12.80	4.10	36.35
1587		3.87	12.00	4.30	35.94
Armour's Big Crop 20% Superphosphate					
Guaranteed		00.00	20.00	00.00	35.00
1047		00.00	20.75	00.00	36.31
1056		00.00	20.25	00.00	35.44
Armour's Old Black Joe 5-10-5 Fertilizer					
Guaranteed		5.00	10.00	5.00	36.25
10		4.80	10.40	5.63	37.03
42		4.80	10.20	4.53	35.59
44		4.88	10.30	5.00	36.45
47		4.64	10.30	5.22	36.01
163		5.02	10.90	5.48	38.36
182		4.62	10.50	5.10	36.18
347		4.79	10.10	5.08	35.93
349		5.00	10.40	4.76	36.71
379		4.68	11.30	4.81	37.46
425		4.37	11.77	5.30	37.92
509		4.38	10.40	4.89	35.14
531		5.02	11.00	5.35	38.41
563		5.01	10.80	5.50	38.23
600		4.76	10.10	5.50	36.27
756		4.40	10.80	5.00	36.00
1075		4.70	10.60	5.30	36.79
1349		4.77	10.20	5.40	36.37
1355		4.71	10.80	5.40	37.25
1367		4.66	10.10	4.85	35.94
1383		4.57	10.00	5.35	35.42
1381		4.70	10.50	5.75	37.05
1487		5.08	10.50	5.15	37.50
1508		4.80	10.30	5.45	36.68
1514		4.77	10.70	5.30	37.14
1515		4.88	10.50	5.30	37.10
1521		5.02	10.50	5.70	37.88
1526		4.88	11.75	5.25	39.23
1539		4.68	11.10	5.62	37.92
1542		4.84	11.20	5.82	38.73
1549		4.44	10.90	5.50	36.79
1567		4.88	21.90	5.50	57.25
1577		5.00	10.00	5.30	36.55
1581		5.00	10.60	5.00	37.55
1588		5.05	10.20	5.30	37.04
1601		5.04	10.40	5.40	37.46
1613		4.80	10.50	5.40	36.99
1633		4.80	10.50	4.68	36.25
1652		5.00	11.00	5.31	38.31
1756		4.82	10.90	5.25	37.59
1771		5.00	10.40	5.25	37.20

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Armour Pebble Plant Food	15-15-0				
Guaranteed	15.00	15.00	00.00	67.50	
203	16.02	15.00	00.00	70.31	
441	14.36	17.14	00.00	69.49	
496	13.00	19.42	00.00	69.74	
1345	14.51	15.75	00.00	67.47	
1461	14.20	16.00	00.00	67.05	
1467	15.08	15.00	00.00	67.72	
1558	15.00	15.75	00.00	68.81	
Armour Pebble Plant Food	10-10-10				
Guaranteed	10.00	10.00	10.00	55.00	
1568	9.52	11.40	10.80	56.93	
Armour Pebble Plant Food	10-20-0				
Guaranteed	10.00	20.00	00.00	62.50	
81	10.02	20.00	00.00	62.56	
179	10.00	20.50	00.00	63.38	
220	9.84	22.16	00.00	65.84	
426	9.44	20.00	00.00	69.96	
447	10.40	21.00	00.00	65.35	
497	8.48	21.50	00.00	60.95	
506	10.02	20.75	00.00	63.87	
510	9.84	21.25	00.00	64.25	
985	8.60	20.50	1.20	60.73	
1048	9.38	20.75	00.00	62.11	
1346	9.26	21.00	00.00	62.22	
1382	8.09	18.35	00.00	54.36	
1384	9.52	20.50	00.00	62.06	
1402	9.23	20.50	00.00	61.26	
1404	10.00	20.75	00.00	63.81	
1443	9.18	21.50	00.00	62.87	
1571	10.03	21.16	00.00	64.61	
Armour Pebble Plant Food	6-12-6				
Guaranteed	6.00	12.00	6.00	43.50	
986	6.03	13.13	5.68	45.24	
15.09	4.92	12.60	6.55	42.13	
17.87	5.60	13.40	6.70	45.55	
Armour Pebble Plant Food	10-20-10				
Guaranteed	10.00	20.00	10.00	72.50	
181	8.96	21.75	10.00	72.70	
219	9.60	20.75	11.04	73.75	
253	9.64	21.00	10.50	73.76	
380	10.44	20.00	10.62	74.33	
427	9.52	21.50	10.00	73.81	
504	9.60	21.50	10.40	72.68	
564	10.02	20.00	10.60	73.16	
1049	10.32	20.15	6.64	70.28	
1350	8.77	22.00	10.24	72.86	
1510	9.49	20.50	10.50	72.47	
1527	9.80	23.00	10.60	77.80	
1559	10.00	20.75	10.50	74.31	
1570	10.08	22.00	11.00	77.22	
1579	9.88	20.25	10.72	73.34	
1582	8.92	20.25	10.90	70.87	
1600	10.00	22.25	10.76	77.20	
1658	9.74	21.75	10.60	75.45	
1738	9.95	22.00	10.80	76.66	
1757	9.72	20.75	10.80	73.84	
1770	9.00	20.25	10.50	70.69	
1786	10.00	20.25	10.50	73.44	
1788	10.12	21.95	10.90	77.14	
Armour Pebble Plant Food	5-10-10				
Guaranteed	5.00	10.00	10.00	41.25	
1748	4.97	10.90	10.50	43.24	
Armour Pebble Plant Food	8-32-0				
Guaranteed	8.00	32.00	00.00	78.00	
1462	8.54	31.00	00.00	77.73	
1466	7.72	32.00	00.00	77.23	

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Armour Pebble Plant Food	20% Superphosphate				
Guaranteed	00.00	20.00	00.00	35.00	
25	00.00	20.50	00.00	35.87	
80	00.00	21.00	00.00	36.75	
180	00.00	20.25	00.00	35.44	
202	00.00	20.50	00.00	35.88	
450	00.00	20.25	00.00	35.44	
458	00.00	20.75	00.00	36.31	
467	00.00	22.11	00.00	38.69	
596	00.00	20.25	00.00	35.44	
1422	00.00	20.15	00.00	35.26	
Armour Pebble Plant Food	45% Superphosphate				
Guaranteed	00.00	45.00	00.00	78.75	
538	00.00	46.96	00.00	82.18	
1405	00.00	46.61	00.00	81.57	
1435	00.00	46.75	00.00	81.81	
1463	00.00	47.05	00.00	82.34	
1468	00.00	47.45	00.00	83.04	
1705	00.00	48.00	00.00	84.00	
ARMOUR FERTILIZER WORKS, HOUSTON, TEXAS					
Armour's Big Crop	0-16-8 Fertilizer				
Guaranteed	00.00	16.00	8.00	36.00	
52	00.00	16.00	6.78	34.78	
280	00.00	16.00	7.80	35.80	
Armour's Big Crop	5-10-10 Fertilizer				
Guaranteed	5.00	10.00	10.00	41.25	
1136	5.04	10.70	10.60	43.19	
Armour's Big Crop	4-12-4 Fertilizer				
Guaranteed	4.00	12.00	4.00	36.00	
60	4.38	12.90	4.10	38.72	
844	4.10	12.50	4.45	37.60	
Armour's Big Crop Fertilizer	20% Superphosphate				
Guaranteed	00.00	20.00	00.00	35.00	
55	00.00	20.04	00.00	35.07	
56	00.00	21.25	00.00	37.19	
99	00.00	21.50	00.00	37.63	
139	00.00	21.15	00.00	37.01	
654	00.00	21.25	00.00	37.19	
Armour's Old Black Joe	5-10-5 Fertilizer				
Guaranteed	5.00	10.00	5.00	36.25	
57	5.06	10.30	5.10	37.04	
59	5.10	10.00	5.00	36.53	
61	5.00	10.80	5.10	37.75	
65	5.00	12.00	5.00	39.75	
94	5.02	10.00	5.55	36.36	
96	5.03	9.73	5.32	36.18	
147	5.02	10.40	5.07	37.08	
162	5.04	10.60	4.83	37.24	
257	5.00	10.10	5.12	36.55	
271	5.00	10.20	5.03	36.63	
282	5.00	10.40	5.08	37.03	
308	4.74	10.24	5.05	36.01	
309	5.00	10.20	5.20	36.80	
658	5.19	11.20	5.20	39.07	
733	5.01	10.80	5.35	38.03	
754	5.12	10.60	5.15	37.78	
816	5.05	10.90	5.30	38.27	
817	4.86	10.40	5.25	36.82	
854	5.02	10.45	5.38	37.47	
872	5.04	10.00	5.02	36.38	
881	5.02	10.40	5.00	37.01	
893	5.01	10.73	5.28	37.84	
907	5.00	10.80	5.02	37.67	
953	5.10	10.20	5.30	37.18	
961	5.04	10.20	5.32	37.03	
967	5.26	10.70	5.50	38.69	
980	4.76	10.50	5.80	37.27	

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$	Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Armour's Old Black Joe 5-10-5 Fertilizer											
	995	5.01	10.36	5.20	37.11		982	10.04	21.35	00.00	64.97
	1016	5.01	10.70	5.30	37.80		993	10.06	20.38	00.00	63.33
	1029	5.02	10.40	5.40	37.41		1117	10.04	19.04	00.00	60.93
	1104	5.02	10.60	5.55	37.91		1125	10.44	19.25	00.00	62.40
	1109	5.33	10.80	5.80	39.36		1151	10.12	21.15	00.00	64.84
	1126	5.04	10.53	5.20	37.49		1496	10.20	19.85	00.00	62.79
	1130	5.14	10.60	5.22	37.91		1670	10.50	21.25	00.00	66.06
	1133	5.01	10.40	5.00	36.98	Armour Pebble Plant Food 6-12-6					
	1134	5.08	10.20	5.18	37.00		Guaranteed	6.00	12.00	6.00	43.50
	1147	5.42	10.30	5.35	38.28		58	6.00	12.20	6.00	43.85
	1150	5.02	10.20	5.30	36.96		810	5.86	12.00	6.02	43.14
	1175	5.11	10.50	5.00	37.43		823	6.00	12.40	6.00	44.20
	1178	5.15	10.80	5.25	38.31		831	6.02	12.50	6.00	44.43
	1181	5.03	10.30	5.35	37.21		962	6.02	12.50	6.00	44.43
	1187	5.04	10.20	5.22	36.93		984	5.86	12.19	6.08	43.53
	1192	5.01	10.75	5.20	37.80		994	5.84	12.00	6.10	43.16
	1676	5.00	10.41	5.28	37.25		1494	6.06	12.16	6.10	44.04
	1684	5.00	10.49	5.20	37.31	Armour Pebble Plant Food 10-20-10					
	1692	5.00	10.62	5.40	37.73		Guaranteed	10.00	20.00	10.00	72.50
	1719	5.06	10.60	5.25	37.72		137	8.84	21.00	11.24	72.30
	1726	5.01	11.00	4.74	37.77		148	10.00	20.25	11.20	74.14
Armour Vertagreen Plant Food 8-8-8							161	10.00	21.00	11.00	75.25
	Guaranteed	8.00	8.00	8.00	44.00		256	10.56	20.25	11.30	75.78
	864	8.00	8.70	8.40	45.63		276	10.00	20.50	10.00	73.38
	1110	7.48	9.30	8.10	44.95		279	10.44	21.25	11.00	76.90
Armour Pebble Plant Food 10-10-0							283	10.12	21.25	10.52	75.54
	Guaranteed	10.00	10.00	00.00	45.00		287	10.01	20.25	10.95	73.82
	97	10.04	10.52	00.00	46.02		290	10.00	21.75	10.40	75.96
	902	10.20	10.50	00.00	46.43		307	10.04	20.25	11.20	74.25
	972	10.08	10.20	00.00	45.57		312	10.08	20.50	10.76	74.36
Armour Pebble Plant Food 15-15-0							313	10.02	21.00	10.80	75.11
	Guaranteed	15.00	15.00	00.00	67.50		575	10.44	21.50	10.50	76.84
	95	15.03	15.01	00.00	67.60		652	10.08	21.20	10.42	75.24
	98	15.03	15.05	00.00	67.67		655	10.08	20.00	10.80	73.52
	136	14.06	15.90	00.00	66.49		695	10.02	20.75	11.40	75.27
	830	15.04	15.75	00.00	68.92		701	10.00	21.25	10.61	75.30
	865	15.40	15.19	00.00	68.93		726	10.16	20.50	10.35	74.17
	973	15.03	15.25	00.00	68.02		732	10.12	21.50	10.00	75.46
	981	15.00	15.20	00.00	67.85		734	9.80	21.50	10.40	74.98
	1118	14.62	16.25	00.00	68.64		743	10.36	21.25	10.40	76.08
	1497	14.84	15.50	00.00	67.94		755	10.00	20.50	10.40	73.78
	1671	14.50	18.09	00.00	71.53		811	10.24	20.25	11.24	74.84
	1716	15.08	17.50	00.00	72.10		824	9.72	20.25	10.50	72.67
Armour Pebble Plant Food 10-10-10							954	10.08	21.75	10.50	76.28
	Guaranteed	10.00	10.00	10.00	55.00		974	9.70	21.00	10.84	74.27
	806	10.28	10.70	10.40	57.40		1002	10.14	20.25	10.56	73.88
	829	10.56	10.83	10.40	58.39		1116	10.08	19.13	10.80	72.00
	866	10.20	10.50	10.80	57.23		1124	10.06	21.00	10.60	75.02
	882	10.48	10.40	10.36	57.38		1142	10.16	19.72	10.00	72.45
	1021	10.16	10.50	10.36	56.68		1148	10.03	20.50	11.20	74.66
	1108	10.04	10.93	10.60	57.34		1179	9.86	21.50	10.40	75.14
	1176	10.40	10.50	10.50	57.48		1182	9.56	21.50	10.60	74.52
	1495	10.11	10.30	10.50	56.33		1193	10.16	20.40	10.60	74.24
	1725	10.32	11.00	10.40	58.03		1718	10.35	20.50	10.96	75.30
							1717	10.16	20.59	10.80	74.77
Armour Pebble Plant Food 10-20-0						Armour Pebble Plant Food 3-12-12					
	Guaranteed	10.00	20.00	00.00	62.50		Guaranteed	3.00	12.00	12.00	41.25
	53	10.04	21.00	00.00	64.36		303	3.30	12.11	12.00	42.27
	140	10.08	20.75	00.00	64.03		306	3.36	11.84	12.00	41.96
	141	10.44	20.75	00.00	65.02	Armour Pebble Plant Food 5-20-20					
	286	10.20	21.00	00.00	64.80		Guaranteed	5.00	20.00	20.00	68.75
	690	10.32	22.00	00.00	66.88		1135	5.41	20.50	20.00	70.75
	694	9.84	20.69	00.00	63.27	Armour Pebble Plant Food 20% Superphosphate					
	696	10.38	20.89	00.00	65.10		Guaranteed	00.00	20.00	00.00	35.00
	742	10.12	20.75	00.00	64.14		93	00.00	21.75	00.00	38.06
	832	10.44	20.00	00.00	63.71		135	00.00	21.50	00.00	37.63
	837	10.56	21.00	00.00	65.79		731	00.00	20.75	00.00	36.31
	855	10.12	20.50	00.00	63.71		892	00.00	20.85	00.00	36.49
							942	00.00	21.25	00.00	37.19

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Armour Pebble Plant Food	45%	Superphosphate			
Guaranteed	00.00	45.00	00.00		78.75
183	00.00	46.64	00.00		81.62
453	00.00	45.42	00.00		79.49
468	00.00	46.24	00.00		80.92
552	00.00	46.39	00.00		81.18
574	00.00	45.52	00.00		79.66
691	00.00	45.02	00.00		78.79
838	00.00	46.60	00.00		81.55
858	00.00	45.40	00.00		79.45
883	00.00	45.50	00.00		79.63
903	00.00	45.15	00.00		79.01
1163	00.00	45.64	00.00		79.87
BENNETT CHEMICAL COMPANY, DENVER, COLORADO					
Bumper 21-53-0 Diammonium Phosphate					
Guaranteed	21.00	53.00	00.00		150.50
87	21.00	54.77	00.00		153.60
876	20.81	55.38	00.00		154.14
BEST FERTILIZER COMPANY, HOUSTON, TEXAS					
Pelleted Mixed Fertilizer 10-20-10					
Guaranteed	10.00	20.00	10.00		72.50
1107	9.36	20.25	11.00		72.18
Sulphate of Ammonia 21%					
Guaranteed	21.00	00.00	00.00		57.75
83	21.06	00.00	00.00		57.92
695	21.00	00.00	00.00		57.75
833	21.16	00.00	00.00		58.19
861	21.00	00.00	00.00		57.75
1458	20.69	00.00	00.00		56.90
1471	20.78	00.00	00.00		57.15
1475	20.70	00.00	00.00		56.93
CAMPBELL FERTILIZER COMPANY INC., HOUSTON, TEXAS					
All-Weather Organic Base Fertilizer 5-10-5					
Guaranteed	5.00	10.00	5.00		36.25
1143	6.89	10.60	6.70		44.20
All-Weather Organic Base Fertilizer 5-20-20					
Guaranteed	5.00	20.50	20.00		68.75
1158	5.33	20.50	22.00		72.53
All-Weather Organic Base Fertilizer 10-10-5					
Guaranteed	10.00	10.00	5.00		50.00
1156	10.16	13.29	3.42		54.62
1169	9.36	14.14	4.04		54.53
1706	10.08	13.00	5.84		56.31
Green-Glo Organic Base Fertilizer 8-8-8					
Guaranteed	8.00	8.00	8.00		44.00
649	8.40	8.20	8.00		45.45
1144	6.82	13.50	8.36		50.74
1434	8.05	8.30	8.12		44.78
Campbell's Granulated Fertilizer 10-10-0					
Guaranteed	10.00	10.00	00.00		45.00
901	9.88	11.12	00.00		46.63
Campbell's Granulated Fertilizer 10-20-0					
Guaranteed	10.00	20.00	00.00		62.50
853	13.02	18.34	00.00		67.90
Campbell's Granulated Fertilizer 5-10-5					
Guaranteed	5.00	10.00	5.00		36.25
852	6.55	12.10	2.75		41.94
Campbell's Granulated Fertilizer 10-20-10					
Guaranteed	10.00	20.00	10.00		72.50
648	10.00	21.50	10.24		75.37
705	8.72	24.69	10.64		77.83
1711	12.21	28.69	8.00		91.79

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Campbell's Granulated Fertilizer 0-37-0					
Guaranteed	00.00	37.00	00.00		64.75
689	00.00	34.80	00.00		60.90
706	00.00	34.87	00.00		61.02
CENTRAL TEXAS FERTILIZER COMPANY, COMANCHE, TEXAS					
Topper 15-15-0					
Guaranteed	15.00	15.00	00.00		67.50
527	14.76	16.25	00.00		69.03
1534	13.78	17.05	00.00		67.73
Topper 10-10-10					
Guaranteed	10.00	10.00	10.00		55.00
1536	9.88	19.75	10.92		72.65
Topper 10-20-0					
Guaranteed	10.00	20.00	00.00		62.50
530	10.36	20.75	00.00		64.80
968	10.36	20.75	00.00		64.80
1513	11.54	19.68	00.00		66.17
Topper 5-10-5					
Guaranteed	5.00	10.00	5.00		36.25
529	5.00	11.30	6.20		39.73
1028	5.14	12.27	5.82		41.43
1485	4.51	10.44	6.68		37.35
1512	5.26	9.41	5.86		36.79
1522	5.56	10.70	5.98		39.99
1663	5.36	13.20	5.30		43.14
Topper 10-20-10					
Guaranteed	10.00	20.00	10.00		72.50
525	9.72	20.25	9.49		71.66
1490	9.45	21.84	10.30		74.51
1505	10.24	20.00	11.81		74.97
1516	9.72	20.00	10.50		72.23
1523	10.00	20.10	11.00		73.68
1524	10.08	21.70	10.60		76.30
1538	9.88	21.00	11.55		75.47
1543	10.01	20.75	10.84		74.68
1664	10.00	20.75	10.50		74.31
1785	9.64	20.75	10.90		73.72
Topper 4-12-4					
Guaranteed	4.00	12.00	4.00		36.00
1511	5.60	10.70	3.36		37.49
Topper 8-24-8					
Guaranteed	8.00	24.00	8.00		72.00
1535	9.60	21.21	8.83		72.35
Topper 3-12-12					
Guaranteed	3.00	12.00	12.00		41.25
1504	4.46	12.00	11.68		44.95
Topper 16-20-0					
Guaranteed	16.00	20.00	00.00		79.00
526	15.08	20.00	00.00		76.47
959	15.88	17.61	00.00		74.49
1423	13.84	20.75	00.00		74.37
1429	13.86	20.50	00.00		73.99
1489	12.04	20.00	00.00		68.11
1537	14.08	20.98	00.00		75.44
1544	13.88	21.53	00.00		75.85
1545	14.00	20.00	00.00		73.50
Topper 13-39-0					
Guaranteed	13.00	39.00	00.00		104.00
1428	13.44	38.03	00.00		103.51
CHILEAN NITRATE SALES CORP., NEW YORK, N. Y.					
Chilean Nitrate of Soda-Champion Brand					
Guaranteed	16.00	00.00	00.00		44.00
490	16.20	00.00	00.00		44.55

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$	Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
COLORADO FUEL & IRON CORP., DENVER, COLO.						Goldenrod 12-12-12 Plant Food					
CF&I DAP Brand Diammonium Phosphate 21-53-0						Guaranteed		12.00	12.00	12.00	66.00
Guaranteed		21.00	53.00	00.00	150.50	1046	11.76	12.90	12.60		67.52
863		21.48	54.10	00.00	153.75	1578	12.01	12.80	10.93		66.36
1431		21.08	54.60	00.00	153.52	Goldenrod 10-20-0 Plant Food					
DIXIE FERTILIZER COMPANY, SHREVEPORT, LA.						Guaranteed		10.00	20.00	00.00	62.50
Dixie 8-8-8 Fertilizer						1	10.60	19.50	00.00		63.28
Guaranteed		8.00	8.00	8.00	44.00	1373	10.05	20.25	00.00		63.08
243		8.02	9.19	8.60	46.74	Goldenrod 5-10-5 Plant Food					
351		7.80	8.60	8.28	44.78	Guaranteed		5.00	10.00	5.00	36.25
1067		8.12	9.40	8.90	47.68	41	5.26	10.10	5.42		37.56
1174		7.44	9.10	8.50	44.89	46	5.36	10.40	5.40		38.34
1203		7.32	9.97	9.20	46.78	236	5.56	10.00	5.85		38.64
1213		7.83	8.90	9.00	46.11	601	5.00	10.00	5.40		36.65
1289		8.01	9.37	8.60	47.03	620	5.06	10.00	5.35		36.77
1731		8.00	8.90	8.50	46.08	638	5.20	10.02	5.01		36.85
Dixie 12-12-12 Fertilizer						639	5.20	10.00	5.10		36.90
Guaranteed		12.00	12.00	12.00	66.00	770	5.20	10.20	5.30		37.45
1205		11.52	12.50	12.51	66.07	1092	5.14	9.75	5.70		36.90
Dixie 4-12-4 Fertilizer						1591	5.10	10.40	5.50		37.73
Guaranteed		4.00	12.00	4.00	36.00	1596	5.15	11.10	10.84		44.43
1173		4.08	12.50	5.60	38.70	1612	5.00	10.90	5.38		38.21
Dixie 5-10-5 Fertilizer						1614	5.37	10.60	5.64		38.98
Guaranteed		5.00	10.00	5.00	36.25	1736	5.24	10.50	5.40		38.19
251		5.06	10.70	5.22	37.86	Goldenrod 10-20-10 Plant Food					
332		5.00	11.20	5.32	38.67	Guaranteed		10.00	20.00	10.00	72.50
352		5.06	10.80	5.10	37.92	2	10.12	20.50	9.66		73.37
388		5.16	11.51	5.25	39.58	13	10.02	21.50	10.40		75.58
768		4.82	11.00	5.35	37.86	178	9.76	21.25	10.00		74.03
775		4.80	10.80	5.30	37.40	192	10.00	20.75	10.20		74.01
807		5.19	10.80	5.55	38.72	254	10.00	21.25	10.44		75.13
1066		5.22	11.20	5.55	39.51	261	10.08	20.75	10.84		74.87
1172		4.75	10.90	5.20	37.34	586	10.00	21.75	10.20		75.76
1202		5.03	11.10	5.30	38.56	602	9.51	21.50	10.40		74.18
1214		4.62	12.06	5.35	39.16	741	10.00	20.00	10.60		73.10
1743		4.83	10.97	5.48	37.96	1269	10.22	20.75	10.80		75.22
1746		5.11	11.00	5.50	38.80	1297	10.04	20.50	10.24		73.73
Dixie 10-20-10 Fertilizer						1374	10.50	21.60	9.16		75.84
Guaranteed		10.00	20.00	10.00	72.50	1615	10.22	21.25	11.16		76.45
241		10.02	20.00	11.16	73.72	Goldenrod 5-10-10 Plant Food					
252		10.00	22.00	10.00	76.00	Guaranteed		5.00	10.00	10.00	41.25
274		10.02	20.50	10.20	73.63	485	5.30	10.40	10.16		42.94
585		10.02	21.75	10.76	76.38	ELLIS SUPPLY COMPANY, WESLACO, TEXAS					
776		10.04	21.50	10.62	75.86	Texas Green Acres Liquid 10-10-5					
1068		10.04	20.29	11.10	74.22	Guaranteed		10.00	10.00	5.00	50.00
1204		10.08	20.25	10.08	73.24	924	9.21	10.80	5.02		49.25
1242		7.90	18.18	11.20	64.74	Texas Green Acres Liquid 16-8-4					
1290		9.03	21.46	10.86	73.25	Guaranteed		16.00	8.00	4.00	62.00
1732		9.94	21.25	11.00	75.52	922	14.88	8.10	3.68		58.78
Dixie 5-10-10 Fertilizer						Texas Green Acres Liquid 20-5-5					
Guaranteed		5.00	10.00	10.00	41.25	Guaranteed		20.00	5.00	5.00	68.75
242		5.00	10.90	10.00	42.83	923	16.19	3.70	3.71		54.71
E. I. DuPONT DE NEMOURS AND COMPANY, WILMINGTON, DELAWARE						FARMERS FERTILIZER COMPANY, TEXARKANA, TEXAS					
DuPont Nu Green Fertilizer Compound 45-0-0						Mule Brand 8-8-8 Fertilizer					
Guaranteed		45.00	00.00	00.00	123.75	Guaranteed		8.00	8.00	8.00	44.00
64		45.92	00.00	00.00	126.28	790	8.38	10.03	7.11		47.71
EAST TEXAS PRODUCTS COMPANY, TYLER, TEXAS						1231	8.30	8.80	8.01		46.24
Goldenrod 8-8-8 Plant Food						1262	8.19	9.16	8.80		47.35
Guaranteed		8.00	8.00	8.00	44.00	1276	8.09	9.81	8.20		47.62
12		8.34	8.10	8.06	45.17	1742	8.19	10.69	8.64		49.87
737		8.28	8.20	8.40	45.52	1745	7.76	8.80	8.70		45.44
1093		8.26	8.30	8.90	46.14	Mule Brand 10-20-0					
1255		8.19	8.04	8.82	45.41	Guaranteed		10.00	20.00	00.00	62.50
1644		7.87	8.75	8.30	45.26	215	10.24	20.00	00.00		63.16
						218	10.08	21.25	00.00		64.91
						369	10.20	20.25	00.00		63.49

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
Mule Brand 5-10-5					
Guaranteed		5.00	10.00	5.00	36.25
224		5.20	10.70	5.80	38.83
358		4.84	10.00	5.06	35.87
363		4.88	10.70	5.00	37.15
616		5.46	10.26	5.32	38.29
628		5.00	10.30	5.21	36.99
1256		4.90	11.10	5.40	38.30
1264		5.02	10.60	5.42	37.78
1275		4.57	10.10	5.42	35.66
1741		4.83	10.20	5.25	36.38
Mule Brand 10-20-10					
Guaranteed		10.00	20.00	10.00	72.50
216		10.00	20.25	10.00	72.94
217		10.00	21.00	11.00	75.25
225		9.84	20.25	11.36	73.86
359		10.08	20.50	10.50	74.10
364		9.64	21.25	10.10	73.80
1232		9.26	19.31	10.80	70.06
1257		9.52	21.00	10.60	73.53
1263		9.24	21.24	10.60	73.18
1283		10.01	20.50	10.70	74.10
Mule Brand 3-12-12					
Guaranteed		3.00	12.00	12.00	41.25
391		3.68	12.52	11.87	43.90
Mule Brand 6-8-12					
Guaranteed		6.00	8.00	12.00	42.50
1258		6.30	9.30	12.40	46.00
Mule Brand 20% Superphosphate					
Guaranteed		00.00	20.00	00.00	35.00
609		00.00	21.00	00.00	36.75
789		00.00	21.50	00.00	37.63
FIDELITY CHEMICAL CORP., HOUSTON, TEXAS					
Fidelity 8-8-8 Fertilizer					
Guaranteed		8.00	8.00	8.00	44.00
960		7.66	8.00	9.40	44.47
1082		7.64	8.42	8.84	44.59
Fidelity 4-12-4 Fertilizer					
Guaranteed		4.00	12.00	4.00	36.00
1635		4.00	13.02	4.10	37.89
Fidelity 5-10-5 Fertilizer					
Guaranteed		5.00	10.00	5.00	36.25
259		4.84	10.00	5.15	35.96
289		4.82	10.50	5.32	36.95
825		4.86	11.00	5.60	38.22
826		5.00	10.80	5.55	38.20
1081		5.06	10.20	5.42	37.19
1636		4.86	11.40	5.30	38.62
Ferti-Lome for Lawns and Gardens 6-12-4					
Guaranteed		6.00	12.00	4.00	41.50
108		6.03	13.20	4.52	43.15
908		5.73	13.60	4.30	43.86
979		5.80	13.65	5.00	44.84
GILMER COTTON OIL AND FERTILIZER COMPANY, GILMER, TEXAS					
Texas Longhorn 8-8-8					
Guaranteed		8.00	8.00	8.00	44.00
1307		7.18	9.91	8.80	45.89
1634		7.54	10.09	7.80	46.19
Texas Longhorn 5-10-5					
Guaranteed		5.00	10.00	5.00	36.25
361		5.26	10.00	5.80	37.77
791		5.26	10.40	5.30	37.97
1306		5.11	10.00	9.22	40.77

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
Texas Longhorn 10-20-10					
Guaranteed		10.00	20.00	10.00	72.50
362		9.56	19.56	11.55	72.07
792		10.04	20.00	10.00	72.61
1308		9.70	19.00	10.50	70.43
Texas Longhorn 3-12-12					
Guaranteed		3.00	12.00	12.00	41.25
758		3.89	12.00	12.17	43.87
GRAND RIVER CHEMICAL COMPANY, TULSA, OKLA.					
Vitrea Brand Urea					
Guaranteed		45.00	00.00	00.00	123.75
896		45.36	00.00	00.00	124.74
1417		45.00	00.00	00.00	123.75
GULF COAST ORGANIC & MINERALS COMPANY, PHARR, TEXAS					
Fertilaid 10-10-0					
Guaranteed		10.00	10.00	00.00	45.00
1687		10.92	11.50	00.00	50.16
Fertilaid 4-2-0					
Guaranteed		4.00	2.00	00.00	14.50
1686		4.98	3.20	00.00	19.30
HAYES-SAMMONS CO., MISSION, TEXAS					
Mission Brand Fertilizer Solution 6-10-4 Lawn & Garden Specialty					
Guaranteed		6.00	10.00	4.00	38.00
121		6.22	11.89	.87	38.78
124		6.37	10.38	4.30	39.98
921		8.24	10.35	4.64	45.41
927		8.26	11.40	4.48	47.15
936		8.09	10.07	4.11	43.98
Mission Brand Fertilizer Solution 8-20-0					
Guaranteed		8.00	20.00	00.00	57.00
120		8.82	22.20	00.00	63.11
125		8.07	19.72	00.00	56.70
128		7.62	20.22	00.00	56.34
920		10.05	18.10	00.00	59.31
926		11.40	22.80	00.00	71.25
937		11.66	19.34	00.00	65.91
944		11.25	20.00	00.00	65.94
Mission Brand Fertilizer Solution 20-0-0					
Guaranteed		20.00	00.00	00.00	55.00
119		20.56	00.00	00.00	56.54
126		20.86	00.00	00.00	57.37
127		20.21	00.00	00.00	55.58
919		19.20	00.00	00.00	52.80
925		19.29	00.00	00.00	53.05
935		19.20	00.00	00.00	52.80
HI-YIELD PLANT FOOD COMPANY, MT. PLEASANT, TEXAS					
Hi-Yield Brand 0-16-8					
Guaranteed		00.00	16.00	8.00	36.00
166		2.64	11.50	10.26	37.65
Hi-Yield Brand 8-8-8					
Guaranteed		8.00	8.00	8.00	44.00
1237		8.38	8.90	8.20	46.82
1261		8.05	9.23	6.82	45.11
1278		8.30	8.10	7.16	44.16
1285		8.19	8.60	8.50	46.07
1295		7.68	11.01	8.90	49.29
1751		7.70	9.06	8.20	45.23
1758		8.36	8.50	8.56	46.43
Hi-Yield Plant Food 10-20-0					
Guaranteed		10.00	20.00	00.00	62.50
398		4.08	19.49	3.58	48.91

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$	Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Hi-Yield Brand 5-10-5							478	9.84	22.71	00.00	66.80
Guaranteed						499	10.24	21.00	00.00	00.00	64.91
34	5.42	8.70	5.10	35.23		588	10.36	20.75	00.00	00.00	64.80
165	5.06	10.00	5.40	36.82		1294	10.47	21.90	00.00	00.00	67.12
228	4.62	9.09	5.65	34.26		1314	8.98	19.72	00.00	00.00	59.21
232	5.00	12.34	5.50	40.85		1318	10.14	22.50	00.00	00.00	67.26
370	5.92	12.10	5.16	42.62		1325	10.64	19.50	00.00	00.00	63.39
375	5.14	9.57	6.22	37.10		1354	9.32	21.50	00.00	00.00	63.26
617	5.16	11.80	6.10	40.94		1573	10.00	24.00	00.00	00.00	69.50
1229	5.86	10.00	5.90	39.52		1666	8.64	23.11	00.00	00.00	64.20
1236	5.34	10.14	5.77	38.20		1773	9.37	23.34	00.00	00.00	66.61
1260	5.53	10.00	5.70	38.41							
1277	5.39	9.60	5.30	36.92		Hi-Yield Brand 5-10-5					
1284	5.29	10.30	5.45	38.02		Guaranteed	5.00	10.00	5.00	36.25	
1288	5.22	10.10	5.80	37.83		29	5.12	11.60	5.40	39.78	
1617	5.08	10.70	5.50	38.20		39	4.78	10.50	5.40	36.92	
1619	5.00	10.20	5.40	37.00		43	5.50	11.50	5.80	41.05	
1750	5.26	10.00	5.42	37.39		230	4.70	10.20	5.30	36.08	
1759	5.80	9.04	6.35	38.12		381	5.56	12.55	5.40	42.65	
1760	5.68	10.40	5.45	39.27		475	5.00	10.50	5.25	37.38	
1767	5.68	10.40	5.76	39.58		481	4.42	10.30	5.90	36.08	
						486	4.86	10.80	4.80	37.07	
Hi-Yield Brand 10-20-10						489	5.10	11.20	5.00	38.63	
Guaranteed	10.00	20.00	10.00	72.50		597	4.60	10.40	4.60	35.45	
229	8.36	20.00	8.20	66.19		611	4.09	11.90	5.25	37.32	
354	8.20	19.67	8.10	65.07		795	5.38	9.65	5.40	37.08	
371	9.06	21.25	10.60	72.70		1037	5.40	10.00	6.00	38.35	
1296	10.50	14.60	8.56	62.99		1063	5.10	11.29	4.09	37.87	
1301	10.10	15.65	7.52	62.68		1249	5.02	10.00	5.55	36.86	
1618	10.14	16.75	9.40	66.60		1289	5.29	10.10	5.25	37.47	
1755	9.00	18.20	8.20	64.80		1343	4.80	10.20	4.73	25.78	
1768	9.24	16.75	8.70	63.42		1361	5.01	9.60	5.35	35.83	
						1366	5.11	10.10	5.22	36.95	
Hi-Yield Brand 5-10-10						1370	4.45	10.40	5.10	35.34	
Guaranteed	5.00	10.00	10.00	41.25		1556	4.61	10.40	5.98	36.86	
376	5.01	9.40	9.37	39.60		1572	5.50	10.70	5.60	38.45	
Hi-Yield Brand 16-20-0						1580	5.04	10.10	5.70	37.24	
Guaranteed	16.00	20.00	00.00	79.00		1597	4.67	10.20	5.50	36.19	
1375	15.04	20.25	00.00	76.79		1642	5.10	10.10	5.30	37.00	
Hi-Yield Brand 0-20-0						Hi-Yield Brand 10-20-0					
Guaranteed	00.00	20.00	00.00	35.00		Guaranteed	10.00	20.00	10.00	72.50	
400	00.00	21.25	00.00	37.19		23	8.36	20.50	11.00	69.86	
HI-YIELD FERTILIZER CO., BONHAM, TEXAS						40	8.40	21.45	11.19	71.83	
Hi-Yield Brand 15 15-0						193	9.72	21.00	9.45	72.93	
Guaranteed	15.00	15.00	00.00	67.50		198	10.26	21.50	10.80	76.64	
1331	10.10	21.96	00.00	66.21		214	10.00	21.25	11.60	76.29	
Hi-Yield Brand 8-8-8						223	9.80	22.54	10.80	77.20	
Guaranteed	8.00	8.00	8.00	44.00		411	9.33	21.00	10.20	72.61	
35	7.76	8.90	6.53	43.45		414	8.51	23.25	10.00	74.08	
1038	8.08	8.90	8.40	46.20		422	10.28	22.01	10.00	76.79	
1313	8.08	8.30	9.04	45.79		476	9.48	22.69	11.00	76.78	
1316	7.45	8.70	8.80	44.51		477	9.36	23.97	10.16	77.85	
1368	8.40	11.53	7.37	50.65		587	10.68	21.25	10.00	76.56	
Hi-Yield Brand 12-12-12						598	9.84	20.75	11.00	74.37	
Guaranteed	12.00	12.00	12.00	66.00		610	9.32	20.75	10.30	72.24	
1315	10.88	14.54	12.00	67.37		612	10.00	20.70	10.70	74.43	
1320	10.55	14.91	12.40	67.51		1279	10.01	20.25	11.10	74.07	
Hi-Yield Brand 10-20-0						1300	5.02	19.95	6.19	54.91	
Guaranteed	10.00	20.00	00.00	62.50		1302	10.04	20.24	10.08	73.11	
197	10.24	17.25	00.00	58.35		1317	10.04	20.60	11.20	74.86	
211	8.92	20.25	00.00	59.97		1319	9.16	21.00	10.50	72.44	
222	10.01	17.62	00.00	58.36		1322	10.57	20.50	10.24	75.19	
406	10.00	20.20	00.00	62.85		1326	10.40	20.50	10.44	74.92	
410	9.60	21.25	00.00	63.59		1330	10.09	20.50	10.40	74.02	
413	9.84	20.09	00.00	62.22		1333	10.10	20.00	10.80	73.59	
423	10.01	21.77	00.00	65.63		1344	9.62	21.00	10.70	73.91	
430	10.80	21.75	00.00	67.76		1351	9.43	21.75	10.20	74.20	
						1363	9.60	20.75	10.70	73.41	
						1369	10.22	21.25	10.04	75.33	
						1376	10.08	21.25	11.26	76.17	
						1557	10.12	21.19	10.50	75.41	

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$	Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Hi-Yield Brand 10-20-0						International 10-20-0 Ammoniated Phosphate					
1605	10.00	23.25	10.50	78.69		Guaranteed	10.00	20.00	00.00	62.50	
1607	10.24	22.74	10.94	79.00		505	11.58	19.06	00.00	65.20	
1620	9.72	20.50	11.83	74.44		511	9.08	21.25	00.00	62.16	
1643	10.46	21.79	9.59	76.49		1089	10.04	19.28	00.00	61.35	
1747	10.22	21.60	10.80	76.71		1340	10.74	20.00	00.00	64.54	
1754	10.64	22.00	10.84	78.60		1357	10.64	18.89	00.00	62.32	
1769	9.04	20.50	10.46	71.20		1419	10.52	20.00	00.00	63.93	
Hi-Yield Brand 5-10-10						1451	10.01	21.00	00.00	64.28	
Guaranteed	5.00	10.00	10.00	41.25		1482	9.88	21.90	00.00	65.49	
1598	5.00	11.10	10.80	43.98		1565	10.01	19.00	00.00	60.78	
Hi-Yield Brand 4-12-4						1728	9.76	19.00	00.00	60.09	
Guaranteed	4.00	12.00	4.00	36.00		1782	10.80	21.75	00.00	67.76	
1604	4.34	12.00	5.50	38.44		International 5-10-5 Fertilizer					
Hi-Yield Brand 16-20-0						Guaranteed	5.00	10.00	5.00	36.25	
Guaranteed	16.00	20.00	00.00	79.00		3	4.22	10.00	6.51	35.62	
442	14.08	20.65	00.00	74.86		8	4.82	11.00	5.82	38.33	
1765	14.72	22.00	00.00	78.98		272	5.40	13.16	4.00	41.88	
Hi-Yield Brand 8-32-0						383	5.44	11.16	3.80	38.29	
Guaranteed	8.00	32.00	00.00	78.00		465	5.24	10.70	5.20	38.34	
421	8.83	31.00	00.00	78.53		566	5.14	11.65	4.15	38.68	
Hi-Yield Brand 0-20-0						591	4.36	12.50	3.14	37.01	
Guaranteed	00.00	20.00	00.00	35.00		749	4.68	11.32	5.40	38.08	
22	00.00	22.00	00.00	38.50		767	4.82	10.73	5.90	37.93	
196	00.00	21.50	00.00	37.63		821	5.01	9.58	6.30	36.84	
210	00.00	20.70	00.00	36.23		952	4.32	12.14	4.70	37.83	
382	00.00	21.25	00.00	37.19		977	4.40	11.50	3.40	35.63	
405	00.00	20.25	00.00	35.44		1011	5.51	11.40	4.80	39.90	
412	00.00	20.25	00.00	35.44		1019	5.02	10.00	6.65	37.96	
614	00.00	20.75	00.00	36.31		1035	4.60	11.04	3.90	35.87	
1342	00.00	22.18	00.00	38.82		1101	4.56	10.88	4.20	35.78	
1362	00.00	20.00	00.00	35.00		1270	5.01	10.40	5.42	37.40	
Hi-Yield Brand 0-45-0						1380	5.18	11.00	5.42	38.92	
Guaranteed	00.00	45.00	00.00	78.75		1486	5.04	10.30	6.66	38.55	
184	00.00	47.09	00.00	82.41		1499	5.28	9.60	7.24	38.56	
INTERNATIONAL MINERALS & CHEMICAL CORP., FORT WORTH, TEXAS						1506	5.91	10.80	6.42	41.57	
International 0-16-8 Phosphate & Potash						1564	4.78	11.50	5.54	38.81	
Guaranteed	00.00	16.00	8.00	36.00		1627	4.65	11.50	4.78	37.69	
4	00.00	16.19	8.40	36.73		1657	5.00	12.20	5.25	40.35	
International 15-15-0 Ammoniated Phosphate						1682	5.00	12.16	4.55	39.58	
Guaranteed	15.00	15.00	00.00	67.50		1763	4.55	11.26	5.25	37.47	
418	12.35	17.66	00.00	64.87		International 10-20-10 Fertilizer					
504	13.50	17.36	00.00	67.51		Guaranteed	10.00	20.00	10.00	72.50	
1358	15.57	16.50	00.00	71.69		169	8.80	20.20	10.18	69.73	
1360	16.67	16.50	00.00	74.72		177	10.02	23.04	11.59	84.07	
1450	16.56	15.00	00.00	71.79		273	9.72	21.50	11.04	75.40	
1452	15.51	15.25	00.00	71.09		384	10.76	22.26	8.12	76.67	
1479	13.18	17.89	00.00	67.55		396	9.88	21.75	11.19	76.42	
1766	13.79	16.27	00.00	66.40		436	10.04	22.05	10.44	76.64	
International 8-8-8 Fertilizer						492	9.20	21.50	11.00	73.93	
Guaranteed	8.00	8.00	8.00	44.00		512	10.12	22.00	10.50	76.83	
9	7.42	9.20	8.30	44.81		528	8.88	25.80	8.34	77.91	
815	7.71	10.85	8.10	48.29		567	8.21	20.40	8.91	67.19	
1020	7.84	11.00	8.60	49.41		785	8.68	22.50	10.40	73.65	
1087	8.18	8.60	6.80	44.35		971	9.30	20.21	8.67	69.61	
1102	8.52	8.00	8.10	45.53		989	9.02	22.16	10.32	73.91	
1280	7.54	9.19	9.60	46.42		1032	10.24	21.75	10.60	76.82	
1628	6.84	9.20	7.80	42.71		1036	10.00	21.35	9.48	74.34	
International 10-10-10 Fertilizer						1054	8.96	21.84	11.20	74.06	
Guaranteed	10.00	10.00	10.00	55.00		1088	10.40	21.75	10.57	77.23	
1271	8.54	13.51	6.74	53.87		1247	10.08	20.00	11.00	73.72	
1470	9.84	11.30	12.28	59.12		1282	8.74	21.79	10.10	72.27	
						1305	9.84	21.00	11.20	75.01	
						1332	9.30	20.50	10.72	72.17	
						1334	10.00	20.50	10.80	74.18	
						1341	10.04	20.00	10.74	73.35	
						1348	11.12	22.00	10.20	79.28	
						1377	10.08	21.00	10.72	75.19	
						1412	9.38	18.49	10.00	68.15	
						1420	9.56	20.75	10.44	73.04	

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$	Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
International 10-20-10 Fertilizer											
	1446	8.72	24.39	10.80	77.46		539	00.00	21.85	00.00	38.24
	1533	9.48	17.53	11.40	68.15		565	00.00	20.86	00.00	36.53
	1561	9.76	21.77	10.40	75.34		667	00.00	20.75	00.00	36.31
	1562	10.44	21.25	11.42	77.32		1053	00.00	20.50	00.00	35.88
	1630	10.01	20.00	11.44	73.98		1457	00.00	21.56	00.00	37.79
	1683	10.04	20.47	10.60	74.03		1560	00.00	20.98	00.00	36.72
	1772	8.19	13.30	10.44	56.24	International 0-45-0 Triple Superphosphate					
International 5-10-10 Fertilizer						Guaranteed	00.00	45.00	00.00	00.00	78.75
Guaranteed	5.00	10.00	10.00	10.00	41.25	1371	00.00	46.90	00.00	00.00	82.08
5	5.26	10.20	11.40	11.40	43.72	1407	00.00	48.20	00.00	00.00	84.35
International 4-12-4 Fertilizer						International 7-14-7 Rainbow Fertilizer					
Guaranteed	4.00	12.00	4.00	36.00		Guaranteed	7.00	14.00	7.00	50.75	
978	3.68	13.91	3.20	37.66		748	7.56	16.00	4.95	53.74	
1014	3.44	14.56	5.40	40.34		950	6.78	15.61	8.40	54.36	
1379	4.48	12.20	4.60	38.27		1281	8.08	14.55	7.35	55.03	
1517	5.08	11.69	5.12	39.55		1481	7.87	15.00	6.12	54.01	
1528	4.27	13.80	4.70	41.97		1532	7.53	15.70	7.76	55.94	
						1629	6.52	15.30	6.76	51.47	
International 8-24-8 Fertilizer						INTERNATIONAL MINERALS & CHEMICAL CORP., TEXARKANA, ARK.					
Guaranteed	8.00	24.00	8.00	72.00		International 8-8-8 Fertilizer					
1518	6.88	23.64	9.00	69.24		Guaranteed	8.00	8.00	8.00	44.00	
1529	6.84	22.54	9.40	67.66		386	8.00	8.80	8.60	46.00	
1789	7.36	20.50	8.20	64.32		1005	9.30	8.50	8.10	48.55	
International 3-12-12 Fertilizer						1095	7.80	8.60	8.03	44.53	
Guaranteed	3.00	12.00	12.00	41.25		1210	8.02	8.80	8.40	45.86	
7	2.88	12.10	12.90	42.00		1234	7.70	8.99	7.54	44.45	
International 8-32-0 Ammoniated Phosphate						1243	7.49	8.89	8.56	44.72	
Guaranteed	8.00	32.00	00.00	78.00		1286	7.55	9.95	7.80	45.98	
1335	10.74	26.00	00.00	75.04		International 10-20-0 Ammoniated Phosphate					
1411	6.58	20.00	3.03	56.13		Guaranteed	10.00	20.00	00.00	62.50	
1764	10.70	27.60	00.00	77.73		429	9.44	21.25	00.00	63.15	
International 16-20-0 Ammoniated Phosphate						432	10.48	20.25	00.00	64.26	
Guaranteed	16.00	20.00	00.00	79.00		434	9.64	21.25	00.00	63.70	
446	14.11	21.17	00.00	75.85		990	9.84	21.00	00.00	63.81	
498	14.80	20.25	00.00	76.14		International 5-10-5 Fertilizer					
508	15.26	20.00	00.00	76.97		Guaranteed	5.00	10.00	5.00	36.25	
520	14.30	21.00	00.00	76.08		249	5.14	10.90	5.80	39.01	
970	14.84	20.50	00.00	76.69		262	5.00	10.30	5.68	37.46	
1055	13.44	20.25	00.00	72.40		328	5.06	10.60	5.60	38.07	
1359	14.92	21.50	00.00	78.66		335	5.22	10.30	5.60	37.98	
1378	16.50	22.35	00.00	84.49		368	4.82	10.07	5.02	35.90	
1389	14.84	21.75	00.00	78.87		372	5.04	10.70	5.50	38.09	
1406	12.46	21.69	00.00	72.22		621	5.04	10.90	6.00	38.94	
1413	15.82	21.50	00.00	81.13		629	5.04	11.30	5.62	39.26	
1460	16.31	20.92	00.00	81.46		635	4.87	10.90	5.90	38.37	
1469	13.41	22.50	00.00	76.25		1219	6.02	14.10	6.44	47.67	
1480	13.67	23.01	00.00	77.86		1233	4.85	10.30	5.30	36.66	
1484	15.09	21.90	00.00	79.82		International 10-20-10 Fertilizer					
1563	16.03	22.00	00.00	82.58		Guaranteed	10.00	20.00	10.00	72.50	
1566	11.12	20.00	00.00	65.58		250	11.04	21.25	10.20	77.75	
1783	15.20	22.50	00.00	81.18		263	10.24	20.25	10.80	74.40	
International 0-20-0 Superphosphate						337	10.12	20.50	11.49	75.20	
Guaranteed	00.00	20.00	00.00	35.00		353	10.00	21.50	10.30	75.43	
16	00.00	21.50	00.00	37.63		389	10.72	20.75	10.20	75.99	
21	00.00	21.25	00.00	37.19		433	9.56	21.75	11.70	76.05	
204	00.00	22.10	00.00	38.68		592	9.04	22.27	10.00	73.84	
206	00.00	21.00	00.00	36.76		630	10.38	21.25	10.70	76.43	
424	00.00	21.02	00.00	36.79		773	9.80	21.00	10.80	74.50	
443	00.00	20.25	00.00	35.44		1287	10.05	21.25	5.88	70.71	
455	00.00	22.00	00.00	38.50		International Fertilizer 3-12-12					
456	00.00	20.00	00.00	35.00		Guaranteed	3.00	12.00	12.00	41.25	
461	00.00	22.00	00.00	38.50		248	3.02	12.00	12.50	41.81	
464	00.00	20.75	00.00	36.31		International 16-20-0 Ammoniated Phosphate					
466	00.00	22.24	00.00	38.92		Guaranteed	16.00	20.00	00.00	79.00	
491	00.00	21.50	00.00	37.63		449	14.84	18.10	1.04	73.53	
536	00.00	21.85	00.00	38.24							

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
International 0-20-0 Superphosphate					
Guaranteed	00.00	20.00	00.00	35.00	
606	00.00	21.00	00.00	36.75	
730	00.00	21.50	00.00	37.63	
International Rainbow 7-14-7 Fertilizer					
Guaranteed	7.00	14.00	7.00	50.75	
739	6.26	14.79	7.00	50.10	
822	6.71	15.13	7.25	52.18	
1096	6.14	14.30	7.53	49.44	
1211	6.59	15.75	7.00	52.69	
1220	7.02	15.64	7.01	53.69	
1244	6.55	14.44	7.44	50.72	
JACKSONVILLE FERTILIZER COMPANY, JACKSONVILLE, TEXAS					
Gros Brand 8-8-8 Fertilizer					
Guaranteed	8.00	8.00	8.00	44.00	
1079	7.42	9.62	8.70	45.94	
Gros Brand 5-10-5 Fertilizer					
Guaranteed	5.00	10.00	5.00	36.25	
260	5.10	10.10	5.75	37.45	
640	5.49	10.00	5.20	37.80	
1078	5.38	11.15	5.55	39.86	
1086	4.78	11.30	5.00	37.92	
1637	5.14	11.00	4.80	38.18	
1654	5.00	11.00	5.30	38.30	
Gros Brand 6-12-6 Fertilizer					
Guaranteed	6.00	12.00	6.00	43.50	
255	6.34	12.00	6.12	44.56	
1080	6.20	12.10	6.01	44.24	
Gros Brand Fertilizer 10-20-10					
Guaranteed	10.00	20.00	10.00	72.50	
641	9.32	20.25	10.70	71.77	
1734	10.00	21.50	10.52	75.65	
Gros Brand 4-12-4 Fertilizer					
Guaranteed	4.00	12.00	4.00	36.00	
1653	4.34	11.40	5.32	37.21	
KELLY, WEBER AND COMPANY, INC., LAKE CHARLES, LA.					
Weber-King Brand Fertilizer					
Guaranteed	8.00	8.00	8.00	44.00	
1196	7.46	8.70	8.76	44.50	
Weber-King Brand Fertilizer Special 5-10-5					
Guaranteed	5.00	10.00	5.00	36.25	
311	5.01	10.40	5.22	37.20	
319	5.04	10.40	5.72	37.78	
1195	5.18	11.45	6.68	40.96	
Weber-King Brand Fertilizer Special 3-12-12					
Guaranteed	3.00	12.00	12.00	41.25	
320	3.50	12.90	12.80	45.00	
KIPPER CHEMICAL COMPANY, HARLINGEN, TEXAS					
K-W Brand 20% Superphosphate					
Guaranteed	00.00	20.00	00.00	35.00	
113	00.00	20.25	00.00	35.44	
LION OIL COMPANY, EL DORADO, ARK.					
Lion Ammonium Nitrate Fertilizer 33.5-0-0					
Guaranteed	33.50	00.00	00.00	92.13	
647	33.50	00.00	00.00	92.13	
1034	33.60	00.00	00.00	92.40	
1090	33.50	00.00	00.00	92.13	
MARSHALL COTTON OIL CO., MARSHALL, TEXAS					
Maverick Brand 8-8-8 Fertilizer					
Guaranteed	8.00	8.00	8.00	44.00	
1225	7.88	8.66	8.80	45.63	
1248	7.85	8.70	8.82	45.63	

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Maverick Brand 5-10-5 Fertilizer					
Guaranteed	5.00	10.00	5.00	36.25	
1224	5.32	10.65	5.40	38.67	
1737	5.50	10.40	5.50	38.83	
OLIN MATHIESON CHEMICAL CORP., HOUSTON, TEXAS					
Mathieson 8-8-8 Fertilizer					
Guaranteed	8.00	8.00	8.00	44.00	
346	7.50	9.60	8.50	45.93	
1266	7.59	9.81	9.20	47.24	
Mathieson 10-10-10 Fertilizer					
Guaranteed	10.00	10.00	10.00	55.00	
1439	10.65	10.50	13.11	60.77	
Mathieson 3-12-12					
Guaranteed	3.00	12.00	12.00	41.25	
627	3.72	12.70	13.40	45.86	
Mathieson Diammonium Phosphate Fertilizer 21-53-0					
Guaranteed	21.00	53.00	00.00	150.50	
948	21.02	54.40	00.00	153.01	
Mathieson 20% Superphosphate					
Guaranteed	00.00	20.00	00.00	35.00	
226	00.00	21.50	00.00	37.63	
608	00.00	21.00	00.00	36.75	
Mathieson Triple Superphosphate 40% (Pelletized)					
Guaranteed	00.00	40.00	00.00	70.00	
209	00.00	44.55	00.00	77.96	
439	00.00	44.61	00.00	78.07	
Mathieson Triple Superphosphate 45%					
Guaranteed	00.00	45.00	00.00	78.75	
70	00.00	44.00	00.00	77.00	
78	00.00	45.22	00.00	79.14	
296	00.00	46.84	00.00	81.97	
438	00.00	46.79	00.00	81.88	
463	00.00	46.10	00.00	80.68	
516	00.00	45.32	00.00	79.31	
534	00.00	46.49	00.00	81.36	
537	00.00	45.37	00.00	79.40	
542	00.00	46.44	00.00	81.27	
544	00.00	46.61	00.00	81.57	
556	00.00	46.59	00.00	81.53	
559	00.00	47.17	00.00	82.55	
581	00.00	45.62	00.00	79.84	
693	00.00	46.62	00.00	81.59	
707	00.00	46.30	00.00	81.03	
843	00.00	46.00	00.00	82.08	
911	00.00	46.46	00.00	81.31	
1164	00.00	46.10	00.00	80.68	
1410	00.00	46.48	00.00	81.34	
1453	00.00	47.69	00.00	83.46	
1476	00.00	47.88	00.00	83.79	
Mathieson Ammo-Phos 13-13-13 Pelletized Fertilizer					
Guaranteed	13.00	13.00	13.00	71.50	
208	13.28	13.00	13.80	73.07	
246	13.34	13.70	14.47	75.13	
650	13.53	14.30	14.20	76.43	
656	13.10	13.50	14.20	73.85	
671	13.80	13.90	14.00	76.28	
679	13.55	13.30	15.20	75.74	
684	13.66	13.50	14.80	75.99	
718	13.56	13.50	13.56	74.48	
736	13.00	14.00	14.80	75.05	
812	13.32	13.70	13.60	74.21	
856	13.40	13.60	14.16	74.81	
1013	13.14	14.10	14.03	74.84	
1018	13.24	13.90	14.23	74.97	
1122	13.30	14.10	13.60	74.85	

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56. CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$	Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Mathieson Ammo-Phos 13-13-13 Pelletized Fertilizer											
	1131	13.66	13.25	13.60	74.35		975	10.68	21.49	11.28	78.26
	1171	13.40	13.75	14.08	74.99		996	10.58	19.40	10.40	73.45
	1226	13.12	14.79	14.20	76.16		1010	10.60	20.00	11.62	75.77
	1267	13.02	13.90	14.80	74.93		1012	10.50	20.50	11.16	75.91
	1323	13.13	13.50	14.87	74.60		1025	10.64	21.00	11.68	77.69
	1329	13.16	14.00	13.20	73.89		1031	10.84	21.50	10.78	78.22
	1689	13.76	14.42	14.57	77.65		1041	10.88	21.98	11.63	80.02
	1690	13.36	13.57	14.16	74.65		1097	11.36	22.80	11.12	82.26
	1720	13.08	15.00	14.12	76.34		1100	10.36	21.01	11.38	76.64
							1177	10.48	21.90	11.00	78.15
							1184	10.80	21.75	12.00	79.76
Mathieson Ammo-Phos 15-30-0 Pelletized Fertilizer											
	Guaranteed	15.00	30.00	00.00	93.75		1324	10.64	21.00	11.50	77.51
	293	15.32	30.00	00.00	94.63		1328	10.07	21.75	11.60	77.36
	295	15.56	30.00	00.00	95.29		1492	10.16	20.50	11.50	75.32
	325	15.16	30.75	00.00	95.50		1550	10.70	21.50	11.52	78.57
	365	15.12	31.50	00.00	96.71		1602	10.24	20.25	11.40	75.00
	401	15.28	31.00	00.00	96.27		1641	10.20	20.90	10.80	75.43
	471	15.40	31.00	00.00	96.60		1649	10.17	21.19	10.50	75.55
	501	15.20	30.50	00.00	95.18		1688	10.16	20.81	11.66	76.02
	554	15.28	32.50	00.00	98.90	Mathieson Ammo-Phos 12-24-12 Pelletized Fertilizer					
	723	15.28	31.95	00.00	97.93		Guaranteed	12.00	24.00	12.00	87.00
	847	15.28	31.50	00.00	97.15		74	12.12	24.05	12.20	90.04
	1106	15.10	31.50	00.00	96.65		84	12.00	25.50	12.60	90.23
	1129	15.02	31.50	00.00	96.43		103	12.12	25.50	12.01	89.97
	1425	15.60	30.25	00.00	95.84		107	12.40	24.50	12.80	89.75
	1454	15.01	30.00	00.00	93.78		110	12.44	25.00	12.70	90.65
	1779	15.44	30.50	00.00	95.84		115	12.40	25.25	13.60	91.89
Mathieson Ammo. Phos 10-20-10											
	Guaranteed	10.00	20.00	10.00	72.50		149	12.04	24.40	13.40	89.21
	50	10.00	21.00	11.30	75.55		238	12.44	26.66	12.00	92.87
	111	10.28	18.36	11.20	71.60		247	12.04	24.00	12.00	87.11
	157	11.08	22.25	10.44	79.85		304	12.24	24.75	13.12	90.09
	170	10.60	21.00	11.00	76.90		670	12.88	25.50	13.00	93.05
	200	10.60	23.91	12.20	83.19		677	12.20	25.00	12.20	89.50
	207	10.04	21.81	11.60	77.38		692	12.24	24.50	13.40	89.94
	227	10.64	21.75	12.20	79.52		697	12.28	24.30	13.60	89.90
	266	11.08	23.80	11.00	83.12		703	12.00	25.00	13.20	89.95
	268	10.44	21.50	11.84	78.18		708	12.08	26.15	13.40	92.36
	277	10.80	21.77	12.40	80.20		710	12.02	25.90	13.60	91.98
	288	11.12	23.42	11.80	83.37		715	12.04	24.89	13.60	90.27
	298	10.56	22.00	11.42	78.96		717	12.04	25.95	13.20	91.72
	305	10.01	21.25	10.87	75.59		722	12.08	25.25	13.56	90.97
	310	10.40	22.75	11.90	80.31		813	12.08	25.50	12.40	90.25
	314	11.24	23.70	11.90	84.29		828	12.22	24.59	12.48	89.12
	324	11.12	23.50	11.08	82.79		857	12.64	25.00	13.20	91.71
	331	10.32	21.00	11.00	76.13		906	12.32	24.20	13.24	89.47
	343	10.92	23.00	10.34	80.62		910	12.24	25.37	13.60	91.66
	345	10.60	22.50	10.02	78.55		946	12.08	25.50	13.94	91.79
	350	10.56	22.75	11.00	79.85		976	12.02	25.31	12.96	90.31
	357	10.52	22.00	10.86	78.29		997	12.02	25.50	12.20	89.88
	367	10.68	21.75	11.60	79.03		1026	11.62	25.00	13.00	88.71
	378	10.60	21.00	11.60	77.50		1105	12.01	25.50	12.57	90.22
	404	10.08	21.75	11.00	76.78		1123	12.03	25.25	13.60	90.87
	409	10.28	21.25	11.28	76.74		1155	11.83	24.59	13.56	89.13
	415	10.69	22.35	11.30	79.81		1159	12.16	23.59	13.38	88.10
	503	9.80	22.75	10.20	76.96		1165	12.02	25.69	13.32	91.33
	523	10.76	22.25	11.80	80.33		1201	12.02	24.90	12.44	89.07
	580	10.44	22.00	11.80	79.01		1385	12.53	25.00	12.33	90.54
	582	10.04	20.60	11.84	75.50		1662	12.20	25.60	12.45	90.80
	590	10.52	22.75	11.64	80.38		1714	12.40	26.00	12.40	92.00
	604	10.44	22.75	11.00	79.52		1790	12.46	25.75	12.80	92.13
	633	10.72	22.00	11.04	79.02	Mathieson Ammo-Phos 10-20-20 Pelletized Fertilizer					
	660	10.60	23.07	11.66	81.18		Guaranteed	10.00	20.00	20.00	82.50
	719	10.16	21.50	11.64	77.21		267	10.08	21.75	20.80	86.58
	735	10.20	21.50	11.60	77.28		299	10.24	21.25	20.60	85.95
	740	10.68	21.61	10.92	78.11		798	10.60	20.09	21.00	85.31
	774	10.20	20.00	11.58	74.63		1611	10.12	21.75	20.50	86.39
	784	10.02	20.75	10.93	74.80	Mathieson Ammo-Phos 8-24-8 Pelletized Fertilizer					
	799	10.52	21.79	10.70	77.76		Guaranteed	8.00	24.00	8.00	72.00
	963	10.40	21.50	10.48	76.71		569	9.03	25.85	8.96	79.03
							1531	8.02	26.38	10.96	79.18

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$	Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Mathieson Ammo-Phos 10-30-10 Pelletized Fertilizer											
Guaranteed	10.00	30.00	10.00	90.00			702	16.16	21.00	00.00	81.19
73	10.88	30.00	11.56	93.98			709	15.72	22.59	00.00	82.76
76	10.76	30.25	12.10	94.63			714	16.28	21.50	00.00	82.40
945	10.56	31.25	11.04	94.77			716	16.20	21.76	00.00	82.63
1503	10.84	30.00	11.46	93.77			721	16.00	21.00	00.00	80.75
1704	10.28	32.50	11.00	96.15			814	16.40	22.00	00.00	83.60
Mathieson Ammo-Phos 6-24-24 Pelletized Fertilizer							827	16.80	21.00	00.00	82.95
Guaranteed	6.00	24.00	24.00	82.50			839	16.64	20.00	00.00	80.76
231	6.36	25.50	26.00	88.12			841	16.08	20.50	00.00	80.09
235	6.44	24.75	25.00	86.02			845	16.49	21.50	00.00	82.97
294	6.00	24.00	26.08	84.58			871	16.60	21.78	00.00	83.77
301	6.22	25.25	26.08	87.37			880	16.01	21.75	00.00	82.09
327	6.10	24.50	25.28	84.93			889	15.24	22.38	00.00	81.08
330	6.16	24.75	25.12	85.37			895	16.48	22.25	00.00	84.26
570	6.50	26.12	24.92	88.51			905	16.16	21.00	00.00	81.19
940	6.30	26.08	24.00	86.97			909	16.56	22.50	00.00	84.92
958	6.44	26.50	25.00	89.09			912	16.02	22.23	00.00	82.96
1074	6.60	26.04	26.00	89.72			938	16.00	22.25	00.00	82.94
1166	6.36	25.75	24.00	86.55			964	16.40	21.00	00.00	81.85
1183	6.50	25.75	24.00	86.94			965	16.00	21.00	00.00	80.75
1364	6.23	25.25	25.00	86.32			983	15.76	23.29	00.00	84.10
1456	6.58	25.50	24.52	87.24			988	16.50	21.25	00.00	82.56
1507	6.48	26.92	28.00	92.93			1001	16.24	21.25	00.00	81.85
1721	6.44	26.11	24.92	88.32			1024	16.08	21.00	00.00	80.97
Mathieson Ammo-Phos 16-8-8 Pelletized Fertilizer							1057	16.06	22.22	00.00	83.05
Guaranteed	16.00	8.00	8.00	66.00			1127	16.00	21.36	00.00	81.38
568	16.03	8.70	9.20	68.51			1162	16.01	23.40	00.00	84.98
1661	16.22	10.30	8.60	71.23			1167	16.10	22.66	00.00	83.93
1727	16.03	9.85	8.58	69.90			1170	16.08	20.50	00.00	80.10
Mathieson Ammo-Phos 16-20-0 Fertilizer							1178	16.00	22.00	00.00	82.50
Guaranteed	16.00	20.00	00.00	79.00			1347	16.17	21.50	00.00	82.09
24	16.32	21.50	00.00	82.51			1386	16.10	19.94	00.00	79.17
49	16.08	20.50	00.00	80.10			1390	16.24	21.25	00.00	81.85
69	16.80	21.00	00.00	82.95			1392	16.01	20.25	00.00	79.47
79	16.04	20.75	00.00	80.42			1399	16.32	20.75	00.00	81.19
90	16.24	20.75	00.00	80.97			1400	16.12	20.80	00.00	80.73
102	16.03	21.25	00.00	81.27			1401	16.11	20.50	00.00	80.18
106	16.32	20.75	00.00	81.19			1403	16.59	20.50	00.00	81.50
109	16.00	21.00	00.00	80.70			1408	16.20	20.75	00.00	80.86
114	16.40	20.00	00.00	80.10			1424	16.04	20.00	00.00	79.11
142	16.00	21.25	00.00	81.19			1433	16.01	21.75	00.00	82.09
156	16.28	21.00	00.00	79.85			1444	16.09	21.50	00.00	81.87
201	16.20	21.00	00.00	81.30			1447	16.45	21.75	00.00	83.30
292	16.00	21.25	00.00	81.19			1464	16.64	21.00	00.00	82.51
428	16.00	20.25	00.00	79.44			1473	16.20	20.50	00.00	80.43
431	15.60	21.50	00.00	80.53			1477	16.01	21.75	00.00	81.22
437	16.08	20.50	00.00	80.10			1488	16.24	21.50	00.00	82.29
444	16.00	21.00	00.00	80.75			1491	15.00	24.00	00.00	83.25
448	16.02	20.75	00.00	80.37			1493	16.28	21.00	00.00	81.52
452	16.12	21.25	00.00	81.52			1498	16.22	21.25	00.00	81.79
459	16.20	21.25	00.00	81.74			1551	16.00	23.90	00.00	85.83
469	16.40	20.50	00.00	80.98			1651	15.72	21.60	00.00	81.03
514	16.00	20.75	00.00	80.31			1679	16.68	21.02	00.00	82.66
522	16.32	20.25	00.00	80.32			1713	16.00	23.07	00.00	84.37
541	16.16	20.30	00.00	79.97			1776	16.60	21.50	00.00	83.28
543	16.00	20.75	00.00	80.31			1778	16.80	21.95	00.00	84.61
548	16.28	21.25	00.00	81.96			1780	16.48	22.25	00.00	84.26
553	16.16	20.75	00.00	80.75			Mathieson Ammo-Phos 11-48-0 Pelletized Fertilizer				
558	16.00	20.75	00.00	80.31			Guaranteed	11.00	48.00	00.00	114.25
560	16.18	21.25	00.00	81.68			77	11.24	48.17	00.00	115.21
561	16.04	21.00	00.00	80.86			105	11.52	48.55	00.00	116.64
659	16.00	20.73	00.00	80.28			445	11.00	49.64	00.00	117.12
672	16.56	22.00	00.00	84.04			939	11.60	48.35	00.00	116.51
678	16.38	21.50	00.00	82.67			966	11.02	50.12	00.00	118.02
698	16.12	21.65	00.00	82.22			1409	12.10	49.98	00.00	120.74
699	16.06	21.25	00.00	81.35			1427	11.34	51.60	00.00	121.49
700	16.20	21.35	00.00	81.91			1438	11.54	51.00	00.00	120.99
							1449	11.34	48.65	00.00	116.32
							1455	11.69	49.95	00.00	119.56

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
Mathieson Ammo-Phos 13-39-0 Pelletized Fertilizer					
Guaranteed		13.00	39.00	00.00	104.00
68		13.52	40.91	00.00	108.77
75		13.24	39.00	00.00	104.66
104		13.36	42.56	00.00	111.22
440		13.32	40.97	00.00	108.33
460		13.08	40.90	00.00	107.55
462		13.60	39.19	00.00	105.98
470		13.00	40.75	00.00	107.06
472		13.08	40.89	00.00	107.53
502		13.32	41.59	00.00	109.41
513		13.04	40.56	00.00	106.84
515		13.00	39.00	00.00	104.00
517		13.36	40.30	00.00	107.27
521		13.28	40.29	00.00	107.03
535		13.20	39.91	00.00	106.14
542		13.00	41.19	00.00	107.83
704		13.12	39.12	00.00	104.54
840		13.36	40.39	00.00	107.42
842		13.52	41.42	00.00	109.67
846		13.64	41.00	00.00	109.26
870		13.12	41.69	00.00	109.04
888		13.16	42.26	00.00	110.15
894		13.20	41.56	00.00	109.03
904		13.24	41.81	00.00	109.58
947		13.20	40.75	00.00	107.61
955		13.00	40.01	00.00	105.77
1154		13.40	41.25	00.00	109.04
1161		13.44	42.30	00.00	110.99
1168		13.32	41.64	00.00	109.50
1356		13.09	41.32	00.00	108.31
1388		13.20	40.16	00.00	106.58
1391		13.20	42.90	00.00	111.38
1418		13.02	40.32	00.00	106.37
1421		13.00	40.52	00.00	106.66
1426		13.24	40.42	00.00	107.15
1437		13.01	41.90	00.00	109.10
1445		13.16	41.31	00.00	108.48
1448		13.37	40.99	00.00	108.50
1465		13.11	40.05	00.00	106.14
1478		13.52	41.76	00.00	110.26
1712		13.24	41.00	00.00	108.16
1777		13.56	39.00	00.00	105.54
1781		13.48	42.16	00.00	110.85
NICHOLS FERTILIZER & CHEMICAL COMPANY, OBLAHOMA CITY, OKLA.					
Nichols 10-20-0 Pellets					
Guaranteed		10.00	20.00	00.00	62.50
1414		7.68	20.25	00.00	56.58
Nichols 5-10-5 Pellets					
Guaranteed		5.00	10.00	5.00	36.25
1395		5.45	11.20	6.10	40.69
1761		6.24	10.40	5.25	40.61
1775		5.15	14.59	5.30	45.00
Nichols 10-20-10 Pellets					
Guaranteed		10.00	20.00	10.00	72.50
1396		9.65	21.50	10.55	74.71
Nichols 16-20-0 Pellets					
Guaranteed		16.00	20.00	00.00	79.00
1397		13.02	18.89	00.00	68.86
1415		15.00	20.50	00.00	77.13
Nichols 8-32-0 Pellets					
Guaranteed		8.00	32.00	00.00	78.00
1416		7.55	33.05	00.00	78.60
Nichols 13-39-0 Pellets					
Guaranteed		13.00	39.00	00.00	104.00
1398		11.80	39.40	00.00	101.40

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
Nichols 0-20-0					
Guaranteed		00.00	20.00	00.00	35.00
1774		00.00	21.50	00.00	37.63
PHILLIPS CHEMICAL COMPANY, BARTLESVILLE, OKLA.					
Phillip 66 Ammonium Sulfate					
Guaranteed		21.00	00.00	00.00	57.75
867		21.20	00.00	00.00	58.30
Phillips 66 Ammonium Nitrate					
Guaranteed		33.50	00.00	00.00	92.13
85		33.82	00.00	00.00	93.01
862		33.40	00.00	00.00	91.85
1432		33.52	00.00	00.00	92.18
PITTSBURG FERTILIZER COMPANY, PITTSBURG, TEXAS					
Golden Nugget 5-10-10					
Guaranteed		5.00	10.00	10.00	41.25
624		5.68	10.30	10.00	43.65
Golden Nugget 3-12-12					
Guaranteed		3.00	12.00	12.00	41.25
623		5.88	11.02	12.20	47.66
PORT FERTILIZER & CHEMICAL COMPANY, LOS FRESNOS, TEXAS					
Port Brand Liquid 24-24-12					
Guaranteed		24.00	24.00	12.00	120.00
850		24.00	25.50	12.60	123.23
Port Brand Liquid 30-10-0					
Guaranteed		30.00	10.00	00.00	100.00
851		30.03	11.84	00.00	103.33
RED STAR FERTILIZER CO., SULPHUR SPRINGS, TEXAS					
Red Star Brand 0-16-8					
Guaranteed		00.00	16.00	8.00	36.00
407		00.00	16.00	8.86	36.86
793		00.00	15.70	8.04	35.52
Red Star Brand 0-20-10					
Guaranteed		00.00	20.00	10.00	45.00
1703		00.00	22.25	11.00	49.94
Red Star Brand 15-15-0					
Guaranteed		15.00	15.00	00.00	67.50
1254		10.76	17.69	00.00	60.55
1254		10.76	17.69	00.00	60.55
1338		10.41	18.16	00.00	60.41
1442		13.16	17.25	00.00	66.33
Red Star Granular Fertilizer 8-8-8					
Guaranteed		8.00	8.00	8.00	44.00
233		6.92	9.75	9.00	45.09
1004		7.32	8.40	8.04	42.87
1044		5.66	8.20	8.12	38.04
1253		6.84	6.90	9.44	40.33
1265		5.77	7.60	8.39	37.56
1304		6.71	6.92	10.35	40.81
1309		6.05	10.74	7.08	42.51
1321		6.76	8.04	8.99	41.65
1701		7.07	8.10	7.60	41.22
1740		7.11	7.40	8.60	41.10
Red Star Brand 12-12-12					
Guaranteed		12.00	12.00	12.00	66.00
683		9.96	22.79	12.40	79.67
1139		11.18	13.80	12.72	67.82
1252		10.01	13.60	12.80	64.13
Red Star Brand 10-20-0					
Guaranteed		10.00	20.00	00.00	62.50
17		8.16	24.00	00.00	64.44
186		10.40	21.75	00.00	66.66
402		12.72	15.75	00.00	62.54

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Red Star Brand 10-20-0					
	787	8.04	21.06	5.38	64.35
	897	9.28	20.31	00.00	61.06
	1292	7.76	31.45	00.00	76.38
	1339	10.48	18.23	00.00	60.72
	1681	9.80	20.36	00.00	62.58
Red Star Brand 5-10-5					
Guaranteed	5.00	10.00	5.00	36.25	
11	5.64	11.50	6.40	42.04	
154	5.58	12.57	6.25	43.59	
158	5.40	15.74	5.01	47.41	
172	5.56	10.40	6.52	40.01	
194	5.86	11.64	8.77	45.26	
393	5.20	10.02	5.73	37.57	
394	5.24	10.10	6.10	38.19	
397	5.02	10.00	5.90	37.21	
562	4.87	10.30	6.70	38.12	
576	4.67	9.36	6.56	35.78	
589	5.02	10.50	5.38	37.56	
618	4.54	9.50	6.50	35.61	
631	4.63	10.20	5.21	35.79	
762	4.52	9.51	5.90	34.97	
800	5.01	8.75	5.90	34.99	
1091	5.04	9.08	5.75	35.50	
1235	5.16	10.64	5.70	38.51	
1303	5.60	11.00	6.90	41.55	
1365	4.52	8.65	5.48	33.05	
1552	5.48	9.05	5.40	36.31	
1540	3.86	10.00	5.82	39.44	
1625	6.40	12.50	5.73	45.21	
1673	5.62	10.30	5.40	38.88	
1680	4.68	9.60	5.25	34.92	
1710	5.82	10.00	6.18	39.69	
1739	5.57	9.32	5.50	37.13	
1784	5.66	9.10	5.60	37.09	
Red Star Brand 10-20-10					
Guaranteed	10.00	20.00	10.00	72.50	
15	10.80	18.50	11.37	73.45	
18	10.40	19.25	11.22	73.51	
20	10.32	18.25	11.60	71.92	
48	10.40	17.62	11.76	71.20	
155	8.88	20.75	10.00	70.73	
160	10.60	17.20	12.77	72.02	
173	9.48	20.00	10.60	71.67	
187	10.52	18.25	11.76	72.63	
195	10.04	19.00	11.24	72.10	
356	9.56	20.25	10.50	72.23	
377	10.72	18.61	12.50	74.55	
390	10.02	21.56	10.00	75.29	
395	8.16	20.21	10.00	67.81	
408	9.48	21.25	10.28	73.54	
613	8.78	21.00	10.70	71.60	
632	9.32	22.60	10.40	75.58	
646	10.94	17.37	10.70	71.18	
675	10.04	21.63	20.60	76.06	
680	9.44	21.00	11.20	73.91	
763	9.60	20.75	11.29	74.00	
780	10.16	21.25	10.60	75.73	
788	10.03	21.70	10.40	75.96	
801	10.04	21.25	8.04	72.84	
1153	9.60	20.91	10.40	73.39	
1160	9.44	20.10	10.80	71.94	
1298	9.26	20.20	10.80	71.62	
1372	9.55	20.48	10.44	72.54	
1440	9.30	23.90	10.59	77.99	
1553	8.46	16.88	9.92	62.73	
1624	10.25	19.50	11.18	73.49	
1696	10.05	20.75	10.86	74.81	

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Red Star Granular Fertilizer 12-24-12					
Guaranteed	12.00	24.00	12.00	87.00	
674	10.28	24.50	11.20	82.35	
676	10.46	25.42	12.00	85.25	
681	10.56	25.52	12.20	85.90	
899	10.67	24.00	10.40	81.74	
1138	10.36	25.75	13.65	87.20	
1352	10.71	14.52	12.02	66.88	
1708	11.27	26.00	13.00	89.49	
Red Star Brand 5-10-10					
Guaranteed	5.00	10.00	10.00	41.25	
1700	5.36	9.89	10.70	42.75	
Red Star Brand Fertilizer 16-20-0					
Guaranteed	16.00	20.00	00.00	79.00	
28	15.42	21.50	00.00	80.03	
185	15.84	20.50	00.00	79.44	
199	13.32	20.30	00.00	72.16	
420	13.78	21.87	00.00	76.17	
533	14.02	24.34	00.00	81.15	
673	13.00	25.10	00.00	79.68	
682	14.96	23.10	00.00	81.57	
898	12.92	20.00	00.00	71.85	
1327	13.77	22.25	00.00	76.81	
1337	15.12	20.16	00.00	76.86	
1441	12.49	23.14	00.00	74.84	
1541	14.12	20.00	00.00	73.83	
1554	14.56	20.69	00.00	76.25	
1674	14.07	22.80	00.00	78.59	
1709	14.44	20.51	00.00	75.60	
Red Star Brand 13-39-0					
Guaranteed	13.00	39.00	00.00	104.00	
473	13.00	38.75	00.00	103.56	
1393	00.00	21.00	00.00	36.75	
Red Star Brand 8-32-0					
Guaranteed	8.00	32.00	00.00	78.00	
205	9.69	31.39	00.00	81.58	
454	7.64	30.84	00.00	74.98	
1353	9.16	27.88	00.00	73.88	
Red Star Brand 0-20-0					
Guaranteed	00.00	20.00	00.00	35.00	
19	00.00	21.75	00.00	38.06	
26	00.00	21.25	00.00	37.18	
27	00.00	21.00	00.00	36.75	
188	00.00	21.20	00.00	37.10	
403	00.00	21.25	00.00	37.19	
416	00.00	21.39	00.00	37.43	
419	00.00	20.91	00.00	36.59	
435	00.00	44.55	00.00	77.96	
474	00.00	20.00	00.00	35.00	
577	00.00	20.25	00.00	35.44	
615	00.00	20.25	00.00	35.44	
729	00.00	21.25	00.00	37.19	
786	00.00	20.75	00.00	36.31	
794	00.00	18.60	00.00	32.55	
1291	00.00	20.25	00.00	35.44	
1310	00.00	20.00	00.00	35.00	
1336	00.00	20.00	00.00	35.00	
1394	00.00	36.20	00.00	63.35	
SHREVEPORT FERTILIZER WORKS, SHREVEPORT, LA.					
La Tex 8-8-8 Fertilizer					
Guaranteed	8.00	8.00	8.00	44.00	
336	5.00	10.00	6.57	37.82	
Lion 10-20-0 Fertilizer					
Guaranteed	10.00	20.00	00.00	62.50	
38	10.04	21.75	00.00	65.67	

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$	Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Lion 5-10-5 Fertilizer						SWIFT AND COMPANY, HOUSTON, TEXAS					
Guaranteed		5.00	10.00	5.00	36.25	Swift's Red Steer 15-15-0					
14		5.44	10.90	5.85	39.89	Guaranteed		15.00	15.00	00.00	67.50
45		5.26	10.80	5.59	38.96	82		14.36	15.00	00.00	65.74
374		5.24	10.60	5.82	38.78	101		14.36	17.41	00.00	69.96
1606		5.27	10.40	5.52	38.21	134		15.00	15.00	00.00	67.50
1621		5.48	10.90	7.04	41.19	551		15.00	15.75	00.00	68.81
1631		5.52	10.90	6.10	40.36	572		15.02	15.20	00.00	67.91
1752		5.43	11.67	6.20	41.56	885		14.64	16.50	00.00	69.14
						991		14.66	16.04	00.00	68.39
						1669		14.36	16.35	00.00	68.10
SMITH-DOUGLASS CO., INC., HOUSTON, TEXAS						Swift's Red Steer 8-8-8					
"Pelleform" Brand 14-14-14						Guaranteed		8.00	8.00	8.00	44.00
Guaranteed		14.00	14.00	14.00	77.00	62		8.00	9.90	9.57	48.80
1707		14.00	14.50	15.68	79.56	66		7.42	9.50	8.60	45.63
Pelleform Brand 10-20-10						Swift's Red Steer 12-12-12					
Guaranteed		10.00	20.00	10.00	72.50	Guaranteed		12.00	12.00	12.00	66.00
664		11.08	20.00	12.00	77.47	992		11.09	12.80	12.16	65.06
666		11.16	20.25	11.00	77.13	1023		12.02	13.00	12.40	68.20
688		12.08	26.20	13.20	92.27	1140		10.48	14.00	12.08	65.40
860		11.68	25.00	13.28	89.15	1675		11.40	12.94	11.48	65.48
868		12.52	22.51	10.63	84.45	1699		12.60	12.40	11.02	67.37
874		11.78	25.75	12.63	90.09	Swift's Red Steer 10-20-0					
1137		11.48	25.38	14.62	90.61	Guaranteed		10.00	20.00	00.00	62.50
1698		12.08	26.74	13.80	93.82	275		10.24	22.85	00.00	68.15
Pelleform 16-20-0						Swift's Red Steer 5-10-5					
Guaranteed		16.00	20.00	00.00	79.00	Guaranteed		5.00	10.00	5.00	36.25
86		16.32	23.50	00.00	86.01	116		4.80	10.60	4.45	36.20
663		16.52	21.25	00.00	82.62	164		5.50	10.40	5.20	38.53
665		16.16	24.16	00.00	86.72	175		5.16	11.81	5.30	40.16
712		15.84	26.78	00.00	90.43	269		4.70	10.50	5.10	36.40
835		16.72	20.50	00.00	81.86	583		5.26	10.90	5.00	38.54
859		16.40	23.25	00.00	85.79	642		5.00	10.40	5.31	37.26
869		16.48	22.50	00.00	84.70	744		5.80	12.85	5.45	43.89
873		16.04	23.00	00.00	84.36	750		4.80	10.89	5.50	37.76
987		16.44	23.06	00.00	85.57	757		5.24	11.00	4.36	38.02
Pelleform Brand 13-39-0						Swift's Red Steer 6-12-6					
Guaranteed		13.00	39.00	00.00	104.00	Guaranteed		6.00	12.00	6.00	43.50
875		14.14	40.08	00.00	109.03	67		6.56	13.00	6.52	47.31
1459		13.79	41.20	00.00	110.02	132		6.36	12.50	7.50	46.87
SOUTHWEST CHEMICAL COMPANY, McALLEN, TEXAS						Swift's Red Steer 5-10-5					
Top Crop Liquid Fertilizer 5-10-10						Guaranteed		5.00	10.00	5.00	36.25
Guaranteed		5.00	10.00	10.00	41.25	116		4.80	10.60	4.45	36.20
928		8.09	11.90	10.83	53.90	164		5.50	10.40	5.20	38.53
Top Crop Liquid Fertilizer 10-10-5						175		5.16	11.81	5.30	40.16
Guaranteed		10.00	10.00	5.00	50.00	269		4.70	10.50	5.10	36.40
930		10.68	10.61	4.60	52.54	583		5.26	10.90	5.00	38.54
Top Crop Liquid Fertilizer 12-15-0						642		5.00	10.40	5.31	37.26
Guaranteed		12.00	15.00	00.00	59.25	744		5.80	12.85	5.45	43.89
122		11.51	15.40	00.00	58.60	750		4.80	10.89	5.50	37.76
929		13.36	15.19	00.00	63.32	757		5.24	11.00	4.36	38.02
Top Crop Liquid Fertilizer 0-54-0						809		5.60	10.66	5.90	39.96
Guaranteed		00.00	54.00	00.00	94.50	848		5.28	10.90	5.82	39.42
123		00.00	56.76	00.00	99.33	951		5.62	11.70	5.55	41.48
SOUTHWEST FERTILIZER & CHEM. CO., EL PASO, TEXAS						Swift's Red Steer 5-10-5					
SWF-GRO Fertilizer Plant Food 15-15-0						1111		5.28	11.30	5.90	40.20
Guaranteed		15.00	15.00	00.00	67.50	1157		4.38	12.45	5.40	39.23
1430		12.88	15.25	00.00	62.11	1502		5.00	10.50	5.45	37.58
SWF-GRO Fertilizer Superphosphate 0-20-0						Swift's Red Steer 5-10-5					
Guaranteed		00.00	20.00	00.00	35.00	1647		5.11	10.40	5.25	37.50
1436		00.00	20.81	00.00	36.42	1693		5.20	10.70	5.76	38.79
1472		00.00	21.02	00.00	36.79	1724		5.36	12.40	5.73	42.17
1474		00.00	20.86	00.00	36.51	1735		5.00	11.14	5.40	38.65

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$	Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Swift's Red Steer 6-12-6						Vigoro Commercial Grower 10-20-10					
	849	6.70	12.50	7.40	47.70	Guaranteed	10.00	20.00	10.00	72.50	
	956	6.64	12.54	7.50	47.71		63	9.64	19.67	10.44	71.37
	1185	6.40	12.80	7.40	47.40		88	10.00	20.25	10.80	73.19
Swift's Red Steer 10-20-0							100	9.56	21.25	11.84	75.32
Guaranteed		10.00	20.00	10.00	72.50		118	10.06	20.50	10.02	73.56
	51	10.02	20.01	10.20	72.77		890	9.47	21.00	10.80	73.59
	150	10.12	20.00	10.44	73.27		941	10.00	21.25	11.20	75.89
	176	9.32	22.94	10.20	79.98		1672	10.44	20.68	10.84	75.74
	213	10.12	21.25	11.80	76.82	Pasturgro					
	270	10.00	20.25	10.50	73.44	Guaranteed	5.00	20.00	20.00	68.75	
	281	10.08	21.25	9.78	74.69		1152	5.78	20.10	16.85	67.92
	291	10.36	20.00	10.30	73.79		1500	5.96	20.75	21.50	74.20
	519	9.80	22.52	10.00	76.36						
	532	10.04	21.00	10.00	74.36	Brimm 12-12-6					
	550	9.88	21.85	11.20	76.61	Guaranteed	12.00	12.00	6.00	60.00	
	571	9.60	21.75	9.56	74.02		891	11.52	12.00	6.48	59.16
	584	10.01	20.50	10.76	74.16		1715	12.12	12.00	5.76	60.09
	643	10.04	21.50	10.40	75.64	SWIFT AND COMPANY, SHREVEPORT, LA.					
	651	10.60	20.75	10.40	75.86	Swift's Red Steer 8-8-8					
	653	10.00	20.00	10.00	72.50	Guaranteed	8.00	8.00	8.00	44.00	
	685	10.36	21.00	10.20	75.44		385	7.84	8.70	9.20	45.99
	727	9.76	21.50	10.60	75.07		782	7.54	9.10	8.00	44.66
	745	10.08	20.50	10.60	74.20		1039	8.01	9.00	8.40	46.18
	884	10.36	21.14	10.95	76.44		1064	8.40	8.00	8.27	45.37
	957	10.38	21.25	11.20	76.93		1072	7.64	9.03	8.20	45.01
	969	9.64	20.75	10.40	73.22		1077	7.76	8.70	8.40	44.97
	1003	10.02	20.79	10.80	72.74		1209	8.24	8.30	9.20	46.39
	1017	10.42	20.25	11.63	75.72		1222	7.85	8.40	8.01	44.30
	1027	9.66	20.40	10.80	73.07		1272	7.75	8.90	8.60	45.49
	1061	10.04	19.41	10.44	72.02	Swift's Red Steer 10-20-0					
	1132	10.18	20.50	9.39	73.26	Guaranteed	10.00	20.00	00.00	62.50	
	1141	10.08	20.50	9.56	73.16		1293	10.08	21.02	00.00	64.51
	1146	10.34	20.00	10.03	73.47	Swift's Red Steer 5-10-5					
	1191	10.44	21.00	10.44	75.90	Guaranteed	5.00	10.00	5.00	35.25	
	1501	10.65	20.00	10.50	74.79		30	5.00	11.20	5.22	38.57
	1648	10.40	21.55	10.44	76.75		237	5.22	11.90	5.10	40.28
	1685	10.41	21.80	10.56	77.34		239	5.00	11.41	5.22	38.94
	1691	10.00	21.05	10.90	75.24		244	5.10	11.45	5.75	39.81
	1694	10.20	20.00	10.82	73.87		329	5.61	10.80	5.21	39.54
Swift's Red Steer 5-10-10							341	5.12	10.40	4.42	36.70
Guaranteed		5.00	10.00	10.00	41.25		344	5.06	10.10	5.95	37.54
	1697	5.08	10.60	10.44	42.96		360	5.20	11.50	5.25	39.68
Swift's Red Steer 4-12-4							487	4.86	10.70	4.80	36.89
Guaranteed		4.00	12.00	4.00	36.00		488	5.28	11.00	5.15	38.92
	131	4.26	12.80	4.76	38.88		603	4.82	11.20	5.20	38.06
Swift's Red Steer 10-30-0							604	5.08	10.50	5.10	37.45
Guaranteed		10.00	30.00	00.00	80.00		619	5.00	11.00	6.20	39.20
	133	9.60	30.00	00.00	78.90		636	4.44	10.20	5.10	35.16
	518	14.84	20.60	00.00	76.86		637	5.02	11.10	5.15	38.38
	887	10.36	30.00	00.00	80.99		771	5.02	10.70	5.84	38.37
Swift's Red Steer 0-20-0							777	4.85	9.67	5.10	35.36
Guaranteed		00.00	20.00	00.00	35.00		781	5.00	10.10	5.60	37.03
	138	00.00	21.00	00.00	36.75		1062	5.18	10.66	5.50	38.40
	212	00.00	20.70	00.00	36.23		1065	5.02	10.28	5.60	37.40
Swift's Red Steer 0-40-0							1071	4.76	10.63	5.60	37.29
Guaranteed		00.00	40.00	00.00	70.00		1076	4.82	10.70	5.70	37.68
	900	00.00	40.00	00.00	70.00		1199	5.00	10.20	5.50	37.10
Vigoro							1221	5.02	10.60	5.50	37.86
Guaranteed		6.00	10.00	4.00	38.00		1240	5.02	10.70	5.52	38.05
	91	5.60	10.30	4.68	38.11		1246	4.87	10.60	5.30	37.24
	92	6.08	10.80	5.10	40.72		1259	5.02	11.00	7.32	40.38
	451	6.12	10.10	5.08	39.59		1585	4.80	10.70	5.95	37.87
	949	6.04	10.90	4.20	39.89		1594	5.32	10.40	5.45	38.28
	1387	6.01	11.00	4.58	40.36		1603	5.04	11.00	5.68	38.79
							1622	5.04	11.00	5.64	38.75
							1626	5.04	10.20	5.60	37.31

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$	Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
Swift's Red Steer 10-20-10											
Guaranteed		10.00	20.00	10.00	72.50		720	5.12	10.20	5.30	37.23
245	10.08	20.25	10.96	74.12		751	5.04	10.20	5.20	36.91	
339	10.72	21.00	8.53	74.76		797	5.04	10.50	5.38	37.62	
342	10.80	21.25	10.43	77.32		1040	5.20	10.30	5.30	37.63	
399	9.42	20.75	10.70	72.92		1042	5.26	10.80	5.28	38.65	
605	9.60	21.50	10.60	74.63		1083	5.20	10.30	5.60	37.93	
772	10.20	20.75	10.53	74.89		1113	5.48	10.40	5.50	38.77	
1033	9.52	20.35	10.80	72.59		1119	5.92	10.70	6.20	41.21	
1073	10.08	20.60	11.10	74.87		1180	5.20	10.75	5.75	38.86	
1200	10.16	19.48	10.02	72.05		1188	5.14	9.69	6.04	37.13	
1215	9.78	20.15	10.60	72.76		1206	5.04	10.00	5.75	37.11	
1230	9.51	21.00	11.20	74.10		1227	5.15	10.00	5.52	37.18	
1245	9.78	20.10	10.82	72.89		1575	4.08	10.65	5.40	35.26	
1273	9.56	20.00	10.86	72.15		1589	5.00	10.35	5.50	37.36	
1586	10.03	21.00	11.00	75.33		1592	6.04	9.25	5.95	38.75	
						1650	5.53	10.61	5.20	38.88	
						1655	5.00	10.00	5.76	37.71	
Swift's Red Steer 5-10-10						Lone Star Brand 10-20-10 Fertilizer					
Guaranteed	5.00	10.00	10.00	41.25		Guaranteed	10.00	20.00	10.00	72.50	
31	5.26	10.80	10.80	44.17		258	10.56	21.00	11.00	76.79	
338	5.02	10.70	10.40	42.93		265	9.52	23.81	9.44	77.29	
1241	5.01	10.49	8.21	40.35		334	9.82	21.00	10.44	74.20	
Swift's Red Steer 4-12-4						579	10.03	22.25	10.80	77.32	
Guaranteed	4.00	12.00	4.00	36.00		1085	8.68	20.75	9.68	69.86	
1583	4.72	12.50	5.68	40.54		1115	9.48	21.50	10.60	74.30	
Swift's Red Steer 3-12-12						1120	9.10	20.50	11.40	72.30	
Guaranteed	3.00	12.00	12.00	41.25		1190	9.21	17.75	12.16	68.55	
1584	3.08	12.60	12.80	43.32		1197	8.89	20.26	10.52	70.42	
TEX AMMONIA INC., RIO GRANDE CITY, TEXAS						1208	8.96	20.10	10.70	70.52	
Tex Ammonia Inc. 0-54-0						1228	9.44	20.25	11.04	72.44	
Guaranteed	00.00	54.00	00.00	94.50		1574	9.52	22.25	10.30	75.42	
943	00.00	54.04	00.00	94.57		1576	9.22	22.50	10.80	75.53	
TEXAS CITY CHEMICALS INC., TEXAS CITY, TEXAS						1593	11.01	21.00	8.23	75.25	
Texaphos 0-35-0						1608	10.10	21.50	10.78	76.18	
Guaranteed	00.00	35.00	00.00	61.25		1640	9.84	21.75	10.56	75.68	
54	00.00	33.65	00.00	58.89		Lone Star Brand 5-10-10 Fertilizer					
Texaphos 0-37-0						Guaranteed	5.00	10.00	10.00	41.25	
Guaranteed	00.00	37.00	00.00	64.75		1638	5.30	10.20	10.50	42.93	
144	00.00	36.00	00.00	63.00		Lone Star Brand 4-12-4 Fertilizer					
TEXAS FARM PRODUCTS CO., NACOGDOCHES, TEXAS						Guaranteed	4.00	12.00	4.00	36.00	
Lone Star Brand 8-8-8 Fertilizer						302	7.02	14.72	6.28	51.35	
Guaranteed	8.00	8.00	8.00	44.00		Lone Star Brand 16-20-0 Fertilizer					
348	8.20	9.00	8.00	46.30		Guaranteed	16.00	20.00	00.00	79.00	
1043	8.22	13.43	9.20	55.31		1702	16.00	20.31	00.00	79.54	
1084	7.56	10.07	8.00	46.41		TEXAS LIQUID FERTILIZER COMPANY, LA FERIA, TEXAS					
1114	6.88	9.40	7.15	42.52		Texas Liquid 10-20-0 Fertilizer					
1189	7.88	8.70	8.20	45.10		Guaranteed	10.00	20.00	00.00	62.50	
1198	7.57	8.84	8.40	44.69		916	11.49	19.76	00.00	66.18	
1207	7.76	8.20	9.40	45.09		Texas Liquid 5-15-5 Acid Fertilizer					
1639	7.60	8.50	7.80	43.58		Guaranteed	5.00	15.00	5.00	45.00	
1695	8.22	8.00	8.24	44.85		917	8.40	15.02	5.57	54.96	
Lone Star Brand 10-20-0 Fertilizer						Texas Liquid 0-54-0 Fertilizer					
Guaranteed	10.00	20.00	00.00	62.50		Guaranteed	00.00	54.00	00.00	94.50	
318	10.20	21.50	00.00	65.68		918	00.00	55.43	00.00	97.00	
Lone Star Brand 5-10-5 Fertilizer						TIDE PETROLEUM PRODUCTS, INC., EDINBURG, TEXAS					
Guaranteed	5.00	10.00	5.00	36.25		Tide Green 15-15-0 Liquid Fertilizer					
171	5.18	10.40	5.00	37.45		Guaranteed	15.00	15.00	00.00	67.50	
174	5.01	10.50	5.38	37.53		934	14.05	16.63	00.00	67.74	
264	5.10	10.10	5.18	36.88		Tide Green 10-20-0 Liquid Fertilizer					
300	5.10	10.20	5.20	37.08		Guaranteed	10.00	20.00	00.00	62.50	
333	5.12	10.20	5.60	37.53		130	10.05	20.51	00.00	63.53	
578	5.08	10.50	5.55	37.90		933	11.78	20.33	00.00	67.97	
599	5.08	10.10	5.30	36.95							
634	5.00	11.40	5.34	39.04							
644	5.12	10.40	5.32	37.60							

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$	Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Tide Green 6-18-6 Liquid Fertilizer	819	8.03	9.00	8.64	46.47						
Guaranteed	1008	8.49	9.10	9.16	48.43						
931	1015	8.16	9.18	8.32	46.83						
Tide Green 8-24-0 Liquid Fertilizer	1099	8.01	9.00	8.12	45.90						
Guaranteed	1149	8.12	8.50	9.00	46.21						
932	1186	8.09	8.90	9.72	47.54						
Tide Green 18-9-0 Liquid Fertilizer	1217	7.68	10.07	8.40	47.14						
Guaranteed	1238	8.14	10.76	8.67	49.89						
129	1250	7.58	8.86	8.90	45.25						
	1632	7.72	9.78	8.00	46.35						
	1659	7.58	10.08	7.64	46.13						
	1677	8.26	9.30	8.24	47.23						
	1722	7.80	9.94	8.40	47.24						
	1729	7.81	9.45	8.50	46.52						
TYLER FERTILIZER COMPANY, TYLER, TEXAS						V-C Granulated Fertilizer 12-12-12					
Heart Brand 0-16-8						Guaranteed	12.00	12.00	12.00	66.00	
Guaranteed	00.00	16.00	8.00	36.00		662	10.96	13.86	12.60	67.00	
493	00.00	16.00	8.60	36.60		738	11.64	12.20	12.00	65.36	
Heart Brand 8-8-8						V-C Granulated Fertilizer 10-20-0					
Guaranteed	8.00	8.00	8.00	44.00		Guaranteed	10.00	20.00	00.00	62.50	
1070	7.04	9.09	10.37	45.64		145	10.00	21.00	00.00	64.25	
Heart Brand 10-20-0						284	10.64	21.25	00.00	66.45	
Guaranteed	10.00	20.00	00.00	62.50		322	10.22	21.75	00.00	66.18	
189	9.48	20.00	00.00	61.07		546	10.24	20.30	00.00	63.69	
Heart Brand 5-10-5						999	10.16	20.25	00.00	63.38	
Guaranteed	5.00	10.00	5.00	36.25		1051	8.86	22.24	00.00	63.29	
483	5.94	10.40	5.35	39.89		1058	10.00	20.25	00.00	62.94	
796	5.55	10.20	5.30	38.41		V-C Granulated 5-10-5					
1045	5.20	9.60	5.80	36.90		Guaranteed	5.00	10.00	5.00	36.25	
1069	5.62	10.40	5.20	38.86		167	5.00	10.90	5.80	36.63	
1595	5.70	10.10	5.40	38.75		278	6.06	13.20	6.50	46.27	
1645	5.76	10.00	5.40	38.74		315	5.14	11.20	5.50	39.24	
Heart Brand 10-20-0						724	5.36	11.00	5.72	39.71	
Guaranteed	10.00	20.00	10.00	72.50		752	5.02	11.00	5.45	38.51	
484	8.80	16.70	10.40	63.83		759	5.36	10.45	5.68	38.71	
1646	8.68	21.46	10.60	72.03		769	5.46	10.70	5.70	39.44	
Heart Brand 16-20-0						778	5.08	10.50	5.20	37.55	
Guaranteed	16.00	20.00	00.00	79.00		779	5.06	11.40	5.42	39.29	
494	13.76	21.25	00.00	75.03		802	5.16	11.50	5.72	40.04	
713	14.07	20.13	1.10	75.02		818	5.01	10.70	5.30	37.80	
VIRGINIA-CAROLINA CHEMICAL CORP., SHREVEPORT, LA.						998	5.22	11.10	6.30	40.08	
V-C Fertilizers 5-10-5						1007	5.05	10.67	5.70	38.26	
Guaranteed	5.00	10.00	5.00	36.25		1519	4.52	12.00	5.00	38.43	
36	5.00	10.70	5.45	37.93		1546	5.23	11.63	5.98	40.72	
151	5.40	11.70	6.30	41.63		1548	5.16	10.80	6.10	39.19	
317	5.16	10.40	5.60	37.99		1610	5.64	11.10	5.64	40.58	
326	5.00	11.70	5.48	39.71		V-C Fertilizer Granular 10-20-10					
479	5.10	11.77	5.50	40.12		Guaranteed	10.00	20.00	10.00	72.50	
557	5.02	11.00	5.40	38.46		33	10.04	20.50	11.38	74.87	
594	5.00	10.90	5.35	38.18		37	8.00	17.00	8.07	59.82	
761	5.02	10.40	5.00	37.01		146	10.00	20.25	11.24	74.18	
1030	5.32	10.50	5.40	38.41		152	9.68	20.00	10.90	72.52	
1098	5.00	10.30	5.45	37.23		168	10.40	20.50	10.96	75.44	
V-C Fertilizer 5-10-10						234	10.20	21.25	11.00	76.24	
Guaranteed	5.00	10.00	10.00	41.25		240	10.20	21.00	11.20	76.00	
625	4.48	14.64	8.22	46.16		285	9.84	20.25	10.00	72.50	
1216	5.22	10.80	10.80	44.06		316	10.00	20.50	10.60	73.98	
V-C Granulated Fertilizers 15-15-0						340	9.68	20.75	9.56	72.49	
Guaranteed	15.00	15.00	00.00	67.50		355	9.60	21.00	9.60	72.75	
1668	14.80	16.30	00.00	69.58		480	9.84	18.32	11.16	70.28	
V-C Granulated Fertilizer 8-8-8						495	10.04	21.25	10.30	75.10	
Guaranteed	8.00	8.00	8.00	44.00		545	9.64	21.57	10.20	74.46	
297	7.34	10.07	8.00	45.81		595	9.80	20.75	9.46	72.72	
661	8.12	9.39	9.20	47.96		626	10.06	21.50	10.70	75.99	
760	8.02	10.62	8.00	48.64		668	10.24	20.00	10.40	73.56	
764	8.36	9.55	8.40	48.10		711	10.01	21.00	10.62	74.90	
803	8.12	9.40	8.18	46.96		725	10.00	20.00	10.80	73.30	
						728	10.02	21.67	9.80	75.28	

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1955-56, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$	Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
V-C Fertilizer Granular 10-20-10	753	10.00	21.08	10.40	74.79		1609	10.00	22.14	10.76	77.01
	765	10.28	20.25	10.60	74.31		1656	10.04	21.46	10.64	75.81
	804	10.01	20.25	10.60	73.57		1660	9.64	20.25	10.64	72.59
	808	10.12	20.25	11.20	74.47		1678	9.86	20.36	10.60	73.35
	820	10.01	21.25	11.04	75.76		1723	9.52	21.25	11.00	74.37
	1000	9.52	19.50	10.60	70.91		1730	9.56	20.47	10.90	73.01
	1009	10.08	20.50	11.60	75.20		1744	9.66	20.75	10.90	73.78
	1052	10.08	20.25	11.20	74.36	V-C Fertilizer Granulated 5-20-20					
	1059	10.02	21.50	10.44	75.62	Guaranteed	5.00	20.00	20.00	68.75	
	1194	10.44	20.15	11.32	75.29	153	5.46	20.00	21.00	71.02	
	1218	9.87	20.15	11.20	73.61	V-C Granulated 20% Superphosphate					
	1239	10.02	21.45	10.26	75.35	Guaranteed	00.00	20.00	00.00	35.00	
	1251	9.75	18.20	10.90	69.56	549	00.00	21.47	00.00	37.57	
	1268	10.03	20.18	10.84	73.74	1050	00.00	20.25	00.00	35.44	
	1274	9.40	21.00	10.70	73.30	V-C 45% Triple Superphosphate					
	1520	10.08	20.75	11.86	75.89	Guaranteed	00.00	45.00	00.00	78.75	
	1547	10.00	20.00	11.64	74.14	507	00.00	47.89	00.00	83.81	
	1555	10.08	20.75	11.04	75.07						

FERTILIZER GUARANTORS REGISTERED IN TEXAS, 1955-56

Located in Texas

- Agri-Chem of Texas, 2734 Roosevelt Avenue, San Antonio
- Agricultural Chemicals of Dallas, 3707 E. Kiest Blvd, Dallas
- Agricultural Chemicals, Inc., Llano
- Agricultural Chemicals, Inc., Box 130, Henderson
- Armour Fertilizer Works, Inc., Box 5296, Dallas
- Armour Fertilizer Works, Inc., Box 1412, Houston
- Associated Laboratories, 2121 S. Central Expressway, Dallas
- Bactex Company, Inc., Box 4065, Station A, San Antonio
- Baker Bros. Co., Box 828, Fort Worth
- Best Fertilizer Company, 8420 Manchester St., Houston
- Blume System Tree Experts, 2736 Virginia, Houston 6
- Boesch Farm Products Co., Inc., 607 William Street, Lufkin
- Bovina Farm Chemical, 801 Third Street, Bovina
- Boyer Fertilizer Corp., Route 6, Box 108, Fort Worth
- Bryan Cotton Oil & Fertilizer Company, Bryan
- Campbell Fertilizer Co., Inc., 102 Japhet Street, Houston
- Carl Pool Labs, 420 Kelly Drive, San Antonio

- Central Texas Fertilizer Co., Inc., Box 761, Comanche
- Chemical Products Co., Inc., Box 387, Hurst
- Coastal Chem. Specialties Co., Route 3, Box 591, Houston
- Consolidated Chem. Industries, Inc., 640 Melle Esperson Bldg., Houston
- Currie Seed Co., Box 1780, Corpus Christi
- East Texas Products Company, Box 176, Tyler
- Easy Going Ranch, Mountain Home
- Ellis Supply Company, Weslaco
- Farmers Fertilizer Company, Box 944, Texarkana, Ark-Tex
- The Ferti-Mulch Company, Route 2, Round Rock,
- Fidelity Chemical Corp., Box 1189, Houston
- Forrest's Greenhouse, Box 357, Waxahachie
- Garrison Dehydration Co., Garrison
- Gilmer Cotton Oil & Fertilizer Company, Gilmer
- Gulf Coast Organic and Mineral Co., 325 S. Cage Blvd., Pharr
- Gulf Rendering By Products Corp., 6426 Ave. J., Galveston
- Hayes-Sammons Co., Box 633, Mission
- Hill's Nursery, Victoria
- Hi-Yield Plant Food Company, Box 491, Mount Pleasant

FERTILIZER GUARANTORS REGISTERED IN TEXAS, 1955-56 — Continued

- Hi-Yield Fertilizer Company, Box 143, Bonham
- Imperial Chemical Co., Box 14063, Houston
- Interstate By-Products and Supply Co., Box 1142, Fort Worth
- Jacksonville Fertilizer Company, Box 1225, Jacksonville
- Jaffee Cotton Products, Box 5184, Dallas
- Jones Farm Store, Box 786, Muleshoe
- Kipfer Chemical Company, Box 770, Harlingen
- Klauss-White, 1441 W. Poplar St., San Antonio 7
- H. H. Koym, East Bernard
- Lister Laboratory, Ltd., Route 8, Box 127H, San Antonio
- Little Geni Corp., 366 Westminster, San Antonio
- Lone Star Phosphate Co., Box 31, Nacogdoches
- Lone Star Steel Company, Box 12226, Dallas
- Manning Mineral Corp., Wilson-Tyler Bldg., Box 1558, Corpus Christi
- Marbach, E. W., Converse
- Margie Korn Garden Shop, 5213 W. Lovers Lane, Dallas
- Marshall Cotton Oil Company, Marshall
- Mid-South Chemical Corp., Box 1925, Harlingen
- Mid West Feed Yards, Box 1370, San Angelo
- J. W. Nichols Co., 719 N. Main, Fort Worth
- N. O. M., Inc., Box 8155, San Antonio
- Orga-Min Producing Company, Box 1453, Laredo
- Page Chemical Company, Port Arthur
- Pittsburg Fertilizer Co., Pittsburg
- Plainsman Supply Co., 601 E. 5th Street, Plainview
- Port Fertilizer and Chemical Co., Los Fresnos
- Red Stag Leaf Mold Co., Box 6622, San Antonio 9
- Red Star Fertilizer Company, Box 486, Sulphur Springs
- Richlawn of Fort Worth, Inc., Box 3207, Fort Worth
- Rio Soil Service, 219 West Highway, San Juan
- Rose City Nursery, Tyler
- Rowland and Gordon Co., Box 170, Plainview
- E. H. Rugh, Bandera
- Scientific Soil Service, Elsa
- Shannon Feed Mills, 150 Apache St., San Antonio
- Smith-Douglass Co. Inc. (San Jacinto Chem. Co.)
Box 9747, Houston
- Sod-Gro Fertilizer Co., 205 S. Allen Street, Monahans
- Soil Organic Service, 8729 Old County Road, Ysleta
- Soil Prescription Service, 851 Acme Road, San Antonio
- Southland Cotton Oil Co., Cameron
- South Texas Fertilizer & Chemical Co., El Campo
- Southwest Chemical Company, 500 South 19th St., McAllen
- Southwest Fertilizer Co., Box 12234, Dallas
- Southwest Fertilizer and Chemical Co., 5030 East Paisano Drive, El Paso
- Soylaid, Inc., 102 West French Place, San Antonio
- Stauffer Chemical Company, Weslaco
- Swift & Company, Plant Food Division, Box 7707, Houston
- Taylor-Evans Farm Store, 2701 East 3rd Street, Amarillo
- Texas City Chemicals, Box 1571, Texas City
- Texas Cotton Coop. Assn of Pittsburg, Box 1225, Jacksonville
- Texas Farm Products, Box 31, Nacogdoches
- Texas Farm Supply, 1820 Ave. H., Bay City
- Texas Hydroponics, Box 557, Mesquite
- Texas Liquid Fertilizer Company, Box 808, La Feria
- Texas Organic Minerals Soil Company, San Juan
- Texas Vermiculite Co., 2651 Manila Road, Dallas
- Tide Petroleum Products, Inc., 800 North Clossner, Edinburg
- Todd's Chick-A-Lizer Co., Smiley
- Toyah Basin Sulphur Company, Box 226, Toyah
- Tri-State Soil Products Company, 2218 N. Piedras Street, El Paso
- Tyler Fertilizer Company, 420 South Oakland, Tyler
- Valley Growers Cooperative, Box 907, Mission, Texas
- W. P. Walker, Route 5, Abilene
- Western Fertilizer Company, Muleshoe
- J. Bob White, 5500 Camp Bowie Blvd., Ft. Worth

FERTILIZER GUARANTORS REGISTERED IN TEXAS, 1955-56 — Continued

Wonder-Gro Corp., Room 2, International Airport,
San Antonio

Wood Chemical Co., Box 599, Lubbock

Wyatt Seed Company, 16 South Taylor, San
Angelo

Located Elsewhere

Adkins-Phelps Calunite Co., 403 Magnolia N.,
Little Rock, Arkansas

Agricultural Products Company, Box 658, An-
thony, New Mexico

Allied Chemical & Dye Corp., Nitrogen Div.,
Drawer 61, Hopewell, Virginia

American Agricultural Chemical Co., 50 Church
Street, New York 7, New York

American Chemical Paint Company, Ambler,
Pennsylvania

American Cyanamid Company, 30 Rockefeller
Plaza, New York 21, New York

American Liquid Fertilizer Company, 2nd and
St. Clair Street, Marietta, Ohio

The Anaconda Company, Anaconda, Montana

Ark-La Feed & Fertilizer Co., Magnolia, Arkansas

Arkmo Plant Food Co., Inc. Walnut Ridge, Ark-
anas

Associated Cooperatives, Inc., 312 Montgomery
Ave., Sheffield, Alabama

Atkins and Durbrow, Inc. Box 55, Port Colborne,
Ontario, Canada

Atlas Fish Fertilizer Co., 1 Drumm Street, San
Francisco 11, California

Bennett Chemical Co., 5350 No. Sherman, Denver
16, Colorado

Better Homes Bureau, Newark, New York

The Borden Co.-Chem. Div., 350 Madison Avenue,
New York 17, New York

Bradley & Baker, 10 So. Brentwood Blvd., St.
Louis 5, Missouri

Bruce-Ellen Co., Inc., 297 E. Center Street,
Marion, Ohio

California Spray Chemical Corp., Lucas and Ortho
Way, Richmond, California

Chatelier Plant Food, 5763 63rd Street N., St.
Petersburg, Florida

Chilean Nitrate Sales Corp., 120 Broadway, New
York 5, New York

Colorado Fuel and Iron Corp., Box 1920, Denver,
Colorado

Commercial Solvents Corp., 260 Madison Ave.,
New York, New York

Davey Tree Expert Company, 117 South Water
Street, Kent, Ohio

Davison Chemical Corp., Div. of W. R. Grace &
Co., Gretna, Louisiana

Dixie Fertilizer Company, Inc., Box 1111, Shreve-
port, Louisiana

Dow Chemical Company, Midland, Michigan

E. I. DuPont de Nemours and Company, Box 993,
Wilmington, Delaware

Economy Nursery Company, Little Silver, New
Jersey

Farm Service, Inc., Box 271, Opelousas, Louisiana

Ferro Corporation, 4150 East 56th St., Cleveland,
Ohio

Fertilene Corp. of America, 251 Central Park
West, New York 24, New York

Ford Motor Company, Dearborn, Michigan

Garden Research Laboratory, 18 East 41st Street,
New York, New York

Geigy Company, Inc., Saw Mill River Road,
Ardsley, New York

Germain's, Inc. 1126 N. 21st Street, Phoenix,
Arizona

Goulard and Olena, Inc., Skillman, New Jersey

Grace Chemical Co., Box 4906, Memphis 7, Ten-
nessee

Grand River Chem. Div. of Deere & Co., 2010 So.
Utica, Tulsa 4, Oklahoma

The Grant Company, 2735 N. Ashland Avenue,
Chicago 14, Illinois

Gro-Crop, Inc., Summerdale, Alabama

Heinl's Greenhouses, 4401 La Grange Street,
Toledo, Ohio

Heller Greenhouse Laboratories, 218 E. Pikes
Peak Ave., Colorado Springs, Colorado

A. H. Hoffman, Inc., Landisville, Pennsylvania

Hoover Soil Service, Gilman, Illinois

Hosdreg Company, Inc., Deming, New Mexico

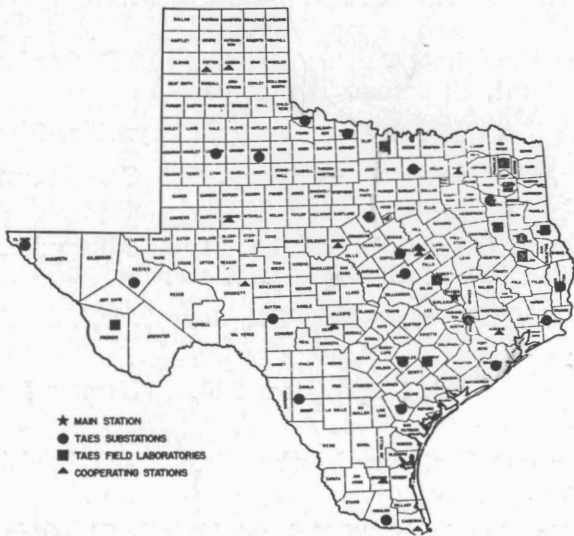
Hydroponic Chemical Company, Inc., Copley, Ohio

International Minerals & Chemical Corp., Box
928, Texarkana, Arkansas

International Minerals & Chem. Corp., Thompson
Phosphate Div., 20 North Wacker Drive,
Chicago 6, Illinois

FERTILIZER GUARANTORS REGISTERED IN TEXAS, 1955-56 — Continued

- Kelly, Weber and Company, Inc., Lake Charles, Louisiana
- Lake Charles Feed Company, Inc., Lake Charles, Louisiana
- Lion Oil Company, El Dorado, Arkansas
- Loanium Company of America, 2 Kingsland Ave., Harrison, New Jersey
- Olin Mathieson Chemical Corp., Box 991, Little Rock, Arkansas
- Forward House Div. of Olin Mathieson Chem. Corp., 745 Fifth St., New York 22, N. Y.
- Minden Cotton Oil and Ice Company, Ltd., Minden, Louisiana
- Mississippi Chemical Corp., Yazoo City, Mississippi
- Monsanto Chemical Co., 1700 S. Second St., St. Louis, Missouri
- Na-Churs Plant Food Company, 421 Monroe Street, Marion, Ohio
- Natural Plant Food Company, 210 W. California, Oklahoma City, Oklahoma
- Naturizer Company, Box 755, Norman, Oklahoma
- New York Hanseatic Corp., 120 Broadway, New York, New York
- Nichols Fertilizer & Chem. Co., Box 1296, Oklahoma City, Okla.
- Nichols Seed Co., Oklahoma City, Oklahoma
- Ouachita Fertilizer & Chemical Co., Box 454, Monroe, Louisiana
- Phillips Chemical Company, Bartlesville, Oklahoma
- Plantabbs Corporation, 1005 Maryland, Baltimore, Maryland
- Proen Products Company, 9th and Grayson, Berkeley, California
- Ra-Pid-Gro Corp., 88 Ossian Street, Dansville, New York
- Reliance Fertilizer Company, 106 East Bay Street, Savannah, Georgia
- Reuther Seed Co., Inc., New Orleans 9, Louisiana
- Robin Jones Phosphate Company, Box 1021, Nashville, Tennessee
- Ruhm Phosphate & Chemical Co., 813 S. Garden Street, Columbia, Tennessee
- O. M. Scott and Sons Company, Marysville, Ohio
- Sears, Roebuck and Company, 925 So. Homan Ave., Chicago 7, Illinois
- Sewerage Commission of the City of Milwaukee, Box 2079, Milwaukee 1, Wisconsin
- Shankles Wholesale Bulb Co., Jonesboro, Louisiana
- Shea Chemical Corp., Box 326, Jeffersonville, Indiana
- Shreveport Fertilizer Works, Shreveport, Louisiana
- Soil Booster Corp., 2501 East Fourth St., Oklahoma City, Oklahoma
- Soil Builders, Inc., Dunnellon, Florida
- Spencer Chemical Company, 610 Dwight Building, Kansas City, Missouri
- Stimuplant Labs., Box 1955, Columbus 16, Ohio
- Sunshine Plant Food Company, Box 885, Clovis, New Mexico
- Swift & Company, Plant Food Div., Box 3567, Queensboro Station, Shreveport, Louisiana
- Synthetic Nitrogen Products Corp., 285 Madison Ave., New York 17, New York
- Tennessee Corp., 619-29 Grant Building, Atlanta, Georgia
- Tennessee Corp., Lockland, Cincinnati 1, Ohio
- U. S. Phosphoric Division, Tennessee Corp., Box 3269, Tampa, Florida
- Virginia - Carolina Chemical Corp., Box 3218, Queensboro Station, Shreveport, Louisiana
- Victor Chemical Works, 155 N. Wacker Drive, Chicago, Illinois
- Waldo Fertilizer Works, Waldo, Arkansas
- Western Agricultural Chem. Company, 3001 N. Beacon Street, Colorado Springs, Colorado
- Western Mines, Inc., 1400 S. Lipan, Denver, Colorado
- Western Phosphates, Inc., Box 308, Garfield, Utah



Location of field research units in Texas maintained by the Texas Agricultural Experiment Station and cooperating agencies

State-wide Research

★

The Texas Agricultural Experiment Station is the public agricultural research agency of the State of Texas, and is one of nine parts of the Texas A&M College System

IN THE MAIN STATION, with headquarters at College Station, are 16 subject-matter departments, 2 service departments, 3 regulatory services and the administrative staff. Located out in the major agricultural areas of Texas are 21 substations and 9 field laboratories. In addition, there are 14 cooperating stations owned by other agencies, including the Texas Forest Service, the Game and Fish Commission of Texas, the U. S. Department of Agriculture, University of Texas, Texas Technological College and the King Ranch. Some experiments are conducted on farms and ranches and in rural homes.

RESearch BY THE TEXAS STATION is organized by programs and projects. A program of research represents a coordinated effort to solve the many problems relating to a common objective or situation. A research project represents the procedures for attacking a specific problem within a program.

THE TEXAS STATION is conducting about 350 active research projects, grouped in 25 programs which include all phases of agriculture in Texas. Among these are: conservation and improvement of soils; conservation and use of water in agriculture; grasses and legumes for pastures, ranges, hay, conservation and improvement of soils; grain crops; cotton and other fiber crops; vegetable crops; citrus and other subtropical fruits, fruits and nuts; oil seed crops—other than cotton; ornamental plants—including turf; brush and weeds; insects; plant diseases; beef cattle; dairy cattle; sheep and goats; swine; chickens and turkeys; animal diseases and parasites fish and game on farms and ranches; farm and ranch engineering; farm and ranch business; marketing agricultural products; rural home economics; and rural agricultural economics. Two additional programs are maintenance and upkeep, and central services.

RESearch RESULTS are carried to Texas farm and ranch owners and homemakers by specialists and county agents of the Texas Agricultural Extension Service.