

KENTUCKY  
Agricultural Experiment Station

of the

STATE COLLEGE OF KENTUCKY.

---

BULLETIN NO. 88.

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COMMERCIAL FERTILIZERS.

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LEXINGTON, KENTUCKY.

AUGUST, 1900.

123.

KENTUCKY

# Agricultural Experiment Station.

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NOTICE.

The Bulletins of the Station will be mailed free to any citizen of Kentucky who sends his name and address to the Station for that purpose.

Correspondents will please notify the Director of changes in their post-office address, or of any failure to receive the Bulletins.

ADDRESS:

KENTUCKY AGRICULTURAL EXPERIMENT STATION,  
LEXINGTON, KY.

## BULLETIN NO. 88.

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### Analyses of Commercial Fertilizers.

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1. *Number of Brands.* There were 221 different brands of commercial fertilizers registered from January 1, 1900 to August 12, 1900. Of these different brands, 129 were complete fertilizers, or fertilizers containing all three of the essential ingredients, namely: phosphoric acid, nitrogen and potash; 24 were acid phosphates, or superphosphates; 9 contained a mixture of acid phosphate and nitrogen compounds only; 25 acid phosphates and potash salts only; and 34 were classed as bones or tankage.

2. *Samples Collected and Analyzed.* Two hundred and ten samples were collected by deputy inspectors, or were sent by farmers from various parts of the State; 229 samples were those sent in by firms as official samples; of these samples 361 were analyzed by the Station.

3. *Results of the Analyses.* The results of the analyses show that of the 361 samples analyzed, 72, representing 55 brands and 22 firms, fell so far below the guaranteed analyses in phosphoric acid, nitrogen or potash, or any two, or all three of these ingredients, as to be unaccounted for by variations in sampling or analysis. It is probable that in most cases, variations can be accounted for by hurried or careless mixing at the factories, or gross mistakes in shipping one brand for another, but in one or two instances, the results show a desire on the part of the manufacturer to guarantee a higher percentage of the essential ingredients than the goods contain.

The great majority of the manufacturers, however, have furnished in most instances, fertilizers fully up to guarantee.

The following table gives the names of all manufacturers legally selling fertilizers in the State this year up to August 12, and the number of samples analyzed of each firm's fertilizers taken from various places in the State or furnished by the manufacturers.

The table also shows in how many of these samples there was a serious deficiency of either phosphoric acid, nitrogen or potash, and in how many the percentages of these constituents are such as to be considered acceptable, from the point of view of the buyer, either because they equal or exceed the percentage guaranteed by the manufacturer, or because a slight deficiency in one constituent is, in the Director's judgment, fully made up by an excess in one or both of the others. Under the heading, "Relative Value Per Ton," is shown in how many instances the "estimated value per ton," calculated from our analysis, equals or exceeds the value calculated from the manufacturer's minimum guaranteed analysis, and in how many it is too low, reasonable allowance having been made for unavoidable variations. This table should be carefully studied. It concisely reviews each firm, showing how the samples of fertilizers taken from various places in the State compare with what was guaranteed. In order, however, to see the amount of variations from the guaranteed analyses, this table should be studied in connection with the table of results of analyses, which follows this introduction. This table can be easily referred to, as the names of the firms are arranged in alphabetical order.

*Commercial Fertilizers.*

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NAME OF MANUFACTURER.	No. of Samples Analyzed.	Phosphoric Acid.		Nitrogen.		Potash.		Relative Value Per Ton.
		No. too low.	No. Acceptable.	No. too low.	No. Acceptable.	No. too low.	No. Acceptable.	
The Abbott & Martin Rendering Co.....	9	8	1	7	0	5	1	9 0
The Armour Fertilizer Works.....	16	16	0	14	0	10	0	16 0
Peter Backer & Son.....	7	5	2	7	0	4	0	7 0
George S. Bartlett.....	1	0	1	1	0	0	1	1 0
Baugh & Sons Co.....	2	2	0	2	0	2	0	2 0
The Chicago Fertilizer Co.....	16	13	3	14	1	9	4	15 1
The Cleveland Dryer Co. . . . .	13	11	2	9	0	5	1	13 0
Continental Fertilizer Co.....	9	9	0	3	0	7	0	9 0
The Currie Fertilizer Co.....	26	23	3	23	1	19	4	25 1
Duncan & Bro. . . . .	2	2	0	2	0	2	0	2 0
Furman Farm Improvement Co.....	3	2	1	2	0	3	0	3 0
Globe Fertilizer Co.....	24	23	1	23	0	22	0	23 1

NAME OF MANUFACTURER.	No. of Samples Analyzed.	Phosphoric Acid.		Nitrogen.		Potash.		Relative Value Per Ton.
		No. too low.	No. Acceptable.	No. too low.	No. Acceptable.	No. too low.	No. Acceptable.	
Greer Machinery Co. ....	6	5	1	3	0	4	1	6 0
The Hardy Packing Co. ....	6	6	0	5	0	4	0	6 0
R. H. Hoskins. ....	1	1	0	1	0	0	0	1 0
The Jarecki Chemical Co. ....	4	4	0	3	0	3	0	4 0
J. B. Jones. ....	7	4	3	7	0	4	0	7 0
The Jones Fertilizing Co. ....	14	11	3	13	0	7	1	12 2
The Loudenback Fertilizer Co. ....	3	3	0	2	1	3	0	3 0
Louisville Fertilizer Co. ....	28	27	1	11	1	16	7	27 1
Meridian Fertilizer Factory. ....	3	3	0	3	0	3	0	3 0
Michigan Carbon Works. ....	14	13	1	12	0	10	0	14 0
National Fertilizer Co. ....	11	11	0	7	1	9	0	11 0
North-Western Fertilizing Co. ....	27	26	1	21	0	17	4	26 1

*Commercial Fertilizers.*

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The Ohio Farmers Fertilizer Co. ....	26	18	8	20	1	16	3	21	5
Packers Fertilizer Association .....	1	1	0	1	0	0	0	1	0
Read Phosphate Co. ....	18	15	3	15	0	12	4	18	0
J. F. Singer & Co. ....	2	2	0	2	0	0	1	2	0
Standard Guano and Chemical Manufacturing Co. ....	3	3	0	3	0	1	0	3	0
Swift & Co. ....	16	14	2	13	0	10	0	16	0
Tandy Bros. ....	4	4	0	3	0	2	0	4	0
Tennessee Chemical Co. ....	12	12	0	7	0	11	0	12	0
Virginia-Carolina Chemical Co. ....	12	11	1	8	0	11	0	12	0
The Walton Fertilizer Co. ....	9	9	0	6	1	5	1	9	0
Wood & Stubbs.....	6	6	0	5	0	6	0	6	0

It is evident from the preceding table that while most of the fertilizers examined ran above the minimum guarantee, yet a thorough and careful inspection seems essential. It is hoped that farmers will generally take advantage of Section 8 of the fertilizer law, and when they purchase fertilizers, at least in quantity, that they take a sample in accordance with Section 8 and send it to the Station for free analysis.

The essentials in taking a sample are: 1. Take it at the time of purchase, and if possible, in the presence of agent or seller. 2. Take a sample from not less than two bags, and from one additional bag for every ten purchased; mix these samples carefully and take at least a pint of this mixed sample, put it into a fruit jar, seal, box and express to M. A. Scovell, Director, Lexington, Ky. 3. Take the sample in the presence of at least one witness, and have the witness sign the required certificate. 4. The certificate for free analysis to be sent by mail and should be in accordance with the law as given in Section 8.

If the sample is taken in accordance with the above directions it may be sent by express and the charges will be paid by the Station.

A good form of certificate is the following, and blank certificates will be sent free to any farmer requesting the same.

#### CERTIFICATE FOR FREE ANALYSIS.

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M. A. SCOVELL, Director, Lexington, Ky.:

This is to certify that I am not a dealer in, or agent for the sale of any fertilizer, and that the fertilizer, a sample of which I have sent by express to you for free analysis was purchased by me ..... 190 for my own use and not for sale.

I further certify that the sample was taken at the time of purchase from at least 10 per cent. of the sacks or other packages comprising the whole lot purchased, and that it was taken as provided in Section 8 of the fertilizer law, in the following

described manner, to wit : .....

.....  
.....  
.....  
.....  
.....  
.....

Upon receipt of the analysis from you, I agree to furnish you with a tag taken from one of the sacks sampled, the name and address of the firm or agent of whom the fertilizer was purchased, and the amount purchased.

(Signature) .....

(P. O. Address) .....

Signature of Witnesses :

.....  
.....

Should, however, any farmer desire to take a sample and not have a blank certificate at hand, he may write one in full like the form above given, or take the sample in presence of seller and witness and so mark it that he can identify it subsequently in a certificate, and send it at once to the Experiment Station with the request that the station furnish form of certificate, such certificate to be filled out upon receipt covering the sample and properly signed by sender and witnesses and sent by return mail to the Station.

**SECTION PROVIDING FOR FREE ANALYSIS.**—The section of the Fertilizer Law, providing for the taking of samples for free analysis is as follows:

SEC. 8. Any person not a dealer in, or agent for the sale of any fertilizer who may purchase any commercial fertilizer in this State for his own use and not for sale, may take a sample of the same for analysis, which analysis shall be made by the said Experiment Station free of charge. Such samples for free analysis shall be taken by the purchaser in presence of the person, company or agent selling the fertilizer, from at least ten (10) per cent. of the sacks or other packages comprising the whole lot purchased, and shall be thoroughly mixed and at least one pound of the material after mixing must be put into a jar or can, securely sealed and marked in such a way as to surely identify the sample and show by whom it was sent, without giving the name of the fertilizer or the person from whom it was purchased, and must be forwarded to the Director of the Kentucky Agricultural Experiment Station, Lexington, Ky. The purchaser shall also send with the sample a certificate signed by himself and witness, or by two witnesses, stating that the sender has purchased the fertilizer for his own use and not for sale, and that the sample was taken in the manner prescribed in this Section. Provided, however, that if the person, company or agent shall refuse to witness the taking of the sample, then the sample may be taken at the time of the purchase in the manner already described in the presence of two witnesses who shall certify to the manner of taking the sample. The purchaser shall preserve the official label from one of the bags or other packages sampled to be sent to the Director after having received the report of analysis of the sample, and at the same time he shall furnish to the Director the name and address of the firm of whom the fertilizer was purchased and the amount purchased; and any person having sent a sample for free analysis, under the provisions of this Section, who shall, after having received the report of analysis of the same, refuse to furnish the required information, shall thereafter forfeit the privilege of free analysis of fertilizers under this Section. But if any sample shall have been submitted for free analysis without all the requirements of this Section having been complied with, the Director shall inquire into the case and may accept the sample for free analysis if he believes that it is a fair sample of the fertilizer as it was delivered to the purchaser.

*Values Used.*

In calculating the relative value per ton, the same values have been used as were used in our last bulletins, namely:

Soluble and reverted phosphoric acid in mixed fertilizers .....	7¢ per lb.
Soluble and reverted phosphoric acid in plain acid and unacidulated phosphates.....	5¢ per lb.
Insoluble phosphoric acid in mixed fertilizers....	2½¢ per lb.
Insoluble phosphoric acid in plain acid phosphates.....	Nothing.
Phosphoric acid in fine bone .....	4¢ per lb.
Phosphoric acid in medium bone.....	3¢ per lb.

Fine bone is all that passes through a sieve with meshes one-twenty-fifth inch square. Medium bone passes through a sieve with meshes one-sixth inch square, but does not include fine bone.

Nitrogen in all fertilizers.....	17½¢ per lb.
Potash in all fertilizers, from sulphate.....	7¢ per lb.
Potash in all fertilizers, from muriate.....	6¢ per lb.

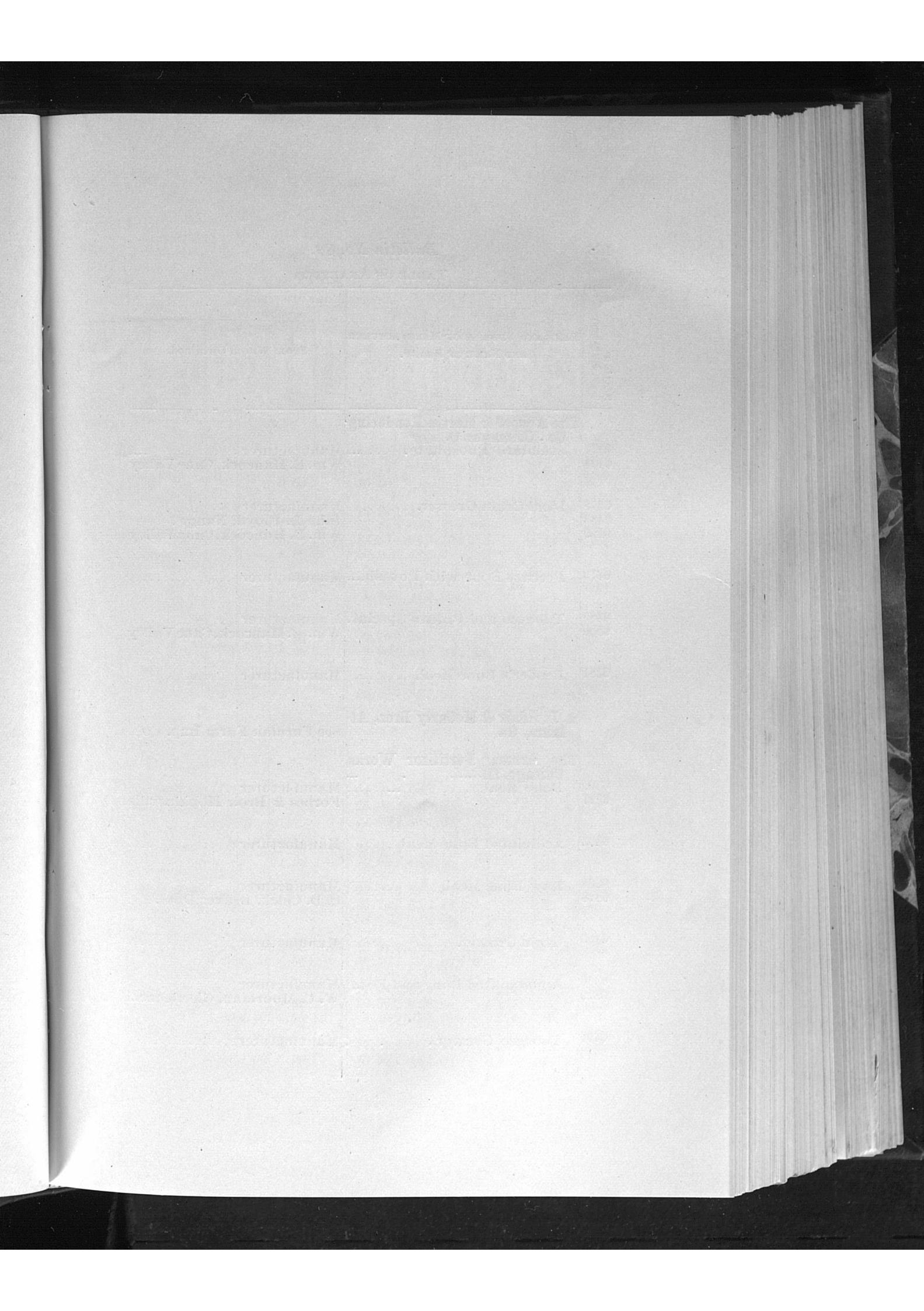
The term "Potash, from Muriate" does not indicate necessarily that the manufacturers used muriate of potash in furnishing the potash; they may have used sulphate of potash, or other salts of potash, but in all fertilizers where the term "Potash from Muriate" is used there is enough chlorine present to combine with the potash, either from salt in the tankage used, or the potash salts used, as muriate, kainite, carnallite, etc. As the objection to the use of muriate of potash arises from the chlorine present in this salt, it likewise follows that chlorine in a fertilizer is objectionable, whether put in with the potash or otherwise. The using of sulphate of potash where there is chlorine present in other ingredients of the fertilizer will not obviate the injurious effect of the chlorine, and therefore we take this method of showing chlorine present by designating the potash as "from muriate."

## EXPLANATION OF THE TABLE.

In the table of analyses, following the name of each brand will be found the analysis of the sample furnished by the manufacturer at the time the fertilizer was entered for sale and which was accompanied by an affidavit giving the guaranteed analysis. This is the analysis that is marked "manufacturer" in the column headed "From Whom Obtained." If any other analyses of the same brand have been made, they will be found following this analysis. These samples have been collected by deputy inspectors or sent in by farmers. The manufacturer's guarantee is printed last in *italic* figures.

The figures in the table which are set in bold face type are those results which, in the judgment of the Director, were too low to be acceptable. Where samples of bone have been marked with (\*) it indicates that the bone contains soluble phosphoric acid. This soluble phosphoric acid is an indication of either the addition of acid phosphate to the bone, (in which case it would not be a pure raw bone), or else that the bone containing this soluble phosphoric acid was not strictly a pure or high grade bone, but contained trashy materials, which carried with them the soluble phosphoric acid.

The names of the manufacturers are arranged in alphabetical order, and all the analyses of the same brand have been grouped together.



## TABLE OF ANALYSES.

Station Number.	NAME AND ADDRESS OF MANUFACTURER AND NAME OF BRAND.	From Whom Obtained.
	<b>The Abbott &amp; Martin Rendering Co., Columbus, O.</b>	
6377	Standard Phosphate.....	Manufacturer ..... Wm. E. Hancock, Cane Valley
6498		
6378	Ideal Grain Grower.....	Manufacturer .....
6483		John L. Floyd, Nancy .....
6499		Wm. E. Hancock, Cane Valley
6379	Peerless Bone with Potash....	Manufacturer .....
6380	Tobacco and Potato Special.	Manufacturer .....
6500		Wm. E. Hancock, Cane Valley
6381	Render's Bone Meal.....	Manufacturer .....
	<b>A. D. Adair &amp; McCarty Bros., At- lanta, Ga</b>	See Furman Farm Imp. Co..
	<b>The Armour Fertilizer Works, Chicago, Ill.</b>	
6302	Bone Meal.....	Manufacturer .....
6817		Forbes & Bro., Hopkinsville
6303	Acidulated Bone Meal .....	Manufacturer .....
6304	Raw Bone Meal .....	Manufacturer .....
6818		C. D. Chick, Beaver Dam.....
6305	Grain Grower.....	Manufacturer .....
6306	Ammoniated Bone and Pot..	Manufacturer .....
6819		W. C. Moorman, Glendeane...
6307	Tobacco Grower.. .....	Manufacturer .....

### *Commercial Fertilizers.*

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TABLE OF ANALYSES.

POUNDS IN THE HUNDRED.															
Phosphoric Acid.															
	In Fine Bone.	In Medium Bone.	Soluble.	Reverted.	Available.	Insoluble.	Total.	Nitrogen.	Equivalent to Ammonia.	From Muriate.	Poash't.	Relative Value per Ion.	Station Number.		
					9.83	1.77	11.60					\$9.83	6377		
					9.45	1.69	11.14					9.45	6498		
					9.00		10.00					9.00			
					9.97	2.26	12.23	1.17	1.42		1.76	21.6	6378		
					7.66	3.53	11.19	1.00	1.21	1.16		17.3	6483		
					8.36	3.97	12.33	1.04	1.26	1.03		18.57	6499		
					8.00		9.00	0.82	1.00	1.00		15.77			
					9.80	2.06	11.86	1.63	0.76		2.05	19.83	6379		
					8.00		9.00	0.41	0.50	2.50		16.14			
					9.25	1.74	10.99	1.3	1.58	1.06	3.90	25.10	6380		
					6.90	2.80	9.70	0.99	1.2	3.86		19.16	6500		
					8.00		9.00	0.82	1.00	4.00		19.37			
18.01	5.38						23.39	1.26	2.74			25.55	6381		
							20.00	1.65	2.00			17.78			
18.76	5.60						24.36	3.98	4.83			32.3	6302		
21.25	4.05						25.30	2.85	3.46			29.4	6817		
							24.00	2.47	3.00			23.05			
					17.98	4.00	21.98	3.0	3.70			37.85	6303		
					11.00		18.00	1.65	2.00			24.68			
15.42	9.86						25.28	3.84	4.66			31.7	6304		
20.89	4.90						25.79	3.65	4.43			32.43	6818		
							22.00	3.71	4.50			26.19			
					6.00	2.00	9.08	3.83	12.91	2.23	2.71	0.86	1.94	26.19	
							8.00		10.00	1.65	2.00	2.00		20.38	
							8.92	2.76	11.68	3.40	4.13		2.31	29.0	
							8.39	3.97	12.36	2.92	3.54		2.54	27.5	
							4.00	2.00	6.00		8.00	2.47	3.00	2.00	
												20.85			
							6.00	2.00	9.78	2.03	11.81	2.02	2.45	5.00	28.7
									8.00		10.00	1.65	2.00	5.00	24.98

## TABLE OF ANALYSES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
	<b>The Armour Fertilizer Works, Chicago, Ill.</b>	
6308	Bone, Blood and Potash. ....	Manufacturer .....
6820		Forbes & Bro., Hopkinsville
6848		H. G. Hutchcraft, Paris.....
6309	Star Phosphate ..... .	Manufacturer .....
6310	White Burley & Black Tobacco	Manufacturer .....
6821		G. A. Wright, Jolly.....
6470	Phosphate and Potash. ....	Manufacturer .....
	<b>Peter Backer &amp; Son, Troy, Ind.</b>	
6503	Grower No. 1. ....	Manufacturer .....
6504	Grower No. 2. ....	Manufacturer .....
6610		A. L. Oelze, Cloverport .....
6505	Grower No. 7. ....	Manufacturer .....
6506	Grower No. 8. ....	Manufacturer .....
6507	Grower No. 9. ....	Manufacturer .....
6570	Grower No. 3. ....	Manufacturer .....
	<b>Geo. S. Bartlett, successor to The Cin'ti Desiccating Co., Cin., O.</b>	
6827	Indian Brand Ohio Valley Ph.	†Manufacturer .....
6830		J. W. Jordan, Tolesboro ...
	<b>Baugh &amp; Sons Co., Norfolk, Va.</b>	
6472	Baugh's Animal Bone and Potash Compound. ....	Manufacturer .....
6619		Mason & Brakefield, Adairville
	<b>Wm. Casler, Louisville, Ky.</b>	See R. H. Hoskins

†Sample has not been analyzed.

## TABLE OF ANALYSES.

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**POUNDS IN THE HUNDRED.**

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## TABLE OF ANALYSES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
6397	The Chicago Fertilizer Co., Chi- cago, Ill. Mt. Pleasant Phosphate....	Manufacturer.....
6398	Western Bone Black and Pot'h	Manufacturer .....
6611		R. P. Higgins & Co., Irvington
6625		C. C. Miller, Fordsville .....
6399	Bone, Blood and Potash....	Manufacturer .....
6514		I. K. Miller, Campbellsville....
6612		J. T. Jones, Ekron .....
6400	Standard Truck.....	Manufacturer .....
6515		I. K. Miller, Campbellsville....
6401	Wheat Special.....	Manufacturer .....
6613		R. P. Higgins & Co., Irvington
6402	Blue Grass Tobacco Special...	Manufacturer .....
6516		I. K. Miller, Campbellsville ..
6614		R. P. Higgins & Co., Irvington
6403	Chicago Bone Meal.....	Manufacturer .....
6615		C. C. Miller, Fordsville .....
6456	The Cleveland Dryer Co., Cleve- land, Ohio. Phospho Bone.....	Manufacturer .....
6634		Toncray & Gray, Tolesboro.
6457	Potato, Tobacco and General Crop Fertilizer.....	Manufacturer .....
6635		Leitchf'd Mer. Co., Leitchfield
6801		Toncray & Gray, Tolesboro.
6816		L. Green, Falls of Rough ....

TABLE OF ANALYSES.

POUNDS IN THE HUNDRED.

Phosphoric Acid.										Station Number.		
	In Fine Bone.	In Medium Bone.	Soluble.	Reverted.	Available.	Insoluble.	Total.	Nitrogen.	Equivalent to Ammonia.	Potash.		
					10.05 9.00	1.80 10.00	11.85 10.00				\$10.05 9.00	
					10.04 <b>7.26</b> 7.84 8.00	1.88 1.84 2.00	11.92 9.10 9.84 9.00	0.64 0.49 0.52 0.41	0.78 0.59 0.63 0.50	<b>2.05</b> 2.51 2.22 2.50	20.11 15.81 16.46 16.64	6397 6611 6625
					11.24 9.97 <b>8.21</b> 9.00	2.33 2.49 1.68	13.57 12.46 9.89 10.00	1.73 1.24 0.96 1.23	2.10 1.51 1.17 1.50	2.29 1.33 1.96 2.00	26.18 21.15 <b>18.04</b> 20.21	6399 6514 6612
					9.85 8.02 8.00	1.79 1.28	11.64 9.30 9.00	3.44 2.47 2.47	4.18 3.00 3.00	3.78 <b>3.43</b> 4.00	34.04 25.32 25.92	6400 6515
					10.31 8.59 8.00	2.28 3.90	12.59 12.49 9.00	1.16 0.84 0.82	1.41 1.02 1.00	1.71 0.84 1.00	22.02 17.93 15.97	6401 6613
					9.72 7.59 8.98 8.00	1.50 2.11 2.75	11.22 9.70 11.73 9.00	1.32 1.01 0.81 0.82	1.60 1.23 0.98 1.00	1.32 4.10 <b>2.40</b> 4.00	3.80 20.15 <b>0.71</b> 20.17	6402 6516 6614
19.94 12.46	3.52 2.92						23.46 <b>15.38</b> 20.00	2.21 2.28 1.65	2.68 2.77 2.00		25.80 19.70 17.78	6403 6615
					9.69 9.42 10.00	1.66 3.08	11.35 12.50	0.91 0.85 0.82	1.10 1.03 1.00	1.28 1.21 1.00	19.13 19.16 18.07	6456 6634
					9.47 <b>8.81</b> <b>9.12</b> 9.42 10.00	3.12 2.49 2.52 3.33 1.03	12.59 11.30 11.67 12.75	1.07 1.05 1.03 1.25 1.03	1.30 1.27 1.25 1.52 1.25	6.39 6.69 6.39 <b>5.02</b> 6.00	26.26 25.29 25.33 25.26 24.81	6457 6635 6801 6816

## TABLE OF ANALYSES.

Station Number.	NAME AND ADDRESS OF MANUFACTURER AND NAME OF BRAND.	From Whom Obtained.
6458	The Cleveland Dryer Co., Cleve- land, Ohio. XXX Phosphate.....	Manufacturer ..... Hiner & Gardner, Vanceburg
6636		
6459	Horsehead Phosphate.....	Manufacturer ..... Toncray & Gray, Tolesboro..
6637		
6460	Square Bone.....	Manufacturer .....
6638		J. C. DeHaven, Hardinsburg.
6461	Superior Bone.....	Manufacturer .....
6239	Continental Fertilizer Co., Nash- ville, Tenn. Bear Beef, Blood and Bone....	Manufacturer .....
6240	Bear High Grade Dis. Bone ..	Manufacturer .....
6620		S. Terry & Co., Grayson Sps.
6241	Bear Special Tobacco Guano.	Manufacturer .....
6621		J. W. Teaff, Hardinsburg....
6242	Bear Spec. Wheat & Corn Gro' r	Manufacturer .....
6519		Goodwin & Waddle, Somerset
6526	Bear Bone and Potash.....	Manufacturer .....
6650	Bear Potash Mixture.....	Manufacturer .....
6367	The Currie Fertilizer Co., Louis- ville, Ky. Currie's Acid Phosphate.....	Manufacturer .....
6368	Currie's Alkaline Bone.....	Manufacturer .....

TABLE OF ANALYSES.

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TABLE OF WEIGHTS  
POUNDS IN THE HUNDRED.

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\*Contains Soluble Phosphoric Acid.

## TABLE OF ANALYSES.

Station Number.	NAME AND ADDRESS OF MANUFACTURER AND NAME OF BRAND.	From Whom Obtained.
6369	The Currie Fertilizer Co. Currie's Corn and Wheat Spec	Manufacturer ..... I. K. Miller, Campbellsville ..
6484		C. S. Brent, Lexington ..
6509		Leitchf'l'd Mer. Co., Leitchf'l'd
6831		J. B. Ross Sons, Madisonville
6858		
6370	Currie's Soluble Bone.....	Manufacturer .....
6832		W. A. Guenther & Sons, Owensboro .....
6859		A. Brooks, Robards .....
6371	Currie's Corn Grower.....	Manufacturer .....
6372	Currie's Tob. and Pot. Grower	Manufacturer .....
6487		Woodson Lewis, Greensburg ..
6508		C. S. Brent, Lexington ..
6567		J. W. Dalzell, Carlisle ..
6373	Currie's Golden Leaf Tobacco and Potato Grower.....	Manufacturer .....
6485		I. K. Miller, Campbellsville ..
6833		A. Brooks, Robards .....
6374	Currie's Climax Tobacco and Potato Grower.....	Manufacturer .....
6486		I. K. Miller, Campbellsville ..
6375	Currie's Corn and Oats Spec..	Manufacturer .....
6376	Currie's Kentucky Phosphate	Manufacturer .....
6434	Currie's Wheat Grower....	Manufacturer .....
6489	Currie's Raw Bone Meal.....	Manufacturer .....

TABLE OF ANALYSES.

POUNDS IN THE HUNDRED.

		Phosphoric Acid.				Potash.						
In Fine Bone.	In Medium Bone.	Soluble.	Reverted.	Available.	Insoluble.	Total.	Nitrogen	Equivalent to Ammonia.	From Muricate.	From Sulphate.	Relative Value per Ton.	Station Number.
				10.63	3.01	13.64	0.71	0.86	0.82		\$19.80	6369
				11.13	3.83	14.96	0.98	1.19	0.88		21.99	6484
				11.47	3.97	15.44	0.93	1.13	0.74		22.20	6509
				11.65	4.00	15.65	0.70	0.85	0.52		21.38	6831
				11.48	3.88	15.36	1.03	1.25	0.80		22.58	6858
				10.00		12.50	0.62	0.75	1.00		18.62	
				9.55	4.52	14.07	1.35	1.64		1.52	22.49	6370
				9.16	3.89	13.05	0.98	1.19		1.44	20.22	6832
				10.16	2.39	12.55	1.49	1.81	0.72	1.12	23.07	6859
				10.00		12.00	1.23	1.50		1.50	21.41	
				9.08	5.27	14.35	1.05	1.27		1.18	20.68	6371
				10.00		12.50	1.23	1.50		1.50	21.66	
				8.20	4.23	12.43	1.77	2.15	1.62	4.69	28.31	6372
				8.81	3.47	12.28	1.86	2.26	1.32	3.83	27.52	6487
				8.81	2.92	11.73	1.68	2.04	8.60		29.99	6508
				8.99	2.02	11.01	1.67	2.03	8.93		30.17	6567
				7.00		9.00	1.65	2.00		8.00	27.78	
				8.82	2.71	11.53	1.44	1.75	0.62	2.81	23.42	6373
				8.24	3.61	11.85	1.41	1.71	1.40	2.69	23.74	6485
				8.99	3.59	12.58	1.50	1.82	2.68	1.48	24.93	6833
				†9.00		10.50	1.65	2.00		3.50	24.03	
				†8.00		12.50	1.65	2.00	2.10	1.40	23.71	
				9.03	5.00	14.03	1.24	1.51		1.22	20.94	6374
				9.68	4.38	14.06	1.08	1.31		0.95	20.85	6486
				9.50		12.00	0.82	1.00		1.00	18.82	
				7.46	2.84	10.30	1.05	4.27	5.14		21.71	6375
				8.00		10.00	1.65	2.00	3.00		22.18	
				10.27	5.07	15.34	1.00	1.21		0.98	21.79	6376
				10.00		12.50	1.03	1.25		1.50	20.96	
				9.06	5.33	14.39	1.09	1.32		1.29	20.98	6434
				10.00		12.50	1.23	1.50		1.50	21.66	
8.58	14.01					22.59	4.20	5.10			29.97	6489
						19.00	3.09	3.75			22.22	

†The guaranteed analysis of this brand was changed March 27th from the first set of figures to the second.

## TABLE OF ANALYSES.

Station Number.	NAME AND ADDRESS OF MANUFACTURER AND NAME OF BRAND.	From Whom Obtained.
6490	<b>The Currie Fertilizer Co.</b> Currie's Fine Ground Raw Bone Meal .....	Manufacturer .....
6491	Currie's Butchertown Raw Bone Meal .....	Manufacturer .....
6825	<b>Duncan &amp; Bro., Lagrange, Ky.</b> Tiger Wheat Grower .....	Manufacturer .....
6826	Tiger Wheat Special .....	Manufacturer .....
6455	<b>Furman Farm Improvement Co., Atlanta, Ga.</b> Furman High Grade Fertilizer	Manufacturer .....
6468	Furman Soluble Bone .....	Manufacturer .....
6482	Farish Furman Formula .....	Manufacturer .....
6327	<b>Globe Fertilizer Co., Louisville, Ky.</b> Globe Special Tobac. Grower	Manufacturer .....
6328	Globe Potato Grower .....	Manufacturer .....
6849	A. Button & Son, Louisville.	
6329	Globe Soluble Vegeta. Grower .....	Manufacturer .....
6850	A. Button & Son, Louisville.	
6330	Kentucky Standard Tobacco Grower .....	Manufacturer .....
6529	Durham Bros., Greensburg..	
6331	Big Four Tobacco Grower .....	Manufacturer .....
6530	Durham Bros., Greensburg..	
6332	Golden Harvest Bone Meal.	Manufacturer .....

TABLE OF ANALYSES.

POUNDS IN THE HUNDRED

Phosphoric Acid.								Potash.	Relative Value per Ton.	Station Number.		
In Fine Bone.	In Medium Bone.	Soluble.	Reverted.	Available.	Insoluble.	Total.	Nitrogen.	Equivalent to Ammonia.	From Muriate.	From Sulphate.		
				8.29	7.68	15.97	1.73	2.10		\$21.51	6490	
				8.00		15.50	1.65	2.00		20.73		
				10.77	5.81	16.58	1.75	2.12	1.61	26.05	6491	
				10.00		15.50	1.65	2.00	0.75	23.43		
				7.00	10.11	1.97	12.08	0.91	1.10	0.78	1.75	6825
				3.00	10.00		11.00	0.82	1.00	2.00		
				5.00	10.94	4.49	15.43	0.90	1.09		2.05	6826
				2.00	7.00		12.00	0.82	1.00	1.50		
					9.11	3.38	12.49	1.88	2.28	2.33		6455
					10.00			1.65	2.00	2.00		
					9.94	1.14	11.08	1.16	1.41	2.28		6468
					10.00			0.82	1.00	2.00		
					11.33	1.25	12.58			1.75		6482
					10.00				2.00		18.59	
					9.06	1.14	10.20	2.38	2.89		10.76	6327
					8.00		9.00	2.47	3.00		10.00	
					9.26	1.84	11.10	3.24	3.93		4.62	6328
					9.47	2.09	11.56	3.21	3.90		4.12	6849
					8.00		9.00	3.29	4.00		4.00	
					9.23	1.91	11.14	2.18	2.65		3.32	6329
					8.32	3.07	11.39	2.53	3.07		3.19	6850
					8.00		10.00	2.47	3.00		3.00	
					9.60	2.85	12.45	2.92	3.54		3.34	6330
					9.87	2.83	12.70	2.33	2.83		3.02	6529
					8.00		10.00	2.47	3.00		3.00	
					9.12	2.09	11.21	2.10	2.55		2.43	6331
					10.05	3.17	13.22	1.63	1.98		2.16	6530
					8.00		10.00	1.65	2.00		2.00	
					10.98	1.77	12.75	2.75	3.34		0.81	6332
					10.00		12.00	2.47	3.00		1.00	

## TABLE OF ANALYSES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
6333	Globe Fertilizer Co., Louisville, Ky. Globe Wheat Grower.....	Manufacturer..... A. Button & Son, Louisville..
6851		
6334	Eagle Corn & Wheat Grower..	Manufacturer .....
6852		Smith & Cooper, Fordsville...
6335	Progress Corn & Wheat G'wer	Manufacturer .....
6531		J. W. Cloyd, Campbellsville..
6336	Globe Bone Dust.....	Manufacturer .....
6853		Wm. Fisher, Tip Top.....
6337	Bone and Potash. ....	Manufacturer .....
6532		J. W. Cloyd, Campbellsville..
6854		Cochran & Baker, Marion.....
6877		A. Button & Son, Louisville..
6884	Globe Bone Meal.....	Manufacturer .....
6887		Hunt & Crutcher, Vine Grove
6430	Greer Machinery Co., Knoxville, Tenn. Greer's Challenge.....	Manufacturer .....
6431	Blood and Bone .....	Manufacturer .....
6533		G.K. Young, Gen Ag, Somerset
6432	Greer's Compound .....	Manufacturer .....
6433	Greer's Dissolved Bone.....	Manufacturer .....
6534		G.K. Young, Gen Ag, Somerset
6404	The Hardy Packing Co., Chicago, Ill. Crop Producer.....	Manufacturer .....

## TABLE OF ANALYSES.

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## POUNDS IN THE HUNDRED.

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## TABLE OF ANALYSES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
6405	The Hardy Packing Co., Chicago, Ill. Hardy's Wheat Grower.....	Manufacturer .....
6406	Garden Special.....	Manufacturer .....
6407	Southern Phosphate.....	Manufacturer .....
6408	Bone Meal .....	Manufacturer .....
6409	Hardy's Tobacco Special.....	Manufacturer .....
6568	R. H. Hoskins, Louisville, Ky. Champion Raw Bone Meal..	Manufacturer .....
6435	The Jarecki Chem Co., Sandusky O Lake Erie Fish Guano.....	Manufacturer .....
6436	Number One Fish Guano .....	Manufacturer .....
6437	C. O. D. Phosphate .....	Manufacturer .....
6438	Fish and Potash Tobacco and Potato Food .....	Manufacturer .....
6282 6622	J. B. Jones, Louisville, Ky. Corn Grower.....	Manufacturer ....., Jno. Heinz & Co., Louisville.
6283	Tobacco and Potato Grower	Manufacturer .....
6284	Jones' Bone Meal.....	Manufacturer .....
6285	Ammoniated Bone Meal.....	Manufacturer .....

TABLE OF ANALYSES.

POUNDS IN THE HUNDRED.

		Phosphoric Acid.				Potash.								
		In Fine Bone.	In Medium Bone.	Soluble.	Reverted.	Available.	Insoluble.	Total.	Nitrogen.	Equivalent to Ammonia.	From Muriate.	From Sulphate.	Relative Value Per Ton.	Station Number.
20.18	3.28					10.02 8.00	1.89 9.00	11.91 0.41 0.50	0.64 0.50	0.78	2.11 2.50	\$20.17 16.64	6405	
						10.44 8.00	1.62 9.00	12.06 0.82 1.00	1.31 1.00	1.59	1.32 4.00	26.70 20.17	6406	
						10.16 9.00	1.69 10.00	11.85 10.00				10.16 9.00	6407	
								23.46 20.00	.27 1.65 2.00	2.76		26.06 17.78	6408	
						10.00 8.00	2.01 9.00	12.01 2.47 3.00	3.42 3.00	4.15	1.64 4.00	34.10 25.95	6409	
								23.18 22.00	3.62 3.29 4.00	4.39		31.21 24.72	6568	
						11.41 10.00	2.46 11.00	13.87 1.64 1.99	1.73 1.99	2.10	1.11 1.00	24.59 21.64	6435	
						10.69 10.00	1.45 11.00	12.14 0.86 1.04	0.98 1.04	1.19	1.12 1.00	20.47 18.91	6436	
						16.03 14.00	1.62 15.00	17.65 15.00				16.03 14.00	6437	
						9.20 8.00	1.62 9.00	10.82 0.86 1.04	0.92 1.04	1.12 4.10		21.83 20.31	6438	
23.18						8.57 7.45 9.00	3.95 2.14 11.00	12.52 9.59 2.47 3.00	2.96 2.74 3.33	3.59	1.70 1.90 1.50	26.72 23.75 24.35	6282 6622	
						9.03 10.00	1.98 12.00	11.01 2.88 3.50	2.92 3.50	3.54	5.88 5.50	32.08 32.78	6283	
								*21.11 20.00	2.56 2.47 3.00	3.11		24.79 20.65	6284	
								*12.74 15.00	2.09 2.06 2.50	2.54		17.31 16.21	6285	
15.83	5.28													
11.72	1.02													

\*Contains Soluble Phosphoric Acid.

## TABLE OF ANALYSES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
6286	J. B. Jones, Louisville, Ky. Raw Bone Meal.....	Manufacturer .....
6287	Wheat Grower.....	Manufacturer .....
6410	The Jones Fertilizing Co., Cin. O. Bone Meal.....	Manufacturer .....
6411	Ammoniated Bone Meal.....	Manufacturer .....
6412	Acidulated Bone.....	Manufacturer .....
6413	Bone and Potash.....	Manufacturer .....
6414	Tobacco and Potato Grower	Manufacturer .....
6641		T. E. Hedges, Rectorville....
6808		J. B. Benjamin, Providence..
6415	Miami Valley Phosphate.....	Manufacturer .....
6642		J. B. Benjamin, Providence..
6416	Jones Reliable Phosphate ....	Manufacturer .....
6643		T. E. Hedges, Rectorville....
6417	Jewel Phosphate .....	Manufactuer .....
6644		T. E. Hedges, Rectorville....
6418	Acid Phosphate.....	Manufacturer .....
6421	The Loudenback Fertilizer Co., Urbana, Ohio.	Manufacturer .....
6809	Urbana Bone Phos. and Pot.	Winters & Everett, Maysville
6829		Markwell & Davis, Foxport.

*Commercial Fertilizers.*

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TABLE OF ANALYSES.

POUNDS IN THE HUNDRED.

		In Fine Bone.	In Medium Bone.	Soluble.	Reverted.	Available.	Insoluble.	Total.	Nitrogen.	Equivalent to Ammonia.	Potash.	Relative Value per Ton.	Station Number.
12.21	9.21							21.42 21.50	3.59 3.50	4.36 4.25		\$27.87 25.15	6286
						8.58 9.00	2.81	11.39 11.00	2.14 1.70	2.60 2.06	1.72 2.00	23.32 22.35	6287
18.28	5.46							*23.74 20.00	3.40 3.29	4.13 4.00		29.80 23.52	6410
						8.75 5.00	6.86	15.61 15.00	4.92 4.12	5.97 5.00		32.90 26.42	6411
						8.70 7.00	6.69	15.39 14.50	3.83 3.29	4.65 4.00		28.94 25.07	6412
						8.03 8.00	3.36	11.39 10.00	2.27 1.65	2.76 2.00	4.31 4.00	26.90 23.58	6413
						7.73 7.40 7.44 10.00	5.45 5.27 5.81 12.00	13.18 12.67 13.25 3.71	3.73 3.54 4.52 4.50	4.53 4.30 5.49 1.12	0.76 3.72 1.12 5.00	32.73 33.73 35.42 34.99	6414 6641 6808
						9.29 8.87 9.00	4.85 3.73 11.60	14.14 3.22	2.52 3.91	3.06 3.00	3.03 3.19 2.75	28.50 31.03 27.10	6415 6642
						8.51 8.25 8.50	5.14 3.67 11.92	13.65 2.18	2.48 2.65	3.01 1.50	1.64 1.45 1.25	25.46 23.05 18.71	6416 6643
						9.43 10.21 8.00	2.28 2.28 12.49	11.71 0.73	0.94 0.89	1.14 1.00		17.63 17.99 15.07	6417 6644
						8.74 8.00	1.47 10.00	10.21 10.00			8.74 8.00		6418
						9.65 8.41 10.03 9.00	3.94 2.92 2.43 1.23	13.59 11.38 12.46 1.50	0.77 1.85 1.50 1.50	0.93 2.25 1.82 1.00	2.30 2.36 2.17 1.00	20.94 23.01 24.44 19.51	6421 6809 6829

\*Contains Soluble Phosphoric Acid.

## TABLE OF ANALYSES.

Station Number.	NAME AND ADDRESS OF MANUFACTURER AND NAME OF BRAND.	From Whom Obtained.
6276	Louisville Fertilizer Co., Louisville, Ky. Bone and Potash.....	Manufacturer ..... Stithton Lumber and Hardware Co., Stithton.....
6626		
6277	Pride Tobac. & Potato Grower	Manufacturer ..... C. Wallis, Mayfield.....
6627		A. P. Brooks, Whitesville.....
6639		
6278	Eagle Phosphate.....	Manufacturer .....
6279	Dissolved Bone.....	Manufacturer .....
6549		G. C. Cundiff, Somerset.....
6349	Tiger Corn Grower.....	Manufacturer .....
6382	Corn Grower.....	Manufacturer .....
6550		G. C. Cundiff, Somerset.....
6566		Burke Bros., Junction City...
6628		Stithton Lum. & H'dware Co.
6383	Corn and Wheat Grower.....	Manufacturer .....
6551		G. C. Cundiff, Somerset.....
6629		J.C. Ramsey & Son, Leitchfield
6640		C. R. Jackson, Kelsey.....
6384	Special for Tobacco, Potatoes and Corn.....	Manufacturer .....
6552		W. E. Ward & Co., Greensburg
6385	Soluble Bone.....	Manufacturer .....
6553		W.E. Ward & Co., Greensburg
6386	Potato and Tobacco Grower.	Manufacturer .....
6542		C. E. Smith, Keene.....
6396	Eagle Tobacco Grower.....	Manufacturer .....

TABLE OF ANALYSES.  
POUNDS IN THE HUNDRED.

POUNDS IN THE HUNDRED.										
Phosphoric Acid.										
In Fine Bone.	In Medium Bone.	Soluble.	Reverted.	Available.	Insoluble.	Total.	Nitrogen.	Equivalent to Ammonia.	Potash.	Relative Value per Ton.
				10.52	1.51	12.03		2.27		\$18.21 6276
				10.50	1.14	11.64			0.75	16.32 6626
	6.00	4.00		10.00		11.00		2.00		16.90
				10.40	1.66	12.06		2.40		18.27 6277
				9.88	1.42	11.30		1.83		16.74 6627
				9.75	1.55	11.30		1.43		16.15 6639
	7.00	3.00		10.00		12.00		2.00		17.40
				10.46	0.87	11.33				10.46 6278
	6.00	4.00		10.00		11.00				10.00
				14.57	1.09	15.66				14.57 6279
				13.10	1.54	14.64				13.10 6549
	8.00	6.00		14.00		16.00				14.00
				10.91	1.20	12.11	0.73	0.89	2.25	21.13 6349
	7.00	3.00		10.00		11.00	0.82	1.00	2.00	19.77
				10.04	1.15	11.19		1.92		16.94 6382
				10.81	1.24	12.05			0.74	16.79 6550
				10.33	1.54	11.87			1.25	16.98 6566
				10.79	1.09	11.88			1.15	17.27 6628
	6.00	4.00		10.00		11.00		2.00		16.90
				12.25	0.99	13.24		0.40		18.13 6383
				11.82	1.18	13.00		0.30		17.50 6551
				13.35	1.94	15.29		0.09		19.77 6629
				12.22	2.30	14.52		0.18		18.48 6640
	7.00	5.00		12.00		13.00		0.50		17.90
				9.08	1.04	10.12	0.79	0.96	1.70	18.04 6384
				7.94	0.96	8.90	0.92	1.12	1.73	16.90 6552
	5.00	3.00		8.00		9.00	0.82	1.00	1.50	16.37
				8.88	1.07	9.95	0.77	0.93	1.56	17.54 6385
				8.66	0.82	9.48	0.87	1.06	1.41	17.55 6553
	5.00	3.00		8.00		9.00	0.82	1.00	1.50	16.37
				8.01	0.93	8.94	1.56	1.89	4 73	23.76 6386
				9.30	1.75	11.05	1.70	2.06	0.94	25.45 6542
	5.00	2.00		7.00		9.00	1.65	2.00	4.00	22.18
				9.59	0.81	10.40	2.15	2.61	5.98	29.74 6396
	6.00	2.00		8.00		9.00	2.47	3.00	6.00	28.75

## TABLE OF ANALYSES.

Station Number.	NAME AND ADDRESS OF MANUFACTURER AND NAME OF BRAND.	From Whom Obtained.
6449	<b>Louisville Fertilizer Co.</b> Bone Meal .....	Manufacturer..... J. C. Ramsey & Son, Leitchfield
6630		
6555	Special Wheat Grower.....	Manufacturer.....
6857	Eagle Guano.....	Manufacturer.....
6300	<b>Meridian Fertilizer Factory,</b> <b>Meridian, Miss.</b> Meridian Home Mixture.....	Manufacturer..... Goodwin & Waddle, Somerset
6554		
6301	Merid'n Corn & Wheat Grower	Manufacturer.....
6356	<b>Michigan Carbon Works, Detroit.</b> Homestead a Bone Black Fer.	Manufacturer..... J. R. Davis & Bro., C'pbellsille
6556		
6357	Homestead Tobacco Grower	Manufacturer..... J. H. Thurman, Somerset....
6557		
6358	Homestead Pot. & Tob. Fer.	Manufacturer.....
6359	Red Line Crop Grower.....	Manufacturer..... J. H. Thurman, Somerset....
6558		
6360	Red Line Complete Manure...	Manufacturer..... J.R. Davis & Bro., C'pbellsille
6559		
6361	Red Line Phos. with Potash.	Manufacturer.....
6362	Red Line Phosphate.....	Manufacturer.....
6363	Wolverine Ground Bone....	Manufacturer.....

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## TABLE OF ANALYSES.

**Contains Soluble Phosphoric Acid.**

## TABLE OF ANALYSES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
6364	<b>Michigan Carbon Works, Detroit</b> Desiccated Bone.....	Manufacturer ..... McClanahan Bros., Franklin
6860		
6471	<b>National Fert. Co., Nashville</b> Tobacco Grower.....	Manufacturer ..... Cochran & Baker, Marion
6861		
6476	Tobacco Fertilizer.....	Manufacturer .....
6477	National Dissolved Bone.....	Manufacturer .....
6862		Wood & Mueller, Glasgow
6478	Corn Grower.....	Manufacturer .....
6539	Acid Phosphate .....	Manufacturer .....
6863		J. M. Porter, Beaver Dam
6540	Sadler's Formula .....	Manufacturer .....
6897	Wheat Grower.....	Manufacturer .....
6898		Wilson Bros., Adairville
6261	<b>North-Western Fert. Co., Chicago</b> Horse Shoe Brand Corn and Wheat Grower .....	Manufacturer .....
6560		Woodson Lewis, Greensburg
6262	H. S. B. Raw Bone and Super- phosphate Mixture.....	Manufacturer .....
6263	H. S. B. Fine Raw Bone.....	Manufacturer .....
6264	H. S. B. Acidulated Bone.....	Manufacturer .....
6265	H. S. B. Pure Ground Bone ..	Manufacturer .....
6865		Gus Young, Hopkinsville

TABLE OF ANALYSES.

POUNDS IN THE HUNDRED.

		Phosphoric Acid.				Potash.										
		In Fine Bone.	In Medium Bone.	Soluble.	Reverted.	Available.	Insoluble.	Total.	Nitrogen.	Equivalent to Ammonia.	From Muriate.	From Sulphate.	Relative Value per Ton.	Station Number.		
22.46	8.74							31.20	1.44	1.75			\$28.25	6364		
26.64	4.34							30.98	1.61	1.95			29.55	6860		
								25.00	1.23	1.50			19.31			
								11.39	1.48	12.87	1.62	1.97	3.03	26.00	6471	
								11.65	1.02	12.67	1.87	2.27	2.71	26.62	6861	
								10.00			1.65	2.00	2.00	22.18		
								10.61	0.88	11.49	2.03	2.46	6.64	30.37	6476	
								10.00			2.06	2.50	3.00	24.81		
								13.38	1.18	14.56	0.93	1.13	2.17	25.18	6477	
								13.30	1.39	14.69	0.99	1.20	1.58	24.69	6862	
								10.00			0.82	1.00	1.00	18.07		
								13.30	1.23	14.53	0.95	1.15	2.07	25.05	6478	
								10.00			0.82	1.00	1.00	18.07		
								15.62	1.06	16.68				15.62	6539	
								14.56	1.28	15.84				14.56	6863	
								14.00						14.00		
								13.29	1.75	15.04			4.68	25.11	6540	
								12.00					2.00	19.20		
								11.03	1.51	12.54	1.35	1.64	2.85	24.35	6897	
								11.74	1.94	13.68	1.07	1.30	1.74	23.25	6898	
								10.00			1.65	2.00	2.00	22.18		
								8.33	1.15	9.48	2.03	2.46		1.97	22.11	6261
								8.97	2.57	11.54	2.13	2.59		2.35	24.60	6560
								5.00	3.00	8.00	10.00	1.65	2.00	2.00	20.78	
								8.67	4.99	13.66	2.78	3.37		0.67	25.31	6262
								4.00	3.00	7.00	13.00	2.47	3.00	0.50	22.15	
								12.82	10.08		22.90	3.91	4.75		30.00	6263
											22.00	3.29	4.00		24.72	
											7.00	3.00	10.00		19.74	6264
														17.87		
								19.64	2.18		21.82	2.55	3.16		25.95	6265
								18.43	4.90		23.33	2.57	3.12		26.68	6865
											20.00	2.47	3.00		20.65	

## TABLE OF ANALYSES.

Station Number	NAME AND ADDRESS OF MANUFACTURER AND NAME OF BRAND.	From Whom Obtained.
6266	<b>North-Western Fert. Co., Chicago</b> H. S. B. Chall'e Corn Grower	Manufacturer .....
6267	H. S. B. Success Corn Grower	Manufacturer .....
6866		E. M. Gish, Central City .....
6268	H. S. B. Potato Grower.....	Manufacturer .....
6269	H. S. B. Acid. Bone and Potash	Manufacturer .....
6561		D. W. Gowdy, Campbellsville
6270	H. S. B. Tobacco Grower .....	Manufacturer .....
6445		O. M. Wilson, Howell ..
6271	H. S. B. Ky. Tobacco Grower	Manufacturer .....
6446		O. M. Wilson, Howell, ..
6563		D. W. Gowdy, Campbellsville
6272	H. S. B. Dark Tobacco Grower	Manufacturer .....
6564		Woodson Lewis, Greensburg
6273	H. S. B. Bone and Potash .....	Manufacturer .....
6565		D. W. Gowdy, Campbellsville
6867		Barnes & Bro., Beaver Dam.
6888		Springfield & Ramsey, Sebree
6274	H. S. B. Cap Sheaf Wh't Gro'r	Manufacturer .....
6275	H. S. B. Quick Act'g Phosp'te	Manufacturer .....
6868		Barnes & Bro., Beaver Dam.
6292	<b>The Ohio Farmers Fertilizer Co., Columbus, Ohio.</b> Acid Phosphate .....	Manufacturer .....
6520		Durham & Wilson, Gr'nsburg

TABLE OF ANALYSES.

## TABLE OF ANALYSES.

Station Number.	NAME AND ADDRESS OF MANUFACTURER AND NAME OF BRAND.	From Whom Obtained.
6293	The Ohio Farmers Fertilizer Co. General Crop Fish Guano....	Manufacturer..... Buchanan & Sanders, Camp- bellsville..... J. W. Valentine, Rectorville...
6521		
6603		
6294	Corn, Oats and Wheat Fish Guano.....	Manufacturer..... Buchanan & Sanders .....
6522		
6604		
6617		
6633		
6295	Tobacco Grower.....	Manufacturer..... Durham & Wilson, Greensburg
6523		
6605		
6296	Tobacco Special.....	Manufacturer .....
6606		
6618		
6297	Fine Ground Bone Meal.....	Manufacturer .....
6607		
6298	Soluble Bone and Potash....	Manufacturer .....
6524		
6420	Potato and Truck.....	Manufacturer .....
6608		
6873	Grain and Grass.....	Manufacturer .....
6874	Desiccated Bone Meal.....	Manufacturer .....
6875	Imperial Raw Bone .....	Manufacturer .....
6878		

TABLE OF ANALYSES.

FOUNDS IN THE HUNDRED.

Phosphoric Acid.								Potash.	Relative Value per Ton.	Station Number.	
In Fine Bone.	In Medium Bone.	Soluble.	Reverted.	Available.	Insoluble.	Total.	Nitrogen.	Equivalent to Ammonia.	From Murate.	From Sulphate.	
				9.87	2.44	12.31	1.16	1.41	1.86	\$21.70	6293
				7.14	2.03	9.17	0.93	1.13	1.83	16.48	6521
				6.86	2.26	9.12	0.90	1.09	1.54	15.73	6603
				8.00		9.00	0.82	1.00	1.00	15.97	
				11.31	2.21	13.52	1.77	2.15	2.48	26.61	6294
				9.88	3.30	13.18	1.11	1.35	1.34	20.98	6522
				8.19	1.93	10.12	0.95	1.15	2.52	18.79	6604
				8.37	3.51	11.88	1.10	1.34	1.69	19.36	6617
				10.12	2.58	12.70	1.10	1.34	2.04	21.76	6633
				9.00		10.00	1.23	1.50	2.00	20.21	
				11.14	2.19	13.33	1.70	2.06	2.51	26.16	6295
				9.24	2.15	11.39	1.10	1.34	1.92	20.17	6523
				8.42	2.67	11.09	0.94	1.14	1.80	18.58	6605
				9.00		10.00	1.23	1.50	2.00	20.21	
				10.03	1.79	11.82	3.39	4.12	4.26	34.47	6296
				7.08	2.87	9.95	2.16	2.62	4.34	24.12	6606
				8.25	2.70	10.95	2.53	3.07	3.31	26.39	6618
				8.00		9.00	2.47	3.00	4.00	25.95	
21.09	2.88					23.97	2.31	2.80		26.69	6297
12.83	2.27					15.10	2.33	2.83		19.78	6607
						20.00	1.65	2.00		17.78	
				13.31	2.32	15.63			1.74	22.23	6298
				9.05	2.26	11.31		0.93		14.92	6524
				12.00		13.00		1.00		18.50	
				9.92	1.94	11.86	3.33	4.04	3.81	33.72	6420
				7.67	2.53	10.20	2.08	2.53	2.59	22.92	6608
				8.00		9.00	2.47	3.00	4.00	25.95	
				13.69	2.24	15.93			1.72	22.70	6873
				12.00		13.00		1.00		18.50	
18.26	4.56					*22.82	1.58	1.92		22.88	6874
						21.00	1.65	2.00		18.38	
9.76	10.15					19.91	3.43	4.16		25.91	6875
11.16	7.44					18.60	3.25	3.95		24.77	6878
						16.00	3.29	4.00		21.12	

\*Contains Soluble Phosphoric Acid.

## TABLE OF ANALYSES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
6856	Packer's Fertilizer Association, Chicago, Ill. Boar's Head Brand Chicago Bone Meal .....	Manufacturer .....
6338	Read Phosphate Co., Nashville. Read's High Grade Tobacco Grower. ....	Manufacturer .....
6544		I. K. Miller, Campbellsville..
6601		G. T. Wyatt, Olmstead
6869		J. McClain Stanley & Co., Henderson .....
6889		J. T. Powell, Paducah. ....
6339	Read's Blood & Bone Fertilizer No. 1. ....	Manufacturer .....
6870		J. T. Powell, Paducah.....
6340	Read's Alkaline Bone. ....	Manufacturer .....
6341	Read's Farmers Spec. Manure	Manufacturer .....
6871		J. W. Bearce & Co., Bowling Green .. ....
6342	Read's XXX Dissolved Bone.	Manufacturer .....
6343	Read's Veg. Fruit & Vine Fert	Manufacturer .....
6344	Read's Wheat & Clover Gro'er	Manufacturer .....
6345	Read's Spec. Potash Mixture.	Manufacturer .....
6346	Read's Wheat Grower. ....	Manufacturer .....
6347	Read's Corn Grower Special..	Manufacturer .....
6545		I. K. Miller, Campbellsville....

## TABLE OF ANALYSES.

**POUNDS IN THE HUNDRED.**

POUNDS IN THE HUNDRED.													
Phosphoric Acid.													
In Fine Bone.	In Medium Bone.	Soluble.	Reverted.	Available.	Insoluble.	Total.	Nitrogen	Equivalent to Ammonia.	Potash.	Relative Value per Ton.	Station Number.		
17.27	2.35				*19.62 20.00	2.75 2.47	3.34 3.00			\$24.86 20.65	6856		
					9.18 7.67 7.25	1.55 2.07 1.16	10.73 9.74 8.41	1.94 1.72 1.43	2.36 2.09 1.74 4.95	4.18	26.27 22.60 21.68	6338 6544 6601	
					7.04 9.84 8.00	4.13 1.88 1.62	11.17 11.72 9.00	1.78 1.60 1.65	2.16 1.94 2.00	3.88 0.62 4.00	2.24	22.82 24.20 22.28	6869 6889
					8.69 8.48 8.00	2.41 4.08 1.62	11.10 12.56 9.00	1.66 1.96 1.65	2.02 2.38 2.00	1.92 2.24 2.00		21.49 23.46 19.88	6339 6870
					9.82 10.00	1.62	11.44 11.00			2.52 2.00		17.58 16.90	6340
					11.33	2.44	13.77	1.05	1.27	2.87		24.20	6341
					10.45 10.00	1.05	11.50 11.00	0.88 0.82	1.07 1.00	2.84 3.00		21.65 20.97	6871
					13.39 13.00	3.68	17.07 14.00					13.39 13.00	6342
					8.00 6.00	1.47	9.47 1.65	1.74 2.00	2.11 0.80	6.52 8.00		25.85 23.78	6343
					10.98 10.00	2.76	13.74 12.00	0.84 0.82	1.02 1.00	1.62 2.00		21.63 20.27	6344
					10.44 10.00	1.39	11.83 11.00			3.04 4.00		18.97 19.80	6345
					10.60 10.00	1.91	12.51 11.00	1.49 1.65	1.81 2.00	2.49 2.00		24.01 22.68	6346
					10.76 9.05 10.00	2.90 2.44 1.00	13.66 11.49 11.00	0.94 0.94 0.82	1.14 1.14 1.00	0.95 1.55 1.00		20.94 19.04 18.57	6347 6545

\*Contains Soluble Phosphoric Acid.

## TABLE OF ANALYSES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
6885	Read Phosphate Co., Nashville, Tenn. Fine Ground Bone.....	Manufacturer.....
6290	J. F. Singer & Co., Nashville, Tenn. No. 2 Wheat Grower.....	Manufacturer.....
6291	Singer's Standard Bone.....	Manufacturer.....
6318	Standard Guano and Chemical M'f'g Co., New Orleans, La. Standard Tobacco Fertilizer..	Manufacturer.....
6429 6810	Pure Raw Ground Bone..	Manufacturer .. Mason & Brakefield, Adairv'e
6288 6802	Swift & Co., Chicago, Ill. Swift's Ammonia, Bone&Pot.	Manufacturer .. J. U. Rogers, Glasgow.....
6289 6803	Swift's Bone Meal .....	Manufacturer .. J. U. Rogers, Glasgow.....
6502	Vegetable Grower .. . . .	Manufacturer .. . . .
6510	Potato & Tobacco Grower....	Manufacturer .. . . .
6536 6804	Superphosphate.....	Manufacturer .. . . . Leitchfield Mer.Co.Leitchfield
6537	Phosphate and Potash.....	Manufacturer .. . . .
6538	Raw Bone Meal.....	Manufacturer .. . . .

TABLE OF ANALYSES.

POUNDS IN THE HUNDRED.

Phosphoric Acid.										Station Number.			
In Fine Bone.	In Medium Bone.	Soluble.	Reverted.	Available	Insoluble.	Total.	Nitrogen.	Equivalent to Ammonia.	Potash.				
									From Muriate.	From Sulphate.	Relative Value per Ton.		
11.19	8.10					19.29 18.00	2.26 2.06	2.74 2.50		\$21.72 18.01	6885		
						9.96 7.00	6.58	16.54 13.00	2.08 1.65	2.53 2.00			
8.17	12.78					20.95 20.00	4.01 3.29	4.87 4.00	0.81 2.00	25.64 21.38	6290		
						9.14 8.00	0.38	9.52 9.00	2.24 1.65	2.72 2.00			
13.84	10.88					24.72 21.77 20.00	3.94 3.89 3.09	4.78 4.72 3.75		31.39 30.07 22.82	6429 6810		
16.98	4.79					10.82 11.47 8.00	2.11 5.48	12.93 16.95 11.00	2.33 1.77 1.85	2.83 2.15 2.25			
24.96	1.88					26.84 26.02 25.00	2.70 2.92 2.47	3.28 3.54 3.00		30.55 30.56 23.65	6289 6803		
23.68	2.34					5.00 6.00 5.00	4.00 4.00 3.00	9.36 10.93 9.57 9.58 8.00	0.73 0.88 5.18 4.25 0.90	10.09 11.81 14.75 13.83 12.00	3.56 3.74 2.89 2.58 2.47	4.32 4.54 3.51 3.13 3.00	
						10.00 11.00 12.00	3.29 3.29 3.29	4.00 4.00 4.00		10.05 5.46 2.22	40.00 36.47 29.22		
										10.00 5.00 2.00	38.62 33.02 24.65		
										1.63 2.00	22.74 20.10		
16.23	8.36					24.59 23.00	4.07 3.71	4.94 4.50		32.25 26.79	6538		

## TABLE OF ANALYSES.

Station Number.	NAME AND ADDRESS OF MANUFACTURER AND NAME OF BRAND.	From Whom Obtained.
6834	Swift & Co., Chicago, Ill. Complete Fertilizer.....	Manufacturer .....
6835	Diamond S Phosphate [S].....	Manufacturer .....
6836	Ammoniated Bone and Potash.....	Manufacturer .....
6837	Bone and Potash .....	Manufacturer .....
6838	Pure Acid Phosphate.....	Manufacturer .....
6839	Ammoniated Bone.....	Manufacturer .....
6450	Tandy Bros., Milton, Ky. Tandy Bros. Wheat, Corn and Oat Grower.....	Manufacturer .....
6451	Tandy Bros. Ammoniated Bone with Potash.....	Manufacturer .....
6452	Tandy Bros. Acid Phosphate	Manufacturer .....
6453	Tandy Bros. Bone Meal.....	Manufacturer .....
6233	Tennessee Chemical Co., Nash- ville, Tenn. Ox Alkaline Bone.....	Manufacturer .....
6234 6879	Ox Special Tobacco Guano....	Manufacturer .....
6235	Ox High Grade Dissolved Bone .....	Broddus & Tandy, Hopkins- ville .....
		Manufacturer .....

## TABLE OF ANALYSES.

**POUNDS IN THE HUNDRED**

## TABLE OF ANALYSES.

Station Number.	NAME AND ADDRESS OF MANUFACTURER AND NAME OF BRAND.	From Whom Obtained.
6236	Tenn. Chemical Co., Nashville.. Ox Bone with Ammo. & Pot..	Manufacturer .....
6237 6880	Ox Sp'c. Wheat & Corn Guano	Manufacturer .. H. D. Bourland, Madisonville
6238	Ox High Grade Ammo. Bone...	Manufacturer .....
6254 6881	Ox Potash Mixture....	Manufacturer .. H. B. Phillips & Co., Owensb'o
6585	Ox Potash Formula.....	Manufacturer .....
6649	Ox Slaughter House Bone.....	Manufacturer .....
S. W. Travers & Co, See Virginia Carolina Chemical Co.		
6247 6496 6546	Virginia-Carolina Chem. Co., S.W. Travers & Co., Branch, Richm'd National Tobacco Fertilizer.	Manufacturer .. J. Will Dinning, Franklin.... Buchanan & Sanders, Camp- bellsville .....
6248 6547	Beef Blood & Bone Fertilizer.	Manufacturer .. Buchanan & Sanders, Camp- bellsville .. Payne & Co., Cloverport....
6890		
6249 6497 6891	Capital Bone Pot. Compound	Manufacturer .. J. Will Dinning, Franklin.... Pierce & Sons, Marion.....
6250	Capital Dissolved S. C. Bone.	Manufacturer .....
6251 6548	Champ. Corn & Wh't Grow...	Manufacturer .. Buchanan & Sanders, Camp- bellsville .....

TABLE OF ANALYSES.

POUNDS IN THE HUNDRED.

Phosphoric Acid.										Potash.	Relative Value Per Ton.	Station Number.	
In Fine Bone.	In Medium Bone.	Soluble.	Reverted.	Available.	Insoluble.	Total.	Nitrogen.	Equivalent to Ammonia.	From Muriate.	From Sulphate.			
		6.00	4.00	12.03 10.00	1.30 0.82	13.33 11.00	1.13 1.00	1.37	1.64 1.00	\$23.75 18.77	6236		
		9.00	3.00	13.38 12.50 12.00	1.42 2.92 0.82	14.80 15.42 13.00	1.19 0.90 0.82	1.44 1.09 1.00	1.53 0.60 1.00	25.75 23.62 21.57	6237 6880		
		6.00	4.00	12.19 10.00	1.84 1.65	14.03 11.00	1.95 2.00	2.37	2.54 2.00	28.38 23.08	6238		
		8.00	2.00	11.34 10.40 10.00	0.72 2.46 2.00	12.06 12.86 11.06			2.46 1.93 2.00	19.68 18.49 17.30	6254 6881		
		7.00	3.00	10.89 10.00	0.82 1.65	11.71 11.00			4.45 4.00	21.89 20.10	6585		
		6.00	2.00	9.61 8.00	2.35 2.00	11.96 9.00	1.80 1.65	2.19 2.00	2.30 2.00	24.15 20.28	6649		
				7.83 7.63	0.82 1.38	8.65 9.01	2.07 1.36	2.51 1.65	5.07 4.86		24.70 21.96	6247 6496	
		5.00	2.00	7.22 7.00	1.33 1.65	8.55 8.00	1.64 1.65	1.99 2.00	4.69 4.00		22.15 20.88	6546	
				8.84	0.96	9.80	1.88	2.28	2.52			22.46	6248
		5.00	2.00	8.43 7.17	1.20 2.35	9.63 9.52	1.48 1.72	1.80 2.09	2.54 2.33		20.63 20.04	6547 6890	
				7.00		8.00	1.65	2.00	2.00			18.48	
				13.56 <b>7.86</b>	0.51 1.02	14.07 <b>8.88</b>			2.70 3.87		22.48 16.15	6249 6497	
		7.00	3.00	11.47 10.00	0.81 1.00	12.28 11.00			2.06 2.00		18.94 16.90	6891	
				13.43 12.00	0.74 1.00	14.17 13.00					13.43 12.00	6250	
				9.42	0.74	10.16	1.17	1.42	2.52			20.68	6251
		6.00	2.00	8.56 8.00	1.09 0.82	9.65 9.00	0.91 0.82	1.10 1.00	2.41 2.00		18.61 16.97	6548	

## TABLE OF ANALYSES.

Station Number.	NAME AND ADDRESS OF MANUFACTURER AND NAME OF BRAND.	From Whom Obtained.
6226	The Walton Fertilizer Co., Cleve- land, Ohio. Special Dissolved Bone. ....	Manufacturer .....
6227 6811	Diamond Cereala Sol'ble Bone	Manufacturer .....
	J. E. Woodson, Central City.	
6228	Wheat and Grass Grower.....	Manufacturer .....
6229 6812	Regal Tobacco Guano.....	Manufacturer .....
	J. E. Woodson, Central City.	
6230 6813	German Truck & Pot. Manure	Manufacturer .....
	Alvin Richey, Princeton.....	
6822	Diamond Bone Black & Pot..	Manufacturer .....
6387	Wood & Stubbs, Louisville, Ky. Acme Brand Wheat & Corn ..	Manufacturer .....
6388	Acme Brand Potato & Tobac.	Manufacturer .....
6389	Acme Br'd High Grade Veget.	Manufacturer .....
6390	Acme Brand Bone, Blood & Pot	Manufacturer .....
6391	Acme Brand Sol. Bone & Pot.	Manufacturer .....
6392	Wood & Stubbs L'n&Gar.Fer.	Manufacturer .....

**ERRATUM:**—Page 128, opposite Greer Machinery Co., in  
the first line of the table, seventh column,  
under "Potash, No. too low," should be  
"0" instead of "1."

TABLE OF ANALYSES.

POUNDS IN THE HUNDRED.

Phosphoric Acid.									Station Number.		
In Fine Bone.	In Medium Bone.	Soluble.	Reverted.	Available.	Insoluble.	Total.	Nitrogen.	Equivalent to Ammonia.	Potash.		
				12.78 12.00	0.95	13.73				\$12.78 12.00	
				15.53 15.03 15.00	1.22 2.20	16.75 17.23	0.39 0.79 0.41	0.47 0.96 0.50	23.72 24.91 22.44	6227 6811	
				11.80 10.00	1.36	13.16	1.13 0.82	1.37 1.00	1.78 1.00	23.65 18.27	6228
				12.18 10.53 10.00	2.02 1.94	14.20 12.47	1.88 2.31 1.65	2.28 2.80 2.00	2.69 2.06 2.00	28.41 26.68 22.58	6229 6812
				11.31 11.78 10.00	1.24 1.87	12.55 13.65	2.56 2.09 2.47	3.11 2.54 3.00	4.54 2.04 4.00	31.77 28.79 28.25	6230 6813
				13.51 13.00	1.55	15.06			2.88 3.00	23.72 22.40	6822
				11.26 10.00	1.16	12.42	0.99 0.82	1.20 1.00	2.56	23.39 19.27	6387
				9.99 8.00	1.51	11.50	2.69 2.47	3.27 3.00	5.19 5.00	31.44 26.85	6388
				11.18 10.00	1.01	12.19	3.30 3.29	4.01 4.00	4.56 4.00	34.09 31.12	6389
				11.72 10.00	1.71	13.43	1.76 1.65	2.14 2.00	2.57	27.03 22.18	6390
				10.74 10.00	0.72	11.46			2.59	19.03 16.40	6391
				9.81 10.00	2.93	12.74	3.72 3.29	4.52 4.00	4.90 4.00	36.28 31.12	6392

August 12, 1900.

M. A. SCOVELL, DIRECTOR.

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