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- Analysis of
- *Commercial Fertilizers*
- Sold during 1957-58

August 1958

DIGEST

This is the 56th annual report of the operation of the Texas fertilizer law and covers the period from September 1, 1957 to August 31, 1958.

Fertilizers and fertilizer materials sold during the fertilizer year beginning July 1, 1957, amounted to 666,130 tons, which was a 12 percent increase over the tonnage sold during the preceding year. Sales of mixed goods increased 3 percent while sales of materials increased 17 percent. Grades of the 1-2-1 ratio accounted for 72 percent, and the 1-1-1 ratio for 9 percent, of the total of 276,972 tons of mixed goods sold. Mixed goods made up 42 percent of the total tonnage sold. Nitrogen materials accounted for 58 percent, superphosphates for 15 percent and ammoniated phosphates for 22 percent of the total of 389,157 tons of materials sold.

Analyses are given of 1,673 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 1957-58

J. F. FUDGE, State Chemist

THIS IS THE 56TH 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 5-10-5 Fertilizer*.

Labels

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

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

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

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

Report of Sales

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

GRADES APPROVED FOR 1958-59

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 5-10-5 means that the fertilizer is guaranteed by the guarantor to contain 5 percent nitrogen, 10 percent available phosphoric acid and 5 percent water-soluble potash. The term *grade* also may refer to the percentage of a primary component in a fertilizer material, as in 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 5-10-5 fertilizer contains 1 part of nitrogen to 2 parts of available phosphoric acid and to 1 part of potash. Consequently, this fertilizer has a 1-2-1 ratio; other grades having this ratio include 6-12-6, 10-20-10 and 12-24-12.

The grades of mixed farm fertilizers sold in Texas have been limited in number for 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 grades held at Galveston, Texas, on July 18, 1958, the Texas Fertilizer Committee raised the minimum grade in the 1-2-1 ratio to 6-12-6.

As a result of this action, the approved ratios and minimum grades during the year starting September 1, 1958, 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
 B. G. Hancock, Extension Horticulturist
 O. J. Moss, Agricultural Conservation and Stabilization, U. S. Department of Agriculture
 Donald R. Paterson, Associate Horticulturist
 J. S. Rogers, Head, Department of Agronomy
 Ben R. Spears, Extension Agronomist
 J. B. Storey, Assistant Professor of Horticulture

Nichols
 Nitra-Phos
 Nitro-Form
 N. O. M.
 N-Rich-R
 Nu-Green
 Nurish
 Old Black Joe
 Old Dutch Mill
 Oleander
 Org U Phos
 Ortho
 Ortho-Gro
 Ozark
 Palo Duro
 Pasturgro
 P. D. Q.
 Pelleform
 Phillips 66
 Plainsman
 Plantabbs
 Plantation
 Plant-Gro
 Plantrons
 Port
 Pride of the Garden
 Rainbow
 Ra-Pid-Gro
 Red Stag
 Red Star
 Red Steer
 Reliance
 Reuter's Special
 Robot Gardner
 R. S. S.
 Ruhm's
 Scott's
 Sequestrene
 Shur-Crop
 Shur-Green
 Sod-Gro
 Soil Booster
 Soil Nu
 Sowesco
 Soyland
 Spensol
 S S S
 Sta-Green
 Star
 Staffer's
 Stauffer's
 Steamboat
 Stim-U-Plant
 Sulfa Soil
 Sul-Po-Mag
 Swfgas
 Swfgr
 Swfkick
 Swfphos
 Tacco
 Take-Hold
 T. C. C.
 Tencor
 Terra Lite
 Texas Farm Supply
 Texas Green Acres
 Texas Liquid
 Texas Longhorn
 Texas Pride
 Tex-Hi
 Tide Green
 Top Crop
 Topper
 Trebo Phos
 Tri-40
 Uramite
 Valley Gro
 V-C
 Vita-Pure
 Vitogro
 Vertagreen
 Vigoro
 Vitrea
 Wacco
 Water Feed
 Weber-King
 Wesco
 Wonder-Gro
 Woodgrow
 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 1957-58:

AA Quality	CP Texgreen	Gro-Tex
ACI-42	Cross Country	Heart
AC I-45	C. S. C.	Heart of Texas
Aero	Davco	Heller-Gro
Aero-Phos	Davey	Hill's
Ageo	Desert Green	Hi-Yield
Agri-Chem	Dixie	Hoffman's
All-Weather	Dixsol	Hou-Actinite
Ammo-Phos	Doubleton	Humusol
Anaconda	Dow	Hy-Gro
Anchor	Driconure	Hyponex
Aqua N	Dri-Flo	Indian
Arcadian	DuPont	International
Ark-Mo	Easy Going	Interstate
Armour Pebble	Es Min-El	Kimbell
Armour Big Crop	Fertilaid	K-W
Arrow	Ferti-Lome	La-Tex
Atlas	Ferti-Mulch	Linck's
Bactex	Fidelity	Life
Bal-Jac	Foremost	Lion
Basic G	Ford	Liqua-food
Best	Four Leaf	Liqua Vita
Best Bet	F T E	Liquidry
BFC	Garden Green	Liquikik
Big N	Garden Gro	Lone Star
Big Steer	Garden Mark	Longhorn
Bio-Gro	General	Lonfosco
Black Magic	G. & O.	Lush
Blenn	Golden Harvest	Ma-Der-Gro
BLH	Golden Nugget	M C C
Blue Bonnet	Goldenrod	Magnolia
Blumes	Gold Medal	Magic Valley
Boost	Goldthwaite's	Mathieson
Borden's 38	Grace	Maverick
Brimm	Gran-U-Pels	Mello-Green
Campbell's	Green Dot	M. G.
Granulated	Green Light	Mid-West
Caprock	Green Thumb	Milorganite
C F & I	Green Up	Min-Hu-Nite
Champion	Green Valley	Min-Sol
Chik-a-nure	Gro-Green	Mission
Chloro Spray	Gro-Mo	Mr. N.
Cinagro	Gro-Rite	Mule
Coastal Flori-Gro	Groso	Na-Churs
Columbus	Gro-stuf	Naturizer

INSPECTION FEES COLLECTED

Fertilizer inspection fees equivalent to 623, 865 tons of fertilizer were collected for fertilizer sold during the Texas fiscal year from September 1, 1957 through August 31, 1958. 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
1948-49	492,541
1949-50	545,899
1950-51	598,274
1951-52	621,943
1952-53	558,808
1953-54	543,518
1954-55	603,828
1955-56	566,339
1956-57	626,545
1957-58	623,825

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 2008 (fall sales) and 2050 (spring sales).

Total sales for the year were 12 percent higher than during the preceding year. Sales of mixed goods were 3 percent higher, and of ma-

terials, 17 percent. Mixed goods made up 42 percent of the total tonnage, as compared with 45 percent a year ago. Sales of the 1-2-1 ratio accounted for 72 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 81 percent of the total tonnage of mixed goods. Sales of the 5-10-5 grade were down 14 percent, but those of 10-20-10 were 20 percent higher than a year ago. East Texas used 46 percent of the mixed goods sold in the State, and 53 percent of the goods of the 1-2-1 ratio. East Texas, the Gulf Coast and the North Central areas used 78 percent of the mixed goods. Mixed goods accounted for 81 percent of the total sold

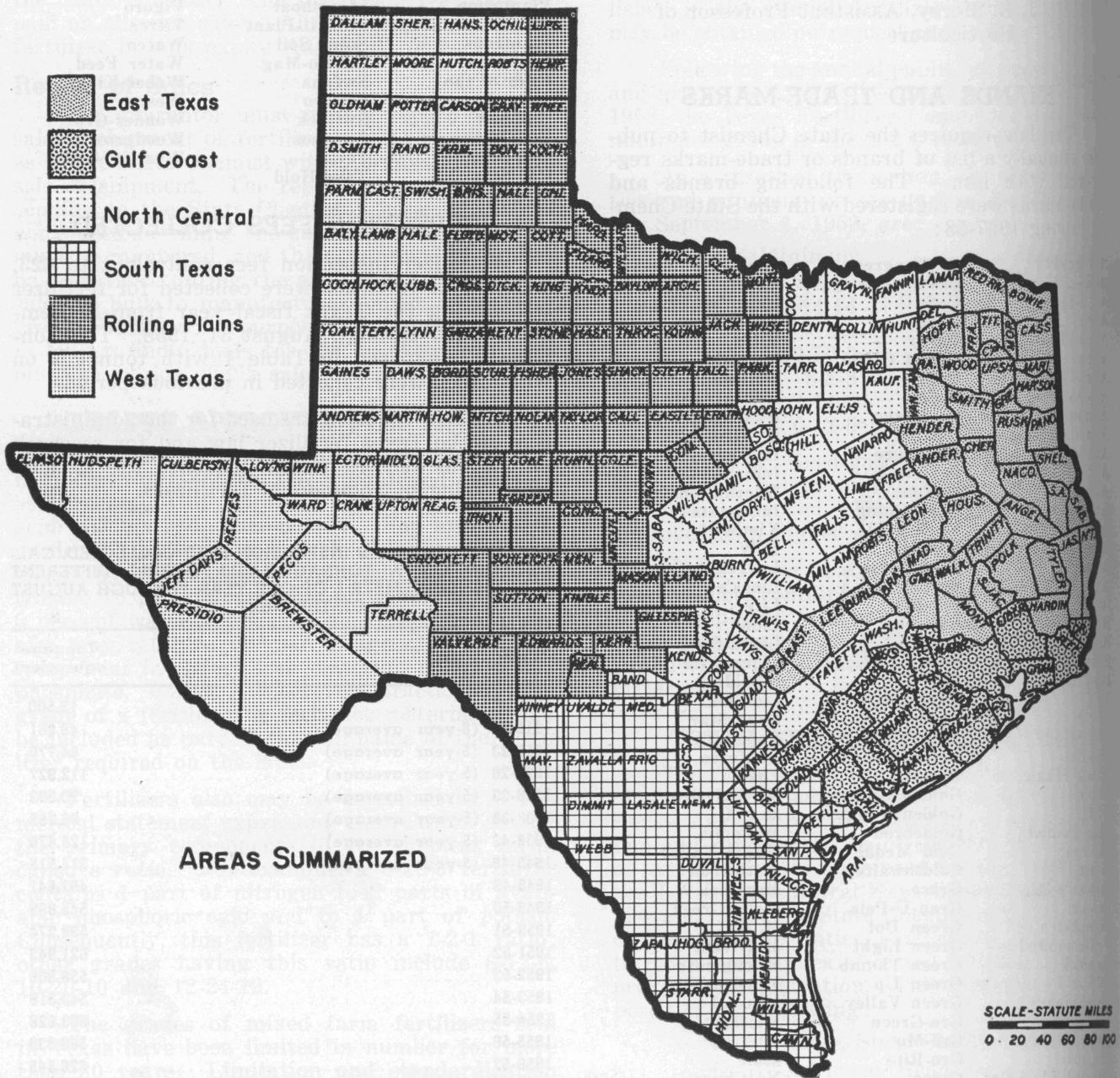


Figure 1. Geographic regions of Texas for which fertilizer data are summarized.

in East Texas, 65 percent of the total sold in the upper Gulf Coast area and only 8 percent of the total sold in West Texas.

The total tonnage of materials sold during the year was 40 percent higher than the total of mixed goods; fall sales of materials were 66 percent higher and spring sales 30 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 more than a third of the ammonium sulfate, and West Texas used more than half of the anhydrous ammonia and nitrogen solutions. Sales of all nitrogen materials showed significant increases, while those of superphosphates showed significant decreases. Anhydrous ammonia supplied 61 percent of the materials nitrogen and 51 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 16 percent of the total nitrogen, 52 percent of the available phosphoric acid and 93 percent of the potash used in the State. The total tonnage of nitrogen was 77 percent higher than the total tonnage of available phosphoric acid. The total tonnage of nitrogen was 33 percent higher than a year ago, while the tonnage of available phosphoric acid was practically the same as last year.

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

Grade	By regions July 1, 1957 to June 30, 1958						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 1957 = 100
Mixed goods										
1-2-1 Ratio (total)	105042	31262	26924	20567	8965	5827	62644	136040	198684	107
5-10-5	49316	7529	12049	8267	4154	355	19307	62361	81668	86
6-12-6	323	1649	860	1256	30	149	1002	3264	4266	239
10-20-10	53641	9664	12846	6304	3177	3220	35986	52966	88952	129
12-24-12	867	12243	693	3006	727	1433	5729	13240	18969	118
Other grades	895	177	476	1734	877	670	620	4209	4829	153
1-1-1 Ratio (total)	12223	9508	1274	964	295	987	3974	21279	25253	92
8-8-8	9253	1701	409	124	43	60	1498	10093	11591	88
12-12-12	1929	3677	484	164	42	64	1023	5337	6360	110
Other grades	1041	4130	381	676	210	863	1453	5849	7302	86
0-2-1 Ratio	731	225	229	209	130	1909	1049	2384	3433	132
1-1-0 Ratio	280	1072	752	3539	85	79	1597	4211	5808	112
1-2-0 Ratio	1737	1711	2361	1383	713	499	3630	4773	8403	68
1-2-2 Ratio	3034	1274	145	189	64	18	1023	3701	4724	108
1-4-4 Ratio	1261	2696	68	644	325	330	1424	3900	5324	112
2-2-1 Ratio	505	1777	636	1988	273	191	980	4391	5371	160
Turf and garden specialties	929	2283	2828	2920	519	1147	2253	7373	9626	81
Other grades	574	2869	1000	2659	720	2523	1660	8684	10344	80
Total mixed goods	126317	54679	36215	34062	12190	13509	80234	196738	276972	103
Relative to 1957	96	105	106	112	107	122	91	108	103	103
Materials										
Nitrogen materials (total)	16506	42488	13466	25275	10248	112818	73377	150124	223501	141
Anhydrous ammonia	2441	1775	1594	5021	3088	76039	33100	56858	89958	146
Ammonium sulfate	3001	31483	9041	10958	4349	22077	23677	57233	80910	137
Ammonium nitrate	10243	857	3646	2858	1816	5849	9718	17350	27068	116
Urea	21	5916	85	1532	692	1510	1459	8197	9656	177
Other solid N	800	300	100	824	0	469	869	1624	2493	116
N solutions	0	2157	0	4082	303	6874	4554	8862	13416	195
N-P materials (total)	2235	26359	7638	16577	5914	23854	26014	56561	82575	112
16-20-0	1908	23551	6587	10541	4073	12076	18551	40184	58735	113
Others	327	2808	1051	6036	1841	11778	7463	16377	23840	108
Superphosphates (total)	5744	7849	10570	9761	2336	20456	24352	32364	56716	77
0-20-0	4927	2069	5633	4591	1240	12582	12459	18584	31043	70
0-37-0 and up	817	5780	4937	5170	1096	7874	11893	13780	25673	86
Rock phosphates	4498	6094	764	264	2	0	5603	6019	11622	213
Potash materials	342	441	210	636	132	1678	541	2897	3438	182
Manures and composts	383	762	1620	1456	832	1356	2192	4217	6409	100
Other products	18	433	766	3337	267	1873	3288	3406	6694	148
Total materials	29727	84426	36035	57304	19630	162035	133567	255590	389157	117
Relative to 1957	100	146	92	127	122	118	117	121	117	117
All fertilizers	156044	139105	72251	90366	31820	175544	213801	452329	666130	112
Relative to 1957	97	127	98	120	116	118	106	115	112	112

Geographic regions of Texas differed widely in the amount of primary components used. Nitrogen consumption increased markedly in all regions, but particularly in West Texas. East Texas used 42 percent of the nitrogen and 44 percent of the available phosphoric acid in mixed goods. West Texas used 53 percent of the total nitrogen and 62 percent of the materials nitrogen used in the State. East Texas and the Gulf Coast used 26 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 1957-58:

	Prices per unit
Nitrogen	\$2.75
Available phosphoric acid	1.75
Total phosphoric acid in tank- age and bone meal.....	.70
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 5-10-5 fertilizer:

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

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

VALUATION GUARANTEED AND FOUND

A comparison of the average valuation guaranteed by fertilizer manufacturers doing business in Texas with the valuation found upon analysis of official samples is shown in Table 4. In the preparation of this table, all analyses made were

TABLE 3. TONNAGE OF PRIMARY FERTILIZER COMPONENTS SOLD JULY 1, 1957, TO JUNE 30, 1958, 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, 1957									
East Texas	3371	1510	4881	6691	956	7647	3417	31	3448
Gulf Coast	1353	4872	6225	2412	3494	5906	1283	90	1373
North Central	992	1847	2839	1895	2853	4748	822	18	840
South Texas	1065	3539	4604	1860	3929	5789	842	59	901
Rolling Plains	133	2075	2208	266	1059	1325	119	15	134
West Texas	118	27000	27118	245	2219	2464	110	86	196
Entire State	7032	40843	47875	13369	14510	27879	6593	299	6892
Relative to 1956	95	153	140	95	86	90	98	230	101
Spring season, January 1 to June 30, 1958									
East Texas	6379	5041	11420	11814	913	12727	6471	149	6620
Gulf Coast	3918	10964	14882	6609	5333	11942	3960	174	4134
North Central	1922	3809	5731	3484	2200	5684	1620	108	1728
South Texas	2066	8320	10386	3311	3604	6915	1444	180	1624
Rolling Plains	824	3200	4024	1613	1280	2893	776	37	813
West Texas	1036	48168	49204	2094	10932	13026	106	655	1661
Entire State	16145	79502	95647	28925	24262	53187	15277	1303	16580
Relative to 1957	114	133	129	116	99	107	116	144	117
Full year, July 1, 1957 to June 30, 1958									
East Texas	9750	6551	16301	18505	1869	20374	9888	180	10068
Gulf Coast	5271	15836	21107	9021	8827	17848	5243	264	5507
North Central	2914	5656	8570	5379	5053	10432	2442	126	2568
South Texas	3131	11859	14990	5171	7533	12704	2286	239	2525
Rolling Plains	957	5275	6232	1879	2339	4218	895	52	947
West Texas	1154	75168	76322	2339	13151	15490	216	741	1857
Entire State	23177	120345	143522	42294	38772	81066	21870	1602	23472
Relative to 1956-7	107	139	133	108	94	101	110	155	112

averaged, even though several were made of each brand. Fertilizer materials and mixed fertilizers were included in the calculation of the averages given. In nearly all cases, the valuation found exceeded the valuation guaranteed.

Rebates found due must be paid to the purchasers of the deficient fertilizers if they can be located. If all purchasers cannot be located by the dealers' records, the rebates must be paid to some recognized local agricultural, religious or charitable organization. The number of lots on which such rebates were paid by each guarantor is shown in Table 4.

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 1,673 official samples of fertilizers and fertilizer materials was collected during 1957-58 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.

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 2008 and spring sales in Progress Report 2050. 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 Sta-

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

Company	Valuation guaranteed	Valuation found	Number averaged	Rebates
Ark-Mo Plant Food Co.	85.22	86.18	9	0
Armour Fertilizer Works, Dallas	57.24	58.68	91	2
Armour Fertilizer Works, Houston	59.58	60.42	206	1
Best Fertilizer Co.	71.17	72.95	18	1
Campbell Fertilizer Co.	41.96	45.52	6	0
Central Texas Fertilizer Co.	65.19	63.10	20	3
Dixie Fertilizer Co.	54.70	57.32	27	0
East Texas Products Co.	57.52	59.05	31	0
Farmers Fertilizer Co.	55.69	56.96	20	0
Gilmer Cotton Oil & Fertilizer Co.	45.05	45.63	5	0
Hayes-Sammons Co.	57.24	59.61	17	1
Hi-Yield Fertilizer Co.	59.81	60.33	111	1
International Minerals & Chemical Corp., Fort Worth	63.65	63.88	142	7
International Minerals & Chemical Corp., Texarkana	55.97	56.54	71	0
Jacksonville Fertilizer Co.	50.92	51.04	9	0
Marshall Cotton Oil Co.	45.05	45.90	5	0
Olin Mathieson Chemical Corp.	81.01	82.78	301	0
Nichols Seed & Fertilizer Co.	68.67	71.68	18	0
Ozark Mahoning Co.	85.25	86.83	7	0
Phillips Chemical Co.	81.70	82.17	11	0
Pittsburg Fertilizer Co.	59.96	62.04	23	1
Red Star Fertilizer Div., SFSA	61.61	64.15	108	0
Smith-Douglass Co.	85.35	87.62	18	0
South Texas Fertilizer & Chemical Company	54.10	56.67	5	0
Southwest Chemical Co.	67.44	68.74	8	1
Swift & Co., Plant Food Div., Houston	64.01	63.92	82	8
Swift & Co., Plant Food Div., Shreveport	54.80	55.49	60	1
Texas Farm Products Co.	59.39	60.19	61	0
Texas Liquid Fertilizer Co.	53.05	60.74	5	0
Tide Petroleum Products	61.00	65.25	10	0
Tyler Fertilizer Co.	60.25	61.81	27	2
Virginia-Carolina Chemical Corp.	58.20	60.76	79	1

tion, Texas. To prevent needless waste, and to insure the best distribution possible of these publications, requestors are urged to limit their re-

quest to publications they have reason to believe will be useful immediately, and which they will take the time to study.

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
AGRI-CHEM OF TEXAS, SAN ANTONIO, TEXAS					
Agri-Chem 24-24-12 Fertilizer					
	Guaranteed	24.00	24.00	12.00	120.00
	315	23.62	24.62	12.90	120.94
ALLIED CHEMICAL & DYE CORP., NEW YORK, N.Y.					
"Arcadian" Uran 32 Solution					
	Guaranteed	32.00	00.00	00.00	88.00
	210	32.12	00.00	00.00	88.33
ARK-LA FEED & FERTILIZER, MAGNOLIA, ARKANSAS					
Magnolia Brand Plant Food 10-20-10					
	Guaranteed	10.00	20.00	10.00	72.50
	74	10.58	19.22	10.10	72.83
ARKMO PLANT FOOD COMPANY, WALNUT RIDGE, ARKANSAS					
Magnolia Brand Plant Food 10-20-10					
	Guaranteed	10.00	20.00	10.00	72.50
	74	10.58	19.22	10.10	72.83
ARKMO PLANT FOOD COMPANY, WALNUT RIDGE, ARKANSAS					
Foremost Premium 0-20-0					
	Guaranteed	00.00	20.00	00.00	35.00
	1604	00.00	20.32	00.00	35.56
General Brand 13-39-0					
	Guaranteed	13.00	39.00	00.00	104.00
	1580	13.01	43.15	00.00	111.29
	1599	13.10	39.00	00.00	104.28
	1601	13.03	39.00	00.00	104.08
	1627	12.44	39.38	00.00	103.13
General Brand 16-20-0					
	Guaranteed	16.00	20.00	00.00	79.00
	1579	16.14	20.02	00.00	79.42
	1600	16.00	20.40	00.00	79.70
	1605	16.01	20.00	00.00	79.03
	1626	16.06	20.00	00.00	79.17
ARMOUR FERTILIZER WORKS, DALLAS, TEXAS					
Armour Big Crop Fertilizer 4-12-4					
	Guaranteed	4.00	12.00	4.00	36.00
	1113	4.06	13.12	4.70	38.83
	1170	4.04	12.82	4.20	37.75
Armour Old Black Joe Fertilizer 5-10-5					
	Guaranteed	5.00	10.00	5.00	36.25
	49	5.05	10.08	5.05	36.58
	78	5.01	10.43	5.05	37.08
	94	4.90	9.50	5.15	35.25
	104	4.57	9.54	4.74	34.00
	127	5.71	11.34	5.60	41.15
	377	4.78	10.20	5.00	36.00
	405	7.48	16.10	7.75	56.50
	424	4.03	10.30	5.00	34.11
	502	4.82	10.80	5.15	37.31
	508	5.20	10.20	5.00	37.15
	686	4.72	10.79	5.05	36.91
	687	5.12	10.30	5.00	37.11
	710	4.28	10.01	5.00	34.29
	714	4.26	11.81	5.00	37.38
	717	4.24	11.05	5.00	36.00
	721	5.01	10.10	5.00	36.45
	730	4.38	10.02	5.00	34.58
	731	5.00	10.52	5.10	37.26

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
	734	5.28	10.45	5.00	37.81
	818	5.03	10.42	5.00	37.07
	819	4.80	10.56	5.05	36.73
	1057	5.06	10.50	5.00	37.29
	1059	4.70	10.12	5.10	35.74
	1073	5.00	10.40	5.05	37.00
	1112	5.02	11.76	5.30	39.69
	1171	5.06	10.52	5.20	37.53
	1190	5.32	10.94	5.00	38.78
	1213	5.00	11.20	5.00	38.35
	1469	5.04	11.00	5.05	38.16
	1473	4.78	10.40	5.02	36.37
	1492	5.03	10.76	5.00	37.66
	1667	4.74	10.26	5.30	36.29
Armour Vertagreen Plant Food Commercial 5-10-5					
	Guaranteed	5.00	10.00	5.00	36.25
	713	5.16	10.66	5.00	37.85
Armour Big Crop Fertilizer 5-10-10					
	Guaranteed	5.00	10.00	10.00	41.25
	1	4.69	10.11	10.40	40.99
Armour Big Crop Fertilizer 8-8-8					
	Guaranteed	8.00	8.00	8.00	44.00
	423	7.25	8.66	8.30	43.39
	1268	8.02	8.76	9.00	46.39
Armour Pebble Plant Food 10-20-0					
	Guaranteed	10.00	20.00	00.00	62.50
	531	10.38	20.10	00.00	63.72
	665	10.02	20.06	00.00	62.66
	1060	10.06	20.06	00.00	62.77
	1223	9.74	21.80	00.00	64.94
Armour Old Black Joe Fertilizer 10-20-10					
	Guaranteed	10.00	20.00	10.00	72.50
	2	9.25	20.18	10.40	71.15
	95	10.00	20.40	10.44	73.64
	105	9.45	20.50	10.00	71.86
	386	10.03	20.00	10.10	72.68
	394	10.03	20.06	10.30	72.99
	425	9.42	20.00	10.10	71.01
	507	9.38	20.60	10.10	71.95
	526	9.58	20.96	10.00	73.03
	564	9.70	19.15	10.10	70.29
	570	9.60	20.00	9.55	70.95
	688	9.54	21.35	10.10	73.70
	711	9.04	21.22	10.00	72.00
	715	8.88	21.69	10.10	72.48
	722	9.42	20.33	10.20	71.68
	1172	8.98	21.00	10.30	71.75
	1191	9.60	20.90	10.60	73.58
	1214	7.68	18.66	10.00	63.78
	1224	9.44	19.83	10.40	71.06
	1232	9.00	20.08	10.10	69.99
	1266	10.36	20.22	10.60	74.48
Armour Pebble Plant Food 10-20-10					
	Guaranteed	10.00	20.00	10.00	72.50
	37	10.51	20.50	10.20	74.98
	378	10.00	20.00	10.10	72.60
	436	9.30	23.02	10.00	75.86
	503	9.62	21.46	10.00	74.01
	1052	10.64	20.35	10.60	75.47
	1185	9.56	21.58	10.10	74.16
	1564	10.01	20.00	10.04	72.57

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Armour Vertagreen Plant Food Commercial	10-20-10				
Guaranteed		10.00	20.00	10.00	72.50
1546		10.00	18.89	10.60	71.16
Armour Pebble Plant Food	12-12-12				
Guaranteed		12.00	12.00	12.00	66.00
1233		11.68	13.90	12.40	68.85
1358		12.06	14.54	12.00	70.61
Armour Pebble Plant Food	12-24-12				
Guaranteed		12.00	24.00	12.00	87.00
1497		11.60	22.96	12.20	84.28
Armour Pebble Plant Food	15-15-0				
Guaranteed		15.00	15.00	00.00	67.50
535		13.40	20.13	00.00	72.08
Armour Big Crop Fertilizer	20% Superphosphate 0-20-0				
Guaranteed		00.00	20.00	00.00	35.00
376		00.00	20.70	00.00	36.23
1222		00.00	20.08	00.00	35.14
Armour Pebble Plant Food	45% Superphosphate 0-45-0				
Guaranteed		00.00	45.00	00.00	78.75
532		00.00	45.08	00.00	78.89
537		00.00	45.70	00.00	80.12
569		00.00	45.02	00.00	78.79
1061		00.00	45.00	00.00	78.75
1192		00.00	45.70	00.00	79.98
Armour Pebble Plant Food	13-39-0				
Guaranteed		13.00	39.00	00.00	104.00
566		12.54	39.00	00.00	102.74
899		13.04	38.48	00.00	103.20
908		12.48	38.00	00.00	100.82
Armour Pebble Plant Food	16-20-0				
Guaranteed		16.00	20.00	00.00	79.00
536		15.22	22.52	00.00	81.27
565		15.20	18.66	00.00	74.46
571		14.78	20.48	00.00	76.49
1493		16.00	20.56	00.00	79.98
1530		14.22	22.58	00.00	78.62
1535		16.24	18.70	00.00	77.39
1596		16.48	17.89	00.00	76.63
ARMOUR FERTILIZER WORKS, HOUSTON, TEXAS					
Armour Big Crop Fertilizer	4-12-4				
Guaranteed		4.00	12.00	4.00	36.00
992		4.42	13.00	4.35	39.26
Armour Old Black Joe Fertilizer	5-10-5				
Guaranteed		5.00	10.00	5.00	36.25
201		5.02	10.20	4.85	36.51
212		4.85	10.18	5.00	36.15
223		5.05	10.20	5.10	36.84
232		4.67	10.16	5.20	35.82
330		4.59	10.30	5.00	35.65
341		5.04	10.38	5.00	37.03
342		5.00	10.08	5.05	36.44
347		5.00	10.36	5.10	36.98
364		5.00	10.03	5.00	36.30
381		5.01	10.30	5.10	36.90
452		5.00	10.01	5.00	36.28
456		5.01	10.22	5.15	36.81
458		5.02	10.66	5.05	37.51
462		4.68	10.32	5.05	35.98
471		4.87	10.88	5.10	37.53
489		4.65	10.56	5.00	36.27
545		4.68	10.30	5.00	35.90
551		5.00	10.46	5.15	37.21
601		5.02	10.50	5.14	37.32
609		5.03	10.00	5.00	36.33
633		4.62	10.10	5.00	35.38

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
	763	4.60	10.76	5.10	36.58
	836	5.04	10.02	5.00	36.40
	869	4.74	10.10	5.00	35.71
	879	4.76	10.38	5.00	36.26
	881	5.06	10.00	4.50	35.92
	883	4.74	10.00	5.00	35.54
	886	4.70	10.44	5.00	36.20
	888	5.18	10.08	4.85	36.74
	896	4.34	10.40	5.00	35.14
	900	4.84	11.20	5.00	37.91
	972	4.88	10.49	5.05	36.83
	977	4.84	10.54	5.05	36.81
	993	4.37	10.46	5.05	35.37
	999	4.94	10.82	5.00	37.52
	1012	5.14	10.00	5.00	36.64
	1019	5.36	13.48	5.00	43.33
	1051	4.88	10.50	5.15	36.95
	1092	5.16	10.70	5.37	38.29
	1098	5.04	10.00	5.05	36.41
	1103	5.02	10.98	5.25	38.27
	1115	5.03	10.90	5.35	38.26
	1161	4.62	10.18	5.05	35.57
	1404	5.00	10.30	5.00	36.78
	1405	5.01	10.30	5.00	36.80
	1418	5.03	10.34	5.00	36.93
	1424	5.18	10.60	5.02	37.82
	1448	5.56	10.50	5.00	38.67
	1460	5.03	10.80	5.15	37.88
	1462	5.01	10.70	5.00	37.50
	1507	5.00	10.48	5.03	37.12
	1671	5.00	10.26	5.40	37.11
Armour Vertagreen Plant Food	5-10-5				
Guaranteed		5.00	10.00	5.00	36.25
909		5.36	10.30	5.00	37.77
910		4.76	10.10	5.05	35.82
Armour Pebble Plant Food	5-20-20				
Guaranteed		5.00	20.00	20.00	68.75
313		4.73	20.98	20.00	69.72
Armour Pebble Plant Food	6-12-6				
Guaranteed		6.00	12.00	6.00	43.50
186		5.32	12.58	6.03	42.68
224		5.67	12.00	6.00	42.59
249		5.66	12.03	6.00	42.62
884		5.58	11.76	6.00	41.93
887		6.04	12.22	6.00	44.00
897		6.16	12.02	6.05	44.03
1117		6.16	12.72	6.15	45.35
1137		5.68	12.20	6.20	43.17
Armour Big Crop Fertilizer	8-8-8				
Guaranteed		8.00	8.00	8.00	44.00
1017		8.18	9.90	8.00	47.82
1461		7.84	9.00	8.00	45.31
Armour Vertagreen Plant Food Commercial	10-10-5				
Guaranteed		10.00	10.00	5.00	50.00
924		10.34	11.32	5.20	53.45
1618		10.26	11.30	5.00	52.99
Armour Pebble Plant Food	10-20-0				
Guaranteed		10.00	20.00	00.00	62.50
225		10.35	21.26	00.00	65.67
241		10.13	21.00	00.00	64.61
243		9.81	20.16	00.00	62.26
368		7.26	19.36	00.00	53.85
475		9.72	21.30	00.00	64.00
494		10.18	20.02	00.00	63.03
600		10.04	21.26	00.00	64.82
634		9.00	21.92	00.00	63.11
772		10.00	21.08	00.00	64.39
798		10.14	20.00	00.00	62.89

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, 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, \$
Armour Pebble Plant Food	10-20-0					Armour Pebble Plant Food	12-24-12				
	837	10.48	20.66	00.00	64.98	Guaranteed	12.00	24.00	12.00	12.00	87.00
	890	10.04	20.80	00.00	64.01	898	10.96	24.00	12.60	12.40	84.74
	994	10.14	20.00	00.00	62.89	979	11.34	25.40	12.40	12.40	88.04
	1013	10.50	20.00	00.00	63.88	1409	11.22	24.02	12.00	12.00	84.89
	1039	9.76	22.00	00.00	65.34	Armour Pebble Plant Food	15-15-0				
	1104	9.70	21.36	00.00	64.06	Guaranteed	15.00	15.00	00.00	00.00	67.50
	1406	10.03	20.30	00.00	63.11	239	13.86	18.49	00.00	00.00	70.47
	1446	10.18	20.06	00.00	63.10	1107	14.57	17.32	00.00	00.00	70.38
Armour Vertagreen Plant Food Commercial	10-20-5					Armour Pebble Plant Food	20% Superphosphate	0-20-0			
Guaranteed	10.00	20.00	5.00	5.02	67.50	Guaranteed	00.00	20.00	00.00	00.00	35.00
1536	10.06	20.70	5.02	5.02	68.91	187	00.00	20.86	00.00	00.00	36.51
Armour Pebble Plant Food	10-20-10					188	00.00	21.05	00.00	00.00	36.84
Guaranteed	10.00	20.00	10.00	10.00	72.50	200	00.00	21.20	00.00	00.00	37.10
181	10.00	21.42	10.20	10.20	75.19	211	00.00	22.85	00.00	00.00	39.99
217	8.59	22.48	10.10	10.10	73.06	216	00.00	20.00	00.00	00.00	35.00
229	10.05	19.00	10.20	10.20	71.09	228	00.00	20.02	00.00	00.00	35.04
233	9.16	21.50	10.20	10.20	73.02	297	00.00	21.39	00.00	00.00	37.43
235	9.74	20.00	10.10	10.10	71.89	365	00.00	20.51	00.00	00.00	35.89
244	9.28	21.46	10.10	10.10	73.18	870	00.00	20.40	00.00	00.00	35.70
343	9.22	22.00	10.00	10.00	73.86	942	00.00	20.58	00.00	00.00	36.02
348	9.41	22.02	10.00	10.00	74.41	965	00.00	20.80	00.00	00.00	36.40
359	9.51	21.70	10.10	10.10	74.23	1037	00.00	20.60	00.00	00.00	36.05
366	10.71	18.68	10.10	10.10	72.24	1153	00.00	20.12	00.00	00.00	35.21
382	9.10	21.90	10.00	10.00	73.35	Armour Pebble Plant Food	45% Superphosphate	0-45-0			
476	9.78	21.36	10.00	10.00	74.28	Guaranteed	00.00	45.00	00.00	00.00	78.75
478	10.01	20.12	10.30	10.30	73.04	192	00.00	45.57	00.00	00.00	79.75
482	10.00	20.26	10.10	10.10	73.06	213	00.00	45.20	00.00	00.00	79.10
490	10.05	19.44	10.00	10.00	71.66	231	00.00	45.80	00.00	00.00	80.15
495	9.82	21.28	10.00	10.00	74.25	236	00.00	45.13	00.00	00.00	78.98
539	10.04	21.90	10.00	10.00	75.94	264	00.00	45.40	00.00	00.00	79.45
761	9.62	21.20	10.00	10.00	73.56	270	00.00	45.40	00.00	00.00	79.45
764	10.34	19.32	10.20	10.20	72.45	280	00.00	45.70	00.00	00.00	79.98
773	11.48	21.60	10.00	10.00	78.85	329	00.00	45.00	00.00	00.00	78.75
799	9.46	20.58	10.00	10.00	72.03	344	00.00	46.00	00.00	00.00	80.50
835	10.04	20.30	10.00	10.00	73.14	527	00.00	45.82	00.00	00.00	80.19
889	10.04	20.00	10.00	10.00	72.61	774	00.00	45.58	00.00	00.00	79.77
891	9.18	22.88	10.00	10.00	75.29	926	00.00	45.20	00.00	00.00	79.10
911	9.74	20.60	10.10	10.10	72.94	931	00.00	44.58	00.00	00.00	78.02
916	9.72	21.40	10.00	10.00	74.18	944	00.00	45.00	00.00	00.00	78.75
1000	10.18	20.10	10.00	10.00	73.17	1024	00.00	45.00	00.00	00.00	78.75
1018	10.10	21.30	10.30	10.30	75.35	1038	00.00	45.08	00.00	00.00	78.89
1036	10.18	21.70	10.20	10.20	76.17	1087	00.00	45.08	00.00	00.00	78.89
1042	9.74	21.78	10.00	10.00	74.90	1432	00.00	45.36	00.00	00.00	79.38
1093	10.08	21.90	10.00	10.00	76.05	Armour Pebble Plant Food	13-39-0				
1105	10.02	20.98	10.80	10.80	75.07	Guaranteed	13.00	39.00	00.00	00.00	104.00
1142	9.62	20.95	10.00	10.00	73.12	298	11.78	40.34	00.00	00.00	102.99
1403	10.22	20.80	10.16	10.16	73.62	334	11.55	39.16	00.00	00.00	100.29
1407	10.00	20.58	10.03	10.03	73.55	339	13.00	39.00	00.00	00.00	104.00
1447	10.00	20.20	10.18	10.18	73.03	370	12.08	39.60	00.00	00.00	102.52
1449	10.04	20.90	10.00	10.00	74.19	540	12.40	39.90	00.00	00.00	103.93
1457	10.02	20.03	10.20	10.20	72.81	966	13.06	39.67	00.00	00.00	105.34
1508	9.72	19.74	10.80	10.80	72.08	1109	13.00	39.70	00.00	00.00	105.23
Armour Vertagreen Plant Food Commercial	10-20-10					Armour Pebble Plant Food	16-20-0				
Guaranteed	10.00	20.00	10.00	10.00	72.50	Guaranteed	16.00	20.00	00.00	00.00	79.00
915	9.36	21.20	10.30	10.30	73.14	234	16.00	20.77	00.00	00.00	80.35
1116	9.32	21.94	10.10	10.10	74.13	240	15.64	20.16	00.00	00.00	78.29
1147	9.70	20.66	10.10	10.10	72.93	245	15.13	20.50	00.00	00.00	77.48
Armour Vertagreen Plant Food	12-12-6					250	16.00	19.66	00.00	00.00	78.41
Guaranteed	12.00	12.00	6.00	6.00	60.00	335	16.11	19.00	00.00	00.00	77.55
925	11.74	12.82	6.05	6.05	60.77	349	15.17	22.80	00.00	00.00	81.62
1162	11.08	14.60	6.50	6.50	62.52	369	15.05	21.20	00.00	00.00	78.49
Armour Pebble Plant Food	12-12-12					477	15.65	20.00	00.00	00.00	78.04
Guaranteed	12.00	12.00	12.00	12.00	66.00	558	15.10	24.42	00.00	00.00	84.26
379	11.35	13.90	13.20	13.20	68.74	610	14.78	20.00	00.00	00.00	75.65
762	12.12	12.86	12.20	12.20	68.04	760	14.48	25.50	00.00	00.00	84.45
882	11.32	13.06	11.60	11.60	65.59	893	15.76	20.50	00.00	00.00	79.22
892	11.30	13.10	12.20	12.20	66.20	978	15.48	23.00	00.00	00.00	82.82
941	11.60	14.20	12.00	12.00	68.75	995	15.74	22.16	00.00	00.00	82.07

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
Armour Pebble Plant Food	16-20-0				
	1033	15.11	22.80	00.00	81.45
	1099	15.66	22.32	00.00	82.13
	1108	16.42	19.53	00.00	79.33
	1138	16.22	19.85	00.00	79.34
	1143	14.88	23.50	00.00	82.05
	1148	14.98	24.00	00.00	83.20
	1408	15.66	19.60	00.00	77.37
	1452	16.01	20.40	00.00	79.73
	1509	15.66	18.90	00.00	76.14
Armour Ammonium Sulphate 21%	21-0-0				
Guaranteed	21.00	00.00	00.00	00.00	57.75
	538	21.00	00.00	00.00	57.75
	768	21.03	00.00	00.00	57.83
	923	21.01	00.00	00.00	57.78
THE BEST FERTILIZER COMPANY, HOUSTON, TEXAS					
Best Granular Mixed Fertilizer	0-24-24				
Guaranteed	00.00	24.00	24.00	66.00	
	389	00.00	24.20	25.20	67.55
Granulated Mixed Fertilizer	5-10-5				
Guaranteed	5.00	10.00	5.00	36.25	
	390	5.99	9.41	5.05	37.99
Granulated Mixed Fertilizer	10-20-10				
Guaranteed	10.00	20.00	10.00	72.50	
	391	10.94	17.26	10.20	70.49
	491	8.76	23.80	10.00	75.74
	739	10.00	19.41	10.30	71.77
	854	8.70	25.92	10.00	79.29
Granulated Mixed Fertilizer	12-12-12				
Guaranteed	12.00	12.00	12.00	66.00	
	846	9.90	19.50	12.00	73.35
	853	9.80	19.20	12.20	72.75
	1436	10.50	14.76	12.00	66.71
Granulated Mixed Fertilizer	12-24-12				
Guaranteed	12.00	24.00	12.00	87.00	
	215	11.46	25.70	12.00	88.49
Granulated Mixed Fertilizer	15-15-0				
Guaranteed	15.00	15.00	00.00	67.50	
	852	15.42	15.02	00.00	68.69
Granulated Triple Superphosphate	0-46-0				
Guaranteed	00.00	46.00	00.00	80.50	
	307	00.00	44.32	00.00	77.56
	847	00.00	45.18	00.00	79.07
	947	00.00	45.88	00.00	80.29
Granulated Mixed Fertilizer	16-20-0				
Guaranteed	16.00	20.00	00.00	79.00	
	214	16.02	18.30	00.00	76.08
	845	15.72	22.22	00.00	82.12
	1439	14.06	27.24	00.00	86.34
Sulphate of Ammonia	21-0-0				
Guaranteed	21.00	00.00	00.00	57.75	
	753	21.00	00.00	00.00	57.75
CAMPBELL FERTILIZER CO., INC., HOUSTON, TEXAS					
All-Weather /OBF	5-10-5				
Guaranteed	5.00	10.00	5.00	36.25	
	184	6.33	14.27	5.05	47.43
	780	5.42	10.76	4.85	38.59
Green-Glo /OBF	8-8-8				
Guaranteed	8.00	8.00	8.00	44.00	
	185	7.10	10.00	8.20	45.23
	1456	8.00	8.11	8.50	44.69
Goldthwaite's Turf Special	10-5-5				
Guaranteed	10.00	5.00	5.00	41.25	
	1450	10.50	6.06	5.00	44.48

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
All-Weather /OBF	10-10-5				
Guaranteed	10.00	10.00	5.00	50.00	
	1438	8.76	13.50	5.00	52.72
CAPROCK FERTILIZER COMPANY, LITTLEFIELD, TEXAS					
Cap-Rock Fertilizer	0-20-0				
Guaranteed	00.00	20.00	00.00	35.00	
	1575	00.00	20.00	00.00	35.00
CENTRAL TEXAS FERTILIZER COMPANY, COMANCHE, TEXAS					
Topper	5-10-5				
Guaranteed	5.00	10.00	5.00	36.25	
	984	5.00	10.50	6.25	38.38
	1128	5.92	10.20	5.40	39.53
	1176	5.58	10.28	5.30	38.64
	1180	6.70	14.68	5.35	49.47
Topper	7-14-7				
Guaranteed	7.00	14.00	7.00	50.75	
	1177	6.36	14.38	7.80	50.46
Topper	10-20-0				
Guaranteed	10.00	20.00	00.00	62.50	
	618	10.68	18.33	00.00	61.45
	1134	9.58	20.08	00.00	61.49
Topper	10-20-10				
Guaranteed	10.00	20.00	10.00	72.50	
	627	11.30	16.54	10.20	70.22
	1129	10.30	20.00	8.45	71.78
	1135	9.36	22.70	10.20	75.67
	1178	9.54	20.12	10.80	72.25
	1181	10.12	20.35	10.00	73.44
Topper	0-20-0				
Guaranteed	00.00	20.00	00.00	35.00	
	611	00.00	19.06	00.00	33.36
	1587	00.00	20.88	00.00	36.54
Topper	0-46-0				
Guaranteed	00.00	46.00	00.00	80.50	
	603	00.00	46.50	00.00	81.38
Topper	13-39-0				
Guaranteed	13.00	39.00	00.00	104.00	
	1136	11.34	31.71	00.00	86.88
	1588	9.44	34.30	00.00	85.99
	1595	11.70	36.00	00.00	95.18
Topper	16-20-0				
Guaranteed	16.00	20.00	00.00	79.00	
	602	9.88	19.50	00.00	61.30
	1594	14.90	21.00	00.00	77.73
CHEMICAL SPECIALTIES COMPANY, LAREDO, TEXAS					
N-Rich-R	5-10-5				
Guaranteed	5.00	10.00	5.00	36.25	
	311	4.67	10.62	5.30	36.73
	962	4.86	10.58	5.20	37.08
N-Rich-R	8-24-0				
Guaranteed	8.00	24.00	00.00	64.00	
	309	8.03	24.68	00.00	65.27
N-Rich-R	10-20-0				
Guaranteed	10.00	20.00	00.00	62.50	
	310	12.14	20.76	00.00	69.72
N-Rich-R	20-0-0				
Guaranteed	20.00	00.00	00.00	55.00	
	308	18.56	00.00	00.00	51.14
CHILEAN NITRATE SALES CORP., NEW YORK 5, N.Y.					
Chilean Nitrate of Soda—Champion Brand	16%				
Guaranteed	16.00	00.00	00.00	44.00	
	312	16.00	00.00	00.00	44.00
	1146	16.00	00.00	00.00	44.00

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
DIXIE FERTILIZER COMPANY, SHREVEPORT, LA.					
Dixie 5-10-5 Fertilizer					
Guaranteed		5.00	10.00	5.00	36.25
36	7.02	11.40	5.15	44.41	
66	7.16	14.05	8.17	52.45	
147	6.42	14.57	8.27	51.42	
410	6.27	11.02	5.00	41.53	
466	6.13	10.94	5.00	41.00	
648	5.90	11.00	5.20	40.68	
1321	5.03	10.40	5.45	37.48	
1386	5.04	10.46	5.80	37.97	
Dixie Granular 6-12-6 Fertilizer					
Guaranteed	6.00	12.00	6.00	43.50	
1388	6.03	12.02	6.80	44.42	
Dixie Granular 6-24-24 Fertilizer					
Guaranteed	6.00	24.00	24.00	82.50	
468	7.12	23.00	24.20	84.03	
Dixie 8-8-8 Fertilizer					
Guaranteed	8.00	8.00	8.00	44.00	
467	8.54	13.98	8.54	56.16	
1322	7.74	9.80	8.90	47.34	
1387	6.84	8.76	8.68	42.82	
1417	6.64	8.84	8.60	42.33	
Dixie Granular 10-20-0 Fertilizer					
Guaranteed	10.00	20.00	00.00	62.50	
67	9.10	19.42	00.00	59.01	
649	9.54	21.32	00.00	63.55	
Dixie Granular 10-20-10 Fertilizer					
Guaranteed	10.00	20.00	10.00	72.50	
33	10.37	20.60	10.60	75.17	
68	9.67	20.01	10.20	71.81	
148	9.65	20.03	10.90	72.49	
411	10.01	20.20	10.00	72.88	
515	10.00	20.02	10.10	72.64	
577	10.00	20.29	10.16	73.17	
702	9.28	20.90	10.20	72.30	
1301	9.26	20.20	10.40	71.22	
1323	8.74	20.00	10.66	69.70	
1383	10.06	20.22	10.00	73.05	
Dixie Granular 20% Superphosphate					
Guaranteed	00.00	20.00	00.00	35.00	
576	00.00	20.85	00.00	36.49	
EAST TEXAS PRODUCTS COMPANY, TYLER, TEXAS					
Goldenrod Gran-U-Pels 5-10-5					
Guaranteed	5.00	10.00	5.00	36.25	
87	5.09	10.80	5.10	38.00	
142	5.62	11.02	5.05	39.79	
403	5.38	10.36	5.15	38.08	
404	5.80	11.62	5.00	41.29	
498	5.41	11.60	5.00	40.18	
505	5.57	11.50	5.05	40.49	
520	5.47	10.40	5.00	38.24	
585	5.16	10.02	5.19	36.92	
1252	5.34	11.06	10.10	44.14	
1474	5.46	11.70	5.20	40.69	
Goldenrod 8-8-8					
Guaranteed	8.00	8.00	8.00	44.00	
143	8.10	8.72	8.00	45.54	
1373	8.36	8.50	8.00	45.87	
1380	7.66	9.10	8.00	44.99	
Goldenrod Gran-U-Pels 10-20-0					
Guaranteed	10.00	20.00	00.00	62.50	
524	10.48	20.00	00.00	63.82	

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Goldenrod Gran-U-Pels 10-20-10					
Guaranteed	10.00	20.00	10.00	72.50	
55	9.62	20.84	10.20	73.13	
144	9.66	20.00	10.00	71.57	
383	9.28	20.40	10.80	72.62	
388	9.70	22.00	10.00	75.18	
500	9.70	20.42	10.00	72.41	
521	9.75	20.98	10.10	73.63	
525	9.67	20.76	10.10	73.02	
590	10.12	20.47	9.72	73.37	
723	10.01	20.30	10.10	73.15	
729	9.60	21.68	10.00	74.34	
735	9.64	20.05	10.20	71.80	
803	9.64	20.02	10.00	71.55	
828	10.80	20.00	10.00	74.70	
1381	9.64	20.08	10.36	72.01	
1476	8.80	22.56	10.00	73.68	
1664	9.32	20.00	10.40	71.03	
Goldenrod Gran-U-Pels 12-12-12					
Guaranteed	12.00	12.00	12.00	66.00	
804	11.32	13.30	11.60	66.01	
FARMERS FERTILIZER COMPANY, TEXARKANA, TEXAS-ARKANSAS					
Mule Brand 5-10-5					
Guaranteed	5.00	10.00	5.00	36.25	
30	5.33	10.56	5.10	38.24	
77	5.14	10.60	5.40	38.09	
98	4.87	11.04	5.30	38.01	
103	4.83	10.00	5.00	35.78	
691	5.02	11.70	5.10	39.38	
693	5.16	10.76	5.25	38.27	
694	5.10	10.00	5.15	36.68	
1243	4.64	12.05	6.85	45.84	
1258	4.56	10.02	5.30	35.38	
Mule Brand 8-8-8					
Guaranteed	8.00	8.00	8.00	44.00	
1262	8.52	8.32	8.80	46.79	
Mule Brand 10-20-0					
Guaranteed	10.00	20.00	00.00	62.50	
579	9.74	20.02	00.00	61.82	
Mule Brand 10-20-10					
Guaranteed	10.00	20.00	10.00	72.50	
72	10.01	20.08	10.30	72.97	
73	10.01	20.07	10.20	72.85	
578	10.50	20.12	9.71	73.80	
692	10.04	20.64	10.40	74.13	
695	9.66	20.00	10.20	71.77	
1241	9.20	19.40	10.30	69.55	
1259	10.39	20.30	10.10	74.20	
1263	10.02	21.60	10.00	75.36	
Mule Brand 12-12-12					
Guaranteed	12.00	12.00	12.00	66.00	
75	10.81	12.20	12.60	63.68	
Mule Brand 20% Superphosphate 0-20-0					
Guaranteed	00.00	20.00	00.00	35.00	
1242	00.00	21.00	00.00	36.75	
FIDELITY CHEMICAL CORP., HOUSTON, TEXAS					
Fidelity 5-10-5 Fertilizer					
Guaranteed	5.00	10.00	5.00	36.25	
433	5.15	11.30	5.00	38.94	
Fertlome Plant Food 6-12-4					
Guaranteed	6.00	12.00	4.00	41.50	
4	4.77	13.36	4.10	40.60	
Fidelity 16-20-0 Fertilizer					
Guaranteed	16.00	20.00	00.00	79.00	
559	15.22	21.06	00.00	78.71	

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
FORD MOTOR COMPANY, DEARBORN, MICHIGAN					
Ford Di Ammonium Phosphate 21-53-0					
Guaranteed		21.00	53.00	00.00	150.50
1606		20.86	54.45	00.00	152.65
GILMER COTTON OIL & FERTILIZER CO., GILMER, TEXAS					
Lion Brand 5-10-5					
Guaranteed		5.00	10.00	5.00	36.25
84		5.03	10.00	5.80	37.13
1359		5.00	10.26	5.00	36.71
1378		5.06	10.02	5.22	36.67
Lion Brand 8-8-8					
Guaranteed		8.00	8.00	8.00	44.00
1379		7.18	10.16	8.82	46.35
Lion Brand 10-20-10					
Guaranteed		110.00	20.00	10.00	72.50
177		9.26	20.36	10.20	71.30
GRAND RIVER CHEMICAL DIV. OF DEERE & CO., PRYOR, OKLA.					
Vitrea 45-0-0					
Guaranteed		45.00	00.00	00.00	123.75
968		45.58	00.00	00.00	125.35
HARVEST FERTILIZER & CHEMICAL COMPANY, ROCKWALL, TEXAS					
Golden Harvest Brand 10-20-0					
Guaranteed		10.00	20.00	00.00	62.50
642		12.16	18.25	00.00	65.38
HAYES-SAMMONS CHEMICAL COMPANY, MISSION, TEXAS					
Mission Brand Fertilizer Solutions 6-10-4					
Guaranteed		6.00	10.00	4.00	38.00
255		6.02	10.80	4.01	39.47
266		6.02	10.80	4.01	39.47
288		6.07	11.00	4.46	40.40
294		7.10	16.18	3.68	51.52
918		6.16	11.09	4.33	40.68
Mission Brand Fertilizer Solutions 8-20-0 (Ammonium Phosphate)					
Guaranteed		8.00	20.00	00.00	57.00
267		8.21	20.78	00.00	58.94
289		8.03	20.26	00.00	57.54
293		8.03	20.00	00.00	57.08
296		8.65	20.32	00.00	59.35
919		8.54	21.43	00.00	60.99
954		8.28	20.35	00.00	58.38
961		8.40	21.05	00.00	59.94
Mission Brand Fertilizer Solutions 14-10-4					
Guaranteed		14.00	10.00	4.00	60.00
268		14.36	10.06	4.13	61.23
920		14.00	11.25	4.10	62.29
Mission Brand Fertilizer Solutions 32-0-0 (Urea Ammonia Nitrate Solution)					
Guaranteed		32.00	00.00	00.00	88.00
295		32.07	00.00	00.00	88.19
943		32.60	00.00	00.00	89.65
953		32.00	00.00	00.00	88.00
960		32.00	00.00	00.00	88.00
HI-YIELD FERTILIZER CO., BONHAM, TEXAS					
Hi-Yield Brand 5-10-5					
Guaranteed		5.00	10.00	5.00	36.25
42		5.25	11.70	5.95	40.86
56		5.31	10.80	5.50	39.00
88		4.67	10.01	5.40	35.76
90		5.01	10.03	5.95	37.28
101		5.03	9.81	5.05	36.05
110		5.00	9.82	5.70	36.64

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
	170	5.00	10.00	5.60	36.85
	172	5.03	9.64	5.80	36.00
	402	5.21	10.18	5.05	37.19
	412	5.02	10.02	5.00	36.34
	416	4.85	10.00	5.10	35.94
	434	5.74	10.70	5.10	39.61
	486	5.10	10.34	5.05	37.17
	512	5.00	10.03	5.10	36.40
	548	5.14	10.10	5.10	36.91
	650	5.00	10.88	5.15	39.75
	698	5.28	10.59	5.90	38.95
	732	5.10	10.03	5.25	36.83
	1035	5.28	10.00	6.05	38.07
	1055	5.14	10.46	5.10	37.54
	1198	4.80	10.62	5.15	36.94
	1217	5.20	11.30	5.00	39.08
	1246	5.18	11.10	5.30	38.97
	1253	5.02	11.18	5.35	38.72
	1260	5.34	11.24	5.60	39.96
	1274	5.84	11.76	6.00	42.64
	1282	4.84	9.60	5.00	35.11
	1367	5.06	10.78	5.30	38.08
	1669	5.34	10.32	5.40	38.15
Fertilome Brand Lawn & Garden Fertilizer 6-10-4					
Guaranteed		6.00	10.00	4.00	38.00
1293		5.58	10.32	4.10	37.51
1616		6.03	8.84	4.00	36.05
1623		6.23	10.04	4.03	38.82
Organic Base Ferti-Lome Plant Food 10-5-5					
Guaranteed		10.00	5.00	5.00	41.25
1543		7.86	8.48	5.00	41.46
1581		9.42	8.12	5.20	45.32
Hi-Yield Brand 10-20-0					
Guaranteed		10.00	20.00	00.00	62.50
12		10.01	19.52	00.00	61.69
29		9.31	20.00	00.00	60.60
62		9.18	20.00	00.00	60.25
435		9.74	20.92	00.00	63.40
554		10.04	20.16	00.00	62.89
655		10.20	20.26	00.00	63.50
1218		8.76	20.80	00.00	60.49
Hi-Yield Brand 10-20-10					
Guaranteed		10.00	20.00	10.00	72.50
5		10.02	20.60	10.30	73.91
26		9.26	20.20	10.80	71.62
43		10.06	20.02	10.40	73.10
57		10.45	20.00	10.30	74.04
63		9.35	19.41	11.00	70.68
83		10.10	20.00	10.40	73.18
89		9.48	20.06	10.40	71.58
91		9.81	20.28	10.80	73.27
102		10.05	19.69	10.20	72.30
111		9.18	19.00	11.60	70.10
112		8.63	21.30	10.90	71.91
156		10.48	20.30	10.40	74.75
171		7.15	15.70	9.30	56.44
173		10.28	21.10	10.50	75.70
413		9.55	21.76	10.20	74.54
418		10.02	19.25	10.40	71.64
487		9.14	20.66	10.50	71.79
492		10.00	21.28	10.30	75.04
510		9.48	21.26	10.10	73.38
513		10.00	20.04	10.20	72.77
516		9.63	21.96	10.00	74.91
530		9.41	21.80	10.40	74.43
555		9.56	21.00	10.00	73.04
651		10.00	20.10	10.50	73.18
652		9.36	21.16	10.40	73.17
699		10.03	20.00	10.00	72.58

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, 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					
	737	8.52	20.55	10.20	69.59
	742	10.00	21.14	10.00	74.50
	826	10.06	21.46	10.30	75.52
	1056	9.60	20.06	10.60	72.11
	1199	9.02	20.00	10.40	70.21
	1200	9.82	20.62	10.20	73.29
	1207	9.56	21.40	10.20	73.94
	1219	9.52	20.08	10.00	71.32
	1225	10.08	20.40	10.10	73.52
	1261	9.68	20.30	10.00	72.15
	1275	10.04	20.42	10.00	73.35
	1368	10.02	21.00	10.20	74.51
	1583	9.38	20.86	11.20	73.50
	1631	10.04	20.04	10.05	72.73
	1634	9.66	20.30	11.80	73.89
	1639	9.66	20.00	10.60	72.17
	1658	9.00	20.00	10.60	70.35
	1670	9.20	20.02	10.60	70.94
Hi-Yield Brand 12-12-12					
Guaranteed		12.00	12.00	12.00	66.00
	76	11.79	12.86	12.40	67.33
	741	12.00	12.60	12.60	67.65
	1525	12.00	14.86	12.40	71.41
	1597	12.46	12.76	13.20	69.80
Hi-Yield Brand 15-15-0					
Guaranteed		15.00	15.00	00.00	67.50
	1598	10.56	20.00	00.00	64.04
Hi-Yield Brand 13-39-0					
Guaranteed		13.00	39.00	00.00	104.00
	557	13.02	39.00	00.00	104.06
	1527	13.01	34.79	00.00	96.66
	1585	13.00	37.90	00.00	102.08
	1593	13.00	39.40	00.00	104.70
Hi-Yield Brand 16-20-0					
Guaranteed		16.00	20.00	00.00	79.00
	556	15.00	21.70	00.00	79.23
	572	15.26	20.05	00.00	77.05
	1481	14.02	19.50	00.00	72.68
	1526	15.38	19.68	00.00	76.74
	1584	16.04	20.72	00.00	80.37
	1592	16.00	20.92	00.00	80.61
	1632	15.32	20.57	00.00	78.13
	1635	16.06	20.04	00.00	79.24
	1640	15.02	20.20	00.00	76.66
Hi-Yield Brand 0-20-0					
Guaranteed		00.00	20.00	00.00	35.00
	11	00.00	20.00	00.00	35.00
	14	00.00	20.80	00.00	36.40
	28	00.00	20.40	00.00	35.70
	511	00.00	20.78	00.00	36.37
	528	00.00	21.70	00.00	37.98
	654	00.00	21.48	00.00	37.59
	1245	00.00	21.26	00.00	37.21
Hi-Yield Brand 0-47-0					
Guaranteed		00.00	47.00	00.00	82.25
	15	00.00	45.20	00.00	79.10
	529	00.00	45.82	00.00	80.19
INTERNATIONAL MINERALS & CHEMICAL CORP., FORT WORTH, TEXAS					
International 0-14-14 Phosphate & Potash					
Guaranteed		00.00	14.00	14.00	38.50
	1155	00.00	12.83	15.60	38.05
International 0-16-8 Phosphate & 4Potash					
Guaranteed		00.00	16.00	8.00	36.00
	1160	00.00	17.20	8.10	38.20
	1537	00.00	17.40	8.20	38.65

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Mello-Green Organic Plant Food 5-4-0					
Guaranteed		5.00	4.00	00.00	20.75
	1169	5.28	2.78	00.00	19.39
	1531	5.62	4.00	00.00	22.46
International 4-12-4 Fertilizer					
Guaranteed		4.00	12.00	4.00	36.00
	625	4.72	12.06	4.10	38.19
	988	4.28	12.90	4.00	38.35
International 5-10-5 Fertilizer					
Guaranteed		5.00	10.00	5.00	36.25
	44	5.09	9.59	5.40	36.18
	395	5.03	11.28	5.00	38.57
	406	5.95	10.50	5.00	39.74
	678	5.40	10.00	5.15	37.50
	679	5.42	10.00	6.05	38.46
	811	6.18	12.20	5.00	43.35
	989	5.46	10.60	5.00	38.57
	1030	5.72	10.01	5.00	38.25
	1046	5.48	10.68	5.00	38.76
	1076	5.00	10.00	5.45	36.70
	1100	5.12	11.90	5.35	40.26
	1119	5.18	11.34	5.00	39.09
	1122	5.56	10.16	5.05	38.12
	1130	5.36	11.52	5.00	39.90
	1470	5.00	11.00	5.00	38.00
	1665	5.00	10.10	5.20	36.63
International 7-14-7 Rainbow Fertilizer					
Guaranteed		7.00	14.00	7.00	50.75
	621	7.46	10.45	8.33	47.13
	1026	7.52	13.56	6.25	50.66
	1120	7.94	13.91	7.00	53.18
	1182	7.03	14.00	7.45	51.28
	1204	7.82	16.04	7.45	57.03
	1490	7.60	14.00	7.00	52.40
	1511	7.50	14.50	7.05	53.05
International 8-24-8 Fertilizer					
Guaranteed		8.00	24.00	8.00	72.00
	622	7.28	24.66	7.75	70.93
International 10-10-0 Rainbow Fertilizer					
Guaranteed		10.00	10.00	10.00	55.00
	1096	9.20	10.32	11.40	54.76
	1451	11.00	10.43	10.03	58.53
	1548	9.70	10.34	10.70	55.47
	1559	9.78	10.56	11.00	56.38
International 10-20-0 Ammoniated Phosphate					
Guaranteed		10.00	20.00	00.00	62.50
	345	8.18	23.02	00.00	62.78
	374	10.02	20.40	00.00	63.26
	662	10.30	20.73	00.00	64.60
	1101	10.44	20.04	00.00	63.78
	1111	10.14	20.00	00.00	62.89
	1159	9.58	20.00	00.00	61.35
	1193	10.06	20.06	00.00	62.77
International 10-20-10 Fertilizer					
Guaranteed		10.00	20.00	10.00	72.50
	226	9.56	20.04	10.00	71.36
	324	9.79	20.03	10.00	71.98
	346	10.00	19.00	10.20	76.23
	396	10.32	20.60	10.10	74.53
	407	10.02	20.48	10.20	73.60
	480	9.06	20.02	10.40	70.35
	485	9.84	20.01	9.75	71.83
	506	10.54	20.01	10.20	74.20
	620	10.06	20.66	10.36	74.18
	624	10.68	19.48	10.53	73.99
	636	9.60	20.23	10.00	71.80
	747	9.40	20.93	8.00	70.48

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
International 10-20-10 Fertilizer					
	812	9.72	20.00	10.00	71.73
	1011	10.64	20.80	10.00	75.66
	1027	10.30	22.66	8.80	76.78
	1031	9.44	20.00	10.00	70.96
	1047	9.73	20.50	10.30	72.93
	1077	10.54	21.08	10.60	76.48
	1095	9.84	20.90	10.60	74.14
	1157	10.78	21.22	10.00	76.78
	1173	10.00	22.40	10.10	76.80
	1194	9.06	20.37	10.00	70.56
	1221	9.88	20.68	10.10	73.46
	1454	9.86	19.09	10.03	70.55
	1463	8.60	20.40	10.40	69.75
	1480	8.96	20.18	10.20	70.16
	1547	10.32	20.03	10.00	73.43
	1672	8.34	20.98	11.60	71.25
International 10-20-5 Rainbow Fertilizer					
Guaranteed	10.00	20.00		5.00	67.50
	948	10.36	20.04	5.00	68.56
	990	11.56	20.56	5.00	72.77
	1097	8.36	20.12	5.35	63.55
	1102	10.02	20.90	5.20	69.33
	1110	9.65	22.30	5.25	70.81
	1123	8.96	20.60	5.30	65.99
	1131	11.82	18.30	5.15	69.68
	1175	9.18	20.02	5.05	65.33
	1195	9.24	20.20	5.40	66.16
	1205	9.10	20.06	5.15	65.28
	1220	10.22	20.92	5.00	69.72
	1479	9.50	20.06	5.00	66.23
	1498	9.06	20.02	5.30	65.25
	1503	10.00	19.62	5.52	67.36
	1532	9.44	20.50	5.65	67.49
	1538	8.88	20.10	5.45	65.05
	1569	10.04	20.41	5.51	68.84
	1572	9.66	19.48	5.00	65.66
	1578	8.62	20.34	5.45	64.75
	1586	9.56	20.00	5.20	66.49
	1619	10.20	20.10	5.30	68.53
	1641	10.32	20.02	5.50	68.92
International 15-15-0 Ammoniated Phosphate					
Guaranteed	15.00	15.00		00.00	67.50
	1010	14.77	15.50	00.00	67.74
International 0-20-0 Superphosphate					
Guaranteed	00.00	20.00		00.00	35.00
	8	00.00	20.01	00.00	35.02
	325	00.00	20.16	00.00	35.28
	375	00.00	20.70	00.00	36.23
	533	00.00	21.30	00.00	37.28
	613	00.00	20.16	00.00	35.28
	619	00.00	20.60	00.00	36.05
	666	00.00	19.86	00.00	34.76
	677	00.00	20.66	00.00	36.16
	746	00.00	20.00	00.00	35.00
	1487	00.00	20.00	00.00	35.00
	1552	00.00	20.40	00.00	35.70
	1567	00.00	19.42	00.00	33.99
International 0-45-0 Granular Triple Superphosphate					
Guaranteed	00.00	45.00		00.00	78.75
	7	00.00	44.00	00.00	77.00
	16	00.00	45.28	00.00	79.24
	534	00.00	44.26	00.00	77.46
	563	00.00	44.36	00.00	77.63
	573	00.00	45.16	00.00	79.03
	623	00.00	44.44	00.00	77.77
International 13-39-0 Ammoniated Phosphate					
Guaranteed	13.00	39.00		00.00	104.00
	326	12.37	37.52	00.00	99.68

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
	629	13.01	38.04	00.00	102.35
	638	13.60	39.00	00.00	105.65
	669	13.10	38.61	00.00	103.59
	1550	12.38	35.53	00.00	96.22
	1571	11.88	36.63	00.00	93.77
	1609	13.00	37.24	00.00	100.92
	1621	11.64	37.05	00.00	96.85
	1646	12.58	39.05	00.00	102.93
International 16-20-0 Ammoniated Phosphate					
Guaranteed	16.00	20.00		00.00	79.00
	562	14.26	19.15	00.00	72.73
	607	17.28	19.09	00.00	80.93
	628	15.78	19.32	00.00	77.21
	635	18.12	18.42	00.00	82.07
	637	16.42	19.76	00.00	79.74
	663	16.48	19.55	00.00	79.53
	668	15.52	19.17	00.00	76.23
	680	17.88	19.10	00.00	82.60
	1032	14.70	21.06	00.00	77.28
	1088	15.10	21.74	00.00	79.57
	1156	16.84	21.06	00.00	83.17
	1174	16.08	21.42	00.00	81.71
	1486	15.16	20.50	00.00	77.57
	1491	15.02	20.00	00.00	76.31
	1512	15.10	21.22	00.00	78.66
	1548	14.62	19.44	00.00	74.23
	1549	13.84	21.94	00.00	76.46
	1570	11.24	22.46	00.00	70.22
	1610	15.40	20.02	00.00	77.39
	1620	15.40	20.06	00.00	77.46
	1636	15.54	21.40	00.00	80.19
	1654	14.88	22.00	00.00	79.42
INTERNATIONAL MINERALS & CHEMICAL CORP., TEXARKANA					
International 0-16-8 Phosphate & Potash					
Guaranteed	00.00	16.00		8.00	36.00
	1244	00.00	15.10	9.00	35.43
International 5-10-5 Fertilizer					
Guaranteed	5.00	10.00		5.00	36.25
	64	5.32	10.16	5.40	37.81
	70	5.00	9.20	5.15	35.00
	96	5.28	9.72	5.22	36.75
	106	4.54	10.11	4.74	34.92
	129	5.37	9.66	5.15	36.82
	162	5.10	10.14	5.50	37.27
	350	4.71	11.80	5.45	39.05
	426	5.11	10.06	5.00	36.66
	428	5.00	10.00	5.05	35.80
	437	5.70	10.22	5.10	38.66
	808	5.16	10.32	5.00	37.25
	1067	6.22	10.40	5.00	40.31
	1279	5.90	10.62	5.45	40.26
	1332	4.92	11.38	5.41	38.86
	1340	6.22	10.30	6.48	41.61
	1390	5.84	10.52	5.42	39.89
	1426	6.02	10.86	6.20	41.76
	1661	5.30	10.00	5.30	37.38
International 5-10-10 Fertilizer					
Guaranteed	5.00	10.00		10.00	41.25
	115	5.00	9.30	10.60	40.63
	120	5.39	10.02	10.80	43.16
International 6-12-12 Rainbow Fertilizer					
Guaranteed	6.00	12.00		12.00	49.50
	1288	6.48	12.16	12.20	51.30
International 7-14-7 Rainbow Fertilizer					
Guaranteed	7.00	14.00		7.00	50.75
	1297	7.40	14.00	7.80	52.65
	1341	6.52	14.40	7.15	50.28

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
International 8-8-8 Fertilizer					
Guaranteed		8.00	8.00	8.00	44.00
809		8.02	10.44	8.10	48.43
1289		8.00	9.78	8.80	47.92
1317		8.36	9.14	8.24	47.23
1337		8.04	8.52	8.00	45.02
1391		8.00	8.82	8.10	45.54
International 10-10-10 Rainbow Fertilizer					
Guaranteed		10.00	10.00	10.00	55.00
1427		10.04	11.20	10.04	57.25
International 10-20-0 Ammoniated Phosphate					
Guaranteed		10.00	20.00	00.00	62.50
163		10.03	18.73	00.00	60.36
International 10-20-10 Fertilizer					
Guaranteed		10.00	20.00	10.00	72.50
61		10.07	19.59	10.20	72.18
71		10.00	20.00	10.40	72.90
97		9.57	19.23	10.70	70.67
107		9.77	20.60	10.90	73.82
116		10.33	20.02	11.00	74.44
121		10.00	19.48	11.30	71.89
130		10.00	20.00	10.60	73.10
164		10.04	19.62	10.80	72.75
351		10.07	19.00	10.20	71.14
427		10.27	20.02	10.20	73.48
429		10.11	20.38	10.00	73.47
438		10.21	20.00	10.10	73.18
580		10.08	20.60	10.31	74.08
584		10.10	20.50	10.00	73.65
697		10.03	20.16	10.40	73.26
805		10.14	20.50	10.40	74.16
810		10.06	20.00	10.10	72.77
1068		10.40	20.34	10.00	74.20
1231		10.82	20.20	10.00	75.11
1280		10.26	20.20	10.00	73.57
1296		10.10	20.66	10.60	74.53
1312		10.16	19.21	10.60	72.16
1318		10.06	20.14	10.00	72.91
1333		10.16	20.90	10.30	74.82
1338		10.22	20.80	10.40	74.91
1392		9.64	20.02	10.03	71.58
1662		10.04	20.06	11.20	73.92
International 12-12-12 Fertilizer					
Guaranteed		12.00	12.00	12.00	66.00
117		12.04	12.52	13.00	68.02
International 0-20-0 Superphosphate					
Guaranteed		00.00	20.00	00.00	35.00
27		00.00	19.24	00.00	33.67
65		00.00	19.61	00.00	34.32
583		00.00	20.02	00.00	35.04
653		00.00	20.16	00.00	35.28
1228		00.00	20.40	00.00	35.70
1230		00.00	20.70	00.00	36.23
International 0-45-0 Triple Superphosphate					
Guaranteed		00.00	45.00	00.00	78.75
19		00.00	44.30	00.00	77.53
352		00.00	45.00	00.00	78.75
International 0-46-0 Triple Superphosphate					
Guaranteed		00.00	46.00	00.00	80.50
1655		00.00	46.00	00.00	80.50
International 13-39-0 Ammoniated Phosphate					
Guaranteed		13.00	39.00	00.00	104.00
1183		8.06	28.16	00.00	71.45
International 16-20-0 Ammoniated Phosphate					
Guaranteed		16.00	20.00	00.00	79.00
1229		16.22	20.28	00.00	80.10

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Muriate of Potash 60% 0-0-60					
Guaranteed		00.00	00.00	60.00	60.00
617		00.00	00.00	60.06	60.06
JACKSONVILLE FERTILIZER CO., JACKSONVILLE, TEXAS					
Grosco Brand 5-10-5 Fertilizer					
Guaranteed		5.00	10.00	5.00	36.25
1342		4.78	10.70	5.15	37.02
1352		4.86	10.48	5.03	36.74
1384		5.02	10.78	5.56	38.23
Grosco Brand 8-8-8 Fertilizer					
Guaranteed		8.00	8.00	8.00	44.00
1306		7.35	8.70	8.20	43.64
1353		8.02	8.68	8.00	45.25
1385		7.36	8.86	8.01	43.76
Grosco Brand 10-20-10 Fertilizer					
Guaranteed		10.00	20.00	10.00	72.50
139		10.04	18.52	10.90	70.92
1307		9.26	20.20	10.90	71.72
1354		9.66	19.70	11.04	72.08
KELLY-WEBER & CO., INC., LAKE CHARLES, LA.					
Weber-King Brand Fertilizer Special 5-10-5					
Guaranteed		5.00	10.00	5.00	36.25
1330		7.12	10.00	5.20	42.28
Weber-King Brand Fertilizer Special 8-8-8					
Guaranteed		8.00	8.00	8.00	44.00
1331		5.28	10.17	8.20	40.52
KIPFER CHEMICAL CO., HARLINGEN, TEXAS					
K-W Brand 20% Superphosphate					
Guaranteed		00.00	20.00	00.00	35.00
959		00.00	20.04	00.00	35.07
K-W Brand Ammonium Sulfate 21-0-0					
Guaranteed		21.00	00.00	00.00	57.75
946		21.04	00.00	00.00	57.86
MARSHALL COTTON OIL CO., MARSHALL, TEXAS					
Maverick Brand 5-10-5 Fertilizer					
Guaranteed		5.00	10.00	5.00	36.25
126		4.66	9.65	5.00	34.70
155		5.01	10.18	5.20	36.79
1298		5.04	9.04	5.20	34.88
Maverick Brand 8-8-8 Fertilizer					
Guaranteed		8.00	8.00	8.00	44.00
1294		8.30	9.40	8.60	47.88
Maverick Brand 10-20-10 Fertilizer					
Guaranteed		10.00	20.00	10.00	72.50
1299		10.24	20.80	10.70	75.26
OLIAN MATHIESON CHEMICAL CORP., HOUSTON, TEXAS					
Mathieson Ammo Phos 6-24-24 Pelletized Fertilizer					
Guaranteed		6.00	24.00	24.00	82.50
447		6.47	25.70	24.40	87.17
757		6.18	25.85	24.00	86.23
765		6.56	25.00	24.20	85.99
784		6.38	24.52	24.40	84.86
797		6.16	24.20	24.20	83.49
801		6.30	25.98	24.40	87.19
1410		6.14	24.80	24.40	84.69
1502		6.68	25.30	24.40	87.05
Mathieson Ammo Phos 10-20-10 Pelletized Fertilizer					
Guaranteed		10.00	20.00	10.00	72.50
23		10.60	23.51	10.60	80.89
24		10.08	20.44	10.40	73.89
69		10.55	22.56	10.40	78.89
122		10.67	22.30	10.80	79.17
128		10.16	20.06	10.80	73.85

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Mathieson Ammo Phos 10-20-10 Pelletized Fertilizer					
	165	10.00	20.22	10.50	73.39
	166	10.04	20.50	10.40	73.89
	176	10.04	20.46	10.80	74.22
	227	10.05	20.07	10.60	73.36
	262	10.00	20.01	10.60	73.12
	323	10.17	20.42	10.70	74.40
	331	10.65	20.70	10.60	76.11
	372	10.55	22.10	10.65	78.34
	385	10.08	20.46	10.10	73.63
	398	10.27	20.42	10.40	74.38
	449	10.02	20.21	10.20	73.12
	453	10.42	20.01	10.20	73.87
	457	10.45	20.06	10.20	74.04
	460	10.57	22.54	10.10	78.61
	463	10.26	20.28	10.10	73.81
	472	10.02	20.57	10.00	73.55
	481	10.21	20.22	10.20	73.66
	484	11.17	21.08	10.20	77.81
	499	10.42	22.20	10.20	77.71
	501	11.61	20.56	10.10	78.01
	552	10.26	20.82	10.10	74.75
	593	10.54	20.22	10.80	75.17
	605	11.10	21.60	10.99	79.32
	626	10.58	20.70	10.40	75.72
	639	10.10	20.30	10.40	73.70
	647	10.08	20.01	10.40	73.14
	660	10.48	20.00	11.87	75.69
	704	10.28	20.40	10.40	74.37
	712	10.46	20.71	10.30	75.31
	738	10.44	19.60	10.40	73.41
	756	10.74	20.09	10.00	74.69
	796	10.34	20.02	10.70	74.17
	800	10.66	20.00	10.40	74.72
	827	11.10	20.61	10.10	76.69
	829	10.20	20.00	10.50	73.55
	838	11.26	21.25	10.80	78.95
	843	11.02	20.03	10.20	75.56
	850	11.16	20.00	10.40	76.09
	971	11.08	20.37	10.00	76.12
	997	10.52	20.30	10.40	74.86
	1014	9.70	20.02	10.50	72.21
	1034	10.42	20.26	10.60	74.71
	1044	10.32	20.20	10.50	74.23
	1048	10.56	20.26	10.40	74.90
	1058	10.56	20.48	10.20	75.08
	1125	11.14	22.50	10.30	80.31
	1139	10.28	20.76	10.30	74.90
	1152	11.62	19.65	10.70	77.04
	1167	10.74	21.58	10.30	77.60
	1184	10.04	20.30	10.40	73.54
	1186	10.08	20.50	10.30	73.90
	1197	10.54	20.22	10.00	74.37
	1227	9.78	20.30	10.30	72.72
	1256	10.14	20.06	10.30	73.29
	1286	10.00	20.02	10.40	72.94
	1295	10.06	20.60	10.80	74.52
	1311	10.24	20.00	10.10	73.26
	1328	10.00	20.00	10.60	73.10
	1339	10.12	22.08	10.80	77.27
	1347	10.02	20.50	10.66	74.09
	1370	10.03	20.48	11.20	74.62
	1412	11.32	19.60	10.80	76.23
	1419	10.02	20.02	11.00	73.59
	1423	10.02	20.40	10.01	73.27
	1425	10.06	20.48	10.30	73.81
	1458	10.10	21.92	10.90	77.04
	1464	10.00	20.28	10.90	73.89
	1488	10.74	21.50	10.60	77.76
	1642	10.08	20.00	10.40	73.12
	1668	10.02	20.06	10.70	73.36

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Mathieson Ammo Phos 10-20-20 Pelletized Fertilizer					
	Guaranteed	10.00	20.00	20.00	82.50
	123	10.03	20.46	22.00	84.38
	473	10.91	21.20	20.20	87.30
	672	10.18	20.00	20.83	83.83
	861	10.26	20.02	20.20	83.45
Mathieson Ammo Phos 12-12-12 Pelletized Fertilizer					
	Guaranteed	12.00	12.00	12.00	66.00
	759	12.28	13.56	12.40	69.90
Mathieson Ammo Phos 12-24-12 Pelletized Fertilizer					
	Guaranteed	12.00	24.00	12.00	87.00
	193	12.04	24.20	12.40	87.86
	222	12.03	24.00	12.40	87.48
	251	12.02	23.46	12.40	86.51
	285	12.01	24.20	12.60	87.98
	302	12.06	24.00	12.20	87.37
	314	12.12	24.01	12.80	88.15
	322	12.05	23.44	12.40	86.56
	380	12.05	24.00	12.60	87.74
	474	12.00	24.86	12.00	88.51
	674	12.60	24.28	12.75	89.89
	684	12.02	24.60	12.30	88.41
	707	12.18	24.19	12.70	88.53
	748	12.08	24.03	12.40	87.67
	758	12.03	24.10	12.60	87.86
	771	11.82	24.32	12.40	87.47
	779	12.04	24.00	13.00	88.11
	781	12.12	24.38	12.30	88.80
	783	12.02	24.06	12.40	87.56
	786	12.22	24.46	12.60	89.01
	790	12.12	24.00	12.20	87.53
	791	12.18	24.02	12.20	87.73
	839	12.36	24.03	12.60	88.64
	862	12.08	24.50	12.60	88.70
	868	12.10	24.02	12.20	87.51
	876	12.00	24.46	12.00	87.81
	895	12.14	24.00	12.60	87.99
	902	12.22	24.18	12.40	88.32
	980	12.26	24.30	12.60	88.84
	1009	12.28	24.02	12.40	88.21
	1357	12.14	24.40	12.60	88.69
	1415	12.00	24.02	12.02	87.06
	1430	12.14	24.10	12.02	87.58
	1431	12.01	24.60	12.40	88.48
	1437	12.06	24.00	12.60	87.77
	1542	12.01	25.10	12.48	89.43
	1582	12.00	24.24	12.60	88.02
	1586	12.10	24.14	12.48	88.00
	1624	12.18	24.18	12.80	88.61
	1637	12.06	24.50	12.80	88.84
Mathieson Ammo Phos 13-13-13 Pelletized Fertilizer					
	Guaranteed	13.00	13.00	13.00	71.50
	180	13.18	13.50	13.60	73.47
	286	13.19	13.80	13.60	74.02
	301	13.01	13.36	13.40	72.56
	305	13.23	13.18	13.60	73.05
	450	13.14	13.96	13.60	74.17
	767	13.50	14.00	13.60	75.23
	795	13.40	13.06	13.40	73.11
	802	13.32	23.38	13.60	73.65
	841	13.30	14.60	13.40	75.53
	864	13.32	13.20	13.00	72.73
	875	13.08	13.48	13.10	72.66
	878	13.24	13.32	13.00	72.72
	880	13.52	13.08	13.00	73.07
	1008	13.44	13.26	13.00	73.17
	1127	13.18	14.36	13.60	74.98
	1257	13.24	13.78	13.60	74.13
	1287	13.28	14.20	13.40	74.77

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Mathieson Ammo Phos 13-13-13 Pelletized Fertilizer					
	1371	13.38	13.86	13.92	74.97
	1416	13.01	14.26	13.00	73.73
	1420	13.00	14.26	13.76	74.47
	1459	13.01	13.70	13.60	73.35
Mathieson Ammo Phos 15-30-0 Pelletized Fertilizer					
Guaranteed	15.00	30.00	00.00		93.75
	242	15.00	30.46	00.00	94.56
	594	15.32	30.32	00.00	95.19
	640	15.18	30.20	00.00	94.60
	671	15.06	30.00	00.00	93.92
	1645	15.06	31.22	00.00	96.05
Mathieson Triple Superphosphate 46% 0-46-0					
Guaranteed	00.00	46.00	00.00		80.50
	328	00.00	46.00	00.00	80.50
	338	00.00	46.01	00.00	80.52
	356	00.00	46.37	00.00	81.15
	373	00.00	46.00	00.00	80.50
	561	00.00	46.20	00.00	80.85
	568	00.00	46.02	00.00	80.54
	597	00.00	46.00	00.00	80.50
	604	00.00	46.10	00.00	80.68
	616	00.00	46.40	00.00	81.20
	641	00.00	46.00	00.00	80.50
	785	00.00	45.38	00.00	79.42
	1081	00.00	46.00	00.00	80.50
	1189	00.00	46.22	00.00	80.89
Mathieson Ammo Phos 11-48-0 Pelletized Fertilizer					
Guaranteed	11.00	48.00	00.00		114.25
	336	11.07	48.10	00.00	114.62
	1411	11.26	46.52	00.00	112.38
	1574	11.16	48.44	00.00	115.46
	1625	11.08	48.20	00.00	114.82
Mathieson Ammo Phos 13-39-0 Pelletized Fertilizer					
Guaranteed	13.00	39.00	00.00		104.00
	9	13.12	39.32	00.00	104.89
	25	13.32	40.05	00.00	106.72
	257	13.34	39.36	00.00	105.57
	304	13.09	39.28	00.00	104.74
	337	13.00	39.40	00.00	104.70
	599	13.00	39.02	00.00	104.04
	631	13.00	39.91	00.00	105.59
	670	13.46	39.44	00.00	106.04
	676	13.72	41.76	00.00	110.81
	683	14.16	39.36	00.00	107.82
	685	13.06	39.33	00.00	104.74
	777	13.30	39.02	00.00	104.86
	787	12.34	39.93	00.00	103.81
	794	13.01	39.00	00.00	104.03
	860	13.00	39.70	00.00	105.23
	1141	12.76	39.12	00.00	103.55
	1145	13.16	39.20	00.00	104.79
	1496	13.24	40.08	00.00	106.55
	1500	13.28	39.62	00.00	105.86
	1539	13.04	40.86	00.00	107.37
	1541	13.40	41.00	00.00	108.60
	1545	13.12	39.12	00.00	104.54
	1589	13.16	41.15	00.00	108.20
	1591	13.16	40.65	00.00	107.33
	1603	13.24	41.00	00.00	108.16
	1638	13.10	39.78	00.00	105.64
	1644	13.14	40.45	00.00	106.92
Mathieson Ammo Phos 16-20-0 Pelletized Fertilizer					
Guaranteed	16.00	20.00	00.00		79.00
	10	16.06	21.00	00.00	80.92
	194	16.13	20.71	00.00	80.60
	195	16.18	20.18	00.00	79.81
	199	15.48	20.62	00.00	78.66
	237	16.02	20.42	00.00	79.79

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
	252	16.32	20.16	00.00	80.16
	256	16.33	20.10	00.00	80.08
	261	16.31	20.49	00.00	80.71
	273	16.03	20.50	00.00	79.96
	287	16.41	20.26	00.00	80.58
	306	16.01	20.10	00.00	79.20
	321	16.03	20.00	00.00	79.08
	327	16.42	20.03	00.00	80.20
	332	15.22	20.62	00.00	77.94
	355	16.51	20.56	00.00	81.38
	367	16.09	20.28	00.00	79.74
	371	16.11	20.02	00.00	79.34
	448	16.02	20.30	00.00	79.58
	560	16.46	20.50	00.00	81.14
	567	16.14	20.40	00.00	80.09
	591	16.12	20.64	00.00	80.45
	592	16.02	20.16	00.00	79.34
	596	16.28	20.05	00.00	79.86
	598	16.36	20.52	00.00	80.90
	606	16.06	20.00	00.00	79.17
	608	16.56	20.40	00.00	81.24
	612	16.04	20.04	00.00	79.18
	614	16.26	20.40	00.00	80.42
	615	16.40	19.30	00.00	78.88
	630	16.04	20.80	00.00	80.51
	658	16.22	20.01	00.00	79.62
	667	16.14	20.44	00.00	80.16
	673	16.00	20.14	00.00	79.25
	675	16.14	20.00	00.00	79.39
	681	16.24	20.16	00.00	79.94
	682	16.62	20.04	00.00	80.78
	755	16.01	20.13	00.00	79.26
	766	15.68	20.70	00.00	79.35
	769	16.34	20.36	00.00	80.57
	770	16.12	21.20	00.00	81.43
	778	16.22	20.50	00.00	80.48
	782	15.58	20.12	00.00	78.06
	788	16.00	20.06	00.00	79.11
	789	16.18	20.50	00.00	80.37
	792	16.44	20.42	00.00	80.95
	793	16.52	20.10	00.00	80.61
	840	16.38	20.30	00.00	80.57
	842	16.20	20.59	00.00	80.58
	851	16.02	21.24	00.00	81.23
	858	16.06	20.80	00.00	80.57
	859	16.34	21.06	00.00	81.79
	863	16.20	20.82	00.00	80.99
	874	16.20	20.30	00.00	80.08
	877	16.24	20.16	00.00	79.94
	885	16.06	20.16	00.00	79.45
	894	16.08	20.80	00.00	80.62
	901	16.44	20.50	00.00	81.09
	906	16.78	20.00	00.00	81.15
	907	16.22	20.60	00.00	80.66
	913	16.10	20.70	00.00	80.50
	945	16.20	20.80	00.00	80.95
	970	16.26	20.04	00.00	79.79
	976	16.16	20.64	00.00	80.56
	998	16.44	20.20	00.00	80.56
	1001	16.26	21.00	00.00	81.47
	1007	16.38	21.00	00.00	81.80
	1015	16.26	20.40	00.00	80.42
	1016	16.44	21.02	00.00	82.00
	1025	16.54	20.90	00.00	82.06
	1043	15.57	21.00	00.00	79.57
	1049	16.48	21.30	00.00	82.60
	1080	16.04	21.00	00.00	80.86
	1083	17.18	20.58	00.00	83.26
	1094	16.00	20.94	00.00	80.65
	1106	16.42	20.40	00.00	80.86
	1118	16.03	21.00	00.00	80.83

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
Mathieson Ammo Phos 16-20-0 Pelletized Fertilizer					
	1126	16.02	20.70	00.00	80.28
	1133	16.06	20.57	00.00	80.16
	1140	16.04	20.60	00.00	80.16
	1144	16.04	22.08	00.00	82.75
	1163	16.00	21.20	00.00	81.10
	1164	16.22	21.00	00.00	81.36
	1168	16.00	21.10	00.00	80.93
	1188	16.10	20.40	00.00	79.98
	1226	16.02	20.88	00.00	80.60
	1329	16.06	21.26	00.00	81.37
	1429	16.01	20.50	00.00	79.90
	1489	16.01	20.20	00.00	79.38
	1495	16.03	21.30	00.00	81.36
	1499	16.18	20.00	00.00	79.50
	1501	16.24	20.72	00.00	80.92
	1504	16.70	20.80	00.00	82.33
	1506	16.24	20.90	00.00	81.24
	1510	16.26	21.26	00.00	81.92
	1516	16.04	20.22	00.00	79.50
	1544	16.04	20.60	00.00	80.16
	1560	16.18	20.20	00.00	79.85
	1563	16.08	20.46	00.00	80.03
	1590	16.14	20.44	00.00	80.16
	1617	16.10	20.34	00.00	79.87
	1629	16.16	20.40	00.00	80.14
	1630	16.38	20.00	00.00	80.05
	1633	16.48	20.00	00.00	80.32
	1643	16.06	21.70	00.00	82.14
MONSANTO CHEMICAL COMPANY, ST. LOUIS, MISSOURI					
Lion Ammonium Nitrate Fertilizer 33.5					
	Guaranteed	33.50	00.00	00.00	92.13
	661	33.95	00.00	00.00	93.36
	703	34.22	00.00	00.00	94.11
NICHOLS SEED & FERTILIZER COMPANY, OKLAHOMA CITY, OKLA.					
Nichols 5-10-5					
	Guaranteed	5.00	10.00	5.00	36.25
	1647	6.36	15.22	6.40	50.53
Nichols 10-20-0					
	Guaranteed	10.00	20.00	00.00	62.50
	1483	9.88	22.14	00.00	65.92
	1514	10.60	19.70	00.00	63.63
	1551	13.26	20.10	00.00	71.64
	1648	10.30	20.36	00.00	63.96
Nichols 10-20-10					
	Guaranteed	10.00	20.00	10.00	72.50
	1485	10.68	19.26	10.10	73.18
	1494	8.72	20.00	10.80	69.78
	1524	9.64	19.04	10.00	69.83
	1649	10.00	22.82	10.00	77.44
Nichols 15-15-0					
	Guaranteed	15.00	15.00	00.00	67.50
	1484	13.18	21.78	00.00	74.36
	1522	14.64	16.90	00.00	69.84
Nichols 16-20-0					
	Guaranteed	16.00	20.00	00.00	79.00
	659	16.96	21.50	00.00	84.27
	1482	14.76	22.70	00.00	80.32
	1505	14.36	22.80	00.00	79.39
	1515	16.60	22.20	00.00	84.50
	1523	16.84	21.24	00.00	83.48
	1650	13.50	21.40	00.00	74.58
OUACHITA FERTILIZER & CHEMICAL CO., MONROE, LA.					
Liquid Solution 4-11-11					
	Guaranteed	4.00	11.00	11.00	41.25
	207	4.03	11.24	11.95	42.70

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
OZARK MAHONING COMPANY, TULSA 19, OKLAHOMA					
Ozark 10-20-20					
	Guaranteed	10.00	20.00	20.00	82.50
	1441	10.34	20.60	20.05	84.54
PDQ Brand 0-20-0					
	Guaranteed	00.00	20.00	00.00	35.00
	1158	00.00	20.40	00.00	35.70
Ozark Ammonium Phosphate Fertilizer 11-48-0					
	Guaranteed	11.00	48.00	00.00	114.25
	1614	13.16	48.00	00.00	120.19
Ozark Ammonium Phosphate Fertilizer 16-20-0					
	Guaranteed	16.00	20.00	00.00	79.00
	1440	16.40	20.90	00.00	81.68
	1562	16.40	20.40	00.00	80.80
	1613	16.22	20.44	00.00	80.38
Ozark Ammonium Phosphate Fertilizer 16-48-0					
	Guaranteed	16.00	48.00	00.00	128.00
	1561	16.00	46.00	00.00	124.50
PHILLIPS CHEMICAL COMPANY, BARTLESVILLE, OKLAHOMA					
Phillips 66 Triple Superphosphate 46.0%					
	Guaranteed	00.00	46.00	00.00	80.50
	914	00.00	46.15	00.00	80.76
Phillips 66 Ammonium Sulfate 21.0%					
	Guaranteed	21.00	00.00	00.00	57.75
	269	21.06	00.00	00.00	57.92
	1540	21.00	00.00	00.00	57.75
	1565	21.01	00.00	00.00	57.78
Phillips 66 Fertilizer Grade Ammonium Nitrate 33.5%					
	Guaranteed	33.50	00.00	00.00	92.13
	265	33.60	00.00	00.00	92.40
	279	33.87	00.00	00.00	93.14
	690	34.20	00.00	00.00	94.05
	740	33.95	00.00	00.00	93.36
	921	33.50	00.00	00.00	92.13
	1069	33.60	00.00	00.00	92.40
	1558	33.50	00.00	00.00	92.13
PITTSBURG FERTILIZER COMPANY, PITTSBURG, TEXAS					
Golden Nuggett 5-10-5					
	Guaranteed	5.00	10.00	5.00	36.25
	419	5.53	10.18	6.35	39.37
	587	5.60	10.08	4.73	37.77
	1250	7.20	10.94	5.90	44.85
	1283	7.08	10.08	5.35	42.46
	1361	5.98	10.08	5.60	39.69
Golden Nuggett 5-10-10					
	Guaranteed	5.00	10.00	10.00	41.25
	1272	5.72	10.66	9.70	44.09
Golden Nuggett 8-8-8					
	Guaranteed	8.00	8.00	8.00	44.00
	1271	9.30	8.80	8.50	49.48
Golden Nuggett 10-20-0					
	Guaranteed	10.00	20.00	00.00	62.50
	657	9.36	20.36	00.00	61.37
	1234	10.46	20.78	00.00	65.13
Golden Nuggett 10-20-10					
	Guaranteed	10.00	20.00	10.00	72.50
	79	9.63	20.00	10.20	71.68
	82	8.70	20.06	10.60	68.76
	124	9.30	20.53	10.80	72.30
	575	9.28	21.90	10.01	73.86
	589	8.82	20.13	10.38	69.86

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, 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, \$
Golden Nugget 10-20-10											
	1179	11.76	19.21	10.00	75.96		32	10.22	20.90	10.20	74.88
	1251	11.30	20.00	10.60	76.68		34	10.83	20.02	10.20	75.02
	1265	10.56	18.00	10.60	71.14		47	9.54	20.44	10.40	72.41
	1273	10.64	20.68	10.10	75.55		58	10.34	19.13	10.20	72.11
	1284	11.18	20.10	10.00	75.92		60	10.46	20.00	10.40	74.77
	1291	11.36	20.90	10.00	77.82		81	10.20	20.00	10.20	73.25
	1362	10.46	21.00	10.00	75.52		86	10.70	20.50	10.30	75.60
	1264	9.76	20.06	20.20	82.15		100	10.61	20.60	10.60	75.83
Golden Nugget 0-20-0							109	10.44	20.00	10.40	74.11
Guaranteed	0.00	20.00	00.00	35.00			206	11.67	21.64	10.10	80.06
656	00.00	20.25	00.00	35.44			354	10.69	20.36	10.20	75.23
PORT FERTILIZER & CHEMICAL CO., LOS FRESNOS, TEXAS							409	11.08	20.62	10.40	76.96
Port Brand Soludry 22-22-11							417	11.05	21.10	10.00	77.31
Guaranteed	22.00	22.00	11.00	110.00			470	10.52	20.50	10.10	74.91
263	22.66	22.40	11.00	112.52			479	11.03	20.38	10.10	76.10
929	23.42	22.52	11.60	115.42			574	10.14	20.56	10.24	74.11
Liquidry Soluble Fertilizer 24-24-12							581	11.02	20.60	10.77	77.13
Guaranteed	24.00	24.00	12.00	120.00			586	11.42	20.42	10.99	78.13
930	25.28	25.20	12.00	125.62			645	10.94	22.20	10.32	79.26
Port Brand Soludry 28-28-0							754	10.64	20.00	10.40	74.66
Guaranteed	28.00	28.00	00.00	126.00			981	11.58	20.80	10.30	78.55
928	28.04	30.40	00.00	130.31			1071	11.64	19.29	10.10	75.87
RED STAR FERTILIZER, SULPHUR SPRINGS, TEXAS							1078	11.74	20.02	10.40	77.72
Red Star Brand 5-10-5							1089	11.56	20.98	10.50	79.01
Guaranteed	5.00	10.00	5.00	36.25			1201	10.14	21.30	10.10	75.26
21	6.01	11.50	5.40	42.05			1203	11.70	19.56	10.60	77.01
45	5.63	10.00	5.10	38.08			1239	10.34	23.38	10.00	79.35
80	5.93	10.40	5.00	39.51			1249	10.08	21.14	10.30	75.02
85	6.98	11.40	5.20	43.65			1255	11.22	19.59	10.40	75.54
99	6.44	10.00	5.50	40.71			1270	10.28	20.60	10.40	74.72
108	5.68	10.06	5.22	38.45			1276	10.36	21.80	10.30	76.94
353	5.73	9.50	5.20	37.58			1278	11.38	19.57	10.30	75.84
408	6.17	10.03	5.15	39.67			1444	10.00	20.70	11.00	74.73
644	6.34	10.12	5.15	40.30			1453	10.48	19.09	10.80	73.03
1070	7.18	10.56	5.00	43.23			1556	10.06	19.50	10.16	71.95
1091	7.46	11.22	5.45	45.60			1653	10.02	20.76	11.00	74.89
1196	6.68	10.30	5.20	41.60			1663	10.48	20.20	10.60	74.77
1202	5.90	11.48	5.00	41.32			Red Star Brand 12-12-12				
1269	6.10	10.96	5.45	41.41			Guaranteed	12.00	12.00	12.00	66.00
1277	6.92	10.24	5.30	42.25			198	12.26	12.03	12.00	66.77
1285	5.01	10.18	5.15	36.74			204	12.04	12.10	12.80	67.09
1467	4.60	9.63	5.00	34.50			866	12.42	13.10	12.00	69.08
1517	5.26	10.80	5.08	38.45			Red Star Brand 12-24-12				
1651	5.58	10.00	5.50	38.35			Guaranteed	12.00	24.00	12.00	87.00
Red Star Brand 8-8-8							197	13.38	23.54	12.20	90.19
Guaranteed	8.00	8.00	8.00	44.00			205	12.32	23.34	13.10	87.83
420	8.00	8.50	8.20	45.08			867	13.16	22.90	11.60	87.87
1254	7.74	8.88	8.50	45.33			1433	11.14	21.84	12.80	81.66
1443	7.86	9.40	8.90	46.97			1435	12.36	26.70	12.10	92.82
Red Star Vi Ten Premium							1442	12.36	27.00	12.40	93.64
Guaranteed	10.00	10.00	5.00	50.00			Red Star Brand 0-20-0				
1554	10.00	10.94	7.00	53.65			Guaranteed	00.00	20.00	00.00	35.00
Red Star Brand 10-20-0							6	00.00	20.50	00.00	35.88
Guaranteed	10.00	20.00	00.00	62.50			17	00.00	20.01	00.00	35.02
46	10.16	20.70	00.00	64.17			20	00.00	20.16	00.00	35.28
514	11.71	19.72	00.00	66.71			59	00.00	19.37	00.00	33.90
1238	10.14	20.50	00.00	63.76			362	00.00	20.46	00.00	35.81
1248	11.88	19.68	00.00	67.11			399	00.00	21.10	00.00	36.93
1652	15.28	20.60	00.00	78.07			582	00.00	20.40	00.00	35.70
1656	12.40	20.14	00.00	69.35			643	00.00	20.40	00.00	35.70
Red Star Brand 10-20-10							1085	00.00	21.30	00.00	37.28
Guaranteed	10.00	20.00	10.00	72.50			1206	00.00	21.52	00.00	37.66
3	10.00	19.67	10.20	72.12			1236	00.00	20.80	00.00	36.40
22	10.30	20.03	10.82	74.20			1237	00.00	20.92	00.00	36.61
							1247	00.00	21.42	00.00	37.49
							Superphosphate 46%				
							Guaranteed	00.00	46.00	00.00	80.50
							13	00.00	46.25	00.00	80.94

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Red Star Brand 13-39-0					
Guaranteed	13.00	39.00	00.00	104.00	
1612	13.32	40.40	00.00	107.33	
Red Star Brand 16-20-0					
Guaranteed	16.00	20.00	00.00	79.00	
18	16.00	19.62	00.00	78.34	
48	15.66	19.64	00.00	77.44	
196	16.02	19.22	00.00	77.69	
203	16.08	19.71	00.00	78.71	
664	16.26	20.15	00.00	79.98	
865	16.16	20.36	00.00	80.07	
982	16.06	20.08	00.00	79.31	
1079	16.18	21.32	00.00	81.81	
1084	16.52	21.20	00.00	82.53	
1090	17.04	20.88	00.00	83.40	
1434	16.02	20.50	00.00	79.93	
1518	14.22	19.20	00.00	72.71	
1557	15.04	20.18	00.00	76.68	
1611	15.44	20.10	00.00	77.64	
Red Star Brand Ammonium Sulphate 21-0-0					
Guaranteed	21.00	00.00	00.00	57.75	
1086	21.22	00.00	00.00	58.36	
1555	21.01	00.00	00.00	57.78	
SCOPE CHEMICALS, BENTON HARBOR, MICHIGAN					
Tri 40 Complete Liquid Plant Food					
Guaranteed	10.00	20.00	10.00	72.50	
202	10.28	21.38	10.98	76.67	
SMITH-DOUGLASS COMPANY, INC., HOUSTON, TEXAS					
"Pelleform" 6-24-24					
Guaranteed	6.00	24.00	24.00	82.50	
465	6.58	24.56	24.20	85.28	
"Pelleform" 10-20-20					
Guaranteed	10.00	20.00	20.00	82.50	
464	10.00	20.19	20.00	82.83	
1402	11.76	20.94	12.02	81.01	
"Pelleform" 12-24-12					
Guaranteed	12.00	24.00	12.00	87.00	
271	12.00	24.86	12.00	88.51	
776	12.24	23.46	12.80	87.52	
912	12.08	25.36	12.20	89.86	
1521	12.04	25.76	12.80	90.99	
"Pelleform" 0-46-0					
Guaranteed	00.00	46.00	00.00	80.50	
469	00.00	46.00	00.00	80.50	
1577	00.00	49.85	00.00	87.24	
"Pelleform" 11-48-0					
Guaranteed	11.00	48.00	00.00	114.25	
1520	11.96	44.90	00.00	111.47	
"Pelleform" 13-39-0					
Guaranteed	13.00	39.00	00.00	104.00	
1519	12.16	41.28	00.00	105.68	
1623	13.16	39.00	00.00	104.44	
"Pelleform" 16-20-0					
Guaranteed	16.00	20.00	00.00	79.00	
272	15.74	23.79	00.00	84.92	
775	15.48	20.48	00.00	78.41	
922	16.10	20.00	00.00	79.28	
927	16.68	20.56	00.00	81.85	
1576	15.78	21.10	00.00	80.32	
1622	15.32	20.00	00.00	77.13	
SOUTH TEXAS FERTILIZER & CHEMICAL CO., EL CAMPO, TEXAS					
Green Dot 4-11-11 Liquid Fertilizer					
Guaranteed	4.00	11.00	11.00	41.25	
871	4.32	11.92	11.76	44.50	
208	4.26	15.32	9.37	47.90	

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Green Dot 8-24-0 Liquid Fertilizer					
Guaranteed	8.00	24.00	00.00	64.00	
209	8.21	24.02	00.00	64.61	
873	8.34	24.00	00.00	64.94	
Green Dot 12-12-6 Liquid Fertilizer					
Guaranteed	12.00	12.00	6.00	60.00	
872	11.62	13.23	6.29	61.40	
SOUTHWEST CHEMICAL COMPANY, INC., McALLEN, TEXAS					
"Top Crop" Liquid 5-10-10					
Guaranteed	5.00	10.00	10.00	41.25	
283	5.23	7.98	8.40	36.73	
"Top-Crop" Liquid 10-10-5					
Guaranteed	10.00	10.00	5.00	50.00	
281	10.30	11.22	5.39	53.35	
949	10.74	11.98	5.36	55.86	
"Top-Crop" Liquid 12-15-0					
Guaranteed	12.00	15.00	00.00	59.25	
284	11.57	16.40	00.00	60.52	
950	11.74	15.64	00.00	59.66	
"Top-Crop" Liquid 0-54-0					
Guaranteed	00.00	54.00	00.00	94.50	
282	00.00	55.62	00.00	97.34	
"Top-Crop" Liquid 33-0-0					
Guaranteed	33.00	00.00	00.00	90.75	
951	33.78	00.00	00.00	92.90	
SOUTHWEST FERTILIZER & CHEMICAL CO. OF EL PASO, EL PASO, TEXAS					
SWFGRO Fertilizer Superphosphate 0-20-0					
Guaranteed	00.00	20.00	00.00	35.00	
1553	00.00	20.02	00.00	35.04	
SPENCER CHEMICAL COMPANY, KANSAS CITY, MISSOURI					
"Mr. N" (Ammonium Nitrate Fertilizer)					
Guaranteed	33.50	00.00	00.00	92.13	
689	34.07	00.00	00.00	93.69	
SWIFT & COMPANY, HOUSTON, TEXAS					
Swift's Red Steer 5-10-5					
Guaranteed	5.00	10.00	5.00	36.25	
219	5.04	10.52	5.20	37.47	
253	5.02	10.90	5.20	38.08	
258	5.21	10.62	5.15	38.06	
392	5.93	11.26	5.10	41.11	
441	4.75	10.00	5.00	35.56	
496	6.06	10.60	5.10	40.32	
546	5.40	11.30	5.10	39.73	
833	5.12	10.11	5.20	36.97	
903	5.04	11.34	5.05	38.76	
969	4.68	10.71	5.05	36.66	
973	5.66	10.56	5.20	39.25	
1028	5.01	11.02	5.05	38.11	
1124	4.72	10.40	5.40	36.58	
1132	5.08	11.20	5.30	38.87	
1165	5.03	12.22	5.35	40.57	
1393	5.38	12.28	5.50	41.79	
1413	5.00	10.38	5.10	37.02	
Swift's Pasturgro 5-20-20					
Guaranteed	5.00	20.00	20.00	68.75	
1396	5.10	22.00	20.00	72.53	
1421	5.42	22.50	18.52	72.80	
Swift's Red Steer 6-12-6					
Guaranteed	6.00	12.00	6.00	43.50	
904	6.00	12.20	6.10	43.95	
974	6.14	12.18	6.05	44.25	
985	6.62	12.68	6.00	46.40	

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Swift's Red Steer 8-8-8					
Guaranteed		8.00	8.00	8.00	44.00
1468		7.58	9.20	8.04	44.09
Swift's Red Steer 10-20-0					
Guaranteed		10.00	20.00	00.00	62.50
182		10.00	20.04	00.00	62.57
316		9.56	19.50	00.00	60.42
444		9.69	20.02	00.00	61.68
975		10.54	20.56	00.00	64.97
986		10.64	21.10	00.00	66.19
1003		10.52	20.26	00.00	64.39
1006		9.72	20.60	00.00	62.78
1045		10.54	21.60	00.00	66.79
254		10.00	20.99	00.00	64.23
Swift's Red Steer 10-20-10					
Guaranteed		10.00	20.00	10.00	72.50
178		9.52	20.47	10.30	72.30
183		10.03	20.20	10.60	73.53
259		9.29	19.02	10.00	68.83
317		8.66	20.42	10.70	70.25
340		9.08	21.16	10.00	72.00
393		10.34	20.01	10.00	73.45
442		8.68	21.86	10.00	72.13
445		9.51	20.96	10.00	72.83
454		9.67	20.10	10.10	71.87
497		10.42	21.28	10.10	76.00
547		10.06	20.96	10.00	74.35
749		9.12	20.45	10.00	70.87
834		9.76	20.43	10.00	72.59
844		10.04	20.24	10.00	73.03
938		10.04	20.08	10.00	72.75
963		9.72	20.00	10.00	71.73
967		10.08	20.60	10.20	73.97
996		9.24	20.46	10.00	71.22
1002		10.06	20.78	10.10	74.13
1005		10.06	20.87	10.00	74.19
1029		9.78	20.04	10.00	71.97
1114		10.10	19.38	10.50	72.19
1394		9.16	21.00	10.04	71.98
1414		8.80	20.30	10.00	69.73
1422		8.46	20.48	12.80	71.91
1455		8.78	20.15	10.01	69.42
1465		9.32	21.00	10.01	72.39
Brim 12-12-6					
Guaranteed		12.00	12.00	6.00	60.00
939		10.78	12.42	6.10	57.48
Swift's Red Steer 12-12-12					
Guaranteed		12.00	12.00	12.00	66.00
1395		11.60	13.30	12.20	67.38
Swift's Red Steer 12-24-12					
Guaranteed		12.00	24.00	12.00	87.00
299		10.57	24.14	11.80	83.11
905		12.08	24.14	12.00	87.47
917		10.60	24.02	11.80	82.99
964		11.10	24.35	12.10	85.24
Swift's Red Steer 15-15-0					
Guaranteed		15.00	15.00	00.00	67.50
274		13.20	16.31	00.00	64.84
300		13.23	15.38	00.00	63.30
933		13.60	15.18	00.00	63.97
1004		13.38	15.50	00.00	63.92
Swift's Red Steer 0-46-0					
Guaranteed		00.00	46.00	00.00	80.50
247		00.00	44.20	00.00	77.35
446		00.00	46.01	00.00	80.52
1041		00.00	45.66	00.00	79.91

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Swift's Red Steer 13-39-0					
Guaranteed		13.00	39.00	00.00	104.00
275		11.18	35.00	00.00	92.00
Swift's Red Steer 16-20-0					
Guaranteed		16.00	20.00	00.00	79.00
248		14.66	18.26	00.00	72.27
260		14.86	19.00	00.00	74.12
541		14.38	19.77	00.00	74.14
632		15.30	18.60	00.00	74.63
932		14.78	20.48	00.00	76.49
940		15.22	20.88	00.00	78.40
987		15.68	20.60	00.00	79.17
1082		15.66	20.42	00.00	78.80
1166		14.59	21.76	00.00	78.20
SWIFT & COMPANY, SHREVEPORT, LOUISIANA					
Swift's Red Steer 5-10-5					
Guaranteed		5.00	10.00	5.00	36.25
39		6.09	10.04	5.60	39.92
92		6.01	12.10	5.90	43.60
113		4.54	11.58	5.45	38.20
132		5.45	9.74	5.05	36.54
135		5.01	10.40	5.00	36.98
140		5.91	11.08	5.00	40.64
151		5.12	10.12	5.50	37.29
175		4.47	10.30	7.10	37.42
414		4.79	10.02	5.10	35.81
415		4.82	10.48	5.05	36.65
700		5.04	10.01	5.85	37.23
724		5.12	10.90	5.15	38.31
820		5.30	11.62	5.15	40.06
1209		5.28	10.20	5.30	37.67
1211		5.42	11.00	5.15	39.31
1302		5.70	10.18	5.05	38.54
1349		6.14	11.94	5.20	42.98
1360		5.01	10.58	5.20	37.49
1369		5.00	10.72	5.35	37.86
1477		5.00	10.98	5.00	37.97
1659		5.20	10.90	5.00	38.38
Pasturgo 5-10-10					
Guaranteed		5.00	10.00	10.00	41.25
1208		5.16	11.82	10.50	45.38
1374		5.80	10.70	10.30	44.98
Swift's Red Steer 8-8-8					
Guaranteed		8.00	8.00	8.00	44.00
118		8.28	11.24	10.00	52.44
421		8.08	9.06	8.70	46.78
725		7.56	8.60	8.20	44.04
1350		8.50	9.34	9.20	48.92
1375		8.24	8.90	8.00	46.24
1382		8.92	8.40	8.76	47.99
Swift's Red Steer 10-20-0					
Guaranteed		10.00	20.00	00.00	62.50
705		9.14	20.01	00.00	60.15
Swift's Red Steer 10-20-10					
Guaranteed		10.00	20.00	10.00	72.50
38		9.63	20.02	10.80	72.32
40		9.36	18.65	11.30	69.68
41		10.49	20.20	10.30	74.50
93		9.08	19.54	8.80	67.97
114		9.68	20.00	10.10	71.72
119		10.08	20.01	10.60	73.34
133		9.79	18.86	10.60	70.53
136		9.76	19.27	10.80	70.39
141		10.02	19.71	10.40	72.45
152		9.16	18.79	10.40	68.47
174		9.77	20.12	11.20	73.28
422		10.18	20.01	10.00	73.01

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
Swift's Red Steer 10-20-10					
	646	10.02	20.10	10.20	72.93
	718	10.20	19.11	11.00	72.49
	821	9.56	20.02	10.50	71.83
	825	10.18	19.48	10.50	72.59
	1210	10.22	20.00	10.00	73.11
	1212	8.24	17.67	10.40	63.98
	1281	10.16	20.00	10.00	72.94
	1303	9.76	18.78	10.40	70.11
	1308	10.02	18.55	10.30	70.32
	1351	9.82	18.00	10.16	68.67
	1363	10.10	19.81	10.64	73.08
	1376	10.00	18.57	10.00	70.00
	1478	9.48	20.00	10.30	71.37
	1660	10.08	18.26	10.40	70.08
Swift's Red Steer 12-12-12					
Guaranteed	12.00	12.00	12.00	66.00	
	134	11.56	11.60	13.20	65.29
	822	12.01	12.00	12.00	66.03
	1377	11.42	12.72	12.20	65.87
Swift's Red Steer 0-20-0					
Guaranteed	00.00	20.00	00.00	35.00	
	1348	00.00	20.14	00.00	35.25
TEXAS FARM PRODUCTS CO., NACOGDOCHES, TEXAS					
Lone Star Brand 0-16-8 Fertilizer					
Guaranteed	00.00	16.00	8.00	36.00	
	815	00.00	16.70	8.30	37.53
Lone Star Brand 3-12-12 Fertilizer					
Guaranteed	3.00	12.00	12.00	41.25	
	439	3.19	12.06	12.00	41.88
Lone Star Brand 5-10-5					
Guaranteed	5.00	10.00	5.00	36.25	
	137	5.09	10.30	5.15	37.17
	145	5.12	10.52	5.30	37.79
	357	5.24	10.00	5.40	37.31
	360	5.31	9.65	5.10	36.59
	384	5.10	10.50	5.10	37.50
	493	6.73	13.31	6.95	48.75
	519	5.31	10.46	5.10	38.01
	743	4.88	10.51	5.10	36.91
	806	5.48	10.20	5.45	38.37
	813	5.88	10.60	5.15	39.87
	1021	5.44	10.62	5.05	38.60
	1304	5.64	11.70	5.40	41.39
	1324	5.04	10.20	5.40	37.11
	1355	5.08	10.02	5.32	36.83
Lone Star Brand 8-8-8 Fertilizer					
Guaranteed	8.00	8.00	8.00	44.00	
	540	8.14	9.67	8.50	47.81
	814	8.04	8.00	8.05	44.16
	1022	8.10	8.92	8.30	46.19
	1319	7.48	8.52	8.20	43.96
Lone Star Brand 10-20-0 Fertilizer					
Guaranteed	10.00	20.00	00.00	62.50	
	221	10.15	19.16	00.00	61.44
	431	9.11	19.12	00.00	58.51
Lone Star Brand 10-20-10					
Guaranteed	10.00	20.00	10.00	72.50	
	138	10.08	19.60	10.00	72.02
	146	9.81	19.05	9.60	69.92
	179	10.04	20.12	10.20	73.02
	358	10.08	19.07	10.10	71.19
	397	10.02	20.16	10.00	72.84
	432	10.10	20.00	10.00	72.78
	440	10.00	19.17	10.00	71.05
	459	10.64	19.13	10.10	72.84

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
	461	9.67	20.13	10.00	71.82
	509	9.76	19.26	10.00	70.55
	550	10.34	18.92	10.10	71.65
	726	10.30	20.30	10.00	73.85
	744	10.08	19.62	10.10	72.16
	807	10.42	20.02	10.00	73.69
	816	10.08	20.06	10.40	73.23
	1023	10.40	20.95	10.20	75.46
	1149	9.64	20.19	10.00	71.84
	1305	10.10	21.30	10.00	75.05
	1320	10.02	20.94	10.10	74.30
	1325	10.01	20.06	10.12	72.75
	1356	10.06	20.20	10.00	73.02
	1400	10.00	20.50	10.16	73.54
	1428	10.06	20.20	10.00	73.02
	1445	10.78	20.21	10.90	75.91
Lone Star Brand 12-12-12					
Guaranteed	12.00	12.00	12.00	66.00	
	849	12.50	12.82	12.60	69.41
	1401	11.38	12.48	12.00	65.14
Lone Star Brand 12-24-12					
Guaranteed	12.00	24.00	12.00	87.00	
	1151	11.16	23.88	13.00	85.48
Lone Star Brand 20% Superphosphate 0-20-0					
Guaranteed	00.00	20.00	00.00	35.00	
	190	00.00	20.00	00.00	35.00
	230	00.00	20.48	00.00	35.84
	361	00.00	20.00	00.00	35.00
	430	00.00	20.30	00.00	35.53
	745	00.00	20.00	00.00	35.00
Lone Star Brand 13-39-0					
Guaranteed	13.00	39.00	00.00	104.00	
	1529	13.24	37.10	00.00	101.34
	1534	13.92	36.28	00.00	101.77
Lone Star Brand 16-20-0					
Guaranteed	16.00	20.00	00.00	79.00	
	191	14.02	20.00	00.00	73.56
	848	16.52	22.50	00.00	84.81
	1150	14.86	20.32	00.00	76.43
	1528	16.68	22.30	00.00	84.90
	1533	16.28	20.78	00.00	81.14
TEXAS FARM SUPPLY, BAY CITY, TEXAS					
Texas Farm Supply Liquid Mix Fertilizer 14-14-0					
Guaranteed	14.00	14.00	00.00	63.00	
	856	16.60	9.71	00.00	62.64
Texas Farm Supply Brand Fertilizer 16-8-0					
Guaranteed	16.00	8.00	00.00	58.00	
	855	18.08	6.80	00.00	61.62
Texas Farm Supply Brand Superphosphate 0-45-0					
Guaranteed	00.00	45.00	00.00	78.75	
	857	0.00	44.08	00.00	77.14
TEXAS LIQUID FERTILIZER COMPANY, LA FERIA, TEXAS					
Texas Liquid Acid Plant Food 5-10-10					
Guaranteed	5.00	10.00	10.00	41.25	
	956	5.62	13.21	10.88	49.45
Texas Liquid 10-10-5 Fertilizer					
Guaranteed	10.00	10.00	5.00	50.00	
	290	10.02	10.40	5.73	51.49
	957	16.12	13.13	8.14	75.45
Texas Liquid 16-8-4 Fertilizer					
Guaranteed	16.00	8.00	4.00	62.00	
	291	16.00	8.00	4.53	62.53
	958	16.50	8.51	4.53	64.80

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, CONTINUED

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
TIDE PETROLEUM PRODUCTS, EDINBURG, TEXAS					
Tide 6-18-6 Liquid Fertilizer					
Guaranteed	6.00	18.00	6.00	54.00	
318	6.01	18.64	8.48	57.63	
Tide Green 8-16-8 Liquid Fertilizer					
Guaranteed	8.00	16.00	8.00	58.00	
934	11.16	23.42	12.04	83.72	
Tide Green 8-24-0 Liquid Fertilizer					
Guaranteed	8.00	24.00	00.00	64.00	
319	8.13	24.00	00.00	64.36	
935	8.01	25.08	00.00	65.92	
Tide Green 10-10-0 Liquid Fertilizer					
Guaranteed	10.00	10.00	00.00	45.00	
937	10.40	10.89	00.00	47.66	
Tide Green 10-20-0 Liquid Fertilizer					
Guaranteed	10.00	20.00	00.00	62.50	
277	10.05	20.68	00.00	63.83	
Tide Green 12-12-6 Liquid Fertilizer					
Guaranteed	12.00	12.00	6.00	60.00	
278	12.26	12.90	6.01	62.30	
Tide Green 15-15-0 Liquid Fertilizer					
Guaranteed	15.00	15.00	00.00	67.50	
276	15.07	16.00	00.00	69.44	
320	14.87	15.60	00.00	68.19	
936	15.00	16.11	00.00	69.44	
TYLER FERTILIZER COMPANY, TYLER, TEXAS					
Heart Brand 5-10-5					
Guaranteed	5.00	10.00	5.00	36.25	
167	6.61	10.38	5.15	41.49	
522	5.00	10.30	5.00	36.78	
830	5.06	10.50	4.00	36.29	
1053	6.42	11.28	5.15	42.55	
Gro-Tex Plant Food 5-10-5					
Guaranteed	5.00	10.00	5.00	36.25	
1215	6.38	11.90	5.20	43.57	
1313	6.02	11.00	5.15	40.96	
1657	5.64	10.82	5.60	40.05	
Heart Brand 8-8-8					
Guaranteed	8.00	8.00	8.00	44.00	
169	7.23	7.60	7.40	40.58	
1372	8.44	8.22	9.60	47.20	
Heart Brand 10-20-0					
Guaranteed	10.00	20.00	00.00	62.50	
50	10.33	20.42	00.00	64.14	
1065	12.86	21.40	00.00	72.82	
Heart Brand 10-20-10					
Guaranteed	10.00	20.00	10.00	72.50	
51	9.30	20.22	10.40	71.36	
54	9.30	20.56	10.40	71.96	
168	9.30	21.46	10.10	73.23	
523	9.32	20.12	10.30	71.14	
553	10.30	23.20	10.20	79.13	
736	10.42	19.67	10.70	73.78	
1054	10.24	19.38	10.30	72.38	
1066	10.00	20.52	10.00	73.41	
1216	8.44	18.03	10.00	64.76	
1471	9.74	18.18	11.00	69.60	
1666	9.52	20.72	10.80	73.24	
1673	10.72	20.80	11.70	77.58	
Gro-Tex Plant Food 10-20-10					
Guaranteed	10.00	20.00	10.00	72.50	
1314	10.56	19.45	10.00	73.08	
1389	10.12	18.50	11.50	71.71	
1466	9.72	19.50	10.24	71.10	
1472	10.42	18.48	12.00	73.00	

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phosphoric acid, %	Potash, %	Valuation found per ton, \$
VALLEY GROWERS COOPERATIVE, MISSION, TEXAS					
Valley-Gro 10-10-0					
Guaranteed	10.00	10.00	00.00	45.00	
303	12.32	10.10	00.00	51.66	
VIRGINIA CAROLINA CHEMICAL CORP., SHREVEPORT, LA.					
V-C Granulated Fertilizers 0-16-8					
Guaranteed	00.00	16.00	8.00	36.00	
400	00.00	14.70	9.50	35.23	
V-C Fertilizers 5-10-5					
Guaranteed	5.00	10.00	5.00	36.25	
149	5.04	10.26	5.20	37.02	
153	4.82	10.66	5.10	37.01	
160	5.01	10.40	5.15	36.09	
719	5.00	10.10	5.90	37.33	
1309	4.80	10.20	6.10	37.15	
1334	5.00	10.64	5.30	37.67	
1345	4.88	11.00	5.38	38.05	
V-C Granulated Fertilizer 5-10-5					
Guaranteed	5.00	10.00	5.00	36.25	
238	5.74	10.40	5.15	39.14	
451	5.02	11.20	5.05	38.46	
504	5.07	10.50	5.00	37.32	
517	5.47	11.18	5.05	39.66	
716	5.04	10.24	5.85	37.63	
733	5.20	10.88	5.15	38.49	
750	5.03	10.29	5.35	37.19	
824	5.34	11.36	5.20	39.77	
1062	5.12	11.42	5.00	39.07	
1074	5.02	10.48	5.00	37.15	
1290	5.02	10.80	5.05	37.76	
1292	5.68	11.66	5.20	41.23	
V-C Fertilizer 8-8-8					
Guaranteed	8.00	8.00	8.00	44.00	
1310	8.06	8.96	8.10	45.95	
1316	7.78	9.60	9.80	48.00	
1335	7.80	10.09	8.16	47.27	
1343	8.00	9.66	8.40	47.31	
V-C Granulated Fertilizers 8-8-8					
Guaranteed	8.00	8.00	8.00	44.00	
131	8.34	8.18	10.00	47.25	
727	8.34	8.46	8.10	45.84	
1326	8.00	9.32	8.16	46.47	
1397	8.14	8.58	8.02	45.42	
V-C Granulated Fertilizers 10-20-0					
Guaranteed	10.00	20.00	00.00	62.50	
52	10.45	20.90	00.00	65.31	
158	10.98	20.56	00.00	66.18	
543	10.24	21.12	00.00	65.12	
V-C Granulated Fertilizer 10-20-10					
Guaranteed	10.00	20.00	10.00	72.50	
53	10.17	21.36	10.40	75.75	
125	10.17	20.18	10.90	74.18	
150	9.59	21.00	10.40	73.52	
154	10.12	21.56	10.00	75.56	
159	10.00	20.22	10.20	73.09	
161	10.12	20.16	10.20	73.31	
387	9.66	21.96	10.30	75.30	
401	10.52	20.18	10.20	74.45	
443	9.71	22.00	10.10	75.30	
455	10.01	20.92	10.20	74.34	
483	10.15	21.64	10.30	76.08	
518	10.06	21.46	10.00	75.22	
544	10.22	21.08	10.00	75.00	
588	10.08	21.10	10.16	74.81	
696	8.34	22.50	10.00	72.31	

TABLE 5. ANALYSES OF COMMERCIAL FERTILIZERS SAMPLED DURING 1957-58, CONTINUED

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				
	701	10.03	20.59	10.40	74.02
	706	9.66	20.40	10.00	72.27
	709	9.58	20.08	10.40	71.89
	720	10.16	20.16	10.20	73.42
	728	10.10	20.58	10.60	74.39
	751	10.06	20.04	10.10	72.84
	823	10.04	21.90	10.00	75.94
	831	10.16	19.80	10.20	72.79
	832	10.10	20.75	10.30	74.39
	1020	10.28	21.72	10.40	76.68
	1040	10.02	20.60	10.40	74.01
	1063	9.78	20.94	10.00	73.54
	1072	10.06	20.34	10.20	73.46
	1075	10.10	20.02	11.00	73.81
	1235	9.52	21.52	10.10	73.94
	1300	10.36	20.50	10.90	75.27
	1315	10.06	20.60	10.40	74.12
	1327	10.02	20.32	10.40	73.52
	1336	10.04	20.40	10.76	74.07
	1344	10.06	20.70	10.90	74.79
	1346	10.10	21.00	10.10	74.63
	1364	9.74	21.00	10.52	74.06
	1398	10.00	20.30	10.74	73.77
	1475	9.70	20.70	10.60	73.50

Manufacturer, place of business and brand	Laboratory no.	Nitrogen, %	Available phos- phoric acid, %	Potash, %	Valuation found per ton, \$
V-C Granulated Fertilizer	10-20-20				
Guaranteed	10.00	20.00	20.00	82.50	
	1365	10.01	20.30	20.08	83.13
V-C Granulated Fertilizer	12-12-12				
Guaranteed	12.00	12.00	12.00	66.00	
	752	12.78	12.58	12.00	69.16
	1366	10.82	13.56	12.80	66.29
	1399	11.70	12.70	12.68	67.08
V-C Granulated 20% Superphosphate					
Guaranteed	00.00	20.00	00.00	35.00	
	157	00.00	20.22	00.00	35.39
	220	00.00	20.26	00.00	35.46
	363	00.00	20.00	00.00	35.00
	708	00.00	20.06	00.00	35.11
V-C Granulated Fertilizers	16-20-0				
Guaranteed	16.00	20.00	00.00	79.00	
	542	13.08	20.58	00.00	71.99
	1064	16.18	20.00	00.00	79.50
WONDER-GRO FERTILIZER CO., INC.,					
SAN ANTONIO, TEXAS					
Wonder-Gro 5-10-5					
Guaranteed	5.00	10.00	5.00	36.25	
	983	4.62	10.52	5.10	36.22
	991	6.36	13.32	5.15	45.95

Fertilizer Guarantors Registered in Texas, 1957-58

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 Laboratories, 2121 S. Central Express-
way, 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

Basic G Industries, Room 711, C & I Life Bldg.,
Houston

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

Bovina Farm Chemical, 801 Third Street, Bovina

Bryan Cotton Oil & Fertilizer Company, Bryan

Campbell Fertilizer Co., Inc., 102 Japhet Street,
Houston

Cap Rock Fertilizer Co., Littlefield

Carl Pool Labs, 420 Kelly Drive, San Antonio

Castro County Grain Co., Dimmitt

Catto & Putty, 510 Soledad, San Antonio

Central Texas Fertilizer Co., Inc., Box 761,
Comanche

Chemical Products Co., Inc., Box 387, Hurst

Chemical Specialties Co., Box 1453, Laredo

Coastal Chem. Specialties Co., Route 3, Box 591,
Houston

Consolidated Chem. Industries, Inc., 6910 Fannin,
Houston 25

Continental Brokerage Co., Bonham

R. R. Cunningham, 3800 Northwest Highway,
Dallas

Dennisons, Weslaco

Dixie Farm Service, Inc., Box 312 Rosenberg

East Texas Products Company, Box 176, Tyler

Easy Going Ranch, Mountain Home

Farmers Fertilizer Company, Box 944, Texarkana,
Ark-Tex

Ferd Staffel Co., Box 2380, San Antonio

Fidelity Chemical Corp., Box 1189, Houston

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.,
Houston

Hill's Nursery, Victoria

Hi-Yield Plant Food Company, Box 491, Mount
Pleasant

Hi-Yield Fertilizer Company, Box 143, 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

Jaffee Cotton Products, Box 5184, Dallas

Jones Farm Store, Box 786, Muleshoe

Kipfer Chemical Company, Box 770, Harlingen

Klauss-White, 1441 W. Popular St., San
Antonio 7

Lamkin Bros., P. O. Box 495, Brownwood

Lister Laboratory, Ltd., Box 84, Helotes

Lone Star Phosphate Co., Box 31, Nacogdoches

Lone Star Steel Company, Box 12226, Dallas

Manning Minerals Corp., Wilson-Tyler Bldg.,
Box 1558, Corpus Christi

Marbach, E. W., Converse

Margie Korn Garden Shop, 5213 W. Lovers Lane,
Dallas

Marshall Cotton Oil Company, Marshall

Mid West Feed Yards, Box 1370, San Angelo

J. W. Nichols Co., 719 N. Main, Fort Worth

Old Dutch Mill Fertilizer Co., 2776 Pine, Abilene

Parker's Mother Nature Fertilizer Co.,
Round Rock

Pittsburg Fertilizer Co., Pittsburg

Fertilizer Guarantors Registered in Texas, 1957-58—Cont'd.

Plainsman Feeds, 601 E. 5th Street, Plainview
Port Fertilizer and Chemical Co., Los Fresnos
Product Development Co., 1525B N. Post Oak
Road, Houston
Red Star Fertilizer Company, Box 486, Sulphur
Springs
Rio Soil Service, 219 West Highway, San Juan
Rose City Nursery, Tyler
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.)
Box 9747, Houston 15
Sod-Gro Fertilizer Co., 205 S. Allen Street,
Monahans
Soil Builders Co., 511 Trudell Drive, San Antonio
Soil Organic Service, 8729 Old County Road,
Ysleta
Soil Prescription Service, 851 Acme Road, San
Antonio
South Texas Fertilizer & Chemical Co., El Campo
Southwest Chemical Company, 500 South 19th St.,
McAllen
Southwest Fertilizer Co., Box 12234, Dallas
Southwest Fertilizer and Chemical Co., 5030 East
Paisano Drive, El Paso
Soylaid, Inc., 102 W. French Place, San Antonio 12
Stauffer Chemical Company, Box 507, Weslaco
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
Taylor-Evans Farm Store, 2701 East 3rd Street,
Amarillo
Tech Chemicals, Inc., Clint
Tex-Ammonia, Inc., Elsa
Texas Agricultural Chemical Co., P. O. Box 745,
Fort Worth
Texas City Chemicals, P. O. Box 9747, Houston 15
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 Closser,
Edinburg
Tri-State Soil Products Company, 2218 N. Piedras
Street, El Paso
Tyler Fertilizer Company, 429 South Oakland,
Tyler
Valley Growers Cooperative, Box 907, Mission
Western Fertilizer Company, Muleshoe
J. Bob White, 5500 Camp Bowie Blvd., Ft. Worth
Wonder-Gro Corp., Room 2, International Airport,
San Antonio
Wood Chemical Co., Box 599, Lubbock
Wyatt Wholesale, 16 S. Taylor, San Angelo

LOCATED ELSEWHERE

Agricultural Products Company, Box 658,
Anthony, New Mexico
Allied Chemical & Dye Corp., Nitrogen Div.,
Drawer 61, Hopewell, Virginia
American Agricultural Chemical Co., 50 Church
Street, New York 7, New York
American Bulb Co., 711 Third Ave., New York 17,
New York
American Chemical Paint Company, Ambler,
Pennsylvania
American Cyanamid Company, 30 Rockefeller
Plaza, New York 21, New York
American Liquid Fertilizer Company, 2nd and St.
Clair Street, Marietta, Ohio
The Anaconda Company, Anaconda, Montana
Ark-La Feed & Fertilizer Co., Magnolia, Arkansas
Arkmo Plant Food Co., Inc., Walnut Ridge,
Arkansas
Associated Cooperatives, Inc., 312 Montgomery
Ave., Sheffield, Alabama
Associated Seed Growers, Cambridge, New York
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, 10 So. Brentwood Blvd., St.
Louis 5, Missouri
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

Fertilizer Guarantors Registered in Texas, 1957-58—Cont'd.

- Chloro-Spray Corp., 2215 N. American, Philadelphia 3, Pennsylvania
- Coastal Chemical Corp., Yazoo City, Mississippi
- Colorado Fuel and Iron Corp., Box 1920, Denver, Colorado
- Commercial Solvents Corp., 260 Madison Ave., New York, New York
- Davey Tree Expert Company, 117 South Water Street, Kent, Ohio
- Davison Chemical Company, P. O. Box 987, Joplin, Missouri
- Desert Green Corp., Belen, New Mexico
- Dixie Fertilizer Company, Inc., Box 1111, Shreveport, Louisiana
- Dow Chemical Company, Midland, Michigan
- E. I. DuPont de Nemours and Company, Box 993, Wilmington, Delaware
- Ferro Corporation, 4150 East 56th St., Cleveland, Ohio
- Ford Motor Company, Dearborn, Michigan
- Garden Research Laboratory, 699 Madison Ave., New York 21, New York
- Geigy Company, Inc., Saw Mill River Road, Ardsley, 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
- Grant Company, 2735 N. Ashland Avenue, Chicago 14, Illinois
- 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
- 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., 20 North Wacker Drive, Chicago 6, Illinois
- Kelly, Weber and Company, Inc., Lake Charles, Louisiana
- Lake Charles Feed Company, Inc., Lake Charles, Louisiana
- Leeds Chemical Products, 112 E. Walton, Chicago, Illinois
- O. E. Linck Company, Clifton, New Jersey
- Loncala Phosphate Company, Box 338, High Springs, Florida
- Olin Mathieson Chemical Corp., Box 991, Little Rock, Arkansas
- 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., 1700 S. Second St., St. Louis 4, Missouri
- Na-Churs Plant Food Company, 421 Monroe St., Marion, Ohio
- Natural Plant Food Company, 210 W. California, Oklahoma City, Oklahoma
- Naturizer Company, Box 755, Norman, Oklahoma
- Nichols Seed & Fertilizer Co., Box 1296, Oklahoma City, Oklahoma
- Nitro-Form Agricultural Chemicals, 92 Sunnyside Ave., Woonsocket, R. I.
- Nursery Stock Exchange, Box 1235, Coolidge, Arizona
- Ouachita Fertilizer & Chemical Co., Box 454, Monroe, Louisiana
- Ozark-Mahoning Co., 310 W. Sixth St., Tulsa 1, Oklahoma
- Phillips Petroleum Company, Bartlesville, Oklahoma
- Plantabbs Corporation, 1005 Maryland, Baltimore, Maryland
- Plant Shine Company, 404 S. 4th Street, St. Louis 2, Missouri
- Proen Products Company, 9th and Grayson, Berkeley, California
- Ra-Pid-Gro Corp., 88 Ossian Street, Dansville, New York
- Ravel Bros. Inc., Box 462, Albuquerque, New Mexico
- Renard Co., 223 Riverdale Ave., Yonkers, New York
- Reuter Seed Co., Inc., New Orleans 9, Louisiana
- Reynolds Soil Development Co., Monrovia, California
- Ruhm Phosphate & Chemcial Co., 813 S. Garden Street, 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

Fertilizer Guarantors Registered in Texas, 1957-58—Cont'd.

Sewerage Commission of the City of Milwaukee,
Box 2079, Milwaukee 1, Wisconsin

Shankles Wholesale Bulb Co., Jonesboro,
Louisiana

Shea Chemical Corp., Box 326, Jeffersonville,
Indiana

Soil Booster Corp., 2501 East Fourth St., Okla-
homa City, Oklahoma

Spencer Chemical Company, 610 Dwight Build-
ing, Kansas City, Missouri

Stimuplant Labs., Box 1955, Columbus 16, Ohio

Swift & Company, Plant Food Div., Box 3567,
Queensboro Station, Shreveport, La.

Tennessee Corp., 619-29 Grant Building, Atlanta,
Georgia

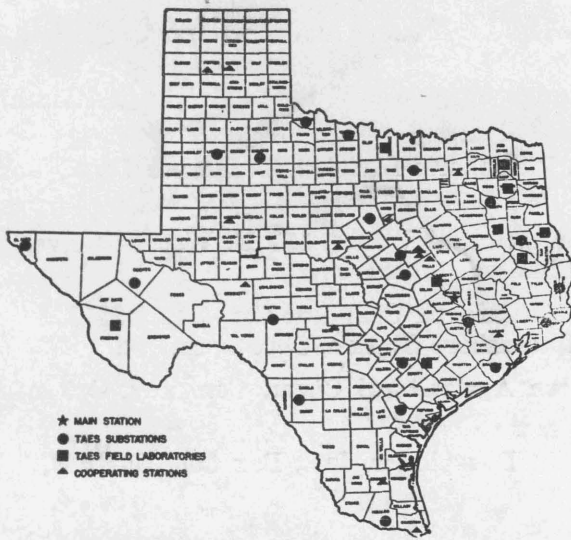
U. S. Phosphoric Division, Tennessee Corp., Box
3269, Tampa, Florida

Victor Chemical Works, 155 N. Wacker Drive,
Chicago, Illinois

Virginia-Carolina Chemical Corp., Box 3218
Queensboro Station, Shreveport, La.

Western Agricultural Chem. Company, Colorado
Springs, Colorado

Western Phosphates, Inc., Box 308, Garfield,
Utah



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

State-wide Research



The Texas Agricultural Experiment Station is the public agricultural research agency of the State of Texas, and is one of 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