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Analyses of Commercial Fertilizers.

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KENTUCKY AGRICULTURAL EXPERIMENT STATION,
LEXINGTON, KY.

BULLETIN NO. 64.

ANALYSES OF COMMERCIAL FERTILIZERS.

For the more important principles on which the intelligent use of fertilizers depends, and for information in regard to the materials of which commercial fertilizers are made, we refer the reader to Bulletins Nos. 41, 46 and 51. This bulletin contains all the "official analyses" for the year 1896 up to the present date, with only such brief explanations as may be necessary for the right understanding of the figures.

Explanations in Regard to the Tables.

For convenience, the analyses in this bulletin are arranged in two tables:

Table I. contains ground bones.

Table II., those fertilizers whose phosphatic materials have been acted upon by sulphuric acid in order to render the phosphoric acid in them more soluble.

The finer a bone is ground the more valuable it is. For this reason we divide ground bone into "fine bone" and "medium bone" and give the phosphoric acid in each

separately in the tables; because, in computing the estimated value, the phosphoric acid in the "fine bone" is given a greater value than that in the "medium bone."

In Table II., the phosphoric acid is given under "soluble," "reverted" and "insoluble" phosphoric acid, the sum of these representing the total amount of phosphoric acid present. The sum of the "soluble" and "reverted" is "available" phosphoric acid, or the phosphoric acid that is of immediate use to plants.

In this table is also given the nitrogen, as well as its "equivalent in ammonia," or, in other words, the greatest amount of ammonia which would be possible to be made from the nitrogen; also the amount of potash either in the form of sulphate or muriate or both. As the sulphate of potash is somewhat more costly than the muriate, it is thought best to give the form in which the potash is found in the fertilizers analyzed.

The "Estimated Value Per Ton."

The fertilizer law requires that the Director shall give, along with the analysis of each fertilizer, "the money value of such fertilizer computed from its composition, as he may determine." This is the "estimated value per ton" given in the last column of the tables.

The words of the law, "the money value of such fertilizer, computed from its composition" define as nearly as possible what these "estimated values" are intended to represent; that is, they are intended to show what the phosphoric acid, nitrogen and potash in a ton of each fertilizer is actually worth in dollars and cents. In other words, they are intended to show about how much the raw materials necessary to furnish the same quantity of "essential ingredients" as is found by the analysis would cost if purchased separately and then combined. It is important to note, however, that on account of the differences in the prices of the different materials which may be used to furnish phosphoric acid, nitrogen and potash, and differences in the price of the same material at different times, as well as differences in rates of freight to the different points in the state, it is practically impossible to make these "estimated values" represent exactly the money value of the fertilizers. At best they are only relatively correct.

In order to calculate these values from the analyses, the Director assigns each year a certain price per pound for each of the "essential ingredients" of fertilizers. These prices are based upon the New York prices of the principal materials of which fertilizers are made, and include an allowance for freight from New York and for cost of mixing and loss in handling.

The framers of the fertilizer law evidently intended these estimated values to be an index that would show at a glance whether the purchaser was getting the worth of his money, and in a general way they do serve this purpose. Thus, when the "estimated value per ton" is very much below the price at which a ton of the fertilizer is sold, it shows that the purchaser at this price is paying high for the plant food it contains. But the estimated value alone is not a sufficient guide in purchasing fertilizers; it is necessary to consider the analysis also.

Importance of the Analyses.

In purchasing fertilizers it is of the first importance to consider the analyses, either in the tables of this bulletin or on the tags which should always be found attached to each sack; for by the analysis only can we tell whether we are getting, in the fertilizer, the plant food that we want to supply to our crop. If we were selecting a fertilizer for corn, for instance, to be used on a soil that was rich in phosphates but deficient in potash, we certainly would not buy a so-called "Corn Grower" that contained no potash, even if it was offered at a price much lower than the "estimated value."

Let us illustrate this farther by example: Suppose that a farmer desiring to purchase a fertilizer for his corn crop, is offered by his merchant either of two "corn growers" at $25 per ton. The price, fortunately, does not help him to decide in this case. Next he looks at the tags attached to the sacks, and finds that the Director has estimated

the value of each fertilizer at $25.20 per ton. He next looks at the analyses and finds Fertilizer No. 1 to contain :

Soluble Phosphoric Acid, Reverted " "	12.0 per cent.
Potash	None.
Nitrogen	2.4 per cent.

And Fertilizer No. 2 to contain:

Soluble Phosphoric Acid, Reverted " "	6.0 per cent.
Nitrogen	2.4 per cent.
Potash, from muriate	7.0 per cent.

He is now able to judge which of the two fertilizers to purchase. If his soil needs phosphoric acid, he will quickly decide on No. 1, for he will get twice as much for the same money, while did he purchase No. 2 he would get only half as much phosphoric acid which he needs and would be paying for potash which he does not need. But if he is in doubt whether his land needs one or all the elements of a fertilizer, or if he knows that his land needs potash, he will be wise in purchasing No. 2. For should his soil need potash, or all three of the essential elements to produce a large corn crop, and should he purchase No. 1, it is doubtful whether he would receive any benefit from it.

Values Used.

The values for the "essential ingredients" in 1896 are as follows :

Soluble and reverted phosphoric acid in mixed fertilizers, 7 cents; in plain acid and unacidulated phosphates, 5 cents per pound.

Insoluble phosphoric acid in mixed fertilizers, 2½ cents; in plain acid phosphates, nothing; in Orchilla guano, 3 cents; in other unacidulated phosphates, 2 cents per pound.

*Phosphoric acid in fine bone, 4 cents; in medium bone, 3 cents per pound.

Nitrogen in all fertilizers, 17½ cents per pound.

Potash in all fertilizers, from sulphate, 7 cents; from muriate, 6 cents per pound.

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* Fine Bone is all that passes through a sieve with meshes 1-25 inch square. Medium bone passes through a sieve with meshes 1-6 inch square, but does not include fine bone.

TABLE I.—Raw Bone Manures.

Station Number.	NAME AND ADDRESS OF MANUFACTURER.	NAME OF BRAND.	POUNDS IN THE HUNDRED. PHOSPHORIC ACID. In Fine Bone.	In Medium Bone.	Total.	Equivalent to Bone Phosphate.	Nitrogen.	Equivalent to Ammonia.	Estimated Value Per Ton.
3287	Akin Fertilizer Co., Evansville, Ind	Bone Meal	8.44	5.40	13.84	30.23	2.98	3.62	$20 42
3357	The Armour Fertilizer Works, Chicago, Ill	Bone Meal	25.41	2.12	27.53	60.13	2.74	3.33	31 19
3358	Same	Raw Bone Meal	16.44	9.25	25.69	56.10	3.78	4.59	31 93
3375	The Cincinnati Desiccating Co., Cincinnati, O	Fine Ground Bone	16.39	5.18	21.57	47.11	2.99	3.63	26 69
3279	Dunn & Backer, Troy, Ind	Clover Leaf Brand No. 7, Grower	9.46	4.31	13.77	30.06	4.06	4.93	30 83*
3280	Same	Clover Leaf Brand No. 9, Grower	11.99	12.42	24.41	53.31	4.00	4.86	31 04
3208	J. B. Jones, Louisville, Ky	Raw Bone Meal	15.42	6.79	22.21	48.50	3.68	4.47	29 29
3363	Same	Ammoniated Bone Meal	13.88	1.24	15.12	33.03	3.97	4.82	25 74
3266	The Jones Fertilizing Co., Cincinnati, O	Ammoniated Bone Meal	14.66	0.97	15.63	34.14	5.40	6.56	31 21
3273	Same	Fine Ground Bone	15.20	10.87	26.07	56.94	3.10	3.76	29 53

* Potash, from muriate, 5.38 per cent.

TABLE I —Raw Bone Manures. (Concluded.)

Station Number.	NAME AND ADDRESS OF MANUFACTURER.	NAME OF BRAND.	POUNDS IN THE HUNDRED.						
			PHOSPHORIC ACID.						
			In Fine Bone.	In Medium Bone.	Total.	Equivalent to Bone Phosphate	Nitrogen.	Equivalent to Ammonia.	Estimated Value Per Ton.
3274	The Jones Fertilizing Co., Cincinnati, O.	Pure Raw Bone	12.83	12.58	25.41	55.49	3.35	4.07	$29 54
3296	Michigan Carbon Works, Detroit, Mich	Desiccated Bone	25.69	6.54	32.23	70.41	1.47	1.78	29 62
3243	North-Western Fertilizing Co., Chicago, Ill	Horse Shoe Brand Raw Bone	15.84	7.62	23.46	51.24	4.22	5.12	32 01
3244	Same	Horse Shoe Brand, Ralston's Bone Meal	9.35	4.82	14.17	30.96	2.87	3.48	20 42
3255	Same	Horse Shoe Brand Pure Ground Bone	15.46	5.57	21.03	45.93	3.31	4.02	27 30
3260	Standard Guano and Chemical Mfg. Co., New Orleans, La.	Pure Ground Bone—Coarse	11.79	7.73	19.52	42.64	3.39	4.12	25 94
3298	Swift & Co., Chicago, Ill	Bone Tankage	16.23	2.75	18.98	41.46	5.13	6.23	32 59
3299	Same	Bone Tankage and Potash	15.51	1.86	17.37	37.94	4.84	5.88	34 66†
3300	Same	Pure Raw Bone Meal	18.92	7.51	26.43	57.72	3.86	4.69	33 16
3301	Same	Ground Steamed Bone	25.97	1.69	27.66	60.41	2.58	3.13	30 82
3302	Same	Bone and Potash	23.20	1.77	24.97	54.54	2.80	3.40	33 07‡

† Potash, from muriate, 3.49 per cent. ‡ Potash, from muriate, 3.04 per cent.

† Potash, from muriate, 3.49 per cent. ‡ Potash, from muriate, 3.04 per cent.

TABLE II.—Complete Fertilizers, Superphosphates, Etc.

Station Number.	NAME AND ADDRESS OF MANUFACTURER.	NAME OF BRAND.	POUNDS IN THE HUNDRED. PHOSPHORIC ACID. Soluble.	Reverted.	Insoluble.	Nitrogen.	Equivalent to Ammonia.	POTASH. From Sulphate.	From Muriate.	Estimated Value Per Ton.
3345	A. D. Adair & McCarty Bros., Atlanta, Ga.	Furman High Grade Fertilizer	8.03	2.37	3.63	2.23	2.71	.....	1.75	$26 29
3346	Same	Furman Soluble Bone with Ammonia and Potash	7.79	2.64	3.13	1.30	1.58	.....	1.90	23 00
3347	Same	Farish Furman Formula	9.48	3.62	2.39	.....	.....	.....	2.56	22 61
3359	The Armour Fertilizer Works, Chicago, Ill.	Ammoniated Bone and Potash	3.67	5.72	2.14	3.09	3.75	1.53	.....	27 18
3360	Same	White Burley and Black Tobacco	2.06	6.94	3.86	3.17	3.85	4.45	.....	31 86
3361	Same	Bone and Blood	.....	9.28	6.29	5.18	6.29	.....	.....	34 27
3362	Same	Bone, Blood and Potash	5.31	5.55	2.12	4.25	5.16	7.72	.....	41 95
3312	Baugh & Sons Company, Norfolk, Va	Baugh's Animal Bone and Potash Compound	7.15	1.67	3.10	1.78	2.16	.....	1.98	22 51
3284	J. F. Caplinger, Milton, Ky.	Caplinger's Complete Fertilizer	3.80	4.03	3.13	2.82	3.42	4.96	.....	29 34
3285	Same	Caplinger's Corn and Wheat Grower	3.93	4.32	3.08	2.88	3.50	3.37	.....	27 89
3286	Same	Kentucky Wonder	2.71	4.34	3.29	2.61	3.17	2.29	.....	23 87

TABLE II.—Complete Fertilizers, Superphosphates, Etc. (Continued.)

Station Number.	NAME AND ADDRESS OF MANUFACTURER.	NAME OF BRAND.	POUNDS IN THE HUNDRED.							Estimated Value Per Ton.
			PHOSPHORIC ACID.			Nitrogen.	Equivalent to Ammonia.	POTASH.		
			Soluble.	Reverted.	Insoluble.			From Sulphate.	From Muriate.	
3185	Chemical Co. of Canton, Baltimore, Md	Baker's Standard Guano	8.06	2.62	2.02	2.87	3.48	.....	3.13	$29 77
3186	Same	Diadem Soluble Bone	12.54	2.80	2.16	0.92	1.12	.....	.....	25 78
3376	The Cincinnati Desiccating Co., Cincinnati, O	Ohio Valley Phosphate	2.09	5.25	3.43	1.90	2.31	2.51	.....	22 16
3377	Same	Phoenix Phosphate	0.91	5.77	4.73	1.91	2.32	.....	0.88	19 47
3325	The Cleveland Dryer Co., Cleveland, O	Buckeye Ammoniated Bone Superphosphate	7.50	3.03	2.89	2.90	3.52	.....	0.48	26 92
3326	Same	Ohio Seed Maker	6.03	4.49	3.49	1.57	1.91	.....	.....	21 98
3327	Same	Square Bone	2.48	10.53	9.71	2.41	2.93	.....	.....	31 51
3328	Same	XXX Phosphate	9.83	5.38	1.61	.....	.....	.....	.....	15 21
3329	Same	Horsehead Phosphate	7.65	2.96	1.07	.....	.....	.....	.....	10 61
3330	Same	Ammoniated Dissolved Bone	5.97	4.68	3.31	1.57	1.91	.....	.....	22 07
3331	Same	Phospho Bone	6.69	2.86	2.05	0.96	1.17	.....	1.21	19 21
3332	Same	White Burley Tobacco Fertilizer	7.15	2.10	3.98	2.97	3.61	.....	2.82	28 72

3332	Same	White Burley Tobacco Fertilizer	7.15	2.10	3.98	2.97	3.61	.....	2.82	28 72
3237	Crocker Fertilizer & Chemical Co., Buffalo, N. Y.	Crocker's General Crop Phosphate	5.88	1.50	2.80	1.23	1.49	.....	1.39	17 71
3238	Same	Crocker's Kentucky Tobacco Fertilizer	8.51	2.12	2.66	2.23	2.71	.....	3.49	28 21
3239	Same	Crocker's Special Kentucky Tobacco Fertilizer	9.89	0.48	0.63	3.95	4.80	.....	5.72	35 53
3240	Same	Crocker's NewRival Ammoniated Superphosphate	7.52	2.66	2.33	1.41	1.71	.....	2.04	22 81
3275	Same	Crocker's Ammoniated Practical Superphosphate	5.14	2.73	4.71	1.04	1.26	.....	1.34	18 63
3307	The Currie Fertilizer Company, Louisville, Ky.	Currie's Kentucky Phosphate	8.57	1.18	0.86	0.54	0.66	1.46	.....	18 01
3308	Same	Currie's Black Diamond Phosphate	8.74	0.68	1.30	0.66	0.80	1.87	.....	18 77
3309	Same	Currie's Special for Corn and Oats	7.73	3.34	0.46	1.18	1.43	3.71	.....	25 05
3310	Same	Currie's Climax Tobacco Grower	8.75	0.92	0.86	0.54	0.66	1.46	.....	17 90
3311	Same	Currie's Golden Leaf Tobacco Grower	8.38	1.09	1.66	1.20	1.46	4.00	.....	23 89
3366	Same	Currie's Soluble Bone	9.70	1.20	1.66	0.93	1.13	2.85	.....	23 34
3367	Same	Currie's Butchertown Bone	7.47	3.21	3.97	0.92	1.12	1.64	.....	22 46
3276	Dunn & Backer, Troy, Ind.	Clover Leaf Brand No. 1 Grower	6.68	2.47	4.27	2.97	3.61	.....	.....	25 35
3277	Same	Clover Leaf Brand No. 2 Grower	4.55	1.92	4.44	2.60	3.16	.....	4.74	26 07
3278	Same	Clover Leaf Brand No. 3 Tobacco Grower	6.47	2.18	2.99	2.47	3.00	.....	5.70	29 10
3281	Same	Clover Leaf Brand No. 10 Grower	1.69	4.46	9.36	3.55	4.31	.....	.....	25 72
3282	Same	Clover Leaf Brand No. 6 Grower	2.24	4.13	9.22	3.28	3.98	.....	3.13	28 77
3297	Same	Clover Leaf Brand No. 4 HighGrade Tobacco Grower	3.98	4.49	2.60	4.65	5.65	.....	7.69	38 67

TABLE II.- Complete Fertilizers, Superphosphates, Etc. (Continued).

Station Number.	NAME AND ADDRESS OF MANUFACTURER.	NAME OF BRAND.	POUNDS IN THE HUNDRED.							Estimated Value Per Ton.
			PHOSPHORIC ACID.			Nitrogen.	Equivalent to Ammonia.	POTASH.		
			Soluble.	Reverted.	Insoluble.			From Sulphate.	From Muriate.	
3211	Globe Fertilizer Co., Louisville, Ky.	Globe Soluble Vegetable Manure	6.49	1.71	1.51	3.64	4.42	4.12	.....	$30 75
3212	Same	Kentucky Standard Tobacco Grower	6.93	1.67	1.23	3.66	4.44	3.82	.....	30 82
3213	Same	Big Four Tobacco Grower	7.84	1.38	0.73	2.32	2.82	2.50	.....	24 90
3214	Same	Globe Potato Grower	7.85	1.48	1.51	3.57	4.33	4.86	.....	33 12
3215	Same	Progress Phosphate Corn and Wheat Grower	9.27	1.62	1.71	1.82	2.21	1.18	.....	24 13
3216	Same	Globe Bone Dust	9.22	1.69	1.19	1.36	1.65	1.16	.....	22 25
3217	Same	Eagle Corn and Wheat Grower	10.48	1.69	1.61	1.81	2.20	2.01	.....	27 00
3218	Same	Globe Wheat Grower	10.25	1.90	1.65	1.85	2.25	2.09	.....	27 25
3219	Same	Bone and Potash	10.25	1.78	0.52	0.52	0.63	1.33	.....	20 78
3220	Same	Golden Harvest Bone Meal	8.55	1.99	3.02	2.94	3.57	1.07	.....	28 06
3289	The Jarecki Chemical Co., Sandusky, O.	Lake Erie Fish Guano	11.60	0.89	2.00	1.35	1.64	0.84	.....	24 40

3290	Same	C. O. D. Phosphate	14.03	1.00	1.14	.....	.....	.....	.....	15 03
3190	J. B. Jones, Louisville, Ky	Tobacco and Potato Grower	2.66	5.72	2.61	2.03	2.46	7.42	.....	30 54
3364	Same	Bromophyte	0.40	3.21	0.42	1.34	1.63	.....	0.25	10 25
3365	Same	Kentucky Phosphate	1.19	6.38	2.60	4.23	5.14	.....	2.40	29 59
3267	The Jones Fertilizing Co., Cincinnati, O	Jones' Reliable	2.71	4.05	4.09	2.31	2.80	1.92	.....	22 29
3268	Same	Jewel Phosphate	3.68	3.05	7.66	1.37	1.66	.....	.....	18 05
3269	Same	Special Tobacco Grower	3.51	4.12	4.95	2.76	3.35	2.83	.....	26 78
3270	Same	Acidulated Bone Meal	3.65	4.27	8.07	4.09	4.97	.....	.....	29 45
3271	Same	Tobacco and Potato Grower	4.64	1.22	4.46	4.01	4.87	6.58	.....	33 68
3272	Same	Miami Valley Phosphate	3.85	3.76	3.81	2.85	3.46	2.98	.....	26 71
3343	The Loudenback Fertilizer Co., Urbana O	Urbana Ammoniated Bone	7.04	5.30	3.15	2.74	3.33	.....	3.07	32 13
3344	Same	Urbana Bone Phosphate and Potash	6.61	5.41	2.72	2.40	2.91	1.98	0.84	30 37
3314	A. B. Mayer Mfg. Co., St. Louis, Mo	Anchor Brand Complete Fertilizer	3.04	4.07	3.30	2.74	3.33	0.28	0.80	22 54
3291	Michigan Carbon Works, Detroit, Mich	Homestead Corn and Wheat Grower	8.06	2.18	1.24	2.42	2.94	.....	2.31	26 20
3292	Same	Homestead Potato Grower	7.91	1.76	1.50	2.17	2.63	.....	5.53	28 53
3293	Same	Homestead Tobacco Grower	9.45	0.57	0.75	3.34	4.05	.....	5.13	32 26
3294	Same	Jarves' Drill Phosphate	8.00	1.65	0.83	1.38	1.68	.....	1.06	20 03
3295	Same	Jarves' Tobacco Fertilizer	6.46	1.51	0.72	2.00	2.43	.....	1.67	20 52

TABLE II.—Complete Fertilizers, Superphosphates, Etc. (Continued).

Station Number.	NAME AND ADDRESS OF MANUFACTURER.	NAME OF BRAND.	POUNDS IN THE HUNDRED.							
			PHOSPHORIC ACID.			Nitrogen.	Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.
			Soluble.	Reverted.	Insoluble.			From Sulphate.	From Muriate.	
3261	National Fertilizer Co., Nashville, Tenn	Acid Phosphate	13.82	2.21	1.01	.....	.....	.....	.....	$16 03
3262	Same	Acid Phosphate with Potash.	12.03	2.80	1.14	.....	.....	.....	2.74	24 62
3263	Same	Corn Grower	10.36	3.50	0.93	1.00	1.21	.....	1.16	24 76
3305	Same	National Tobacco Fertilizer	7.77	2.62	2.20	2.61	3.17	.....	3.23	28 67
3306	Same	Tobacco Grower	8.25	3.01	2.80	2.16	2.62	.....	2.27	27 44
3242	Nolte & Dolch Fertilizer Co., St. Louis, Mo	Pure Bone Phosphate	6.19	2.27	2.58	2.28	2.77	.....	2.06	23 58
3303	Same	Half and Half Ground Raw Bone and Bone Phosphate	2.33	5.30	7.94	3.00	3.64	.....	0.77	26 07
3304	Same	Half and Half Ground Raw Bone & Phosphate-Potash	0.87	5.54	8.69	1.87	2.27	.....	0.93	20 99
3245	North-Western Fertilizing Co., Chicago, Ill	Horse Shoe Brand Tobacco Grower	5.48	3.02	1.73	3.89	4.72	3.29	.....	31 00
3246	Same	Horse Shoe Brand Challenge Corn Grower	4.84	3.51	1.87	3.13	3.80	2.39	.....	26 94
3247	Same	Horse Shoe Brand $26 Phosphate	4.29	2.66	4.26	2.09	2.54	1.69	.....	21 55

3248	Same	Horse Shoe Brand Prairie Phosphate	4.29	2.49	4.26	2.16	2.62	1.54	.....	21 34
3249	Same	Horse Shoe Brand Ky. Corn and Tobacco Grower	4.26	2.39	3.88	2.91	3.53	1.58	.....	23 65
3250	Same	Horse Shoe Brand Potato Grower	4.13	3.52	1.91	3.03	3.68	2.96	.....	26 42
3251	Same	Horse Shoe Brand Ky–Ana Phosphate	3.74	2.77	3.43	1.14	1.38	.....	.....	14 82
3252	Same	Horse Shoe Brand Raw Bone and Phosphate Mixture	3.15	4.58	5.69	3.33	4.04	0.84	.....	26 51
3253	Same	Horse Shoe Brand High Grade Truck Manure	4.68	3.22	1.75	3.74	4.54	2.84	.....	29 01
3254	Same	Horse Shoe Brand Quick Acting Phosphate	13.24	3.33	1.34	.....	.....	.....	.....	16 57
3210	E. Rauh & Sons, Indianapolis, Ind	Special Tobacco Grower	5.42	2.55	1.46	4.01	4.87	7.18	.....	35 98
3283	John S. Reese & Co., Baltimore, Md	Reese's Pacific Guano	0.63	9.09	1.64	1.94	2.36	.....	1.10	22 54
3354	The J. & F. Schroth Packing Co., Cincinnati, O	Potato and Tobacco Grower	2.58	3.85	5.74	5.34	6.48	.....	7.15	39 14
3355	Same	Schroth Special	3.21	4.20	5.59	2.73	3.31	.....	2.69	25 96
3356	Same	Queen City Phosphate	2.84	3.70	5.26	3.03	3.68	.....	1.21	23 85
3241	Wm. Skene & Co., Louisville, Ky	Skene's Kentucky Bone Meal and Potash	5.54	5.03	3.36	1.41	1.71	4.22	.....	27 33
3313	Southern Fertilizer Co., Rome and Atlanta, Ga.	Island Home Fertilizer	9.63	0.50	2.65	2.40	2.91	.....	2.16	26 50
3257	Standard Guano & Chemical Mfg. Co., New Orleans, La.	Standard High Grade Tobacco Grower	8.49	1.28	0.87	2.29	2.78	3.88	.....	27 57
3258	Same	Standard Corn Fertilizer	6.33	2.97	0.46	1.95	2.37	.....	3.06	23 75
3259	Same	High Grade Acid Phosphate and Potash	8.56	3.14	0.50	.....	.....	.....	3.05	20 29

TABLE II.—Complete Fertilizers, Superphosphates, Etc. (Concluded.)

Station Number.	NAME AND ADDRESS OF MANUFACTURER.	NAME OF BRAND.	POUNDS IN THE HUNDRED. PHOSPHORIC ACID. Soluble.	Reverted.	Insoluble.	Nitrogen.	Equivalent to Ammonia.	POTASH. From Sulphate.	From Muriate.	Estimated Value Per Ton.
3221	S. W. Travers & Co., Richmond, Va.	Capital Dissolved S. C. Bone.	10.57	1.77	1.37	.....	.....	.....	.....	$12 34
3222	Same	Travers' Dissolved Bone Phosphate	10.76	2.98	2.16	.....	.....	.....	.....	13 74
3223	Same	Capital Bone-Potash Compound	6.56	4.33	1.34	.....	.....	.....	1.88	18 18
3224	Same	Champion Corn Grower	6.00	3.01	1.34	1.01	1.23	.....	2.12	19 36
3225	Same	Capital Tobacco Fertilizer	3.94	1.89	1.96	4.12	5.00	.....	4.92	29 46
3226	Same	National Tobacco Fertilizer	5.82	2.03	1.60	2.01	2.44	.....	4.58	24 33
3227	Same	Beef, Blood and Bone Fertilizer	5.87	2.45	2.17	1.96	2.38	.....	2.49	22 59
3228	Same	Orchilla Guano	.....	3.36	11.85	.....	.....	.....	.....	10 47

JULY 1, 1896.

M. A. SCOVELL, Director.
A. M. PETER.
H. E. CURTIS.