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- Analysis of
- *Commercial Fertilizers*
- Sold during 1958-59

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DIGEST

This is the 57th annual report of the operation of the Texas fertilizer law and covers the period from September 1, 1958 to August 31, 1959.

Fertilizers and fertilizer materials sold during the fertilizer year beginning July 1, 1958, amounted to 664,654 tons, which was practically the same as the tonnage sold during the preceding year. Sales of mixed goods increased 3 percent while sales of materials decreased 3 percent. Grades of the 1-2-1 ratio accounted for 69 percent, and the 1-1-1 ratio for 9 percent, of the total 286,530 tons of mixed goods sold. Mixed goods made up 43 percent of the total tonnage sold. Nitrogen materials accounted for 56 percent, superphosphates for 14 percent and ammoniated phosphates for 24 percent of the total of 378,124 tons of materials sold.

Analyses are given of 1,739 official samples of fertilizers. Valuations found on analyses are compared with the analyses guaranteed by the registrants.

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Analysis of Commercial Fertilizers Sold during 1958-59

J. F. FUDGE, State Chemist

THIS IS THE 57TH 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

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 be accompanied by a Product Sheet on which is listed all of the materials used in the fertilizers, including the filler or conditioner, and these materials

must be used in all batches. A change may be made only if it meets the requirements of the law and the State Chemist is notified. The application for registration also must be accompanied by all printed material to be used in connection with advertising and marketing the product.

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 fertilizers should be part of the name of the product; for example, *Jupiter Brand Superphosphate 0-20-0* or *Mars Brand 6-12-6 Fertilizer*.

Labels

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

- Net weight of content of the bag.
- Name of fertilizer in full.
- Name and address of manufacturer, manipulator or guarantor.
- Guaranteed analysis (in 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.

No advertising of any kind shall be printed on the label.

Inspection Fees

To finance the inspection of fertilizers and the collection and analysis of official samples of fertilizer, experiments on the value of fertilizers and for certain other related 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 by the guarantor on the basis of and must accompany a sworn quarterly statement of sales, due in the office of the State Chemist on the first day of September, December, March and June. If the tonnage report is not filed and the payment of

inspection fees is not made within 20 days after the date due, a collection fee amounting to 10 percent of the amount due must be charged against the guarantor.

Bulk Sales

Fertilizer in bulk for manufacturing purposes can be shipped only to the factory of a manufacturer who has registered fertilizers 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 1959-60

The grade of a mixed fertilizer is stated in numbers representing the guaranteed analyses as percentages of nitrogen, available phosphoric acid and water-soluble potash. For example, a grade of 6-12-6 means that the fertilizer is guaranteed by the guarantor to contain 6 percent nitrogen, 12 percent available phosphoric acid and 6 percent water-soluble potash. The term *grade* also may refer to the percentage of a primary component in a fertilizer material, as in superphosphate, 0-20-0. 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 label.

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 6-12-6 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 10-20-10 and 12-24-12.

The grades of mixed farm fertilizers sold in Texas have been limited in number for more than 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 in becoming 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 and simple 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 ratios and minimum grades is published in the annual fertilizer bulletin and also may be obtained on request to the State Chemist.

Following the annual public hearing on ratios and grade held at Galveston, Texas, on July 17, 1959, the Texas Fertilizer Committee made no changes in the ratio and grade list.

The approved ratios and minimum grades during the year starting September 1, 1959, are:

Ratio	Minimum grade	Ratio	Minimum grade
0-1-1	0-14-14	1-2-2	5-10-10
0-2-1	0-16-8	1-2-3	4-8-12
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	12-6-6
1-2-1	6-12-6	2-2-1	10-10-5

Grades of mixed goods of the same ratios as those above, but of higher guaranteed analyses, 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 phosphate), 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. This committee is composed of the following:

- J. F. Fudge, State Chemist, Chairman
- G. W. Adriance, Head, Department of Horticulture
- W. F. Bennett, Extension Soil Chemist

H. T. Blackhurst, Professor of Horticulture
 A. G. Caldwell, Associate Professor of Agronomy
 Flake L. Fisher, Associate Professor of Agronomy
 B. G. Hancock, Extension Horticulturist
 O. J. Moss, Agricultural Conservation and Stabilization, U. S. Department of Agriculture
 Donald R. Paterson, Associate Horticulturist
 Clyde C. Singletary, Extension Horticulturist
 Ben R. Spears, Extension Agronomist
 J. B. Storey, Assistant Professor of Horticulture
 W. O. Trogdon, Head, Department of Agronomy

Longhorn	Plantation	Swfgas
Lonfosco	Plant-Gro	Swfgro
Ma-Der-Gro	Plantrons	Swfkick
M C C	Port	Swfphos
Magnolia	Pro Gro	Tacco
Magic Valley	Pro N	Take-Hold
Mathieson	Pro Turf	T. C. C.
Maverick	Rainbow	Tencor
Mello-Green	Rais-Mor	Terra Lite
M. G.	Ramshorn	Texas Farm
Mid-South	Ra-Pid-Gro	Supply
Mid-West	Red Stag	Texas Liquid
Milorganite	Red Star	Texas Longhorn
Min-Hu-Nite	Red Steer	Tex-Hi
Min-Sol	Reliance	Thrive
Minor L	Reuter's Special	Tide Green
Mission	Robot Gardner	Top Crop
Mr. N.	Ruhm's	Top O'Texas
Mule	RX-15	Topper
Na-Churs	Sack-o-Mulch	Tri-40
Naturizer	Scott's	Turf-Gro
Nichols	SD	Turf Magic
Nitra-Phos	Sequestrene	Uramite
Nitro-Form	Shur-Crop	Valley Gro
Nitra N	Shur-Green	V-C
N-Rich-R	Sod-Gro	VC Prolific
Nu-Green	Soil Booster	Versene
Nurish	Soil Nu	Versenol
Old Black Joe	Soiltrate	Vertagreen
Old Dutch Mill	SoilTrix	Vigoro
Oleander	Sowesco	Vita-Pure
Org U Phos	Soylaid	Vitogro
Ortho	Spensol	Vitreia
Ortho-Gro	S S S	Wacco
Ozark	Sta-Green	Water Feed
Pan Handle Gold	Staffel's	Watson's Texas
Pasturgro	Stauffer's	Turf
P. D. Q.	Stim-U-Plant	Weber-King
Pelleform	Sul-Po-Mag	Wesco
Phillips 66	Sunshine	Wonder-Gro
Plantarama	Super 20	Woodgrow
Plantabbs	SurGreen	Wyatt's A-M

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 brands and trade-marks were registered with the State Chemist during 1958-59:

AA Quality	Cinagro	Goldthwaite's
ABC	Coastal	Grace
ACI-42	Columbus	Gran-U-Pels
ACI-45	CP Texgreen	Green Dot
Aero	Creel	GreenGlo
Aero-Phos	Cross Country	Green Light
Agco	C. S. C.	Green Thumb
Agri-Chem	Davco	Green Up
Ammo-Phos	Davey	Green Valley
Anaconda	Dennison's	Greenz
Anchor	Desert Green	Gro-Green
Aqua N	Diamond J	Gro-Mo
Areadian	Dickey's	GroMor
Ark-Mo	DiMon	Gro-Rite
Armour Pan-Han	Dixie	Groso
Special	Dixsol	Gro-stuf
Armour Pebble	Doubleton	Gro-Tex
Armour Big Crop	Dow	Heart
Armour Valley	Driconure	Heart of Texas
Special	Dri-Fluo	Heller-Gro
Atlas	DuPont	HiD
Bactex	Es-Min-El	Hill's
Bal-Jac	Farm and Ranch	Hi-Yield
Basic G	Fehmel	Hoffman's
Best	Fertilaid	Hou-Actinite
Best Bet	Ferti-Lome	Humusol
Big N	Ferti-Mulch	Hydro-Pak
Bio-Gro	FloGreen	Hy-Gro
Black Magic	Flororganic	Hyponex
Blenn	Foli-Gro	International
BLH	Ford	Interstate
Blue Bonnet	Four Leaf	Kimbell
Blumes	F T E	K-W
Borden's 38	Garden Green	Latex
Brimm	Garden Mark	Life
Campbell's	General	Linck's
Granulated	G. & O.	Lion
Caprock	Golden Harvest	Liqua-food
CF & I	Golden Nugget	Liqua Vita
Champion	Goldenrod	Liquidry
Chik-a-nure	Golden Vigoro	Liquikik
Chloro Spray	Gold Medal	Lone Star

INSPECTION FEES COLLECTED

Fertilizer inspection fees equivalent to 676,210 tons of fertilizer were collected for fertilizer sold during the Texas fiscal year from September 1, 1958 through August 31, 1959. 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
1943-48 (5-year average)	314,515
1948-53 (5-year average)	563,493
1953-54	543,518
1954-55	603,828
1955-56	566,339
1956-57	626,545
1957-58	623,825
1958-59	676,210

TONNAGE SALES

The tonnages 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 sale. Detailed reports of sales by counties are given in Progress Reports 2072 (fall sales) and 2099 (spring sales).

Total sales for the year were practically the same as during the preceding year. Sales of mixed goods were 3 percent higher while sales

of materials were 3 percent lower than last year. Mixed goods made up 43 percent of the total tonnage, as compared with 42 percent a year ago. Sales of the 1-2-1 ratio accounted for 69 percent, and of the 1-1-1 ratio, for 9 percent, of the total tonnage of mixed goods sold. Combined sales of these two ratios thus accounted for 78 percent of the total tonnage of mixed goods. The 5-10-5 grade was not approved for farm fertilizers during the year, but sales were permitted to allow the manufacturers to dispose of the supply on hand. Sales of 6-12-6, now the minimum approved grade in the 1-2-1 ratio increased greatly, with some increase in 10-20-10. East Texas used 44 percent of the mixed goods sold in the State, and 52 percent of the goods of the 1-2-1 ratio.

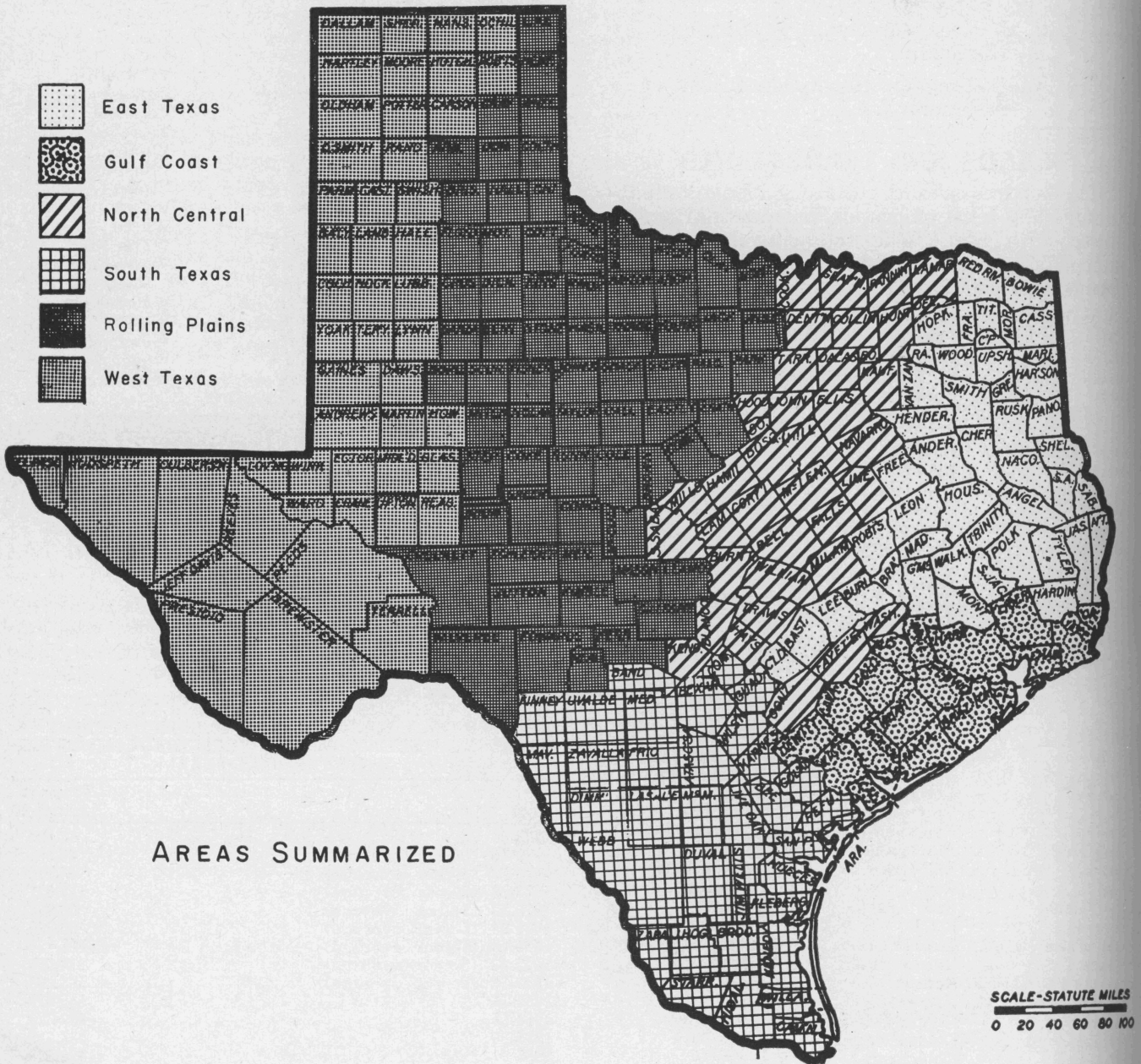


Figure 1

East Texas, the Gulf Coast and the North Central areas used 78 percent of the mixed goods. Mixed goods accounted for 74 percent of the total sold in East Texas, 51 percent of the total sold in the North Central area and only 9 percent of the total sold in West Texas.

The total tonnage of materials sold during the year was 32 percent higher than the total of mixed goods; fall sales of materials were 64 percent higher and spring sales 19 percent higher than those of mixed goods. East Texas used more than a third of the total ammonium nitrate used in the State, the Gulf Coast used nearly a third of the ammonium sulfate and West Texas used more than half of the anhydrous ammonia. Sales of all nitrogen materials showed a slight decrease for the first time, while those of superphosphates showed significant decreases. Anhydrous ammonia supplied 64 percent of the

materials nitrogen and 52 percent of the total nitrogen used in the State during the year.

The tonnages of the primary fertilizer components sold during the year, calculated from current reports of sales and from guaranteed analyses, are shown in Table 3. Sales of nitrogen, available phosphoric acid and potash were about twice as great during the spring as during the fall season. Mixed goods provided 18 percent of the total nitrogen, 55 percent of the available phosphoric acid and 94 percent of the potash used in the State. The total tonnage of nitrogen was 73 percent higher than the total tonnage of available phosphoric acid. The total tonnage of nitrogen and of available phosphoric acid were slightly higher than last year, because of an increase in higher analysis goods rather than to an increase in tonnage.

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

Grade	By regions July 1, 1958 to June 30, 1959						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 1958 = 100
Mixed Goods										
1-2-1 ratio (total)	102467	29541	33135	16951	9178	6209	66018	131463	197481	100
5-10-5	11835	2055	7016	2079	1230	204	10488	13931	24419	30
6-12-6	14584	4871	2792	5469	1977	155	2242	27606	29848	700
10-20-10	73858	9787	21744	4950	3807	3703	46784	71065	117849	132
12-24-12	1028	12752	746	2660	787	2022	5347	14648	19995	106
Other grades	1162	76	837	1793	1377	125	1157	4213	5370	111
1-1-1 ratio (total)	12220	9966	1155	922	249	561	4137	20937	25074	99
8-8-8	9423	1860	324	168	53	62	1262	10629	11891	103
12-12-12	1890	2883	334	104	37	26	943	4391	5334	84
Other grades	907	5223	437	650	159	473	1932	5917	7849	108
0-2-1 ratio	356	136	171	438	367	2237	872	2833	3705	108
1-1-0 ratio	99	730	846	4093	31	112	1212	4700	5912	102
1-2-0 ratio	1420	1190	3794	1332	480	344	3870	4690	8560	102
1-2-2 ratio	3824	1693	110	122	38	11	926	4872	5798	123
1-4-4 ratio	1551	2206	121	657	251	121	1040	3867	4907	92
2-2-1 ratio	757	2392	1126	3045	536	276	1193	6939	8132	151
Turf and garden	1829	3103	4615	2452	778	2595	2841	11731	14572	151
Other grades	1059	1657	1459	4145	631	3437	2301	10087	12388	128
Total mixed goods	124783	52616	46534	34156	12538	15902	84410	202120	286530	103
Relative to 1958	99	96	128	100	103	118	105	103	103	103
Materials										
Nitrogen materials (total)	16650	24140	17063	27362	7297	109274	80254	131534	211788	95
Anhydrous ammonia	2615	1835	1770	6440	2697	79117	43517	50956	94473	105
Ammonium sulfate	2162	25942	8624	9984	2337	17700	19093	47656	66749	82
Ammonium nitrate	11084	791	6355	3233	1736	5606	10559	18248	28807	106
Urea	29	4560	137	1834	40	1519	1323	6796	8119	84
Other solid N	664	678	127	2358	2	568	1804	2592	4396	176
N solutions	96	334	50	3513	485	4764	3958	5284	9242	69
N-P materials (total)	4254	29040	14290	13368	8175	21189	27621	62695	90316	109
16-20-0	3772	25689	12571	9912	6253	12592	21538	49250	70788	121
Others	482	3351	1719	3456	1922	8597	6083	13445	19528	82
Superphosphates (total)	5123	5472	10449	5291	3081	22982	20801	31498	52299	92
Ordinary	3996	1521	5747	2957	1417	14275	11456	18457	29913	96
Concentrated	1127	3951	4702	2234	1664	8707	9345	13041	22386	87
Rock phosphates	6045	6443	161	174	34	2	6615	6243	12858	111
Potash materials	320	370	157	211	172	1739	550	2419	2969	86
Manures and composts	403	617	1930	1150	152	671	1556	3367	4923	77
Other products	8	101	254	911	0	1700	992	1981	2973	44
Total materials	32805	76185	44303	48367	18909	157555	138389	239735	378124	97
Relative to 1958	110	90	123	86	96	97	104	94	97	97
All fertilizers	167588	128801	90837	82523	31447	173457	222799	441855	664654	100
Relative to 1958	107	93	126	91	99	99	104	98	100	100

Geographic regions of Texas differed widely in the amount of primary components used. East Texas used 42 percent of the nitrogen and 44 percent of the available phosphoric acid in mixed goods. West Texas used 52 percent of the total nitrogen, 62 percent of the materials nitrogen and 34 percent of the materials phosphoric acid used in the State. East Texas and the Gulf Coast used 25 percent of the nitrogen, 47 percent of the available phosphoric acid and 66 percent of the potash used in the State.

VALUATION PER TON

The Texas fertilizer law requires that a refund be made to all purchasers of fertilizer if the valuation found on analysis is 4 percent or more below the valuation guaranteed, and that if the valuation found is 10 percent or more below the valuation guaranteed, the fertilizer shall be considered as being adulterated. 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 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 primary components. The following prices per unit (1

percent of a ton, or 20 pounds) were used for this calculation in 1958-59 and also will be used in 1959-60:

	Prices per unit
Nitrogen	\$3.00
Available phosphoric acid	2.00
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 primary component by the valuation per unit, and adding the products. Following is an example of the calculation of the valuation of a ton of a 6-12-6 fertilizer:

Nitrogen	6 x \$3.00 = \$18.00
Available phosphoric acid.....	12 x \$2.00 = \$24.00
Soluble potash	6 x \$1.00 = \$ 6.00
Guaranteed valuation.....	\$48.00

VALUATION GUARANTEED AND FOUND

A comparison of the average valuation guaranteed with the valuation found upon analysis of official samples is shown in the last column of Table 5.

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

TABLE 3. TONNAGE OF PRIMARY FERTILIZER COMPONENTS SOLD JULY 1, 1958, TO JUNE 30, 1959, AS REPORTED CURRENTLY BY GUARANTORS AND CALCULATED FROM GUARANTEED ANALYSIS

Region	Nitrogen			Available Phosphoric Acid			Potash		
	Mixed	Materials	All	Mixed	Materials	All	Mixed	Materials	All
FALL SEASON, July 1 to December 31, 1958									
East Texas	3664	2113	5777	7271	927	8198	3720	29	3749
Gulf Coast	1342	3555	4897	2378	2760	5138	1288	55	1343
North Central	1478	2760	4238	2837	3937	6774	1217	20	1237
South Texas	932	2782	3714	1600	2144	3744	688	37	725
Rolling Plains	203	2417	2620	397	1975	2372	171	8	179
West Texas	187	35681	35868	358	1896	2254	167	84	251
Entire State	7806	49308	57114	14842	13639	28481	7251	233	7484
Relative to 1957	108	120	119	111	94	102	110	78	109
SPRING SEASON, January 1 to June 30, 1959									
East Texas	7206	5016	12222	13417	1357	14774	7342	137	7479
Gulf Coast	3948	10503	14451	6532	5730	12262	3961	166	4127
North Central	2608	4949	7557	4712	2529	7241	2134	74	2208
South Texas	2469	10046	12515	3567	2639	6206	1452	67	1519
Rolling Plains	828	2224	3052	1609	1488	3097	810	47	857
West Texas	1229	39846	41075	2437	11258	13695	1122	566	1689
Entire State	18288	72584	90872	32274	25001	57275	16821	1058	17879
Relative to 1958	113	91	95	112	103	108	110	81	108
FULL FERTILIZER YEAR, July 1, 1958, to June 30, 1959									
East Texas	10870	7129	17999	20688	2284	22972	11062	166	11228
Gulf Coast	5290	14058	19348	8910	8490	17400	5249	221	5470
North Central	4086	7709	11795	7549	6466	14015	3351	94	3445
South Texas	3401	12828	16229	5167	4783	9950	2140	104	2244
Rolling Plains	1031	4641	5672	2006	3463	5469	981	55	1036
West Texas	1416	75527	76943	2795	13154	15949	1289	650	1940
Entire State	26094	121892	147986	47116	38640	85756	24072	1291	25363
Relative to 1957-8	112	101	104	111	100	106	110	81	108

some recognized local agricultural, religious or charitable organization. Both the guarantor and the dealer must present evidence that the rebate has been passed on to the purchasers or to a local agricultural or charitable organization. Rebates amounting to \$2,309.39 were paid during 1958-59 on 69 lots of fertilizer found to be more than 4 percent below the guaranteed value.

RELATION OF SELLING PRICE TO VALUATION GUARANTEED

The relation of the selling price to the valuation guaranteed gives a comparative value which indicates the economic value of buying one grade over another where several are available. The cheapest fertilizer often is not the most economical source of plant food. The selling price of many lots of fertilizer was ascertained by the fertilizer inspector at the time inspection was made at retail stores and an official sample taken for analysis. The average selling price, valuation guaranteed and the ratio between the two for a number of the principal grades are given in Table 4. In general, the most economical source of the principal components is indicated by a lower figure for the ratio. For example, ammonium nitrate was a cheaper source of nitrogen than ammonium sulfate. The 10-20-10 grade was a cheaper source of nitrogen, available phosphoric acid and potash than 6-12-6 or 5-10-5. Other comparisons may be made from the data in Table 4.

Special cases sometimes may arise so that the most economical source of the primary plant foods is not always the "best buy." Ammonium

sulfate is definitely superior to ammonium nitrate for rice production or where sulfur is a limiting element. Superphosphate 0-20-0 carries much more calcium sulfate than 0-46-0 and might be better in cases where crop yields are increased by the application of calcium or sulfur as plant foods.

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 1,739 official samples of fertilizers and fertilizer materials was collected during 1958-59 by fertilizer inspectors, who collected samples in nearly every town and city in the State where fertilizer was being sold. Principal points of distribution were inspected several times during the year. In every case, official samples of all products being sold in the towns visited were collected. 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.

TABLE 4. RELATION OF SELLING PRICE TO VALUATION GUARANTEED IN PRINCIPAL GRADES

Grade	Number averaged	Selling price	Valuation guaranteed Ratio	Selling price to valuation guaranteed
Ammonium nitrate	6	82.04	100.50	.817
Superphosphate 0-46-0	26	78.77	92.00	.856
Ammonium sulfate	4	54.87	63.00	.868
13-39-0	17	108.28	117.00	.924
10-20-10	574	75.50	80.00	.944
Superphosphate 0-20-0	37	38.33	40.00	.958
12-24-12	43	95.01	96.00	.990
16-20-0	189	89.66	88.00	1.019
5-10-10	10	45.83	45.00	1.019
12-12-12	20	74.69	72.00	1.037
13-13-13	15	83.39	78.00	1.069
6-12-6	133	51.38	48.00	1.070
10-20-0	41	76.42	70.00	1.092
10-20-5	20	82.87	75.00	1.105
5-10-5	102	44.76	40.00	1.119
8-8-8	55	54.69	48.00	1.139
10-10-10	7	71.66	60.00	1.194

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 in Progress Report 2072 and spring sales in Progress Report 2099. 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 on request to the Agricultural Information Office, College Station, Texas. To prevent needless waste, and to insure the best possible distribution of these publications, requestors are urged to limit their request to publications they have reason to believe will be useful immediately, and which they will have time to study.

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
AGRICULTURAL CHEMICAL OF DALLAS, DALLAS, TEXAS					
STA Green 10-10-5					
Guaranteed		10.00	10.00	5.00	55.00
1111		10.08	10.60	5.40	56.84
AMERICAN CYANAMID COMPANY, NEW YORK					
Aero Cyanamid Granular 21%					
Guaranteed		21.00	00.00	00.00	63.00
807		21.04	00.00	00.00	63.12
ARKMO FERTILIZER COMPANY, WALNUT RIDGE, ARKANSAS					
Arkmo Plant Food 11-48-0					
Guaranteed		11.00	48.00	00.00	129.00
1644		11.00	41.30	00.00	115.60
Arkmo General Fertilizer 13-39-0					
Guaranteed		13.00	39.00	00.00	117.00
1667		12.70	39.95	00.00	118.00
Arkmo General Fertilizer 15-30-0					
Guaranteed		15.00	30.00	00.00	105.00
1638		12.88	37.90	00.00	114.44
Arkmo General Fertilizer 15-30-15					
Guaranteed		15.00	30.00	15.00	120.00
1639		15.06	30.20	14.60	120.18
1640		15.04	24.86	15.20	110.04
Arkmo General Fertilizer 16-20-0					
Guaranteed		16.00	20.00	00.00	88.00
1637		16.02	21.20	00.00	90.46
1666		15.60	19.84	00.00	86.48
ARMOUR FERTILIZER WORKS, DALLAS, TEXAS					
Armour Old Black Joe Fertilizer 5-10-5					
Guaranteed		5.00	10.00	5.00	40.00
70		5.02	12.70	5.00	45.46
210		5.02	10.42	4.82	40.72
421		5.02	10.20	5.02	40.48
521		7.76	11.10	5.04	50.52
545		4.86	10.50	5.35	40.93
563		5.02	10.10	5.30	40.56
743		4.78	10.10	4.70	39.24
976		5.12	10.60	4.85	41.41
988		4.84	10.70	5.00	40.92
1053		5.06	11.00	5.10	42.28
1059		5.22	10.98	5.10	42.72
1074		5.32	11.10	5.10	43.26
1080		5.04	10.80	5.05	41.77
Armour Vertagreen Plant Food Commercial 5-10-5					
Guaranteed		5.00	10.00	5.00	40.00
208		5.32	11.00	5.00	42.96
Armour Old Black Joe Fertilizer 5-10-10					
Guaranteed		5.00	10.00	10.00	45.00
1064		5.04	10.72	10.00	46.56
Armour Pebble Plant Food 5-10-10					
Guaranteed		5.00	10.00	10.00	45.00
1216		6.24	12.66	8.20	52.24
1438		5.46	12.10	7.00	47.58
1723		5.36	12.12	9.80	50.12
Armour Old Black Joe Fertilizer 6-12-6					
Guaranteed		6.00	12.00	6.00	48.00
209		5.12	10.96	6.30	43.58
1233		5.88	12.10	5.85	47.69
1516		5.72	12.00	6.20	47.36
1533		6.24	12.00	5.80	48.52
1550		6.03	12.00	6.00	48.09

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
	1574	6.44	11.70	6.05	48.77
	1581	6.02	12.50	6.00	49.06
Armour Pebble Plant Food 8-8-8					
Guaranteed		8.00	8.00	8.00	48.00
1429		8.16	9.00	8.80	51.28
1515		7.62	8.70	8.00	48.26
Armour Vertagreen Plant Food 10-20-5					
Guaranteed		10.00	20.00	5.00	75.00
1572		10.36	20.80	5.00	77.68
Armour Old Black Joe Fertilizer 10-20-10					
Guaranteed		10.00	20.00	10.00	80.00
25		10.22	20.60	10.20	82.06
32		10.01	20.26	12.05	82.60
37		9.62	20.60	10.15	80.21
68		9.52	21.00	8.20	78.76
75		9.44	21.50	10.00	81.32
103		10.06	18.20	11.40	77.98
157		10.14	20.48	10.40	81.78
211		10.12	20.80	10.20	82.16
357		10.14	19.40	10.00	79.22
385		10.02	20.00	8.90	78.96
393		9.68	20.90	9.74	80.58
422		10.06	20.10	10.00	80.38
472		10.08	20.20	9.20	79.84
522		10.58	19.00	11.00	80.74
546		10.06	19.48	9.20	78.34
568		10.48	16.20	14.04	77.88
744		9.84	20.00	9.80	79.32
1034		9.64	20.90	10.20	80.92
1054		10.01	20.00	9.40	79.43
1075		10.22	19.30	11.00	80.26
1081		9.52	20.30	9.80	78.96
1106		8.24	18.40	7.60	69.12
1202		9.74	20.50	10.10	80.32
1206		9.30	23.28	8.40	82.86
1217		10.14	20.08	10.20	80.78
1223		10.10	20.00	10.40	80.70
1228		10.24	20.70	10.10	82.22
1447		10.14	18.80	11.20	79.22
1487		8.30	16.78	8.10	66.56
1495		10.04	20.00	10.60	80.72
1514		10.02	20.00	10.50	80.56
1534		8.46	16.96	9.00	68.30
1551		10.08	20.00	10.60	80.84
1582		9.18	21.30	9.60	79.74
1589		9.84	20.00	10.10	79.62
1684		10.00	20.94	9.80	81.68
Armour Pebble Plant Food 10-20-10					
Guaranteed		10.00	20.00	10.00	80.00
790		10.46	18.46	10.00	78.30
1698		9.16	20.48	10.10	78.54
Armour Vertagreen Plant Food 10-20-10					
Guaranteed		10.00	20.00	10.00	80.00
1120		9.58	20.40	9.40	78.94
1573		5.88	27.60	6.00	78.84
1600		9.80	20.00	10.20	79.60
Armour Pebble Plant Food 20% Superphosphate 0-20-0					
Guaranteed		00.00	20.00	00.00	40.00
36		00.00	21.20	00.00	42.40
387		00.00	20.10	00.00	40.20
473		00.00	20.00	00.00	40.00
Armour Pebble Plant Food 46% Superphosphate 0-46-0					
Guaranteed		00.00	46.00	00.00	92.00
440		00.00	46.00	00.00	92.00
1209		00.00	46.00	00.00	92.00

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Armour Pebble Plant Food 16-20-0					
Guaranteed	16.00	20.00	00.00	88.00	
356	14.76	20.50	00.00	85.28	
380	14.94	26.12	00.00	97.06	
386	16.46	20.00	00.00	89.38	
423	15.40	19.50	00.00	85.20	
1088	15.06	22.12	00.00	89.42	
1107	15.38	20.50	00.00	87.14	
1203	14.88	21.60	00.00	87.84	
1208	16.00	21.00	00.00	90.00	
1583	14.48	25.70	00.00	94.84	
1587	16.04	17.70	00.00	83.52	
1622	13.80	20.00	00.00	81.40	
1685	14.96	22.79	00.00	90.46	

ARMOUR FERTILIZER WORKS, HOUSTON, TEXAS

Armour Old Black Joe Fertilizer 5-10-5

Guaranteed	5.00	10.00	5.00	40.00	
121	5.02	11.10	4.02	41.28	
249	5.06	10.10	5.17	40.55	
252	4.66	10.00	5.15	39.13	
288	5.08	9.74	5.08	39.80	
295	5.02	10.20	5.12	40.58	
331	4.78	11.10	4.30	40.84	
523	4.75	10.36	4.70	39.67	
601	5.00	10.80	5.00	41.60	
702	5.12	10.70	4.70	41.46	
703	4.84	11.20	4.80	41.72	
716	4.34	10.00	4.00	37.02	

Armour Vertagreen Plant Food 5-10-5

Guaranteed	5.00	10.00	5.00	40.00	
639	5.28	10.06	4.82	40.78	
830	4.54	10.00	5.00	38.62	

Armour Old Black Joe Fertilizer 6-12-6

Guaranteed	6.00	12.00	6.00	48.00	
137	5.76	13.20	6.61	50.29	
600	6.40	12.80	6.05	48.95	
602	6.02	12.90	5.75	49.61	
603	5.78	12.20	6.05	47.79	
704	6.00	12.70	5.60	49.00	
721	6.10	12.80	5.40	49.30	
806	6.02	12.60	6.00	49.26	
831	6.14	12.50	6.00	49.42	
833	6.26	12.00	5.70	48.48	
839	6.08	12.40	5.70	48.74	
851	6.14	12.60	4.80	48.42	
895	6.02	12.00	6.05	48.11	
897	5.78	12.30	5.60	47.54	
1133	6.00	12.30	5.60	48.20	
1136	6.04	12.00	5.80	47.92	
1150	6.01	12.70	5.65	49.08	
1168	5.88	12.38	6.20	48.60	
1175	5.72	12.00	5.66	46.81	
1195	6.02	12.30	5.80	48.46	
1253	6.40	12.40	6.00	50.00	
1262	5.86	12.20	6.00	47.98	
1274	5.88	12.02	6.10	47.78	
1305-A	6.00	12.50	6.00	49.00	
1317	6.00	13.30	6.00	50.60	
1328	6.00	12.30	6.05	48.65	
1374	6.03	12.00	6.10	48.19	
1375	5.80	12.60	6.15	48.75	
1403	6.06	12.26	6.20	48.90	
1422	5.82	12.80	5.80	48.86	
1566	6.00	12.30	6.00	48.60	

Armour Pebble Plant Food 6-12-6

Guaranteed	6.00	12.00	6.00	48.00	
695	6.08	12.50	5.70	48.94	

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Armour Vertagreen Plant Food 6-12-6					
Guaranteed	6.00	12.00	6.00	48.00	
627	6.50	12.26	6.70	50.72	
648	6.40	12.80	6.08	50.88	
664	6.56	12.30	6.08	50.36	
821	6.10	12.00	6.02	48.32	

Armour Big Crop Fertilizer 8-8-8

Guaranteed	8.00	8.00	8.00	48.00	
893	7.00	8.50	7.20	45.20	
1408	7.44	9.26	8.00	48.84	

Armour Pebble Plant Food 8-8-8

Guaranteed	8.00	8.00	8.00	48.00	
841	8.03	8.86	8.00	49.81	
852	7.78	8.70	7.70	48.44	

Armour Old Black Joe Fertilizer 10-20-0

Guaranteed	10.00	20.00	00.00	70.00	
604	10.24	20.00	00.00	70.72	

Armour Pebble Plant Food 10-20-0

Guaranteed	10.00	20.00	00.00	70.00	
608	9.16	22.50	00.00	72.48	
717	10.00	20.10	00.00	70.20	
811	10.02	19.00	00.00	68.06	
1122	10.38	19.10	00.00	69.34	
1137	9.18	21.90	00.00	71.34	
1376	10.02	19.60	00.00	69.26	

Armour Old Black Joe Fertilizer 10-20-10

Guaranteed	10.00	20.00	10.00	80.00	
258	8.49	19.46	9.60	73.99	

Armour Pebble Plant Food 10-20-10

Guaranteed	10.00	20.00	10.00	80.00	
45	8.78	23.43	10.00	83.20	
56	10.46	20.00	10.29	81.67	
71	9.56	21.80	9.46	81.74	
122	11.20	20.02	10.80	84.44	
129	9.76	22.88	9.68	84.72	
136	10.46	22.20	10.02	85.80	
141	9.38	22.70	9.40	82.94	
257	9.62	19.38	10.38	78.00	
273	9.78	21.90	10.00	83.14	
296	9.44	21.00	10.00	80.32	
298	9.16	24.60	8.64	85.32	
312	10.00	21.30	10.00	82.60	
329	8.82	24.40	8.40	83.66	
579	9.48	21.80	9.50	81.54	
582	9.82	20.50	9.80	80.26	
586	9.28	22.20	9.50	81.74	
626	10.04	19.40	10.30	79.22	
805	10.28	18.60	10.20	78.04	
812	10.74	13.60	12.06	71.48	
832	11.10	15.20	11.00	74.70	
840	9.60	21.20	8.50	79.70	
915	10.06	21.70	9.40	82.98	
927	11.18	15.80	10.80	75.94	
1121	9.78	21.90	10.00	83.14	
1138	9.80	20.20	10.20	80.00	
1151	9.72	21.02	9.60	80.80	
1167	10.60	17.70	11.00	78.20	
1176	9.72	21.52	9.80	82.00	
1254	10.20	19.30	10.80	80.00	
1263	9.26	23.04	8.90	82.76	
1288	10.02	21.10	10.00	82.26	
1295	9.78	20.70	10.00	80.74	
1318	10.04	20.00	10.20	80.32	
1327	10.48	18.46	10.20	78.56	
1330	10.02	21.40	10.00	82.86	
1377	10.24	17.90	11.00	77.52	
1380	9.86	20.60	10.20	80.98	

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, 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 Pebble Plant Food	10-20-10										
	1404	10.44	17.04	11.00	76.40		705	15.02	21.00	00.00	87.06
	1406	10.02	19.60	11.00	79.96		813	16.36	16.50	00.00	82.08
	1567	10.06	21.30	10.00	82.78		1179	15.54	19.84	00.00	86.30
	1621	9.66	20.00	10.20	79.18		1264	15.32	22.32	00.00	90.60
	1645	9.42	21.78	9.80	81.62		1271	15.80	20.82	00.00	89.04
	1735	9.54	21.52	9.70	81.36		1296	15.04	22.50	00.00	90.12
Armour Vertagreen Plant Food	10-20-10						1331	16.30	15.50	00.00	79.90
Guaranteed	10.00	20.00		10.00	80.00		1544	15.00	19.60	00.00	84.20
	1180	9.48	22.00	10.00	82.44		1568	15.70	21.90	00.00	90.90
Armour Pebble Plant Food	10-20-20						1646	15.52	20.54	00.00	87.64
Guaranteed	10.00	20.00		20.00	90.00		1662	15.32	22.02	00.00	90.00
	1407	9.76	21.38	19.20	91.24	THE BEST FERTILIZER COMPANY, HOUSTON, TEXAS					
Armour Vertagreen Plant Food	12-12-6					Best Fertilizer 5-20-20					
Guaranteed	12.00	12.00		6.00	66.00	Guaranteed	5.00	20.00	20.00	20.00	75.00
	1197	12.60	12.20	6.00	68.20		1315	5.12	18.46	22.80	75.08
Armour Pebble Plant Food	12-12-12					Best Fertilizer 8-8-8					
Guaranteed	12.00	12.00		12.00	72.00	Guaranteed	8.00	8.00	8.00	48.00	
	1275	12.02	12.46	12.00	72.98		1248	9.30	7.70	8.20	51.50
	1289	11.84	12.20	13.40	73.32	Best Fertilizer 10-20-0					
Armour Pebble Plant Food	12-24-12					Guaranteed	10.00	20.00	00.00	70.00	
Guaranteed	12.00	24.00		12.00	96.00		1104	9.84	21.50	00.00	72.52
	699	10.84	23.20	12.00	90.92	Best Fertilizer 10-20-10					
	1196	12.08	21.80	14.00	93.84	Guaranteed	10.00	20.00	10.00	80.00	
	1378	12.02	25.60	12.00	99.26		792	10.34	19.54	22.30	92.40
Armour Pebble Plant Food	15-15-0						901	10.88	19.40	9.40	80.84
Guaranteed	15.00	15.00		00.00	66.00		1103	9.30	22.00	10.40	82.30
	1207	15.64	21.58	00.00	90.08		1285	9.52	21.70	10.20	82.16
Armour Pebble Plant Food	20% Superphosphate 0-20-0						1313	10.22	20.30	11.20	82.46
Guaranteed	00.00	20.00		00.00	40.00		1323	10.56	19.00	10.80	80.48
	128	00.00	20.16	00.00	40.32		1384	10.12	20.10	12.30	82.86
	135	00.00	20.66	00.00	41.32		1647	10.66	20.00	9.80	81.78
	272	00.00	20.32	00.00	40.64	Granulated Mix Fertilizer 10-20-10					
	332	00.00	21.10	00.00	42.20	Guaranteed	10.00	20.00	10.00	80.00	
	592	00.00	21.40	00.00	42.80		119	9.28	25.08	9.16	87.16
	656	00.00	20.90	00.00	41.80		255	7.16	25.46	9.40	81.80
Armour Pebble Plant Food	45% Superphosphate 0-45-0					Best Fertilizer 12-12-12					
Guaranteed	00.00	45.00		00.00	90.00	Guaranteed	12.00	12.00	12.00	72.00	
	46	00.00	45.00	00.00	90.00		1286	11.84	13.40	12.20	74.52
	74	00.00	45.00	00.00	90.00		1316	12.36	13.50	11.00	75.08
Armour Pebble Plant Food	46% Superphosphate 0-46-0					Best Fertilizer 13-13-13					
Guaranteed	00.00	46.00		00.00	92.00	Guaranteed	13.00	13.00	13.00	78.00	
	300	00.00	44.25	00.00	88.50		1287	12.66	13.40	14.80	79.58
	320	00.00	44.75	00.00	89.50	Granulated Triple Superphosphate 46% 0-46-0					
	379	00.00	46.50	00.00	93.00	Guaranteed	00.00	46.00	00.00	92.00	
	720	00.00	46.50	00.00	93.00		321	00.00	46.15	00.00	92.30
	1123	00.00	46.50	00.00	93.00		905	00.00	46.75	00.00	93.50
Armour Pebble Plant Food	13-39-0						1555	00.00	45.25	00.00	90.50
Guaranteed	13.00	39.00		00.00	117.00		1648	00.00	46.00	00.00	92.00
	612	12.72	38.30	00.00	114.76	Best Fertilizer 16-20-0					
Armour Pebble Plant Food	16-20-0					Guaranteed	16.00	20.00	00.00	88.00	
Guaranteed	16.00	20.00		00.00	88.00		1105	12.70	27.10	00.00	92.30
	297	15.64	23.60	00.00	94.12		1314	14.34	19.00	00.00	81.02
	299	15.24	23.52	00.00	92.76		1736	15.36	20.78	00.00	87.64
	319	15.44	23.10	00.00	92.52	Best Fertilizer Sulphate of Ammonia					
	330	14.82	22.30	00.00	89.06	Guaranteed	21.00	00.00	00.00	63.00	
	578	16.00	19.00	00.00	86.00		1187	21.04	00.00	00.00	63.12
	581	16.04	18.00	00.00	84.12	BRADLEY BAKER, ATLANTA, GEORGIA					
	611	16.00	18.60	00.00	85.20	Calcium Nitrate Fertilizer 15.5-0-0					
	629	16.30	17.80	00.00	84.50	Guaranteed	15.50	00.00	00.00	46.50	
	641	15.58	21.00	00.00	88.74		638	15.56	00.00	00.00	46.68
	677	15.60	19.50	00.00	85.80	Nitrophosphate 20-20-0					
						Guaranteed	20.00	20.00	00.00	100.00	
							649	19.82	21.90	00.00	103.26

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Dutch Urea 46% Nitrogen					
Guaranteed		46.00	00.00	00.00	138.00
634		45.36	00.00	00.00	136.08
CAMPBELL FERTILIZER CO., INC., HOUSTON, TEXAS					
Campbell Organic Base Fertilizer 6-12-6					
Guaranteed		6.00	12.00	6.00	48.00
1128		6.22	12.04	6.20	48.94
1276		6.68	10.22	5.45	45.93
Golthwaites Turf Special Organic Fertilizer 10-5-5					
Guaranteed		10.00	5.00	5.00	45.00
1612		9.48	6.50	5.05	46.49
Campbell Organic Base Fertilizer 10-10-5					
Guaranteed		10.00	10.00	5.00	55.00
1389		10.08	10.30	5.10	55.94
Campbell Granulated Fertilizer 10-20-10					
Guaranteed		10.00	20.00	10.00	80.00
1129		10.56	20.12	9.20	81.12
CAPROCK FERTILIZER COMPANY, LITTLEFIELD, TEXAS					
Caprock Fertilizer 8-24-8					
Guaranteed		8.00	24.00	8.00	80.00
1611		10.32	18.24	8.60	76.04
Caprock Fertilizer 10-20-10					
Guaranteed		10.00	20.00	10.00	80.00
1586		8.10	20.70	10.20	75.90
1595		11.51	20.30	5.80	80.93
1597		9.84	18.40	10.80	77.12
Caprock Fertilizer 0-20-0					
Guaranteed		00.00	20.00	00.00	40.00
424		00.00	21.60	00.00	43.20
1630		00.00	20.00	00.00	40.00
Caprock Fertilizer 16-20-0					
Guaranteed		16.00	20.00	00.00	88.00
1302		15.44	19.00	00.00	84.32
1598		14.50	20.00	00.00	83.50
1599		15.92	18.90	00.00	85.56
1631		15.16	19.50	00.00	84.48
1636		14.42	20.00	00.00	83.26
CENTRAL TEXAS FERTILIZER COMPANY, COMANCHE, TEXAS					
Topper Brand Fertilizer 5-10-5					
Guaranteed		5.00	10.00	5.00	40.00
397		7.82	12.60	5.39	54.05
401		7.37	16.52	5.35	60.50
405		6.46	14.70	5.15	53.93
1060		6.30	12.86	5.60	50.22
Topper Brand Fertilizer 6-12-6					
Guaranteed		6.00	12.00	6.00	48.00
1169		6.94	15.26	9.60	60.94
Topper Brand Fertilizer 7-14-7					
Guaranteed		7.00	14.00	7.00	56.00
1065		10.76	19.56	10.00	81.40
Topper Brand Fertilizer 10-20-10					
Guaranteed		10.00	20.00	10.00	80.00
1063		10.70	19.22	11.20	81.74
1066		10.30	19.80	10.10	80.60
1653		11.48	19.86	8.20	82.36
1657		10.28	19.46	9.80	79.56
1665		10.22	20.00	6.80	77.46
Topper 0-20-0					
Guaranteed		00.00	20.00	00.00	40.00
352		00.00	19.20	00.00	38.40
402		00.00	20.00	00.00	40.00
1656		00.00	20.98	00.00	41.96
1672		00.00	20.00	00.00	40.00

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Topper Brand Fertilizer 16-20-0					
Guaranteed		16.00	20.00	00.00	88.00
398		14.50	20.00	00.00	83.50
406		8.56	21.60	00.00	68.88
1170		16.03	18.20	00.00	84.49
1654		15.52	20.80	00.00	88.16
1658		16.52	19.30	00.00	88.16
COASTAL CHEMICAL CORP., YAZOO CITY, MISSISSIPPI					
Coastal Brand Fertilizer 12-24-12					
Guaranteed		12.00	24.00	12.00	96.00
906		12.42	24.60	12.20	98.66
909		12.52	25.40	12.00	100.36
911		12.44	25.10	11.60	99.12
1390		12.34	25.10	12.40	99.62
1391		12.34	25.40	12.30	100.12
1394		12.08	25.00	12.30	98.54
Coastal Brand Fertilizer 16-20-0					
Guaranteed		16.00	20.00	00.00	88.00
907		16.42	21.40	00.00	92.06
908		16.10	21.00	00.00	90.30
910		16.24	21.40	00.00	91.52
1392		16.00	21.50	00.00	91.00
1393		16.04	21.40	00.00	90.92
COMMERCIAL SOLVENTS CORP., NEW YORK 16, NEW YORK					
HiD Ammonium Nitrate Fertilizer 33.5-0-0					
Guaranteed		33.50	00.00	00.00	100.50
3		33.50	00.00	00.00	100.50
459		32.92	00.00	00.00	98.76
643		33.78	00.00	00.00	101.34
CONSUMERS FERTILIZER COMPANY, INC., HENDERSON, TEXAS					
Consumers Perma Gro Fertilizer 5-20-20					
Guaranteed		5.00	20.00	20.00	75.00
1355		6.94	15.90	19.60	72.22
Consumers Perma Gro Fertilizer 6-12-6					
Guaranteed		6.00	12.00	6.00	48.00
1523		6.56	12.30	6.50	50.78
1711		7.00	14.18	9.00	58.36
Consumers Hi-Quality Fertilizer 6-12-6					
Guaranteed		6.00	12.00	6.00	48.00
1356		7.38	12.90	6.10	54.04
Consumers Brand Perma Gro Fertilizer 8-8-8					
Guaranteed		8.00	8.00	8.00	48.00
1459		8.68	9.70	8.20	53.64
Consumers Brand Perma Gro Fertilizer 10-5-5					
Guaranteed		10.00	5.00	5.00	35.00
1457		10.16	7.80	4.80	50.88
Consumers Brand Perma Gro Fertilizer 10-20-10					
Guaranteed		10.00	20.00	10.00	80.00
1231		10.04	20.70	10.40	81.92
1357		10.02	19.10	10.10	78.36
1425		9.36	17.20	10.00	72.48
1458		9.00	19.80	10.10	76.70
1524		8.76	18.40	10.00	73.08
1525		8.52	19.00	10.00	73.56
1703		8.26	20.18	7.10	72.24
Consumers Brand Hi-Quality Fertilizer 10-20-10					
Guaranteed		10.00	20.00	10.00	80.00
1219		11.10	20.40	8.80	84.90
1474		9.46	20.48	10.50	79.84
1479		10.72	22.50	5.00	82.16

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, 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, \$
DENNISON'S, WESLACO, TEXAS						Goldenrod Gran-U-Pels 8-8-8					
Dennison's Fertilizer Sulphate Ammonium						Guaranteed		8.00	8.00	8.00	48.00
Guaranteed		21.00	00.00	00.00	63.00	872		7.52	9.70	10.00	51.96
	686	21.00	00.00	00.00	63.00	1235		8.00	9.00	8.00	50.00
						1242		8.03	9.54	7.70	50.87
DIXIE FERTILIZER COMPANY, SHREVEPORT, LA.						Goldenrod Gran-U-Pels 10-20-10					
Dixie Granular 5-10-5 Fertilizer						Guaranteed		10.00	20.00	10.00	80.00
Guaranteed		5.00	10.00	5.00	40.00	33		9.52	22.20	10.32	83.28
	105	6.38	14.02	5.60	52.78	59		11.28	20.00	12.10	85.94
	509	5.10	10.10	5.50	41.00	102		9.38	22.62	10.00	83.38
	1345	5.52	11.00	6.30	44.86	113		9.50	20.06	10.00	78.62
	1434	5.90	10.54	9.70	48.48	186		10.08	20.20	11.20	81.84
Dixie Granular 6-12-6 Fertilizer						204		10.06	21.90	10.02	84.00
Guaranteed		6.00	12.00	6.00	48.00	364		9.10	20.80	10.16	79.06
	193	7.34	13.10	7.30	55.52	368		10.00	20.00	10.14	80.14
	533	7.16	12.70	6.00	52.88	373		9.64	20.00	10.04	78.96
	869	6.48	12.00	6.55	49.99	505		9.56	10.70	10.01	80.09
	1358	6.16	12.00	8.70	51.18	508		9.64	20.80	10.00	80.52
	1435	7.86	12.40	6.95	55.33	511		9.60	20.90	9.20	79.80
Dixie 8-8-8 Fertilizer						515		9.32	20.70	10.02	79.38
Guaranteed		8.00	8.00	8.00	48.00	741		9.40	21.30	9.40	80.20
	192	8.84	8.80	8.08	52.20	745		9.40	21.42	8.80	79.84
	870	7.52	8.90	9.60	49.96	858		9.28	21.40	10.00	80.64
	1359	8.70	8.90	8.40	52.30	879		9.50	20.50	10.50	80.00
	1504	7.80	8.70	7.00	47.80	924		8.86	21.70	8.70	78.68
Dixie Granular 10-20-10 Fertilizer						1102		9.08	22.40	9.40	81.44
Guaranteed		10.00	20.00	10.00	80.00	1116		9.64	21.30	9.80	81.32
	104	9.10	23.30	8.50	82.40	1236		9.56	21.60	9.80	81.68
	179	8.36	20.00	13.20	78.28	1238		9.26	21.04	10.40	80.26
	194	9.18	21.66	10.30	81.16	1243		9.50	21.28	9.80	80.86
	477	9.32	20.00	12.00	79.96	1469		9.82	21.66	10.00	82.78
	534	10.06	20.50	11.30	82.48	1489		9.80	20.60	10.00	80.60
	871	8.60	20.40	10.80	77.40	Goldenrod Plant Food 10-20-10					
	1346	8.76	21.00	10.20	78.48	Guaranteed		10.00	20.00	10.00	80.00
	1360	8.64	20.40	11.00	77.72	849		9.30	20.60	10.00	79.10
	1418	9.22	20.60	11.60	80.46	1232		9.16	22.20	10.10	81.98
	1505	8.48	20.50	9.80	76.24	1326		8.42	14.60	9.70	64.16
Dixie Fertilizer 12-12-12						1370		8.68	21.70	11.80	81.24
Guaranteed		12.00	12.00	12.00	72.00	1696		9.76	21.82	9.80	82.72
	1436	11.58	13.10	12.20	73.14	1721		9.94	20.24	10.20	80.50
EAST TEXAS PRODUCTS COMPANY, TYLER, TEXAS						Goldenrod Gran-U-Pels 12-12-12					
Goldenrod Gran-U-Pels 5-10-5						Guaranteed		12.00	12.00	12.00	72.00
Guaranteed		5.00	10.00	5.00	40.00	1241		11.00	13.10	11.70	70.90
	363	5.10	10.36	5.00	41.02	FARMERS FERTILIZER COMPANY, TEXARKANA, TEXAS					
	507	5.06	10.50	5.30	41.48	Mule Brand 5-10-5 Fertilizer					
	535	5.96	13.20	5.01	49.29	Guaranteed		5.00	10.00	5.00	40.00
	788	5.24	10.80	5.50	42.82	166		5.14	10.00	5.10	40.52
	878	4.78	11.54	5.03	42.45	170		4.75	10.00	5.35	39.60
	882	4.86	11.60	5.25	43.03	235		4.20	9.74	5.69	37.77
	923	5.03	11.10	2.20	39.49	468		5.44	17.60	1.24	52.76
Goldenrod Plant Food 5-10-5						487		6.46	11.50	6.90	49.28
Guaranteed		5.00	10.00	5.00	40.00	495		6.42	10.00	5.40	44.66
	1234	5.48	10.90	5.05	43.29	757		7.80	10.60	5.05	49.65
Goldenrod Gran-U-Pels 6-12-6						781		7.82	10.10	5.15	48.81
Guaranteed		6.00	12.00	6.00	48.00	990		6.04	10.30	5.40	44.12
	238	5.84	12.68	6.80	49.68	995		6.96	12.10	6.50	51.58
	1488	6.02	13.00	6.00	50.06	Fafco Fertilizer 6-12-6					
Goldenrod Plant Food 6-12-6						Guaranteed		6.00	12.00	6.00	48.00
Guaranteed		6.00	12.00	6.00	48.00	974		6.16	12.40	6.20	49.48
	1224	5.66	13.90	6.40	51.18	Fafco Plant Food 6-12-6					
	1715	5.51	12.92	6.10	48.47	Guaranteed		6.00	12.00	6.00	48.00
						1426		7.40	12.00	6.20	52.20
						1483		7.88	11.66	6.05	53.01

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Mule Brand 6-12-6					
Guaranteed		6.00	12.00	6.00	48.00
153		6.26	13.30	6.60	51.92
491		6.94	12.00	6.28	51.07
1506		7.50	11.50	6.30	51.80
Mule Brand Fertilizer 8-8-8					
Guaranteed		8.00	8.00	8.00	48.00
782		8.38	10.50	8.40	54.54
973		8.50	9.10	8.02	51.72
991		8.76	9.76	7.70	53.50
1481		8.06	8.20	8.00	48.58
1497		8.10	8.90	8.20	50.30
Mule Brand 10-20-0					
Guaranteed		10.00	20.00	00.00	70.00
13		9.64	20.40	00.00	69.72
758		10.68	19.60	00.00	71.24
772		9.38	17.70	00.00	63.54
Falco Fertilizer 10-20-10					
Guaranteed		10.00	20.00	10.00	80.00
1220		10.52	21.30	11.20	85.36
Falco Plant Food 10-20-10					
Guaranteed		10.00	20.00	10.00	80.00
553		9.24	18.40	10.32	74.84
1482		10.14	19.00	10.10	78.52
Mule Brand 10-20-10					
Guaranteed		10.00	20.00	10.00	80.00
14		8.94	21.20	10.10	79.32
29		9.56	19.52	12.00	79.72
154		10.10	19.54	10.20	79.58
171		9.28	21.50	11.04	81.88
217		10.18	19.06	10.60	79.26
225		10.01	19.30	9.20	77.83
228		10.09	19.10	10.56	79.03
234		9.74	18.10	9.60	75.02
549		10.14	18.90	10.60	78.82
759		10.26	19.80	10.00	80.38
763		9.04	18.60	10.50	74.82
771		11.54	18.60	10.06	78.88
783		10.24	20.48	10.50	82.30
961		10.66	19.40	10.00	80.78
996		10.92	19.62	10.10	82.10
1012		10.68	20.00	10.30	82.34
1427		10.52	20.60	10.90	83.66
1480		10.50	20.20	10.00	81.90
1484		10.38	20.20	10.10	81.64
1496		10.48	19.12	10.20	79.88
1503		10.20	20.00	10.50	81.10
1507		10.18	19.60	10.10	79.84
1509		10.66	19.10	10.20	80.38
1720		9.56	20.48	11.20	80.84
Mule Brand 12-12-12					
Guaranteed		12.00	12.00	12.00	72.00
764		12.20	12.00	12.00	72.60
Mule Brand 20% Superphosphate 0-20-0					
Guaranteed		00.00	20.00	00.00	40.00
12		00.00	19.38	00.00	38.76
1508		00.00	20.90	00.00	41.80
Mule Brand 16-20-0 Fertilizer					
Guaranteed		16.00	20.00	00.00	88.00
765		15.22	20.00	00.00	85.66
FEHMEI DUSTING SERVICE, BAY CITY, TEXAS					
Fehmei Muriate of Potash 60% 0-0-60					
Guaranteed		00.00	00.00	60.00	60.00
1303		00.00	00.00	60.80	60.80

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
GILMER COTTON OIL & FERTILIZER CO., GILMER, TEXAS					
Lion Brand 5-10-5 Fertilizer					
Guaranteed		5.00	10.00	5.00	40.00
556		5.72	10.30	5.45	43.21
Gilmer Fertilizer 5-10-10					
Guaranteed		5.00	10.00	10.00	45.00
1706		5.72	11.20	10.50	50.06
Gilmer 6-12-6 Fertilizer					
Guaranteed		6.00	12.00	6.00	48.00
933		7.64	12.00	6.20	53.12
1001		7.56	11.42	6.45	51.97
1342		5.48	12.10	5.25	45.69
Lion Brand 8-8-8 Fertilizer					
Guaranteed		8.00	8.00	8.00	48.00
557		8.28	8.06	7.84	48.80
932		9.52	8.80	8.04	54.20
Gilmer 10-20-10 Fertilizer					
Guaranteed		10.00	20.00	10.00	80.00
773		10.22	20.06	10.00	80.78
1343		8.70	18.10	10.80	72.40
1491		10.46	20.02	10.30	81.72
1707		8.26	19.86	9.80	74.30
Texas Longhorn Fertilizer 10-20-10					
Guaranteed		10.00	20.00	10.00	80.00
500		10.06	20.00	11.00	81.18
GULF LIQUID FERTILIZER, EL CAMPO, TEXAS					
Red Barn Liquid Fertilizer 6-16-8					
Guaranteed		6.00	16.00	8.00	58.00
1308		6.16	16.37	8.90	60.12
Red Barn Fertilizer 8-24-0					
Guaranteed		8.00	24.00	00.00	72.00
1307		8.06	24.92	00.00	74.02
HARVEST FERTILIZER & CHEMICAL COMPANY, ROCKWALL, TEXAS					
Golden Harvest Brand 0-20-0					
Guaranteed		00.00	20.00	00.00	40.00
425		00.00	20.00	00.00	40.00
Golden Harvest Brand 10-20-0					
Guaranteed		10.00	20.00	00.00	70.00
426		11.78	20.00	00.00	75.34
Golden Harvest Fertilizer 10-20-10					
Guaranteed		10.00	20.00	10.00	80.00
1215		9.66	18.78	10.10	76.64
HAYES-SAMMONS CHEMICAL COMPANY, MISSION, TEXAS					
Mission Brand Fertilizer 6-10-4					
Guaranteed		6.00	10.00	4.00	42.00
635		6.58	13.37	2.94	49.42
1182		6.52	11.74	4.25	47.29
Mission Brand Fertilizer 8-20-0					
Guaranteed		8.00	20.00	00.00	64.00
636		9.95	17.35	00.00	64.55
683		8.40	21.36	00.00	67.92
684		7.82	20.89	00.00	65.24
691		7.64	19.78	00.00	62.48
1184		9.26	20.24	00.00	68.26
Mission Brand Fertilizer 14-10-4					
Guaranteed		14.00	10.00	4.00	66.00
637		13.44	11.39	4.14	67.24
690		13.54	11.57	4.13	67.77
1183		12.12	11.70	4.31	64.07

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, 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, \$
Mission Brand Fertilizer Solutions 32-0-0						Hi-Yield Minor L Brand 10-20-5					
Guaranteed	32.00	00.00	00.00	00.00	96.00	Guaranteed	10.00	20.00	5.00	75.00	
682	31.12	00.00	00.00	00.00	93.36	1021	9.54	20.10	4.02	72.84	
689	31.62	00.00	00.00	00.00	94.86	1069	10.46	19.36	3.90	74.00	
1181	32.04	00.00	00.00	00.00	96.12	1115	8.46	19.10	6.50	70.00	
HI-YIELD FERTILIZER CO., BONHAM, TEXAS						Hi-Yield Brand 10-20-10					
Hi-Yield Brand 5-10-5						Guaranteed	10.00	20.00	10.00	80.00	
Guaranteed	5.00	10.00	5.00	40.00		2	10.14	19.60	10.05	79.67	
84	5.26	10.46	5.70	42.40		21	9.54	20.02	10.00	78.66	
87	5.14	10.80	5.00	42.02		31	9.70	20.30	10.75	80.45	
118	4.54	11.90	5.14	42.56		43	10.08	20.50	11.05	82.29	
226	5.31	10.68	5.50	42.79		64	10.00	20.46	12.40	83.32	
784	7.08	14.80	4.60	55.44		72	9.60	20.50	10.40	80.20	
795	5.40	11.66	5.00	44.52		76	10.54	20.70	10.00	83.02	
803	8.50	16.00	9.60	67.10		85	10.01	19.28	10.40	78.99	
863	6.10	11.30	5.15	46.05		88	9.68	20.50	10.16	80.20	
946	5.68	11.40	5.15	44.99		127	9.50	20.36	11.00	80.22	
980	5.50	11.40	5.00	44.30		159	10.04	19.46	11.60	80.64	
983	5.74	11.00	5.40	44.62		169	10.28	20.16	10.04	81.20	
1007	5.58	11.10	6.45	45.39		212	9.79	20.32	10.80	80.81	
1009	6.04	10.80	5.10	44.82		227	10.08	19.68	10.00	79.60	
1067	6.30	11.68	4.80	47.06		235	10.08	19.42	9.82	78.90	
Fertilome Brand Plant Food 6-10-4						237	9.40	19.70	11.00	78.60	
Guaranteed	6.00	10.00	4.00	42.00		256	9.54	20.06	11.40	80.14	
835	6.04	10.50	4.20	43.32		260	9.34	20.02	10.00	78.06	
836	6.06	10.20	4.30	42.88		310	9.40	20.00	10.24	78.44	
1088	6.26	11.16	5.00	46.10		369	9.60	20.60	11.04	81.04	
1237	6.24	10.00	4.00	42.72		392	9.70	19.30	11.22	78.92	
1450	5.80	10.30	4.50	42.50		446	9.74	20.46	10.00	80.14	
Hi-Yield Brand 6-12-6						449	9.66	20.10	10.38	79.56	
Guaranteed	6.00	12.00	6.00	48.00		452	9.58	20.00	11.00	79.74	
954	6.90	13.00	6.10	52.80		456	9.40	20.46	12.02	81.14	
958	7.04	13.10	6.03	53.35		458	9.12	20.00	11.20	78.56	
1089	7.18	13.84	5.40	54.62		461	9.40	20.36	11.20	80.12	
1098	6.42	12.50	7.00	51.26		465	9.20	20.00	9.30	76.90	
1444	7.10	12.44	6.00	52.18		506	9.26	20.60	10.92	79.90	
1517	6.64	12.40	6.40	51.12		571	9.74	19.90	10.30	79.32	
1537	7.98	12.00	6.30	54.24		751	9.40	20.80	8.90	78.70	
1547	6.66	12.70	6.60	51.98		760	11.08	19.60	7.80	80.24	
1553	6.80	12.40	7.00	52.20		785	10.06	20.20	10.10	80.68	
1603	7.21	13.80	6.70	55.93		786	9.26	19.16	10.90	77.00	
Hi-Yield Plant Food 8-8-8						804	9.86	19.30	10.50	78.68	
Guaranteed	8.00	8.00	8.00	48.00		930	10.08	20.10	10.80	81.24	
937	5.72	8.50	7.40	41.56		938	9.82	20.06	9.00	78.58	
955	7.22	10.20	8.05	50.12		959	10.00	18.80	10.00	77.60	
1518	7.20	9.90	8.40	49.80		971	9.32	20.00	10.00	77.96	
1725	7.20	10.00	7.80	49.40		982	9.44	20.50	10.20	79.52	
Hi-Yield Brand 10-20-0						984	8.96	19.00	9.70	74.58	
Guaranteed	10.00	20.00	00.00	70.00		1000	9.66	19.06	10.00	77.10	
1	11.10	19.54	00.00	72.38		1008	10.00	20.00	10.10	80.10	
7	9.26	21.87	00.00	71.52		1020	9.28	19.30	10.20	76.64	
433	11.04	20.04	00.00	73.20		1027	9.38	19.10	9.00	75.34	
444	9.48	20.10	00.00	68.64		1068	10.34	20.62	10.30	82.56	
464	9.68	20.00	00.00	69.04		1099	9.46	19.50	10.20	77.58	
999	9.70	19.14	00.00	67.38		1108	9.78	19.40	10.40	78.54	
1015	9.82	20.00	00.00	69.46		1114	9.58	20.50	10.00	79.74	
1022	9.44	19.20	00.00	66.72		1124	10.00	19.00	10.00	78.00	
1026	9.72	18.70	00.00	66.56		1218	10.00	19.42	8.80	77.64	
1030	10.00	20.00	00.00	70.00		1221	9.66	20.80	10.80	81.38	
1519	10.76	20.00	00.00	72.28		1229	10.08	19.46	11.80	80.96	
1535	9.62	19.60	00.00	68.06		1249	9.62	19.50	11.10	78.96	
1548	10.12	18.90	00.00	68.16		1340	10.06	20.00	11.00	81.18	
Hi-Yield Fertilizer 10-20-5						1341	9.84	20.50	10.40	80.92	
Guaranteed	10.00	20.00	5.00	75.00		1347	10.26	19.80	12.20	82.58	
767	10.03	20.24	3.90	74.47		1431	10.38	20.10	11.10	82.44	
796	9.60	19.00	4.60	71.40		1442	9.70	20.40	10.40	80.30	
						1451	10.04	20.78	9.60	81.28	
						1473	10.44	19.82	10.80	81.76	
						1520	10.00	20.00	11.00	81.00	

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Hi-Yield Brand 10-20-10					
	1526	10.01	20.00	11.60	81.63
	1536	10.58	20.90	10.60	84.14
	1538	10.06	19.80	10.30	80.08
	1540	9.56	20.30	10.40	79.68
	1549	9.58	20.70	10.30	80.44
	1604	9.44	19.10	10.20	76.72
	1695	9.00	19.80	10.00	76.60
	1719	8.96	20.00	11.50	78.38
	1722	8.62	22.92	10.00	81.70
	1726	8.62	19.90	10.00	75.66
Hi-Yield Plant Food 12-12-12					
Guaranteed	12.00	12.00	12.00	12.00	72.00
1443	11.36	12.30	15.00	15.00	73.68
Hi-Yield Brand 13-39-0					
Guaranteed	13.00	39.00	00.00	00.00	117.00
447	13.00	39.00	00.00	00.00	117.00
1671	11.78	39.00	00.00	00.00	113.34
Hi-Yield Brand 16-20-0					
Guaranteed	16.00	20.00	00.00	00.00	88.00
77	15.60	21.00	00.00	00.00	88.80
311	12.88	18.26	00.00	00.00	75.16
445	15.18	20.00	00.00	00.00	85.54
450	13.90	20.00	00.00	00.00	81.70
761	15.22	19.10	00.00	00.00	83.86
1023	13.92	20.80	00.00	00.00	83.30
1031	13.78	20.40	00.00	00.00	82.14
1090	14.56	20.12	00.00	00.00	83.92
1125	15.30	19.80	00.00	00.00	85.50
1545	14.64	18.70	00.00	00.00	81.32
1652	14.62	20.74	00.00	00.00	85.34
1683	14.00	20.44	00.00	00.00	82.88
Creel Brand Fish Pond Fertilizer 20-20-5					
Guaranteed	20.00	20.00	5.00	5.00	105.00
975	19.18	18.50	5.15	5.15	99.69
Hi-Yield Brand 0-20-0					
Guaranteed	00.00	20.00	00.00	00.00	40.00
6	00.00	21.44	00.00	00.00	42.88
457	00.00	20.80	00.00	00.00	41.60
460	00.00	20.60	00.00	00.00	41.20
750	00.00	20.20	00.00	00.00	40.40
1014	00.00	20.70	00.00	00.00	41.40
1028	00.00	21.20	00.00	00.00	42.40
Hi-Yield Brand 0-46-0					
Guaranteed	00.00	46.00	00.00	00.00	92.00
78	00.00	46.85	00.00	00.00	93.70
451	00.00	45.00	00.00	00.00	90.00
570	00.00	46.75	00.00	00.00	93.50
HI-YIELD FERTILIZER COMPANY, MT. PLEASANT, TEXAS					
Hi-Yield Brand 5-10-5					
Guaranteed	5.00	10.00	5.00	5.00	40.00
91	5.01	10.00	4.00	4.00	39.03
167	5.08	10.00	4.50	39.74	
250	5.64	11.70	5.35	45.67	
486	5.04	10.10	4.45	39.77	
492	5.46	10.00	5.00	41.38	
861	5.54	10.50	4.85	42.47	
931	5.36	10.80	5.00	42.68	
Hi-Yield Brand 5-10-5 Turf Builder					
Guaranteed	5.00	10.00	5.00	5.00	40.00
22	5.30	10.62	5.08	42.22	
Fertilome Brand Lawn & Garden Fertilizer 6-10-4					
Guaranteed	6.00	10.00	4.00	4.00	42.00
213	5.76	9.30	4.02	39.90	
434	5.86	10.10	4.10	41.80	
864	5.62	10.20	4.15	41.41	

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Hi-Yield Brand 10-20-10					
Guaranteed	10.00	20.00	10.00	10.00	80.00
26	8.54	20.00	10.00	10.00	75.62
92	10.20	21.58	9.20	82.96	
251	8.92	19.20	8.20	73.36	
493	9.56	20.60	8.30	78.18	
INTERNATIONAL MINERALS & CHEMICAL CORP., FORT WORTH, TEXAS					
International 0-16-8 Phosphate & Potash					
Guaranteed	00.00	16.00	8.00	40.00	
263	00.00	16.00	8.02	40.02	
International 0-16-8 Rainbow Fertilizer					
Guaranteed	00.00	16.00	8.00	40.00	
1590	00.00	17.00	8.00	42.00	
1591	00.00	17.00	8.00	42.00	
International Fertilizer 5-10-5					
Guaranteed	5.00	10.00	5.00	40.00	
326	5.56	11.90	6.40	46.88	
355	4.36	10.10	4.08	37.36	
415	5.34	10.96	5.02	42.96	
1050	5.48	10.80	5.30	37.86	
1055	4.74	10.70	5.50	41.12	
1058	7.42	13.20	5.60	54.26	
International Fertilizer 5-10-10					
Guaranteed	5.00	10.00	10.00	45.00	
1708	5.04	10.10	11.30	46.62	
International Fertilizer 6-12-6					
Guaranteed	6.00	12.00	6.00	48.00	
713	5.34	12.00	5.70	45.72	
1043	6.80	14.70	7.14	56.94	
1110	6.32	13.40	6.50	52.26	
1146	6.26	12.62	5.20	48.62	
1154	6.72	13.50	5.65	52.81	
1159	6.66	13.20	6.10	52.48	
1173	6.04	12.82	6.20	49.96	
1178	6.34	12.80	6.80	51.42	
1258	6.40	12.50	6.10	50.30	
1268	7.16	10.74	7.25	50.21	
1552	7.22	15.60	7.10	59.96	
1575	6.28	12.30	5.85	49.29	
1710	6.01	13.10	6.00	50.23	
International Rainbow 7-14-7					
Guaranteed	7.00	14.00	7.00	56.00	
343	7.72	13.20	7.46	57.02	
687	7.10	14.00	7.00	56.30	
706	7.60	14.60	6.20	58.20	
799	7.44	14.60	6.60	58.12	
1057	7.04	14.80	7.60	58.32	
1062	6.78	14.94	7.40	57.62	
1144	7.04	15.24	7.40	59.00	
1157	7.30	14.20	8.20	66.70	
1166	7.60	14.80	7.00	59.40	
1172	7.00	13.88	7.20	55.96	
1199	8.10	13.70	7.00	58.70	
1325	7.00	14.60	5.80	56.00	
1576	7.18	14.40	7.80	58.14	
1702	6.80	14.40	7.20	56.40	
Rainbow Plant Food 10-10-10					
Guaranteed	10.00	10.00	10.00	60.00	
798	9.40	10.90	10.50	60.50	
1191	10.16	10.00	9.40	59.88	
1273	9.34	11.42	12.20	62.06	
1401	8.84	11.90	10.30	60.62	
1609	9.60	11.30	10.30	61.70	

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
International 10-20-0 Ammoniated Phosphate					
Guaranteed	10.00	20.00	00.00	70.00	
11	10.08	19.13	00.00	68.50	
417	8.68	22.30	00.00	70.64	
International Fertilizer 10-20-0					
Guaranteed	10.00	20.00	00.00	70.00	
383	10.20	20.60	00.00	71.80	
715	9.44	18.60	00.00	65.52	
724	10.38	20.70	00.00	72.54	
1025	9.08	19.30	00.00	65.84	
1032	9.92	19.40	00.00	68.56	
1078	9.86	20.20	00.00	69.98	
1155	9.52	20.06	00.00	68.62	
1557	10.36	20.60	00.00	72.28	
1606	9.58	19.80	00.00	68.34	
International 10-20-5 Rainbow Fertilizer					
Guaranteed	10.00	20.00	5.00	75.00	
328	10.00	22.20	9.50	84.50	
618	9.58	21.10	5.40	76.34	
688	10.12	21.00	5.15	77.51	
1049	11.18	18.40	5.80	76.14	
1084	9.26	22.00	6.30	78.08	
1132	10.00	20.60	5.20	76.40	
1145	10.00	21.00	5.05	77.05	
1156	10.08	21.00	5.05	77.29	
1158	10.12	20.00	5.20	75.56	
1177	10.22	21.14	5.50	78.44	
1299	9.80	19.80	6.90	75.90	
1563	11.66	17.24	5.90	75.36	
1605	9.50	22.20	5.00	77.90	
1673	10.48	20.00	5.40	76.84	
1688	9.86	20.74	4.20	75.26	
International 10-20-10 Fertilizer					
Guaranteed	10.00	20.00	10.00	80.00	
35	9.66	22.76	10.00	84.50	
41	10.00	20.64	9.46	80.69	
53	8.72	20.60	9.41	76.77	
69	9.78	20.86	8.80	79.86	
83	9.78	20.36	9.04	79.10	
133	10.16	21.58	10.80	84.44	
313	10.22	20.44	10.42	81.96	
327	10.02	21.00	12.00	84.06	
351	8.84	20.00	10.14	76.66	
354	10.14	20.40	10.02	81.24	
378	8.50	19.70	9.50	74.40	
399	8.86	22.76	10.00	82.10	
416	9.40	20.60	8.04	77.44	
518	10.56	20.10	10.60	82.48	
524	10.00	20.50	9.60	80.60	
569	10.16	20.00	10.20	80.68	
585	10.32	20.00	8.00	78.96	
708	9.66	20.00	10.00	78.98	
714	10.20	20.00	9.10	79.70	
725	9.26	20.40	8.30	76.88	
732	10.20	20.60	10.60	82.40	
789	10.06	20.22	10.00	80.62	
800	10.38	21.00	10.50	83.64	
808	10.08	20.30	10.06	80.90	
834	10.24	20.00	11.20	81.92	
1024	9.76	19.80	9.30	78.18	
1033	10.06	20.50	10.00	81.18	
1044	10.08	20.46	9.40	80.56	
1052	9.56	20.00	9.00	77.68	
1085	10.00	20.04	10.40	80.48	
1230	9.86	20.30	10.60	80.78	
1252	10.06	20.20	10.80	81.38	
1259	10.08	20.18	10.60	81.20	

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
	1269	9.64	20.16	11.20	80.44
	1272	10.16	20.46	10.20	81.60
	1329	9.76	20.40	10.40	80.48
	1332	10.02	21.70	10.20	83.66
	1556	9.08	19.60	10.20	76.64
	1565	10.32	20.70	10.60	82.96
	1607	9.44	20.84	10.10	80.10
	1623	10.36	20.00	11.40	82.48
	1701	9.84	19.84	10.80	80.00
International Fertilizer 15-15-0					
Guaranteed	15.00	15.00	00.00	75.00	
1674	14.88	13.80	00.00	72.24	
Rainbow Plant Food 16-8-8					
Guaranteed	16.00	8.00	8.00	72.00	
1190	16.04	8.80	8.40	74.12	
1592	14.86	10.20	8.20	73.18	
International 0-20-0 Superphosphate					
Guaranteed	00.00	20.00	00.00	40.00	
219	00.00	19.22	00.00	38.44	
339	00.00	20.12	00.00	40.24	
391	00.00	20.30	00.00	40.60	
404	00.00	20.36	00.00	40.72	
1051	00.00	20.00	00.00	40.00	
International 0-46-0 Triple Superphosphate					
Guaranteed	00.00	46.00	00.00	92.00	
382	00.00	47.00	00.00	94.00	
1569	00.00	46.90	00.00	93.80	
1594	00.00	46.70	00.00	93.40	
International 13-39-0 Fertilizer					
Guaranteed	13.00	39.00	00.00	117.00	
395	12.38	35.90	00.00	108.94	
1655	12.50	37.55	00.00	112.60	
International 16-20-0 Fertilizer					
Guaranteed	16.00	20.00	00.00	88.00	
344	15.32	20.02	00.00	86.00	
384	15.58	20.50	00.00	87.74	
396	15.04	19.80	00.00	84.72	
400	14.00	22.63	00.00	87.26	
1056	15.54	20.60	00.00	87.82	
1079	15.46	20.70	00.00	87.78	
1086	15.68	20.98	00.00	89.00	
1148	15.58	20.28	00.00	87.30	
1174	15.28	20.18	00.00	86.20	
1192	16.04	20.10	00.00	88.32	
1297	14.80	20.00	00.00	84.40	
1558	15.06	20.90	00.00	86.98	
1593	15.35	20.80	00.00	87.65	
1608	14.42	20.80	00.00	84.86	
1610	15.40	21.20	00.00	88.60	
1624	15.74	20.50	00.00	88.22	
INTERNATIONAL MINERALS & CHEMICAL CORP., TEXARKANA					
International 5-10-5 Fertilizer					
Guaranteed	5.00	10.00	5.00	40.00	
110	6.28	12.50	5.50	49.34	
145	5.08	11.20	5.01	42.65	
224	5.16	11.10	5.00	42.68	
243	5.18	11.96	5.00	44.46	
517	5.26	11.90	5.03	42.61	
526	5.38	10.30	5.60	42.34	
537	5.48	10.70	5.02	42.84	
963	5.58	11.50	5.10	44.84	
1002	5.22	11.68	5.05	44.07	

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
International Fertilizer 5-10-10					
Guaranteed	5.00	10.00	10.00	45.00	
485	5.94	10.20	10.38	48.60	
International 6-12-6 Fertilizer					
Guaranteed	6.00	12.00	6.00	48.00	
162	5.78	12.20	5.78	47.52	
216	6.12	12.26	6.02	48.90	
484	6.48	12.40	6.50	50.74	
543	6.74	12.90	5.45	51.47	
977	6.20	12.30	6.10	49.30	
1452	6.03	12.54	6.70	49.87	
1530	7.72	16.50	9.00	65.16	
International Fertilizer 6-24-24					
Guaranteed	6.00	24.00	24.00	90.00	
913	6.36	24.90	24.80	93.68	
1501	6.02	21.40	24.60	85.46	
Rainbow Plant Food 7-14-7					
Guaranteed	7.00	14.00	7.00	56.00	
149	7.38	14.50	7.20	58.34	
525	7.14	13.70	7.80	56.62	
613	7.03	14.50	7.00	57.09	
941	7.14	14.40	7.70	57.92	
1478	6.58	14.50	8.00	56.74	
1502	6.58	14.60	7.80	56.74	
International Fertilizer 8-8-8					
Guaranteed	8.00	8.00	8.00	48.00	
880	8.64	9.00	8.04	51.96	
962	8.44	9.16	8.40	52.04	
1363	7.78	8.20	8.50	48.24	
1419	8.04	8.46	8.00	49.04	
1454	8.14	9.24	9.60	52.50	
1471	8.88	9.20	9.80	54.84	
Rainbow Plant Food 10-10-10					
Guaranteed	10.00	10.00	10.00	60.00	
890	9.62	10.90	10.00	60.66	
942	9.55	11.00	10.00	60.65	
1364	9.66	10.80	11.00	61.58	
International Fertilizer 10-20-0					
Guaranteed	10.00	20.00	00.00	70.00	
776	9.40	20.00	00.00	68.20	
1420	9.16	19.30	00.00	66.08	
1527	9.36	20.00	00.00	68.08	
Rainbow Plant Food 10-20-5					
Guaranteed	10.00	20.00	5.00	75.00	
245	9.64	20.16	5.15	74.39	
614	9.56	20.76	5.00	75.20	
768	10.14	20.60	5.03	76.56	
International 10-20-10 Fertilizer					
Guaranteed	10.00	20.00	10.00	80.00	
146	9.70	20.70	10.90	81.40	
150	9.56	20.30	10.40	79.68	
158	10.02	20.70	11.20	82.66	
163	9.56	20.86	9.60	80.00	
175	9.42	20.96	10.62	80.80	
203	9.22	20.84	10.00	79.34	
215	10.06	21.70	10.40	83.98	
220	9.54	21.16	10.56	81.50	
229	9.66	21.46	10.80	82.70	
244	10.03	21.00	10.96	83.05	
246	10.06	19.70	10.00	79.58	
264	10.24	20.60	10.00	81.92	
474	9.34	20.80	10.46	80.02	
478	10.08	20.36	10.60	81.56	
479	10.08	20.40	11.40	82.44	

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
	530	10.06	21.10	11.40	83.78
	538	9.66	20.14	10.00	79.26
	542	10.02	20.94	10.90	82.84
	548	9.60	20.00	9.50	78.30
	555	10.26	20.84	10.60	83.06
	770	9.78	20.66	10.06	80.12
	881	10.00	21.50	9.80	82.80
	889	9.46	20.60	11.10	80.68
	912	9.74	20.00	10.06	79.28
	928	9.74	20.70	10.00	80.62
	949	9.64	20.00	10.40	79.32
	970	9.74	21.10	10.00	81.42
	978	10.00	21.00	10.00	82.00
	992	9.62	20.88	10.00	80.62
	998	9.32	21.54	9.40	80.44
	1003	9.84	20.50	10.30	80.82
	1334	10.66	19.00	11.80	81.78
	1379	9.78	20.90	10.30	81.44
	1402	9.76	19.82	10.40	79.32
	1421	9.70	19.54	11.70	79.88
	1423	9.86	20.90	10.20	81.58
	1430	10.12	20.40	11.70	82.86
	1453	9.50	20.22	10.00	78.94
	1472	9.82	21.20	11.00	82.86
	1477	9.84	20.58	11.10	81.78
	1510	9.76	20.40	10.30	80.38
	1531	9.48	20.16	11.10	79.86
	1541	9.68	21.00	10.60	81.64
Rainbow Plant Food 10-20-10					
Guaranteed	10.00	20.00	10.00	80.00	
1335	10.10	20.50	10.10	81.40	
International 0-20-0 Superphosphate					
Guaranteed	00.00	20.00	00.00	40.00	
19	00.00	21.14	00.00	42.28	
262	00.00	20.50	00.00	41.00	
475	00.00	20.50	00.00	41.00	
777	00.00	20.50	00.00	41.00	
997	00.00	20.06	00.00	40.12	
International Fertilizer 16-20-0					
Guaranteed	16.00	20.00	00.00	88.00	
769	15.46	19.30	00.00	84.98	
1500	14.42	20.00	00.00	83.26	
1542	15.00	21.00	00.00	87.00	
JACKSONVILLE FERTILIZER CO., JACKSONVILLE, TEXAS					
Grosco Brand 5-10-5 Fertilizer					
Guaranteed	5.00	10.00	5.00	40.00	
877	5.10	11.20	5.00	42.70	
Grosco Fertilizer 8-8-8					
Guaranteed	8.00	8.00	8.00	48.00	
873	7.58	10.20	7.70	50.84	
Grosco Brand 10-20-10 Fertilizer					
Guaranteed	10.00	20.00	10.00	80.00	
106	10.40	20.00	9.40	80.60	
KELLY-WEBER & CO., INC., LAKE CHARLES, LA.					
Weber King Brand Fertilizer 6-12-6					
Guaranteed	6.00	12.00	6.00	48.00	
919	6.04	13.40	6.85	51.77	
1411	6.70	14.30	6.70	55.40	
Weber King Brand Fertilizer 8-8-8					
Guaranteed	8.00	8.00	8.00	48.00	
920	7.54	10.80	8.20	52.42	
Weber King Brand Superphosphate 20%					
Guaranteed	00.00	20.00	00.00	40.00	
195	00.00	21.36	00.00	42.72	

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
MARSHALL COTTON OIL CO., MARSHALL, TEXAS					
Maverick 5-10-5 Fertilizer					
Guaranteed		5.00	10.00	5.00	40.00
956		5.00	10.30	5.35	40.95
Maverick Fertilizer 8-8-8					
Guaranteed		8.00	8.00	8.00	48.00
957		8.26	8.80	7.80	50.18
1449		8.26	8.80	8.60	50.98
OLIN MATHIESON CHEMICAL CORP., HOUSTON, TEXAS					
Mathieson Ammo Phos 6-24-24					
Guaranteed		6.00	24.00	24.00	90.00
1188		6.24	25.10	24.00	92.92
1382		6.34	25.40	26.40	96.22
Mathieson Ammo Phos 8-32-16					
Guaranteed		8.00	32.00	16.00	104.00
1641		8.01	32.90	16.80	106.63
Mathieson Ammo Phos 10-20-10 Pelletized Fertilizer					
Guaranteed		10.00	20.00	10.00	80.00
10		10.01	20.50	10.50	81.61
20		10.01	23.54	10.00	87.11
38		10.10	20.60	10.00	81.50
54		10.20	20.10	11.20	82.00
65		10.64	20.66	10.00	83.24
73		11.02	20.80	10.96	85.62
85-A		10.00	20.84	10.30	81.98
96		10.26	20.06	10.80	81.70
114		11.18	20.86	10.22	85.48
116		10.52	21.76	10.36	85.44
196		11.02	23.36	10.84	90.62
214		10.30	20.00	11.22	82.12
218		10.41	21.10	11.10	84.53
222		10.00	20.48	10.50	81.46
230		10.04	20.44	10.50	81.50
241		10.67	21.48	11.80	86.77
269		10.06	20.60	11.46	82.84
276		10.06	20.98	10.76	82.90
290		10.08	20.26	11.42	82.18
293		10.12	20.70	11.20	82.96
294		10.24	20.00	11.42	82.14
301		10.30	20.00	10.50	81.40
325		10.62	20.10	12.80	84.86
346		10.20	22.00	10.44	85.04
361		10.12	19.46	10.36	79.64
370		10.44	20.36	10.14	82.18
372		10.38	18.32	10.08	77.86
388		10.08	20.60	10.28	81.72
403		10.14	21.80	11.20	85.22
408		10.46	22.53	10.78	87.20
411		10.02	20.00	10.80	80.86
420		10.26	19.55	11.40	81.28
435		10.30	20.80	10.74	83.24
463		10.00	19.70	10.60	80.00
480		10.00	20.40	10.38	81.18
494		10.06	20.90	10.80	82.78
544		11.76	20.60	10.50	86.98
547		10.40	20.70	10.30	82.90
567		10.30	20.44	10.08	81.86
587		10.14	20.50	9.96	81.38
598		9.60	20.00	11.10	79.90
605		10.22	20.10	10.20	81.06
607		9.72	19.40	10.60	78.56
609		10.00	20.10	11.90	82.10
696		10.30	20.00	10.10	81.00
700		10.52	20.50	10.00	82.56
718		10.26	19.70	10.60	80.78
726		10.34	22.65	10.80	87.12

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
	739	10.18	20.00	10.00	80.54
	780	10.03	20.00	11.00	81.09
	797	10.04	20.00	13.40	83.52
	817	10.36	20.60	10.60	82.88
	844	10.50	20.00	11.20	82.70
	854	10.16	20.30	10.20	81.28
	859	10.20	20.00	11.30	81.90
	862	10.02	20.00	10.20	80.26
	894	10.01	20.30	10.50	81.13
	898	10.16	20.70	10.30	82.18
	914	10.32	20.40	10.80	82.56
	918	9.60	20.00	12.00	80.80
	993	10.04	21.28	10.20	82.88
	1046	10.04	20.20	10.00	80.52
	1072	10.00	21.10	11.60	83.80
	1083	10.14	20.96	9.20	81.54
	1101	9.66	20.50	12.60	82.58
	1112	10.02	20.30	11.20	81.86
	1140	10.04	20.10	11.20	81.52
	1161	10.02	20.70	11.40	82.86
	1171	10.16	21.10	12.00	84.68
	1200	10.48	20.20	11.80	83.64
	1204	10.04	20.90	11.20	83.12
	1222	10.12	20.50	11.40	82.76
	1251	10.18	20.70	11.00	82.94
	1265	9.88	20.64	11.80	82.72
	1277	10.04	20.46	10.90	81.94
	1293	10.03	20.90	10.80	82.69
	1383	10.00	20.70	11.80	83.20
	1405	10.22	19.06	13.50	82.28
	1409	10.02	20.86	11.80	83.58
	1410	10.26	21.10	11.60	84.58
	1659	9.86	20.80	10.00	81.98
	1697	10.04	20.34	11.60	82.40
Mathieson Ammo Phos 10-20-20					
Guaranteed		10.00	20.00	20.00	90.00
1511		9.78	20.60	20.40	90.94
1564		11.18	20.80	16.68	91.82
Mathieson Ammo Phos 12-12-12 Pelletized Fertilizer					
Guaranteed		12.00	12.00	12.00	72.00
185		12.62	12.46	12.98	75.76
Mathieson Ammo Phos 12-24-12					
Guaranteed		12.00	24.00	12.00	96.00
280		12.36	24.30	13.16	98.84
287		12.20	24.00	13.80	98.40
348		12.46	25.00	12.62	100.00
350		12.06	25.06	12.80	99.10
390		12.08	24.30	13.30	98.14
443		12.00	24.00	12.60	96.60
482		12.04	24.30	12.02	96.74
617		12.28	24.00	13.60	98.44
681		12.08	24.30	13.20	98.04
693		12.16	24.00	13.30	97.78
698		12.00	23.50	12.80	95.80
824		12.04	24.30	13.10	97.82
1037		12.04	24.00	13.40	97.52
1113		12.04	25.30	12.80	99.52
1149		12.00	24.70	12.80	98.20
1160		12.08	24.70	12.80	98.44
1305		12.02	24.30	12.00	96.66
1396		12.04	24.48	13.50	98.58
1513		11.74	24.70	13.90	98.52
1571		12.08	24.50	12.40	97.64
1602		12.00	24.10	14.10	98.30
1629		12.00	24.00	12.10	96.10
1635		11.78	24.00	12.60	95.94
1649		11.70	24.74	12.60	97.18

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, 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 12-24-12											
	1676	11.84	26.20	11.80	99.72		342	16.16	20.06	00.00	88.60
	1677	12.02	25.50	10.00	97.06		345	16.30	20.40	00.00	89.70
	1679	11.62	25.46	13.40	99.18		347	16.10	21.26	00.00	90.82
Mathieson Ammo Phos 13-13-13 Pelletized							349	16.86	19.06	00.00	88.70
Guaranteed	13.00	13.00	13.00		78.00		353	16.22	20.00	00.00	88.66
	176	13.52	14.70	13.72	83.68		389	16.08	20.24	00.00	88.72
	278	13.06	13.68	14.04	80.58		394	16.08	20.00	00.00	88.24
	279	13.50	13.00	13.60	80.10		409	16.40	20.00	00.00	89.20
	291	13.50	13.60	13.56	81.26		412	16.34	20.72	00.00	90.46
	410	13.42	13.50	14.40	81.66		436	16.52	20.00	00.00	89.56
	483	13.36	13.70	14.40	81.88		441	16.60	20.60	00.00	91.00
	588	13.34	13.80	13.20	80.82		448	16.40	20.00	00.00	89.20
	595	13.02	14.36	14.40	82.18		462	16.06	20.00	00.00	88.18
	606	13.02	13.90	13.80	80.66		481	16.20	20.10	00.00	88.80
	616	13.18	13.20	13.20	79.14		594	16.00	20.80	00.00	89.60
	658	13.12	13.10	13.80	79.36		599	16.12	20.30	00.00	88.96
	818	13.16	14.20	13.80	81.68		610	16.26	20.00	00.00	88.18
	823	13.24	13.00	15.20	80.92		615	16.12	20.30	00.00	88.96
	843	13.54	14.30	13.00	82.22		625	16.20	20.30	00.00	89.20
	1395	13.00	13.22	15.60	81.04		642	16.38	20.14	00.00	89.42
Mathieson Ammo Phos 15-30-0							651	16.18	20.40	00.00	89.34
Guaranteed	15.00	30.00	00.00		105.00		657	16.88	20.00	00.00	90.64
	248	14.75	30.00	00.00	104.25		680	16.08	20.30	00.00	88.84
	1039	14.02	31.76	00.00	105.58		685	16.02	20.60	00.00	89.26
Mathieson Triple Superphosphate 46% 0-46-0							692	16.16	20.00	00.00	88.48
Guaranteed	00.00	46.00	00.00		92.00		697	16.34	20.60	00.00	90.22
	67	00.00	46.00	00.00	92.00		701	16.28	20.40	00.00	89.64
	271	00.00	46.02	00.00	92.04		719	16.12	20.00	00.00	88.36
	338	00.00	44.40	00.00	88.80		727	16.44	19.30	00.00	87.92
	341	00.00	44.80	00.00	89.60		762	16.02	22.40	00.00	92.86
	1189	00.00	46.30	00.00	92.60		766	16.32	20.12	00.00	89.20
Mathieson Ammo Phos 11-46-0							1038	16.22	20.06	00.00	88.78
Guaranteed	11.00	48.00	00.00		129.00		1047	16.10	20.10	00.00	88.50
	1632	11.82	48.30	00.00	132.06		1061	16.32	20.00	00.00	88.96
	1661	11.00	50.55	00.00	134.10		1073	16.08	20.30	00.00	88.84
	1664	11.46	50.15	00.00	134.68		1087	16.24	20.32	00.00	89.36
	1680	11.60	50.05	00.00	134.90		1139	15.46	21.20	00.00	88.78
	1687	11.58	51.85	00.00	138.44		1147	16.10	20.98	00.00	90.26
Mathieson Ammo Phos 13-39-0							1163	16.02	20.80	00.00	89.66
Guaranteed	13.00	39.00	00.00		117.00		1194	16.60	20.20	00.00	90.20
	362	13.22	41.00	00.00	121.66		1198	16.24	20.30	00.00	89.32
	413	13.18	41.35	00.00	122.24		1210	16.16	20.70	00.00	89.88
	442	13.02	39.00	00.00	117.06		1294	16.10	21.00	00.00	90.30
	659	13.12	39.50	00.00	118.36		1301	16.24	20.00	00.00	88.72
	1040	13.46	39.86	00.00	120.10		1304	16.00	20.40	00.00	88.80
	1048	13.16	39.80	00.00	119.08		1381	16.44	20.20	00.00	89.72
	1205	13.02	40.12	00.00	119.30		1512	16.03	20.70	00.00	89.49
	1398	13.00	39.08	00.00	117.16		1554	16.00	21.50	00.00	91.00
	1560	13.30	41.50	00.00	122.90		1559	16.24	20.60	00.00	89.92
	1562	13.46	41.65	00.00	123.68		1570	16.40	20.00	00.00	89.20
	1613	13.00	40.50	00.00	120.00		1601	16.12	20.00	00.00	88.36
	1675	13.20	42.50	00.00	124.60		1614	15.86	20.40	00.00	88.38
	1690	13.22	41.40	00.00	122.46		1620	16.26	20.20	00.00	89.18
Mathieson Ammo Phos 16-20-0 Pelletized Fertilizer							1634	16.02	20.50	00.00	89.06
Guaranteed	16.00	20.00	00.00		88.00		1660	15.42	20.38	00.00	87.02
	55	16.38	22.10	00.00	93.34		1663	16.18	21.60	00.00	91.74
	61	16.18	21.70	00.00	91.94		1678	15.86	20.68	00.00	88.94
	223	16.08	20.60	00.00	89.44		1689	16.16	20.50	00.00	89.48
	270	16.28	20.80	00.00	90.44		1734	16.34	20.10	00.00	89.22
	277	16.34	20.88	00.00	90.78	Mathieson Ammo Phos 16-48-0					
	286	16.20	20.00	00.00	88.60	Guaranteed	16.00	48.00	00.00	144.00	
	302	16.32	20.28	00.00	89.52		1397	16.06	50.02	00.00	148.22
	323	16.24	20.20	00.00	89.12		1633	15.04	45.50	00.00	136.12
	336	15.50	20.20	00.00	86.90	Mathieson Ammonium Sulfate 21% 21-0-0					
	337	16.16	20.86	00.00	90.20	Guaranteed	21.00	00.00	00.00	63.00	
	340	16.08	20.08	00.00	88.40		289	21.00	00.00	00.00	63.00
							1141	21.06	00.00	00.00	63.18
							1399	21.02	00.00	00.00	63.06
							1596	20.44	00.00	00.00	61.32

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
MISSISSIPPI CHEMICAL CORP., YAZOO CITY, MISSISSIPPI					
NCC Ammonium Nitrate Fertilizer		33.5%			
Guaranteed		33.50	00.00	00.00	100.50
	1091	33.68	00.00	00.00	101.04
MONSANTO CHEMICAL COMPANY, ST. LOUIS, MISSOURI					
Lion Ammonium Nitrate Fertilizer		33.5%			
Guaranteed		33.50	00.00	00.00	100.50
	151	33.50	00.00	00.00	100.50
	558	34.02	00.00	00.00	102.06
	1201	33.54	00.00	00.00	100.62
	1448	33.54	00.00	00.00	100.62
NATIONAL POTASH CO., CARLSBAD, NEW MEXICO					
Muriate Potash 60%					
Guaranteed		00.00	00.00	60.00	60.00
	679	00.00	00.00	61.44	61.44
NICHOLS SEED & FERTILIZER COMPANY, OKLAHOMA CITY, OKLA.					
Nichols 0-20-0					
Guaranteed		00.00	20.00	00.00	40.00
	9	00.00	21.28	00.00	42.56
	1016	00.00	20.60	00.00	41.20
Nichols Fertilizer 6-12-6					
Guaranteed		6.00	12.00	6.00	48.00
	1577	4.64	13.36	5.85	46.49
Nichols Fertilizer 10-20-0					
Guaranteed		10.00	20.00	00.00	70.00
	1017	10.28	20.00	00.00	70.84
	1578	11.00	20.00	00.00	73.00
Nichols Fertilizer 10-20-10					
Guaranteed		10.00	20.00	10.00	80.00
	1018	10.14	20.00	10.30	80.72
	1579	9.78	20.92	10.80	81.98
Nichols Fertilizer 16-20-0					
Guaranteed		16.00	20.00	00.00	88.00
	1019	13.86	24.70	00.00	90.98
	1546	12.40	22.10	00.00	81.40
	1580	12.60	23.30	00.00	84.40
OZARK MAHONING COMPANY, TULSA, OKLAHOMA					
Ozark Ammonium Phosphate 10-20-10					
Guaranteed		10.00	20.00	10.00	80.00
	1385	10.32	20.60	11.00	83.16
Ozark Ammonium Phosphate 10-20-20					
Guaranteed		10.00	20.00	20.00	90.00
	1387	10.28	20.80	18.80	91.24
Ozark Ammonium Phosphate 12-24-12					
Guaranteed		12.00	24.00	12.00	96.00
	1388	12.00	25.40	12.80	99.60
Ozark Ammonium Phosphate 16-20-0					
Guaranteed		16.00	20.00	00.00	88.00
	904	16.02	21.00	00.00	90.06
PHILLIPS PETROLEUM COMPANY, BARTLESVILLE, OKLAHOMA					
Phillips 66 Ammo Nitrate Fertilizer					
Guaranteed		33.50	00.00	00.00	100.50
	593	33.83	00.00	00.00	101.49
	630	33.82	00.00	00.00	101.46
Phillips 66 Triple Superphosphate		46%			
Guaranteed		00.00	46.00	00.00	92.00
	42	00.00	46.00	00.00	92.00

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
PITTSBURG FERTILIZER COMPANY, PITTSBURG, TEXAS					
Golden Nugget Fertilizer 5-10-5					
Guaranteed		5.00	10.00	5.00	40.00
	504	6.34	10.76	6.01	46.55
Golden Nugget 6-12-6 Fertilizer					
Guaranteed		6.00	12.00	6.00	48.00
	89	9.18	17.36	10.00	72.26
	499	8.28	12.70	6.80	57.04
	1045	7.32	13.12	6.35	54.55
	1070	9.92	13.40	6.00	62.56
	1712	7.96	12.24	6.30	54.66
Golden Nugget Fertilizer 8-8-8					
Guaranteed		8.00	8.00	8.00	48.00
	164	8.08	8.00	8.02	48.26
	559	9.40	8.00	7.84	52.04
	967	10.08	8.50	8.60	55.84
	986	9.18	9.20	7.70	53.64
	1462	8.12	10.10	6.60	51.16
Golden Nugget 10-20-0					
Guaranteed		10.00	20.00	00.00	70.00
	419	11.02	20.00	00.00	73.06
	774	11.82	19.40	00.00	74.20
Golden Nugget 10-20-10					
Guaranteed		10.00	20.00	10.00	80.00
	15	10.06	20.50	10.15	81.33
	90	10.44	20.00	8.16	79.48
	168	10.04	19.46	11.20	80.24
	454	11.14	22.20	10.00	87.82
	490	9.28	20.00	10.00	77.84
	550	9.86	20.36	10.04	80.34
	775	10.00	18.14	10.30	76.58
	787	10.26	19.00	10.06	78.84
	857	9.66	20.00	11.00	79.98
	929	9.70	20.10	10.40	79.70
	968	9.82	19.80	10.30	79.36
	969	9.68	20.80	10.40	81.04
	985	9.60	20.00	10.00	78.80
	1071	9.52	19.52	10.20	77.80
	1109	9.84	19.80	11.00	80.12
	1214	9.34	21.36	10.40	81.14
	1244	9.76	20.24	16.60	86.36
	1437	7.30	13.20	10.20	58.50
	1439	10.28	21.10	11.00	84.04
	1490	8.98	20.00	10.90	77.84
	1499	9.86	20.40	10.50	80.88
	1529	9.50	19.80	11.00	79.10
	1543	9.70	20.80	10.00	80.70
	1709	9.08	21.68	10.80	81.40
	1713	9.30	20.86	10.60	80.22
	1714	9.90	20.84	10.30	81.68
Golden Nugget Fertilizer 12-12-12					
Guaranteed		12.00	12.00	12.00	72.00
	165	10.64	13.60	11.40	70.52
	560	9.76	12.00	10.02	63.30
Golden Nugget 16-20-0					
Guaranteed		16.00	20.00	00.00	88.00
	418	15.30	18.90	00.00	83.70
	453	14.86	20.00	00.00	84.58
RED STAR FERTILIZER, SULPHUR SPRINGS, TEXAS					
Red Star Super-Flo Fertilizer 3-12-12					
Guaranteed		3.00	12.00	12.00	45.00
	1727	5.70	10.74	10.35	48.93
Red Star Brand 5-10-5					
Guaranteed		5.00	10.00	5.00	40.00
	97	5.88	11.50	5.00	45.64
	160	5.96	10.60	5.00	44.08

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Red Star Brand 5-10-5					
	281	5.80	10.06	5.03	42.55
	737	5.68	11.40	5.05	44.89
	972	5.22	10.60	5.00	41.86
	1005	5.74	10.40	5.00	43.02
Red Star Super-Flo Fertilizer 5-10-10					
Guaranteed	5.00	10.00	10.00	45.00	
	1705	5.70	10.66	10.20	48.62
Red Star Brand 6-12-6					
Guaranteed	6.00	12.00	6.00	48.00	
	497	6.02	12.10	6.02	48.28
	981	6.02	12.40	6.10	48.96
	1349	6.24	12.10	6.10	49.02
	1432	6.00	12.40	6.05	48.85
	1521	5.72	12.00	6.50	47.66
	1528	6.16	12.10	6.15	48.83
	1729	6.74	12.18	6.00	50.58
Red Star Brand 10-10-5					
Guaranteed	10.00	10.00	5.00	55.00	
	27	11.66	11.72	5.05	63.47
	1616	10.16	11.20	5.10	57.98
Red Star Brand 10-20-0					
Guaranteed	10.00	20.00	00.00	70.00	
	16	10.38	20.14	00.00	71.42
	283	11.12	18.66	00.00	70.68
	375	11.30	19.20	00.00	72.30
	428	10.04	21.10	00.00	72.32
	467	4.60	20.26	00.00	54.32
	469	10.00	20.00	00.00	70.00
	1029	9.68	21.40	00.00	71.84
	1092	9.80	21.88	00.00	73.16
	1212	10.22	21.20	00.00	73.06
	1617	10.94	18.70	00.00	70.22
	1692	7.58	17.26	00.00	57.26
	1731	10.38	20.50	00.00	72.14
Red Star Brand 10-20-10					
Guaranteed	10.00	20.00	10.00	80.00	
	17	10.02	20.16	10.20	80.58
	28	10.70	20.20	10.75	83.25
	66	9.60	21.20	10.00	81.20
	98	9.64	21.90	9.00	81.72
	117	9.48	20.36	9.64	78.80
	132	10.04	20.84	10.16	81.96
	140	10.12	21.00	10.00	82.36
	161	9.38	20.66	10.04	79.50
	239	9.20	20.60	10.56	79.36
	242	9.11	20.50	10.06	78.39
	244-A	9.64	20.26	10.80	80.24
	282	9.54	20.52	10.56	80.22
	374	9.30	20.80	10.06	79.56
	429	10.02	20.00	10.62	80.68
	432	9.24	21.70	10.40	81.52
	455	9.46	21.00	10.92	81.30
	471	9.46	20.60	10.06	79.64
	498	9.42	20.40	10.80	79.86
	552	9.54	20.00	9.84	78.46
	738	9.02	20.20	9.80	77.26
	749	8.80	20.06	9.50	76.02
	752	8.98	20.70	10.30	78.64
	753	9.46	20.60	10.40	79.98
	754	9.00	20.20	10.10	77.50
	1006	9.42	20.10	10.20	78.66
	1013	9.42	20.10	10.60	79.06
	1093	9.24	20.00	10.60	78.32
	1213	9.74	20.70	6.60	77.22
	1344	10.00	20.00	10.80	80.80

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
	1350	9.44	20.50	10.80	80.12
	1433	9.22	21.30	10.40	80.66
	1492	9.32	20.52	11.80	80.80
	1522	9.10	20.60	10.10	78.60
	1532	9.40	20.50	10.20	79.40
	1539	9.28	21.90	10.30	81.94
	1618	9.40	20.70	10.80	80.40
	1704	10.02	20.20	10.60	81.06
	1728	9.56	21.20	10.00	81.08
	1732	9.76	21.20	10.60	82.28
Red Star Super Flo Fertilizer 12-12-12					
Guaranteed	12.00	12.00	12.00	72.00	
	728	11.88	13.00	11.40	73.04
	979	12.80	12.00	11.86	74.26
Red Star Fertilizer 12-24-12					
Guaranteed	12.00	24.00	12.00	96.00	
	285	12.14	24.36	12.02	97.16
Red Star Brand 0-20-0					
Guaranteed	00.00	20.00	00.00	40.00	
	309	00.00	20.90	00.00	41.80
	376	00.00	22.30	00.00	44.60
	427	00.00	20.40	00.00	40.80
	1004	00.00	20.90	00.00	41.80
	1035	00.00	20.68	00.00	41.36
	1211	00.00	20.40	00.00	40.80
Red Star Triple Flo 46% Fertilizer					
Guaranteed	00.00	46.00	00.00	92.00	
	647	00.00	47.75	00.00	95.50
Red Star Brand 15-15-0					
Guaranteed	15.00	15.00	00.00	75.00	
	18	14.76	16.12	00.00	76.52
	470	15.24	16.40	00.00	78.52
Red Star 16-20-0					
Guaranteed	16.00	20.00	00.00	88.00	
	284	16.00	20.30	00.00	88.60
	322	14.82	20.60	00.00	85.66
	381	16.26	22.00	00.00	92.78
	407	16.08	21.96	00.00	92.16
	437	15.14	20.00	00.00	85.42
	1036	15.82	20.10	00.00	87.66
	1094	14.40	22.00	00.00	87.20
	1130	14.90	20.00	00.00	84.70
	1619	15.30	20.80	00.00	87.50
	1693	16.00	20.12	00.00	88.24
SMITH-DOUGLASS COMPANY, INC., TEXAS CITY, TEXAS					
Smith Douglass Pelleform 7-28-14					
Guaranteed	7.00	28.00	14.00	91.00	
	1686	10.78	28.00	12.00	100.34
Smith Douglass Pelleform 10-20-10					
Guaranteed	10.00	20.00	10.00	80.00	
	855	11.48	20.50	8.70	84.14
	884	11.00	21.20	8.30	83.70
	926	10.66	22.20	10.00	86.38
	952	10.56	20.40	10.00	82.48
Smith Douglass Pelleform 12-12-12					
Guaranteed	12.00	12.00	12.00	72.00	
	829	12.90	14.40	11.20	72.70
	856	12.20	13.00	12.00	74.60
	885	12.22	12.30	12.20	73.46
Smith Douglass Pelleform 12-24-12					
Guaranteed	12.00	24.00	12.00	96.00	
	632	12.26	24.20	12.50	97.68
	645	12.94	24.40	12.40	100.02
	1584	12.30	24.10	12.04	97.14

TABLE 5: ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
Smith Douglass Pelleform	0-46-0				
Guaranteed	00.00	46.00	00.00	92.00	
633	00.00	47.55	00.00	95.10	
Smith Douglass Pelleform	11-48-0				
Guaranteed	11.00	48.00	00.00	129.00	
1669	12.04	48.00	00.00	132.12	
1682	11.40	48.95	00.00	132.10	
Smith Douglass Pelleform	13-39-0				
Guaranteed	13.00	39.00	00.00	117.00	
646	13.88	39.00	00.00	119.64	
1651	13.04	42.30	00.00	123.72	
1670	13.26	41.75	00.00	123.28	
Smith Douglass Pelleform	14-14-14				
Guaranteed	14.00	14.00	14.00	84.00	
828	14.00	14.00	13.60	83.60	
Smith Douglass Pelleform	16-20-0				
Guaranteed	16.00	20.00	00.00	88.00	
631	15.50	23.80	00.00	94.10	
640	14.60	20.30	00.00	84.40	
644	17.04	20.00	00.00	91.12	
1400	17.24	18.32	00.00	88.36	
1585	16.03	22.20	00.00	92.49	
1588	16.38	21.60	00.00	92.34	
1650	16.02	21.46	00.00	90.98	
1668	16.30	20.66	00.00	90.22	
1681	15.52	25.56	00.00	97.68	
1733	16.16	21.66	00.00	91.80	
SOUTH TEXAS FERTILIZER & CHEMICAL CO., EL CAMPO, TEXAS					
Green Dot Liquid Fertilizer	4-11-11				
Guaranteed	4.00	11.00	11.00	45.00	
1310	4.28	12.40	12.08	49.72	
Green Dot Liquid Fertilizer	8-24-0				
Guaranteed	8.00	24.00	00.00	72.00	
1309	8.00	24.53	00.00	73.06	
Green Dot Liquid Fertilizer	12-12-6				
Guaranteed	12.00	12.00	6.00	66.00	
1311	11.20	14.26	6.41	68.53	
SOUTHWEST CHEMICAL COMPANY, MCALLEN, TEXAS					
Top Crop Liquid Fertilizer	5-10-10				
Guaranteed	5.00	10.00	10.00	45.00	
672	5.30	11.50	11.33	50.23	
Top Crop Liquid Fertilizer	10-10-5				
Guaranteed	10.00	10.00	5.00	55.00	
670	10.18	10.43	5.45	56.85	
Top Crop Liquid Fertilizer	12-15-0				
Guaranteed	12.00	15.00	00.00	66.00	
671	11.35	16.42	00.00	66.89	
Top Crop Liquid Fertilizer	0-54-0				
Guaranteed	00.00	54.00	00.00	108.00	
673	00.00	53.76	00.00	107.52	
Top Crop Liquid Fertilizer	33-0-0				
Guaranteed	33.00	00.00	00.00	99.00	
674	30.26	00.00	00.00	90.78	
SOUTHWEST FERTILIZER & CHEMICAL CO. OF EL PASO, EL PASO, TEXAS					
SWFGro Fertilizer Superphosphate	0-20-0				
Guaranteed	00.00	20.00	00.00	40.00	
1615	00.00	20.00	00.00	40.00	

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
SWIFT & COMPANY, HOUSTON, TEXAS					
Swift's Red Steer	5-10-5				
Guaranteed	5.00	10.00	5.00	40.00	
206	6.12	11.74	5.51	47.35	
Swift's Red Steer Brand	5-10-10				
Guaranteed	5.00	10.00	10.00	45.00	
1716	5.58	10.60	9.80	47.74	
Vigoro Plant Food	6-10-4				
Guaranteed	6.00	10.00	4.00	42.00	
853	6.02	12.50	4.10	47.16	
Swift's Red Steer Brand	6-12-6				
Guaranteed	6.00	12.00	6.00	48.00	
131	5.24	13.50	7.51	50.23	
147	7.32	13.20	6.00	54.36	
292	4.94	12.00	7.58	46.40	
334	6.04	13.20	6.40	50.92	
575	6.56	12.44	6.25	50.81	
590	6.56	12.80	6.00	51.28	
623	6.24	13.40	6.80	52.32	
837	5.82	12.70	5.75	48.61	
850	5.76	12.16	5.65	47.25	
934	6.76	12.40	6.30	51.38	
947	6.80	12.00	6.25	50.65	
1041	6.50	12.08	6.00	49.66	
1152	6.10	12.70	5.50	49.20	
1162	6.00	12.50	6.00	49.00	
1164	6.28	12.80	7.10	51.54	
1247	6.10	12.94	6.10	50.28	
1255	6.68	12.60	5.80	51.04	
1362	5.56	13.50	6.80	50.48	
1386	5.46	13.60	6.15	49.73	
1475	7.06	11.68	7.60	52.14	
1493	6.76	12.62	6.65	52.17	
1699	6.46	12.40	6.55	50.73	
Swift's Red Steer Brand	6-24-24				
Guaranteed	6.00	24.00	24.00	90.00	
1717	6.08	22.20	24.00	86.64	
Swift's Red Steer Brand	8-8-8				
Guaranteed	8.00	8.00	8.00	48.00	
120	8.10	10.54	8.40	53.18	
887	8.02	8.90	10.60	52.46	
935	8.44	8.10	8.20	49.72	
948	8.24	8.40	8.10	49.62	
1256	7.58	8.70	7.60	47.74	
1361	8.01	9.20	8.10	50.53	
1498	8.40	8.40	7.80	49.80	
Swift's Red Steer Brand	10-20-0				
Guaranteed	10.00	20.00	00.00	70.00	
1266	9.06	21.50	00.00	70.18	
Goldenrod Gran-U-Pels	10-20-10				
Guaranteed	10.00	20.00	10.00	80.00	
1225	9.66	21.42	10.00	81.82	
Vigoro 10-20-10 Commercial Grower					
Guaranteed	10.00	20.00	10.00	80.00	
668	10.06	19.00	10.00	78.18	
Swift's Red Steer Brand	10-20-10				
Guaranteed	10.00	20.00	10.00	80.00	
51	9.08	20.40	10.10	78.14	
123	9.66	20.06	11.60	80.70	
130	9.78	20.54	10.00	80.42	
148	9.78	21.10	10.00	81.54	
152	10.20	20.16	9.20	80.12	
261	9.76	20.46	10.04	80.24	

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, 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 Brand 10-20-10											
	265	9.40	20.00	10.00	78.20		513	6.52	10.40	5.22	45.58
	333	9.30	21.00	8.70	78.60		709	5.42	11.00	5.00	43.26
	512	9.18	20.10	8.18	75.92		778	6.60	11.00	7.00	48.80
	539	9.52	20.00	10.00	78.56	Swift's Red Steer 5-20-20					
	591	8.50	22.80	7.90	79.00	Guaranteed		5.00	20.00	20.00	75.00
	624	10.01	20.00	10.70	80.73		712	6.02	18.00	20.00	74.06
	676	10.04	20.00	9.50	79.62	Swift's Red Steer 6-12-6					
	710	8.22	20.30	9.84	75.10	Guaranteed		6.00	12.00	6.00	48.00
	809	10.00	19.40	10.00	78.80		231	6.46	14.28	6.15	54.09
	822	9.66	18.90	9.40	76.18		488	6.46	13.70	6.00	52.78
	825	9.54	19.00	19.00	85.62		501	6.12	14.10	7.80	54.36
	826	9.76	18.60	9.30	75.78		540	6.14	14.40	7.20	54.42
	842	9.34	18.40	10.00	74.82		755	6.68	12.10	7.01	51.25
	845	9.68	19.10	9.20	76.44		1348	6.06	11.80	6.05	47.83
	888	8.66	20.30	9.40	75.98		1455	6.62	11.80	6.90	50.36
	1042	9.72	19.28	10.40	78.12	Swift's Red Steer 8-8-8					
	1134	9.72	20.60	10.00	80.36	Guaranteed		8.00	8.00	8.00	48.00
	1165	9.50	20.40	10.20	79.50		93	8.24	9.20	8.00	51.12
	1246	9.60	19.70	10.80	79.00		514	8.08	9.36	10.60	53.54
	1257	9.38	20.10	10.20	78.54		562	7.76	8.90	9.44	50.52
	1267	9.18	21.28	9.60	79.70		1456	8.20	8.70	9.40	51.40
	1278	9.46	19.26	9.80	76.70	Swift's Red Steer 10-20-0					
	1290	9.28	21.30	21.00	91.44	Guaranteed		10.00	20.00	00.00	70.00
	1368	9.76	19.60	10.10	78.58		197	9.52	21.24	00.00	71.04
	1373	9.38	20.40	10.10	79.04		711	9.84	19.70	00.00	68.92
	1465	10.03	17.70	10.40	75.89		723	9.86	20.00	00.00	69.58
	1476	9.56	17.80	10.00	74.28	Swift's Red Steer 10-20-10					
	1494	9.76	20.50	10.10	80.38	Guaranteed		10.00	20.00	10.00	80.00
	1700	9.14	19.88	10.10	77.28		8	10.00	20.60	10.05	81.25
	1718	9.24	20.00	10.10	77.82		23	9.26	21.92	10.00	81.62
	1730	9.56	15.60	10.10	69.98		24	10.00	20.19	10.05	80.43
Blenn 12-12-12							30	9.58	20.60	10.00	79.94
Guaranteed	12.00	12.00	12.00	72.00			94	10.00	20.00	10.02	80.02
1280	11.00	12.60	11.60	69.80			101	9.62	20.00	10.20	79.06
Swift's Red Steer Brand 12-12-12							173	10.22	19.46	10.00	79.58
Guaranteed	12.00	12.00	12.00	72.00			180	10.14	20.40	10.98	82.20
827	11.58	12.90	11.20	71.74			188	8.88	20.00	10.80	77.44
832	10.64	12.60	10.75	67.87			190	9.31	18.50	10.00	74.93
1291	11.52	12.70	11.80	71.76			198	9.44	21.54	10.30	81.70
1367	11.20	12.40	11.80	70.20			207	9.70	20.60	10.00	80.30
Swift's Red Steer Brand 12-24-12							232	10.01	20.32	11.16	81.83
Guaranteed	12.00	24.00	12.00	96.00			236	9.65	20.00	9.66	78.34
628	10.24	22.46	10.30	85.94			371	10.00	20.00	10.04	80.04
666	12.20	22.16	12.30	93.22			489	10.14	20.30	9.02	80.04
1279	11.16	24.00	12.00	93.48			496	9.58	20.00	9.20	77.94
1292	12.04	22.00	12.40	92.52			502	9.40	19.14	10.40	76.88
Swift's Red Steer Brand 0-46-0							531	10.00	20.00	9.40	79.40
Guaranteed	00.00	46.00	00.00	92.00			551	10.22	19.33	10.40	79.52
52	00.00	46.75	00.00	93.50			554	9.58	19.48	9.00	76.70
810	00.00	46.00	00.00	92.00			561	9.54	20.00	9.60	78.22
Swift's Red Steer Brand 13-39-0							574	9.24	19.35	10.00	76.42
Guaranteed	13.00	39.00	00.00	117.00			722	9.46	20.20	9.40	78.18
414	12.24	36.25	00.00	109.22			742	9.76	20.10	9.86	79.34
667	11.84	35.50	00.00	106.52			756	9.58	19.40	10.90	78.44
Swift's Red Steer Brand 16-20-0							779	9.44	20.00	10.06	78.38
Guaranteed	16.00	20.00	00.00	88.00			860	9.58	19.50	11.10	78.84
335	13.86	20.46	00.00	82.50			865	9.48	20.50	10.00	79.44
577	13.80	20.10	00.00	81.60			945	9.62	19.60	10.30	78.36
665	16.02	16.90	00.00	81.86			1100	9.72	20.10	11.00	80.36
1135	15.42	20.00	00.00	86.26			1352	10.03	20.30	9.70	80.39
1153	15.38	20.92	00.00	87.98			1414	9.66	20.50	9.70	79.68
SWIFT & COMPANY, SHREVEPORT, LOUISIANA						Swift's Red Steer 0-46-0					
Swift's Red Steer 5-10-5						Guaranteed		00.00	46.00	00.00	92.00
Guaranteed	5.00	10.00	5.00	40.00		669	00.00	44.75	00.00	89.50	
172	6.30	10.14	5.00	44.18							

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Swift's Red Steer 16-20-0					
Guaranteed		16.00	20.00	00.00	88.00
576		14.66	20.40	00.00	84.78
675		15.32	20.20	00.00	86.36
FERD STAFFEL CO., SAN ANTONIO, TEXAS					
Staffels Lawn Food					
Guaranteed		8.00	12.00	4.00	52.00
1193		8.38	15.40	4.30	60.24
TEXAS FARM PRODUCTS CO., NACOGDOCHES, TEXAS					
Lone Star Brands Fertilizer 5-10-5					
Guaranteed		5.00	10.00	5.00	40.00
181		4.75	10.36	5.32	40.29
307		5.00	10.30	5.70	41.30
314		5.34	10.70	5.00	42.42
564		5.28	10.90	5.04	42.68
566		5.00	10.00	5.02	40.02
583		4.92	10.00	4.80	39.56
740		5.18	12.20	5.05	44.90
874		5.04	10.30	4.80	40.52
Lone Star Brand Fertilizer 5-10-10					
Guaranteed		5.00	10.00	10.00	45.00
1467		3.78	12.02	10.90	46.28
Lone Star Brand Fertilizer 6-12-6					
Guaranteed		6.00	12.00	6.00	48.00
793		5.82	10.26	7.00	44.98
875		7.76	15.00	7.40	60.68
943		5.52	12.00	7.10	47.66
950		5.54	12.00	7.90	48.52
1226		5.84	12.00	7.50	49.02
1239		6.08	12.16	7.00	49.56
1353		6.08	12.00	7.00	49.24
1466		6.44	12.40	6.20	50.32
1485		6.03	12.00	5.45	47.54
Lone Star Brand Fertilizer 8-8-8					
Guaranteed		8.00	8.00	8.00	48.00
99		7.66	8.60	8.00	48.18
111		7.76	10.56	8.00	52.40
315		7.72	8.38	8.66	48.58
899		8.36	8.80	8.30	50.98
964		8.10	10.20	8.12	52.82
1245		8.06	8.00	9.80	49.98
1354		8.02	8.70	9.50	50.96
1486		7.42	9.10	8.80	49.26
Lone Star Brand Fertilizer 10-20-0					
Guaranteed		10.00	20.00	00.00	70.00
814		10.34	20.70	00.00	72.42
1319		10.16	20.00	00.00	70.48
Lone Star Brand 10-20-10 Fertilizer					
Guaranteed		10.00	20.00	10.00	80.00
34		10.02	20.00	10.15	80.21
39		10.00	20.20	10.14	80.54
100		9.72	21.59	10.60	82.94
112		10.04	23.06	10.00	86.24
134		9.78	20.90	10.02	81.16
138		10.08	21.08	10.16	82.56
142		10.08	20.60	10.00	81.44
182		10.04	20.08	10.20	80.48
191		10.27	20.86	10.80	83.33
308		10.02	20.30	10.24	80.90
316		10.14	21.44	9.58	82.88
317		10.08	20.06	10.42	80.78
565		9.62	20.60	9.70	79.76
584		10.02	20.22	9.60	80.10
735		10.00	19.46	9.80	78.72
746		10.16	20.08	9.80	80.44
791		10.40	20.16	10.00	81.52

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
	794	10.02	19.10	10.06	78.32
	802	10.48	20.00	10.00	81.44
	820	10.04	20.00	10.00	80.12
	876	9.78	20.20	10.06	79.80
	886	10.58	20.20	10.00	82.14
	900	10.03	20.60	10.00	81.29
	916	10.00	21.30	9.70	82.30
	944	10.08	20.30	10.00	80.84
	951	10.03	20.00	10.06	80.15
	965	10.08	20.00	10.06	80.30
	1227	10.00	20.00	10.20	80.20
	1240	10.08	20.28	10.20	81.00
	1320	9.78	20.90	11.50	82.64
	1333	10.32	20.10	10.10	81.26
	1366	10.08	20.00	10.60	80.84
	1468	10.32	19.40	10.10	79.86
	1737	9.66	20.88	10.00	80.74
Lone Star Brand Fertilizer 12-12-12					
Guaranteed		12.00	12.00	12.00	72.00
736		11.36	13.10	9.60	69.88
Lone Star Brand Fertilizer 12-24-12					
Guaranteed		12.00	24.00	12.00	96.00
815		12.28	24.70	12.00	98.24
1321		11.22	22.80	13.00	92.26
1739		11.90	24.28	11.40	95.66
Lone Star Brand Fertilizer 0-20-0					
Guaranteed		00.00	20.00	00.00	40.00
801		00.00	20.50	00.00	41.00
Lone Star Brand Fertilizer 16-20-0					
Guaranteed		16.00	20.00	00.00	88.00
318		16.02	19.25	00.00	86.56
580		15.06	20.90	00.00	86.98
816		15.48	20.70	00.00	87.84
1738		15.38	20.12	00.00	86.38
TEXAS FARM SUPPLY, TEXAS CITY, TEXAS					
Texas Farm Supply Liquid Fertilizer 15-10-5					
Guaranteed		15.00	10.00	5.00	70.00
1300		14.34	10.81	5.49	70.13
TIDE PETROLEUM PRODUCTS, EDINBURG, TEXAS					
Tide Green Liquid Fertilizer 8-16-8					
Guaranteed		8.00	16.00	8.00	64.00
653		7.82	17.08	8.25	65.87
Tide Green Liquid Fertilizer 8-24-0					
Guaranteed		8.00	24.00	00.00	72.00
655		8.30	24.54	00.00	73.90
1185		8.18	25.90	00.00	76.34
Tide Green Liquid Fertilizer 12-12-6					
Guaranteed		12.00	12.00	6.00	66.00
652		11.08	13.66	6.22	66.78
Tide Green Liquid Fertilizer 15-15-0					
Guaranteed		15.00	15.00	00.00	75.00
654		15.10	15.85	00.00	77.00
1186		14.96	16.71	00.00	78.29
TYLER FERTILIZER CO., TYLER, TEXAS					
Gro-Tex Plant Food 5-10-5					
Guaranteed		5.00	10.00	5.00	40.00
747		6.32	9.20	4.00	41.36
Gro-Tex Plant Food 6-12-6					
Guaranteed		6.00	12.00	6.00	48.00
846		5.06	11.50	9.55	47.73
866		4.96	11.80	6.95	45.43
1338		6.16	13.10	5.50	50.18
1460		6.88	13.80	8.50	56.74

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Gro-Tex Plant Food 8-8-8	Guaranteed	8.00	8.00	8.00	48.00
	848	8.00	7.10	8.30	46.50
	867	7.28	8.00	8.40	46.24
Heart Brand Fertilizer 8-8-8	Guaranteed	8.00	8.00	8.00	48.00
	1371	7.62	9.70	9.40	51.66
Gro-Tex Plant Food 10-20-10	Guaranteed	10.00	20.00	10.00	80.00
	60	9.58	20.00	10.00	78.74
	205	10.20	21.74	11.42	85.50
	259	9.79	19.10	10.02	76.09
	589	10.46	18.70	14.70	83.48
	694	10.42	18.20	14.10	81.76
	748	10.02	19.10	9.40	77.66
	847	10.86	17.30	9.10	76.28
	868	10.02	20.00	11.10	81.10
	917	10.04	15.90	12.90	74.82
	936	10.04	20.00	12.20	82.32
	1117	9.78	20.50	8.60	78.94
	1126	10.16	17.10	12.20	76.88
	1339	10.02	22.00	6.80	80.86
Gro-Tex Plant Food 12-12-12	Guaranteed	12.00	12.00	12.00	72.00
	1372	10.11	13.50	12.30	69.63
Gro-Tex Plant Food 16-20-0	Guaranteed	16.00	20.00	00.00	88.00
	44	14.66	15.00	00.00	73.98
	377	14.58	22.64	00.00	89.02
	1127	15.48	18.40	00.00	83.24
VALLEY GROWERS COOP, MISSION, TEXAS					
Valley Gro 12-24-12	Guaranteed	12.00	24.00	12.00	96.00
	662	12.02	25.00	11.64	97.70
Valley Gro Triple Superphosphate 0-46-0	Guaranteed	00.00	46.00	00.00	92.00
	660	00.00	44.75	00.00	89.50
Valley Gro 16-20-0	Guaranteed	16.00	20.00	00.00	88.00
	661	16.54	20.40	00.00	90.42
Valley Gro Sulfate of Ammonia 21-0-0	Guaranteed	21.00	00.00	00.00	63.00
	650	21.01	00.00	00.00	63.03
	663	21.00	00.00	00.00	63.00
VIRGINIA CAROLINA CHEMICAL CORP., SHREVEPORT, LA.					
V-C Fertilizer 5-10-5	Guaranteed	5.00	10.00	5.00	40.00
	57	5.02	11.26	5.51	43.09
	63	4.62	11.10	7.70	43.76
	108	4.72	10.96	5.40	41.48
	174	5.22	11.16	5.80	43.78
V-C Granulated Fertilizer 5-10-5	Guaranteed	5.00	10.00	5.00	40.00
	81	4.70	11.83	6.80	44.56
	155	4.71	10.36	8.30	43.15
	366	4.52	10.06	8.52	42.20
	503	5.04	10.30	5.02	40.74
	541	5.52	10.60	5.70	43.46
	596	6.78	9.38	6.02	45.12
	734	4.88	10.60	5.70	41.54
	819	5.28	10.00	6.80	42.64
	921	5.80	11.10	4.35	43.95

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$	
	966	5.90	10.20	6.10	44.20	
	987	5.22	11.40	5.15	43.61	
	1082	5.46	11.68	6.00	45.74	
V-C Fertilizer 5-10-10	Guaranteed	5.00	10.00	10.00	45.00	
	156	5.00	10.96	9.20	46.12	
V-C Fertilizer 6-12-6	Guaranteed	6.00	12.00	6.00	48.00	
	107	6.00	12.76	6.00	49.52	
	177	6.72	12.98	6.50	52.62	
	201	6.04	13.30	5.61	50.33	
	1724	5.56	12.40	6.00	47.48	
V-C Granulated Fertilizer 6-12-6	Guaranteed	6.00	12.00	6.00	48.00	
	891	6.92	12.10	6.30	51.26	
	925	7.02	12.70	6.10	52.56	
	1095	6.30	12.50	6.30	50.20	
	1282	7.24	10.70	7.70	50.82	
	1324	6.02	12.70	6.00	49.46	
	1336	5.80	13.30	5.80	49.80	
	1369	6.00	12.60	6.15	49.35	
	1412	5.78	13.20	6.60	50.34	
	1415	5.56	13.20	6.05	49.13	
	1461	7.86	16.20	8.55	64.53	
	1463	5.88	12.90	6.05	49.49	
V-C Fertilizer 8-8-8	Guaranteed	8.00	8.00	8.00	48.00	
	124	8.02	9.04	8.40	50.54	
V-C Granulated Fertilizer 8-8-8	Guaranteed	8.00	8.00	8.00	48.00	
	199	8.01	10.20	9.10	53.53	
	267	8.08	9.80	8.20	52.04	
	516	8.08	8.00	8.20	48.44	
	528	7.76	8.94	7.84	49.00	
	902	8.04	8.80	8.00	49.72	
	953	8.18	9.24	8.06	51.08	
	960	8.22	8.60	8.06	49.92	
	1365	7.64	9.40	8.30	50.02	
	1413	7.80	8.80	8.00	49.00	
1416	7.68	9.10	9.00	50.24		
V-C Granulated Fertilizer 10-20-0	Guaranteed	10.00	20.00	00.00	70.00	
	5	10.00	20.32	00.00	70.64	
	48	9.46	20.16	00.00	68.58	
	303	10.08	22.20	00.00	74.64	
	324	10.22	20.90	00.00	72.46	
	360	10.08	20.10	00.00	70.44	
	922	10.06	21.10	00.00	72.38	
	1131	10.34	20.50	00.00	72.02	
	1250	10.60	21.00	00.00	73.80	
	V-C Granulated Fertilizer 10-20-10	Guaranteed	10.00	20.00	10.00	80.00
		4	10.02	20.23	11.80	82.32
40		10.04	21.20	10.20	82.72	
49		10.08	21.40	10.80	83.84	
58		10.00	22.60	10.00	85.20	
79		10.00	22.39	8.80	83.58	
82		10.04	21.76	9.20	82.84	
86		10.26	21.18	10.60	83.74	
95		10.04	21.10	10.00	82.32	
109		10.00	23.76	10.40	87.92	
115		10.06	23.46	10.26	87.36	
125		10.10	20.18	10.50	81.16	
139		10.02	21.40	11.14	84.00	
143		10.00	20.70	11.20	82.60	
178		9.58	20.86	10.82	81.28	

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1958-59, 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, \$
V-C Granulated Fertilizer 10-20-10											
	183	10.08	20.66	11.62	83.18		519	00.00	20.00	00.00	40.00
	187	10.18	21.30	10.98	84.12		939	00.00	20.80	00.00	41.60
	189	10.02	20.50	10.00	81.06		1118	00.00	20.00	00.00	40.00
	200	9.02	23.32	8.50	82.20	V-C 45% Granular Triple Superphosphate					
	202	10.04	21.30	10.16	82.88	Guaranteed		00.00	45.00	00.00	90.00
	247	10.03	21.40	10.00	82.89		1010	00.00	45.25	00.00	90.50
	253	10.00	20.50	10.40	81.40	V-C 46% Granular Triple Superphosphate					
	254	10.04	20.50	11.08	82.20	Guaranteed		00.00	46.00	00.00	92.00
	266	10.04	21.10	8.50	80.82		1691	00.00	45.50	00.00	91.00
	274	10.10	21.10	10.56	83.06	V-C 47% Granular Triple Superphosphate					
	304	10.08	20.10	12.02	82.46	Guaranteed		00.00	47.00	00.00	94.00
	358	9.62	20.30	10.36	79.82		729	00.00	47.00	00.00	94.00
	367	9.72	20.80	10.40	81.16	V-C Granulated Fertilizer 16-20-0					
	431	8.90	21.10	10.70	79.60	Guaranteed		16.00	20.00	00.00	88.00
	466	9.74	20.20	10.00	79.62		50	16.50	20.00	00.00	89.50
	520	9.60	21.30	9.60	81.00		80	16.22	20.12	00.00	88.90
	527	9.56	20.56	10.60	80.40		275	15.44	21.24	00.00	88.80
	529	9.42	20.00	10.08	78.34		305	14.02	20.90	00.00	83.86
	532	10.04	20.76	10.10	81.74		359	15.36	20.50	00.00	87.08
	536	10.00	20.20	10.02	80.42		438	15.38	20.60	00.00	87.34
	572	10.30	20.18	10.56	81.82		573	15.68	20.00	00.00	87.04
	597	10.00	20.00	10.60	80.60		731	16.36	18.90	00.00	86.88
	730	9.72	20.80	10.70	81.46		1077	16.04	20.00	00.00	88.12
	733	9.78	22.00	9.40	82.74		1119	15.10	20.60	00.00	86.50
	883	9.52	20.30	11.60	80.76		1694	15.72	20.84	00.00	88.84
	892	9.52	20.00	10.00	78.56	V-C Ammonium Nitrate 33.50					
	903	10.42	20.00	11.80	83.06	Guaranteed		33.50	00.00	00.00	100.50
	940	9.78	20.00	10.00	79.34		365	33.54	00.00	00.00	100.62
	994	10.22	20.00	10.10	80.76	WESTERN FERTILIZER COMPANY, MULESHOE, TEXAS					
	1011	10.16	21.00	10.00	82.48	Wesco Fertilizer 0-18-6					
	1076	9.82	19.30	10.40	78.46	Guaranteed		00.00	18.00	6.00	42.00
	1096	10.34	20.00	10.80	81.82		1643	00.00	15.96	6.10	38.02
	1097	10.00	21.60	10.00	83.20	Wesco Fertilizer 0-20-0					
	1261	10.26	20.02	9.00	79.82	Guaranteed		00.00	20.00	00.00	40.00
	1281	9.80	17.70	10.20	75.00		1642	00.00	20.50	00.00	41.00
	1312	10.06	20.60	10.00	81.38	Wesco Fertilizer 10-20-10					
	1337	9.74	20.60	9.80	80.22	Guaranteed		10.00	20.00	10.00	80.00
	1351	10.02	20.50	10.10	81.16		1626	7.94	19.40	10.20	72.82
	1417	9.68	20.30	10.00	79.64	Wesco Fertilizer 13-39-0					
	1424	10.22	20.60	9.80	81.66	Guaranteed		13.00	39.00	00.00	117.00
	1428	9.50	19.50	11.20	78.94		1627	11.14	31.00	00.00	95.42
	1440	9.84	21.00	10.20	81.72	Wesco Fertilizer 16-20-0					
	1446	10.06	20.72	10.40	81.02	Guaranteed		16.00	20.00	00.00	88.00
	1464	9.84	20.90	10.80	82.12		1628	14.78	20.30	00.00	84.94
	1470	9.58	20.78	10.60	80.90	WONDER GRO FERTILIZER CO., INC., SAN ANTONIO, TEXAS					
V-C Granulated Fertilizer 12-12-12						Wonder Gro Fertilizer 10-20-5					
Guaranteed	12.00	12.00	12.00	72.00		Guaranteed		10.00	20.00	5.00	75.00
126	12.00	12.88	12.02	73.78		621	10.78	19.10	4.20	74.74	
144	11.14	13.30	12.50	72.52	Wonder Gro Fertilizer 15-15-0						
1260	11.86	13.28	12.20	74.34	Guaranteed		15.00	15.00	00.00	75.00	
1283	11.02	14.30	11.50	73.16		619	13.40	15.80	00.00	71.80	
V-C Granulated Fertilizer 12-24-12						Wonder Gro Fertilizer 15-30-0					
Guaranteed	12.00	24.00	12.00	96.00		Guaranteed		15.00	30.00	00.00	105.00
184	11.20	24.90	13.60	97.00		622	14.72	29.60	00.00	103.36	
268	11.06	24.50	13.20	95.38	Wonder Gro Fertilizer 16-20-0						
306	10.86	24.00	15.12	95.70	Guaranteed		16.00	20.00	00.00	88.00	
V-C Granulated Fertilizer 13-13-13							620	16.08	21.00	00.00	90.24
Guaranteed	13.00	13.00	13.00	78.00							
1284	10.58	13.90	12.40	71.88							
V-C 20% Superphosphate 0-20-0											
Guaranteed	00.00	20.00	00.00	40.00							
47	00.00	20.70	00.00	41.70							
62	00.00	21.00	00.00	42.00							
221	00.00	20.54	00.00	41.08							
430	00.00	20.06	00.00	40.12							

Fertilizer Guarantors Registered in Texas, 1958-59

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
- Agro-Chem Development Laboratories, P. O. Box 1101, El Paso
- Armour Fertilizer Works, Inc., Box 5296, Dallas
- Armour Fertilizer Works, Inc., Box 1412, Houston
- Associated Growers of Hereford, Hereford
- Associated Laboratories, 2121 S. Central Expressway, Dallas
- Bactex Company, Inc., Box 4065, Station A, San Antonio
- Baker Bros. Co., Box 828, Fort Worth
- Balch-Jackson Co., 623 S. Oakes, San Angelo
- Bell Chemical Co., 1421 Levee St., Dallas 7
- Best Fertilizer Company, 8420 Manchester Street, Houston 12
- Blue Bonnet, Box 1608, Harlingen
- Blume System Tree Experts, 2736 Virginia, Houston 6
- Boesch Farm Products Co., Inc., 607 William St., Lufkin
- Campbell Fertilizer Co., Inc., 102 Japhet Street, Houston
- Cap Rock Fertilizer Co., Littlefield
- Carl Pool Labs, P. O. Box 12188, San Antonio
- Catto & Putty, 510 Soledad, San Antonio
- Central Texas Fertilizer Co., Inc., Box 761, Comanche
- Chemical Products Co., Inc., Box 187, Hurst
- Chemical Specialties Co., Box 1453, Laredo
- Consumer's Fertilizer Co., Inc., Henderson
- R. R. Cunningham, 3800 Northwest Highway, Dallas
- Dennisons, Weslaco
- Diamond J. Feed & Cattle Co., Daingerfield
- E. Dickey, 4604 Rosedale, Austin
- Diversified Products Corp., Box 5184, Dallas
- Dixie Farm Service, Inc., Needville
- Dril-Kem, Inc., 1525B No. Post Oak Road, Houston
- East Texas Products Company, Box 176, Tyler
- Farm and Ranch Fertilizer Co., 102 W. French Pl., San Antonio 12
- Farmers Fertilizer Company, Box 944, Texarkana, Ark-Tex
- Fehmel Dusting Service, P. O. Box 1061, Bay City
- Ferd Staffel Co., Box 2380, San Antonio
- Ferti-Mulch Company, Route 2, Round Rock
- Forrest's Greenhouse, Box 357, Waxahachie
- Gilmer Cotton Oil & Fertilizer Company, Gilmer
- Gulf Coast Organic and Mineral Co., 325 S. Cage Blvd., Pharr
- Gulf Rendering By-Products Corp., Box 865, Galveston
- Hale Laboratories, Box 1348, Bay City
- Harvest Fertilizer and Chemical Co., Rockwall
- Hayes-Sammons Co., Box 633, Mission
- B. L. Henderson & Sons, 1200 National St., P. O. Box 19204, Houston
- Hill's Nursery, Victoria
- Hi-Yield Fertilizer Company, Box 4, Bonham
- Interstate By-Products and Supply Co., Box 1142, Fort Worth
- International Minerals & Chem. Corp., Box 4545, Fort Worth
- Jacksonville Fertilizer Company, Box 1225, Jacksonville
- Jones Farm Store, Box 786, Muleshoe
- Kendrick Fertilizer Company, Friona
- Kipfer Chemical Company, Box 770, Harlingen
- Klauss-White, 1441 W. Poplar St., San Antonio 7
- Lamkin Bros., P. O. Box 494, Brownwood
- Lister Laboratory, Ltd., Box 84, Helotes
- Lone Star Steel Company, Box 12226, Dallas
- Manning Minerals Corp., Wilson-Tyler Bldg., Box 336, Corpus Christi
- Marbach, E. W., Converse
- Margie Korn Garden Shop, 5213 W. Lovers Lane, Dallas
- Marshall Cotton Oil Company, Marshall
- Mid West Feed Yards, Box 1370, San Angelo
- J. W. Nichols Co., 719 N. Main, Fort Worth
- Old Dutch Mill Fertilizer Co., 2776 Pine, Abilene
- Pan Handle Gold Fertilizer Co., 1745 E. 10th, Amarillo
- Pittsburg Fertilizer Co., Pittsburg
- Plainsman Feeds, 601 E. 5th Street, Plainview
- Port Fertilizer and Chemical Co., Los Fresnos
- Price's El Paso Dairy, P. O. Box 3008 Sta. A., El Paso
- Red Star Fertilizer Company, Box 486, Sulphur Springs
- Rowland-Gordon Farm Chemicals, 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.) P. O. Box 1571, Texas City
- Sod-Gro Fertilizer Co., 205 S. Allen Street, Monahans
- Soil Builders Co., 511 Trudell Drive, San Antonio
- Soil-Nu Company, San Juan

Fertilizer Guarantors Registered in Texas, 1958-59—Cont'd.

Soil Organic Service, 8729 Old County Road,
Ysleta

Soil Prescription Service, Box 573, San Antonio
South Texas Fertilizer & Chemical Co., Rt. 1,
Box 303, El Campo

Southwest Chemical Company, 500 South 19th
Street, McAllen

Southwest Fertilizer Co., Box 12234, Dallas

Southwest Fertilizer and Chemical Co., 5030 East
Paisano Drive, El Paso

Soylaid, Inc., P. O. Box 8155, San Antonio 12

Stauffer Chemical Company, Box 507, Weslaco
Stauffer Chemical Co., Consolidated Chemical In-
dustries Div., 6910 Fannin St., Suite 300 So.,
Houston 25

R. L. Straub Chemical Co., Stanton

Sulphur Industries Corp., 628 Fidelity Bldg.,
Dallas

SurGreen Chemical Co., P. O. Box 725, Aransas
Pass

Swift & Company, Plant Food Div., Box 7707,
Houston

Tex-Ammonia, Inc., Elsa

Texas Agricultural Chemical Co., P. O. Box 745,
Fort Worth

Texas City Chemicals, P. O. Box 1571, Texas City

Texas Farm Products, Box 31, Nacogdoches

Texas Farm Supply, 1820 Ave. H., Bay City

Texas Liquid Fertilizer Company, Box 808,
La Feria

Texas Vermiculite Co., 2651 Manila Road, Dallas

Tide Petroleum Products Inc., 800 North Closner,
Edinburg

Tri-State Soil Products Company, 2218 N. Piedras
Street, El Paso

Tyler Fertilizer Company, 420 South Oakland,
Tyler

United Chemical & Fertilizer Co., P. O. Box 1052,
Pecos

Valley Growers Cooperative, Box 907, Mission

Warden Plant Food Co., Route 7, Box 74,
Austin 4

Western Fertilizer Company, Muleshoe

Wilson Chemical & Testing Laboratory, P. O.
Box 1101, El Paso

Wonder-Gro Corp., Room 2, International Air-
port, San Antonio

Wood Chemical Co., Box 599, Lubbock

Wyatt Wholesale Inc., 609 W. 11th Street, San
Angelo

Young's Horticultural & Pest Control Chem. Co.,
Rt. 2, Box 89, Snyder

Located Elsewhere

Agricultural Products Company, Box 658,
Anthony, New Mexico

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

AmChem Products, Inc., Ambler, Pennsylvania

American Agricultural Chemical Co., 100 Church
Street, New York 7, New York

American Bulb Co., 711 Third Ave., New York
17, New York

American Cyanamid Company, P. O. Box 383,
Princeton, New Jersey

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

The Anaconda Company, Anaconda, Montana

Arkmo Plant Food Co., Inc., Walnut Ridge,
Arkansas

Associated Cooperatives, Inc., 750 W. 20th Ave.,
Sheffield, Alabama

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

B & W Fertilizer Company, Columbus, Nebraska

Better Homes Bureau, Newark, New York

Bio Products, Inc., Warrenton, Oregon

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

Bradley & Baker, 1401 Peach Tree St., Atlanta 9,
Georgia

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

H. D. Campbell Company, Rochelle, Illinois

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

Cloro-Spray Corp., 2215 N. American, Philadel-
phia 33, Pennsylvania

Coastal Chemical Corp., Yazoo City, Mississippi
Colorado Fuel and Iron Corp., Box 1920, Denver,
Colorado

Commercial Solvents Corp., 260 Madison Ave.,
New York 61, New York

Crown Zellerbach Corp., Chemical Products Div.,
Camas, Washington

Davey Tree Expert Company, 117 So. Water
Street, Kent, Ohio

Davison Chemical Company, P. O. Box 987,
Joplin, Missouri

Desert Green Corp., P. O. Box 112, Belen,
New Mexico

Dixie Fertilizer Company, Inc., Box 1111,
Shreveport, Louisiana

Dow Chemical Company, Midland, Michigan

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

Farm Craft Feeds, Inc., 2340 Maury Street,
Des Moines, Iowa

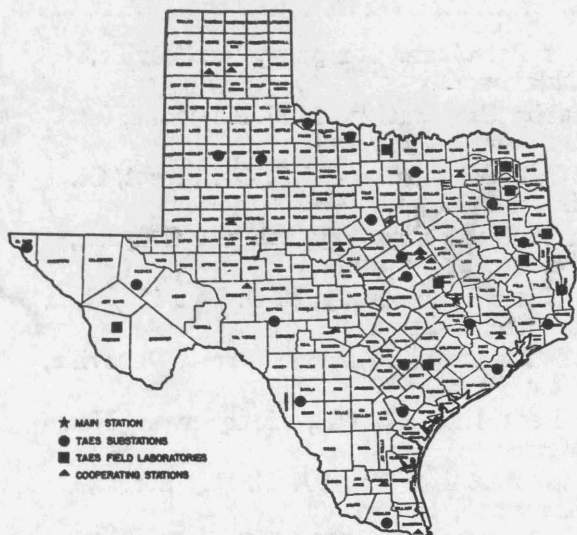
Ferro Corporation, 4150 East 56th St.,
Cleveland 5, Ohio

Ford Motor Company, Dearborn, Michigan

Fertilizer Guarantors Registered in Texas, 1958-59—Cont'd.

- Fort Smith Cotton Oil Company, Fort Smith, Arkansas
- Garden Research Laboratory, 565 Fifth Ave., Room 400, New York 17, New York
- Geigy Agricultural Chemicals, P. O. Box 430, Yonkers, New York
- Goulard and Olena, Inc., Skillman, New Jersey
- Grace Chemical Co., Box 4906, Memphis 7, Tennessee
- Grand River Chem. Div. of Deere & Co., Box 1417, Pryor, Oklahoma
- Heinl's Greenhouse Laboratories, 4401 LaGrange Street, Toledo, Ohio
- Heller Greenhouse Laboratories, 218 E. Pikes Peak Ave., Colorado Springs, Colorado
- A. H. Hoffman, Inc., Landisville, Pennsylvania
- Hydro-Pak Company, P. O. Box 666, Savannah, Georgia
- Hydroponic Chemical Company, Inc., Copley, Ohio
- Hy-Gro Corp., 1101 Maryland Ave., Baltimore 1, Maryland
- International Mineral & Chemical Corp., Box 928, Texarkana, Arkansas
- International Minerals & Chem. Corp., Thompson Phosphate Div., Old Orchard Road, Skokie, Illinois
- Kelly, Weber and Company, Inc., Lake Charles, Louisiana
- Lake Charles Feed Company, Inc., Lake Charles, Louisiana
- Leeds Chemical Products, 531 Webster Street, Chicago, Illinois
- O. E. Linck Company, Clifton, New Jersey
- Loncala Phosphate Company, Box 338, High Springs, Florida
- Mid-South Chemical Corp., 1222 Riverside Blvd., Memphis, Tennessee
- Minden Cotton Oil and Ice Company, Ltd., Minden, Louisiana
- Mississippi Chemical Corp., Yazoo City, Mississippi
- Monsanto Chemical Co., Lindbergh & Olive St. Road, St. Louis 24, 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
- Nitro-Form Agricultural Chemicals, 92 Sunny-side Ave., Woonsocket, R. I.
- Olin Mathieson Chemical Corp., Box 991, Little Rock, Arkansas
- Ozark-Mahoning Co., 310 W. Sixth St., Tulsa 1, Oklahoma
- Phillips Petroleum Company, Bartlesville, Oklahoma
- Plantabbs Corporation, 1105 Maryland, Baltimore, Maryland
- Plant Shine Company, 404 S. 4th Street, St. Louis 2, Missouri
- Proen Products Company, 9th and Grayson, Berkeley, California
- Ralph's Ironite Company, P. O. Box 420, Casa Grande, Arizona
- Ra-Pid-Gro Corp., 88 Ossian Street, Dansville, New York
- Ravel Bros. Inc., Box 462, Albuquerque, New Mexico
- Reliance Fertilizer Co., 106 E. Bay Street, Savannah, Georgia
- Reuter Seed Co., Inc., 320 N. Carrollton, Ave., New Orleans 9, Louisiana
- Ruhm Phosphate & Chemical Co., 813 S. Garden St., Columbia, Tennessee
- Scope Chemicals, 279 Ninth St., Benton Harbor, Michigan
- 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
- Soil Booster Corp., 2501 East Fourth St., Oklahoma City, Oklahoma
- Southern Nitrogen Supply Co., Yazoo City, Mississippi
- Spencer Chemical Company, 610 Dwight Building, Kansas City, Missouri
- Stimuplant Labs, Box 1955, Columbus 16, Ohio
- Stockdale Fertilizer Co., Morris, Illinois
- Sunshine Plant Food Co., Inc., Clovis, New Mexico
- Swift & Company, Plant Food Div., Box 3567, Queensboro Station, Shreveport, La.
- Tennessee Corp., 619-29 Grant Building, Atlanta, Georgia
- Tyson Farms, Inc., Springdale, Arkansas
- U. S. Phosphoric Division, Tennessee Corp., Box 3269, Tampa 1, Florida
- Victor Chemical Works, 155 N. Wacker Drive, Chicago 6, Illinois
- Virginia-Carolina Chemical Corp., Box 3218, Queensboro Station, Shreveport, La.
- Western Agricultural Chem. Company, P. O. Box 1074, Colorado Springs, Colo.
- Western Phosphates, Inc., Box 893, Salt Lake City 10, Utah
- Worm Profit Farms, 2233 Laura, Wichita, Kansas

State-wide Research



★ MAIN STATION
● TAES SUBSTATIONS
■ TAES FIELD LABORATORIES
▲ COOPERATING STATIONS

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

★

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

ORGANIZATION

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. Cooperating agencies include the Texas Forest Service, Game and Fish Commission of Texas, Texas Prison System, U. S. Department of Agriculture, University of Texas, Texas Technological College, Texas College of Arts and Industries and the King Ranch. Some experiments are conducted on farms and ranches and in rural homes.

OPERATION

THE TEXAS STATION is conducting about 400 active research projects, grouped in 25 programs, which include all phases of agriculture in Texas. Among these are:

Conservation and improvement of soil	Beef cattle
Conservation and use of water	Dairy cattle
Grasses and legumes	Sheep and goats
Grain crops	Swine
Cotton and other fiber crops	Chickens and turkeys
Vegetable crops	Animal diseases and parasites
Citrus and other subtropical fruits	Fish and game
Fruits and nuts	Farm and ranch engineering
Oil seed crops	Farm and ranch business
Ornamental plants	Marketing agricultural products
Brush and weeds	Rural home economics
Insects	Rural agricultural economics
	Plant diseases

Two additional programs are maintenance and upkeep, and central services.

Research results are carried to Texas farmers, ranchmen and homemakers by county agents and specialists of the Texas Agricultural Extension Service

AGRICULTURAL RESEARCH seeks the WHATS, the WHYS, the WHENS, the WHEREs and the HOWS of hundreds of problems which confront operators of farms and ranches, and the many industries depending on or serving agriculture. Workers of the Main Station and the field units of the Texas Agricultural Experiment Station seek diligently to find solutions to these problems.

Today's Research Is Tomorrow's Progress