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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 change in their postoffice address, or of any failure to receive Bulletins.

Address:

KENTUCKY AGRICULTURAL EXPERIMENT STATION,
Lexington, Kentucky.

BULLETIN No. 158

Analyses of Commercial Fertilizers

The matter of plant food is all important in purchasing fertilizers. When a farmer buys a ton of an average commercial fertilizer he buys in reality only about 300 pounds of actual plant food. If he buys a cheap fertilizer he gets less than this amount. If he buys a high grade fertilizer he may receive as much as 600 pounds. It costs as much to mix a ton of fertilizer containing 300 pounds of plant food as it does one containing 600 pounds. The cost of sacking, hauling, and freighting is the same. Therefore, it is evident that the manufacturer can sell the plant food in a high grade fertilizer cheaper per pound than he can the plant food in a low grade fertilizer. In other words the higher the grade the cheaper can the plant food be bought. Farmers are advised therefore to purchase only high grade fertilizers.

Attention is called to those brands which have less than two per cent. of ammonia or potash. Less than two per cent. of either of these ingredients is too small a quantity where such ingredients are needed, and where not needed it is useless to purchase them. It is an utter waste of money to purchase potash or ammonia in fertilizers containing less than one per cent. of these ingredients.

Number of Brands. There were 632 different brands of commercial fertilizer registered during the year 1911. Of these different brands, 368 were complete fertilizers, or fertilizers containing all three of the essential ingredients, namely: phosphoric acid, nitrogen and potash (non acidulated bone and potash mixtures are not counted in this

item); 70 acid phosphates or superphosphates, 10 nitrogenous superphosphates, 86 acid phosphates and potash mixtures, 86 bones, tankage and non-acidulated bone and potash mixtures; 9 potash salts, and 3 samples of nitrate of soda. Samples of these various brands sent by manufacturers have been analyzed, as well as samples collected by deputy inspectors and those sent by farmers, and the results are given in the tables which follow.

Results of Analyses. The results of these analyses show that in most cases the samples analyzed have come fully up to the guarantee, or, where there is a slight deficiency in one ingredient, it has been made up by an excess in one or both of the other ingredients. But in a few instances, the deficiency in one ingredient, while fully made up by an excess of the other ingredients, is still too low to be considered acceptable, this being due to bad mixing at the factory. In a few instances, there seems to be an inclination on the part of the manufacturer to guarantee higher percentages than their goods contain. Especially is this the case in a number of instances with respect to the guaranty on total phosphoric acid, where it is four or five per cent. higher than the guaranty on available phosphoric acid. In most of these the analysis shows that while the available phosphoric acid guaranteed is present, the insoluble and total phosphoric acid are both deficient. In some cases, however, the deficiency in insoluble phosphoric acid is made up by an excess of available phosphoric acid which is to be preferred, but in such cases the total phosphoric acid is not deficient. Although the insoluble phosphoric acid is of little value, at the same time we feel inclined to call special attention to these guarantees and hope that all persons who purchase fertilizers will carefully study the bulletins and see how the guarantees have compared with our analyses with respect to the available and total phosphoric acid. Some manufacturers also have used muriate of potash in making fertilizers in which the potash was guaranteed from sulphate.

Change in Table of Results. The following changes have been made in this report in the method of reporting

results. First: Nitrogen is separated into the various forms in which it occurs, namely, nitrogen in nitrates, nitrogen in ammonia salts and organic nitrogen. Second: In case of bones, the bone phosphate of lime equivalent is given and the percentage of fineness is shown also, fine bone being that which passes through a sieve with meshes one-twenty-fifth inch square, and medium bone that which passes through a sieve with meshes one-sixth inch square, but not including the fine bone. Third: The analyses are grouped under tables, the classification being based upon the nature of the fertilizer, as follows:

- Table 1. Complete fertilizers.
- Table 2. Bones, tankage and mixtures of bone and
- Table 3. Acid phosphates. [potash.
- Table 4. Acid phosphate and potash mixtures.
- Table 5. Nitrogenous superphosphates.
- Table 6. Potash salts.
- Table 7. Nitrate of soda.

Free Analysis of Fertilizers. It is hoped that farmers who purchase fertilizers in quantity, at least, will take advantage of Section 8 of the fertilizer law, and send a sample to the Station for free analysis.

Essentials in Taking a Sample. 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 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.

Blank certificates will be furnished free upon application to the Station. The section of the fertilizer law describing

the manner in which samples are to be taken for free analysis is also printed on the certificate.

Values Used. In calculating the relative value per ton, the following values have been used:

Soluble and reverted phosphoric acid in mixed fertilizers	6	c lb.
Soluble and reverted phosphoric acid in plain acid phosphates	5	c lb.
Insoluble phosphoric acid in mixed fertilizers.	2	c lb.
Phosphoric acid in fine bone.....	4	c lb.
Phosphoric acid in medium bone.....	3	c lb.
Nitrogen in all fertilizers.....	17½	c lb.
Potash in all fertilizers, from sulphate.....	6	c lb.
Potash in all fertilizers, from muriate.....	.5	c 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, kainit, 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.

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

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35836	A. D. Adair and McCarty Bros., Chattanooga, Tenn. Big Leaf Tobacco Producer.	Manufacturers
35837	Adair's High Grade Special Tobacco Grower	Manufacturers
35838	Adair's Standard Tobacco Grower	Manufacturers
35839 38050	Adair's Soluble Pacific Guano. U. N. Bryant, Corbin.	Manufacturers
35840	Adair's Ammoniated Dissolved Bone	Manufacturers
35841	Furman High Grade Fertilizer.	Manufacturers
35842	David Harum Extra High Grade Guano	Manufacturers
35843	Adair's High Grade Special Potato Grower	Manufacturers
35489	The American Agr'l Chemical Co., Cin. Sales Dept., Cincinnati, O. Special Potato and Vegetable Manure	Manufacturers
35490 38051	High Grade Tobacco and Truck Fertilizer	Manufacturers
		Hoskins & Dyche, London.....

COMPLETE FERTILIZERS.

Available.	PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
	Insoluble.	Total.		In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
7.19 7.00	0.91	8.10					0.89 0.82	1.08 1.00	5.06 5.00	18.18 17.27	35836	
7.88 8.00	1.17	9.05					1.76 1.65	2.14 2.00	6.22 6.00	22.31 21.38	35837	
8.02 8.00	1.07	9.09		0.58	1.26	1.84 1.65	2.23 2.00	2.45 2.00		18.94 17.38	35838	
9.72 10.94 10.00	0.87 0.51	10.59 11.45	0.20	0.48 0.51	1.12 1.51	1.80 2.02 1.65	2.19 2.45 2.00	2.37 2.55 2.00		20.68 22.95 19.78	35839 38050	
7.91 8.00	1.08	8.99		0.52	1.41	1.93 1.65	2.34 2.00	2.54 2.00		19.22 17.38	35840	
9.96 10.00	0.93	10.89	0.21	0.44	1.14	1.79 1.65	2.17 2.00	2.44 2.00		21.03 19.78	35841	
10.21 10.00	0.24	10.45				3.62 3.29	4.39 4.00	4.48 4.00		29.50 27.52	35842	
8.18 8.00	0.84	9.02				2.03 1.65	2.46 2.00	6.62 6.00		23.89 21.38	35843	
5.75 5.00	2.14 2.00	7.89 7.09				1.12 0.82	1.36 1.00	10.38 10.00		22.06 19.67	35489	
9.68 8.72 8.00	1.70 1.58 2.00	11.38 10.30 10.00		0.31 0.56	1.76 1.40	2.07 1.96 1.65	2.51 2.38 2.00	6.43 4.84 5.00		25.98 22.79 21.18	35490 38051	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35491 38052 38321	The American Agr'l Chemical Co. K. and T. Special.....	Manufacturers N. F. Hill, Bowling Green..... R. S. Ramsey, Burnside.....
35495	Bradley Fertilizer Works B. D. Sea Fowl Guano.....	Manufacturers
35496	Bradley Fert. Works Potato and Root Fertilizer.....	Manufacturers
35497	Bradley Fert. Works Corn and Wheat Phosphate	Manufacturers
35498 38054	Bradley Fert. Works Dissolved Bone with Potash	Manufacturers Roy and Jasper, Mintonville.....
35499	Bradley Fertilizer Works Ni- agara Phosphate	Manufacturers
35502	Cleveland Dryer Works Ohio Seed Maker with Potash.....	Manufacturers
35503 38056	Cleveland Dryer Works Potato and Tobacco Fertilizer	Manufacturers W. S. Rowlett, Bedford.....
35504 38057 38325	Cleveland Dryer Works Phos- pho Bone	Manufacturer W. S. Rowlett, Bedford..... W. G. Wesley, Science Hill.....

COMPLETE FERTILIZERS.

Available.	PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
	Insoluble.	Total.		In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
8.78	1.84	10.12		1.59	1.37	2.96	3.59	8.23			\$29.67	35491
8.20	1.56	9.76		1.33	1.35	2.68	3.25	7.05			26.89	38052
9.32	0.98	10.25		1.54	1.07	2.61	3.17		6.10		28.01	38321
8.00	2.00	10.00				2.47	3.00	6.00			25.05	
7.98	1.63	9.61		0.56	1.70	2.26	2.74	1.75			19.89	35495
8.00	2.00	10.00				2.06	2.50	1.50			19.11	
9.29	2.70	11.99				1.16	1.41	3.37			19.43	35496
8.00	2.00	10.00				0.82	1.00	3.00			16.27	
11.46	2.82	14.28				1.15	1.40	1.29			20.20	35497
10.00	2.00	12.00				0.82	1.00	1.00			16.67	
9.64	1.76	11.40		0.42	1.11	1.53	1.86	3.56			21.19	35498
8.10	2.07	10.17		0.51	0.57	1.08	1.31	2.35			16.68	38054
8.00	2.00	10.00				1.03	1.25	2.00			16.01	
7.71	3.10	10.81				0.96	1.17	1.31			15.16	35499
7.00	1.00	8.00				0.82	1.00	1.00			12.67	
8.41	1.95	10.36		0.53	1.33	1.86	2.26	2.31			19.69	35502
8.00	2.00	10.00				1.65	2.00	2.00			18.18	
9.04	2.87	11.91				1.15	1.40	3.77			19.80	35503
8.50	2.41	10.91		0.32	0.68	1.00	1.21	3.25			17.91	38056
8.00	2.00	10.00				0.82	1.00	3.00			16.27	
11.49	2.80	14.29				1.15	1.40	1.43			20.37	35504
10.87	2.83	13.70				0.98	1.19	1.32			18.92	38057
10.89	3.42	14.31				0.89	1.08	1.33			18.89	38325
10.00	2.90	12.90				0.82	1.00	1.00			16.67	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35521	The American Agr'l Chemical Co., Michigan Carbon Works. Homestead 10% Potash Manure	Manufacturers
38078		Norris & Lockett, Henderson.....
38334		Norris & Lockett, Henderson.....
35522	Homestead Potato and Tobacco Special	Manufacturers
38079		Woodson Lewis, Greensburg
35523	Homestead High Grade Garden and Vegetable Fertilizer	Manufacturers
38080		E. J. Hines & Co., Science Hill.....
35524	Homestead Bone Black Fertilizer	Manufacturers
38081		P. K. Hubbard, Munfordville.....
38335		S. O. Moody, Auburn.....
35525	Red Line Crop Grower.....	Manufacturers
38082		M. D. Jordan, Olive Hill.....
35526	A-1 Potash Fertilizer.....	Manufacturer
38083		Woodson Lewis, Greensburg.....
38336		S. O. Moody, Auburn.....
35527	Red Line Tobacco Manure.....	Manufacturers
38084		M. D. Jordan, Olive Hill.....
35528	Red Line Complete Manure.....	Manufacturers
38085		P. K. Hubbard, Munfordville.....

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
5.28	2.05	7.33				1.16	1.41	10.28		\$21.50	35521
6.08	1.66	7.74		0.59	0.40	0.99	1.20	10.58		22.01	38078
5.92	2.21	8.13				0.92	1.12	11.13		22.13	38334
5.00	2.00	7.00				0.82	1.00	10.00		19.67	
10.08	1.36	11.44		0.32	1.71	2.03	2.46	6.44		26.19	35522
9.05	1.95	11.00		0.59	1.20	1.79	2.17	5.48		23.39	38079
8.00	2.00	10.00				1.65	2.00	5.00		21.18	
9.87	1.57	11.24		0.35	1.69	2.04	2.48	6.40		25.77	35523
8.51	1.59	10.10		0.51	1.35	1.86	2.26	5.56		22.92	38080
8.00	2.00	10.00				1.65	2.00	5.00		21.18	
8.25	1.21	9.46		0.62	1.76	2.38	2.89	1.74		20.45	35524
9.05	2.03	11.00		0.46	1.61	2.07	2.51	1.84		20.76	38081
8.07	1.81	9.88		0.65	1.45	2.10	2.55	1.46		19.21	38335
8.00	2.00	10.00				2.06	2.50	1.50		19.11	
8.31	1.77	10.08		0.55	1.32	1.87	2.27	2.43		19.66	35525
9.35	1.70	11.05		0.58	1.21	1.79	2.17	2.23		20.40	38082
8.00	2.00	10.00				1.65	2.00	2.00		18.18	
9.26	2.55	11.81				1.13	1.37	3.29		19.38	35526
8.86	2.41	11.27				0.96	1.17	3.14		18.09	38083
8.29	3.57	11.86				0.97	1.18	2.80		17.58	38336
8.00	2.00	10.00				0.82	1.00	3.00		16.27	
9.17	2.87	12.04				1.15	1.40	3.18		19.36	35527
9.22	2.31	11.53				0.96	1.17	3.49		18.83	38084
8.00	2.00	10.00				0.82	1.00	3.00		16.27	
7.66	2.56	10.22				0.95	1.15	1.31		14.85	35528
7.63	1.99	9.62				0.93	1.13	1.25		14.47	38085
7.00	1.00	8.00				0.82	1.00	1.00		12.67	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35533	The American Agr'l Chemical Co., Cin. Sales Dept., Cincinnati, O.	
38093	N-W Horse Shoe Brand 3-8-6 Fertilizer	Manufacturers
		C. R. Hutchison, Columbia.....
35534	N-W Horse Shoe Brand Tobacco Grower	Manufacturers
38094		Dave Hafter & Son, Franklin.....
35535	N-W Horse Shoe Brand High Grade Vegetable Fertilizer...	Manufacturers
35536	N-W Horse Shoe Brand Spl. Onion & Vegetable Manure..	Manufacturers
35537	N-W Horse Shoe Brand National Bone Dust.....	Manufacturers
35538	N-W Horse Shoe Brand Challenge Corn Grower.....	Manufacturers
38340		Grayson Co. Supply Co., Leitchfield..
35539	N-W Horse Shoe Brand Kentucky Tobacco Grower.....	Manufacturers
38095		Forbes Mfg. Co., Hopkinsville.....
35540	N-W Horse Shoe Brand Corn and Wheat Grower.....	Manufacturers
38096		C. R. Hutchison, Columbia.....
38341		Watkins & Co., Elizabethtown.....

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Marlate.	From Sulphate.		
8.60	1.29	9.89		1.60	1.55	3.15	3.82	8.54	\$30.41	35533	
8.15	1.87	10.02		1.15	1.21	2.36	2.87	6.91	25.70	38093	
8.00	2.00	10.00				2.47	3.00	6.00	25.05		
9.85	1.61	11.46		0.31	1.73	2.04	2.48	6.21	25.81	35534	
8.77	2.19	10.96		0.79	1.04	1.83	2.22	5.06	22.87	38094	
8.00	2.00	10.00				1.65	2.00	5.00	21.18		
10.06	1.50	11.56		0.32	1.74	2.06	2.50	6.37	26.25	35535	
8.00	2.00	10.00				1.65	2.00	5.00	21.18		
5.92	2.00	7.92				1.10	1.34	10.01	21.76	35536	
5.00	2.00	7.00				0.82	1.00	10.00	19.67		
8.34	1.21	9.55		0.62	1.78	2.40	2.91	1.59	20.48	35537	
8.00	2.00	10.00				2.06	2.50	1.50	19.11		
8.29	1.12	9.41		0.62	1.77	2.39	2.90	1.63	20.40	35538	
7.97	1.71	9.68		0.81	1.36	2.17	2.63	1.74	19.58	38340	
8.00	2.00	10.00				2.06	2.50	1.50	19.11		
8.23	2.18	10.41		0.48	1.33	1.86	2.26	2.38	19.64	35539	
9.03	2.35	11.33		1.19	0.63	1.87	2.27	2.46	20.79	38095	
8.00	2.00	10.00				1.65	2.00	2.00	18.18		
8.21	1.99	10.20		0.48	1.37	1.85	2.25	2.59	19.72	35540	
8.92	2.66	11.58		0.74	1.00	1.74	2.11	2.23	20.08	38096	
7.78	2.70	10.48		0.41	1.28	1.69	2.05	2.04	18.33	38341	
8.00	2.00	10.00				1.65	2.00	2.00	18.18		

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35541	The American Agr'l Chemical Co., Cin. Sales Dept. N-W Horse Shoe Brand Acidulated Bone & Potash.....	Manufacturers
35542	N-W Horse Shoe Brand Potash Manure	Manufacturers
38097		C. R. Hutchison, Columbia.....
38342		M. L. Spurling, Campbellsville.....
35543	N-W Horse Shoe Brand Dark Tobacco Grower	Manufacturers
38098		Woodson Lewis, Greensburg.....
35544	N-W Horse Shoe Brand Animal Bone Manure.....	Manufacturers
35550	Packer's Boar's Head Brand H. Gr. Vegetable Fertilizer...	Manufacturers
35551	Packer's Boar's Head Brand World of Good Superphosphate	Manufacturers
38346		Tartar & Huff, Somerset.....
35552	Packer's Boar's Head Brand Corn & Wheat Grower.....	Manufacturers
38112		Young & Higgins, Pulaski.....
38347		Tartar & Huff, Somerset.....
35553	Packer's Boar's Head Brand Special Tobacco Grower.....	Manufacturers
35554	Packer's Boar's Head Brand Ammoniated Bone & Potash..	Manufacturers

Commercial Fertilizers.

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
11.50	2.86	14.36				1.14	1.38	1.40	\$20.33	35541	
10.00	2.00	12.00				0.82	1.00	1.00	16.67		
9.19	2.94	12.13				1.15	1.40	3.33	19.57	35542	
8.35	3.34	11.69				0.93	1.13	3.13	17.75	38097	
8.23	2.72	10.95				0.90	1.09	2.69	16.81	38342	
8.00	2.00	10.00				0.82	1.00	3.00	16.27		
7.65	2.96	10.61				0.97	1.18	1.39	15.15	35543	
7.33	1.99	9.37				0.88	1.07	1.10	13.84	38098	
7.00	1.00	8.00				0.82	1.00	1.00	12.67		
7.94	2.96	10.90				0.93	1.13	1.35	15.32	35544	
7.00	1.00	8.00				0.82	1.00	1.00	12.67		
10.10	1.34	11.44		0.25	1.78	2.03	2.46	6.13	25.90	35550	
8.00	2.00	10.00				1.65	2.00	5.00	21.18		
8.08	1.21	9.29		0.60	1.69	2.29	2.78	1.65	19.85	35551	
8.77	2.04	10.81		0.48	1.51	1.99	2.42	1.59	19.90	38346	
8.00	2.00	10.00				2.06	2.50	1.50	19.11		
8.29	1.93	10.22		0.48	1.37	1.85	2.25	2.54	19.74	35552	
9.13	2.28	11.41		0.65	1.13	1.78	2.16	2.29	20.37	38112	
7.51	2.80	10.40		0.55	1.10	1.65	2.00	2.09	18.04	38347	
8.00	2.00	10.00				1.65	2.00	2.00	18.18		
8.23	1.96	10.19		0.48	1.32	1.80	2.19	2.47	19.43	35553	
8.00	2.00	10.00				1.65	2.00	2.00	18.18		
11.25	2.89	14.14				1.08	1.31	1.29	19.73	35554	
10.00	2.00	12.00				0.82	1.00	1.00	16.67		

TABLE I

COMPLETE FERTILIZERS.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.	PHOSPHORIC ACID.			NITROGEN.				POTASH.			Estimated Value Per Ton.	Station Number.	
			Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.	Equivalent to Ammonia.	From Muriate.	From Sulphate.			
35555	The American Agr'l Chemical Co., Cin. Sales Dept. Packer's Boar's Head Brand Sure Growth Potash Manure.	Manufacturers	8.93 8.00	3.00 2.00	11.93 10.00				1.08 0.82	1.31 1.00	3.35 3.00		\$19.05 16.27	35555	
35557	Packer's Boar's Head Brand Faultless Grain Grower.....	Manufacturers	7.48 7.00	2.82 1.00	10.30 8.00				0.93 0.82	1.13 1.00	1.24 1.00		14.61 12.67	35557	
35736	The Armour Fertilizer Works, Chicago, Ill. Ammoniated Bone with Potash	Manufacturers	6.61 6.00	1.43 0.50	8.04 6.50			1.19	1.26 2.47	2.45 3.00	2.97 2.00	2.78	17.08 18.05	35736	
35739	Bone, Blood and Potash.....	Manufacturers	8.36 8.00	3.65 0.50	12.01 8.50			1.66	2.46 4.12	4.12 5.00	5.00		8.11 7.00	35.64 35739	
35740	Armour's Champion	Manufacturers	10.91 10.00	0.92 0.50	11.83 10.50			0.91	0.87 1.65	1.78 2.00	2.16 2.00	2.74	22.43 19.98	35740	
35742	Corn and Wheat Grower.....	Manufacturers	8.24	1.22	9.46					0.74	0.90	4.71	17.68	35742	
38116	Simpson Co. Hardware Co., Franklin..		9.41	5.64	15.05		0.26	0.61	0.87	1.06	3.49		24.00	38116	
38354	Greenville Hardware Co., Greenville..		8.19 8.00	1.80 0.50	9.99 8.50		0.48	1.15	1.63 0.82	1.98 1.00	2.49 4.00		18.75 16.67	38354	
35743	Dark Tobacco Special.....	Manufacturers	7.15 7.00	1.90 0.50	9.05 7.50				1.57 1.65	1.91 2.00	1.10		3.48 4.00	20.12 19.18	35743
35744	Grain Grower	Manufacturers	8.54	0.83	9.37		0.91	0.72	1.63	1.98	2.63		18.92	35744	
38355	Lebanon Carriage & Implement Co., Lebanon		8.76	7.13	15.89		0.92	0.47	1.39	1.69			2.63	21.39	38117
	La Grange Coal & Concrete Co., La Grange		7.94 8.00	2.26 0.50	10.20 8.50				1.91 1.65	2.32 2.00	2.28 2.00		19.40 17.58	38355	
35745	High Grade Potato Grower...	Manufacturers	7.96 8.48 8.00	0.91 1.34 0.50	8.87 9.82 8.50		0.97 0.86	0.70	1.67 1.56 1.65	2.03 1.89 2.00	1.24 1.40		10.11 7.25 10.00	29.13 26.28 27.58	35745
38118	J. C. Everett & Co., Maysville.....													38118	
35748	Record Brand	Manufacturers	10.43 10.00	1.17 0.50	11.60 10.50				0.96 0.82	1.17 1.00	1.36 1.00		17.71 16.07	35748	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35751 38122	Armour Fertilizer Works. Tobacco Grower	Manufacturers
		Barren Co. Hardware Co., Glasgow..
35752 38123 38360	Wheat, Corn and Oats Special.	Manufacturers
		Barren Co. Hardware Co., Glasgow..
		Barren Co. Hardware Co., Glasgow..
35753	Wheat Special No. 2.....	Manufacturers
35754 38124	White Burley and Black Tobacco	Manufacturers
		Burnside & Robinson, Richmond.....
38023	Baugh & Sons Co., Norfolk, Va. Baugh's Animal Base and Potash Compound	Manufacturers
38032	Geo. A. Bell Fertilizer Works, Wheelersburg, O. Potato and Tobacco Special..	Manufacturers
38030	Blood & Bone Fertilizer Co., St. Louis, Mo. "Steer Head" Brand Special Corn Grower	Manufacturers
38194	"Steer Head" Special Oat Grower, High Grade.....	Manufacturers
38195	"Steer Head" Special Wheat Grower, High Grade.....	Manufacturers

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
8.77	0.92	9.69		0.90	0.72	1.62	1.97		5.57	\$23.24	35751
9.15	4.00	13.15		0.48	0.83	1.31	1.59	3.04	2.17	22.81	38122
8.00	0.50	8.50				1.65	2.00		5.00	21.58	
6.98	1.13	8.11				0.84	1.02	1.84		13.61	35752
9.39	7.22	16.61				0.84	1.02	1.08		18.18	38123
7.78	1.10	8.88				1.60	1.21	1.30		14.58	38360
7.00	0.50	7.50				0.82	1.00	1.00		12.47	
10.34	1.45	11.79				0.92	1.12	2.36		18.57	35753
10.00	0.50	10.50				0.82	1.00	2.00		17.07	
8.48	0.94	9.42		2.19	0.82	3.01	3.65		4.87	26.86	35754
9.21	6.64	15.85				2.61	3.17		4.05	27.71	38124
8.00	0.50	8.50				2.88	3.50		4.00	24.68	
8.47	0.94	9.41		0.76	1.00	1.76	2.14	2.02		18.72	38023
8.00						1.65	2.00	1.00	1.00	17.58	
11.70	1.15	12.85				0.98	1.19		2.43	20.85	33032
8.00						0.82	1.00		4.00	17.27	
9.33	2.36	11.69				2.16	2.62	2.64		22.34	33030
8.00	1.00	9.00				2.06	2.50	3.00		20.21	
9.61	2.22	11.83		1.10	0.44	1.54	1.87	2.64		21.78	38194
8.00	2.00	10.00				1.65	2.00	2.00		18.18	
11.32	1.28	12.60		0.62	0.53	1.15	1.40	3.19		22.08	38195
10.00	2.00	12.00				1.00	1.21	3.00		19.30	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
38196	Blood & Bone Fertilizer Co. "Steer Head" Special Wheat Grower, Medium Grade.....	Manufacturers
38019	C. S. Brent, Lexington, Ky. Brent's Tobacco and Hemp Special	Manufacturers
38028	Brent's Grain Grower.....	Manufacturers
35827	Central Manufacturing Co., Lockland, O. Equity Pota-Bacco Special....	Manufacturers
38128	Richeson & Turner, Campbellsville..	
38365	Dickinson Gros., Glasgow.....	
35830	Equity High Grade Truck Food	Manufacturers
38130	Farmers Exchange, Leitchfield.....	
38367	Dickinson Bros., Glasgow.....	
35831	Equity Wheat Grower.....	Manufacturers
38131	Farmers Exchange, Leitchfield.....	
38368	Dickinson Bros., Glasgow.....	
35832	Equity Crop Maker.....	Manufacturers
38132	Richeson & Turner, Campbellsville..	
38369	Dickinson Bros., Glasgow.....	
35833	Equity Clay Land Wheat Spe- cial	Manufacturers
38370	Dickinson Bros., Glasgow.....	
38206	Equity Home Mixture.....	Manufacturers

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
8.26 7.00	1.72 2.00	9.98 9.00	0.32		0.86	1.18 1.00	1.43 1.21	2.15 1.00		\$17.91 13.70	38196
6.01 5.00	0.38	6.39	3.30		0.82	4.12 4.00	5.00 4.86	9.76 10.00	33.49 32.00		38019
9.42 8.00	1.10 2.00	10.52 10.00				1.44 1.65	1.75 2.00	1.58 2.00	18.36 18.18		38028
10.57	1.76	12.33				1.69	2.05	5.19	24.49		35827
11.18	1.31	12.49				1.63	1.93	4.84	24.49		38128
9.39	2.19	11.58				1.66	2.02	5.12	23.08		38365
9.00	1.50	10.50				1.65	2.00	5.00	22.18		
7.11	0.84	7.95				2.34	2.84	8.37	25.43		35830
5.00	1.29	6.29				1.86	2.26	11.93	24.96		38130
6.34	3.31	9.65				2.28	2.77	8.57	25.48		38367
6.00	1.50	7.50				2.06	2.50	8.00	23.01		
8.04	1.02	9.06				1.31	1.59	3.99	18.64		35831
9.83	1.29	11.12				1.02	1.24	3.23	19.12		38131
8.64	2.04	10.68				0.89	1.08	3.62	17.93		38368
8.00	1.00	9.00				0.82	1.00	3.50	16.37		
9.20	1.45	10.65				1.20	1.46	3.33	19.15		35832
9.41	1.53	10.94				1.38	1.68	2.70	19.43		38132
7.93	2.32	10.25				1.65	2.00	2.85	19.08		38369
8.00	1.00	9.00				1.23	1.50	2.50	16.81		
11.22	1.48	12.70				0.99	1.20	1.86	19.38		35833
11.58	1.44	13.02				0.96	1.17	2.01	19.85		38370
10.00	1.50	11.50				0.82	1.00	1.00	16.47		
9.09	1.31	10.40				1.98	2.40	2.38	20.74		38206
8.00	1.50	9.50				2.06	2.50	3.00	20.41		

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35992	The Cincinnati Phosphate Co., Cincinnati, O. High Grade Manure.....	Manufacturers
35993 38133	Grain and Grass Grower.....	Manufacturers
35997 38137	Tobacco, Potato & Beet Grower.....	Manufacturers
36000	Bone & Phosphate Mixture Wheat Special	Manufacturers
38001 38139	Truck & Tobacco Fertilizer.....	Manufacturers
35868 38141	Continental Fertilizer Co., Nash- ville, Tenn. Bear Special Corn Grower.....	Manufacturers
35869	Bear Special Wheat Grower.....	Manufacturers
35870	Bear Grain Grower.....	Manufacturers
35871	Bear Slaughter House Bone.....	Manufacturers
35872 38142 38371	Bear Beef, Blood & Bone.....	Manufacturers
35873 38143	Bear Special Tobacco Grower.....	Manufacturers

COMPLETE FERTILIZERS.

Station Number.	PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
	Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
35992	6.72	2.28	9.00				2.96	3.59	2.34		\$21.67	35992
	8.00	1.00	9.00				1.23	1.50	2.50		16.81	
35993 38133	8.63	0.80	9.43				0.93	1.13	2.03		15.97	35993
	8.79	1.05	9.84		0.27	0.55	0.82	1.00	2.28		16.12	38133
	8.00	1.00	9.00				0.82	1.00	2.00		14.81	
35997 38137	8.70	1.71	10.41				0.88	1.07	3.51		17.71	35997
	9.06	2.12	11.18				0.74	0.90	4.14		18.45	38137
	8.00	1.00	9.00				0.82	1.00	4.00		16.87	
36000	9.73	7.05	16.78				0.93	1.13	2.75		20.51	36000
	10.00	6.00	16.00				1.65	2.00	1.00		21.18	
38001 38139	7.33	1.34	8.67				1.69	2.05		6.84	23.47	38001
	8.77	2.04	10.81				0.72	0.87	4.36		18.22	38139
	6.00	1.00	7.00				1.65	2.00	6.00		20.51	
35868 38141	8.28	0.54	8.82				0.94	1.14		0.94	14.58	35868
	9.07	0.36	9.43				0.79	0.96		0.64	14.56	38141
	7.00	0.50	7.50				0.82	1.00		1.00	12.67	
35869	8.33	0.62	8.95				0.89	1.08		0.92	14.47	35869
	7.00	0.50	7.50				0.82	1.00		1.00	12.67	
35870	9.01	0.64	9.65				0.56	0.68		3.74	16.77	35870
	8.00	0.50	8.50				0.41	0.50	4.00		15.24	
35871	10.23	0.56	10.84	0.39		1.62	2.01	2.44		1.83	21.80	35871
	8.00	0.50	8.50				1.65	2.00	1.00	1.00	17.78	
35872 38142 38371	11.90	1.58	13.48	0.43		1.43	1.86	2.26	0.56	1.68	24.00	35872
	10.76	0.79	11.55	0.86		1.06	1.92	2.33		2.60	23.07	38142
	11.30	1.90	13.20				1.33	1.68	0.92	1.06	21.34	38371
	10.00	0.50	10.50				1.65	2.00	1.00	1.00	20.18	
35873 38143	9.14	0.57	9.71	0.28		0.81	1.09	1.32		1.40	16.70	35873
	9.35	0.33	9.73				0.92	1.12		1.27	16.11	38143
	8.00	0.50	8.50				0.82	1.00		1.50	14.47	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35874	Continental Fertilizer Co. Bear High Grade Tobacco & Potato Grower	Manufacturers
38144		Chas. Ratliff, Princeton.....
35875	Bear Tobacco Grower.....	Manufacturers
38145		W. F. Grainger, Franklin.....
35876	Bear Truck Grower.....	Manufacturers
38092	Bear Grain Special.....	Manufacturers
38393		J. A. Ballard, Holy Cross.....
38201	The Currie Fertilizer Co., Louisville, Ky. Currie's Corn and Wheat Special	Manufacturers
38202	Currie's Soluble Bone.....	Manufacturers
35972	Duncan & Bro., La Grange, Ky. Tiger Brand Tobacco Grower.....	Manufacturers
38146		Duncan & Bro., La Grange.....
35973	Tiger Brand Potato Grower..	Manufacturers
35975	Tiger Brand Grain Grower...	Manufacturers
38147		Manufacturers
38372		Manufacturers
35717	The Empire Guano Co., Nashville, Tenn. Climax Wheat Grower.....	Manufacturers

COMPLETE FERTILIZERS.

Available.	PHOSPHORIC ACID.		NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
	Insoluble.	Total.	In Nitrates,	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
7.70	1.24	8.94	0.50		1.28	1.78	2.16		3.82	\$20.55	35874
7.64	0.56	8.20	0.48		0.99	1.47	1.78	1.18	4.49	21.11	38144
7.00	0.50	7.50				1.65	2.00		4.00	19.18	
9.13	0.94	10.07	1.93		0.88	2.81	3.41		6.33	28.78	35875
8.63	4.26	12.89	0.59		1.41	2.00	2.29		6.30	25.38	38145
8.00	0.50	8.50				2.47	3.00		6.00	25.65	
9.10	1.31	10.41	0.40		1.37	1.77	2.15		10.90	30.72	35876
8.00	0.50	8.50				1.65	2.00		10.00	27.58	
11.82	1.59	13.41	0.22		0.70	0.92	1.12		2.03	20.48	38092
10.52	1.40	11.92				0.85	1.03		1.80	18.32	38393
10.00	2.00	12.00				0.82	1.00		2.00	18.07	
11.12	1.91	13.03		0.54	0.57	1.11	1.35	1.47		19.46	38201
10.00						0.82	1.00	1.00		15.87	
11.64	1.01	12.65		0.92	0.63	1.55	1.88	1.80		21.60	38202
10.00						1.03	1.25	1.50		17.11	
7.91	1.47	9.38	1.12		1.02	2.14	2.50	0.80	5.47	24.93	35972
8.94	2.09	11.03	1.13		0.65	1.78	2.16		6.87	26.04	38146
8.00	2.00	10.00				1.65	2.00		6.00	23.38	
7.88	1.48	9.36	1.11		1.07	2.18	2.65		6.69	25.71	35973
8.00	2.00	10.00				2.47	3.00		6.00	26.25	
11.08	1.62	12.70				1.11	1.35		1.42	19.54	35975
12.65	1.89	14.54	0.25		0.55	0.80	0.97	0.74	0.89	20.55	38147
10.77	2.11	12.88				1.05	1.27		0.56	18.11	38372
12.00	2.00	14.00				0.82	1.00		1.00	19.27	
11.50	1.11	12.61		1.23	0.57	1.80	2.19		4.27	24.85	35717
10.00	4.00	14.00				1.65	2.00		4.00	24.18	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35718 38149	The Empire Guano Co. Favorite Manure	Manufacturers Meadows & Son, Greasy Creek.....
35719	Wheat and Corn Grower.....	Manufacturers
35720	Blood, Bone and Potash.....	Manufacturers
35721	Red Banner Special.....	Manufacturers
35722	Red Banner Tobacco Grower.....	Manufacturers
35723	High Grade Tobacco Grower.....	Manufacturers
35724	High Grade Tobacco Special.....	Manufacturers
35725	Climax Tobacco Grower.....	Manufacturers
35726	XXX Tobacco Special.....	Manufacturers
35727	Special Corn Grower.....	Manufacturers
35735	High Grade Red Banner Tobacco Special	Manufacturers
35797	The Evansville Packing Co., Evansville, Ind. Tobacco Special	Manufacturers
35800	Half and Half Mixture.....	Manufacturers

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
10.61	5.04	15.65		0.73	0.51	1.24	1.51	3.31	\$23.06	35718	
11.05	1.44	12.49		1.18	0.56	1.74	2.11	2.89	22.82	38149	
10.00	4.00	14.00				0.82	1.00	3.00	20.07		
11.45	5.55	17.00		0.91	0.51	1.42	1.72	1.47	22.69	35719	
10.00	4.00	14.00				0.82	1.00	1.00	17.67		
9.53	6.09	15.62		1.05	0.76	1.81	2.20	2.46	23.17	35720	
8.00	4.00	12.00				1.65	2.00	2.00	19.38		
11.93	2.05	14.01		1.31	0.60	1.91	2.32	2.43	24.71	35721	
10.00	4.00	14.00				1.65	2.00	2.00	21.78		
10.01	6.15	16.16		1.10	0.69	1.79	2.17	2.48	23.72	35722	
8.00	4.00	12.00				1.65	2.00	2.00	19.38		
9.66	5.28	14.94		1.20	0.74	1.94	2.38	4.02	25.31	35723	
8.00	4.00	12.00				1.65	2.00	4.00	21.78		
9.95	2.39	12.24		1.22	0.63	1.85	2.25	8.18	29.16	35724	
8.00	4.00	12.00				1.65	2.00	8.00	26.58		
12.03	0.89	12.92		1.14	0.64	1.78	2.16	4.10	25.95	35725	
10.00	4.00	14.00				1.65	2.00	4.00	24.18		
9.11	1.82	10.93		1.18	0.61	1.79	2.17	1.00	8.69	29.36	35726
8.00	4.00	12.00				1.65	2.00	10.00	28.98		
9.21	8.67	17.88		0.74	0.40	1.14	1.38	3.01	21.52	35727	
8.00	4.00	12.00				0.82	1.00	3.00	17.07		
9.80	1.38	11.18		2.42	0.60	3.02	3.67	5.99	29.92	35735	
8.00	4.00	12.00				2.47	3.00	6.00	27.05		
9.58	0.75	10.33				3.75	4.55	1.08	4.38	31.27	35797
10.00	2.00	12.00				3.29	4.00	4.00	29.12		
8.70	4.46	13.16				2.91	3.53	2.18	24.59	35800	
10.00	2.00	12.00				2.47	3.00	2.00	23.45		

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35801	The Evansville Packing Co. Special 10% Potash.....	Manufacturers
35802 38151	Potato and Tobacco Grower.. Farmer's Exchange, Leitchfield.....	Manufacturers
35803 38152	Beef, Blood and Bone..... Farmer's Exchange, Leitchfield.....	Manufacturers
35804 38373	Harvest King	Manufacturers
35805	Bone and Potash.....	Manufacturers
35562 38375	Federal Chemical Co., Louisville, Ky. Daybreak Beef, Blood & Bone. Grayson Co. Supply Co., Leitchfield..	Manufacturers
35563 38376	Daybreak Standard Corn and Wheat Grower	Manufacturers
35564 38377	Daybreak Favorite	Manufacturers
35565 38153	Daybreak Special Tobacco Grower	Manufacturers
35566	Daybreak Vegetable Grower..	Manufacturers

COMPLETE FERTILIZERS.

Station Number.	PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
	Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
35801	4.82	1.63	6.45				1.00	1.21	10.10	\$22.05	35801	
	5.00	1.00	6.00				0.82	1.00	10.00	21.27		
35802 38151	7.38	2.79	10.17				1.94	2.36	5.78	23.71	35802	
	8.27	2.46	10.73				1.68	2.04	4.22	21.66	38151	
	8.00	1.00	9.00				1.65	2.00	5.00	21.78		
35803 38152	7.37	3.56	10.93				2.12	2.57	2.67	20.88	35803	
	7.49	2.86	10.35				2.09	2.54	2.08	19.95	38152	
	8.00	1.00	9.00				1.65	2.00	2.00	18.18		
35804 38373	7.30	2.94	10.24				1.28	1.55	2.09	16.51	35804	
	8.12	1.95	10.07				1.07	1.30	1.88	16.15	38373	
	8.00	1.00	9.00				1.00	1.21	2.00	15.50		
35805	6.51	2.38	8.87				1.03	1.25	1.40	13.76	35805	
	7.00	1.00	8.00				0.82	1.00	1.00	12.67		
35562 38375	11.38	1.05	12.43	1.46		0.42	1.88	2.28	0.60	2.65	24.43	35562
	10.45	1.66	12.11	0.95		0.69	1.64	1.99		2.13	21.50	38375
	10.00	4.00	14.00				1.65	2.00		2.00	21.78	
35563 38376	9.32	4.12	13.44	1.60		0.40	2.00	2.43	0.68	2.67	23.71	35563
	10.32	5.39	15.71		0.39	0.94	1.33	1.61	1.88	0.40	21.56	38376
	8.00	4.00	12.00				1.65	2.00		2.00	19.38	
35564 38377	12.11	0.51	12.62	0.89		0.42	1.31	1.59	0.66	3.98	24.76	35564
	10.34	1.80	12.14		0.20	0.67	0.87	1.06	2.68	1.54	20.66	38377
	11.00	4.00	15.00				0.82	1.00		3.00	21.27	
35565 38153	9.50	2.37	11.87	1.36		0.43	1.79	2.17	0.86	5.93	26.60	35565
	8.37	2.54	11.27	0.69		0.39	1.08	1.31		5.66	22.07	38153
	8.00	4.00	12.00				1.23	1.50		6.00	22.71	
35566	9.87	2.52	12.39	1.55		0.38	1.93	2.34	0.78	5.54	27.04	35566
	8.00	4.00	12.00				1.65	2.00		5.00	22.98	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35567 38154	Federal Chemical Co. Daybreak Standard Crop and Tobacco Grower	Manufacturers F. A. Yost & Co., Hopkinsville.....
35568	Daybreak Potato and Tobacco Grower	Manufacturers
35569	Daybreak Special Manure....	Manufacturers
35570 38378	Daybreak Wheat and Corn Special	Manufacturers The A. H. Miller Implement Co., Elizabethtown
35571	Daybreak Corn and Clover Grower	Manufacturers
35572	Daybreak Grain Grower.....	Manufacturers
35573 38155	Grigsby's Special Wheat Grower	Manufacturers Grigsby & Co., Bardstown.....
38035	Daybreak High Grade Fertilizer	Manufacturers
35584 38156	Fox Chemical Co., Branch, Federal Chemical Co., Louisville, Ky. Fox Wheat & Corn Grower....	Manufacturers Harrison Austin, Beaver Dam.....

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
9.79	4.40	14.19	0.87		0.40	1.27	1.54	0.70	4.83	\$24.46	35567
9.18	1.78	10.96				0.81	0.98		3.57	18.85	38154
8.00	4.00	12.00				0.82	1.00		4.00	18.87	
9.32	1.17	10.49	1.65		0.43	2.08	2.53	1.10	8.46	30.18	35568
8.00	4.00	12.00				1.65	2.00		7.50	25.98	
11.76	2.47	14.23	0.89		0.40	1.29	1.57		3.63	23.93	35569
10.00	4.00	14.00				0.82	1.00		2.00	18.87	
13.80	1.68	15.48	0.46		0.35	0.81	0.98		1.84	22.27	35570
11.15	4.33	15.48				0.40	0.49	0.46	0.63	17.73	38378
11.00	4.00	15.00				0.41	0.50		1.00	17.44	
10.45	4.65	15.10	0.79		0.42	1.21	1.47		2.91	22.13	35571
9.00	4.00	13.00				0.82	1.00		1.00	16.47	
10.12	1.66	11.78	0.85		0.44	1.29	1.57		2.85	20.74	35572
9.00	4.00	13.00				0.41	0.50		1.50	15.64	
11.07	2.68	13.75	0.38		0.46	0.84	1.02	0.58	2.96	21.42	35573
9.48	3.95	13.43	0.29		0.39	0.68	0.83		2.25	18.04	38155
10.00	2.00	12.00				0.82	1.00		2.00	18.07	
11.41	0.87	12.28	1.47		0.44	1.91	2.32		3.17	24.53	38035
10.00	4.00	14.00				1.65	2.00		2.00	21.78	
11.93	0.79	12.72	1.58		0.47	2.05	2.49	0.58	2.68	25.62	35584
10.04	2.40	12.44	1.23		0.42	1.65	2.00	2.71	2.68	21.50	38156
10.00	4.00	14.00				1.65	2.00		2.00	21.78	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35595 38163	Fox Chemical Co. Fox Grain Special.....	Manufacturers Harrison Austin, Beaver Dam.....
35596 38164	Fox Potato & Tobacco Grower	Manufacturers Harrison Austin, Beaver Dam.....
38073	Fox High Grade Tobacco Grower	Manufacturers
38074	Fox Ten-One-Ten	Manufacturers
35609	Globe Fertilizer Co., Branch, Federal Chemical Co., Louis- ville, Ky. Globe Wheat Grower.....	Manufacturers
35610 38168 38400	Eagle Corn and Wheat Grower	Manufacturers Farmers Hardware Co., Glasgow..... W. R. Johnson, Coburg.....
35611 38169 38401	Big Four Tobacco Grower....	Manufacturers J. W. Cloyd, Campbellsville..... R. H. & P. Christie, Greensburg.....
35612 38170 38402	Braden Formula	Manufacturers Geo. W. Richardson, Somerset..... Farmers Hdw. & Grocery Co., Glasgow
35613 38171	Kentucky Standard Tobacco Grower	Manufacturers J. W. Cloyd, Campbellsville.....

COMPLETE FERTILIZERS.

Available.	PHOSPHORIC ACID.		NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
10.75	1.30	12.05	0.39		0.43	0.82	1.00			19.53	35595
9.74	3.48	13.22				0.65	0.79	2.16		17.52	38163
9.00	4.00	13.00				0.41	0.50		1.50	15.64	
9.13	1.02	10.15	1.63		0.46	2.09	2.54	1.02	8.02	29.33	35596
8.44	2.31	10.75	0.58		0.80	1.38	1.68		8.13	25.63	38164
8.00	4.00	12.00				1.65	2.00		7.50	25.98	
8.86	1.71	10.57	3.15		0.30	3.45	4.19	0.82	4.70	29.85	38073
8.00	4.00	12.00				3.29	4.00		4.00	27.52	
9.75	1.94	11.69	0.92		0.41	1.33	1.61	1.22	9.66	29.95	38074
10.00	4.00	14.00				0.82	1.00		10.00	28.47	
11.65	0.79	12.44	1.54		0.57	2.11	2.56	0.60	2.82	25.67	35609
10.00	4.00	14.00				1.65	2.00		2.00	21.78	
9.57	3.82	13.39	1.58		0.61	2.19	2.66	0.78	2.57	24.54	35610
8.44	6.01	14.45	1.21		0.46	1.67	2.13	1.62	0.57	20.68	38168
8.29	1.22	9.51	0.25	0.32	0.90	1.47	1.78	1.68	0.66	18.06	38400
8.00	4.00	12.00				1.65	2.00		2.00	19.38	
9.67	3.65	13.32	1.63		0.54	2.17	2.63	0.62	2.68	24.50	35611
8.40	2.42	10.82	1.06		0.46	1.52	1.85	1.82		18.19	38169
7.83	2.09	9.92		0.45	0.92	1.37	1.66		2.71	18.29	38401
8.00	4.00	12.00				1.65	2.00		2.00	19.38	
12.16	0.46	12.62	1.01		0.49	1.50	1.82	0.70	4.03	25.56	35612
10.93	2.61	13.54				0.64	0.78	4.68		21.08	38170
11.11	1.08	12.19	0.30		0.45	0.75	0.91	2.94	0.83	20.33	38402
11.00	4.00	15.00				0.82	1.00		3.00	21.27	
9.93	2.37	12.30	1.32		0.56	1.88	2.28	0.84	5.50	26.89	35613
8.49	2.03	10.52	1.04		0.62	1.66	2.02		5.24	23.16	38171
8.00	4.00	12.00				1.65	2.00		5.00	22.98	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35614 38172	Globe Fertilizer Co. Globe Soluble Vegetable Manure	Manufacturers N. D. Tabor, Olive Hill.....
35615 38173 38403	Universal Crop and Tobacco Grower	Manufacturers J. W. Cloyd, Campbellville..... W. A. Williams, Greensburg.....
35616 38174 38404	Progress Corn and Wheat Grower	Manufacturers W. R. Johnson, Coburg..... W. R. Johnson, Coburg.....
35617	Globe Special Potato Grower.	Manufacturers
35618	Globe High Grade Tobacco Grower	Manufacturers
35619 38405	Globe Wheat & Grain Special.	Manufacturers Tartar & Huff, Somerset.....
35620 38175 38406	Globe Bone and Potash.....	Manufacturers J. W. Cloyd, Campbellville..... W. R. Johnson, Coburg.....
35621 38176	Globe Grain & Grass Grower.	Manufacturers Hubbard & Mitchell, Liletown.....
35622 38177 38407	Globe Bone Dust.....	Manufacturers Murray & Watkins, London..... C. L. Dudley, Flemingsburg.....

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
9.85	2.31	12.16	1.49		0.49	1.98	2.40	0.92	5.28	\$26.93	35614
7.81	2.60	10.41	1.24		0.41	1.65	2.00		5.27	22.51	38172
8.00	4.00	12.00				1.65	2.00		5.00	22.98	
10.03	4.74	14.77	0.86		0.38	1.24	1.51	0.74	4.64	24.59	35615
7.94	2.05	9.99	0.61		0.50	1.11	1.35	4.13		18.37	38173
7.50	1.54	9.04	0.28		0.69	0.97	1.18	3.79		16.81	38403
8.00	4.00	12.00				0.82	1.00		4.00	18.87	
11.60	2.38	13.98	0.92		0.39	1.31	1.59		3.31	23.42	35616
11.27	4.54	15.81	0.34		0.45	0.79	0.96	1.72	0.53	20.47	38174
9.60	1.01	10.61	0.31		0.55	0.86	1.04	1.72	0.48	17.23	38404
10.00	4.00	14.00				0.82	1.00		2.00	18.87	
9.74	0.71	10.45	2.52		0.46	2.98	3.62	1.08	6.38	31.14	35617
8.00	4.00	12.00				2.47	3.00		6.00	27.05	
9.09	1.71	10.80	3.10		0.30	3.40	4.13	0.70	4.86	30.02	35618
8.00	4.00	12.00				3.29	4.00		4.00	27.52	
14.18	0.51	14.69	1.03		0.34	1.37	1.66		2.10	24.54	35619
10.72	1.95	12.67	0.30		0.72	1.02	1.24	0.68	0.77	18.81	38405
12.00	4.00	16.00				0.82	1.00		1.00	20.07	
13.10	2.07	15.17	0.38		0.45	0.83	1.01		1.96	21.81	35620
12.96	2.29	15.25				0.53	0.64		0.98	19.51	38175
11.98	1.74	13.75				0.47	0.57		1.27	18.26	38406
11.00	4.00	15.00				0.41	0.50		1.00	17.44	
13.87	1.91	15.78	0.35		0.43	0.78	0.95		1.78	22.27	35621
11.74	3.48	15.22				0.57	0.69		0.93	18.60	38176
11.00	4.00	15.00				0.41	0.50		1.00	17.44	
10.49	4.39	14.88	0.76		0.46	1.22	1.48	0.56	2.39	22.05	35622
9.79	7.10	16.89				0.88	1.07		1.41	19.36	38177
9.11	5.86	14.97	0.28		0.6	0.97	1.18		1.16	18.06	38407
9.00	4.00	13.00				0.82	1.00		1.00	16.47	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35623 38178 38408	Globe Fertilizer Co. Globe Grain Grower.....	Manufacturers Farmers Hardware Co., Glasgow..... Farmers Hardware Co., Glasgow.....
35624	Globe. Potato and Tobacco Grower.....	Manufacturers.....
35625 38179	Globe Special Tobacco Grower.....	Manufacturers I. F. Tabb, Mt. Sterling.....
38031	Globe Truck Grower.....	Manufacturers.....
38288	Globe Potato Grower.....	Manufacturers.....
38362	Globe Blood, Bone & Tobacco Mixture.....	Manufacturers.....
38029 38188 38416	Grayson County Fertilizer Co., Leitchfield, Ky. Grain Grower.....	Manufacturers Manufacturers Manufacturers.....
35678	Great Southern Phosphate Co., Mt. Pleasant, Tenn. Great Southern Tobacco Grower.....	Manufacturers.....
35679	Farmers Champion.....	Manufacturers.....
35681	Universal Tobacco Grower.....	Manufacturers.....

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
10.51	1.45	11.96	0.41		0.49	0.90	1.09				
9.08	11.04	20.12				0.43	0.52	0.84	0.59	19.74	35623
9.75	6.44	16.19				0.55	0.67	0.86	0.66	17.86	38178
9.00	4.00	13.00				0.41	0.50		1.50	15.64	38408
9.12	1.10	10.22	1.45		0.46	1.91	2.32	1.22	7.89	28.66	35624
8.00	4.00	12.00				1.65	2.00		7.50	25.98	
9.30	0.62	9.92	2.77		0.22	2.99	3.63	1.16	10.13	35.43	35625
8.34	2.17	10.51	2.06		0.34	2.40	2.91	2.18	8.29	31.41	38179
8.00	4.00	12.00				2.47	2.00		10.00	31.85	
8.81	1.96	10.77	0.50		0.43	0.93	1.13	1.00	8.72	26.07	38031
8.00	4.00	12.00				0.41	0.50		8.00	22.24	
8.96	1.66	10.62	2.92		0.33	3.25	3.95	0.84	4.84	29.44	38288
8.00	4.00	12.00				3.29	4.00		4.00	27.52	
10.03	5.37	15.40	0.42		0.47	0.89	1.08	0.68	4.52	23.41	38362
8.00	4.00	12.00				0.41	0.50		4.00	17.44	
5.55	0.61	6.16	0.40			0.40	0.49	1.58		9.88	38029
6.37	0.97	7.34				0.31	0.38	1.02		10.14	38188
6.33	0.94	7.27				0.15	0.18	1.89		10.40	38416
5.55	0.60	6.15				0.40	0.49	1.58		9.88	
9.45	6.73	16.18	0.39		0.56	0.95	1.15		1.99	19.75	35678
8.00	2.00	10.00				0.82	1.00		4.00	18.07	
11.02	6.27	17.29		0.62	0.97	1.59	1.93	3.28		24.58	35679
10.00	2.00	12.00				1.65	2.00	2.00		20.58	
8.72	8.76	17.48				1.75	2.12		1.77	22.21	35681
8.00	2.00	10.00				1.65	2.00		6.00	23.38	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35684	Great Southern Phosphate Co. Great Southern Potato Special	Manufacturers
35686	Great Southern Tobacco Special	Manufacturers
35687	Great Southern Corn Special	Manufacturers
35688	Great Southern Superior Tobacco Grower	Manufacturers
38199	Grigsby & Co., Bardstown, Ky. Grigsby's Special Wheat Grower	Manufacturers
38392	J. H. Osborne, Holy Cross	Manufacturers
38419	J. H. Osborne, Holy Cross	Manufacturers
35922	The Groves Company, Cincinnati, O. Complete Grain Grower	Manufacturers
35923	Corn and Tobacco Grower	Manufacturers
38209	L. K. Miller & Sons, Campbellsville	Manufacturers
38422	T. Pennington, Somerset	Manufacturers
35924	Favorite Fertilizer	Manufacturers
35925	10% Potash Fertilizer	Manufacturers
38210	H. C. Gowen, Grab	Manufacturers
35926	Special Truck Manure	Manufacturers
38211	H. C. Gowen, Grab	Manufacturers

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
8.97	3.61	12.58	1.49		0.82	2.31	2.80		7.63	\$29.45	35684
7.00	2.00	9.00				2.47	3.00		6.00	25.05	
9.71	2.07	11.78		0.88	0.89	1.77	2.15		12.98	34.26	35686
8.00	2.00	10.00				1.65	2.00		10.00	28.18	
8.62	8.12	16.74				1.73	2.10	1.95		21.60	35687
8.00	2.00	10.00				1.65	2.00	2.00		18.18	
9.59	6.37	15.96				1.63	1.98		3.86	24.40	35688
8.00	2.00	10.00				1.65	2.00	4.00	4.00	20.98	
11.55	1.21	12.76	0.20		0.65	0.85	1.03	0.58	2.18	20.52	38199
10.64	4.22	14.86	0.23		0.73	0.96	1.17		2.15	20.40	38392
10.08	0.65	10.73				0.79	0.96		2.24	17.82	38419
10.00	2.00	12.00				0.82	1.00	2.00	2.00	18.07	
8.13	1.75	9.88	0.28		0.61	0.89	1.08	2.33		15.96	35922
8.00	2.00	10.00				0.82	1.00	2.00		15.37	
8.32	2.24	10.56	0.28		0.62	0.90	1.09	4.43		18.46	35923
8.54	1.76	10.30		0.27	0.61	0.88	1.07	4.16		18.19	38209
7.59	1.70	9.29	0.29		0.53	0.82	1.00	4.13		16.79	38422
8.00	2.00	10.00				0.82	1.00	4.00		17.27	
8.32	1.48	9.80	0.71		1.00	1.71	2.08	2.22		18.78	35924
8.00	2.00	10.00				1.65	2.00	2.00		18.18	
5.00	1.49	6.49		0.35	0.66	1.01	1.23	10.27		20.41	35925
5.23	1.35	6.58		0.21	0.72	0.93	1.13	10.70		20.78	38210
5.00	2.00	7.00				0.82	1.00	10.00		19.67	
7.98	2.28	10.26		0.88	0.95	1.83	2.22		9.27	28.03	35926
8.59	1.44	10.03		0.77	0.98	1.75	2.12	1.14	6.64	26.13	38211
8.00	2.00	10.00				1.65	2.00	8.00	8.00	25.78	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35927	The Groves Co. Special Onion and Truck.....	Manufacturers
35780	Hirsh, Stein & Co., Chicago, Ill. Calumet Brand Bone Black Grain Grower	Manufacturers
38216		Jeffries Hardware Store, Columbia...
38426		Farmers Exchange, Leitchfield.....
35781	Calumet Brand Ky. Tobacco Grower	Manufacturers
38217		J. W. Sublett & Bro., Cane Valley....
35783	Calumet Brand Wheat, Corn and Oats Special.....	Manufacturers
38218		J. W. Sublett & Bro., Cane Valley....
38428		Jeffries Hardware Store, Columbia...
35785	Calumet Brand Bone Phos- phate & Potash.....	Manufacturers
38219		J. W. Sublett & Bro., Cane Valley....
38429		Farmers Exchange, Leitchfield.....
35786	Calumet Brand High Grade Bone Phosphate & Potash....	Manufacturers
35790	Calumet Brand Grain Grower.	Manufacturers
38221		J. W. Sublett & Bro., Cane Valley....
38432		Farmers Exchange, Leitchfield.....
35791	Calumet Brand Tobacco Fer- tilizer	Manufacturers
35792	Calumet Brand Special Potato, Tobacco & Onion Grower.....	Manufacturers

COMPLETE FERTILIZERS.

Available.	PHOSPHORIC ACID.		NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
9.33	0.97	10.30	2.18		0.52	2.70	3.28	10.82		\$31.86	35927
9.00	2.00	11.00				2.47	3.00	10.00		30.25	
8.55	2.47	11.02		0.49	1.75	2.24	2.72	2.21		21.30	35780
8.07	2.26	10.33		0.73	1.18	1.91	2.32	1.94	2.33	22.01	38216
8.87	1.43	10.30		0.79	1.29	2.08	2.23	2.03		20.52	38426
8.00	1.00	9.00				2.06	2.50	1.50		18.71	
9.21	1.33	10.54		1.08	0.75	1.83	2.22		5.77	24.91	35781
7.91	2.03	9.94		0.44	1.42	1.86	2.26	1.32	4.19	23.16	38217
8.00	1.00	9.00				1.65	2.00		5.00	21.73	
8.41	1.07	9.48		0.31	0.62	0.93	1.13	4.53		18.34	35785
7.98	1.98	9.96				0.80	0.97	5.13		18.30	38218
7.78	1.40	9.18				0.94	1.14	4.62		17.81	38428
8.00	1.00	9.00				0.82	1.00	4.00		16.87	
10.13	1.50	11.63				0.63	0.76	2.55		17.52	35785
9.92	1.66	11.58				0.27	0.33	2.15		15.63	38219
9.70	1.10	10.80				0.47	0.57	2.35		16.08	38429
10.00	1.00	11.00				0.41	0.50	2.00		15.84	
10.69	2.11	12.80				0.41	0.50	5.23		20.34	35786
10.00	1.00	11.00				0.41	0.50	5.00		18.84	
8.84	1.49	10.33		1.04	1.03	2.07	2.51	2.50		20.96	35790
7.56	1.48	9.04		0.76	0.67	1.43	1.74	2.35		17.02	38221
8.14	1.34	9.48		0.55	1.19	1.74	2.11	2.17		18.57	38432
8.00	1.00	9.00				1.65	2.00	2.00		17.73	
7.73	2.23	9.96		0.20	0.79	0.99	1.20	3.10		16.74	35791
8.00	1.00	9.00				0.82	1.00	2.00		14.87	
9.10	1.44	10.54		1.04	0.75	1.79	2.17	1.06	9.85	30.65	35792
8.00	1.00	9.00				1.65	2.00	10.00		27.78	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35793	Hirsh, Stein & Co. Calumet Brand Special 10% Potash Manure	Manufacturers
35794	Calumet Brand Ammoniated Dissolved Pure Bone & Potash	Manufacturers
38433		Farmers Exchange, Leitchfield.....
35795	Calumet Brand High Grade Garden & Vegetable Grower..	Manufacturers
35940	Hopkins Fertilizer Co., New Al- bany, Ind. Old Time Ky. & Ind. Special.	Manufacturers
35941	Old Time Blood and Bone....	Manufacturers
35942	Old Time Ammoniated Potash Mixture	Manufacturers
35943	Old Time Wheat & Corn Grow- er	Manufacturers
38435		C. R. Perry, Campbellsville.....
35944	Old Time Potato & Tobacco Grower	Manufacturers
38436		C. R. Perry, Campbellsville.....
35946	Old Time Bone and Potash..	Manufacturers
35947	Old Time Half and Half.....	Manufacturers
38437		C. R. Perry, Campbellsville.....
35948	Old Time Truck Grower.....	Manufacturers

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
5.54	1.28	6.82		0.32	0.57	0.89	1.08	10.76		21.04	35793
5.00	1.00	6.00				0.82	1.00	10.00		19.27	
12.17	1.33	13.50		0.88	0.84	1.72	2.09	2.75		23.90	35794
10.32	1.31	11.63		0.41	1.10	1.51	1.83	2.19		20.38	38433
10.00	1.00	11.00				1.65	2.00	2.00		20.18	
8.34	1.69	10.03		1.35	0.84	2.19	2.66		7.01	26.77	35795
8.00	1.00	9.00				2.06	2.50	6.00		23.21	
9.90	0.98	10.88		1.40	1.05	2.45	2.97		8.72	31.31	35940
8.00	1.00	9.00				2.47	3.00		8.00	28.25	
10.21	0.83	11.04				1.55	1.88	2.07		20.08	35941
8.00	1.00	9.00				1.65	2.00	2.00		17.78	
11.82	1.40	13.22				0.46	0.56	3.68	1.36	21.66	35942
10.00	1.00	11.00				0.41	0.50	4.00		17.84	
11.36	1.20	12.56				0.42	0.51	2.11		17.69	35943
10.87	0.57	11.44				0.43	0.52	1.80		16.58	38435
10.00	1.00	11.00				0.41	0.50	2.00		15.84	
9.82	0.98	10.80		1.52	1.19	2.71	3.29		6.86	29.89	35944
7.62	1.30	8.92	1.41		1.00	2.41	2.93		6.96	26.45	38436
8.00	1.00	9.00				2.47	3.00		6.00	25.85	
8.8	1.07	9.87	0.60		0.86	1.46	1.77	1.18		17.28	35946
7.00	1.00	8.00				0.82	1.00	1.00		12.67	
9.26	6.46	15.72				2.02	2.45	1.90		22.66	35947
7.69	5.19	12.88	0.23		1.80	2.03	2.46	2.54		20.96	38437
6.00	6.00	12.00				2.00	2.43	2.00		18.60	
7.71	0.92	8.63		0.70	1.10	1.80	2.19		8.42	26.02	35948
6.00	1.00	7.00				1.65	2.00		8.00	22.98	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35949	Hopkins Fertilizer Co. Old Time Tobacco Grower....	Manufacturers
35978	The Jarecki Chemical Co., Sandusky & Cincinnati, O. Lake Erie Guano with Phosphate & Potash	Manufacturers
38222	M. B. Hines, Science Hill.....	Manufacturers
35979	Number One Formula.....	Manufacturers
35983	Raw Bone & Guano Mixture..	Manufacturers
38438	Fremd Grocery Co., Eminence.....	Manufacturers
35984	Fish, Phosphate & Potash, Tobacco & Potato Food.....	Manufacturers
38224	Murray & Watkins, London.....	Manufacturers
35986	Tobacco & Truck Grower.....	Manufacturers
35988	Indian Brand Tobacco and Potato Fertilizer	Manufacturers
35989	Indian Brand Gilead Phosphate	Manufacturers
38226	Grant McDaniel & Co., Vanceburg....	Manufacturers
35990	O. K. Fertilizer.....	Manufacturers
38227	Grant McDaniel & Co., Vanceburg....	Manufacturers
35991	Tobacco & Truck Grower.....	Manufacturer

COMPLETE FERTILIZERS.

Station Number.	PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
	Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
35949	9.80	1.98	10.88				1.39	1.69		5.18	\$23.28	35949
	8.00	1.00	9.00				1.65	2.00		4.00	20.58	
35978	6.61	2.42	9.03				3.05	3.70	2.39		21.97	35978
38222	7.94	1.43	9.37		0.29	0.99	1.28	1.55	2.34		16.92	38222
	8.00	1.00	9.00				1.23	1.50	2.50		16.81	
35979	8.48	1.11	9.59				0.83	1.01	1.91		15.44	35979
	8.00	1.00	9.00				0.82	1.00	2.00		14.87	
35983	9.14	7.67	16.81				0.84	1.02	2.57		19.55	35983
38438	8.72	7.27	15.99	0.34		1.36	1.70	2.06	1.15		20.47	38438
	10.00	6.00	16.00				1.65	2.00	1.00		21.18	
35984	8.50	1.75	10.25				0.88	1.07	3.50		17.48	35984
38224	8.10	0.61	8.71				0.88	1.07	3.70		16.74	38224
	8.00	1.00	9.00				0.82	1.00	4.00		16.86	
35986	7.26	1.33	8.59		0.27	1.36	1.63	1.98		6.56	22.82	35986
	6.00	1.00	7.00				1.65	2.00	1.00		14.38	
35988	10.47	0.65	11.12		1.31	0.95	2.26	2.74	1.16	4.29	27.04	35988
	9.00	1.00	10.00				2.47	3.00		5.00	25.85	
35989	8.36	1.61	9.97				0.90	1.09	3.30		17.12	35989
38226	7.47	1.13	8.60				0.62	0.75	1.44		13.02	38226
	8.00	1.00	9.00				0.82	1.00	3.00		15.87	
35990	6.69	0.60	7.29				0.67	0.81	1.57		12.19	35990
38227	6.51	1.30	7.81		0.24	0.30	0.54	0.68	0.46		10.41	38227
	6.00	1.00	7.00				0.41	0.50	0.50		9.54	
35991	7.00	0.93	7.93	0.71		0.87	1.58	1.92	6.07		20.36	35991
	6.00	1.00	7.00				1.65	2.00		6.00	20.58	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35898 38229	Jones Fertilizer Co., Louisville, Ky. Jones Corn & Wheat Grower.	Manufacturers R. J. Smith Co., Somerset.....
35899	Jones Reliable	Manufacturers
35900 38230 38440	Jones Grain Grower.....	Manufacturers R. J. Smith Co., Somerset..... J. T. Parsons, Leitchfield.....
35901 38231	Jones Slaughter House Bone..	Manufacturers R. J. Smith Co., Somerset.....
35902	Jones Miami Valley Phosphate	Manufacturers
35903 38232	Jones Special Tobacco Grower	Manufacturers I. K. Miller & Sons, Campbellsville...
35904 38233	Jones Tobacco and Potato Grower	Manufacturers I. K. Miller & Sons, Campbellsville...
35905	Jones Potato Grower.....	Manufacturer
35906 38234	Jones Truck Grower.....	Manufacturer Dave Hatter & Son, Franklin.....
38091	Jones Grain Special.....	Manufacturers
38003	Kaufman Fertilizer Co., Cincinnati, O. Corn, Wheat & Oats Grower..	Manufacturer

Commercial Fertilizers.

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				POTASH.		Estimated Value Per Ton.	Station Number.	
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.	Equivalent to Ammonia.	From Muriate.			From Sulphate.
8.52	0.51	9.03					0.99	1.20	0.87	\$14.93	35898
6.41	1.40	7.81					0.83	1.01	1.18	12.58	38229
7.00	0.50	7.50					0.82	1.00	1.00	12.67	
9.57	0.64	10.21					0.99	1.20	1.35	16.83	35899
8.00	0.50	8.50					0.82	1.00	1.50	14.47	
9.46	0.68	10.14					0.49	0.59	3.60	16.90	35900
7.80	0.43	8.23					0.56	0.68	4.24	15.73	38230
8.20	0.57	8.77					0.41	0.50	2.67	14.18	38440
8.00	0.50	8.50					0.41	0.50	4.00	15.24	
10.20	0.56	10.76	0.61		1.38	1.99	2.42	1.73		21.51	35901
8.29	0.43	8.72	0.22		1.78	2.00	2.43		2.70	20.36	38231
8.00	0.50	8.50				1.65	2.00	1.00	1.00	17.73	
11.68	1.58	13.26				1.71	2.08		2.24	23.33	35902
10.00	0.50	10.50				1.65	2.00	1.00	1.00	20.18	
9.34	0.71	10.05				1.00	1.21		1.42	16.69	35903
9.16	0.73	9.89	0.20		0.84	1.04	1.26		1.88	17.18	38232
8.00	0.50	8.50				0.82	1.00		1.50	14.47	
7.85	1.29	9.14	0.46		1.40	1.86	2.26		3.77	20.97	35904
7.28	0.52	7.80	0.25		1.47	1.72	2.09		3.40	19.05	38233
7.00	0.50	7.50				1.65	2.00		4.00	19.18	
9.29	0.99	10.28	1.67		0.86	2.53	3.07		6.43	23.13	35905
8.00	0.50	8.50				2.47	3.00		6.00	25.65	
9.17	1.50	10.67	0.43		1.38	1.81	2.20		10.41	30.43	35906
8.26	2.05	10.31		0.70	0.86	1.56	1.89	1.52	5.78	24.65	38234
8.00	0.50	8.50				1.65	2.00		10.00	27.58	
11.91	1.50	13.41				0.86	1.04		2.11	20.00	38091
10.00	2.00	12.00				0.82	1.00		2.00	18.07	
6.48	2.72	9.20				3.13	3.80	2.37	22.20	38003	
8.00	1.00	9.00				1.23	1.50	2.50		16.81	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
38004	Kaufman Fertilizer Co. Harvest King.....	Manufacturer
38005	Golden Rule	Manufacturers
38006	Special Potato and Tobacco Fertilizer	Manufacturers
38007	Half and Half.....	Manufacturers
35638	Kentucky Fertilizer Co., Branch, Federal Chemical Co., Louis- ville, Ky. O. K. 20% Fertilizer.....	Manufacturers
35639	O. K. Tobacco & Vegetable Grower	Manufacturers
38235	W. E. Waller & Son, Campbellsville..	
35640	O. K. Golden Leaf Tobacco Grower	Manufacturers
38236	W. B. Sanders, Waterloo.....	
38444	F. Wilson, Somerset.....	
35641	O. K. Corn & Wheat Grower.	Manufacturers
38237	W. E. Waller & Son, Campbellsville..	
35642	O. K. High Grade Mixture....	Manufacturers
38303	Chas. W. Caldwell, Danville.....	
35643	O. K. Crop & Tobacco Grower	Manufacturers
38238	W. E. Waller & Son, Campbellsville..	

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
8.38	0.93	9.31				0.88	1.07	1.95		\$15.46	38004
8.00	1.00	9.00				0.82	1.00	2.00		14.87	
8.43	1.71	10.14				0.91	1.10	3.66		17.65	38005
8.00	1.00	9.00				0.82	1.00	4.00		16.87	
7.52	1.22	8.74				1.62	1.97		6.65	23.16	38006
6.00	1.00	7.00				1.65	2.00		6.00	20.58	
9.28	7.22	16.50				0.86	1.04	2.60		19.64	38007
10.00	6.00	16.00				1.65	2.00	1.00		21.18	
9.40	0.70	10.10	1.76		0.29	2.05	2.49	1.16	10.00	31.90	35638
8.00	4.00	12.00				1.65	2.00		10.00	28.98	
9.18	2.68	11.86	1.33		0.37	1.70	2.06	0.82	6.09	26.17	35639
8.10	3.65	11.75	0.83		0.35	1.18	1.43	0.78	5.25	22.39	38235
8.00	4.00	12.00				1.23	1.50		6.00	22.71	
9.72	3.86	13.58	1.63		0.42	2.05	2.49	0.72	2.61	24.24	35640
7.90	2.29	10.19	1.23		0.45	1.68	2.04	2.24		18.52	38236
7.42	1.84	9.26	0.67		0.70	1.37	1.66	0.74	2.03	17.62	38444
8.00	4.00	12.00				1.65	2.00		2.00	19.38	
11.56	2.38	13.94	0.75		0.42	1.17	1.42		3.33	22.92	35641
10.33	4.77	15.10	0.37		0.38	0.75	0.91		2.03	19.02	38237
10.00	4.00	14.00				0.82	1.00		2.00	18.87	
11.84	0.45	12.29	0.90		0.41	1.31	1.59		4.09	23.89	35642
10.79	2.55	13.34				0.72	0.87	4.07		20.56	38303
11.00	4.00	15.00				0.82	1.00		3.00	21.27	
9.77	4.65	14.42	0.76		0.41	1.17	1.42		5.31	24.05	35643
8.47	2.29	10.76	0.47		0.38	0.85	1.03	4.13		18.19	38238
8.00	4.00	12.00				0.82	1.00		4.00	18.87	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35644 38239	Kentucky Fertilizer Co. O. K. Complete Manure.....	Manufacturers T. N. Noe, Mt. Vernon.....
35645 38240 38242	O. K. Corn, Wheat & Oats Grower	Manufacturers W. E. Waller & Son, Campbellsville..
35646	O. K. Grain Grower.....	Manufacturers
35851 38242	Louisville Fertilizer Co., Louis- ville, Ky. Eagle Special Corn Grower...	Manufacturers C. R. Hutchison, Columbia.....
35852	Eagle Special Wheat Grower.	Manufacturers
35853 38243 38445	Eagle Soluble Bone.....	Manufacturers W. R. Johnson, Coburg..... Smith & Flora, Campbellsville.....
35854 38244 38446	Eagle Grain Grower.....	Manufacturers W. R. Johnson, Coburg..... L. S. Brough, Bowling Green.....
35855 38245	Eagle Slaughter House Bone.	Manufacturers W. R. Johnson, Coburg.....
35856 38246	Eagle Guano	Manufacturers Rubel Hardware Co., Lebanon.....
35857	Eagle Special Tobacco Grower	Manufacturers

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
8.62	1.94	10.56	0.78		0.37	1.15	1.40		3.81	\$19.72	35644
8.85	9.10	17.95	0.82		0.57	1.39	1.69		3.78	23.67	38239
8.00	4.00	12.00				0.82	1.00		2.50	17.07	
14.00	2.22	16.22	0.41		0.37	0.78	0.95		1.80	22.58	35645
11.95	3.17	15.12				0.86	1.04	1.06		19.68	38240
11.00	4.00	15.00				0.41	0.50		1.00	17.44	
14.16	2.21	16.37	0.38		0.40	0.78	0.95		1.76	22.71	35646
11.00	4.00	15.00				0.41	0.50		1.00	17.44	
7.89	0.51	8.40				0.93	1.13		0.95	14.07	35851
6.95	1.91	8.86				0.79	0.96		1.14	13.24	38242
7.00	0.50	7.50				0.82	1.00		1.00	12.67	
8.05	0.5	8.57				0.94	1.14		0.90	14.24	35852
7.00	0.50	7.50				0.82	1.00		1.00	12.67	
9.37	0.57	9.94				1.00	1.21		1.32	16.55	35853
7.84	1.62	9.46				0.96	1.17		1.72	15.58	38243
8.04	1.29	9.33				0.81	0.98		1.66	15.00	38445
8.00	0.50	8.50				0.82	1.00		1.50	14.47	
8.91	0.61	9.52				0.48	0.58	3.83		16.44	35854
7.74	0.78	8.52				0.45	0.55	4.13		15.31	38244
7.31	0.57	7.88				0.59	0.72	3.40	1.07	15.75	38446
8.00	0.50	8.50				0.41	0.50	4.00		15.24	
9.86	0.62	10.48	0.23		1.61	1.84	2.23		1.80	20.68	35855
9.17	2.27	11.44				1.36	1.65		2.06	19.14	38245
8.00	0.50	8.50				1.65	2.00	1.00	1.00	17.78	
11.50	1.61	13.11	0.30		1.36	1.66	2.02		2.26	22.96	35856
8.88	3.66	12.55	0.20		1.77	1.97	2.39		2.14	21.60	38246
10.00	0.50	10.50				1.65	2.00	1.00	1.00	20.18	
9.10	0.79	9.89				0.96	1.17		1.41	16.29	35857
8.00	0.50	8.50				0.82	1.00		1.50	14.47	

TABLE 1.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35858 38248 38247	Louisville Fertilizer Co. Eagle High Grade Tobacco & Potato Grower	Manufacturers
		L. S. Brough, Bowling Green.....
35859 38248 38395	Eagle Tobacco Grower.....	Manufacturers
		Rubel Hardware Co., Lebanon.....
		J. H. Florence, New Haven.....
35860 38047	Eagle Potato Grower.....	Manufacturers
		Isaac R. Smith, Harrods Creek.....
35861 38249	Eagle Truck Grower.....	Manufacturers
		L. S. Brough, Bowling Green.....
35478	Morris & Company, Chicago, Ill. Big Three	Manufacturers
35479 38253	Big Four	Manufacturers
		Redmon & Burba Co., Hodgenville....
35480 38449	Big Five	Manufacturers
		Grayson Co. Supply Co., Leitchfield..
35483	Big Eight, Ammoniated Acid Phosphate & Potash.....	Manufacturers
35484	Big Nine	Manufacturers
35485	Big Ten, Grain Grower.....	Manufacturers
35487 38254	Big Twelve, Prepared Manure with Phosphate & Potash.....	Manufacturers
		Redmon & Burba Co., Hodgenville...

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.	
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.			
7.42	1.36	8.78	0.52		1.27	1.79	2.17		3.90	\$20.39	35858	
7.79	1.44	9.23	0.58		0.99	1.57	1.91		4.59	20.94	38217	
7.00	0.50	7.50				1.65	2.00		4.00	19.18		
8.89	0.98	9.87	1.79		0.81	2.60	3.16		6.57	28.04	35859	
8.76	1.78	10.54		0.88	1.09	1.97	2.39		4.30	23.28	38248	
9.32	0.74	10.06	1.20		1.27	2.47	3.00		6.24	27.62	38395	
8.00	0.50	8.50				2.47	2.00		6.00	25.65		
9.34	0.77	10.11	1.58		0.90	2.48	3.01		6.91	28.49	35860	
8.67	0.59	9.26	1.57		1.33	2.90	3.52	4.98	1.40	27.45	38047	
8.00	0.50	8.50				2.47	2.00		6.00	25.65		
9.27	1.02	10.29	0.51		1.33	1.84	2.23		10.50	30.57	35861	
9.71	0.68	10.39	0.22		1.05	1.27	1.54		10.55	29.03	38249	
8.00	0.50	8.50				1.65	2.00		10.00	27.58		
7.21	3.75	10.96					2.51	3.05	2.19	21.57	35478	
6.00	4.00	10.00					2.47	3.00	2.00	19.85		
7.53	4.54	12.07					4.40	5.34	4.20	32.30	35479	
9.15	2.98	12.13					1.16	5.05	3.43	30.85	38253	
7.00	5.00	12.00					4.12	5.00	4.00	29.62		
7.76	3.43	11.19					2.53	3.07	1.15	20.92	35480	
9.23	3.01	12.30					2.29	2.78	0.70	0.94	22.20	38449
6.00	4.00	10.00					2.47	3.00	1.00	18.65		
7.42	0.75	8.17					1.04	1.26	1.03	14.08	35483	
7.00	1.00	8.00					0.82	1.00	1.00	12.87		
7.75	2.46	10.21					1.90	2.31	5.39	23.40	35484	
8.00	2.00	10.00					1.65	2.00	5.00	22.18		
7.89	2.64	10.53					1.71	2.08	2.06	18.99	35485	
8.00	2.00	10.00					1.65	2.00	2.00	18.58		
8.83	0.34	9.17					0.94	1.14	3.40	18.11	35487	
8.36	0.52	8.88					1.08	1.31	3.24	17.91	38254	
7.00	2.00	9.00					0.82	1.00	3.00	15.67		

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35661	Mt. Pleasant Fertilizer Co., Mt. Pleasant, Tenn. Big Success Blood, Bone and Potash	Manufacturers
38255		Murray & Watkins, London.....
35663	Big Success Universal.....	Manufacturers
35664	Big Success Potato Special...	Manufacturers
35666	Big Success Cantaloupe and Vegetable Special	Manufacturers
35667	Big Success Corn Special....	Manufacturers
38256		R. H. Christman, Berea.....
35669	Black Patch Grain & Seeding Down	Manufacturers
35670	Black Patch Farmers Friend...	Manufacturers
38257		Murray & Watkins, London.....
35672	Black Patch Tobacco Special.	Manufacturers
38259		T. H. Cochran & Co., Marion.....
35673	Black Patch Best by Test....	Manufacturers
35674	Black Patch Tobacco Grower.	Manufacturers
38260		R. H. Christman, Berea.....
35675	Tennessee & Kentucky Tobacco Grower	Manufacturers

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				POTASH.		Estimated Value Per Ton.	Station Number.		
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.	Equivalent to Ammonia.	From Muriate.			From Sulphate.	
11.10	3.82	14.92				0.91	1.10	0.98	5.82	\$26.00	35661	
10.88	6.09	16.97				0.91	1.10	6.42	28.39	38255		
9.00	2.00	11.00				0.82	1.00	7.00	22.87			
9.75	5.55	15.30	0.27		0.81	1.08	1.31	4.46	22.16	35663		
8.00	2.00	10.00				0.82	1.00	4.00	18.07			
9.27	3.39	12.65	1.67		0.73	2.40	2.91	8.22	30.74	35664		
7.00	2.00	9.00				2.47	3.00	6.00	25.05			
6.46	3.61	10.07				3.17	3.85	5.36	7.16	32.24	35666	
6.00	2.00	8.00				3.29	4.00	10.00	31.52			
7.97	6.12	14.09				1.68	2.04	2.53	20.93	35667		
10.04	8.72	18.76		0.31	1.14	1.45	1.76	0.68	1.02	22.52	38256	
8.00	2.00	10.00				1.65	2.00	2.00	18.18			
10.71	6.40	17.11		0.62	0.90	1.52	1.85	3.21	23.94	35669		
10.00	2.00	12.00				1.65	2.00	2.00	20.58			
11.95	4.69	16.64				0.95	1.15	1.02	1.67	22.57	35670	
10.12	7.08	17.20		0.22	0.90	1.12	1.36	1.20	1.29	21.64	38257	
10.00	2.00	12.00				0.82	1.00	3.00	19.27			
9.96	2.22	12.18			0.87	1.03	1.90	2.31	12.87	34.93	35672	
8.43	4.96	13.39			0.80	0.85	1.65	2.00	0.94	10.50	31.42	38259
8.00	2.00	10.00				1.65	2.00	10.00	28.18			
13.54	0.56	14.10		0.91	0.60	1.51	1.83	7.25	30.46	35673		
12.00	2.00	14.00				1.65	2.00	6.00	28.18			
9.39	5.90	15.29	0.44		0.56	1.00	1.21	2.10	19.65	35674		
10.10	7.97	18.07				0.99	1.20	0.92	2.87	23.14	38260	
8.00	2.00	10.00				0.82	1.00	4.00	18.07			
8.93	7.52	16.45				1.60	1.94	3.92	24.03	35675		
8.60	2.00	10.60				1.65	2.00	4.00	20.98			

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35676	Mt. Pleasant Fertilizer Co. Big Success Tobacco Grower.	Manufacturers
35677	Big Success A.....	Manufacturers
35809	National Fertilizer Co., Nashville, Tenn. Old Hickory Tobacco Grower.	Manufacturers
35810	Old Hickory Corn and Wheat Guano	Manufacturers
38261		T. I. Smith, Cane Valley.....
38455		H. H. McGuffey, Burnside.....
35814	Old Hickory Guano.....	Manufacturers
35816	Old Hickory Corn Grower....	Manufacturers
35817	Old Hickory Blood & Bone...	Manufacturers
38263		T. I. Smith, Cane Valley.....
38457		Barnett Bros., London.....
35818	Old Hickory Special High Grade Tobacco Grower.....	Manufacturers
38458		P. M. Bartleston, Burnside.....
35819	Old Hickory Special Tobacco Grower No. 2.....	Manufacturers
38264		F. A. Yost & Co., Hopkinsville.....
35821	Old Hickory Fruit & Vegetable Grower No. 1.....	Manufacturers

COMPLETE FERTILIZERS.

Available.	PHOSPHORIC ACID.		NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
8.85	0.47	9.32	1.83		1.62	3.45	4.19	1.34	9.63	\$35.79	35676
8.00	2.00	10.00				3.29	4.00		10.00	33.92	
11.59	6.32	17.91				0.96	1.17	0.72	3.45	24.66	35677
12.00	2.00	14.00				0.82	1.00		4.00	22.87	
12.75	1.34	14.09				0.90	1.09	2.97		21.96	35809
10.00	1.00	11.00				1.65	2.00		2.00	20.58	
7.85	0.38	8.23				1.17	1.42	4.23		18.00	35810
10.25	1.45	11.70				0.85	1.03	3.53		19.39	38261
9.52	0.60	10.12				0.72	0.87	1.34		15.52	38455
8.00	2.00	10.00				0.82	1.00	2.00		15.27	
7.97	1.59	9.56				1.87	2.27	3.19		19.94	35814
8.00	2.00	10.00				1.65	2.00	2.00		18.18	
11.13	1.54	12.67				0.94	1.14	1.18		18.45	35816
10.00	1.00	11.00				0.82	1.00	1.00		16.27	
10.67	1.85	12.52				0.93	1.13	1.10		17.90	35817
11.68	1.36	13.04				0.85	1.03	1.25		18.79	38263
9.79	1.11	10.90				0.78	0.92	1.26		16.11	38457
10.00	1.00	11.00				0.82	1.00	1.00		16.27	
11.31	2.28	13.59				1.65	2.00		7.96	29.81	35818
9.89	1.90	11.79				1.57	1.91		8.89	28.80	38458
10.00	1.00	11.00				1.65	2.00		8.00	27.78	
9.84	0.88	10.72				1.70	2.06	6.30		24.41	35819
10.12	1.63	11.75				1.61	1.95	3.78		22.21	38264
8.00	2.00	10.00				1.65	2.00		5.00	22.18	
11.56	1.71	13.27				1.60	1.94	0.84	7.12	29.53	35821
10.00	1.00	11.00				1.65	2.00	8.00		26.18	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35822	National Fertilizer Co. Old Hickory Fruit & Vegetable Grower No. 2.....	Manufacturers
35823	Old Hickory Fruit & Vegetable Grower No. 3.....	Manufacturers
35976	Old Hickory Extra Special To- bacco Grower	Manufacturers
38265	F. A. Yost & Co., Hopkinsville.....	
35977	Old Hickory Black Patch Spe- cial	Manufacturers
38033	Old Hickory Miller's Tobacco Grower	Manufacturers
38106	Old Hickory Wheat Grower..	Manufacturers
38266	T. I. Smith, Cane Valley.....	
38107	Old Hickory Special High Grade Wheat Grower.....	Manufacturers
38394	M. E. Webb, Guthrie.....	
38108	Old Hickory High Grade Wheat Grower	Manufacturers
38110	Old Hickory Special Wheat Grower	Manufacturers
38193	Old Hickory Wheat Special..	Manufacturers
38459	J. E. Eads, Burnside.....	

COMPLETE FERTILIZERS.

Available.	PHOSPHORIC ACID.		NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.	
	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.			
11.32	1.16	12.48					2.09	2.54	6.83	\$28.19	35322	
10.00	1.00	11.00					2.47	3.00	6.00	27.05		
8.35	1.08	9.43					2.21	2.68	5.70	23.89	35823	
7.00	1.00	8.00					2.47	3.00	6.00	23.45		
11.97	0.68	12.65					1.33	1.61	15.96	38.44	35976	
10.66	1.39	12.05					1.66	2.02	9.61	28.77	38265	
10.00	1.00	11.00					1.65	2.00	10.00	30.18		
12.13	0.57	12.70					0.79	0.96	11.36	28.92	35977	
10.00	1.00	11.00					0.82	1.00	12.00	29.67		
7.83	1.45	9.28					1.67	2.03	3.58	19.41	38033	
8.00	2.00	10.00					1.65	2.00	2.00	18.98		
12.58	1.56	14.14					0.85	1.03	3.11	21.81	38106	
10.99	1.52	12.51					1.38	1.68	2.06	20.69	38266	
10.00	1.00	11.00					1.65	2.00	2.00	20.18		
14.53	1.73	16.26					1.41	1.71		5.25	29.37	38107
14.31	1.03	15.34					1.33	1.61		5.57	28.92	38394
12.00	1.00	13.00					1.65	2.00	6.00		26.58	
13.31	1.19	14.50					1.62	1.97	6.71	28.83	38108	
12.00	1.00	13.00					1.65	2.00	4.00	24.58		
12.52	1.35	13.87					1.90	2.31	8.77	30.98	38110	
10.00	1.00	11.00					2.47	3.00	3.00	24.05		
10.04	1.77	11.81					0.50	0.61	3.96	18.47	38193	
10.49	1.19	11.68					0.49	0.59		3.76	19.30	38459
10.00	1.00	11.00					0.41	0.50	4.00	18.14		

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
38013	Queen City Fertilizer Co., Cincinnati, O. Miami Valley Grain Grower	Manufacturers
38014	Valley Gem Phosphate.....	Manufacturers
38015	Big Bonanza Tobacco & Potato Grower	Manufacturers
38017	Lion Truck Grower.....	Manufacturers
35699 38272	Read Phosphate Co., Nashville, Tenn. Standard Tobacco Grower....	Manufacturers
	I. K. Miller & Sons, Campbellsville..	Manufacturers
35700 38273	High Grade Tobacco Grower..	Manufacturers
	I. K. Miller & Sons, Campbellsville..	Manufacturers
35701 38274	High Grade Tobacco Special.	Manufacturers
	Barren County H'dware Co., Glasgow.	Manufacturers
35702	Complete Tobacco Grower....	Manufacturers
35703	Red Diamond Tobacco Special	Manufacturers
35704	Perfect Tobacco Fertilizer...	Manufacturers
35705	Vegetable, Fruit & Vine Grower	Manufacturers

COMPLETE FERTILIZERS.

Available.	PHOSPHORIC ACID.		NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muricite.	From Sulphate.		
6.69 8.00	2.49 1.00	9.18 9.60				3.15 1.22	3.82 1.50	2.34 2.50		\$22.40 16.81	38013
8.67 8.00	0.85 1.00	9.52 9.00				0.87 0.82	1.06 1.00	2.06 2.00		15.85 14.87	38014
8.63 8.00	1.77 1.00	10.40 9.00				0.89 0.82	1.08 1.00	3.46 4.00		17.65 16.87	38015
7.55 6.00	1.05 1.00	8.60 7.00				1.66 1.65	2.02 2.00		6.95 6.00	23.73 20.58	38017
9.88 9.13 8.00	6.20 2.60 4.00	16.08 12.13 12.00		1.18 1.14	0.62 0.60	1.80 1.74 1.65	2.19 2.11 2.00		2.53 1.35 2.00	23.68 20.91 19.38	35699 38272
9.22 8.45 8.00	5.21 3.71 4.00	14.43 12.16 12.00		1.27 1.26	0.69 0.61	1.96 1.87 1.65	2.38 2.27 2.00		3.98 2.68 4.00	24.78 21.39 21.78	35700 38273
9.52 9.45 8.00	2.45 2.13 4.00	11.97 11.58 12.00		1.28 0.49	0.59 0.97	1.87 1.46 1.65	2.27 1.77 2.00	1.90	7.22 5.12 8.00	28.69 25.34 26.58	35701 38274
9.50 8.00	1.26 4.00	10.76 12.00		1.22	0.59	1.81 1.65	2.20 2.00		8.59 10.00	29.77 28.98	35702
9.25 8.00	0.87 4.00	10.12 12.00		1.91	0.51	2.42 2.47	2.94 3.00		8.95 10.00	31.88 31.85	35703
11.40 10.00	0.98 4.00	12.38 14.00		1.18	0.60	1.78 1.65	2.16 2.00		4.21 4.00	25.35 24.18	35704
7.74 6.00	5.92 4.00	13.66 10.00		1.24	0.61	1.85 1.65	2.25 2.00		8.52 8.00	28.36 24.18	35705

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35706 38275	Read Phosphate Co. Special Potato Grower.....	Manufacturers Dave Hatter & Son, Franklin.....
35707	Red Diamond Special.....	Manufacturers
35708 38276 38465	Blood and Bone No. 1.....	Manufacturers I. K. Miller & Sons, Campbellsville.. M. L. Spurling, Campbellsville.....
35709	Russell County Special.....	Manufacturers
35710 38277 38466	Soluble Bone	Manufacturers Woodson Lewis, Greensburg..... M. L. Spurling, Campbellsville.....
35711 38278 38467	High Grade Ammoniated Dis- solved Bone	Manufacturers Owens & Wilson, Greasy Creek..... D. H. Hatter & Son, Franklin.....
35712 38279 38468	Farmers Special Manure.....	Manufacturers E. I. Cain, Mintonville..... M. L. Spurling, Campbellsville.....
35713 38280	Blood & Bone Special.....	Manufacturers I. K. Miller & Sons, Campbellsville...
35714	Wheat & Clover Grower.....	Manufacturers
35715 38281	Special Corn Grower.....	Manufacturers E. I. Cain, Mintonville.....

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
9.91	2.87	12.78		1.37	0.64	2.01	2.44		5.57	\$26.77	35706
9.74	3.00	12.74	0.26	0.48	0.73	1.47	1.78	1.70	2.56	22.81	38275
8.00	4.00	12.00				1.65	2.00		6.00	24.18	
11.02	2.84	13.86		1.77	0.51	2.28	2.77		0.41	22.83	35707
10.00	4.00	14.00				2.47	3.00		3.00	25.85	
9.51	6.48	15.99		1.19	0.56	1.75	2.10		2.52	23.15	35708
9.04	2.51	11.55		1.01	0.70	1.71	2.08	3.06		20.90	38276
7.94	6.44	14.38		0.95	0.66	1.61	1.95		2.09	20.26	38465
8.00	4.00	12.00				1.65	2.00		2.00	19.38	
8.84	8.63	17.47		0.77	0.41	1.18	1.43		3.03	21.83	35709
8.00	4.00	12.00				0.82	1.00		3.00	17.67	
8.68	9.89	18.57		0.76	0.42	1.18	1.43		2.13	21.07	35710
8.91	1.90	10.81		0.56	0.26	0.82	1.00	2.75		17.07	38277
9.75	5.64	15.39				0.74	0.90		1.50	18.35	38466
8.00	4.00	12.00				0.82	1.00		2.00	16.47	
11.77	2.41	14.18		1.32	0.61	1.93	2.34		2.38	24.70	35711
9.52	3.38	12.90	0.21	0.74	0.71	1.66	2.02	2.77		21.35	38278
9.97	2.64	12.61				0.67	0.81		2.21	18.02	38467
10.00	4.00	14.00				1.65	2.00		2.00	21.78	
10.73	4.74	15.50		0.91	0.48	1.39	1.69		3.21	23.53	35712
10.52	2.37	12.89		0.65	0.25	0.90	1.09	3.00		19.72	38279
11.01	3.30	14.31	0.37		0.44	0.81	0.98		2.55	20.43	38468
10.00	4.00	14.00				0.82	1.00		3.00	20.07	
11.38	5.55	16.93		0.94	0.47	1.41	1.71		1.55	22.68	35713
9.51	2.12	11.63		0.37	0.35	0.72	0.87	1.28		16.06	38280
10.00	4.00	14.00				0.82	1.00		1.00	17.67	
11.25	5.21	16.46		0.81	0.46	1.27	1.54		2.31	22.80	35714
10.00	4.00	14.00				0.82	1.00		2.00	18.87	
11.10	6.85	17.95		0.39	0.49	0.88	1.07		1.39	20.81	35715
8.05	1.28	9.33		0.24	0.24	0.48	0.58	1.90		13.75	38281
10.00	4.00	14.00				0.41	0.50		1.00	16.24	

TABLE I.

COMPLETE FERTILIZERS.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
38037	The Smith Agricultural Chemical Co., Columbus, O. Ohio Farmers Wheat Maker & Seeding Down	Manufacturers
38038	Ohio Farmers Corn, Oats & Wheat Fertilizer	Manufacturers
38282		Henderson & Sticklett, Vanceburg...
38039	Ohio Farmers Tobacco Grower	Manufacturers
38283		Henderson & Sticklett, Vanceburg...
38040	Abbott & Martin Harvest King	Manufacturers
38041	Ohio Farmers Potato & Tobacco Special	Manufacturers
35767	Smith Bros., Louisville, Ky. Special Tobacco Grower.....	Manufacturers
38291		Greenville Hardware Co., Greenville..
35769	Corn and Wheat Grower.....	Manufacturers
38292		Greenville Hardware Co., Greenville..
38470		Smith Brothers, O'Bannon.....
35771	Success Crop Grower.....	Manufacturers
38293		Greenville Hardware Co., Greenville..
35773	Standard Tobacco Grower....	Manufacturers
35774	Kentucky Tobacco Grower...	Manufacturers
35775	High Grade Potato Grower...	Manufacturers

Available.	PHOSPHORIC ACID.		NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
8.40	1.34	9.74		0.31	0.53	0.84	1.02	2.13		\$15.69	38037
8.00						0.82	1.00	2.00		14.47	
8.17	1.29	9.46		0.60	0.64	1.24	1.51	2.17		16.83	38038
8.14	1.70	9.84		0.44	0.80	1.24	1.51	2.41		17.20	38282
8.00						1.23	1.50	2.00		15.91	
9.23	1.35	10.58				0.86	1.04	4.09		18.72	38039
7.90	1.12	9.02		0.29	0.50	0.79	0.96	3.71		16.41	38283
8.00						0.82	1.00	4.00		16.47	
8.46	2.47	10.93		0.63	0.67	1.30	1.58	1.78		17.47	38040
8.00						1.23	1.50	2.00		15.91	
8.19	1.75	9.94		0.79	0.72	1.51	1.83	4.01		19.83	38041
8.00						1.65	2.00	4.00		19.38	
8.77	1.22	9.97		0.84	0.92	1.76	2.14	5.57		22.74	35767
10.34	5.23	15.57	0.20		0.89	1.09	1.32	0.90	4.37	24.46	38291
8.00	0.50	8.50				1.65	2.00		5.00	21.53	
8.43	1.21	9.64		0.86	0.71	1.57	1.91	2.56		18.66	35769
7.16	7.36	14.52	0.33		1.36	1.69	2.05	0.72	4.19	23.20	38292
6.58	0.51	7.09				1.57	1.91		2.70	16.84	38470
8.00	0.50	8.50				1.65	2.00	2.00		17.58	
7.59	1.40	8.99				0.90	1.09	1.27		14.09	35771
8.41	7.37	15.78	0.26		0.68	0.94	1.14	1.28		17.61	38293
7.00	0.50	7.50				0.82	1.00	1.00		12.47	
8.81	1.26	10.07		0.84	0.96	1.80	2.19		2.42	20.27	35773
8.00	0.50	8.50				1.65	2.00		2.00	17.98	
7.26	2.58	9.84				1.68	2.04		4.51	21.03	35774
7.00	0.50	7.50				1.65	2.00		4.00	19.18	
8.63	1.12	9.75		1.71	0.59	2.30	2.79		6.71	26.91	35775
8.00	0.50	8.50				2.47	3.00		6.00	25.65	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35776	Smith Bros. Grain Special	Manufacturers
35778	Beef, Blood & Bone.....	Manufacturers
35966	Southern Seed Co., Louisville, Ky. Elk Corn and Wheat Grower.....	Manufacturers
35967	Elk Grain Grower.....	Manufacturers
38472	B. F. Beard & Co., Hardinsburg.....	Manufacturers
35968	Elk Standard Guano.....	Manufacturers
35969	Elk Special Tobacco Grower.....	Manufacturers
35970	Elk Tobacco Grower.....	Manufacturers
35971	Elk Potato Grower.....	Manufacturers
35459	Swift and Company, Chicago, Ill. Swift's Superphosphate	Manufacturers
38294	I. K. Miller & Sons, Campbellsville....	Manufacturers
38473	W. F. Wilson, Somerset.....	Manufacturers
35460	Swift's Onion, Potato & To- bacco Fertilizer	Manufacturers
38295	Forbes Mfg. Co., Hopkinsville.....	Manufacturers
38474	W. F. Wilson, Somerset.....	Manufacturers
35461	Swift's Champion Wheat & Corn Grower	Manufacturers

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
10.33	1.48	11.81				0.85	1.03	2.27		\$18.24	35776
10.00	0.50	10.50				0.82	1.00	2.00		17.07	
10.76	1.24	12.00				1.69	2.05	2.45		21.78	35778
10.00	0.50	10.50				1.65	2.00	2.00		19.98	
7.96	0.50	8.46	0.85		0.29	1.14	1.38		1.21	15.19	35966
7.00	1.00	8.00				0.82	1.00	1.00		12.67	
8.95	0.20	9.15				0.48	0.58		4.93	18.42	35967
8.54	0.19	8.73				0.38	0.46		3.21	15.51	38472
8.00	1.00	9.00				0.41	0.50		4.00	16.24	
9.06	0.48	9.54	0.97		0.46	1.43	1.74	1.10	1.33	18.77	35968
8.00	1.00	9.00				1.65	2.00	2.00		17.78	
8.96	0.19	9.15	0.27		0.23	0.50	0.61		5.07	18.66	35969
8.00	1.00	9.00				0.41	0.50		4.00	16.24	
9.11	0.29	9.40	2.10		0.27	2.37	2.88		6.27	27.04	35970
8.00	1.00	9.00				2.47	3.00		6.00	25.85	
9.07	0.19	9.26	2.18		0.30	2.48	3.01		6.11	27.08	35971
8.00	1.00	9.00				2.47	3.00		6.00	25.85	
8.46	5.90	14.36	0.20		1.73	1.93	2.34	2.76		22.03	35459
8.42	2.52	10.94	0.48		0.96	1.44	1.75	2.18		18.33	38294
7.69	2.64	10.33	0.44		1.28	1.72	2.09	2.27		18.58	38473
8.00	1.00	9.00				1.65	2.00	2.00		17.78	
9.18	1.81	10.99	0.54		1.60	2.14	2.60	8.15		26.42	35460
9.00	0.73	9.73	0.58		0.94	1.52	1.85	0.96	5.67	24.17	38295
8.42	1.70	10.12	0.58		1.04	1.62	1.97		6.28	23.99	38474
8.00	1.00	9.00				1.65	2.00	2.00	7.00	24.18	
12.52	0.91	13.43	0.38		1.95	2.33	2.83	2.63		26.17	35461
12.00	1.00	13.00				1.65	2.00	2.00		22.58	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35462 38296	Swift & Co. Swift's Complete Fertilizer..	Manufacturers Farmers Hardware Co., Glasgow.....
35463 38297	Swift's Tobacco & Truck Grower	Manufacturers I. K. Miller & Sons, Campbellville..
35464 38298	Swift's Kentucky Tobacco Grower	Manufacturers I. K. Miller & Sons, Campbellville..
35465 38299	Swift's Vegetable & Tobacco Grower	Manufacturers Farmers Hardware Co., Glasgow.....
35466	Swift's Diamond A Fertilizer.	Manufacturers
35467	Swift's Diamond B Fertilizer.	Manufacturers
38020 38305	Taylor and Powell, Springfield, Tenn. High Grade Tobacco Grower No. 4	Manufacturers W. J. Keith, Adairville.....
35884 38309	Tennessee Chemical Co., Nash- ville, Tenn. Ox Special Corn Grower....	Manufacturers J. C. Cowherd & Co., Greensburg.....
35885	Ox Special Wheat Grower....	Manufacturers

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
7.87	3.43	11.30				1.27	1.54	1.43		\$16.80	35462
8.29	1.17	9.46	0.37		0.67	1.04	1.26	1.08		15.14	38296
8.00	1.00	9.00				1.03	1.25	1.00		14.61	
8.29	2.61	10.90				1.10	1.34		4.13	19.80	35463
8.40	0.65	9.05	0.28		0.59	0.87	1.06		3.90	18.07	38297
8.00	1.00	9.00				0.82	1.00		4.00	17.67	
11.66	1.87	13.53	0.40		1.74	2.14	2.60	2.76		24.99	35464
10.71	2.21	12.92	0.55		0.89	1.44	1.75		1.83	20.97	38298
10.00	1.00	11.00				1.65	2.00		2.00	20.58	
9.24	0.69	9.93	0.52		2.33	2.85	3.46		11.31	34.92	35465
7.57	4.49	12.06	0.90		1.31	2.21	2.68	0.78	8.34	29.41	38299
8.00	1.00	9.00				2.47	3.00		10.00	30.65	
9.38	1.01	10.39	1.14		1.44	2.58	3.13	3.78		24.47	35466
8.00	1.00	9.00				2.47	3.00	3.00		21.65	
9.53	0.85	10.38	1.24		1.43	2.67	3.24	5.43		26.56	35467
8.00	1.00	9.00				2.47	3.00	5.00		23.65	
9.04	3.75	12.79	0.63	0.22	1.20	2.05	2.49	1.32	2.63	24.01	38020
8.43	1.63	10.06	0.41		1.66	2.07	2.51	0.66	3.44	22.81	38305
8.00						2.06	2.50		4.00	21.61	
7.61	0.47	8.08				1.04	1.26		1.06	14.23	35884
6.45	1.06	7.51	0.26		0.53	0.79	0.96	0.54	1.69	13.50	38309
7.00	0.50	7.50				0.82	1.00		1.00	12.67	
8.13	0.56	8.69				1.00	1.21		0.99	14.66	35885
7.00	0.50	7.50				0.82	1.00		1.00	12.67	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
	Tennessee Chemical Co.	
35886	Ox Grain Grower.....	Manufacturers
38310		J. C. Cowherd & Co., Greensburg.....
38483		G. W. Richardson, Somerset.....
35887	Ox Slaughter House Bone....	Manufacturers
38311		W. F. Grainger, Franklin.....
38484		G. W. Richardson, Somerset.....
35888	Ox Ammoniated Bone.....	Manufacturers
35889	Ox Pride Tobacco Grower....	Manufacturers
38312		J. C. Cowherd & Co., Greensburg.....
35890	Ox High Grade Tobacco & Potato Grower	Manufacturers
38313		J. C. Cowherd & Co., Greensburg.....
35891	Ox Special Tobacco Guano...	Manufacturers
38314		W. F. Grainger, Franklin.....
35892	Ox Truck Grower.....	Manufacturers
38315		Sexton Bros., Murray.....
38025	Ox Special Tobacco Grower..	Manufacturers
	Tennessee Valley Fertilizer Co., Florence, Ala.	
35911	Tiger Grain Grower.....	Manufacturers
35912	Tiger Blood & Bone.....	Manufacturers

COMPLETE FERTILIZERS.

Available.	PROSPHORTIC ACID.		NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
8.84	0.61	9.45				0.54	0.66	3.99		\$16.73	35886
8.22	0.22	8.44				0.48	0.58	3.16	0.57	15.47	38310
7.24	0.43	7.67	0.21			0.63	0.76	1.24	3.21	16.16	38483
8.00	0.50	8.50				0.41	0.50	4.00		15.24	
9.66	0.77	10.43	0.39			1.59	1.98	2.40	1.77	20.95	35887
7.51	5.33	12.84		0.73		0.86	1.59	1.93	2.16	18.87	38311
7.39	2.36	9.75				1.48	1.80		1.86	17.23	38484
8.00	0.50	8.50				1.65	2.00	1.00	1.00	17.78	
12.19	1.56	13.75	0.40			1.24	1.64	1.99	2.17	23.59	35888
10.00	0.50	10.50				1.65	2.00	1.00	1.00	20.18	
9.32	0.66	9.98				1.08	1.31		1.45	16.96	35889
8.92	0.70	9.62				0.82	1.00	0.62	0.92	15.57	38312
8.00	0.50	8.50				0.82	1.00		1.50	14.47	
7.45	1.29	8.74	0.41			1.34	1.75	2.12	3.86	20.22	35890
9.62	0.83	10.45				0.74	0.90		1.38	16.12	38313
7.00	0.50	7.50				1.65	2.00		4.00	19.18	
11.81	1.73	13.54	0.27			1.45	1.72	2.09	2.19	23.51	35891
10.94	5.80	16.74				1.52	1.85	0.82	2.64	24.76	38314
10.00	0.50	10.50				1.65	2.00		2.00	20.38	
9.10	1.24	10.34	0.46			1.30	1.76	2.14	1.14	9.87	35892
8.05	1.28	9.33	0.21	0.24		2.48	2.93	3.56	10.42	32.93	38315
8.00	0.50	8.50				1.65	2.00		10.00	27.53	
10.96	0.97	11.93	0.90			0.88	1.78	2.16	9.80	31.52	38025
10.00	0.50	10.50				1.65	2.00		10.00	29.98	
8.03	0.26	8.29				1.13	1.37	4.59		18.29	35911
8.00	1.00	9.00				0.82	1.00	2.00		14.87	
11.36	1.84	13.20				1.04	1.26	1.29		19.30	35912
10.00	1.00	11.00				0.82	1.00	1.00		16.27	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35913 38316 38487	Tennessee Valley Fertilizer Co. Monarch Guano	Manufacturers
		C. C. Oaks, Kendall.....
		Raison & Ramsey, Burnside.....
35914 38488	Three Links Guano.....	Manufacturers
		Raison & Ramsey, Burnside.....
35934	The T. J. Turley Co., Owensboro, Ky. Ideal Grain Grower.....	Manufacturers
35935	Ideal Tobacco Grower.....	Manufacturers
35936	Ideal Truck & High Grade Tobacco Grower	Manufacturers
35938	Ideal Wheat Grower.....	Manufacturers
35756	Tuscarora Fertilizer Co., Chicago, Ill. Ammoniated Phosphate.....	Manufacturers
35758	Big Four	Manufacturers
35762	Tuscarora Trucker	Manufacturers
35763	Wheat & Corn Grower.....	Manufacturers
35764	Tobacco Special	Manufacturers
35765	Tuscarora Standard	Manufacturers

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.		From Muriate.	From Sulphate.		
7.72	1.40	9.12				1.68	2.04	3.19	\$18.89	35913	
7.79	2.35	10.14				1.34	1.63	2.16	17.14	38316	
7.39	1.99	9.38				1.58	1.92	2.97	18.17	38487	
8.00	1.00	9.00				1.65	2.00	2.00	17.78		
10.19	2.11	12.30				1.45	1.76	2.43	20.58	35914	
9.71	2.24	11.95				1.75	2.12	2.73	21.41	38488	
10.00	1.00	11.00				1.65	2.00	2.00	20.18		
8.22	1.33	9.55				0.88	1.07	4.13	17.60	35934	
8.00	0.50	8.50				0.82	1.00	3.00	15.67		
8.01	1.08	9.09		0.86	0.85	1.71	2.08		4.54	21.48	35935
8.00	0.50	8.50				1.65	2.00		4.00	20.38	
10.80	1.11	11.91		0.84	0.86	1.70	2.06		8.65	29.73	35936
10.00	0.50	10.50				1.65	2.00		8.00	27.58	
8.25	1.11	9.36		0.74	0.94	1.68	2.04	2.84		19.06	35938
8.00	0.50	8.50				1.65	2.00	2.00		17.68	
7.28	1.17	8.45				0.84	1.02	1.58		13.73	35756
7.00	0.50	7.50				0.82	1.00	1.00		12.47	
7.18	2.64	9.82				1.45	1.76		4.68	20.38	35758
7.00	0.50	7.50				1.65	2.00		4.00	19.18	
8.38	3.20	11.58		1.63	2.34	3.97	4.82		8.09	34.92	35762
8.00	0.50	8.50				4.12	5.00		7.00	32.62	
11.38	0.64	12.00		0.86	0.84	1.70	2.06	2.88		22.70	35763
10.00	0.50	10.50				1.65	2.00	2.00		19.98	
8.30	1.13	9.43		0.88	0.80	1.68	2.04		5.69	23.12	35764
8.00	0.50	8.50				1.65	2.00		5.00	21.58	
8.53	1.06	9.59		0.86	0.77	1.63	1.98	2.72		19.09	35765
8.00	0.50	8.50				1.65	2.00	2.00		17.58	

TABLE I.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35951	Virginia-Carolina Chemical Co., Memphis Tenn. Beef, Blood & Bone Fertilizer	Manufacturers
35952 38491	Royal Blood, Bone & Potash..	Manufacturers
		Dickinson Bros., Glasgow.....
35953 38320	National Tobacco Fertilizer..	Manufacturers
		E. B. Ferguson, Benton.....
35954 38492	Royal Tobacco Fertilizer.....	Manufacturers
		Dickinson Bros., Glasgow.....
35955	Champion Corn & Wheat Grower	Manufacturers
35655	Wood, Stubbs & Co., Louisville, Ky. Acme Brand Special Truckers Fertilizer	Manufacturers
35656	Acme Brand Wheat & Corn Fertilizer	Manufacturers
35657	Acme Brand Potato & Tobac- co Fertilizer	Manufacturers
35658	Acme Brand Blood, Bone & Potash	Manufacturers
35659	Acme Brand High Grade Veg- etable Fertilizer	Manufacturers

COMPLETE FERTILIZERS.

PHOSPHORIC ACID.			NITROGEN.				POTASH.		Estimated Value Per Ton.	Station Number.	
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Sulph.	Organic.	Total.	Equivalent to Ammonia.	From Muriate.			From Sulphate.
9.47	0.64	10.11		0.51	1.31	1.82	2.21	2.38		\$20.37	35951
8.00	2.00	10.00				1.65	2.00	2.00		18.18	
9.53	0.71	10.24		0.44	1.38	1.82	2.21	2.42		20.51	35952
7.66	1.71	9.37		0.51	1.50	2.01	2.44	3.18		20.09	38491
8.00	2.00	10.00				1.65	2.00	2.00		18.18	
8.35	0.50	8.85		0.52	1.44	1.96	2.38		3.99	21.87	35953
8.47	0.48	8.95		0.83	0.80	1.63	1.98		3.12	19.80	33320
7.00	2.00	9.00				1.65	2.00		4.00	19.78	
8.65	0.54	9.19		0.58	1.33	1.91	2.32		5.33	23.69	35954
7.52	2.05	9.57		0.72	1.01	1.73	2.10		4.94	21.83	38492
8.00	1.00	9.00				1.65	2.00		5.00	21.78	
8.82	1.40	10.22		0.22	0.86	1.08	1.31	2.10		17.02	35955
8.00	2.00	10.00				0.82	1.00	2.00		15.27	
9.72	2.01	11.73	2.16		0.52	2.68	3.25	0.76	2.55	25.66	35655
8.00	4.00	12.00				2.47	3.00		2.00	22.25	
11.73	2.68	14.41	0.78		0.40	1.18	1.43		3.46	23.43	35656
10.00	4.00	14.00				0.82	1.00		2.00	18.87	
9.50	0.70	10.20	2.09		0.35	2.44	2.96	0.98	6.30	28.76	35657
8.00	4.00	12.00				2.47	3.00		6.00	27.05	
11.41	1.02	12.43	1.58		0.46	2.04	2.48	0.64	2.59	24.99	35658
10.00	4.00	14.00				1.65	2.00		2.00	21.78	
11.61	0.29	11.90	3.07		0.20	3.27	3.97	0.76	5.12	32.40	35659
10.00	4.00	14.00				3.29	4.00		4.00	29.92	

TABLE II.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35493 38323	The American Agr'l Chemical Co., Cin. Sales Dept., Cincinnati, O. Pure Ground Bone.....	Manufacturers R. S. Ramsey, Burnside.....
35494 38324	Fine Raw Bone.....	Manufacturers A. H. Miller Implement Co., Elizabethtown.....
35517 38069	The American Agr'l Chemical Co., Bowker Fert. Works, Cincinnati, O. Bowker's Pure Bone and Potash Mixture	Manufacturers Murray & Watkins, London.....
35518 38070 38332	Bowker's Pure Ground Bone..	Manufacturers Richeson & Turner, Campbellsville... Richeson & Turner, Campbellsville...
35531 38088 38338	The American Agr'l Chemical Co., Michigan Carbon Works, Cincinnati, O. Wolverine Pure Ground Bone.	Manufacturers N. F. Hill, Bowling Green..... J. R. Davis & Bro., Campbellsville....
35549 38102	The American Agr'l Chemical Co., Cin. Sales Dept., Cincinnati, O. N-W Horse Shoe Brand Pure Ground Bone	Manufacturers Forbes Mfg. Co., Hopkinsville.....

BONES, TANKAGE, &C.

PERCENTAGE OF FINENESS.		Total Phosphoric Acid.	Equivalent to Bone Phosphate.	Nitrogen.	Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Fine Bone.	Medium Bone.					From Muriate.	From Sulphate.		
68	32	21.85	47.72	2.75	3.34			\$25.71	35493
59	41	22.85	49.90	2.59	3.14			25.48	38323
		20.00	43.67	2.47	3.00			20.65	
65	35	22.49	49.12	4.18	5.07			31.05	35494
100		20.45	44.66	4.20	5.10			31.06	38324
		22.00	48.06	3.29	4.00			24.72	
72	28	17.77	38.81	1.21	1.47	5.34		22.80	35517
76	24	19.23	42.99	0.90	1.09	3.75		21.36	38069
		18.00	39.31	0.82	1.00	3.00		16.67	
59	41	21.65	47.27	2.77	3.36			25.25	35518
70	30	21.45	46.86	2.45	2.97			24.45	38070
72	28	24.45	53.39	1.91	2.32			24.28	38332
		20.00	43.67	2.47	3.00			20.65	
70	30	21.45	46.86	2.78	3.37			25.60	35531
70	30	19.35	42.26	2.62	3.18			21.94	38088
73	27	18.41	40.21	2.44	2.96			22.27	38338
		20.00	43.67	2.47	3.00			20.65	
63	37	21.55	47.06	2.62	3.18			24.81	35549
58	42	25.24	55.13	2.35	2.85			26.30	38102
		20.00	43.67	2.47	3.00			20.65	

TABLE II.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35561	The American Agr'l Chemical Co., Cin. Sales Dept., Cincinnati, O. Packer's Boar's Head Brand Chicago Bone Meal.....	Manufacturers
38351		Stokes Bros., Burnside.....
35737	The Armour Fertilizer Works, Chicago, Ill. Armour's Bone Meal.....	Manufacturers
35738	Mixed Bone and Potash.....	Manufacturers
38353		Forbes Mfg. Co., Hopkinsville.....
35747	Raw Bone Meal.....	Manufacturers
38357		L. S. Brough, Bowling Green.....
38200	Bone Meal	Manufacturers
38352		L. S. Brough, Bowling Green.....
38026	Baugh & Sons Co., Norfolk, Va. Baugh's Raw Bone Meal.....	Manufacturers
35825	Central Manufacturing Co., Lockland, O. Equity Bone Tankage and Potash	Manufacturers
38126		Richeson & Turner, Campbellsville....
35826	Equity Fifty-Three Bone Meal.....	Manufacturers
38127		W. W. Mitchell & Co., Greensburg.....
38364		Richeson & Turner, Campbellsville....
38361	Equity Raw Bone Meal.....	Manufacturers

BONES, TANKAGE, & C.

PERCENTAGE OF FINENESS.		Total Phosphoric Acid.	Equivalent to Bone Phosphate.	Nitrogen.	Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Fine Bone.	Medium Bone.					From Muriate.	From Sulphate.		
74	26	21.37	46.67	2.58	3.13			\$25.02	35561
80	20	17.47	38.15	2.57	3.12			22.27	38351
		20.00	43.67	2.47	3.00			20.65	
75	25	27.72	60.55	1.82	2.21			27.16	35737
		27.00	58.96	1.65	2.00			21.98	
85	15	18.95	41.38	0.91	1.10	4.13		21.91	35738
76	24	20.96	45.78	0.89	1.08	4.11		22.99	38353
		18.00	39.31	0.82	1.00	4.00		17.67	
59	41	26.06	56.91	3.94	4.78			32.50	35747
80	20	26.14	57.08	3.90	4.73			33.52	38357
		22.00	48.06	3.71	4.50			26.19	
82	18	26.22	57.26	1.85	2.25			26.36	38200
78	22	26.40	57.67	1.81	2.20			26.30	38352
		24.00	52.42	2.47	3.00			23.05	
95	5	21.16	46.21	3.83	4.65			30.13	38026
		21.50	46.95	3.71	4.50			25.89	
67	33	17.14	37.44	3.83	4.65	2.50		28.49	35825
70	30	10.89	23.78	5.46	6.63	2.81		29.98	38126
		15.00	32.76	3.71	4.50	2.00		23.99	
39	61	24.79	54.15	3.43	4.16			28.82	35826
63	37	22.75	49.63	4.00	4.80			30.51	38127
65	35	22.57	49.27	3.30	4.01			28.03	38364
		25.00	54.59	2.47	3.00			23.65	
66	34	23.87	52.14	3.28	3.98			28.95	38361
		23.00	50.24	2.88	3.50			23.88	

TABLE II.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35999	The Cincinnati Phosphate Co., Cincinnati, O. Ground Bone	Manufacturers
35877	Continental Fertilizer Co., Nashville, Tenn. Bear Standard Raw Bone.....	Manufacturers
35962	Bear Bone Meal.....	Manufacturers
35734	The Empire Guano Co., Nashville, Tenn. Raw Bone Meal.....	Manufacturers
38186	Pure Raw Bone Meal.....	Manufacturers
35798	The Evansville Packing Co., Evansville, Ind. Pure Raw Bone Meal.....	Manufacturers
35799	Packing House Tankage.....	Manufacturers
35581 38380	Federal Chemical Co., Louisville, Ky. Daybreak Fine Raw Bone....	Manufacturers
	Grigsby & Co., Bardstown.....	Manufacturers
35582	Daybreak Raw Bone.....	Manufacturers
35606	Fox Chemical Co., Branch, Federal Chemical Co., Louisville, Ky. Fox Ground Raw Bone.....	Manufacturers

BONES, TANKAGE, &C.

PERCENTAGE OF FINENESS.		Total Phosphoric Acid.	Equivalent to Bone Phosphate.	Nitrogen.	Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Fine Bone.	Medium Bone.					From Murate.	From Sulphate.		
90	10	23.97 20.00	52.36 43.67	2.94 2.47	3.57 3.00			28.99 20.65	35999
69	31	25.62 22.00	55.96 48.06	3.85 3.71	4.67 4.50			32.38 26.19	35877
92	8	28.62 27.00	62.50 58.96	2.03 1.65	2.46 2.00			29.54 21.98	35962
36	64	21.42 25.00	46.77 54.59	3.14 2.47	3.81 3.00			25.39 23.65	35734
37	63	23.46 25.00	51.24 54.59	3.64 3.71	4.42 4.50			28.55 27.99	38186
92	8	23.02 23.00	50.27 50.24	4.31 3.71	5.23 4.50			33.13 26.79	35798
56	44	16.75 16.00	36.57 34.95	4.32 5.00	5.24 6.07			27.05 27.10	35799
63	37	24.56	53.64	3.04	3.69			28.72	35581
77	23	23.64 24.00	51.63 52.42	2.64 2.88	3.20 3.50			27.06 24.48	38380
78	22	24.81 22.00	54.18 48.06	3.76 3.71	4.56 4.50			31.57 26.19	35582
76	24	24.45 24.00	53.39 52.42	3.03 2.88	3.68 3.50			28.89 24.48	35606

TABLE II.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35607 38167 38388	Fox Chemical Co. Fox Raw Bone.....	Manufacturers Harrison Austin, Beaver Dam..... Harrison Austin, Beaver Dam.....
35635 38414	Globe Fertilizer Co., Branch, Federal Chemical Co., Louis- ville, Ky. Acorn Raw Bone.....	Manufacturers W. A. Williams, Greensburg.....
35636	Globe Raw Bone.....	Manufacturers
35928 38423	The Groves Company, Cincin- nati, O. Pure Bone & Potash Mixture.	Manufacturers A. J. Barron & Son, Science Hill.....
35929	Half and Half.....	Manufacturers
35930 38212 38424	Pure Ground Bone.....	Manufacturers I. K. Miller & Sons, Campbellsville... A. J. Barron & Son, Science Hill.....
35931 38213	Pure Raw Bone.....	Manufacturers I. K. Miller & Sons, Campbellsville...
35779 38215 38425	Hirsh, Stein & Co., Chicago, Ill. Calumet Brand Pure Raw Bone Meal	Manufacturers Jeffries Hardware Store, Columbia... Farmers Exchange, Leitchfield.....
35784	Calumet Brand Extra Bone Meal	Manufacturers

BONES, TANKAGE, &C.

PERCENTAGE OF FINENESS.		Total Phosphoric Acid.	Equivalent to Bone Phosphate.	Nitrogen.	Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Fine Bone.	Medium Bone.					From Muriate.	From Sulphate.		
81	19	24.48	53.46	3.78	4.59			\$31.44	35607
36	64	23.46	51.24	3.96	4.81			29.63	38167
59	41	22.77	49.73	3.92	4.76			30.06	38388
		22.00	48.06	3.71	4.50			26.19	
61	39	24.48	53.46	3.07	3.73			28.67	35635
77	23	21.50	46.95	2.84	3.45			26.15	38414
		24.00	52.42	2.88	3.50			24.48	
78	22	24.73	54.01	3.86	4.69			31.76	35636
		22.00	48.06	3.71	4.50			26.19	
93	7	24.28	53.03	1.25	1.52	5.73		29.19	35928
71	29	22.24	49.01	1.32	1.60	5.85		27.12	38423
		20.00	43.67	0.82	1.00	5.00		19.87	
74	26	17.49	38.15	1.85	2.25	2.62		22.18	35929
		16.00	34.95	1.65	2.00	2.00		17.38	
65	35	21.50	46.95	2.91	3.53			25.88	35930
66	34	20.45	44.64	2.65	3.22			24.25	38212
70	30	22.64	49.45	2.30	2.79			24.80	38424
		20.00	43.67	2.47	3.00			20.65	
50	50	22.98	50.18	4.42	5.37			31.55	35931
66	34	18.92	41.32	4.45	5.40			29.43	38213
		22.00	48.06	3.29	4.00			24.72	
56	44	20.78	45.37	4.59	5.57			30.86	35779
50	50	21.09	46.06	4.45	5.40			30.34	38215
45	55	21.93	47.89	4.00	4.86			29.14	38425
		20.00	43.67	3.71	4.50			24.99	
70	30	30.32	66.22	2.14	2.60			29.93	35784
		28.00	61.16	2.00	2.43			23.80	

TABLE II.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35787	Hirsh, Stein & Co. Calumet Brand Special Pure Bone Meal	Manufacturers
38220		Jeffries Hardware Store, Columbia...
38430		Farmers Exchange, Leitchfield.....
35788	Calumet Brand Special Pure Bone Meal & Potash.....	Manufacturers
38431		Farmers Exchange, Leitchfield.....
35789	Calumet Brand Pure Bone Meal	Manufacturers
38046	Bland & Alberts Pure Raw Bone Meal	Manufacturers
35939	Hopkins Fertilizer Co., New Al- bany, Ind. Old Time Pure Raw Bone...	Manufacturers
38434		C. R. Perry, Campbellsville.....
35981	The Jarecki Chemical Co., San- dusky & Cincinnati, O. Pure Ground Bone.....	Manufacturers
35907	Jones Fertilizer Co., Louisville, Ky. Jones Standard Raw Bone....	Manufacturers
38441		J. T. Parsons, Leitchfield.....
35964	Jones Bone Meal.....	Manufacturers
38442		Evans, Goodman & Dotson, Glasgow..
38010	Kaufman Fertilizer Co., Cincin- nati, O. Pure Bone	Manufacturers

BONES, TANKAGE, &C.

PERCENTAGE OF RICHNESS.		Total Phosphate Acid.	Equivalent to Bone Phosphate.	Nitrogen.	Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Fine Bone.	Medium Bone.					From Muriate.	From Sulphate.		
65	35	30.90	67.50	1.01	1.23			\$26.10	35787
56	44	29.72	64.90	1.15	1.40			25.19	38220
63	37	28.82	62.95	1.06	1.29			24.64	38430
		29.76	65.00	0.82	1.00			20.78	
74	26	21.85	47.72	1.22	1.48			27.02	35788
55	45	19.79	43.22	1.36	1.65	5.22	5.33	24.03	38431
		20.00	43.67	0.82	1.00	4.00		18.87	
77	23	26.30	57.44	2.55	3.10			28.76	35789
		22.90	50.00	2.47	3.00			22.39	
60	40	24.94	54.47	3.84	4.66			31.40	38046
		22.00	48.06	3.71	4.50			26.19	
40	60	23.26	50.79	3.73	4.53			28.88	35939
41	59	21.57	47.11	3.84	4.66			28.15	38434
		22.00	48.06	3.50	4.25			25.45	
76	24	25.09	54.79	2.73	3.31			28.43	35981
		20.00	43.67	2.47	3.00			20.65	
62	38	25.56	55.82	3.68	4.47			31.39	35907
56	44	25.01	54.62	4.01	4.87			31.85	38441
		22.00	48.06	3.71	4.50			26.19	
82	18	28.36	61.94	2.04	2.48			28.81	35964
96	4	27.70	60.49	2.21	2.68			29.68	38442
		27.00	58.96	1.65	2.00			21.98	
79	21	24.12	52.68	2.80	3.40			28.08	38010
		20.00	43.67	2.47	3.00			20.65	

TABLE II.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35653	O. K. Raw Bone	Manufacturer
35862	Louisville Fertilizer Co., Louisville, Ky. Eagle Raw Bone Mixture.....	Manufacturer
35863	Eagle Standard Raw Bone.....	Manufacturers
38250		L. S. Brough, Bowling Green.....
38396		J. H. Florence, New Haven.....
35960	Eagle Bone Meal.....	Manufacturers
38251		C. R. Hutchison, Columbia.....
35961	Eagle Special Bone Meal.....	Manufacturers
35834	P. B. Mathiason Mfg. Co., St. Louis, Mo. Bone Meal	Manufacturers
35476	Morris and Co., Chicago, Ill. Big One, Ground Raw Bone.....	Manufacturers
38447		D. H. Hatter & Son, Franklin.....
35477	Big Two, Pure Bone Meal.....	Manufacturers
38252		D. H. Hatter & Son, Franklin.....
38448		D. H. Hatter & Son, Franklin.....
35481	Big Six, Special Bone Meal & Potash	Manufacturers
38450		C. R. Barnes, Bardstown.....

BONES, TANKAGE, &C.

PERCENTAGE OF FINENESS.		Total Phosphoric Acid.	Equivalent to Bone Phosphate.	Nitrogen.	Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Fine Bone.	Medium Bone.					From Muriate.	From Sulphate.		
66	34	24.00	52.42	3.14	3.81			\$28.84	35652
		24.00	52.42	2.88	3.50			24.48	
78	22	24.68	53.90	3.81	4.63			31.35	35653
		22.00	48.06	3.71	4.50			26.19	
87	13	17.47	28.15	1.93	2.34	0.54	0.69	21.65	35862
		15.00	32.76	1.65	2.00		1.00	15.98	
65	35	25.86	56.48	3.58	4.35			31.41	35863
73	27	24.84	54.26	3.93	4.77			32.29	38250
57	43	25.80	56.35	3.87	4.70			31.97	38396
		22.00	48.06	3.71	4.50			26.19	
89	11	28.36	61.94	1.87	2.27			28.61	35960
90	10	25.56	55.82	1.83	2.22			26.35	38251
		27.00	58.96	1.65	2.00			21.98	
93	37	29.66	64.77	1.82	2.21			29.68	35961
		29.50	64.43	1.65	2.00			23.48	
63	37	20.78	45.37	1.97	2.39			21.98	35834
		20.00	43.67	1.65	2.00			17.78	
73	27	23.38	51.06	3.10	3.76			28.30	35476
67	33	27.18	59.35	3.08	3.74			30.73	38447
		24.00	52.42	3.29	4.00			25.92	
88	12	27.62	60.32	1.95	2.37			28.27	35477
74	26	25.94	56.68	2.30	2.79			27.45	38252
77	23	26.68	58.26	3.44	4.18			32.15	38448
		28.00	61.16	2.06	2.50			24.01	
90	10	16.42	35.86	0.53	0.64		3.01	18.27	35481
86	14	15.45	33.75	0.81	0.98		2.19	17.40	38450
		16.00	34.95	0.41	0.50		2.00	13.44	

TABLE II.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35482	Morris & Co. Big Seven, Special Bone Meal & Potash	Manufacturers
38451		D. H. Hatter & Son, Franklin.....
35486	Big Eleven, Bone Meal & Potash	Manufacturers
38452		D. H. Hatter & Son, Franklin.....
38103	National Fertilizer Co., Nashville, Tenn. Old Hickory Brand Nitrogen, Bone & Potash.....	Manufacturers
38496		M. A. Mason Hopkinsville.....
38104	Old Hickory Brand Nitrogen, Bone & Potash No. 2.....	Manufacturers
38105	Old Hickory Brand Nitrogen, Bone & Potash No. 3.....	Manufacturers
38042	Pero & Stoecker, Louisville, Ky. Pure Animal Matter, Corn & Wheat Grower	Manufacturers
38043	Pure Animal Matter & Potash	Manufacturers
38044	Pure Bone Meal.....	Manufacturers
38460		Clore and Hunt, Crestwood.....
35698	Read Phosphate Co., Nashville, Tenn. Raw Bone Meal.....	Manufacturers

BONES, TANKAGE, &C.

PERCENTAGE OF FINENESS.		Total Phosphoric Acid.	Equivalent to Bone Phosphate.	Nitrogen.	Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Fine Bone.	Medium Bone.					From Muriate.	From Sulphate.		
85	15	16.30	35.60	1.60	1.94		3.96	\$22.90	35482
76	24	17.98	39.27	1.55	1.88		2.99	22.54	38451
		16.00	34.95	1.23	1.50		3.00	17.61	
89	11	15.89	34.70	0.87	1.06		11.53	29.24	35486
76	24	15.91	34.76	0.97	1.18		10.33	27.76	38452
		16.00	34.95	0.82	1.00		10.00	24.47	
86	14	18.92	41.32	2.57	3.12	5.56		29.17	38103
75	25	17.35	37.89	1.93	2.34	3.25		23.02	38496
		23.00	50.24	2.47	3.00	3.00		25.45	
85	15	19.05	41.60	1.61	1.95	7.11		27.42	38104
		16.00	34.95	1.23	1.50	3.00		16.91	
81	19	19.43	42.44	1.20	1.46	8.51		17.81	38105
		16.00	34.95	0.41	0.50	2.00		13.04	
80	20	17.24	37.66	4.84	5.88			30.04	38042
		10.00	21.85	4.00	4.86			20.00	
80	20	14.14	30.87	4.15	5.04		4.62	30.82	38043
		10.00	21.85	4.00	4.86		4.00	24.80	
68	32	24.10	52.64	3.66	4.44			30.55	38044
76	24	26.44	57.75	3.27	3.97			31.33	38460
		22.00	48.06	2.50	4.25			25.45	
37	63	21.01	45.88	3.00	3.64			24.79	35698
		25.00	54.59	2.47	3.00			23.65	

TABLE II.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
38185	Read Phosphate Co. Read's Half & Half Raw Bone Meal & Acid Phosphate.....	Manufacturers
35766	Smith Bros., Louisville, Ky. Pure Raw Bone Meal.....	Manufacturers
38290		Greenville Hardware Co., Greenville..
38469		Greenville Hardware Co., Greenville..
35772	Bone Meal	Manufacturers
38471		Greenville Hardware Co., Greenville..
35777	Pure Bone Meal with Potash.	Manufacturers
38027	Smith Bros.' Bone Mixture...	Manufacturers
38018	Southern Seed Co., Louisville, Ky. Elk Pure Raw Bone.....	Manufacturers
38076	Elk Raw Bone Mixture.....	Manufacturers
35488	Standard Guano & Chemical Mfg. Co., New Orleans, La. Pure Raw Ground Bone.....	Manufacturers
35471	Swift & Co., Chicago, Ill. Swift's Pure Raw Bone Meal..	Manufacturers
38304		Thos. J. Morrison, Buffalo.....
38475		L. W. Irvin, Greenville.....
35472	Swift's Pure Bone Meal & Blood	Manufacturers
38476		Grayson Co. Supply Co., Leitchfield..

BONES, TANKAGE, &C.

PERCENTAGE OF FINENESS		Total Phosphoric Acid.	Equivalent to Bone Phosphate.	Nitrogen.	Equivalent to Ammonia.	POTASH.		Estimated Value Per Ton.	Station Number.
Fine Bone.	Medium Bone.					From Murate.	From Sulphate.		
52	48	20.99 18.00	45.85 39.31	2.28 2.06	2.77 2.50			\$22.76 18.01	33185
75	25	25.68	56.08	3.93	4.77			33.02	33766
50	50	24.20	52.86	3.65	4.43			29.72	38290
66	54	24.35 22.00	53.17 48.06	3.82 3.71	4.64 4.50			31.20 26.19	33469
76	24	28.00	61.16	1.77	2.15			27.25	35772
72	28	25.27 27.00	55.18 58.96	2.45 1.65	2.97 2.00			27.88 21.98	38471
83	17	18.92 18.00	41.32 39.31	0.88 0.82	1.07 1.00	4.09 4.00		21.66 17.67	35777
82	18	15.76 15.00	34.42 32.76	1.75 1.65	2.12 2.00	1.34 1.00		19.51 15.78	38027
35	65	21.47 22.00	46.88 48.06	4.53 3.71	5.50 4.50			30.25 26.19	33018
63	37	16.27 15.00	35.54 32.76	2.12 1.65	2.57 2.00		1.28 1.00	21.77 16.98	38076
100		21.78 20.00	47.56 43.67	3.47 3.09	4.21 3.75			29.57 22.82	35488
71	29	26.98	58.98	3.74	4.54			33.11	35471
70	30	23.16	50.57	4.07	4.94			31.41	38304
58	42	24.05 23.00	52.53 50.24	4.14 3.71	5.03 4.50			31.71 26.79	38475
73	27	24.05	52.53	3.66	4.44			30.75	35472
78	22	23.68 23.00	51.67 50.24	3.17 3.71	3.85 4.50			28.99 26.79	38476

TABLE II.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35473 38300 38477	Swift & Co. Swift's Pure Bone Meal.....	Manufacturers Forbes Mfg. Co., Hopkinsville..... Farmers Union Warehouse & Supply Co., Mumfordsville..... C. A. Sloss, Woodburn.....
38498		
35474 38301 38478 38495	Swift's Pure Bone Meal & Potash	Manufacturers W. F. Wilson, Somerset..... Farmers Union Warehouse & Supply Co., Mumfordsville..... M. A. Mason, Hopkinsville.....
35475 38479	Swift's Ground Steamed Bone.....	Manufacturers W. S. Overstreet, La. Grange.....
38021 38306 38480 38497	Taylor and Powell, Springfield, Tenn. Half and Half	Manufacturers W. J. Keith, Adairville..... J. I. Rice, Adairville..... M. A. Mason, Hopkinsville.....
38022	Raw Bone Meal	Manufacturers
35893	Tennessee Chemical Co., Nashville, Tenn. Ox Standard Raw Bone.....	Manufacturers
35963 38485	Ox Bone Meal.....	Manufacturers J. I. Rice, Adairville.....
38024	Ox Standard Bone Meal.....	Manufacturers

BONES, TANKAGE, &C.

PERCENTAGE OF FINENESS.		Total Phosphoric Acid.	Equivalent to Bone Phosphate.	Nitrogen.	Equivalent to Ammonia.	POTASH.		Estimated Value For Ton.	Station Number.
Fine Bone.	Medium Bone.					From Muriate.	From Sulphate.		
76	24	26.12	57.05	2.70	3.28			\$29.09	35473
71	29	23.97	52.36	2.78	3.37			27.52	38300
88	12	26.26	57.36	1.96	2.33			26.61	38477
81	19	24.30	53.07	1.82	2.21			24.88	38498
		24.00	52.42	2.47	3.00			23.05	
72	28	24.68	53.90	2.62	3.18	3.48		31.00	35474
82	18	23.66	51.67	2.61	3.17	3.21		30.43	38301
79	21	23.26	50.79	2.44	2.96	3.16		29.33	38478
80	20	22.77	49.73	2.45	2.97	3.11		29.00	38495
		22.50	49.15	2.47	3.00	3.00		25.15	
83	17	20.81	45.46	1.86	2.26			22.45	35475
76	24	24.12	52.68	1.85	2.25			21.61	38479
		20.00	43.67	1.65	2.00			17.78	
76	24	18.13	34.59	3.19	3.87			24.80	38021
59	41	19.13	41.77	2.53	3.07			22.59	38306
61	39	19.76	43.15	2.03	2.53			21.55	38480
66	34	17.70	38.65	2.06	2.50		3.63	24.52	38497
		17.00	37.13	2.26	2.75			18.11	
57	43	22.16	48.39	4.35	5.28			31.05	38022
		22.00	43.06	3.71	4.50			26.19	
65	35	25.17	54.97	3.60	4.37			30.98	35893
		22.00	43.06	3.71	4.50			26.19	
88	12	28.34	61.89	1.98	2.40			28.92	35963
96	4	26.14	57.08	2.58	3.13			29.73	38485
		27.00	58.96	1.65	2.00			21.98	
76	24	25.09	54.79	3.09	3.75			29.69	38024
		24.00	52.42	2.47	3.00			23.05	

TABLE II.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
38148 38486	Tennessee Chemical Co. Ox Raw Bone with Potash.....	Manufacturers F. A. Yost & Co., Hopkinsville.....
35933	The T. J. Turley Co., Owensboro, Ky. Ideal Half & Half.....	Manufacturers
35937	Ideal Bone Meal.....	Manufacturers
35757	Tuscarora Fertilizer Co., Chicago, Ill. Bone Meal	Manufacturers
35759	Raw Bone Meal.....	Manufacturers
38198	Virginia-Carolina Chemical Co., Memphis, Tenn. Ground Animal Bone.....	Manufacturers

BONES, TANKAGE, & C.

PERCENTAGE OF FINENESS.		Total Phosphoric Acid.	Equivalent to Bone Phosphate.	Nitrogen.	Equivalent to Ammonia.	POTASH.		Estimated Value For Ton.	Station Number.
Fine Bone.	Medium Bone.					From Muriate.	From Sulphate.		
71	29	21.73	47.45	2.32	2.82		3.62	\$28.58	38148
58	42	21.37 20.00	46.67 43.67	2.10 1.85	2.55 2.25	3.84	3.00	26.49 22.08	38486
78	22	17.21 16.00	37.58 34.95	1.36 1.23	1.65 1.50	2.83 2.00		20.60 15.91	35933
76	24	27.42 27.00	59.88 58.96	1.86 1.65	2.26 2.00			27.13 21.98	35937
73	27	27.54 27.00	60.15 58.96	1.69 1.65	2.05 2.00			26.46 21.98	35757
71	29	26.12 22.00	57.05 48.06	3.94 3.71	4.78 4.50			33.17 26.19	35759
71	29	23.71 20.00	51.77 48.67	3.10 3.29	3.76 4.00			28.44 23.52	38198

TABLE III.—ACID PHOSPHATES.

Station Number	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.	PHOSPHORIC ACID.			Estimated Value Per Ton.	Station Number.
			Available.	Insoluble.	Total.		
35846	A. D. Adair and McCarty Bros., Chattanooga, Tenn. Adair's High Grade Dissolved Bone	Manufacturers	14.08 14.00	0.48	14.56	\$14.08 14.00	35846
35847	Adair's High Grade Dissolved Bone No. 16.	Manufacturers	16.49 16.00	0.42	16.91	16.49 16.00	35847
35501	The American Agr'l Chemical Co., Clin. Sales Dept., Cincinnati, O. Bradley Vert. Works Soluble Dissolved Bone	Manufacturers	15.23 14.00	8.39 2.00	18.62 16.00	15.23 14.00	35501
35505	Cleveland Dryer Works XXX Superphosphate	Manufacturers	16.38 15.87	2.30 3.20	18.74 19.07	16.38 15.87	35505 38058
38326		J. M. Smith & Co., Leitchfield. W. G. Wesley, Science Hill.	14.17 14.00	3.45 2.00	17.62 16.00	14.17 14.00	38058 38326
35506	Cleveland Dryer Works Horsehead Phosphate	Manufacturers	12.36 10.00	2.13 2.00	14.89 12.00	12.36 10.00	35506

35507	The American Agr'l Chemical Co., Bowker Fertilizer Works, Cincinnati, O. Bowker's Soluble Bone	Manufacturers	14.43 15.11 14.00	4.14 3.07 1.50	18.57 18.18 15.50	14.43 15.11 14.00	35507 38059
35508	Bowker's Acid Phosphate	Manufacturers	12.27 12.63	3.97 2.65	16.24 15.28	12.27 12.63	35508 38060
38327		T. W. Denney, Science Hill. Marcum, Gooch & Payne, Eubank	12.87 12.00	3.76 1.50	16.63 13.50	12.87 12.00	38327
35530	The American Agr'l Chemical Co., Michigan Carbon Works, Cincinnati, O. Red Line Phosphate	Manufacturers	16.16 16.32 14.20 14.00	3.25 1.17 3.57 2.00	18.41 17.49 17.77 16.00	15.16 16.32 14.20 14.00	35530 38087 38337
35547	The American Agr'l Chemical Co., Clin. Sales Dept., Cincinnati, O. N-W Horse Shoe Brand Square Deal Phosphate	Manufacturers	15.46 14.92 14.18 14.00	3.38 1.22 3.49 2.00	18.84 16.14 17.67 16.00	15.46 14.92 14.18 14.00	35547 38101 38344
35548	N-W Horse Shoe Brand Quick Acting Phosphate	Manufacturers	12.61 11.77 10.00	2.07 3.03 2.00	14.68 14.80 12.00	12.61 11.77 10.00	35548 38345

TABLE III.—ACID PHOSPHATES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.	PHOSPHORIC ACID.			Estimated Value Per Ton.	Station Number.
			Available.	Insoluble.	Total.		
35559	The American Agr'l Chemical Co., Cin. Sales Dept., Cincinnati, O.	Manufacturers	15.25	3.26	18.51	\$15.25	35559
38350	Packer's Boars Head Brand Gilt Edge Phosphate.	Tartar & Huff, Somerset.	15.05	3.90	18.95	15.05	38350
			14.00	2.00	16.00	14.00	
38560	Packer's Boars Head Brand Soluble Phosphate	Manufacturers	13.04	1.87	14.91	13.04	38560
38115		Young & Higgins, Putaski.	13.10	2.21	15.31	13.10	38115
			10.00	2.00	12.00	10.00	
35741	The Armour Fertilizer Works, Chicago, Ill.	Manufacturers	10.60	0.81	10.91	10.60	35741
	Cereal Phosphate		10.00	0.60	10.60	10.00	
35750	Star Phosphate	Manufacturers	14.02	0.40	14.42	14.02	35750
38121		Burnside & Robinson, Richmond	14.37	5.16	19.53	14.37	38121
38359		Torbes Mfg. Co., Hopkinsville.	15.06	1.31	16.37	15.06	38359
			14.00	0.60	14.60	14.00	

38197	Blood and Bone Fertilizer Co., St. Louis, Mo.	Manufacturers	17.79	2.33	20.12	17.79	38197
	"Steer Head" Soluble Bone Phosphate, High Grade.		14.00	2.00	16.00	14.00	
35824	Central Manufacturing Co., Lockland, O.	Manufacturers	15.74	0.45	16.19	15.74	35824
38125	Equity Rock Phosphate.	S. B. McKenzie, Mt. Vernon.	12.92	2.00	14.92	12.92	38125
38863		Dickson Bros., Glasgow.	15.59	1.06	16.65	15.59	38863
			14.00	1.00	15.00	14.00	
35996	The Cincinnati Phosphate Co., Cincinnati, O.	Manufacturers	13.64	2.31	15.95	13.64	35996
38136	Wheat Grower	Tartar & Huff, Somerset.	11.34	2.19	13.53	11.34	38136
			12.00	1.00	13.00	12.00	
38002	Acid Phosphate	Manufacturers	15.14	1.49	16.63	15.14	38002
			14.00	1.00	15.00	14.00	
35865	Continental Fertilizer Co., Nashville, Tenn.	Manufacturers	14.24	0.60	14.84	14.24	35865
	Bear Phosphate		12.00	0.60	12.60	12.00	
35866	Bear High Grade Dissolved Bone	Manufacturers	16.64	0.69	17.33	16.64	35866
			14.00	0.60	14.60	14.00	
35974	Duncan & Bro., La Grange, Ky.	Manufacturers	16.52	1.70	18.28	16.52	35974
	Tiger Brand Phosphate.		16.00	2.00	18.00	16.00	

TABLE III. ACID PHOSPHATES.

Station Number	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.	PHOSPHORIC ACID.			Estimated Value Per Ton.	Station Number.
			Available.	Insoluble.	Total.		
35730	The Empire Guano Co., Nashville, Tenn. Acid Phosphate	Manufacturers	12.70 12.00	7.56 2.00	20.26 14.00	\$12.70 12.00	35730
35731	High Grade Acid Phosphate.	Manufacturers	15.15 14.00	3.49 2.00	18.64 16.00	15.15 14.00	35731
35578	Federal Chemical Co., Louisville, Ky. Daybreak Royal Phosphate.	Manufacturers	16.75 14.00	1.64 2.00	18.39 16.00	16.75 14.00	35578
35579	Daybreak Standard Phosphate	Manufacturers	13.92 12.00	1.81 2.00	15.73 14.00	13.92 12.00	35579
35580	Daybreak Star Phosphate.	Manufacturers	11.42 10.00	3.47 2.00	14.89 12.00	11.42 10.00	35580
38072	Daybreak High Grade Acid Phosphate	Manufacturers	18.26 16.00	0.41 2.00	18.67 18.00	18.26 16.00	38072

35602	Fox Chemical Co., Branch, Federal Chemical Co., Louisville, Ky. Fox High Grade Acid Phosphate	Manufacturers	17.47 16.00	0.36 2.00	17.83 18.00	17.47 16.00	35602
35603 38387	Fox Acid Phosphate.	Manufacturers Harrison Austin, Beaver Dam.	16.13 15.79 14.00	1.86 3.00 2.00	17.49 18.79 16.00	16.13 15.79 14.00	35603 38387
35604	Fox Standard Acid Phosphate	Manufacturers	13.86 12.00	1.73 2.00	15.59 14.00	13.86 12.00	35604
35605	Fox AA Acid Phosphate.	Manufacturers	11.46 10.00	3.33 2.00	14.79 12.00	11.46 10.00	35605
35631 38181 38411	Globe Fertilizer Co., Branch Federal Chemical Co., Louisville, Ky. Globe High Grade Acid Phosphate	Manufacturers W. R. Taylor, Glensfork. C. M. Langdon, Science Hill.	17.85 18.33 15.69 16.00	0.31 1.10 4.86 2.00	18.16 19.43 20.45 18.00	17.85 18.33 15.69 16.00	35631 38181 38411
35632 38182 38412	Globe Acid Phosphate.	Manufacturers C. M. Langdon, Science Hill. Jeffries Hardware Store, Columbia	17.02 14.87 15.80 14.00	1.26 4.31 2.51 2.00	18.28 19.18 18.31 16.00	17.02 14.87 15.80 14.00	35632 38182 38412
35633 38413	Globe Standard Acid Phosphate	Manufacturers Jeffries Hardware Store, Columbia	14.11 17.93 14.00	1.76 1.45 2.00	15.87 19.38 14.00	14.11 17.93 12.00	35633 38413
35634	Globe AA Acid Phosphate.	Manufacturers	11.79 10.00	3.19 2.00	14.98 12.00	11.79 10.00	35634

TABLE III.—ACID PHOSPHATES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.	PHOSPHORIC ACID			Estimated Value Per Ton.	Station Number.
			Available.	Insoluble.	Total.		
35688	Great Southern Phosphate Co., Mt. Pleasant, Tenn.	Manufacturers	16.66	4.80	20.96	\$16.66	35688
38191	Great Southern Acid Phosphate	Farmers Exchange, Leitchfield.	14.87	4.77	19.64	14.87	38191
38418		Farmers Union Warehouse & Supply Co., Mumfordsville.....	15.36	3.74	19.10	15.36	38418
			14.00	2.00	16.00	14.00	
35685	Great Southern Special Acid Phosphate	Manufacturers	16.35	1.85	17.70	16.35	35685
38192		S. E. Welch, Berea.....	16.90	0.87	17.77	16.90	38192
			16.00	2.00	18.00	16.00	
35919	The Groves Co., Cincinnati, O.	Manufacturers	14.83	4.32	19.15	14.83	35919
38420	Monarch Brand	A. J. Barton & Son, Science Hill	14.16	2.87	17.03	14.16	38420
			14.00	2.00	16.00	14.00	
35945	Hopkins Fertilizer Co., New Albany, Ind.	Manufacturers	17.20	1.80	19.00	17.20	35945
	Old Time High Grade Acid Phosphate	Manufacturers	14.00	1.00	15.00	14.00	

35980	The Jarecki Chemical Co., Sandusky and Cincinnati, O.	Manufacturers	13.92	2.11	16.03	13.92	35980
38223	C. O. D. Phosphate	M. B. Hines, Science Hill.....	12.62	2.27	14.87	12.62	38223
			12.00	1.00	13.00	12.00	
35987	Acid Phosphate	Manufacturers	15.27	1.48	16.75	15.27	35987
			14.00	1.00	15.00	14.00	
35894	Jones Fertilizer Co., Louisville, Ky.	Manufacturers	13.56	0.91	14.47	13.56	35894
			12.00	0.50	12.50	12.00	
35895	Jones High Grade Dissolved Bone	Manufacturers	16.87	0.70	17.57	16.87	35895
			14.00	0.50	14.50	14.00	
38011	Kaufman Fertilizer Co., Cincinnati, O.	Manufacturers	15.01	2.00	17.01	15.01	38011
	Dissolved Phosphate		14.00	1.00	15.00	14.00	
38012	Acid Phosphate	Manufacturers	13.78	2.48	16.24	13.78	38012
			12.00	1.00	13.00	12.00	
35649	Kentucky Fertilizer Co., Branchville, Ky.	Manufacturers	16.63	1.58	18.21	16.63	35649
	O. K. Phosphate		14.00	2.00	16.00	14.00	
35650	Standard Phosphate	Manufacturers	14.07	1.70	15.77	14.07	35650
			12.00	2.00	14.00	12.00	
35651	Good Luck Phosphate	Manufacturers	11.79	3.19	14.98	11.79	35651
			10.00	2.00	12.00	10.00	

TABLE III.—ACID PHOSPHATES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.	PHOSPHORIC ACID.			Estimated Value Per Ton.	Station Number.
			Available.	Insoluble.	Total.		
35848	Louisville Fertilizer Co., Louisville, Ky. Triple Phosphate	Manufacturers	14.01 12.00	1.01 0.60	15.02 12.60	14.01 12.00	35848
35849	Eagle High Grade Dissolved Bone	Manufacturers	16.74 14.00	0.65 0.60	17.39 14.60	16.74 14.00	35849
35835 38048	P. B. Mathiason Mfg. Co., St. Louis, Mo. Acid Phosphate	Manufacturers G. B. Lenton, Oakville, R. R. 1.	15.04 12.58 14.00	4.60 7.57	19.64 20.15	15.04 12.58 14.00	35835 38048
35662	Mt. Pleasant Fertilizer Co., Mt. Pleasant, Tenn. Big Success Mt. Pleasant Special Acid Phosphate	Manufacturers	18.09 14.00	4.51 2.00	20.60 16.00	18.09 14.00	35662
35665	Big Success High Grade Dissolved Bone	Manufacturers	18.45 16.00	1.88 2.00	17.83 18.00	18.45 16.00	35665

35671	Black Patch Mt. Pleasant Soluble Bone	Manufacturers T. H. Cochran & Co., Marion	15.21 12.66 12.02 12.00	5.10 8.10 6.43 2.00	20.31 20.76 19.35 14.00	15.21 12.66 12.02 12.00	35671 38258 38454
35815 38456	National Fertilizer Co., Nashville, Tenn. Old Hickory Acid Phosphate	Manufacturers E. S. Duhgild & Son, Murray	13.06 11.54 12.00	2.36 0.68 2.00	15.44 12.20 14.00	13.06 11.54 12.00	35815 38456
38109	Old Hickory High Grade Acid Phosphate	Manufacturers	17.81 16.00	1.85 1.00	19.66 17.00	17.81 16.00	38109
35692 38269 38463	Read Phosphate Co., Nashville, Tenn. High Grade Acid Phosphate	Manufacturers Woodson Lewis, Greensburg M. B. Hines, Science Hill	15.47 16.82 15.10 14.00	3.58 2.06 3.39 2.00	19.05 18.87 18.49 16.00	15.47 16.82 15.10 14.00	35692 38269 38463
35693 38404	XXX Dissolved Bone	Manufacturers M. B. Hines, Science Hill	13.58 15.00 12.00	6.13 4.64 2.00	19.71 19.64 15.00	13.58 15.00 12.00	35693 38404
35694 38270	Quick Action Phosphate	Manufacturers W. L. Calhoun, Greasy Creek	10.33 11.96 10.00	11.93 3.81 2.00	22.26 14.97 12.00	10.33 11.16 10.00	35694 38270
38203	Read's Special High Grade Acid Phosphate	Manufacturers	15.93 16.00	1.67 2.00	17.60 18.00	15.93 16.00	38203
35708	Smith Bros., Louisville, Ky. Soluble Phosphate	Manufacturers	14.23 14.00	0.64 0.50	14.87 14.50	14.23 14.00	35708

TABLE III.—ACID PHOSPHATES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.	PHOSPHORIC ACID			Estimated Value Per Ton.	Station Number.
			Available.	Insoluble.	Total.		
35469	Swift & Co., Chicago, Ill. Swift's Garden City Phosphate	Manufacturers	15.27 14.00	1.64 1.00	16.91 15.00	\$15.27 14.00	35469
35878 38307 38481	Tennessee Chemical Co., Nashville, Tenn. Ox Phosphate	Manufacturers Williamsburg Hardware Co., Williamsburg Sexton Bros., Murray	14.04	0.75	14.79	14.04	35878
35879 38482	Ox High Grade Dissolved Bone	Manufacturers Sexton Bros., Murray	17.07 13.87 14.00	0.68 2.45 0.50	17.75 16.32 14.50	17.07 13.87 14.00	35879 38482
36880	Ox Tennessee Best Acid Phosphate	Manufacturers	18.86 16.00	0.00 0.50	19.46 16.50	18.86 16.00	35880
35917	Tennessee Valley Fertilizer Co., Florence, Ala. Tiger High Grade Dissolved Bone	Manufacturers	14.68 14.00	2.18 1.00	16.86 15.00	14.68 14.00	35917

35918 38319	Tiger Dissolved Bone	Manufacturers C. C. Oaks, Kendall	11.99 12.31 12.00	2.79 0.70 1.00	14.78 13.04 13.00	11.99 12.31 12.00	35918 38319
35755	Tuscarora Fertilizer Co., Chicago, Ill. Acid Phosphate	Manufacturers	15.07 14.00	0.28 0.50	15.35 14.50	15.07 14.00	35755
35760	Tuscarora Bone Phosphate	Manufacturers	11.02 10.00	0.28 0.50	11.30 10.50	11.02 10.00	35760
35959	Virginia-Carolina Chemical Co., Memphis, Tenn. Capital Dissolved S. C. Bone	Manufacturers	11.94 12.00	2.65 2.00	14.59 14.00	11.94 12.00	35959

TABLE IV.—ACID PHOSPHATE AND POTASH MIXTURES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.	PHOSPHORIC ACID.			POTASH.		Estimated Value Per Ton.	Station Number.
			Available.	Insoluble.	Total.	From Nitrate.	From Sulphate.		
35844	A. D. Adair and McCarty Bros., Chattanooga, Tenn. Adair's High Grade Potash Compound	Manufacturers	10.07 10.00	0.82	10.89	5.01 4.00	\$17.42 16.00	35844	
35845	Adair's Formula	Manufacturers	9.84 10.00	0.59	10.43	2.27 2.00	14.32 14.00	35845	
35492	The American Agr'l Chemical Co., Cln. Sales Dept., Cincinnati, O.	Manufacturers	10.30	2.63	12.93	5.75	19.16	35492	
38053	High Grade Bone and Potash.	J. M. Smith & Co., Leitchfield	11.20	0.73	11.93	5.51	19.24	38053	
38322		R. S. Ramsey, Burnside	10.71 10.00	2.91 2.00	13.62 12.00	4.75 5.00	18.76 17.80	38322	
35500	Bradley Fertilizer Works Alkaline Bone & Potash	Manufacturers	10.06	2.69	12.75	2.61	15.76	35500	
38055		Roy & Jasper, Mintonville	11.11 10.00	1.53 2.00	12.64 12.00	2.05 2.00	15.99 14.80	38055	

35509	The American Agr'l Chemical Co., Bowker Fert. Works, Cincinnati, O.	Manufacturers	10.20	2.29	12.49	2.60	15.76	35509
38051	Bowker's Dissolved Bone with Potash	Richeson & Turner, Campbells-ville	11.20	0.96	12.25	2.14	16.07	38051
38328		J. T. Lawson, Greenup	9.41 10.00	2.40 1.50	11.81 11.50	2.12 2.00	14.37 14.60	38328
35510	Bowker's Potash Fertilizer	Manufacturers	10.11	2.04	12.75	5.77	18.96	35510
38052		Richeson & Turner, Campbells-ville	10.80	0.71	11.51	5.14	18.38	38052
38329		Richeson & Turner, Campbells-ville	9.82 10.00	3.56 1.50	13.38 11.50	5.11 5.00	18.31 17.60	38329
35539	The American Agr'l Chemical Co., Michigan Carbon Works, Cincinnati, O.	Manufacturers	9.89	2.66	12.55	2.62	15.55	35539
38086	Red Line Phosphate with Potash	Geo. F. Thompson, Eubanks	10.73 10.00	1.01 2.00	11.74 12.00	1.98 2.00	15.23 14.80	38086
35532	High Potash Phosphate	Manufacturers	9.93	2.47	12.40	5.78	18.09	35532
38089		E. J. Hines & Co., Science Hill	11.46	0.69	12.14	5.25	19.27	38089
38339		J. R. Davis & Bro., Campbells-ville	10.24	2.74	12.98	5.19	18.58	38339
35545	The American Agr'l Chemical Co., Cln. Sales Dept., Cincinnati, O.	Manufacturers	10.38	2.50	12.88	5.79	19.25	35545
38099	N-W Horse Shoe Brand 10-5 Potash Manure	C. R. Hutchison, Columbia	10.57	0.85	11.42	5.05	18.07	38099
38343		Tyler Jasper & Co., Science Hill	10.52 10.00	3.20 2.00	13.72 12.00	5.08 5.00	18.98 17.80	38343

TABLE IV.—ACID PHOSPHATE AND POTASH MIXTURES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.	PHOSPHORIC ACID.			POTASH.		Estimated Value Per Ton.	Station Number.
			Available.	Insoluble.	Total.	From Muriate.	From Sulphate.		
35546	The American Agr. Chem. Co. N-W Horse Shoe Brand Bone and Potash	Manufacturers Forbes Mfg. Co., Hopkinsville..	10.11	2.61	12.72	2.51	\$15.68	35546	
38100			10.08	0.91	11.59	2.03	15.21	38100	
			10.00	2.00	12.00	2.00	14.80		
35556	The American Agr'l Chemical Co., Cln. Sales Dept., Cincin- nati, O. Packer's Boars Head Brand Potash Phosphate Fertilizer..	Manufacturers Young & Higgins, Pulaski..... Tartar & Huff, Somerset.....	10.03	2.37	12.40	5.82	18.81	35556	
38113			12.03	0.91	12.94	4.66	19.46	38113	
38348			10.29	2.86	13.15	4.87	18.36	38348	
			10.00	2.00	12.00	5.00	17.80		
35558	Packer's Boars Head Brand Ky. Potash Mixture.....	Manufacturers Young & Higgins, Pulaski..... Stokes Bros., Burnside.....	10.20	2.29	12.49	2.57	16.73	35558	
38114			11.46	1.61	13.07	2.01	16.43	38114	
38349			10.39	2.42	12.81	2.27	15.71	38349	
			10.00	2.00	12.00	2.00	14.80		
35746	The Armour Fertilizer Works, Chicago, Ill. Phosphate and Potash.....	Manufacturers J. C. Everett & Co., Maysville.. M. F. Fletcher & Co., Science Hill	10.07	0.29	10.36	3.40	15.60	35746	
38119			10.01	0.40	10.41	2.32	14.49	38119	
38356			9.31	1.03	10.34	1.89	13.37	38356	
			10.00	0.50	10.50	2.00	14.80		

35749	Soluble Phosphate with Potash	Manufacturers Simpson Co. Hdw. Co., Franklin Forbes Mfg. Co., Hopkinsville..	10.06	0.43	10.49	5.38	17.62	35749
38120			13.02	5.79	18.81	3.61	21.55	38120
38358			9.55	1.24	10.79	4.00	15.57	38358
			10.00	0.50	10.50	4.00	16.20	
38075	12-2 Fertilizer	Manufacturers	13.27	0.17	13.44	2.04	18.13	38075
			12.00	0.50	12.50	2.00	16.00	
35828	Central Manufacturing Co., Lockland, O. Equity Ohio Wonder.....	Manufacturers Farmers Exchange, Leitchfield.	13.80	1.02	14.82	5.81	22.78	35828
38129			12.57	2.09	14.66	4.85	20.77	38129
			12.00	1.00	13.00	5.00	19.80	
35829	Equity Oats Special.....	Manufacturers Dickinson Bros., Glasgow.....	10.31	0.73	11.04	2.99	15.02	35829
38366			9.39	2.28	11.67	2.66	14.84	38366
			9.00	1.00	10.00	3.00	14.20	
35994	The Cincinnati Phosphate Co., Cincinnati, O. Dissolved Phosphate & Potash	Manufacturers Tartar & Huff, Somerset.....	7.57	1.67	9.24	6.67	10.42	35994
38134			9.14	1.43	10.57	3.63	15.17	38134
			10.00	1.00	11.00	4.00	16.40	
35995	Alkaline Phosphate	Manufacturers Tartar & Huff, Somerset.....	9.40	1.82	11.22	2.88	14.89	35995
38135			9.93	1.98	11.91	1.76	14.47	38135
			10.00	1.00	11.00	2.00	14.40	
35867	Continental Fertilizer Co., Nash- ville, Tenn. Bear Potash Mixture.....	Manufacturers J. L. Durham, Greensburg.....	10.34	0.71	11.05	1.87	14.56	35867
38140			9.47	0.65	10.12	1.94	13.56	38140
			10.00	0.50	10.50	2.00	14.20	
35728	The Empire Guano Co., Nash- ville, Tenn. Potash Mixture	Manufacturers Meadows & Son, Greasy Creek..	10.32	9.03	18.35	4.97	20.50	35728
38150			11.99	1.08	13.07	4.15	18.07	38150
			10.00	4.00	14.00	4.00	17.60	

TABLE IV.—ACID PHOSPHATE AND POTASH MIXTURES.

Station Number	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.	PHOSPHORIC ACID.			POTASH.		Estimated Value Per Ton.	Station Number.
			Available.	Insoluble.	Total.	From Nitrate.	From Sulphate.		
35729	The Empire Guano Co. Bone and Potash	Manufacturers	11.06 10.00	0.57 4.00	20.63 14.00	2.33 2.00		\$19.43 15.60	35729
35965	Climax Bone and Potash	Manufacturers	10.25 10.00	7.61 4.00	17.86 14.00	5.83 6.00		21.17 19.60	35965
35806 35874	The Evansville Packing Co., Evansville, Ind. Grain Grower	Manufacturers Eldred Hardware Co., Princeton	10.01 10.52 10.00	0.88 1.15 2.00	10.89 11.67 12.00	4.29 4.67 4.00		16.65 17.15 16.80	35806 35874
35574	Federal Chemical Co., Louisville, Ky. Daybreak Phosphate & Potash	Manufacturers	13.77 12.00	1.38 2.00	15.15 14.00		3.29 2.00	21.12 17.60	35574
35575	Daybreak Potash Mixture	Manufacturers	11.29 10.00	1.75 2.00	13.04 12.00		5.46 4.00	20.80 17.60	35575
35576 35379	Daybreak Bone and Potash	Manufacturers P. Shadoin & Son, Greensburg	11.47 9.23 10.00	1.28 12.47 2.00	12.75 21.70 12.00		3.25 1.92 2.00	18.17 18.37 15.20	35576 35379
35577	Daybreak Potash Fertilizer	Manufacturers	10.49 9.00	1.11 2.00	11.60 11.00		6.09 5.00	20.34 17.60	35577

35597	Fox Chemical Company, Branch, Federal Chemical Co., Louis- ville, Ky. Fox Bone Phosphate	Manufacturers	13.86 12.00	1.10 2.00	14.96 14.00		3.20 2.00	20.91 17.60	35597
35598 38165	Fox Bone Phosphate & Potash Larison Austin, Beaver Dam	Manufacturers	11.55 10.28 10.00	1.72 3.86 2.00	13.27 14.14 12.00	0.62	4.77 4.66 4.00	20.89 18.75 17.60	35598 38165
35599	Fox Phospho Potash	Manufacturers	10.41 9.00	0.77 2.00	11.18 11.00		6.17 6.00	20.20 17.60	35599
35600 38166	Fox Alkaline Bone	Manufacturers E. C. Anderson & Son, Bredhead	11.06 10.24 10.00	1.01 3.85 2.00	12.67 14.09 12.00		3.34 2.06 2.00	18.40 16.30 15.20	35600 38166
35601	Fox Bone and Potash	Manufacturers	10.96 9.00	3.05 2.00	14.01 11.00		2.02 1.00	17.51 12.80	35601
35626	Globe Fertilizer Co., Branch Federal Chemical Co., Louis- ville, Ky. Globe Potash Formula	Manufacturers	10.00 9.00	1.40 2.00	11.40 11.00		6.18 6.00	19.98 17.60	35626
35627	Potash Compound	Manufacturers	14.06 12.00	1.28 2.00	15.34 14.00		3.30 2.00	21.34 17.60	35627
35628 38409	Globe Bone Phosphate & Pot- ash	Manufacturers Farmers Hdw. & Grocery Co., Glasgow	11.52 10.88 10.00	1.96 1.85 2.00	13.48 12.23 12.00		5.79 3.77 4.00	21.55 18.12 17.60	35628 38409
35629 38180 38410	Potash Special	Manufacturers J. W. Cloyd, Campbellsville, Jeffries H'dware Store, Columbia	11.45 9.69 10.57 10.00	1.20 2.61 11.17 2.00	12.65 12.30 21.74 12.00	2.02	3.39 2.48 2.00	18.29 15.65 15.20	35629 38180 38410

TABLE IV.—ACID PHOSPHATE AND POTASH MIXTURES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.	PHOSPHORIC ACID.			POTASH.		Estimated Value per Ton.	Station Number.
			Available.	Insoluble.	Total.	From Sulphate.	From Murate.		
35630	Globe Fertilizer Co. Big Four Phosphate.....	Manufacturers	11.04 9.00	3.25 2.00	14.29 11.00		2.50 1.00	\$17.55 12.80	35680
35680 38189	Great Southern Phosphate Co., Mt. Pleasant, Tenn. Great Southern Wheat Special	Manufacturers	12.17 11.89 10.00	5.15 7.59 2.00	17.32 19.48 12.00	3.81 4.00	4.50	20.47 22.71 16.80	35680 38189
35682 38417	Ever Ready Wheat Grower...	Manufacturers	11.79 10.52	8.50 8.21	20.29 18.73	1.96 2.20		19.51 18.54	35682 38190
35920 38421	The Groves Co., Cincinnati, O. Wheat and Oats.....	Farmers Union Warehouse & Supply Co., Munfordville.....	10.27 10.50 10.00	2.97 1.87 2.00	13.24 12.37 12.00	2.19 1.86 1.00		15.70 15.21 14.80	35920 38421 E
35921	Potash Mixture	Manufacturers	9.68 10.00	2.59 2.00	12.27 12.00	4.96 5.00		17.62 17.80	35921

35782 38427	Hirsh, Stein & Co., Chicago, Ill. Calumet Brand High Grade Phosphate & Potash.....	Manufacturers	11.24 10.63 10.00	1.77 0.47 1.00	13.01 11.10 11.00	5.31 4.87 5.00		19.51 17.82 17.40	35782 38427
35796	Calumet Brand Phosphate & Potash	Manufacturers	11.54 10.00	1.53 1.00	13.07 11.00	2.79 2.00		17.25 14.40	35796
35950	Hopkins Fertilizer Co., New Albany, Ind. Old Time Potash Mixture....	Manufacturers	11.33 10.00	1.24 1.00	12.57 11.00	4.27 4.00		18.37 16.40	35950
35982	The Jarecki Chemical Co., Sandusky & Cincinnati, O. Square Brand Phosphate & Potash	Manufacturers	9.33 10.00	1.89 1.00	11.22 11.00	2.66 2.00		14.62 14.40	35982
35985 38225	Super Phosphate & Potash....	Manufacturers	7.57 10.14 10.00	1.71 0.89 1.00	9.28 11.03 11.00	6.06 3.69 4.00		15.82 16.22 16.40	35985 38225
35896 38228 38439	Jones Fertilizer Co., Louisville, Ky. Jones Potash Mixture.....	M. E. Hines, Science Hill.....	11.10 10.20	0.87 1.15	11.97 11.36	1.88 1.83		15.55 14.54	35896 38228 38439
35897	Jones Bone and Potash.....	Manufacturers	9.65 10.00	1.20 0.50	10.85 10.50	1.57 2.00		13.63 14.80	38439
38045	Jones Phosphate and Potash..	Manufacturers	11.94 10.00	0.73 0.50	12.67 10.50	3.16 4.00		17.78 16.80	35897
		Manufacturers	9.43 10.00	3.14 0.50	12.57 10.50		4.81 5.00	17.75 18.20	38045

TABLE IV.—ACID PHOSPHATE AND POTASH MIXTURES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.	PHOSPHORIC ACID.			POTASH.		Estimated Value Per Ton.	Station Number.
			Available.	Insoluble.	Total.	From Muriate.	From Sulphate.		
35820	National Fertilizer Co. Old Hickory Special Acid and Potash	Manufacturers	11.80 10.00	0.55 1.00	12.35 11.00	8.14 6.00	22.52 18.40	35820	
38111	Old Hickory Special Acid Phosphate & Potash	Manufacturers	10.61 8.00	0.42 2.00	11.03 10.00	9.63 2.00	22.62 12.40	38111	
38183	Old Hickory Antl Trust Bone & Potash	Manufacturers	10.75 10.00	0.99 1.00	11.74 11.00	3.10 4.00	16.85 16.40	38183	
38204	Old Hickory Special Antl Trust Bone & Potash	Manufacturers	12.19 10.00	0.50 2.00	12.69 12.00	3.76 4.00	19.34 17.60	38204	
38016	Queen City Fertilizer Co., Cincinnati, O. Phosphate and Potash	Manufacturers	9.53 10.00	1.61 1.00	11.14 11.00	2.69 2.00	14.77 14.40	38016	
35689 38461	Read Phosphate Co., Nashville, Tenn. Special Wheat Grower	Manufacturers D. H. Hatter & Son, Franklin	9.93 9.70 10.00	7.22 3.48 4.00	17.15 13.27 14.00	6.57 5.09 6.00	21.38 18.23 19.60	35689 38461	

35690 38267	Alkaline Bone	Manufacturers Barven Co. Hdw. Co., Glasgow.	10.53 9.97 10.00	9.92 3.38 4.00	20.45 13.35 14.00	2.23 2.18 2.00	18.84 15.49 15.60	35690 38267
35691	High Grade Special Potash Mixture	Manufacturers Barven Co. Hdw. Co., Glasgow.	10.79 11.09	7.06 1.84	17.85 12.93	4.91 2.54	20.68 16.59	35691 38268
38462		D. H. Hatter & Son, Franklin	8.80 10.00	4.18 4.00	13.07 14.00	3.86 4.00	16.19 17.60	38462
38205	Read's High Grade Bone & Potash	Manufacturers	11.37 12.00	4.07 2.00	15.44 14.00	3.80 2.00	19.07 17.20	38205
38036	The Smith Agricultural Chemical Co., Columbus, O. Ohio Farmers Soluble Phosphate & Potash	Manufacturers	9.92 10.00	1.89 1.00	11.81 11.00	2.81 2.00	16.47 14.00	38036
35770	Smith Bros, Louisville, Ky. Bone and Potash	Manufacturers	10.08 10.00	0.77 0.50	10.85 10.50	2.56 2.00	14.96 14.20	35770
35468	Swift & Co., Chicago, Ill. Swift's High Grade Phosphate & Potash	Manufacturers	11.39 10.00	1.16 1.00	12.55 11.00	4.31 4.00	18.44 16.40	35468
35470	Swift's Special Phosphate & Potash	Manufacturers	11.49 10.00	1.26 1.00	12.75 11.00	2.51 2.00	16.80 14.40	35470
35881	Tennessee Chemical Co., Nashville, Tenn. Ox Potash Mixture	Manufacturers	10.30 10.00	0.78 0.50	11.17 10.50	1.85 2.00	14.63 14.20	35881

TABLE IV.—ACID PHOSPHATE AND POTASH MIXTURES.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.	PHOSPHORIC ACID,			POTASH,		Estimated Value Per Ton.	Station Number.
			Available.	Insoluble.	Total.	From Muriate.	From Sulphate.		
35882 38908	Tennessee Chemical Co. Ox Potash Formula.....	Manufacturers W. F. Grainger, Franklin.....	12.15 12.15 10.00	0.70 6.13 0.50	12.85 18.28 10.50	3.46 1.54 4.00	3.53	\$18.32 22.81 16.80	35882 38903
35888	Ox Alkaline Bone.....	Manufacturers	14.06 12.00	0.85 0.50	14.91 12.50	2.88 2.00		19.59 16.60	35888
38214	Ox High Grade Potash.....	Manufacturers	10.13 10.00	0.84 0.50	10.77 10.50		5.30 5.00	18.78 18.20	38214
35915 38917 38489	Tennessee Valley Fertilizer Co., Florence, Ala. Tiger Guano	Manufacturers	10.54 8.75 9.53 10.00	0.96 1.70 1.28 1.00	11.50 10.45 10.81 11.00	3.66 3.13 3.12 4.00		14.69 14.31 15.07 16.40	35915 38917 38489
35916 38918	Tiger Wheat Grower.....	Manufacturers	9.03 9.74 8.00	1.73 1.31 1.00	10.76 11.05 9.00	4.05 2.95 4.00		15.58 15.16 14.00	35916 38918
35761	Tuscarora Fertilizer Co., Chi- cago, Ill. Tuscarora Bone & Potash.....	Manufacturers	10.77 10.00	0.46 0.50	11.23 10.50	2.95 2.00		16.05 14.20	35761

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.	PHOSPHORIC ACID,			POTASH,		Estimated Value Per Ton.	Station Number.
			Available.	Insoluble.	Total.	From Muriate.	From Sulphate.		
35956 38493	Virginia-Carolina Chemical Co., Memphis, Tenn. Royal Grain Grower.....	Manufacturers	11.97 9.72 10.00	1.06 3.35 2.00	13.03 13.07 12.00	4.45 4.30 4.00		19.23 17.30 16.80	35956 38493
35957 38494	Capital Bone & Potash Com- pound	Manufacturers	12.11 9.29 10.00	0.88 3.77 2.00	12.99 13.06 12.00	2.64 2.13 2.00		17.52 14.79 14.80	35957 38494
35958	Victor Bone & Potash.....	Manufacturers	15.21 15.00	0.91 2.00	16.12 17.00	3.22 3.00		21.88 21.80	35958

TABLE V.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35998 38138	The Cincinnati Phosphate Co., Cincinnati, O. "Bonus" A Humus Phosphate.	Manufacturers M. B. Ridener, Williamsburg.....
35583 38381	Federal Chemical Co., Louisville, Ky. Daybreak Harvest Home Bone Meal Mixture	Manufacturers The A. H. Miller Imp. Co., Elizabethtown
38285	Daybreak Harvest Bone.....	Manufacturers
35608	Fox Chemical Co., Branch, Federal Chemical Co., Louisville, Ky. Fox Half & Half Bone Meal Mixture	Manufacturers
38286 38389	Fox Ammoniated Bone.....	Manufacturers M. L. Spurling, Campbellsville.....
35637	Globe Fertilizer Co., Branch, Federal Chemical Co., Louisville, Ky. Golden Harvest Bone Meal Mixture	Manufacturers
38287 38415	Globe Golden Harvest Bone Meal	Manufacturers W. A. Williams, Greensburg.....

NITROGENOUS SUPERPHOSPHATES.

Available.	PHOSPHORIC ACID.		NITROGEN.				Equivalent to Ammonia.	Estimated Value Per Ton.	Station Number.
	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.			
13.48	1.50	14.98				0.68	0.83	\$19.16	35998
12.84	1.67	14.51				0.40	0.49	17.48	38138
12.00	1.00	13.00				0.41	0.50	16.24	
11.00	9.71	20.71	0.90		0.72	1.62	1.97	22.75	35583
9.36	13.39	22.75				1.33	1.61	21.25	38381
10.00	10.00	20.00				1.65	2.00	21.78	
12.39	0.28	12.67	1.11		2.21	3.32	4.03	26.60	38285
10.00	4.00	14.00				2.47	3.00	22.25	
10.94	10.15	21.09	0.77		0.87	1.64	1.99	22.93	35608
10.00	10.00	20.00				1.65	2.00	21.78	
12.20	0.10	12.30	1.18		2.21	3.39	4.12	26.55	38286
11.06	0.89	11.95		0.59	1.51	2.10	2.55	20.98	38389
10.00	4.00	14.00				2.47	3.00	22.25	
10.53	10.38	20.91	0.81		0.75	1.56	1.89	22.25	35637
10.00	10.00	20.00				1.65	2.00	21.78	
12.11	0.31	12.42	1.21		2.14	3.35	4.07	26.38	38287
10.72	1.57	12.29		0.67	1.77	2.44	2.96	22.03	38415
10.00	4.00	14.00				2.47	3.00	22.25	

TABLE V.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.
35654	Kentucky Fertilizer Co., Branch, Federal Chemical Co., Louisville, Ky. O. K. Special Bone Meal Mixture	Manufacturers
38289	O. K. Bone Meal Mixture.....	Manufacturers
35716	Read Phosphate Co., Nashville, Tenn. Half & Half Acid Phosphate & Bone Tankage	Manufacturers

NITROGENOUS SUPERPHOSPHATES.

PHOSPHORIC ACID.			NITROGEN.				Equivalent to Ammonia.	Estimated Value Per Ton.	Station Number.
Available.	Insoluble.	Total.	In Nitrates.	In Ammonia Salts.	Organic.	Total.			
10.33 10.00	10.86 10.00	21.19 20.00	0.92		0.73	1.65 1.65	2.00 2.00	\$22.52 21.78	35654
12.66 10.00	0.13 4.00	12.79 14.00	1.10		2.22	3.32 2.47	4.03 3.00	26.86 22.25	38289
9.90 8.00	5.86 12.00	15.76 20.00		1.95	1.00	2.95 3.29	3.58 4.00	24.55 25.92	35716

TABLE VI.—POTASH SALTS.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.	TOTASH.		Estimated Value Per Ton.	Station Number.
			From Muriate	From Sulphate.		
35732	The Empire Guano Co., Nashville, Tenn. Muriate of Potash.....	Manufacturers	40.25 50.00		\$40.25 50.00	35732
35733	Sulphate of Potash.....	Manufacturers		49.75 50.00	59.70 60.00	35733
35807	The Evansville Packing Co., Evansville, Ind. Sulphate of Potash.....	Manufacturers		48.50 48.00	58.20 57.00	35807
35808	Muriate of Potash.....	Manufacturers	50.55 50.00		50.55 50.00	35808
35908 38890	German Kall Works, Baltimore, Md. Muriate of Potash.....	Manufacturers	50.00 50.15 50.00		50.00 50.15 50.00	35908 38890
35909 38891	Sulphate of Potash.....	Manufacturers		49.50 47.15 48.00	59.40 50.58 57.50	35909 38891

35910	Kainit	Manufacturers	13.45 12.00		13.45 12.00	35910
35996	Read Phosphate Co., Nashville, Tenn. Muriate of Potash.....	Manufacturers	47.05 50.00		47.05 50.00	35996
35996 38271	Sulphate of Potash.....	Manufacturers		50.05 49.85 50.00	50.05 59.82 60.00	35996 38271

TABLE VII.—NITRATE OF SODA.

Station Number.	Name and Address of Manufacturer and Name of Brand.	From Whom Obtained.	Nitrogen.	Equivalent to Ammonia.	Estimated Value Per Ton.	Station Number.
35932	P. B. Mathiason Mfg. Co., St. Louis, Mo. Nitrate of Soda.	Manufacturers	15.15 15.65	18.39 19.00	\$53.03 54.78	35932
38034	Nitrate Agencies Co., New York, N. Y. Nitrate of Soda.	Manufacturers	15.44 15.00	18.74 18.22	54.04 52.50	38034
35997	Read Phosphate Co., Nashville, Tenn. Nitrate of Soda.	Manufacturers	14.80 15.65	18.09 19.00	52.20 54.78	35997

Dec. 31, 1911.

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

DIVISION OF CHEMISTRY

ANALYSES OF MINERAL AND POTABLE WATERS,

by

A. M. Peter, S. D. Averitt and O. M. Shedd.

BARREN COUNTY.

36139—Well water received April 14th, from A. S. Clayton, Glasgow, Ky. Sample a quart bottle of fairly clear water.

ANALYSIS.

One gallon contains 40.8 grains of solid matter (.700 gram per liter) composed of calcium carbonate, magnesium carbonate, sodium chloride and sodium sulphate. There are traces of iron, silica and zinc carbonate.

Nitrate nitrogen 5 parts per million; nitrite, a trace; chlorine, 71, parts per million.

BOYD COUNTY.

36380—Well water sent by W. B. Eaton, Ashland, Ky. Sample a half-gallon bottle of slightly turbid water with some yellowish-brown sediment. Received Aug. 19, 1911.

ANALYSIS.

One gallon contains 18.7 grains of solid matter (.322 gram per liter) composed of calcium carbonate, sodium chloride, sodium carbonate, magnesium carbonate and carbonate of iron. Also traces of potassium sulphate and silica. This is a weak alkaline chalybeate water.

BRECKENRIDGE COUNTY.

36227—Well water sent June 7, 1911, by C. W. Dean, Glen Dean, Ky., who states that it is from a deep well and tastes very much like the Dawson Springs water. Sample a half gallon jug of fairly clear water.

ANALYSIS.

One gallon contains 266.8 grains of mineral matter (4.576 grams per liter) composed mainly of sodium chloride, sodium sulphate and magnesium sulphate. There is a small amount of calcium carbonate present, also traces of zinc carbonate, potassium sulphate, iron, silica and lithium.

This differs from the water of Dawson Springs in not having as much iron present. It would doubtless have a laxative effect.

CARTER COUNTY.

36034—Chalybeate water sent by Jas. Underwood, Enterprise, Ky., from a spring located one mile north of the C. & O. R. R., on the dividing ridge between Soldier & Tiger Creeks. Sample one gallon jug received January 17, 1911.

ANALYSIS.

One gallon contains 24.7 grains of solid matter (.424 gram per liter) composed of ferrous sulphate, calcium carbonate and magnesium carbonate. There are traces of silica, sodium sulphate and potassium sulphate. Alkalinity, calculated as calcium carbonate, 4.9 parts per million. Chlorine, 3 parts per million.

CASEY COUNTY.

36430—Magnesia water from a deer lick 2 miles from Yosemite. Sent by H. C. Wells, Yosemite, Ky. Sample a half pint bottle.

ANALYSIS.

One gallon contains 60.6 grains of solid matter (1.038 gram per liter) composed of magnesium sulphate, calcium carbonate and sodium sulphate, a little sodium chloride and traces of iron, silica, and potassium sulphate. It would doubtless prove laxative in effect.

CHRISTIAN COUNTY.

36381—Salt-sulphur water from a well in Christian Co. It is 127 feet deep, the water standing 92 feet in the well. Sample a gallon jug of yellowish salt water, showing traces of metallic sulphides and containing a good deal of hydrogen sulphide. Sent by W. A. Lackey, Secretary Christian County Board of Health.

ANALYSIS.

One gallon contains 508.8 grains of mineral matter (8.724 grams per liter) composed of sodium chloride, sodium sulphate, calcium carbonate, magnesium carbonate and a little sodium carbonate. There is a distinct trace of iodide and traces of bromide, iron, silica, potassium sulphate and lithium carbonate. There are 6.6 grains of hydrogen sulphide, free and combined, per gallon. It is an alkaline salt-sulphur water, sodium chloride and sodium sulphate being the main constituents.

36429—Salt-sulphur water sent by Herman Harned, Hopkinsville, Ky. Sample a half gallon jug, received in October, 1911.

ANALYSIS.

One gallon contains 330.0 grains of mineral matter (5.658 grams per liter) composed mainly of sodium chloride and a considerable quantity of sodium carbonate, with small quantities of calcium carbonate and magnesium carbonate, and traces of iodides, bromides, borates, potassium

sulphate, lithium carbonate, iron and silica. Free and combined hydrogen sulphide 3.6 grains per gallon.

It is an alkaline salt sulphur water.

CLAY COUNTY.

36361—Water from a well in Clay County 565 feet deep, sent by C. N. Manning, Secretary Security Trust Company, Lexington, Ky.

ANALYSIS.

One gallon contains 433.2 grains of mineral matter (7.435 grams per liter) composed mainly of sodium chloride with small amounts of calcium carbonate and magnesium carbonate. There are traces of potassium sulphate, iodides, borates, iron, strontium, lithium and silica.

It is a rather strong saline water.

CRITTENDEN COUNTY.

36138—Chalybeate water sent in April, 1911, by D. O. Yandell, Marion, Ky., from a well on his farm near that place. Sample a gallon jug.

ANALYSIS.

One gallon contains 302.8 grains of solid matter (5.194 grams per liter) composed of ferrous sulphate (copperas) calcium sulphate and magnesium sulphate. There is a small quantity of sodium chloride present, also traces of potassium sulphate, lithium carbonate, zinc carbonate and silica.

It would be classed as a rather strong saline chalybeate water.

DAVIESS COUNTY.

36441—Water from a drilled well 8 miles west of Owensboro, Ky., brought November 6, by Ray T. Prottsman, State University, Lexington, Ky. Sample a quart bottle of clear, colorless water with very little sediment.

ANALYSIS.

One gallon contains 29.3 grains of solid matter (.502 gram per liter) composed of calcium carbonate, magnesium carbonate and sodium carbonate. There are also traces of sodium chloride, iodides, iron, silica and potassium sulphate. Alkalinity, calculated as calcium carbonate, 27.5 parts per million; chlorine, 3 parts.

It is an alkaline carbonated water.

FAYETTE COUNTY.

36089—Water from a well on the farm of Keene R. Forston on the Tates Creek pike near Lexington. Sample contained some sediment. Received March 11, 1911.

ANALYSIS.

One gallon contains 22.8 grains of solid matter (0.391 gram per liter) composed of calcium carbonate, calcium sulphate, magnesium sulphate, sodium chloride, potassium sulphate, and traces of strontium, lithium and zinc.

The sediment contained appreciable quantities of zinc sulphide and free sulphur, indicating that there may have been a little hydrogen sulphide in the water when first drawn.

36136—Salt water brought by A. T. Smedley, Lexington, Ky., April 13, 1911. The well is located 6½ miles from Lexington on the Versailles pike. It was bored in November, 1910, and is 111 feet deep. Sample a quart bottle of turbid water with a faint odor of hydrogen sulphide.

ANALYSIS.

One gallon contains 201.9 grains of mineral matter (3.47 grams per liter) composed mainly of sodium chloride with small quantities of calcium sulphate, calcium carbonate, magnesium carbonate and traces of potassium sul-

phate, silica, iron, iodides, zinc carbonate, lithium carbonate and hydrogen sulphide.

It would be classed as a weak salt-sulphur water.

36311—Salt water brought by R. R. Early, Walnut Hill Farm, from well No. 1, which is an old bored well 300 feet deep. Sample a one gallon jug received in July, 1911.

ANALYSIS.

One gallon contains 139.6 grains of solid matter (2.395 grams per liter) composed of sodium chloride mainly, with moderate quantities of calcium carbonate and magnesium carbonate and a small quantity of calcium sulphate. There are traces of iron, silica and zinc present. Alkalinity calculated as calcium carbonate, 5.6 parts per million. It is a weak salt water very common in deep wells of this region.

36312—Brought by R. R. Early at same time as No. 36311, from well No. 2 which is about 100 yards from No. 1 and 40 feet deep, bored 10 or 12 years ago.

ANALYSIS.

One gallon contains 81.1 grains of solid matter (1.391 gram per liter). In composition it is very similar to No. 36311, differing from it in containing less sodium chloride and only a trace of calcium sulphate. Alkalinity, calculated as calcium carbonate, 5.2 parts per million.

36359—Water from Renfro's Well, Leader Avenue, Lexington, Ky., collected July 31, 1911, by S. D. Averitt and A. M. Peter. A few gallons were pumped out before taking the samples. The well is now owned by Mr. R. J. Barker, who is marketing the water under the name "Leader Lithia Water." For the analysis of this water made in 1897, see No. 3981, 10th Annual Report, page xxviii.

ANALYSIS.

	Grams per liter.	Grains per Gallon.
Ferrous Carbonate .....	.0009	.05
Strontium Carbonate .....	.0010	.06
Calcium Carbonate .....	.0845	4.93
Magnesium Carbonate .....	.0911	5.31
Sodium Carbonate .....	.0573	3.34
Lithium Carbonate .....	.0005	.03
Potassium Sulphate .....	.0189	1.10
Sodium Sulphate .....	.0495	2.89
Sodium Chloride .....	.3139	18.30
Sodium Sulphide	small quantity.	
Zinc		A trace.
Silica .....	.0076	.44
Total	6252	36.45

Total Solids, dried at 98°C .....	.6710	39.12
Ignited Solids .....	.6160	35.91
Total hydrogen sulphide .....	.0091	.53

Nitrate, small but decided.

No iodide, bromide or nitrite was detected.

A sample of the water collected August 19, 1911, gave:

Free Ammonia	0.804 part per million
Albuminoid Ammonia	0.196 part per million

Another sample collected August 24, 1911, gave:

Free Ammonia	0.892 part per million
Albuminoid Ammonia	0.168 part per million

A bacteriological examination of this last sample, made by Dr. Healy, gave: Total count, 5 bacteria per cc. No acid or gas-forming bacteria. No indol reaction with Dunham's solution. No gas in the bile tube.

A sample examined by him some weeks previously had given no bacteria.

While the water is practically free from bacteria, as shown by Dr. Healy's tests and also by numerous tests made

from time to time by Dr. Garman and Miss Didlake, the marked increase in total solids, particularly in sodium chloride, and in free and albuminoid ammonia, over the quantities found fourteen years ago, shows the effect of the increasing number of habitations in the vicinity of the well and indicates the approach of possible contamination.

36404—Sulphur water sent by M. Wilson, Lexington, Ky., from a well 108 feet deep located 1 mile from Lexington on the Harrodsburg pike. The well was bored in the late summer of 1911. Sample a half gallon bottle of somewhat turbid water.

ANALYSIS.

One gallon contains 102.9 grains of mineral matter (1.764 gram per liter) composed mainly of sodium chloride, with small amounts of sodium carbonate, calcium carbonate and sodium sulphate. Free and combined hydrogen sulphide 1.6 grains per gallon. There are traces of iron, silica, potassium sulphate, magnesium carbonate and zinc present.

It is an alkaline saline sulphur water.

36444—Water from the Russell Cave Spring, Elmendorf Farm, used as the principal source of supply. Sent by C. H. Berryman, November 17, 1911. Sample clear and colorless.

ANALYSIS.

	Parts per million
Total Solids	272.
Ignited Solids	220.
Alkalinity, calculated as calcium carbonate	165.
Calcium	73.
Magnesium	8.
Sulphur of sulphates	6.6
Chlorine	6.
Nitrogen of nitrates	16.
Iron and silica	traces

The analysis is about like that of the average spring water of this region, except that the nitrogen of nitrates is nearly three times as much as usual.

FLEMING COUNTY.

36368—Well water sent by Mrs. H. C. Botts, Lexington, Ky. The well is on the farm of Joe Hendrick, Flemingsburg, Ky. Sample a ½ pint bottle of slightly turbid water. Received in August, 1911.

ANALYSIS.

One gallon contains 103.1 grains of solid matter (1.768 gram per liter) composed mainly of sodium chloride with small quantities of sodium carbonate, calcium carbonate, magnesium carbonate, and sodium sulphate. There are traces of iron, silica, zinc carbonate and sodium borate.

This is an alkaline saline water.

FRANKLIN COUNTY.

36372—Salt water from a well in the yard of S. A. Marr, near Jett, Ky. The sample was sent by Frank Chinn, Frankfort, Ky., who states that when the water is first drawn from the well it has the odor and taste of the old Blue Lick water.

ANALYSIS.

One gallon contains 408.5 grains of mineral matter (7.004 grams per liter) composed mainly of sodium chloride, some calcium sulphate, calcium carbonate and magnesium carbonate with traces of potassium sulphate and strontium and lithium carbonates. Nitrogen of nitrates 1. part per million; of nitrites 0.12 part per million; free ammonia, a strong test.

GARRARD COUNTY.

36163—Well water sent in April, 1911, by W. G. Gooch, Paint Lick, Ky., from a well on his farm. Sample a quart bottle of clear, colorless water.

ANALYSIS.

One gallon contains 29.8 grains of solid matter (.51 gram per liter) composed of calcium carbonate, sodium chloride, magnesium carbonate and calcium sulphate. There are traces of iron, silica, and potassium sulphate present. This is about like the average well water in composition.

36296—Salt water from a drilled well 47 feet deep, located on the property of Kuhlman & Son, at Lowell, Ky. The water stands 36 feet deep in the well. Sample a half gallon jug, received about the middle of June, 1911.

ANALYSIS.

One gallon contains 422.7 grains of mineral matter (7.25 grams per liter) composed mainly of sodium chloride. There are moderate amounts of calcium carbonate and magnesium carbonate and traces of iron, silica, potassium sulphate, lithium and strontium carbonate, iodides, borates and zinc carbonate.

GRAYSON COUNTY.

36162—Magnesia water from a well 53 feet deep bored in November, 1910, located on Nolin River in the southern part of Grayson County. The sample was sent by Dave Thompson, Roseburg, Ky., who states that the water has laxative properties. Sample received in April, 1911.

ANALYSIS.

One gallon contains 355.3 grains of solid matter (6.094 grams per liter) composed of magnesium sulphate (Epsom Salts) calcium carbonate and sodium chloride with traces of potassium sulphate, iron, silica and lithium salts.

It doubtless possesses laxative properties.

HART COUNTY.

36385—Water from a public well located at Guthrie & Main Streets, Horse Cave, Ky. The well is 300 or 400 feet deep. The water is used generally for drinking and domestic purposes by people of the town. Sample a quart bottle of clear, colorless water sent in September, 1911, by H. T. Mustaine.

ANALYSIS.

One gallon contains 15.0 grains of solid matter (.257 gram per liter) composed of calcium carbonate, magnesium carbonate and calcium sulphate, with traces of iron, sodium chloride and silica. Chlorine, 4 parts per million; no nitrate or nitrite. The chemical sanitary tests show no nitrites, nitrates or free ammonia, indicating that it is a good water for drinking and domestic purposes.

HOPKINS COUNTY.

36429—Well water sent by Moses Springfield, Hanson, Ky. The well was recently bored. It is 52 feet deep, 42 feet through white sandstone. Sample a half gallon jug, received in October, 1911.

ANALYSIS.

One gallon contains 144.0 grains of solid matter (2.468 grams per liter) composed of sodium sulphate, calcium sulphate, small quantities of magnesium sulphate, calcium carbonate and sodium chloride and traces of iron, silica and potassium sulphate. It would probably have laxative properties due to the sodium and magnesium sulphates present.

LIVINGSTON COUNTY.

36035—Well water brought January 19, by G. N. McGrew, Bayou, Ky. The well is on Mr. McGrew's place, is 25 feet deep and has been in use 20 years. Sample a pint bottle of clear, colorless water with very little sediment.

ANALYSIS.

One gallon contains 110.2 grains of solid matter (1.891 gram per liter) composed of sodium chloride, calcium chloride and magnesium chloride, with traces of sodium sulphate and lithium and strontium chlorides. This is a somewhat unusual water, in that there is practically no carbonate present.

MARION COUNTY.

36032—Salt water sent by Geo. R. Burk, Pres. of Burk's Spring Distillery Co., Loretto, Ky., from a well at the distillery. Sample a gallon jug, received in January, 1911.

ANALYSIS.

One gallon contains 654.1 grains of mineral matter (11.22 grams per liter) composed mainly of sodium chloride and sodium sulphate. There are moderate amounts of calcium and magnesium carbonates and traces of potassium chloride, lithium chloride, strontium carbonate, iron and silica present.

MASON COUNTY.

36349—Salt sulphur water brought July 25th, by J. M. Young, Dover, Ky. The water was struck at 800 feet in boring for gas. The water smells and tastes slightly of sulphur when first pumped. Sample a half gallon bottle of turbid water with some odor of hydrogen sulphide. Most of the sulphur had settled out when the sample was received.

ANALYSIS.

One gallon contains 444.5 grains of mineral matter (7.62 grams per liter) composed largely of sodium chloride with small amounts of calcium carbonate, magnesium carbonate and sodium sulphate. There are traces of iron,

silica, potassium sulphate and lithium carbonate present. It would be classed as an alkaline salt water. On igniting the residue there was a slight odor of sulphur.

McCRACKEN COUNTY.

36087—Well water sent by Dr. S. Z. Holland, Paducah, Ky., from a well recently bored by the Anti-Tuberculosis Society of that place. Sample a quart bottle of clear, colorless water, with some sandy sediment. Received in March, 1911.

ANALYSIS.

One gallon contains 26.7 grains of solid matter (.458 gram per liter) composed of calcium sulphate, magnesium carbonate, calcium carbonate, a little sodium chloride, ferrous carbonate and potassium sulphate with traces of lithium carbonate and silica. There are no nitrites, nitrates or free ammonia present in this water. Chlorine of chlorides 8. parts per million. Alkalinity calculated as carbonate, 8.4 parts per million.

36354—Well water sent by Dr. S. Z. Holland, Paducah, Ky. Sample a gallon jug received July 2, 1911.

ANALYSIS.

One gallon contains 36.2 grains of solid matter (.62 gram per liter) composed of sodium chloride, calcium carbonate, calcium sulphate and magnesium carbonate, with traces of iron and silica.

MERCER COUNTY.

36343—Magnesia water brought by Prof. M. A. Scovell, from a spring at Harrodsburg, Ky., owned by Mr. Allen of that place. Sample a quart bottle of clear, colorless water.

ANALYSIS.

One gallon contains 265.6 grains of solid matter (4.554 grams per liter) composed of magnesium sulphate, calcium carbonate and sodium chloride, with traces of potassium sulphate, lithium and strontium carbonates and silica.

This water would doubtless have the properties of magnesium water in general.

MUHLENBURG COUNTY.

36446—Magnesia water sent by J. O. DeCourcy from his farm at Dunmor, Ky. Sample a quart Mason jar of slightly turbid water marked "Sample No. 1". Received about the middle of November, 1911.

ANALYSIS.

One gallon contains 407.7 grains of mineral matter (6.992 grams per liter) composed of magnesium sulphate, sodium chloride and calcium sulphate, with a small quantity of ferrous sulphate and traces of silica and potassium sulphate.

36428—Chalybeate water sent by John T. Jackson, Rockport, Ky. The well is located in Muhlenburg County, 2 miles Southwest of Rockport and one mile west of Green River. It is on the farm of J. L. Ham and is 30 feet deep. Sample a quart bottle of turbid water with some black sediment. Received about October 5th.

ANALYSIS.

One gallon contains 217.3 grains of solid matter (3.734 grams per liter) composed of calcium sulphate, magnesium sulphate, sodium chloride, sodium sulphate, ferrous sulphate and traces of silica and potassium sulphate.

The iron present as the sulphate (copperas) renders the water acid in reaction.

NELSON COUNTY.

36382—Magnesia water sent in August, 1911, by Jas. L. DeWitt, New Haven, Ky. Sample a 2 gallon jug.

ANALYSIS.

One gallon contains 642.2 grains of mineral matter (11.01 grams per liter) composed mainly of sodium chloride, magnesium sulphate and sodium sulphate with some calcium carbonate and calcium sulphate, iron, silica, potassium sulphate and lithium carbonate.

This water should have strongly laxative properties.

OLDHAM COUNTY.

36388—Water from a well 160 feet deep near Goshen, Ky. Sent by B. F. Magruder of that place. Sample received in September, 1911.

ANALYSIS.

One gallon contains 57.7 grains of solid matter (.99 gram per liter) composed of sodium chloride, sodium carbonate, calcium carbonate, magnesium carbonate and a little calcium sulphate. There are traces of iron, silica, zinc, potassium sulphate and sodium iodide.

It is an alkaline saline water.

SCOTT COUNTY.

36379—Salt water from a deep well at or near Georgetown, Ky. Sample a gallon jug sent by F. R. Hambrick, Georgetown, Ky.

ANALYSIS.

One gallon contains 342.3 grains of mineral matter (5.868 grams per liter) composed mainly of sodium chloride some calcium carbonate, a little magnesium carbonate and

calcium sulphate and traces of iodides, bromides, borates, iron, silica, zinc, potassium sulphate and lithium carbonate.

On burning the residue there was a slight odor of sulphur, indicating that the water may have originally contained hydrogen sulphide.

SIMPSON COUNTY.

36075—Salt-sulphur water from a well 49 feet deep, nine miles east of Franklin, Ky. The well is on the farm of Herbert Ellis, and was drilled in 1909. Sample a gallon jug of sulphur water with a greenish color.

ANALYSIS.

One gallon contains 107.2 grains of solid matter (1.838 gram per liter) composed of sodium chloride, sodium sulphate, calcium carbonate, magnesium carbonate, and traces of sodium sulphide.

There are 3. grains of free and combined hydrogen sulphide per gallon. In addition there are traces of iron, potassium sulphate, lithium and strontium carbonates and silica.

TODD COUNTY.

36095—Salt-sulphur water sent by Dr. E. M. Weathers for B. L. Penick, Elkton, Ky., from a well 52 feet deep. Sample a half gallon jug received about the middle of March, 1911.

ANALYSIS.

One gallon contains 314.0 grains of mineral matter (5.384 grams per liter) composed of sodium chloride, calcium carbonate, magnesium carbonate, sodium sulphate and sodium sulphide with traces of iodides, iron, zinc, potassium sulphate, silica and lithium carbonate. The free and combined hydrogen sulphide amounts to 19.8 grains per gallon.

This is a strong salt-sulphur water.

WARREN COUNTY.

36373—Sulphur water sent by Dr. J. M. Adair, from a well 60 feet deep on the farm of Tom Gentry near Claypool, Ky. The well was bored about four years ago and the water seems to get stronger of sulphur. Sample a gallon jug.

ANALYSIS.

One gallon contains 62.1 grain of solid matter (1.065 gram per liter) composed of calcium carbonate and sodium sulphate, with small amounts of magnesium carbonate and sodium chloride, and traces of sodium sulphide, zinc sulphide, sodium, lithium and strontium carbonates. There are 7.3 grains of free and combined hydrogen sulphide per gallon.

It would be classed as an alkaline saline sulphur water.

36426—Salt-sulphur water sent about the middle of September, by J. F. Loofman, Bowling Green, Ky. Sample a gallon jug of yellowish water giving a strong test for metallic sulphides.

ANALYSIS.

One gallon contains 207.4 grains of mineral matter (3.564 grams per liter) composed of sodium chloride, calcium carbonate, magnesium carbonate, calcium sulphate and sodium sulphate. There is a small quantity of iron, and traces of iodides, bromides, silica, potassium sulphate, lithium and strontium carbonates. There are 24.5 grains of free and combined hydrogen sulphide per gallon.

This water contains more than the usual amount of metallic sulphides.

WEBSTER COUNTY.

36399—Magnesia water sent by W. E. Hancock, Clay, Ky. Sample a pint bottle of colorless water with some reddish flocculent sediment, the taste indicating a magnesia water.

ANALYSIS.

One gallon contains 88.1 grains of solid matter (1.51 gram per liter) composed of calcium carbonate, magnesium sulphate, and sodium chloride, with traces of iron, silica, potassium sulphate, and lithium carbonate.

This water would doubtless prove laxative in effect.

WOLFE COUNTY.

36374—Water received from J. H. Barker, Hazel Green, Ky. Sample a gallon jug. Received in August, 1911.

ANALYSIS.

One gallon contains 55.8 grains of mineral matter (.957 gram per liter) composed mainly of sodium sulphate with considerable amounts of iron and aluminium sulphate, some calcium sulphate and traces of calcium and magnesium carbonates, potassium sulphate, lithium sulphate, sodium chloride, zinc and silica.

The water has a strongly acid reaction and would be classed as an acid sulphated chalybeate water.

Meteorological Summaries

FOR THE YEAR 1911.

Compiled from the records of the U. S. Weather Bureau Station in the main building of State University.

PRESSURE.

Elevation of the Barometer Cistern Above Mean Sea Level,
December 31, 989 feet.

Months.	Monthly In.	Highest Observ'd In.	Date.	Lowest Observ'd In.	Date.	Absolute Range In.
January	29.13	29.52	24	28.71	21	.81
February	29.07	29.48	28	28.65	14	.79
March	28.98	29.45	24	28.33	29	1.11
April	29.02	29.42	10	28.57	4	.85
May	29.03	29.32	6	28.58	1	.74
June	28.44	29.14	30	28.75	12	.39
July	29.02	29.16	7	28.78	24	.38
August	28.97	29.15	13	28.90	1	.25
September	29.01	29.21	22	28.87	11	.34
October	29.00	29.36	24	28.70	17	.66
November	29.04	29.59	2	28.61	28	.98
December	29.08	29.43	19	28.63	16	.80
	Mean 29.02	Highest 29.59	Nov. 2	Lowest 28.33	Mar. 29	Mean .68

PRECIPITATION.

(Amount in inches and hundredths.)

Elevation of top of gauge above ground, December 31, 68 feet.

MONTHS.	Total Amount.	Greatest Amount in any 24 consecutive hours.		No. days on which .01 in. or more fell.	No. days on which no rain, except "Trace," fell.	Greatest No. of consecutive days without rainfall (dates inclusive).	Normal rainfall.
		Am't.	Date.				
January	2.44	.69	29	16	3	8-11	3.83
February	2.21	.83	19	10	4	20-25	3.23
March	2.31	1.04	7	9	5	8-17	4.72
April	4.46	.90	2-3	20	1	23-26	3.34
May	1.07	.56	21	7	1	3-19	3.52
June	3.01	.87	23-24	13	2	6-10	3.99
July	0.92	.60	8-9	9	2	10-15	4.44
August	2.84	.80	17	11	8	18-24	3.57
September	4.37	1.22	10	12	2	22-28	2.42
October	3.67	1.16	1-2	12	0	23-29	2.22
November	3.84	1.56	5-6	10	4	18-22	3.48
December	6.20	1.38	11-12	16	2	1-9	3.32
Total	37.34			145	37		42.08

MISCELLANEOUS PHENOMENA.

MONTHS.	Number of Days with			
	Thunder Storms.	Snows.	Hail.	Dense Fog.
January	2	3	0	2
February	2	1	0	3
March	3	2	1	4
April	7	0	0	0
May	6	0	0	0
June	11	0	0	1
July	10	0	0	0
August	11	0	0	0
September	11	0	0	1
October	3	0	1	2
November	1	3	0	0
December	1	1	0	2
Summary	68	10	2	15

CLOUDINESS.

MONTHS.	Mean Cloudiness (0 to 10).		Character of Day.		
	7 A. M.	Monthly.	Clear.	Partly Cloudy.	Cloudy.
January	7.1	7.6	5	6	20
February	6.5	6.1	7	9	12
March	5.3	5.6	11	7	13
April	6.6	6.3	7	11	12
May	3.1	3.7	16	9	6
June	4.8	6.0	7	9	14
July	4.1	6.3	7	11	13
August	6.1	6.7	4	13	14
September	5.7	6.3	5	11	14
October	5.9	6.5	6	10	15
November	7.4	7.4	5	6	19
December	6.8	7.4	6	3	22
Summary			86	105	174
Mean	5.8	6.3			

WIND.

Elevation of the Anemometer Cups above ground Dec. 31, 102 feet.

MONTHS.	Prevailing Direction.	Maximum Hourly Velocity During Month.			No. of Days with Gales.*	No. of Calms.
		Miles	From	Date.		
January	S. W.	44	W.	8	1	0
February	W.	39	S. W.	14	0	0
March	W.	50	S. W.	27	3	0
April	S. E.	64	W.	19	3	0
May	N. E.	39	S. W.	1	0	0
June	N. E.	36	S. W.	26	0	1
July	S.	34	W.	25	0	1
August	S. W.	49	S. E.	12	1	1
September	S. W.	32	N. W.	15	0	0
October	N. E.	36	W.	1	0	0
November	W.	46	S. W.	17	2	0
December	S.	40	W.	27	1	0
Mean	S.					

*Days with 40 miles per hour and over.

TEMPERATURE.

MONTHS	ELEVATION OF THE DRY THERMOMETER BULB ABOVE GROUND DEC. 31ST, 75 FEET.										NO. OF DAYS.			Normal Monthly Temperature.
	FROM SELF-REGISTERING INSTRUMENTS.										Max. below 32 degrees.	Max. above 90 degrees.	Min. below 32 degrees.	
	MEAN.			Highest	Date.	Lowest.	Date.	RANGE.		Mean daily change.				
	Max.	Min.	Monthly					Absol- ute.	Mean daily.					
January	46	31	38.3	65	13		3	61	15	8.2	7	0	21	33
February	49	32	40.4	70	14	16	22	54	17	7.6	3	0	18	36
March	53	33	42.9	77	12	13	16	64	20	6.3	0	0	15	43
April	60	43	51.6	80	6	27	2	53	17	4.1	0	0	3	54
May	80	59	69.5	93	28	36	2	67	21	3.2	0	6	0	64
June	84	64	73.8	96	4	53	15	43	20	3.5	0	4	0	73
July	86	66	75.6	98	3	53	25	45	20	2.6	0	8	0	77
August	85	66	75.8	99	10	56	29	43	19	2.5	0	10	0	75
September	81	64	72.5	90		52	30	38	18	4.0	0	0	0	68
October	67	50	58.2	85	3	35	28	50	17	5.1	0	0	0	56
November	48	31	39.8	71	11	13	13	68	17	8.9	4	0	18	45
December	48	34	40.8	65	10	16	28	49	14	5.8	2	0	13	36
Mean	66	48	56.6	99	Aug. 10	4	Jan. 3	51	18	5.2	16	28	88	55