

KENTUCKY
AGRICULTURAL EXPERIMENT STATION
OF THE
STATE COLLEGE OF KENTUCKY.

BULLETIN No. 71.

ANALYSES OF COMMERCIAL FERTILIZERS.

1. Official Analyses.
 2. Analyses of Other Samples.
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LEXINGTON, KENTUCKY.

DECEMBER, 1897.

KENTUCKY

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KENTUCKY AGRICULTURAL EXPERIMENT STATION,
LEXINGTON, KY.

BULLETIN No. 71.

Commercial Fertilizers.

I. OFFICIAL ANALYSES.

Since the publication of Bulletin No. 68 the following analyses have been made for manufacturers in compliance with the fertilizer law, and these fertilizers were legally on sale in the State during the past season, in addition to those reported in the bulletin referred to above.

The values for the "essential ingredients" for 1898 have not been changed, and 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.

TABLE I.—Raw Bone Manures, Etc.

Station Number.	NAME AND ADDRESS OF MANUFACTURER.	NAME OF BRAND.	POUNDS IN THE HUNDRED.						Estimated Value Per Ton.
			Phosphoric Acid.			Equivalent to Bone Phosphate.	Nitrogen.	Equivalent to Ammonia.	
			In Fine Bone.	In Medium Bone.	Total.				
3925	A. D. Adair & McCarty Bros., Atlanta, Ga.....	Adair's Pure Animal Bone Meal	23.50	2.85	26.35	57.56	3.25	3.95	\$31.89
3930	Booth Bros., St. Bethlehem, Tenn....	Fine Ground Bone Meal.....	26.65	3.29	29.94	65.38	1.70	2.06	29.24
	Wm. Casler, Louisville, Ky.....	See R. H. Hoskins.....	.....	.....	.....	.....	.....	.....	.....
3912	The Currie Fertilizer Co., Louisville, Ky.....	Currie's Fine-Ground Raw Bone Meal.....	21.09	2.50	23.59	51.52	2.15	2.61	25.90
3913	Same	Currie's Raw Bone Meal.....	10.98	11.43	22.41	48.95	3.94	4.78	29.43
3960	Empire Carbon Works, St. Louis, Mo.....	Empire Pure Raw Bone Meal...	22.06	.....	22.06	48.17	3.85	4.67	31.13
3939	R. H. Hoskins, Louisville, Ky.....	Champion Raw Bone Meal.....	22.26	22.26	48.62	4.53	5.50	33.67

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3917	Louisville Fertilizer Works, Louisville, Ky	Bone Meal.....	16.41	1.70	18.11	39.56	3.01	3.65	24.69
3941	Same.....	Raw Bone	13.95	5.24	19.19	41.91	4.26	5.17	29.21
3935	A. B. Mayer Mfg. Co., St. Louis, Mo.....	Anchor Brand Pure Bone Meal..	16.25	5.42	21.67	47.33	3.76	4.56	29.41
3892	Michigan Carbon Works, Detroit, Mich.....	Banner Raw Bone Flour.....	7.53	13.99	21.52	47.00	4.28	5.20	29.39
3928	National Fertilizer Co., Nashville, Tenn.	Pure Bone Meal.....	5.23	18.03	23.26	50.79	3.87	4.70	28.55
3942	E. Rauh & Sons, Indianapolis, Ind.....	Pure Raw Bone Meal.....	11.49	13.43	24.92	54.43	4.00	4.86	31.25
3931	J. F. & W. H. Singer, Nashville, Tenn.....	Singer's Standard Raw Bone Meal.....	11.91	8.41	20.32	44.37	3.83	4.65	27.99

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3936	A. B. Mayer Mfg. Co., St. Louis, Mo.....	Anchor Brand Corn and Wheat Grower.....	1.82	4.40	5.41	3.26	3.96	.20	25 91
3953	Meridian Fert. Factory, Meridian, Miss.....	Standard Home Mixture Guano.....	9.45	1.38	1.07	2.67	3.24	.....	2.75	28 35
3940	National Fertilizer Co., Nashville, Tenn.....	Wheat Grower.....	8.60	2.48	4.50	2.10	2.55	.....	2.96	28 66
3951	Read Fertilizer Co., Charleston, S. C.....	Blood and Bone Ammoniated Superphosphate.....	5.07	2.18	2.65	1.71	2.08	.....	.....	17 47
3894	The J. & F. Schroth Pack- ing Co., Cincinnati, O..	Wheat and Corn Grower.....	2.38	4.40	7.45	4.17	5.06	.....	5.21	34 07
3895	Same.....	Queen City Phosphate.....	2.47	4.48	7.16	3.46	4.20	.....	2.70	28 66
3896	Same.....	Schroth's Special.....	3.10	3.17	9.25	1.97	2.39	.....	1.84	22 52
3890	Southern Fertilizer Co., Rome, Ga.....	Greer's Compound Fertilizer..	11.92	4.45	2.28	.....	.....	.....	2.25	26 76

II. ANALYSES OF OTHER SAMPLES.

The law regulating the sale of commercial fertilizers in this State provides (Sec. 7) that: "Any agriculturist, a purchaser of any commercial fertilizer in this State, may take a sample of the same, under the rules and regulations of the Director of the said Experiment Station, and forward the same to the Experiment Station for analysis, which analysis shall be made free of charge." Under this provision a number of samples have been analyzed from time to time, and the results of these analyses are published in the following pages.

Here follows, first, a brief description of each sample, and, second, the analyses in tabular form. For convenience of reference, the "station number" of each sample is given, and all brands of the same manufacturer are arranged together. The names of the manufacturers are placed in alphabetical order in the description of the samples, and following each manufacturer's name are the brands of his make that were analyzed.

It is necessary to compare the analysis of each sample with the "official analysis" on the tags attached to the sacks from which the sample was taken, because it is not possible for the manufacturers to make the same fertilizer perfectly uniform from year to year, and any fertilizer is, therefore, liable to vary somewhat in composition; also, because the values assigned to the "essential ingredients" in calculating the "estimated value per ton" are subject to change from time to time. *This is the reason why a tag from one of the packages sampled must be sent with each sample for analysis.*

In the following table we have given in the first column the name of the brand, next, where the sample was taken; then the "station number," and, lastly, the analysis and valuation. The same order is preserved in

the table as in the description of the samples, hence it is not necessary to repeat the name of the manufacturer. In the case of each brand, the official analysis is first given, in *bold-faced type*, for comparison. This official analysis is the same as the analysis that was on the tag attached to the sack from which the sample was taken.

M. A. SCOVELL, *Director.*

A. M. PETER, }
H. E. CURTIS, } *Chemists.*

December 31st, 1897.

DESCRIPTION OF SAMPLES.

A. D. ADAIR & McCARTY BROS., Atlanta, Ga.

No. 3897. Farish Furman Formula, sent by H. L. J. Hille, Roaring Spring, Ky. Tag sent corresponded to No. 2976.

THE ARMOUR FERTILIZER WORKS, Chicago, Ill.

No. 3962. Ammoniated Bone with Potash, sent by M. D. Parr, White Mills, Ky. Tag sent corresponded to No. 3726.

THE LOUISVILLE FERTILIZER WORKS, Louisville, Ky.

No. 3966. Raw Bone, sent by G. W. Beard, Hardinsburg, Ky. Tag sent corresponded to No. 3941.

NATIONAL FERTILIZER CO., Nashville, Tenn.

No. 3977. Wheat Grower, sent by W. M. Darby, Cave Spring, Ky. Tag sent corresponded to No. 3940.

READ FERTILIZER CO., Charleston, S. C.

No. 3976. Alkaline Bone, sent by Howard Brame, Gracey, Ky. Tag sent corresponded to No. 3809.

WM. SKENE & CO., Louisville, Ky.

No. 3846. Skene's Complete Plant Food, or Perfect Tobacco, Potato and Hemp Grower, sent by R. C. Cooke, Elmo, Ky. Tag sent corresponded to No. 3764.

