
UNIVERSITY OF MISSOURI.

COLLEGE OF AGRICULTURE AND MECHANIC ARTS.

Agricultural Experiment Station.

BULLETIN NO. 77.

**INSPECTION OF COMMERCIAL
FERTILIZERS**

COLUMBIA, MISSOURI.

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INSPECTION OF COMMERCIAL FERTILIZERS.

By H. J. Waters, Director.

The present bulletin contains the report of analyses of commercial fertilizers collected during the fall of 1906. It also contains a statement of the receipts and disbursements of the Fertilizer Control Fund for the year ending December 31, 1906. The law governing the sale of commercial fertilizers is published in Bulletin 63 of this Station, and will be sent free upon request. In general, the workings of this law have been very satisfactory to both the producer and the consumer.

The intention of this law is to prevent the dishonest manufacturer from misrepresenting to the farmer the composition of his brands of fertilizers and thereby defrauding him. This protects the honest manufacturer equally as fully as the farmer, inasmuch as it inspires confidence in the representations and guarantees of the manufacturer, and through the information disseminated and through the experiments conducted here and in different parts of the State, by the Station, tends to increase the rational use of commercial fertilizers. It is only on this basis that the use of this sort of plant food can be materially extended.

Collecting the Samples.

Competent inspectors visited, during August and September, all of the regions of the State where fertilizers are used extensively, and drew the samples under proper instruction and with proper facilities from the material as it was found in the hands of the agents or on the cars in transit, or as it was found in the hands of the farmer. In some cases the samples were drawn at the factory as the material was being loaded into the cars for shipment.

It will be noticed that a goodly number of samples of the principal brands were drawn. In many cases they were made

into a composite sample and this sample analyzed. Whenever this composite sample differed materially from the guarantee of the brand represented a number of individual samples of this brand were analyzed: Where this composite sample was identical with the guarantee no other analysis was deemed necessary.

The following tables show a list of the samples drawn and analyzed, the names of the manufacturers, places where the samples were drawn, name and address of agents in whose hands the goods were at the time they were sampled, and the chemical composition of these samples, compared in all cases with the composition guaranteed by the manufacturer.

No.	Date of Collection	Manufacturer and Brand	From Whom Collected	Nitrogen		PHOSPHORIC ACID, P ₂ O ₅						Potash K ₂ O	
						Total		Insoluble		Available			
				Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.
	1906	North Western Fertilizer Co., Chicago											
911	Sept. 8	Acidulated Bone and Potash.....	T. H. Britt & Son, Montgomery..	0.82	1.19	12.00	14.67	2.00	4.09	10.00	10.58	1.50	.88
1127	" 7	Pure Ground Bone.....	Blattner Bros., Montgomery.....	2.47	2.37	20.00	25.50	8.00	9.69	12.00	15.81		
99	" 7	National Bone Dust	Blattner Bros., Montgomery.. ...	2.06	2.15	10.00	10.49	2.00	1.30	8.00	9.19	1.50	1.53
20	Oct. 13	Horse Shoe Fine Raw Bone.....	J. P. Ellis, High Hill..	3.29	4.11	22.00	20.26		8.88		11.38		
		Packers' Fertilizer Association, Chicago											
928	Sept. 29	Special Bone Meal.....	Thomas H. Moore, Troy.....	1.23	1.30	25.00	25.49	12.00	14.31	13.00	11.18		
927	" 29	Boars Head Brand Ammoniated Bone and Potash	Thomas H. Moore, Troy.....	.82	1.01	12.00	13.48	2.00	3.10	10.00	10.38	1.00	1.46
10139	" 21	Boars Head Brand Ammoniated Bone and Potash	W. S. Smith, Monett.....	.82	0.98	12.00	14.54	2.00	4.09	10.00	10.45	1.00	1.27
10138	" 21	Boars Head Brand Fine Raw Bone.	W. S. Smith, Monett.....	3.29	4.02	22.00	21.21	12.00	13.10	10.00	8.11		
1147	" 8	Bone Meal.....	C. W. Wright, Warrenton.....	2.47	2.68	20.00	25.91	8.00	18.43	12.00	7.48		
10107	" 20	T. J. Jenkins, Springfield, Mo.											
10107	" 20	Jenkins' Blood, Bone and Potash.....	T. J. Jenkins, Springfield.....	2.00	3.44	13.00	7.45	5.00	3.44	8.00	4.01	3.00	1.31
10113	" 20	Jenkins' Blood, Bone and Potash.	T. J. Jenkins, Springfield.....			13.00	7.22	5.00	3.87	8.00	3.35		
10129	" 19	Blood and Bone.	D. G. Hendrix, Bois D'Arc. ...	2.00	3.05	13.00	6.73	5.00	3.84	8.00	2.89	3.00	1.40
10127	" 19	Raw Bone.....	D. G. Hendrix, Bois D'Arc.....	3.00	3.23	21.00	21.70	14.00	15.67	7.00	6.03		
1189	" 19	Ground Bone.....	J. T. Jenkins, Springfield.....	3.00	3.41	21.00	21.25	14.00	11.85	7.00	9.40		
10119	" 20	Jenkins' Bone Meal.....	J. T. Jenkins, Springfield.....	3.00	3.48	21.00	24.78	14.00	12.64	7.00	12.14		

No.	Date of Collection	Manufacturer and Brand	From Whom Collected	Nitrogen		PHOSPHORIC ACID, P ₂ O ₅						Potash, K ₂ O	
						Total		Insoluble		Available			
				Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.
		Virginia, Carolina Chemical Co.											
82	Sept. 24	Royal High Grade Guano.....	J. F. Harrison, Carthage.....	1.65	1.74	12.00	14.00	2.00	2.58	10.00	11.42	2.00	2.16
10109	" 18	Royal Grain Grower.....	McDermid & Thunser, Lockwood			12.00	13.71	2.00	3.03	10.00	10.68	4.00	2.62
10118	" 17	Scott's Goosypium Phospho.....	Adams Hdw. Co., Lamar.....	1.65	1.74	12.00	15.72	2.00	2.95	10.00	12.77	2.00	2.35
		Tuscarora Fertilizer Co., Chicago											
1114	" 7	Steamed Bone.....	Jas. Cunningham, Montgomery..	1.65	2.33		22.77	20.00	11.04		11.73		
98	" 7	Raw Bone.....	" " " "	3.70	4.30		23.87	22.00	14.53		9.34		
1134	" 8	Ammoniated Phosphate.....	Fred Paul, Forstell.....	.82	1.15		10.83		9.78	7.00	1.05	1.00	.98
1138	" 8	Animal Bone.....	" " " "	2.47	2.68		21.22	24.00	16.80		4.42		
		Tennessee Chemical Co., Nashville, Tenn.											
1143	" 12	Ox Alkaline Bone.....	{ Ironton Mfg. Co., Ironton..... Henry Adkins, Bismarck..... }			13.00	19.50	1.00	4.71	12.00	14.79	2.00	2.03
1142	" 12												
84	" 29	" " ".....	Thomas H. Moore, Troy.....			13.00	17.92	1.00	5.22	12.00	12.70	} 2.00	2.04
10135	" 17	" " ".....	Johannes & Son, Lamar.....			13.00	27.83	1.00	6.08	12.00	21.75		
1149	" 29	Ox High Grade Dissolved Bone.....	Thomas H. Moore, Troy.....			15.00	19.66	1.00	10.36	14.00	9.30		
10128	" 17	Ox Corn & Wheat Guano.....	Johannes & Son, Lamar.....	.82	.72	13.00	19.11	1.00	3.47	12.00	15.64	1.00	1.20

No.	Date of Collection	Manufacturer and Brand	From Whom Collected	Nitrogen		PHOSPHORIC ACID, P ₂ O ₅						Potash, K ₂ O	
						Total		Insoluble		Available			
				Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.
		Arkansas Fertilizer Co., Little Rock Ark.											
119	Sept. 28	20th Century Fertilizer.....	George W. Whiteside, Whiteside	1.64	1.78	12.00	17.73	2.00	6.40	10.00	11.33	1.50	1.45
91	" 5	" " "	B. R. Middleton Mexico	1.64	2.11	12.00	12.69	2.00	4.86	10.00	7.83	1.50	2.07
926	" 28	Ammoniated Bone Super-phosphate.....	George W. Whiteside, Whiteside	1.64	1.58	12.00	15.25	3.00	6.03	9.00	9.22	2.00	1.67
1136	" 11	" " "	DeSoto Wood & Coal Co., DeSoto	1.64	2.29	12.00	18.00	3.00	5.00	9.00	13.00	2.00	2.67
914	" 8	Raw Bone and Potash.....	Schafer Hdw. Co., Warrenton....	2.47	2.74	13.00	19.98	11.00	10.52	7.00	9.46	2.00	1.99
10105	" 8	Potash Special.....	" " " "	1.64	1.86	10.00	15.57	1.00	3.59	9.00	6.98	6.00	6.50
		Mayer Fertilizer & Junk Co., St. Louis											
10145	Sept. 22	Raw Bone Meal.....	Forsythe Imp. Co., Sarcoxie.....	3.70	3.38	20.00	26.42	13.00	12.51	7.00	13.91		
10137	" 20		Planters Seed Co., Springfield...}	3.70	3.61								
1126	" 8		T. H. Britt & Son, Montgomery.}	3.70	3.52								
1148	" 24		H.F. Gilmore Imp. Co., Carthage}	3.70	3.50								
1125	" 8	Bone & Potash.....	T. H. Britt & Son, Montgomery..	1.00	0.12	10.00	20.86	2.00	3.26	8.00	17.60	2.50	2.42
1146	" 8	St. Louis Bone Meal.....	" " " "	3.30	3.29	18.00	22.27	12.00	12.88	6.00	9.99		
10134	" 15	Special Wheat Grower.....	Q. T. Moore, Nevada	1.00	1.43	12.00	13.68	2.00	11.23	10.00	2.45	3.00	2.48
10147	" 22		Forsythe Imp. Co., Sarcoxie....}	1.00	1.15								
10136	" 18		F. H. Harris, Lockwood	1.00	1.17								

No.	Date of Collection	Manufacturer and Brand	From Whom Collected	Nitrogen		PHOSPHORIC ACID, P ₂ O ₅						Potash, K ₂ O			
						Total		Insoluble		Available					
				Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.		
Mayer Fertilizer and J. Co.—Continued.															
1124	Sept. 8	Special Wheat Grower	{ T. H. Britt & Son, Montgomery	1.00	1.84	} 12.00	16.88	2.00	4.09	10.00	12.79	3.00	3.02		
117	" 24			H. F. Gilmore Im. Co., Carthage	1.00									1.85	
10114	" 20			" " "	Planters Seed Co., Springfield....	1.00	1.19	12.00	14.78	2.00	4.64	10.00	10.14	3.00	2.52
10149	" 22			" " "	H. L. Echert, Pierce City	1.00	1.57	12.00	15.83	2.00	4.37	10.00	11.46	3.00	2.24
10140	" 22	Corn & Wheat Grower.....	Forsythe Imp. Co., Sarcoxie.....	2.05	1.59	11.00	13.68	3.00	5.22	8.00	8.46	3.00	2.72		
910	" 8	Complete Fertilizer.....	T. H. Britt & Son, Montgomery..	1.65	1.48	11.00	12.86	3.00	4.12	8.00	8.74	2.00	1.34		
1112	" 25	" "	Conway Hdw. Co., Conway.....	1.65	1.96	11.00	17.38	3.00	3.72	8.00	13.66	2.00	1.66		
Armour Packing Co., Kansas City															
919	Sept. 24	Pure Raw Bone Meal.....	Carthage Seed Co., Carthage....	3.87	4.10	22.00	23.27	14.00	13.64	8.00	9.63				
10114	" 22	" " " "	Wm. Buckner & Son, Pierce City	3.87	4.36	22.00	24.42	14.00	14.92	8.00	9.50				
1141	" 17	" " " "	D. E. Cloud, Willard	3.87	4.63	22.00	24.19	14.00	12.17	8.00	12.02				
1113	" 25	" " " "	{ Conway Hdw. Co., Conway.....	} 3.87	4.48	22.00	26.44	14.00	8.77	8.00	17.67				
115	" 25											{ D. W. Robinson Co., Marshfield.			
10121	" 18	" " " "	McDermid & Thunser, Lockwood	3.87	4.03	22.00	26.03	14.00	14.40	8.00	11.63				
10116	" 17	" " " "	Johannes & Son, Lamar	3.87	4.05	22.00	22.39	14.00	15.50	8.00	6.89				
116	" 25	Fine Ground Beef Bone....	{ D. W. Robinson Co., Marshfield	} 2.47	3.09	25.00	27.56	12.50	10.09	12.50	17.47				
113	" 25											{ Conway Hdw. Co., Conway.....			

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						Total		Insoluble		Available			
				Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.
		Armour Packing Co., Kansas City—Cont.											
10120	Sept. 21		Davis & Chappel, Monett.....	2.47	3.63	25.00	29.56	12.50	15.94	12.50	13.62		
10123	" 18	Blood & Bone	McDermid & Thunser, Lockwood	5.35	6.37	14.50	14.78	8.50	6.45	6.00	8.33		
10125	" 22	Ammoniated Dissolved Bone and Potash	Lewis Supply Co., Sarcoxie	1.65	1.93	11.50	16.39	1.50	1.84	10.00	14.55	2.00	1.92
1096	" 13	" " " " "	Dixon Zone, Carthage.....	1.65	1.85	11.50	14.56	1.50	2.22	10.00	12.34	2.00	2.30
10146	" 22	" " " " "	Wm. Buckner & Son, Pierce City	1.65	1.56	11.50	15.30	1.50	1.13	10.00	14.17	2.00	2.28
922	" 25	" " " " "	D. W. Robinson & Co., Marshfield	1.65	1.46	11.50	13.48	1.50	1.68	10.00	11.80	2.00	1.94
10106	" 21	" " " " "	Davis & Chappel, Monett.....	1.65	1.67	11.50	15.24	1.50	2.56	10.00	12.68	2.00	2.07
10128	" 22	Helmet Brand No. 282	Lewis Supply Co., Sarcoxie ..	1.65	2.06	9.50	13.11	1.50	1.70	8.00	11.41	2.00	2.09
921	" 24	" " " "	Carthage Seed Co., Carthage....	1.65	1.68	9.50	11.05	1.50	0.83	8.00	10.22	2.00	2.40
		Armour Fertilizer Works, E. St. Louis, Ill.											
85	Sept. 1	Armour's Grain Grower	Gnade Bros., Ethlyn.....	1.65	1.84	10.00	10.69		0.69	8.00	10.00	2.00	2.55
1123	" 8		{ Nieburg Mfg. Co., Wright City..	1.65	1.43	10.00	11.94	6.23	8.00	5.71	2.00	2.22	
1132	" 11		{ G. W. Rush, Mineral Point.										
1116	" 6	Armour's Grain Grower.....	{ Callaway Hdw. Co., Fulton										
1121	" 5		{ Wm. Pollock, Mexico.....										
81	" 6	Wheat Corn & Oat Special.....	Callaway Hdw. Co., Fulton82	1.09	10.00	9.76		0.46	7.00	9.30	1.00	1.26

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						Total		Insoluble		Available			
				Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.
		Armour Fert. Works, E. St. Louis—Cont.											
1117	Sept. 6	Raw Bone Meal.....	Callaway Hdw. Co., Fulton.....	3.70	3.81	27.34	22.00	14.76	12.58				
1122	" 8		Nieburg Mfg. Co., Wright City..										
1150	" 8		W. E. Kuehne, Wellsville.....										
		Armour Fertilizer Works, Chicago											
929	Oct. 2	Raw Bone Meal.....	Coontz & Harris, Vandalia.....	3.70	3.72	22.86	22.00	10.62	12.24				
		Armour, S. Omaha, Neb.											
1120	Sept. 5	Bone Meal.....	Wm. Pollock, Mexico.....	2.47	3.06	24.07	24.00	13.36	10.71				
		Nelson Morris & Co. Chicago											
95	Sept. 6	Big One Pure Raw Bone Meal.....	R. L. Smith, McCredie.....	3.30	4.30	26.09	24.00	15.62	10.47				
913	" 8	" " " " " ".....	Schafer Hdw. Co., Warrenton....	3.30	3.53	24.89	24.00	13.86	11.03				
917	" 11	" " " " " ".....	Northcut & Co., Potosi.....	3.30	3.62	25.87	24.00	12.40	13.47				
96	" 6	Big Four Pure Bone Phosphate.....	Rood & Cook, McCredie.....	4.12	2.68	12.00	14.31	5.00	4.26	7.00	10.05	4.00	4.34
10132	" '20	Big Two Pure Bone Meal.....	Diffenderfer Imp. Co., Spring'd	2.00	3.09	} 28.00	28.37	28.00	18.24	10.13			
918	" 11	" " " " " ".....	Northcut & Co., Potosi.....	2.00	2.17								
915	" 11	" Three Pure Bone Phosphate.....	" " " ".....	2.47	2.91	10.00	13.23	3.00	2.92	7.00	10.31	2.00	2.72
916	" 11	" Five " " " ".....	" " " ".....	2.47	3.53	10.00	13.35	3.00	4.18	7.00	9.17	1.00	1.24

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						Total		Insoluble		Available			
				Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtp. per ct.	Found per ct.
		P. B. Mathiason & Co., St. Louis											
10124	Sept. 18	Increscent Grain Grower.....	F. H. Farris, Lockwood.....	1.65	2.25	10.00	15.24	2.00	6.08	8.00	9.16	2.00	1.48
924	" 26	" " ".....	J. A. Spillman, Rolla.....	1.65	1.77	10.00	14.17	2.00	2.51	8.00	11.66	2.00	1.84
10142	" 22	" " ".....	Aug. Brockschmidt, Pierce City..	1.65	1.82	10.00	19.78	2.00	6.23	8.00	13.55	2.00	1.49
1115	" 7	" " ".....	Prairie Milling Co., Montgomery	1.65	1.81	10.00	17.14	2.00	4.29	8.00	12.85	2.00	2.22
10108	" 21	Increscent Brand Raw Bone Meal & Potash.....	J. W. Sanders, Billings.....	2.47	2.62	11.00	20.46	2.00	10.72	9.00	9.74	} 2.00	2.96
10133	" 22	" " " " " ".....	A. Brockschmidt, Pierce City. ...	2.47	2.67	11.00	20.00	2.00	10.69	9.00	9.31		
923	" 26	Pure Bone Meal.....	J. A. Spillman, Rolla.....	2.68	2.63	23.00	24.14	15.00	12.32	8.00	11.82		
1188	" 7	" " ".....	Prairie Milling Co., Montgomery	2.68	2.81	23.00	26.77	15.00	14.73	8.00	12.04		
10143	" 22	" " ".....	Aug. Brockschmidt, Pierce City .	2.68	3.05	23.00	23.33	15.00	13.53	8.00	9.80		
10148	" 22	Pure Raw Bone Meal.....	" " " " " ..	3.50	3.55	} 23.00	23.69	15.00	13.33	8.00	10.36		
97	" 7		Prairie Milling Co., Montgomery	3.50	3.45								
10181	" 21		J. W. Sanders, Billings.....	3.50	3.54								
10110	" 18	" " " ".....	Eaton Christner Co., Lockwood.	3.50	4.08	23.00	27.61	15.00	18.50	8.00	9.11		

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						Total		Insoluble		Available			
				Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.
		Swift & Co., Chicago											
111	Sept. 24	Pure Raw Bone Meal	Dixon Zone Imp. Co., Carthage.	3.75	3.98	23.00	27.31	23.00	9.55	17.76			
1140	" 18		Newton Grain Co., Springfield...										
1131	" 12		Ironton Mfg. Co., Ironton.										
1129	" 7		Jas. Cunningham, Montgomery..										
1110	" 26		Menyo House, St. James.....										
1137	" 11	DeSoto Wood & Coal Co., DeSoto											
10117	" 17	Pure Raw Bone Meal	Thomas Eggar, Lamar.....	3.75	2.09	23.00	25.78	23.00	5.86	19.92			
10122	" 19	" " " "	Redfern & Hoyal, Bois D'Arc...	3.75	4.02								
94	" 6	" " " "	Cook & Rood, Fulton.....	3.75	4.08	23.00	24.91	23.00	12.67	12.24			
1215	Oct. 13	" " " "	J. P. Ellis, High Hill....	3.75	3.88	23.00	23.24	23.00	7.52	15.72			
1145	Sept. 7	" Bone Meal	Jas. Cunningham, Montgomery..	2.50	3.26	25.00	25.98	25.00	9.02	16.96			
1118	" 5		Hathaway Grain Co., Mexico...			25.00	28.37						19.35
10130	" 19	Pure Special Bone Meal...	Redfern & Hoyal, Bois D'Arc...	.82	1.07	27.50	33.17	27.50	21.20	11.97			
10112	" 15	Special Grain Grower.....	Robinson & Co., Nevada.....	1.64	2.09	12.00	13.83	2.00	2.17	10.00	11.66	2.00	2.85
920	" 12	Bone Meal & Potash.....	Ironton Mfg. Co., Ironton.....	2.50	2.48	23.50	25.74	23.50	14.22	11.52	3.00	3.33	

No.	Date of Collection	Manufacturer and Brand	From Whom Collected	Nitrogen		PHOSPHORIC ACID, P ₂ O ₅						Potash, K ₂ O		
						Total		Soluble		Available				
				Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	Gtd. per ct.	Found per ct.	
Swift & Co., Chicago, Ill.—Continued.														
1128	Sept. 7	Superphosphate	Jas. Cunningham, Montgomery.	1.64	0.99	12.00	11.70	4.00	10.52	8.00	1.18	2.00	2.37	
1135	" 11		DeSoto Wood & Coal Co., DeSoto											
114	" 25		G. W. Blunt, Marshfield.....											
1111	" 26		J. A. Spillman, Rolla											
10115	" 15	"	Robinson & Co., Nevada.....	1.64	1.69	12.00	14.78	4.00	1.59	8.00	13.19	2.00	1.90	
925	" 26	"	Menyo House, St. James.....	1.64	1.78	12.00	9.03	4.00	1.36	8.00	7.87	2.00	1.02	
1130	" 12	Special grain fertilizer.....	Ironton Mfg. Co., Ironton.....	1.64	1.74	12.00	15.72	2.00	5.57	10.00	10.15	2.00	1.80	
112	" 24		Dixon & Zone Imp. Co., Carthage											
118	Oct. 2		Howell & Evermeyer, Hawk Pt.											
1144	Sept. 17		Newton Grain Co., Springfield..											
88	" 25	" " "	G. W. Blunt, Marshfield.....	1.64	1.74	12.00	12.89	2.00	1.49	10.00	11.40	2.00	1.85	
93	" 5	Complete fertilizer	Hathaway Grain Co., Mexico	1.00	1.30	11.00	10.91	3.00	1.83	8.00	9.08	1.00	1.50	
10111	" 18	" "	Eaton Christner Co., Lockwood..	1.00	1.39	11.00	14.56	3.00	2.08	8.00	12.48			
Miscellaneous														
1119	" 5	Unknown*	Hathaway Grain Co., Mexico				19.54							
186	April 22	English Grass fertilizer.....	Robert Foulis, St. Louis.....		3.81		17.97		2.27		15.70		3.30	
22	Oct. 13	Raw bone meal.....	Arnold Rohlfing, Senate Grove...		3.44		17.45		6.17		11.28			

*Collector reported rats had eaten bags so that manufacturer could not be determined.

Detailed Statement of Receipts and Disbursements on the Fertilizer Control Account for the Year Ending December 31, 1906

Jan. 1, 06.	To Balance	\$2702.43
Jan. 31, To sale of tags.....			4.00
Feb. 28, " " "			75.00
Apr. 30, " " "			408.75
May 31, " " "			207.76
June 30, " " "			316.56
July 31, " " "			405.00
Aug. 31, " " "			459.88
Sep. 30, " " "			972.96
Oct. 31, " " "			690.00

1906			
Jan. 31	By	Paul Schweitzer, salary.....	\$ 91.67
" "	"	R. M. Bird, salary.....	54.17
" "	"	Otis Moore, labor.....	17.71
" "	"	Eimer & Amend, Chem. App.....	143.67
" "	"	The Chas. E. Sholes Co, Chemicals...	48.35
" "	"	Baker & Co., Sc. appar.....	40.95
" "	"	M. E. Sherwin, trav. exp.....	18.75
" "	"	P. B. Mathiason Mfg. Co., fertilizer...	4.00
Feb. 28	"	Paul Schweitzer, salary.....	91.67
" "	"	R. M. Bird, salary.....	54.17
" "	"	Otis Moore, labor.....	16.00
" "	"	G. E. Stechert & Co., library.....	6.36
Mar. 31	"	Paul Schweitzer, salary.....	91.66
" "	"	R. M. Bird, salary.....	54.16
" "	"	Otis Moore, labor.....	17.71
" "	"	Armour Pkg. Co., fertilizer.....	50.89
" "	"	W. J. Grempczyuski, ".....	2.10
" "	"	E. A. Remley, ".....	2.00
Apr. 30	"	H. J. Waters, Salary.....	116.67
" "	"	Paul Schweitzer, ".....	91.67
" "	"	R. M. Bird.....	54.17
" "	"	Sabra E. Kennedy.....	25.00
" "	"	Otis Moore, labor.....	17.14
" "	"	Swift & Co., Fertilizer.....	21.00
" "	"	P. B. Mathiason Mfg. Co., fertilizer...	3.00
May 31	"	H. J. Waters, salary.....	116.67
" "	"	Paul Schweitzer, ".....	91.67
" "	"	R. M. Bird, ".....	54.17
" "	"	Sabra E. Kennedy, salary.....	25.00
" "	"	J. W. Pennington, labor.....	20.00
" "	"	Otis Moore, ".....	17.71
" "	"	J. B. Sigler, ".....	16.75
" "	"	Lindell Gro. Co., sundries.....	1.40
June 30	"	H. J. Waters, salary.....	116.66
" "	"	Paul Schweitzer, ".....	91.66
" "	"	R. M. Bird, ".....	54.16
" "	"	Sabra E. Kennedy.....	25.00
" "	"	Otis Moore, labor.....	17.14
" "	"	J. C. Whitten, trav. exp.....	30.15
July 31	"	H. J. Waters, salary.....	116.67
" "	"	Paul Schweitzer, ".....	91.67
" "	"	R. M. Bird.....	54.17
" "	"	Eimer & Amend, sundries.....	42.72
" "	"	Sabra E. Kennedy, salary.....	25.00
" "	"	The Charles E. Sholes Co., sundries..	24.70
" "	"	Henry Heil Chem. Co., sc. app.....	7.40
Aug. 31	"	Paul Schweitzer, salary.....	91.67
" "	"	R. M. Bird, ".....	54.17
" "	"	Butler Eves, ".....	25.00
" "	"	Sabra E. Kennedy, salary.....	25.00
" "	"	Otis Moore, ".....	35.42
Sep. 30	"	H. J. Waters, ".....	116.66
" "	"	R. M. Bird, ".....	54.16
" "	"	Paul Schweitzer, ".....	50.00
" "	"	M. E. Sherwin, labor.....	45.00
" "	"	F. L. Kelso, trav. exp.....	29.78
" "	"	Mary A. Cochel, labor.....	10.50
Oct. 31	"	L. F. Childers, salary etc.....	77.81
" "	"	M. E. Sherwin, trav. exp.....	76.55
" "	"	F. L. Kelso, labor.....	75.65
" "	"	Columbia Printing Co., publications.	26.00
" "	"	Barnie Venable, labor.....	17.71
" "	"	Meyer Bro. Drug Co., chem. sup.....	4.25
" "	"	Mary A. Cochel, labor.....	2.40
Nov. 30	"	H. J. Waters, salary.....	116.67
" "	"	R. M. Bird, ".....	54.17
" "	"	Sabra E. Kennedy, salary.....	25.00
" "	"	Eimer & Amend, chem. sup.....	43.00
" "	"	Barnie Venable, labor.....	17.14
Dec. 31	"	H. J. Waters, salary.....	116.66
" "	"	R. M. Bird, ".....	54.16
" "	"	Paul Schweitzer, salary.....	50.00
" "	"	Sabra E. Kennedy, " salary.....	25.00
" "	"	Barnie Venable, labor.....	17.71
" "	"	Balance.....	2735.01

\$6242.36

\$6242.36