

TEXAS AGRICULTURAL EXPERIMENT STATIONS.

BULLETIN NO. 123
CHEMICAL SECTION, JULY, 1909

**COMMERCIAL FERTILIZERS AND POISONOUS
INSECTICIDES IN 1908-9.**

By

G. S. FRAPS, Chemist.



Postoffice

College Station, Brazos County, Texas.

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Note—The Main Station is located on the grounds of the Agricultural and Mechanical College, in Brazos County. The postoffice address is College Station, Texas. Reports and bulletins are sent upon application to the Director.

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AVAILABLE BULLETINS

The following is a list of Bulletins of this Experiment Station available for distribution. The others are out of print. Any of these Bulletins will be sent free of charge. Requests should be directed to the Director of the Experiment Station, College Station, Texas.

79. Cotton Breeding.
84. Tomato Fertilizers at Troupe.
88. Munson's Bulletin on Grapes.
91. Food Adulteration in Texas.
92. A Test of the Producing Power of Some Texas Seed Corn.
95. Commercial Fertilizers and Poisonous Insecticides 1906-07.
97. Kaffir Corn and Milo Maize for Fattening Cattle.
98. Summary of all Bulletins from No. 1 to 94, inclusive.
100. Chemical composition of Some Texas Soils.
102. Texas Honey Plants.
104. Digestion Experiments.
105. Notes on Forest and Ornamental Trees.
107. Commercial Fertilizers and Poisonous Insecticides 1907-08.
108. Winter Bur Clover.
109. Alfalfa.
110. Steer Feeding Experiments.
111. Texas Fever.
112. Nature and Use of Commercial Fertilizers.
113. Spray Calendar.
114. Composition of White Lead and Paints.
115. Fertilizer Test With Onions.
117. Commercial Feeding Stuffs in 1907-08.
119. Infectious Anaemia of the Horse.
120. Corn and Cotton Experiments for 1908.

COMMERCIAL FERTILIZERS AND POISONOUS INSECTICIDES IN
1908-09. ..

G. S. Fraps.

This bulletin deals with the State control of commercial fertilizers and poisonous insecticides. For information regarding the nature and use of fertilizers, reference is made to Bulletin No. 112. The quantity of Commercial Fertilizers, exclusive of cottonseed meal, sold in Texas from September 1st to May 1st, is as follows for the last four seasons:

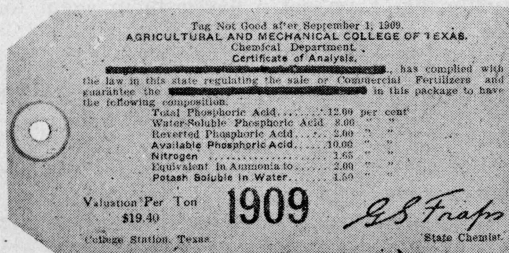
1905-06	13,500 tons
1906-07	19,200 tons
1907-08	21,850 tons
1908-09	23,800 tons

THE FERTILIZER AND INSECTICIDE LAW.

Under the Texas law, all poisonous insecticides and all fertilizers, including bat guano, nitrate of soda, muriate of potash, and sulphate of potash, as well as mixed fertilizers, must carry on each package sold or offered for sale, a tag bearing the analysis of the fertilizers or poisonous insecticides above the signature of the State Chemist. To expose or offer for sale any package of fertilizer or poisonous insecticide without this tag is a direct violation of the law. Dealers in fertilizers should see that all goods they receive are properly tagged; they violate the law in selling or offering for sale any untagged fertilizer, or poisonous insecticide.

FORM OF TAG.

As has been stated, every package of fertilizer sold in Texas should carry a tag showing its chemical composition, and bearing the signature of the State Chemist. The following is an example of the tag used in 1908-09.



FREE ANALYSIS.

The State law provides that any agriculturalist or farmer may take a sample of any commercial fertilizer or poisonous insecticide and have analysis made, free of charge, under rules and regulations prescribed by the State Chemist.

The object of the regulations given below is to make certain that a fair sample of fertilizer has been sent for analysis. No sample of fertilizer will be analysed until the State Chemist is satisfied that it represents the goods from which it was taken. It is not easy to take a fair sample of a fertilizer, and the analysis of a sample which does not fairly represent the goods might possibly work an injustice to the manufacturer or consumer. We wish to emphasize this statement: No free analysis of fertilizers or insecticides will be made until we are satisfied that the sample is a fair representative of the goods.

DIRECTION FOR TAKING SAMPLES.

The following regulations have been adopted:

In the presence of a disinterested party select about five pounds from the top, middle and bottom of at least three sacks of the fertilizer; mix these nine samples carefully, take from the mixture at least one pound and send by prepaid express in a sealed can or jar, to "State Chemist, College Station, Texas." Be sure to place your name and address on the package. If the sample was not taken as described, give a statement as to how it was taken.

Fill out a certificate in the following form, and send it by mail to the State Chemist. Blank forms will be furnished by the State Chemist upon application, but if desired the form may be copied out on a sheet of paper.

I hereby certify that the sample of fertilizer, known and sold as..... was bought by me of (Name of brand.) (Dealer's name and address.) (Date of purchase.)

and it represents fairly the quality of the fertilizer delivered to me and that the sample was taken according to the prescribed instructions, or as described on the back of this blank.

It is sold at \$...... per ton, cash.

I further certify that I am not a dealer in or agent for any fertilizer sold in this State.

Signed. Date Address

I hereby certify that I witnessed, as a disinterested party, the taking of the above named sample by Mr. that it was taken as described. I believe it represents fairly the goods bought by him.

Name Address.....

EXPLANATION OF TERMS.

Total phosphoric acid is the entire quantity of phosphoric acid present in the fertilizer. Phosphoric acid is always present united to something else. Its value depends upon the form of combination in which it is present.

Water-soluble phosphoric acid is the phosphoric acid soluble in water and is easily taken up by the plants.

Reverted phosphoric acid is not soluble in water, but can be taken up easily by plants.

Available phosphoric acid is the sum of the water-soluble and reverted, and is that portion of the total which can be taken up immediately by plants.

Nitrogen may be present in fertilizers in the form of cottonseed meal, nitrate of soda, blood or in other materials.

Equivalent to ammonia is the nitrogen calculated to ammonia, and is the same thing as the nitrogen, expressed in a different way.

Potash may be present as muriate of potash, sulphate of potash or kainit.

Valuation per ton represents the cost of the plant food in the unmixed raw material at retail in large markets. It is not the price at which the fertilizer is sold. The selling price includes cost of mixing, sacks, transportation, manufacturer's profit, in addition to the cost of the raw material.

FERTILIZER VALUATIONS, 1908-09.

The following valuations have been adopted for commercial fertilizers in Texas for the season 1908-09:

	Cents per pound.
Phosphoric acid in mixed fertilizers and bat guano	6
Total phosphoric acid in tankage and bone	4
Nitrogen in mixed fertilizers and bat guano	17
Nitrogen in bone and tankage	13
Potash	6

The average cash selling price per ton at retail and the valuation of a number of brands of mixed fertilizers found on the Texas market during the season 1907-08 and 1908-09 are given in the table following: The price of the same fertilizer is often different in different places.

	Season	
	1907-08	1908-09
Average selling price per ton	\$29.07	\$26.22
Average valuation	22.05	20.55
	6.06	5.67
		1908-09
Acid phosphate, per ton		\$2.69
Kainit, per ton		6.80
Sulphate and muriate of potash, per ton		3.00

* For further information see Bulletin No. 112.

Excepting acid phosphate, these materials were on hand only in small lots and limited in distribution.

POISONOUS INSECTICIDES.

All poisonous insecticides are subject to the same regulations as commercial fertilizers, and must carry a label showing the composition thereof, with the signature of the State Chemist. The sale of any poisonous insecticides without this label is in violation of law.

The following poisonous insecticides have been registered for sale in Texas during the season May 1, 1908 to May 1, 1909.

Jas. A. Blanchard Co., New York, N. Y.—Lion Brand Paris Green.

James Bute Co., Houston, Texas—London Purple.

Benjamin Hammond, Fishkill-on-Hudson, N. Y.—Slug Shot.

Morris Hermann & Co., New York, N. Y.—Pure Paris Green.

I. Pfeiffer, New York, N. Y.—Paris Green.

Grasselli Chemical Co., New Orleans, La.

Grasselli Arsenate of Lead-paste,

Grasselli Bordeaux-Lead Arsenate Mixture Powder,

Grasselli Bordeaux-Lead Arsenate Mixture, Paste.

The following poisonous insecticides have been registered for season beginning May 1st, 1909.

Jas. A. Blanchard Co., New York—Paris Green.

James Bute Co., Houston, Texas—London Purple.

Benjamin Hammond, Fishkill-on-Hudson, New York—Slug Shot.

Sherwin-Williams Co., Dallas, Texas—Arsenate of Lead Paste. Paris Green.

ANALYSES OF FERTILIZERS 1908-09.

The tables beginning at the top of page 9 give a list of the fertilizers registered for sale in Texas September 1, 1908 to September 1, 1909. In addition to the name and address of the manufacturer and the name of the brand, the following information and analyses are given:

(a) **Guarantee.** The amount of plant food guaranteed by the manufacturer to be present in the fertilizer.

(b) **Valuation.** The valuation of the fertilizer as already defined, based on the guaranteed composition.

(c) **Manufacturer's Sample.** The chemical analysis of the sample of the fertilizer submitted by the manufacturer.

(d) **Farmer's Sample.** The chemical analysis of such samples as were sent in by consumers in accordance with the provisions of the law.

(e) **Inspector's Samples.** The chemical analysis of the samples collected by our inspectors.

The inspector's samples on an average, contain slightly more plant food than that guaranteed. The relation between the guaranteed valuation and the valuation of the inspector's samples of mixed fertilizers for two seasons is as follows:

	1907-08	1908-09
Average valuation of inspector's samples	\$22.91	\$22.03
Average valuation guaranteed	21.55	20.85
Average excess furnished	1.36	1.18

Analyse of Commercial Fertilizers, Season of 1908-09.

Laboratory Number	Manufacturer, Place of Business, and Brand.	Phosphoric Acid		Nitrogen—Per Cent.	Potash—Per Cent.	Valuation
		Available—Per Cent.	Total—Per Cent.			
	Arkansas Cotton Oil Co., Little Rock, Ark.—					
	Quapaw Acid Phosphate—guarantee.....	12.00	14.00	.....	.....	\$14.40
2383	Manufacturer's sample.....	13.38	16.25	.....	.....	16.06
	Quapaw Corn Grower—guarantee.....	9.00	11.00	1.65	2.00	18.81
2386	Manufacturer's sample.....	9.42	11.22	2.38	2.22	22.05
2530	Inspector's sample.....	8.40	8.65	1.92	2.11	19.14
	Quapaw Cotton Grower—guarantee.....	9.00	11.00	1.65	2.00	18.81
2384	Manufacturer's sample.....	9.30	11.40	2.40	2.35	22.14
2532	Inspector's sample.....	8.19	8.55	2.00	2.23	19.31
	Quapaw Truck Grower—guarantee.....	6.00	8.00	2.47	4.00	20.40
2385	Manufacturer's sample.....	6.93	8.30	2.90	4.39	23.45
2531	Inspector's sample.....	6.08	6.35	3.16	2.80	21.40
	Arkansas Fertilizer Co., Little Rock, Ark.—					
	White Diamond Acid Phosphate—guarantee.....	14.00	15.00	.....	.....	16.80
2560	Manufacturer's sample.....	13.68	17.60	.....	.....	17.62
2516	Inspector's sample.....	12.15	15.70	.....	.....	14.58
2580	Inspector's sample.....	12.01	15.45	.....	.....	14.40
2588	Inspector's sample.....	13.72	15.89	.....	.....	16.46
2606	Inspector's sample.....	12.27	15.47	.....	.....	14.72
	White Diamond Bermuda Special—guarantee.....	9.00	11.00	1.65	6.00	23.61
2311	Manufacturer's sample.....	8.90	10.75	2.06	6.33	25.28
	White Diamond Kali Superphosphate—					
	Guarantee.....	12.00	13.00	.....	2.50	17.40
2309	Manufacturer's sample.....	12.00	14.15	.....	2.53	17.04
2579	Inspector's sample.....	12.07	13.20	.....	2.16	17.08
2581	Inspector's sample.....	11.55	13.10	.....	2.80	17.22
	White Diamond Nitrated Superphosphate with					
	Potash—guarantee.....	8.00	10.00	2.47	4.00	22.80
2308	Manufacturer's sample.....	8.55	10.25	2.68	4.13	24.33
2514	Inspector's sample.....	7.93	9.27	2.60	3.90	23.04
	White Diamond Texas Redland Special—					
	Guarantee.....	10.00	12.00	2.00	.....	18.80
2312	Manufacturer's sample.....	10.10	12.00	2.50	.....	20.62
	White Diamond Twentieth Century—guarantee.....	9.00	11.00	1.65	2.00	18.81
2307	Manufacturer's sample.....	9.00	10.65	1.96	1.95	19.80
2515	Inspector's sample.....	9.48	10.95	2.16	2.02	21.14
2524	Inspector's sample.....	9.55	10.80	2.16	1.73	20.88
2577	Inspector's sample.....	8.90	10.85	2.12	1.77	20.01
2578	Inspector's sample.....	9.16	10.47	2.18	1.65	20.06
	Armour Fertilizer Works, Chicago, Ill.—					
	African Cotton Grower—guarantee.....	9.00	10.00	2.47	3.00	22.80
2324	Manufacturer's sample.....	9.68	10.50	2.60	6.52	28.28
	Armour's Potato Fertilizer—guarantee.....	10.00	11.00	2.47	6.00	27.60
2220	Manufacturer's sample.....	11.20	11.80	2.55	7.10	30.63
2536	Inspector's sample.....	11.60	12.35	2.48	6.39	29.02
2574	Inspector's sample.....	12.30	12.85	2.32	5.67	29.45
	Armour's Truck Special—guarantee.....	7.00	8.00	4.11	6.00	29.57
2219	Manufacturer's sample.....	8.12	8.72	4.20	6.84	32.23
2535	Inspector's sample.....	8.05	10.20	4.58	6.31	32.80
	Corn and Cotton Grower—guarantee.....	8.00	9.00	.82	1.00	13.59
2212	Manufacturer's sample.....	8.58	9.30	1.32	1.72	16.85
2534	Inspector's sample.....	11.05	11.80	1.08	1.26	18.44
	King Cotton—guarantee.....	8.00	9.00	1.65	2.00	17.61
2211	Manufacturer's sample.....	9.25	10.10	2.06	2.59	21.21
2533	Inspector's sample.....	10.26	11.85	2.08	2.26	21.64
	Phosphate and Potash—guarantee.....	10.00	11.00	.....	2.00	14.40
2215	Manufacturer's sample.....	11.35	12.05	.....	1.62	15.56
2537	Inspector's sample.....	10.64	11.42	.....	1.81	14.94
	Raw Bone Meal—guarantee.....	.....	22.00	3.70	.....	27.22
2217	Manufacturer's sample.....	.....	22.15	4.08	.....	28.33
	Soluble Phosphate and Potash—guarantee.....	10.00	12.00	.....	4.00	16.80
2216	Manufacturer's sample.....	10.14	10.70	.....	4.20	17.21
	Star Phosphate—guarantee.....	14.00	16.00	.....	.....	16.80
2218	Manufacturer's sample.....	13.83	14.40	.....	.....	16.60
	Texas Vegetable Grower—guarantee.....	9.00	10.00	2.05	3.00	21.37
2213	Manufacturer's sample.....	9.38	10.20	1.92	3.07	21.47
2538	Inspector's sample.....	9.83	11.80	2.20	2.75	22.58
2573	Inspector's sample.....	10.73	11.55	2.23	2.95	24.00
	12-2 Fertilizer—guarantee.....	12.00	14.00	.....	2.00	16.80
2333	Manufacturer's sample.....	13.26	13.90	.....	2.03	18.35
	Bryan Cotton Oil and Fertilizer Co., Bryan, Tex.					
	Star Brand Acid Phosphate—guarantee.....	14.00	15.00	.....	.....	16.80
2354	Manufacturer's sample.....	13.75	16.05	.....	.....	16.50
2412	Inspector's sample.....	13.73	16.40	.....	.....	16.48
2511	Inspector's sample.....	15.79	17.50	.....	.....	\$18.95

Analyses of Commercial Fertilizers, Season of 1908-09—Continued.

Laboratory Number	Manufacturer, Place of Business, and Brand.	Phosphoric Acid		Nitrogen—Per Cent.	Potash—Per Cent.	Valuation
		Available—Per Cent.	Total—Per Cent.			
	Star Brand Cotton and Corn Fertilizer—					
	Guarantee.....	10.00	11.00	1.80	.30	18.48
2353	Manufacturer's sample.....	10.35	12.40	2.10	.50	20.16
2411	Inspector's sample.....	12.20	13.75	2.04	.67	23.25
2541	Inspector's sample.....	11.65	13.20	2.10	.45	21.66
	Consumer's Fertilizer Co., Shreveport, La.—					
	Acid Phosphate—guarantee.....	16.00	17.00			19.20
2352	Manufacturer's sample.....	16.25	17.05			19.00
2508	Inspector's sample.....	15.98	16.98			19.18
2612	Inspector's sample.....	15.91	17.10			19.09
	Nitrate of Soda—guarantee.....			14.81		50.00
2626	Manufacturer's sample.....			14.96		50.83
	Tri-State Corn—guarantee.....	6.50	7.50	2.90	.15	17.84
2349	Manufacturer's sample.....	7.03	7.60	3.10	.52	19.60
2509	Inspector's sample.....	8.53	9.40	2.80	.67	20.56
	Tri-State Cotton—guarantee.....	9.50	10.50	1.85	.17	17.87
2350	Manufacturer's sample.....	10.37	11.25	2.26	.41	20.61
2510	Inspector's sample.....	9.13	10.00	1.85	.53	19.25
2611	Inspector's sample.....	9.38	10.05	2.41		19.93
	Tri-State Special—guarantee.....	11.00	12.00	2.67		20.46
2351	Manufacturer's sample.....	11.13	11.85	3.48	.62	25.81
2521	Inspector's sample.....	9.63	10.30	3.10	.43	22.62
2610	Inspector's sample.....	10.73	11.45	2.49	.52	21.97
	Daingerfield Cotton Oil and Fertilizer Co., Daingerfield, Texas.					
	Our King Potato Grower—guarantee.....	7.00	7.50	4.00	.90	23.08
2474	Manufacturer's sample.....	6.95	7.12	4.73	1.21	25.87
2614	Inspector's sample.....	7.15	7.30	4.53	1.05	25.24
	Our Prolific Cotton Bearer—guarantee.....	9.00	9.50	2.50	.50	19.90
2473	Manufacturer's sample.....	9.05	9.20	3.35	.76	23.16
2613	Inspector's sample.....	9.20	9.40	3.09	.67	22.35
	East Texas Fertilizer Co., Tyler, Texas—					
	Acid Phosphate—guarantee.....	16.00	17.00			19.20
2344	Manufacturer's sample.....	16.25	17.30			19.50
2400	Inspector's sample.....	15.95	16.55			19.14
2520	Inspector's sample.....	14.87	15.65			17.84
	East Texas Crop Grower—guarantee.....	10.00	10.25	2.74	3.00	24.92
2347	Manufacturer's sample.....	10.08	10.50	3.12	3.62	27.05
2403	Inspector's sample.....	8.95	9.30	3.26	2.01	24.23
2518	Inspector's sample.....	8.39	8.67	3.70	2.76	25.96
	Muriate of Potash—guarantee.....				48.00	57.60
2345	Manufacturer's sample.....				54.52	65.42
2402	Inspector's sample.....				51.79	62.15
	Texas Cotton and Corn Grower—guarantee.....	8.00	9.00	2.00	2.00	18.80
2346	Manufacturer's sample.....	9.29	9.65	1.96	2.02	20.23
2401	Inspector's sample.....	8.25	8.70	2.06	1.81	19.07
2517	Inspector's sample.....	9.10	9.40	1.92	1.75	19.55
	Tomato Special—guarantee.....	11.00	11.50	2.00	.40	20.48
2343	Manufacturer's sample.....	10.34	11.80	2.94	.66	23.20
2404	Inspector's sample.....	7.31	7.75	4.52	1.11	25.47
2519	Inspector's sample.....	9.57	9.92	3.10	.61	22.75
	Farmers and Ginners Cotton Oil Co., Sulphur Springs, Texas—					
	Acid Phosphate—guarantee.....	14.00	14.50			16.80
2559	Manufacturer's sample.....	14.16	14.70			16.99
	Fidelity Cotton Oil and Fertilizer Co., Houston, Tex.					
	Fidelity Acid Phosphate—guarantee.....	14.00	16.00			16.80
2234	Manufacturer's sample.....	15.35	15.70			18.42
2429	Inspector's sample.....	14.38	14.80			17.26
2580	Inspector's sample.....	13.56	13.90			16.27
2590	Inspector's sample.....	13.35	13.70			16.02
	Fidelity Cane Special—guarantee.....	8.00	9.00	3.00	3.00	24.42
2232	Manufacturer's sample.....	8.58	8.85	3.33	3.12	25.36
2570	Inspector's sample.....	8.83	9.00	3.34	3.09	25.33
2604	Inspector's sample.....	7.89	8.20	3.53	3.34	25.65
	Fidelity Cereal Cultivator—guarantee.....	6.00	7.00	2.47	1.00	16.80
2229	Manufacturer's sample.....	6.55	6.80	2.70	1.58	18.94
2378	Inspector's sample.....	6.00	6.20	2.76	1.30	18.14
2427	Inspector's sample.....	6.57	6.82	2.76	1.25	18.76
	Fidelity Cotton Special—guarantee.....	10.00	11.00	1.65	2.00	20.01
2233	Manufacturer's sample.....	10.50	10.85	1.83	2.78	22.16
2374	Inspector's sample.....	8.94	9.25	2.10	1.94	20.29

Analyses of Commercial Fertilizers, Season of 1908-09— Continued.

Laboratory Number	Manufacturer, Place of Business, and Brand.	Phosphoric Acid		Nitrogen—Per Cent.	Potash—Per Cent.	Valuation
		Available—Per Cent.	Total—Per Cent.			
	Fidelity Cotton Special No. 2—guarantee.....	9.50	10.50	1.55	1.50	\$18.81
2306	Manufacturer's sample.....	10.68	11.05	2.00	1.98	22.00
2569	Inspector's sample.....	8.89	9.90	1.80	1.59	18.70
2591	Inspector's sample.....	8.53	8.95	1.98	1.85	19.19
	Fidelity Cotton Standard—guarantee.....	8.00	9.00	2.03	1.50	18.40
2230	Manufacturer's sample.....	8.85	9.15	2.39	1.42	20.43
2585	Farmer's sample.....	7.74	8.10	2.38	1.77	18.90
2372	Inspector's sample.....	8.25	8.50	2.26	1.85	19.65
2478	Inspector's sample.....	7.6	8.00	2.32	1.77	19.15
2542	Inspector's sample.....	7.3	7.55	2.57	1.77	19.48
	Fidelity Kainit—guarantee.....				12.00	14.40
2340	Manufacturer's sample.....				11.88	14.25
2568	Inspector's sample.....				12.35	14.82
	Fidelity Lone Star Special—guarantee.....	10.00	11.00	1.65	6.00	24.81
2226	Manufacturer's sample.....	10.68	11.05	1.82	6.19	26.43
2373	Inspector's sample.....	10.85	11.25	1.78	5.11	25.20
2571	Inspector's sample.....	9.83	10.60	2.09	5.41	25.40
	Fidelity Muriate of Potash—guarantee.....				50.00	60.00
2240	Manufacturer's sample.....				52.66	63.19
	Fidelity Nitrate of Soda—guarantee.....			15.00		51.00
2231	Manufacturer's sample.....			15.23		51.79
	Fidelity Peerless Trucker—guarantee.....	8.00	9.00	2.47	5.00	24.00
2239	Manufacturer's sample.....	8.45	8.75	2.59	5.60	25.67
2379	Inspector's sample.....	8.16	8.40	2.68	5.33	25.30
	Fidelity Potato Special—guarantee.....	7.00	8.00	2.06	3.00	19.00
2236	Manufacturer's sample.....	7.80	8.00	2.39	3.81	22.06
2375	Inspector's sample.....	6.75	7.00	2.30	2.59	19.03
2428	Inspector's sample.....	7.25	7.60	2.26	3.33	20.38
2464	Inspector's sample.....	6.80	7.15	2.44	3.23	20.34
	Fidelity Rice Planter—guarantee.....	12.00	12.20		2.00	16.80
2238	Manufacturer's sample.....	14.09	14.72		2.52	19.93
	Fidelity Royal Compound—guarantee.....	10.00	11.00		4.00	16.80
2228	Manufacturer's sample.....	10.48	11.85		4.16	17.57
2371	Inspector's sample.....	10.19	10.70		4.42	17.53
2465	Inspector's sample.....	9.90	10.30		4.15	16.86
	Fidelity Strawberry Special—guarantee.....	6.00	6.50	2.47	5.00	21.60
2235	Manufacturer's sample.....	6.32	6.52	2.83	4.95	23.16
237	Inspector's sample.....	6.08	6.40	2.86	4.83	22.82
237	Inspector's sample.....	6.46	6.67	2.64	5.73	23.61
2466	Inspector's sample.....	5.78	6.00	2.94	4.83	22.74
	Fidelity Sulphate of Potash—guarantee.....				49.00	58.80
2407	Manufacturer's sample.....				48.88	58.66
	Fidelity Truck Grower—guarantee.....	8.00	9.00	2.47	8.00	27.60
2237	Manufacturer's sample.....	8.69	9.32	2.59	8.00	28.84
2355	Inspector's sample.....	7.77	8.12	2.78	9.45	30.11
2377	Inspector's sample.....	8.38	8.65	2.68	6.80	27.33
2426	Inspector's sample.....	7.85	8.10	2.70	8.69	29.03
	Germofert Manufacturing Co., Charleston, S. C.					
	Rice Fertilizer—guarantee.....	2.00	12.00		2.00	6.40
2603	Manufacturer's sample.....	1.10	20.65		3.23	11.70
	Special Cotton Grower—guarantee.....	2.00	12.00	2.47	3.00	14.40
2561	Manufacturer's sample.....	2.10	13.15	2.94	3.81	17.09
	Gulfport Cotton Oil, Fertilizer and Manufacturing Co., Gulfport, Miss.—					
	Primo High Grade Acid Phosphate—guarantee.....	14.00	15.00			16.80
2366	Inspector's sample.....	14.50	15.45			17.40
2446	Inspector's sample.....	15.81	16.45			18.97
	Primo Standard Grade Acid Phosphate and Potash—guarantee.....	10.00	11.50		2.00	14.40
2241	Manufacturer's sample.....	9.65	11.10		2.23	14.26
	Primo High Grade Vegetable Grower—guarantee.....	6.00	7.00	2.47	5.00	21.60
2245	Manufacturer's sample.....	6.53	7.10	3.20	6.27	27.24
2364	Inspector's sample.....	6.90	7.30	3.28	4.37	24.67
2448	Inspector's sample.....	7.00	7.40	2.58	5.12	23.31
	Primo German Kainit—guarantee.....				12.00	14.40
2244	Manufacturer's sample.....				12.90	15.48
2450	Inspector's sample.....				12.12	14.54
	Primo Nitrate of Soda—guarantee.....			15.00		51.00
2248	Manufacturer's sample.....			15.44		52.50
	Primo Raw Ground Bone—guarantee.....		20.00	3.00		23.80
2246	Manufacturer's sample.....		24.76	3.51		28.94
2451	Inspector's sample.....		23.62	4.24		29.92
	Primo Standard Grade Cotton Seed Meal Compound—guarantee.....	9.00	10.00	1.65	2.00	18.81

Analyses of Commercial Fertilizers, Season of 1908-09—Continued.

Laboratory Number	Manufacturer, Place of Business, and Brand.	Phosphoric Acid		Nitrogen—Per Cent.	Potash—Per Cent.	Valuation:
		Available—Per Cent.	Total—Per Cent.			
2247	Manufacturer's sample.....	9.25	10.10	2.24	2.81	\$22.09
	Primo Standard Grade Raw Bone Superphosphate—guarantee.....	9.00	10.00	1.65	2.00	18.81
2242	Manufacturer's sample.....	9.68	11.00	1.91	2.61	21.24
2365	Inspector's sample.....	10.20	11.55	2.00	1.75	21.14
2447	Inspector's sample.....	10.41	11.75	1.86	1.74	20.90
	Hillje Bros. Oil Mill, Weimar, Texas—					
	Weimar Cotton Producer—guarantee.....	10.25	11.00	2.75		21.65
2410	Manufacturer's sample.....	10.23	11.55	3.32		24.28
	Houston County Oil Mill and Manufacturing Co., Crockett, Texas—					
	Crockett Acid Phosphate—guarantee.....	14.00	14.50			16.80
2382	Manufacturer's sample.....	14.48	16.10			17.38
	Crockett Cotton Standard—guarantee.....	9.00	10.00	2.47	1.50	21.00
2337	Manufacturer's sample.....	9.51	10.57	2.88	1.61	23.13
2487	Inspector's sample.....	9.63	10.75	2.44	1.78	22.00
2491	Inspector's sample.....	10.66	11.67	2.36	1.68	22.83
	Crockett Grower—guarantee.....	9.50	10.00	2.14	2.90	22.16
2336	Manufacturer's sample.....	9.74	10.85	2.46	2.97	23.61
2490	Inspector's sample.....	9.95	10.90	2.60	2.90	24.26
	Crockett Phospho Special—guarantee.....	11.50	12.00	1.85	.25	20.39
2339	Manufacturer's sample.....	11.94	13.30	2.10		21.47
2485	Inspector's sample.....	11.23	12.65	1.84	.41	20.23
2486	Inspector's sample.....	11.76	13.12	1.88	.39	20.97
	Crockett Royal Compound—guarantee.....	8.00	9.00	3.50	.80	22.46
2338	Manufacturer's sample.....	8.61	9.57	3.94	.87	24.77
2488	Inspector's sample.....	9.23	10.15	3.23	.75	23.03
2492	Inspector's sample.....	7.89	8.85	3.84	.80	23.49
	Crockett Vegetable Producer—guarantee.....	7.00	8.00	3.50	5.00	26.30
2335	Manufacturer's sample.....	7.54	8.30	3.94	4.79	28.20
2489	Inspector's sample.....	7.60	8.40	3.44	5.42	27.32
	Houston Packing Co., Houston, Texas—					
	Tankage—guarantee.....	6.00	11.00	6.50		24.10
2283	Manufacturer's sample.....	5.13	7.05	7.04		24.46
2363	Inspector's sample.....	5.53	11.20	6.68		24.01
2439	Inspector's sample.....	6.20	12.65	7.00	.24	25.93
	Huntsville Cotton Oil Co., Huntsville, Texas—					
	Huntsville High Grade—guarantee.....	10.20	11.00	2.25	3.00	23.49
2457	Manufacturer's sample.....	10.21	11.07	2.40	3.15	24.21
2475	Inspector's sample.....	10.30	11.55	2.46	3.09	24.43
	Jacksonville Cotton Oil Co., Jacksonville, Texas—					
	Acid Phosphate—guarantee.....	14.00	15.00			16.80
2341	Manufacturer's sample.....	14.03	15.40			16.84
2433	Inspector's sample.....	13.95	16.05			16.74
	G. & H. Tomato Special—guarantee.....	9.00	10.50	3.20	.30	22.04
2330	Manufacturer's sample.....	9.90	11.10	2.76	.56	21.93
2432	Inspector's sample.....	9.64	10.95	3.09	.56	22.75
2504	Inspector's sample.....	9.23	10.15	3.28	.78	23.17
	German Kainit—guarantee.....				12.00	14.40
2413	Manufacturer's sample.....				14.37	17.24
	Muriate of Potash—guarantee.....				50.00	60.00
2388	Manufacturer's sample.....				52.07	62.48
2547	Inspector's sample.....				50.30	60.36
	Nitrate of Soda—guarantee.....			15.00		51.00
	Potato Special—guarantee.....	6.00	6.50	5.00	.86	25.23
2328	Manufacturer's sample.....	6.95	7.70	4.46	.88	24.56
2431	Inspector's sample.....	7.28	8.05	4.54	.61	24.91
2481	Inspector's sample.....	7.05	7.60	4.84	1.06	26.19
2505	Inspector's sample.....	7.75	8.50	4.43	.98	25.71
	Legal Tender for Cotton and Corn—guarantee.....	10.00	10.50	2.00	2.00	21.20
2342	Manufacturer's sample.....	11.15	12.30	1.88	2.50	23.77
2430	Inspector's sample.....	11.40	12.00	2.10	1.87	23.06
2546	Inspector's sample.....	9.78	10.85	2.47	1.64	22.11
	Steam Bone Meal—guarantee.....		21.12	2.92		24.49
2584	Manufacturer's sample.....		21.12	2.92		24.49
	Sulphate of Potash—guarantee.....				52.50	63.00
2387	Manufacturer's sample.....				52.84	63.41
2548	Inspector's sample.....				52.69	63.23
	Longview Cotton Oil Co., Longview, Texas—					
	Longview Corn and Cotton Grower—guarantee.....	9.00	10.00	1.65	2.00	18.81
2463	Manufacturer's sample.....	8.53	10.30	2.02	2.63	20.27
2502	Inspector's sample.....	9.18	10.85	2.20	2.24	21.19
	Longview Cotton Special—guarantee.....	10.00	11.00	1.65	.25	17.94

Analyses of Commercial Fertilizers, Season of 1908-09—Continued.

Laboratory Number	Manufacturer, Place of Business, and Brand.	Phosphoric Acid		Nitrogen—Per Cent.	Potash—Per Cent.	Valuation
		Available—Per Cent.	Total—Per Cent.			
2458	Manufacturer's sample.....	9.84	11.15	2.05	.42	\$19.31
2501	Inspector's sample.....	9.27	12.00	1.98	1.41	19.58
	Longview Vegetable and Truck Grower—guarantee.....	8.00	9.00	2.80	3.00	22.72
2460	Manufacturer's sample.....	7.82	11.67	2.81	2.75	22.34
2503	Inspector's sample.....	8.79	10.55	2.74	2.43	22.85
	John Marbach, New Braunfels, Texas—					
	Compost of Bat Guano—guarantee.....	4.75	8.20	5.20	1.50	25.18
2186	Manufacturer's sample.....	5.01	8.44	6.20	2.22	29.79
	Crude Bat Guano—guarantee.....	2.55	2.80	10.20	1.10	39.06
2185	Manufacturer's sample.....	3.58	3.77	11.02	1.44	43.50
2406	Farmer's sample.....	4.12	5.12	9.72	1.75	40.09
	Meridian Fertilizer Factory, Shreveport, La.—					
	Caddo Cotton—guarantee.....	9.00	10.00	2.05	1.00	18.97
2405	Manufacturer's sample.....	11.05	11.95	2.05	1.27	21.75
2565	Inspector's sample.....	9.98	11.40	2.12	.93	20.37
2592	Inspector's sample.....	10.26	11.17	2.16	1.19	21.08
	Caddo Corn—guarantee.....	6.00	7.00	2.90	1.00	18.25
2260	Manufacturer's sample.....	7.80	8.65	3.04	1.86	21.93
2525	Inspector's sample.....	9.34	10.20	2.72	1.19	21.89
2593	Inspector's sample.....	8.78	9.59	2.84	1.17	21.60
	Caddo Special—guarantee.....	6.00	7.00	2.50	7.00	24.10
2262	Manufacturer's sample.....	6.37	7.07	2.54	7.57	25.36
2423	Inspector's sample.....	7.03	7.65	2.54	7.03	25.64
2540	Inspector's sample.....	7.46	7.95	2.72	6.24	25.69
	Caddo Texas Special—guarantee.....	10.00	11.00	2.75	.25	21.65
2304	Manufacturer's sample.....	9.92	11.17	2.94	1.10	23.22
2422	Inspector's sample.....	8.20	8.75	3.44	.73	22.42
2484	Inspector's sample.....	10.15	10.75	2.88	.62	22.71
2619	Inspector's sample.....	7.74	8.36	3.02	4.18	24.58
	Caddo Vegetable—guarantee.....	8.00	9.00	3.30	4.00	25.62
2408	Manufacturer's sample.....	7.70	8.62	2.80	6.07	25.04
2539	Inspector's sample.....	10.05	10.70	4.00	4.48	31.13
	Louisiana High Grade Acid Phosphate—					
	Guarantee.....	16.00	17.00	.....	.....	19.20
2436	Manufacturer's sample.....	17.53	18.25	.....	.....	21.04
	Meridian Blood and Bone—guarantee.....	10.00	11.00	1.65	1.50	19.41
2250	Manufacturer's sample.....	10.23	12.75	1.63	2.48	21.00
2527	Inspector's sample.....	11.66	13.10	1.58	1.22	20.82
2595	Inspector's sample.....	10.01	10.90	1.96	1.38	20.33
	Meridian Farmer's Friend—guarantee.....	10.00	11.00	1.65	.25	17.91
2305	Manufacturer's sample.....	11.47	15.87	2.02	.82	21.61
	Meridian German Kainit—guarantee.....	.....	.....	.....	12.00	14.40
2255	Manufacturer's sample.....	.....	.....	.....	13.18	15.82
	Meridian Home Mixture—guarantee.....	10.00	11.00	1.65	1.50	19.41
2249	Manufacturer's sample.....	10.38	11.50	1.72	1.94	20.63
2482	Inspector's sample.....	10.48	11.25	1.74	1.55	20.36
2483	Inspector's sample.....	11.30	11.92	1.90	1.13	21.38
2507	Inspector's sample.....	10.30	11.05	2.37	1.64	22.39
	Meridian Southern Acid Phosphate—guarantee.....	14.00	15.00	.....	.....	16.80
2332	Manufacturer's sample.....	15.20	16.65	.....	.....	18.24
2424	Inspector's sample.....	14.75	15.80	.....	.....	17.70
2543	Inspector's sample.....	15.28	16.50	.....	.....	18.34
2544	Inspector's sample.....	15.00	16.35	.....	.....	18.00
	Meridian Tomato Special—guarantee.....	10.00	11.00	2.50	1.00	21.70
2252	Manufacturer's sample.....	10.05	11.15	2.61	1.33	22.54
2594	Inspector's sample.....	10.06	10.55	2.62	1.21	22.43
2622	Inspector's sample.....	10.34	10.90	2.48	1.50	22.64
	Meridian Trucker's Special—guarantee.....	9.00	9.00	1.65	2.00	18.81
2253	Manufacturer's sample.....	9.15	9.45	1.67	5.02	22.67
2405	Inspector's sample.....	8.68	9.20	2.19	3.66	22.26
2425	Inspector's sample.....	9.13	9.75	1.64	2.13	19.10
2620	Inspector's sample.....	9.58	10.55	2.40	1.90	21.94
	Meridian Vegetable Grower—guarantee.....	8.00	9.00	2.50	5.00	24.10
2251	Manufacturer's sample.....	8.48	9.30	2.88	5.80	26.93
2506	Inspector's sample.....	8.03	8.70	2.88	5.41	25.92
2525	Inspector's sample.....	9.11	9.70	2.54	4.56	25.04
	Muriate of Potash—guarantee.....	.....	.....	.....	50.00	60.00
2256	Manufacturer's sample.....	.....	.....	.....	50.06	60.07
2618	Inspector's sample.....	.....	.....	.....	50.95	61.14
	Nitrate of Soda—guarantee.....	.....	.....	16.00	.....	54.40
2257	Manufacturer's sample.....	.....	.....	15.32	.....	52.09
2617	Inspector's sample.....	.....	.....	15.64	.....	53.18
	Star—guarantee.....	10.00	11.00	1.65	1.50	19.41

Analyses of Commercial Fertilizers, Season of 1908-09— Continued.

Laboratory Number	Manufacturer, Place of Business, and Brand.	Phosphoric Acid		Nitrogen—Per Cent.	Potash—Per Cent.	Valuation
		Available—Per Cent.	Total—Per Cent.			
2258	Manufacturer's sample.....	9.98	11.35	2.49	1.49	\$22.24
2564	Inspector's sample.....	9.20	10.45	1.96	1.44	19.43
	Weevil Beater Guano—guarantee.....	10.00	11.00	1.65	1.50	19.41
2261	Manufacturer's sample.....	10.10	11.00	1.88	2.22	21.39
2528	Inspector's sample.....	10.40	11.25	2.24	1.26	21.61
2621	Inspector's sample.....	10.16	11.05	2.28	1.33	21.54
	Marshall Fertilizer Factory, Marshall Texas—					
	Marshall Acid Phosphate—guarantee.....	14.00	15.00			16.80
2434	Manufacturer's sample.....	14.35	16.30			17.22
2500	Inspector's sample.....	14.80	16.70			17.76
2616	Inspector's sample.....	14.63	16.80			17.56
	Marshall Corn and Cotton Grower—guarantee...	9.00	11.00	1.65	1.50	18.21
2435	Manufacturer's sample.....	9.20	10.40	2.42	1.62	21.21
2499	Inspector's sample.....	10.15	11.40	2.12	1.76	21.50
2615	Inspector's sample.....	10.02	11.02	2.08	1.97	21.45
	New Orleans Acid and Fertilizer Co., New Orleans, La.					
	Ammoniated Raw Bone Superphosphate and					
	Potash—guarantee.....	9.00	11.00	1.65	1.50	18.21
2264	Manufacturer's sample.....	9.95	10.17	2.46	1.68	22.32
2398	Inspector's sample.....	8.96	9.12	1.94	1.59	19.26
2415	Inspector's sample.....	9.71	10.00	1.90	1.16	19.50
2444	Inspector's sample.....	9.90	10.22	1.63	1.40	19.10
	Black Diamond Acid Phosphate—guarantee.....	12.00	14.00			14.40
2271	Manufacturer's sample.....	12.48	12.85			14.98
2495	Inspector's sample.....	11.35	11.55			13.62
	Blood Bone and Potash—guarantee.....	9.00	11.00	1.65	1.50	18.21
2277	Manufacturer's sample.....	8.98	9.25	1.98	1.79	19.66
2397	Inspector's sample.....	8.51	8.67	1.90	1.87	18.91
2479	Inspector's sample.....	9.59	9.85	1.82	1.88	19.96
	Crescent City Acid Phosphate—guarantee.....	12.00	14.00			14.40
2272	Manufacturer's sample.....	13.60	15.45			16.32
	Cuba Tobacco Grower—guarantee.....	6.00	8.00	3.30	6.00	25.62
2323	Manufacturer's sample.....	8.85	9.35	3.86	7.69	32.97
2395	Inspector's sample.....	6.75	7.47	3.27	5.47	25.78
	Dissolved Bone and Potash—guarantee.....	10.00	12.00		2.00	14.40
2275	Manufacturer's sample.....	13.78	15.15		1.78	18.68
2414	Inspector's sample.....	12.65	13.87		1.71	17.23
2443	Inspector's sample.....	9.88	10.85		1.67	13.36
	Dissolved Bone and Potash, 10-4—guarantee....	10.00	12.00		4.00	16.80
2557	Manufacturer's sample.....	14.79	15.05		3.70	22.19
	Dissolved Bone and Potash, 12-2—guarantee....	12.00	14.00		2.00	16.80
2558	Manufacturer's sample.....	13.59	14.25		1.76	18.42
	Economizer—guarantee.....	10.00	12.00	1.65	2.00	20.01
2315	Manufacturer's sample.....	11.50	13.05	2.22	2.39	24.22
2417	Inspector's sample.....	10.00	10.90	2.37	1.53	21.90
2445	Inspector's sample.....	11.43	12.65	2.04	1.70	22.70
	Goldsmith's Improved Mixture—guarantee.....	9.00	11.00	1.65	1.50	18.21
2266	Manufacturer's sample.....	10.48	11.45	2.01	2.42	22.42
2393	Inspector's sample.....	9.35	10.50	1.92	1.53	18.59
2396	Inspector's sample.....	9.03	10.15	2.10	1.33	19.58
2399	Inspector's sample.....	9.85	10.45	1.96	1.67	20.48
	High Grade Acid Phosphate—guarantee.....	16.00	18.00			19.20
2273	Manufacturer's sample.....	16.53	17.70			19.84
	Honduras Rice Grower—guarantee.....	12.00	14.00		4.00	19.20
2276	Manufacturer's sample.....	15.20	15.70		3.48	22.42
	Kainit—guarantee.....				12.00	14.40
2260	Manufacturer's sample.....				13.23	15.88
	Meal, Ammoniated Superphosphate and Potash—					
	Guarantee.....	9.00	11.00	1.65	1.50	18.21
2265	Manufacturer's sample.....	10.65	11.62	2.44	1.89	23.35
	Muriate of Potash—guarantee.....				50.00	60.00
2268	Manufacturer's sample.....				49.72	59.66
	New Orleans Acid Phosphate—guarantee.....	14.00	16.00			16.80
2274	Manufacturer's sample.....	15.50	17.70			18.60
2480	Inspector's sample.....	14.51	15.85			17.43
	Nitrate of Soda—guarantee.....			14.00		47.60
2270	Manufacturer's sample.....			15.32		52.09
	Vegetable Grower—guarantee.....	6.00	8.00	2.47	4.00	20.40
2267	Manufacturer's sample.....	8.10	8.82	2.80	4.69	24.87
2394	Inspector's sample.....	7.80	8.75	3.10	2.59	23.01
2416	Inspector's sample.....	7.31	7.90	3.55	3.61	25.17

Analyses of Commercial Fertilizers, Season of 1908-09— Continued.

Laboratory Nu. ber	Manufacturer, Place of Business, and Brand.	Phosphoric Acid		Nitrogen—Per Cent.	Potash—Per Cent.	Valuation
		Available— Per Cent.	Total—Per Cent.			
	The Nitrate Agencies Co., New Orleans, La.—					
	Imported Nitrate of Soda—guarantee.....			15.00		\$51.00
2303	Manufacturer's sample.....			15.32		52.09
	Planter's Fertilizer and Chemical Co., New Orleans.					
	Planter's Acid Phosphate—guarantee.....	14.00	16.00			16.80
2320	Manufacturer's sample.....	19.65	20.10			23.58
2563	Inspector's sample.....	13.17	14.82			15.80
	Planter's Cotton and Corn Fertilizer No. 1—					
	Guarantee.....	9.50	11.50	1.65	1.50	18.81
2318	Manufacturer's sample.....	10.55	11.65	2.33	3.16	24.54
	Planter's Dissolved Bone and Potash—guarantee	12.00	13.00		2.00	16.80
2471	Manufacturer's sample.....	12.94	13.95		2.12	18.07
	Planter's Raw Bone Superphosphate—guarantee.	9.50	11.50	1.65	1.50	18.81
2319	Manufacturer's sample.....	9.40	10.95	2.32	1.94	21.50
	Planter's Vegetable Grower—guarantee.....	7.00	9.00	2.50	3.50	21.10
2322	Manufacturer's sample.....	9.25	9.85	3.12	3.84	26.32
	The H. Schumacher Oil Works, Navasota, Texas—					
	Texas Staple Fertilizer—guarantee.....	10.63	10.75	2.10	2.20	22.54
2313	Manufacturer's sample.....	10.63	10.75	2.16	2.35	22.92
2367	Inspector's sample.....	11.99	12.10	1.43	2.59	22.53
2476	Inspector's sample.....	8.35	9.20	2.56	3.09	22.43
	Standard Guano and Chemical Manufacturing Co.,					
	New Orleans, La.—					
	Acid Phosphate and Potash—guarantee.....	10.00	11.25		2.00	14.40
	Manufacturer's sample.....	12.18	13.48		2.16	17.21
2205	Dissolved Bone and Potash—guarantee.....	10.00	10.50		4.00	16.80
	Manufacturer's sample.....	11.27	12.22		4.41	18.81
2204	Farmer's Choice—guarantee.....	9.50	11.00	1.65	1.00	18.21
	Manufacturer's sample.....	10.81	11.77	1.65	1.70	20.62
2194	Inspector's sample.....	9.83	11.60	1.84	1.44	19.79
2368	Inspector's sample.....	9.13	10.45	2.05	2.08	20.52
2575	Ground Bone and Potash—guarantee.....		15.00	2.75	3.00	22.75
	Manufacturer's sample.....		15.22	2.75	3.19	23.16
2206	High Grade Acid Phosphate and Potash guarantee	12.00	14.00		2.00	16.80
	Manufacturer's sample.....	13.63	14.80		3.96	20.32
2208	Kainit—guarantee.....				12.00	14.40
	Manufacturer's sample.....				12.74	15.29
2198	Mississippi Home Guano—guarantee.....	9.50	11.00	1.65	1.50	18.81
	Manufacturer's sample.....	10.70	11.67	1.72	2.09	21.20
2202	Inspector's sample.....	9.84	10.75	2.04	1.68	20.77
2586	Muriate of Potash—guarantee.....				45.00	54.00
	Manufacturer's sample.....				51.65	61.98
2197	Nitrate of Soda—guarantee.....			15.00		51.00
	Manufacturer's sample.....			15.38		52.31
2210	Pure Raw Ground Bone—guarantee.....		18.50	2.50		21.30
	Manufacturer's sample.....		20.30	3.60		25.60
2191	Special Formula—guarantee.....	5.00	6.00	2.43	9.00	25.22
	Manufacturer's sample.....	7.13	7.95	2.80	9.40	23.36
2316	Standard Ammoniated Soluble Guano—					
	Guarantee.....	9.50	11.50	1.65	1.50	18.81
	Manufacturer's sample.....	11.02	12.38	1.76	2.52	22.22
2199	Standard Blood, Bone and Meat Fertilizer—					
	Guarantee.....	9.50	11.50	1.65	1.50	18.81
	Manufacturer's sample.....	10.96	12.42	2.23	2.92	23.64
2201	Standard High Grade Sugar Fertilizer—guarantee	10.00	11.50	2.50	2.00	22.90
	Manufacturer's sample.....	10.23	10.93	2.77	2.56	24.76
2200	Inspector's sample.....	10.75	11.95	2.54	1.94	23.87
2576	Standard High Grade Truck Grower—guarantee.	8.00	9.50	3.50	7.00	29.90
	Manufacturer's sample.....	9.30	9.85	3.57	7.27	32.02
2207	Standard Raw Bone Rice Fertilizer—guarantee..	9.50	11.50	1.65	1.50	18.81
	Manufacturer's sample.....	10.85	11.93	2.27	2.72	24.04
2203	Standard Vegetable Fertilizer—guarantee.....	6.00	7.25	2.50	5.00	21.70
	Manufacturer's sample.....	7.33	8.50	3.00	6.03	26.31
2195	Inspector's sample.....	8.08	10.50	2.71	4.33	24.11
2572	Sulphate of Potash—guarantee.....				47.00	56.40
	Manufacturer's sample.....				51.61	61.93
2190	Stearn's Acid Phosphate—guarantee.....	14.00	16.00			16.80
	Manufacturer's sample.....	15.16	16.43			18.19
2193	Inspector's sample.....	16.30	18.15			19.56
2370	Inspector's sample.....	15.41	17.55			18.49
2441	Stern's Ammoniated Raw Bone Superphosphate—					
	Guarantee.....	9.50	11.50	1.65	1.50	18.81
	Manufacturer's sample.....	11.33	12.65	1.78	2.52	22.73
2192	Inspector's sample.....	10.44	11.55	2.00	1.64	21.30
2369						

Analyses of Commercial Fertilizers, Season of 1908-09—Continued.

Laboratory Number	Manufacturer, Place of Business, and Brand.	Phosphoric Ac		Nitrogen—Per Cent.	Potash—Per Cent.	Valuation
		Available—Per Cent.	Total—Per Cent.			
2442	Inspector's sample.....	10.43	11.35	1.66	1.71	\$20.21
2470	Inspector's sample.....	9.95	11.12	1.90	1.60	20.32
	Swift & Co., Chicago, Ill.—					
	Swift's Champion Vegetable and Tobacco Grower—guarantee.....	8.00	10.00	3.23	3.00	21.35
2279	Manufacturer's sample.....	8.33	10.22	3.60	3.38	26.34
5359	Inspector's sample.....	6.90	12.20	3.21	3.03	23.00
2529	Inspector's sample.....	9.43	13.75	3.24	3.73	23.82
	Swift's East Texas Trucker—guarantee.....	8.00	10.00	2.46	3.00	21.56
2281	Manufacturer's sample.....	8.25	12.80	2.52	3.17	22.27
2358	Inspector's sample.....	7.77	10.87	2.72	4.70	23.27
2545	Inspector's sample.....	6.35	11.75	3.13	3.97	23.02
	Swift's High Grade Phosphate and Potash—Guarantee.....	10.00	11.00	.....	4.00	16.80
2452	Manufacturer's sample.....	10.20	11.20	.....	2.75	15.54
	Swift's Pure Bone Meal—guarantee.....	.....	25.00	2.47	.....	26.42
2554	Manufacturer's sample.....	.....	23.12	2.46	.....	27.30
2468	Inspector's sample.....	.....	26.40	2.88	.....	28.61
	Swift's Pure Special Bone Meal—guarantee.....	.....	27.50	.82	.....	24.13
2282	Manufacturer's sample.....	.....	29.50	1.76	.....	23.18
2469	Inspector's sample.....	.....	26.12	1.35	.....	24.41
	Swift's Special Vegetable Fertilizer—guarantee.....	8.00	10.00	2.05	6.00	23.77
2280	Manufacturer's sample.....	7.85	12.25	2.33	6.07	24.72
2360	Inspector's sample.....	7.36	12.30	3.70	3.23	25.29
2467	Inspector's sample.....	6.33	11.55	2.52	5.66	22.96
	Swift's Superphosphat—guarantee.....	8.00	12.00	1.61	2.00	17.58
2278	Manufacturer's sample.....	7.50	11.70	1.72	2.25	17.55
2357	Inspector's sample.....	7.03	11.15	1.93	2.13	17.72
2361	Inspector's sample.....	6.62	11.07	2.46	2.93	19.89
2477	Inspector's sample.....	8.15	14.03	2.24	1.83	19.63
2496	Inspector's sample.....	9.33	14.25	2.03	2.44	21.20
2566	Inspector's sample.....	8.00	13.75	2.48	2.29	20.78
2567	Inspector's sample.....	8.76	13.22	2.38	2.43	21.52
2587	Inspector's sample.....	6.70	13.65	2.32	2.82	19.31
	Swift's Tankage Formula—guarantee.....	.....	6.87	7.41	.....	24.77
2582	Manufacturer's sample.....	.....	8.10	7.34	.....	25.56
	Tuscarora Fertilizer Co., Chicago, Ill.—					
	Bone and Potash—guarantee.....	10.00	11.00	.....	2.00	14.40
2223	Manufacturer's sample.....	11.41	11.96	.....	2.49	16.68
	High Grade Dissolved Bone—guarantee.....	14.00	16.00	.....	.....	16.80
2222	Manufacturer's sample.....	14.02	14.62	.....	.....	16.82
	Plantation Trucker—guarantee.....	10.00	11.00	1.65	6.00	24.80
2225	Manufacturer's sample.....	10.03	10.75	1.83	6.20	25.71
	Standard Cotton Special—guarantee.....	8.00	9.00	1.65	2.00	17.61
2221	Manufacturer's sample.....	9.15	10.02	1.71	2.48	19.77
	Tuscarora Monarch—guarantee.....	9.00	10.00	2.47	3.00	22.80
2389	Manufacturer's sample.....	10.15	10.90	2.80	3.54	25.95
	Vegetable Special—guarantee.....	8.00	9.00	3.29	7.00	29.18
2334	Manufacturer's sample.....	9.69	10.65	3.86	7.87	34.19
2362	Inspector's sample.....	9.23	10.85	3.50	8.11	32.77
	Union Slaughtering Co., Galveston, Texas—					
	"Union XX"—guarantee.....	3.31	6.50	6.80	.....	22.88
2625	Manufacturer's sample.....	3.31	6.50	6.80	.....	22.88
	Virginia-Carolina Chemical Co., Shreveport, La.—					
	Capital Bone and Potash Compound—guarantee.....	10.00	12.00	.....	2.00	14.40
2299	Manufacturer's sample.....	9.45	10.95	.....	2.39	14.21
	German Kainit—guarantee.....	.....	.....	.....	12.00	14.40
2287	Manufacturer's sample.....	.....	.....	.....	12.70	15.24
2420	Inspector's sample.....	.....	.....	.....	12.80	15.36
2552	Inspector's sample.....	.....	.....	.....	14.41	17.29
	Mobile Double Eagle Guano—guarantee.....	10.00	12.00	1.65	1.50	19.41
2300	Manufacturer's sample.....	10.43	11.25	2.06	1.78	21.66
2513	Inspector's sample.....	10.00	12.55	1.88	1.04	19.64
2596	Inspector's sample.....	11.48	12.60	1.92	1.82	22.52
2608	Inspector's sample.....	10.31	12.50	2.10	2.80	22.87
	Muriate of Potash—guarantee.....	.....	.....	.....	48.00	57.60
2291	Manufacturer's sample.....	.....	.....	.....	49.95	59.94
	Nitrate of Soda—guarantee.....	.....	.....	14.85	.....	50.49
2289	Manufacturer's sample.....	.....	.....	15.03	.....	51.27
	Royal Blood, Bone and Potash—guarantee.....	10.00	12.00	1.65	1.50	19.41
228	Manufacturer's sample.....	9.95	11.15	2.06	1.87	21.18
23	Inspector's sample.....	9.63	14.10	2.02	2.06	20.96
2562	Inspector's sample.....	9.36	13.05	2.00	1.55	19.89
2501	Inspector's sample.....	11.10	16.10	1.96	1.80	22.14

Analyses of Commercial Fertilizers, Season of 1909-09—Continued.

Laboratory Number	Manufacturer, Place of Business, and Brand,	Phosphoric Acid		Nitrogen—Per Cent.	Potash—Per Cent	Valuation
		Available—Per Cent.	Total—Per Cent.			
	Royal Compound—guarantee.....	10.00	12.00	.....	2.00	\$14.40
2290	Manufacturer's sample.....	9.50	10.95	.....	2.44	14.31
2609	Inspector's sample.....	8.52	13.24	.....	2.52	13.04
	Royal Cotton Boll Guano—guarantee.....	8.00	10.00	1.65	2.00	17.61
2292	Manufacturer's sample.....	8.20	9.25	2.10	2.44	19.91
2598	Inspector's sample.....	9.20	16.05	1.86	1.46	19.11
	Royal Fruit Grower—guarantee.....	8.00	10.00	2.47	5.00	24.00
2295	Manufacturer's sample.....	8.20	9.25	2.99	5.29	26.36
2512	Inspector's sample.....	10.25	13.55	2.68	3.89	26.08
	Royal High Grade Guano—guarantee.....	10.00	12.00	1.65	1.50	19.41
2296	Manufacturer's sample.....	10.15	11.30	2.16	2.07	22.60
2440	Inspector's sample.....	11.40	13.80	1.66	2.54	22.37
2549	Inspector's sample.....	9.95	12.60	1.61	1.80	19.68
2551	Inspector's sample.....	10.58	13.60	1.68	1.17	19.81
2602	Inspector's sample.....	10.95	14.20	2.19	.77	21.51
2605	Inspector's sample.....	10.26	10.60	2.12	1.91	21.81
2677	Inspector's sample.....	9.35	11.90	2.31	2.12	21.51
	Royal Potash Compound—guarantee.....	10.00	12.00	.....	4.00	16.80
2298	Manufacturer's sample.....	10.20	12.05	.....	4.15	17.22
2553	Inspector's sample.....	9.87	12.90	.....	3.73	16.38
	Royal Tomato Formula—guarantee.....	10.00	12.00	2.47	.....	20.40
2381	Manufacturer's sample.....	13.18	15.00	2.33	.....	23.74
	Royal Vegetable Fertilizer—guarantee.....	8.00	10.00	2.47	4.	24.80
2293	Manufacturer's sample.....	8.05	9.20	2.94	3.95	24.40
2418	Inspector's sample.....	9.48	13.35	1.80	3.85	22.12
	Scott's Gossypium Phospho—guarantee.....	10.00	12.00	1.65	1.50	19.40
2294	Manufacturer's sample.....	10.45	11.30	2.08	2.10	22.13
2392	Inspector's sample.....	9.58	11.40	2.00	1.53	20.14
2421	Inspector's sample.....	10.26	11.70	2.26	1.41	21.68
2498	Inspector's sample.....	10.68	11.50	2.04	1.56	21.63
	Scott's Gossypium Phospho Special—guarantee.....	10.00	12.00	1.65	2.00	20.01
2302	Manufacturer's sample.....	10.38	11.25	2.20	2.30	22.70
2522	Inspector's sample.....	9.23	12.25	2.06	2.11	20.61
2599	Inspector's sample.....	11.38	11.75	1.72	1.52	21.33
	Scott's High Grade Acid Phosphate—guarantee.....	14.00	16.00	.....	.....	16.80
2317	Manufacturer's sample.....	14.63	16.25	.....	.....	17.56
2419	Inspector's sample.....	16.98	18.05	.....	.....	20.38
2523	Inspector's sample.....	14.54	17.35	.....	.....	17.45
2600	Inspector's sample.....	13.34	18.00	.....	.....	16.01
	Scott's State Standard Guano—guarantee.....	8.00	10.00	1.65	2.00	17.61
2285	Manufacturer's sample.....	8.48	9.50	1.62	1.91	17.98
2597	Inspector's sample.....	8.66	10.50	1.76	1.69	18.40
	V. C. High Grade Top Dresser—guarantee.....	4.00	6.00	6.18	2.50	28.81
2301	Manufacturer's sample.....	4.63	5.35	6.64	3.04	31.79
	V. C. Tomato Special—guarantee.....	10.00	12.00	2.47	1.50	22.20
2380	Manufacturer's sample.....	11.55	13.00	2.36	3.78	26.42
2550	Inspector's sample.....	11.75	15.30	2.38	1.69	24.22
	V. C. C. Co.'s Truck Grower—guarantee.....	8.00	10.00	2.06	6.00	23.80
2288	Manufacturer's sample.....	8.15	9.15	2.56	6.33	25.08
2390	Inspector's sample.....	9.34	13.60	1.36	3.23	21.41
2497	Inspector's sample.....	9.20	10.82	2.34	5.16	25.19
	V. 3 C. Fruit and Truck Special—guarantee.....	6.00	8.00	3.30	8.00	28.02
2297	Manufacturer's sample.....	6.00	7.05	3.72	7.80	29.21
	Geo. A. Wright, Palestine, Texas—					
	Wright's Acid Phosphate—guarantee.....	14.93	16.96	.....	.....	17.92
2314	Manufacturer's sample.....	14.93	16.95	.....	.....	17.92
	No. 1 Wright's Corn and Potato Fertilizer—					
	Guarantee.....	6.50	7.00	3.50	1.00	20.90
2437	Manufacturer's sample.....	6.53	6.90	4.16	1.17	23.38
2494	Inspector's sample.....	7.45	7.90	3.88	.90	23.21
	No. 2—Wright's Cotton Special Fertilizer—					
	Guarantee.....	10.00	10.50	2.30	.60	21.54
2438	Manufacturer's sample.....	10.05	10.75	2.48	.49	21.08
2493	Inspector's sample.....	6.51	6.92	3.10	.76	19.26