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Commercial fertilizers

J. H. Stewart


B. H. Hite

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WEST VIRGINIA UNIVERSITY
AGRICULTURAL EXPERIMENT STATION,
MORGANTOWN, W. VA.

BULLETIN 79.

JANUARY 1ST, 1902.

Commercial Fertilizers.

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BY J. H. STEWART AND B. H. HITE.

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[The Bulletins and Reports of this Station will be mailed free to any citizen of West Virginia upon written application. Address, Director of Agricultural Experiment Station, Morgantown, W. Va.]

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REPORT OF THE WORK ON COMMERCIAL FERTILIZERS, FOR THE YEAR ENDING DECEMBER 31, 1901.

This bulletin is a complete report of the work required by the Fertilizer Laws of this State for the year ending Dec. 31, 1901.

On May 2nd, 1901, a New Fertilizer Law went into effect, but the great majority of the fertilizers were registered prior to that date and so had to be carried through the year as though no new law had been enacted. A report of the comparatively few brands registered under the provisions of the new statute will be found in Table III. A copy of the New Law will be found on the last pages of this bulletin. We have already had occasion to call attention to the merits of the New Law in Bulletin 77, entitled "The New Fertilizer Law," so it will not be necessary to make any further comments upon it in this connection, except perhaps to state, that our experience with it during the past year has only tended to strengthen our convictions in all that was claimed for it in the bulletin referred to.

For the reasons above named this report must follow for the most part the same lines of the many fertilizer reports already issued from this Department. It consists essentially of two tables; the first, comparing the samples submitted by the Manufacturer with his affidavit, and in regard to it little need be said, in as much as both the sample and the affidavit are provided by the same party and there need be no reason why the two should not agree, and whether they do agree or not is a matter of little or no consequence to the purchaser.

Table II. Compares the analysis and valuations of the sample submitted by the Manufacturers (official sample), with the

samples of the same goods actually found on sale in the State by authorized Inspectors of the Station, or submitted by purchasers of Commercial Fertilizers in accordance with the rules and regulations of this office. This table is a matter of much importance to the purchaser of commercial fertilizers. It shows very clearly that while the great majority of the brands shipped into the state compared very favorably with the samples submitted by the Manufacturers, that there are however, quite a number of brands that fell altogether too far short, and the farmers who have been following these reports from year to year will have little difficulty in locating the companies who have shipped the short goods into this state during the past year. A careful examination of this table will furnish the very strongest arguments in favor of the New Law which devotes itself exclusively to goods actually found on sale in the state, or submitted by the farmers.

TABLE I.
Analysis of Commercial Fertilizers—1901.

NAME AND ADDRESS OF MANUFACTURER.	NAME OF BRAND.	Soluble Phosphoric Acid in Official Sample.	Soluble Phosphoric Acid Guaranteed.	Reverted Phosphoric Acid in Official Sample.	Reverted Phosphoric Acid Guaranteed.	Insoluble Phosphoric Acid in Official Sample.	Insoluble Phosphoric Acid Guaranteed.	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid Guaranteed.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid Guaranteed.	Nitrogen in Official Sample.	Nitrogen Guaranteed.	Potash in Official Sample.	Potash Guaranteed.	Valuation of Official Sample.	Valuation According to Guaranteed Analysis.
The American Agricultural Chemical Co., New York and Baltimore	Fine Ground Bone	.....	.....	.....	.....	.....	.....	26.03	22.00	.....	.....	2.48	2.47	.....	.....	27.25	24.50
The American Agricultural Chemical Co., New York and Baltimore	Bone Meal	.....	.....	.....	.....	.....	.....	15.58	9.00	.....	.....	2.25	1.65	.....	.....	18.74	13.25
The American Agricultural Chemical Co., New York and Baltimore	Bradley Fert. Works' Dissolved Bone Phosphate with Potash	6.45	6.00	3.36	2.00	1.15	.....	10.96	9.00	9.81	8.00	1.22	1.03	2.79	2.00	20.50	16.75
The American Agricultural Chemical Co., New York and Baltimore	Bradley Fert. Works' Bean & Potato	6.11	6.00	2.21	2.00	2.80	.....	11.18	9.00	8.38	8.00	1.08	0.82	6.11	4.00	23.00	18.50
The American Agricultural Chemical Co., New York and Baltimore	Bradley Fert Works' Niagara.	4.55	5.00	2.77	2.00	1.56	.....	8.88	8.00	7.32	7.00	0.84	0.82	1.48	1.00	15.25	13.75
The American Agricultural Chemical Co., New York and Baltimore	Bradley Fert. Works' Alkaline Bone	7.28	8.00	3.82	2.00	0.85	.....	11.96	11.00	11.10	10.00	.....	.....	2.70	2.00	17.00	15.00
The American Agricultural Chemical Co., New York and Baltimore	Bradley Fert. Works' Soluble Dissolved Bone	12.15	12.00	2.49	2.00	0.87	.....	15.51	.....	14.64	14.00	.....	.....	.....	.....	17.25	16.50
The American Agricultural Chemical Co., New York and Baltimore	Canton Chemical Baker's Spl. Wheat, Corn and Grass Mix.	4.45	7.00	3.70	2.00	1.38	.....	9.53	10.00	8.15	9.00	0.97	0.82	5.57	2.00	21.25	17.00
The American Agricultural Chemical Co., New York and Baltimore	Canton Chemical Harrow Br'd Crop Grower	2.78	6.00	5.03	2.00	1.93	.....	9.74	9.00	7.81	8.00	0.84	0.82	4.58	1.00	19.50	14.75
The American Agricultural Chemical Co., New York and Baltimore	Canton Chemical Soluble Bone and Potash	6.37	8.00	3.60	2.00	0.70	.....	11.67	11.00	9.97	10.00	.....	.....	5.05	2.00	18.75	15.00
The American Agricultural Chemical Co., New York and Baltimore	Canton Chemical Baker's Dis. S. C. Bone	13.38	12.00	2.82	2.00	0.90	.....	17.10	15.00	16.20	14.00	.....	.....	.....	.....	18.75	16.50

TABLE I—Continued.

NAME AND ADDRESS OF MANUFACTURERS.	NAME OF BRAND.	Soluble Phosphoric Acid in Official Sample.	Soluble Phosphoric Acid Guaranteed.	Reverted Phosphoric Acid in Official Sample.	Reverted Phosphoric Acid Guaranteed.	Insoluble Phosphoric Acid in Official Sample.	Insoluble Phosphoric Acid Guaranteed.	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid Guaranteed.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid Guaranteed.	Nitrogen in Official Sample.	Nitrogen Guaranteed.	Potash in Official Sample.	Potash Guaranteed.	Valuation of Official Sample.	Valuation According to Guaranteed Sample.
The American Agricultural Chemical Co., New York and Baltimore	Great Eastern wheat Special.	4.91	6.00	3.87	2.0	1.96	.....	10.84	.....	8.88	8.00	1.	1.64	2.00	2.00	20.50	19.00
The American Agricultural Chemical Co., New York and Baltimore	Great Eastern English Wheat Grower	6.37	6.00	1.78	2.00	0.75	.....	8.90	.....	8.15	8.00	0.95	0.82	2.50	2.00	17.50	16.00
The American Agricultural Chemical Co., New York and Baltimore	Great Eastern Soluble Bone and Potash	8.47	8.00	3.58	2.00	0.33	.....	12.98	.....	12.03	10.00	.....	.....	2.08	2.00	17.25	15.00
The American Agricultural Chemical Co., New York and Baltimore	Great Eastern Dissolved Bone.	13.61	12.00	1.25	2.0	1.54	.....	16.40	.....	14.86	14.00	.....	.....	.....	.....	17.50	16.00
The American Agricultural Chemical Co., New York and Baltimore	Lazaretto Ammoniated Bone Phosphate	4.40	6.00	3.73	2.00	0.83	.....	8.96	9.00	8.13	3.00	0.95	0.82	3.18	2.00	18.25	16.00
The American Agricultural Chemical Co., New York and Baltimore	Lazaretto Excelstor A.A.A.	4.70	5.00	3.89	2.00	1.62	.....	10.24	8.00	8.59	7.00	1.05	0.82	1.97	1.00	17.75	13.00
The American Agricultural Chemical Co., New York and Baltimore	Lazaretto Dissolved Bone Phos. and Potash	7.15	8.00	4.48	2.00	0.82	.....	12.45	11.00	11.63	10.00	.....	.....	3.11	2.00	18.00	15.00
The American Agricultural Chemical Co., New York and Baltimore	Lazaretto Dissolved Bone Phosphate	12.05	12.00	2.59	2.00	0.30	.....	15.54	15.00	14.64	14.00	.....	.....	.....	.....	17.25	16.50
The American Agricultural Chemical Co., New York and Baltimore	Maryland O. K. Ammoniated Fertilizer	8.29	6.00	3.02	2.0	1.18	.....	12.49	9.00	11.31	8.00	0.71	0.82	2.53	2.00	19.75	16.00
The American Agricultural Chemical Co., New York and Baltimore	Maryland Tornado Fertilizer	6.96	10.00	4.57	2.00	0.81	.....	12.37	13.00	11.53	12.00	.....	.....	.85	5.00	22.50	20.50
The American Agricultural Chemical Co., New York and Baltimore	Maryland Bone Superphosphate	6.39	8.00	5.00	2.00	3.0	.....	14.46	11.00	11.45	10.00	.....	.....	2.52	2.00	17.75	15.00
The American Agricultural Chemical Co., New York and Baltimore	Maryland Dissolved S. C. Bone	13.30	2.00	2.62	2.00	0.5	.....	16.44	15.00	15.	2	14.00	.....	.....	.....	18.50	16.50

TABLE I—Continued.

NAME AND ADDRESS OF MANUFACTURER.	NAME AND BRAND.	Soluble Phosphoric Acid In Official Sample.	Soluble Phosphoric Acid (Guaranteed).	Reverted Phosphoric Acid In Official Sample.	Reverted Phosphoric Acid (Guaranteed).	Insoluble Phosphoric Acid In Official Sample.	Insoluble Phosphoric Acid (Guaranteed).	Total Phosphoric Acid In Official Sample.	Total Phosphoric Acid (Guaranteed).	Available Phosphoric Acid In Official Sample.	Available Phosphoric Acid (Guaranteed).	Nitrogen In Official Sample.	Nitrogen Guaranteed.	Potash In Official Sample.	Potash Guaranteed.	Valuation of Official Sample.	Valuation According to Guaranteed Analysis.
The American Agricultural Chemical Co., New York and Baltimore	Pacific Potato Phosphate.....	5.63	4.00	1.76	2.00	1.13	.....	8.92	7.00	7.39	6.00	1.50	1.24	7.19	5.00	24.70	19.25
The American Agricultural Chemical Co., New York and Baltimore	Pacific Nobsque Guano.....	6.23	6.00	3.48	2.00	1.24	.....	10.95	9.00	9.71	8.00	1.24	1.03	3.24	2.00	21.00	16.75
The American Agricultural Chemical Co., New York and Baltimore	Pacific A No. 1 Phosphate....	4.93	5.00	3.63	2.00	1.61	.....	10.17	8.00	8.56	7.00	1.08	0.82	2.00	1.00	18.00	13.75
The American Agricultural Chemical Co., New York and Baltimore	Pacific Dissolved Bone and Potash	7.54	8.00	4.00	2.00	0.88	.....	12.42	11.00	11.54	10.00	.....	3.03	2.00	18.00	13.00	15.00
The American Agricultural Chemical Co., New York and Baltimore	Pacific Dissolved Bone Phosphate.	12.10	12.00	2.52	2.00	0.84	.....	15.49	15.00	14.65	14.00	.....	.....	.....	.....	17.25	16.50
The American Agricultural Chemical Co., New York and Baltimore	John S. Reese & Co.'s Half-and-Half	4.93	5.00	3.62	2.00	1.59	.....	10.14	8.00	8.55	7.00	1.04	0.82	2.02	1.00	16.50	13.75
The American Agricultural Chemical Co., New York and Baltimore	John S. Reese & Co.'s Elm Phosphate	12.24	12.00	2.58	2.00	0.83	.....	15.65	15.00	14.82	14.00	.....	.....	.....	.....	17.50	16.50
The American Agricultural Chemical Co., New York and Baltimore	Susquehannah Alkaline Bone Phosphate	8.17	8.00	2.73	2.00	1.05	.....	11.95	11.00	10.90	10.00	.....	.....	2.04	2.00	16.25	15.00
The American Agricultural Chemical Co., New York and Baltimore	Susquehannah XXV Phosphate	6.58	6.00	2.67	2.00	2.97	.....	12.22	9.00	9.25	8.00	1.22	0.82	2.13	1.00	18.25	14.75
The American Agricultural Chemical Co., New York and Baltimore	Susquehannah Superior Rock Phosphate	15.16	12.00	1.65	2.00	0.28	.....	17.09	15.00	16.81	14.00	.....	.....	.....	.....	19.25	16.50
The American Agricultural Chemical Co., New York and Baltimore	Williams & Clark's Good Grower	5.28	4.00	2.00	2.00	1.15	.....	8.43	7.00	7.28	6.00	1.39	1.24	7.34	5.00	24.00	19.25
The American Agricultural Chemical Co., New York and Baltimore	Williams & Clark's Royal Bone Phosphate	6.40	6.00	3.27	2.00	1.24	.....	10.91	9.00	9.67	8.00	1.22	1.03	3.66	2.00	21.50	16.75

TABLE I—Continued.

NAME AND ADDRESS OF MANUFACTURER.	NAME OF BRAND.	Soluble Phosphoric Acid	Reverted Phosphoric Acid	Insoluble Phosphoric Acid	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid Guaranteed.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid Guaranteed.	Nitrogen in Official Sample	Nitrogen Guaranteed.	Potash in Official Sample.	Potash Guaranteed.	Valuation of Official Sample.	Valuation According to Guaranteed Analysis.		
		in Official Sample.	in Official Sample.	in Official Sample.	in Official Sample.	in Official Sample.	in Official Sample.	in Official Sample.	in Official Sample.	in Official Sample.	in Official Sample.	in Official Sample.	in Official Sample.	in Official Sample.	in Official Sample.	
The American Agricultural Chemical Co., New York and Baltimore	Williams & Clark's Prolific Crop Producer	4.61	5.00	3.95	2.00	1.68	10.27	8.00	8.59	7.00	1.03	0.82	2.32	1.00	18.25	13.75
The American Agricultural Chemical Co., New York and Baltimore	Williams & Clark's Dissolved Bone and Potash	7.41	8.00	4.26	2.00	0.74	12.41	11.00	11.67	10.00	.....	2.98	2.00	18.00	15.00	.....
The American Agricultural Chemical Co., New York and Baltimore	Williams & Clark's Acorn Acid Phosphate	12.01	12.00	2.62	2.00	0.86	15.49	15.00	14.63	14.00	.....	.....	.....	.....	17.25	16.50
The American Agricultural Chemical Co., New York and Baltimore	Zell's Economizer	6.91	6.00	1.94	2.00	1.04	9.89	9.00	8.85	8.00	0.97	0.82	2.85	2.00	18.75	16.00
The American Agricultural Chemical Co., New York and Baltimore	Zell's Little Giant	5.55	5.00	2.44	2.00	1.07	9.06	8.00	7.99	7.00	0.97	0.82	1.92	1.00	16.75	13.75
The American Agricultural Chemical Co., New York and Baltimore	Zell's Electric Phosphate	6.29	8.00	3.97	2.00	0.97	11.23	11.00	10.20	10.00	.....	3.09	2.00	16.75	15.00	.....
The American Agricultural Chemical Co., New York and Baltimore	Zell's Dissolved Bone Phosphate	11.62	12.00	2.41	2.00	1.05	15.08	15.00	14.03	14.00	.....	.....	.....	.....	16.75	16.50
The American Agricultural Chemical Co., New York and Baltimore	Zell's Dissolved S. C. Phosphate	10.11	10.00	2.28	2.00	1.07	13.46	13.00	12.39	12.00	.....	.....	.....	.....	15.25	14.50
The American Agricultural Chemical Co., New York and Baltimore	Zell's Ammoniated Bone Superphosphate	6.77	6.00	1.98	2.00	1.11	9.86	9.00	8.75	8.00	1.71	1.65	3.20	2.00	21.75	19.00
Armour Fertilizer Works, Chicago.	Bone Meal	.....	.....	.....	.....	.....	25.88	24.00	.....	.....	2.54	2.47	.....	.....	25.75	24.50
Armour Fertilizer Works, Chicago.	Raw Bone Meal	.....	.....	.....	.....	.....	24.06	22.00	.....	.....	4.06	3.70	.....	.....	29.00	26.75
Armour Fertilizer Works, Chicago.	Grain Grower	5.77	.....	4.46	.....	0.87	11.10	10.00	10.23	8.00	1.99	1.65	2.35	2.00	23.00	19.50
Armour Fertilizer Works, Chicago.	Ammoniated Bone with Potash	4.12	.....	3.21	.....	0.92	8.25	8.00	7.83	6.00	2.79	2.47	2.40	2.00	23.00	20.00
Armour Fertilizer Works, Chicago.	Phosphate and Potash	7.00	.....	4.95	.....	0.58	12.53	12.00	11.95	10.00	.....	.....	2.50	2.00	17.50	15.00

TABLE I—Continued.

NAME AND ADDRESS OF MANUFACTURER.	NAME OF BRAND.	Soluble Phosphoric Acid in Official Sample	Soluble Phosphoric Acid Guaranteed.	Reverted Phosphoric Acid in Official Sample.	Reverted Phosphoric Acid Guaranteed.	Insoluble Phosphoric Acid in Official Sample.	Insoluble Phosphoric Acid Guaranteed.	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid Guaranteed.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid Guaranteed.	Nitrogen in Official Sample.	Nitrogen Guaranteed.	Potash in Official Sample.	Potash Guaranteed.	Valuation of Official Sample.	Valuation According to Guaranteed Analysis.
Armour Fertilizer Works, Chicago.	Star Phosphate.....	10.04	.....	6.79	.....	0.91	.....	17.74	16.00	16.83	11.00	.....	.....	.....	.....	19.25	16.50
Baltimore Pulverizing Co., Balti....	Special Spring and Fall Mix Turf.....	3.99	.....	6.05	.....	0.96	.....	11.04	.....	10.04	8.00	.....	.....	2.01	2.00	15.25	13.00
Baltimore Pulverizing Co., Balti....	Dissolved S. C. Bone.....	10.50	.....	4.49	.....	1.10	.....	16.09	.....	14.99	11.00	.....	.....	.....	.....	17.75	16.50
Baugh & Sons Co., Baltimore.....	Soluble Alkaline Superphos... ranted Pure.....	8.55	.....	2.24	.....	1.47	.....	12.26	.....	10.79	10.00	.....	.....	2.80	2.00	17.00	15.00
Baugh & Sons Co., Baltimore.....	Dissolved Animal Bones, War Double Eagle Phosphate.....	3.25	.....	12.94	.....	2.12	.....	18.31	16.00	16.19	13.00	2.17	2.04	.....	.....	26.75	22.75
Baugh & Sons Co., Baltimore.....	Double Eagle Phosphate.....	5.49	.....	3.56	.....	2.08	.....	11.13	.....	9.05	8.00	1.82	1.65	1.39	1.00	20.50	17.75
Baugh & Sons Co., Ba more.....	Warranted Pure Bone Meal....	.....	.....	.....	.....	.....	.....	20.35	21.50	.....	.....	.....	.....	.....	.....	26.25	26.00
Baugh & Sons Co., Ba more.....	General Crop Grower.....	6.40	.....	2.06	.....	1.65	.....	9.81	.....	8.76	8.00	1.40	0.82	2.50	1.00	19.25	4.75
Baugh & Sons Co., Baltimore.....	Animal Bone and Pot. Comp... H. Gr. A. Phos. or Dis. S. C. Rock	5.40	.....	3.51	.....	2.24	.....	11.15	11.00	8.91	8.00	1.96	1.65	2.25	2.00	21.75	19.00
Baugh & Sons Co., Baltimore.....	Wheat Fertilizer.....	12.55	.....	2.08	.....	1.60	.....	16.23	.....	14.63	14.00	.....	.....	.....	.....	17.50	16.50
Baugh & Sons Co., Baltimore.....	Fish Guano.....	5.83	.....	3.36	.....	2.11	.....	11.00	.....	8.89	.....	.....	.....	.....	.....	22.25	19.00
Bowker Fert. Co., Elizabeth, N. J..	Harvest Bone.....	3.58	.....	4.88	.....	2.79	.....	11.25	9.00	8.46	8.00	0.88	0.75	3.18	3.00	19.00	17.00
Bowker Fert. Co., Elizabeth, N. J..	Dissolved Bone Phosphate....	4.72	.....	4.62	.....	2.44	.....	11.78	10.00	9.31	9.00	1.05	0.75	1.57	1.00	18.25	15.50
Bowker Fert. Co., Elizabeth, N. J..	Dissolved Bone with Potash ..	4.67	.....	5.67	.....	2.93	.....	13.27	11.00	10.34	10.00	.....	.....	.....	.....	13.75	12.50
Bowker Fert. Co., Elizabeth, N. J..	Dissolved Bone with Potash ..	5.04	.....	5.43	.....	2.74	.....	13.21	11.00	10.47	10.00	.....	.....	1.38	1.00	15.25	13.75

TABLE I—Continued.

NAME AND ADDRESS OF MANUFACTURER.	NAMES OF BRAND.											Valuation According to Guaranteed Analysis			
	Soluble Phosphoric Acid in Official Sample.	Soluble Phosphoric Acid Guaranteed.	Reverted Phosphoric Acid in Official Sample.	Reverted Phosphoric Acid Guaranteed.	Insoluble Phosphoric Acid in Official Sample.	Insoluble Phosphoric Acid Guaranteed.	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid Guaranteed.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid Guaranteed.	Nitrogen in Official Sample.		Potash in Official Sample.	Potash Guaranteed.	Valuation of Official Samples.
Bowker Fert. Co., Elizabeth, N. J..	11.49	3.55	1.42	16.46	15.00	15.04	14.00	1.75	1.50	.....	.....	.....	.....	17.75	16.50
Bowker Fert. Co., Elizabeth, N. J..	.....	.....	.....	20.55	20.00	.....	.....	1.75	1.50	.....	.....	.....	.....	20.25	19.25
Chicago Fert. Co., Chicago.....	6.36	3.51	1.48	11.35	.....	9.85	.....	2.45	.....	.....	.....	.....	.....	26.00	.....
Chicago Fert. Co., Chicago.....	6.27	2.00	1.34	9.61	.....	8.27	.....	.....	.....	.....	.....	.....	.....	11.25	.....
Chicago Fert. Co., Chicago.....	5.50	2.94	1.54	9.98	.....	8.44	.....	2.65	.....	.....	.....	.....	.....	25.75	.....
Eureka Fert Co., Perryville, Md....	10.76	8.00	5.88	19.23	16.00	13.85	14.00	.....	.....	.....	.....	.....	.....	17.25	16.50
Hess, S. M., & Bro., Philadelphia....	4.14	6.00	1.65	10.11	9.00	8.46	8.00	1.04	0.82	2.55	1.00	18.25	14.50	.....	.....
Hess, S. M., & Bro., Philadelphia..	9.12	8.00	1.01	13.20	11.00	12.19	10.00	.....	.....	.....	.....	2.25	1.00	18.25	13.75
Hess, S. M., & Bro., Philadelphia...	14.53	12.00	0.91	17.44	15.00	16.53	14.00	.....	.....	.....	.....	.....	.....	19.00	16.50
Jarecki Chemical Co., Sandusky, O.	8.46	2.33	3.30	13.79	11.00	10.49	10.00	0.95	0.86	1.31	1.60	18.75	17.00	.....	.....
Jarecki Chemical Co., Sandusky, O.	11.33	2.50	3.04	16.37	15.60	13.53	14.00	.....	.....	.....	.....	.....	.....	16.75	16.50
Jarecki Chemical Co., Sandusky, O.	.....	.....	.....	25.35	20.00	.....	.....	2.64	2.50	.....	.....	.....	.....	25.75	22.25
Jarecki Chemical Co., Sandusky, O.	3.78	2.32	1.68	7.78	7.00	6.10	6.00	0.50	0.40	0.89	0.50	12.25	10.75	.....	.....
Lazaretto Guano Works, Baltimore	11.28	2.90	0.82	15.00	.....	14.18	14.00	.....	.....	.....	.....	.....	.....	16.75	16.75
Northwest Fert. Co., Chicago...	5.71	6.00	2.30	9.90	10.00	7.60	8.00	1.82	1.66	2.30	2.00	20.25	19.00	.....	.....

Garden City Superphosphate
Horseshoe Brand.

TABLE I—Continued.

NAME AND ADDRESS OF MANUFACTURER.	NAME OF BRAND.															
	Soluble Phosphoric Acid in Official Sample.	Soluble Phosphoric Acid Guaranteed.	Reverted Phosphoric Acid in Official Sample.	Reverted Phosphoric Acid Guaranteed.	Insoluble Phosphoric Acid in Official Sample.	Insoluble Phosphoric Acid Guaranteed.	Total Phosphoric Acid in Official Supply.	Total Phosphoric Acid Guaranteed.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid Guaranteed.	Nitrogen in Official Sample	Nitrogen Guaranteed.	Potash in Official Sample.	Potash Guaranteed.	Valuation of Official Sample.	Valuation According to Guaranteed Analysis.
Ober, G., & Sons Co., Baltimore....	8.65	7.00	1.91	2.00	0.96	...	11.55	11.00	10.59	9.00	1.86	1.75	2.55	2.00	24.00	20.26
Ober, G., & Sons Co., Baltimore....	9.22	7.00	0.86	2.00	1.00	...	11.08	11.00	10.08	9.00	1.19	0.75	2.93	2.00	20.75	16.75
Ober, G., & Sons Co., Baltimore....	9.91	9.00	1.71	2.00	0.28	...	11.88	13.00	11.62	11.00	....	....	4.34	2.00	19.50	17.00
Ober, G., & Sons Co., Baltimore....	13.33	11.00	1.85	3.00	0.28	...	16.06	16.00	15.78	14.00	....	....	....	....	18.25	17.00
Ohio Farmers'Fert.Co., Columbus,O	9.24	6.00	2.79	3.00	1.51	...	13.57	10.00	12.03	9.00	....	....	....	....	15.00	11.50
Ohio Farmers'Fert.Co., Columbus,O	7.53	6.00	2.26	2.00	1.36	...	14.15	10.00	9.79	8.00	....	....	8.24	2.00	22.50	13.00
Ohio Farmers'Fert.Co., Columbus,O	5.99	6.00	2.31	2.00	1.01	...	9.34	10.00	8.33	8.00	0.90	0.82	3.97	1.00	19.50	14.75
Ohio Farmers'Fert.Co., Columbus,O	6.09	6.00	2.06	2.00	1.67	...	9.82	10.00	8.15	8.00	2.69	1.24	4.05	2.00	25.75	17.50
Piedmont-Mt. Airy Guano Co., Balto	7.10	.....	2.82	.....	1.82	.....	11.74	.....	9.92	10.00	.....	.....	2.46	2.00	16.00	15.00
Piedmont-Mt. Airy Guano Co., Balto	7.53	.....	3.42	.....	2.23	.....	13.23	.....	11.00	10.50	.....	.....	1.75	1.00	16.25	14.25
Piedmont-Mt. Airy Guano Co., Balto	5.20	.....	2.28	.....	1.60	.....	9.08	.....	7.48	6.00	1.57	1.30	3.65	3.00	20.50	17.00
Piedmont-Mt. Airy Guano Co., Balto	4.97	.....	4.59	.....	6.02	.....	15.58	.....	9.56	8.00	1.25	1.25	1.86	1.50	20.25	17.00
Piedmont-Mt. Airy Guano Co., Balto	12.81	.....	1.74	.....	2.70	.....	17.25	.....	14.55	14.00	.....	.....	....	....	17.50	16.50
Rash-Monumental Co., Baltimore....	5.37	7.00	2.20	1.00	1.22	.....	8.79	9.00	7.57	8.00	1.33	0.82	2.47	1.00	18.25	14.75

TABLE I—Continued.

NAME AND ADDRESS OF MANUFACTURER.	NAME OF BRAND.	Soluble Phosphoric Acid in Official Sample.	Soluble Phosphoric Acid Guaranteed.	Reverted Phosphoric Acid in Official Sample.	Reverted Phosphoric Acid Guaranteed.	Insoluble Phosphoric Acid in Official Sample.	Insoluble Phosphoric Acid Guaranteed.	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid Guaranteed.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid Guaranteed.	Nitrogen in Official Sample.	Nitrogen Guaranteed.	Potash in Official Sample.	Potash Guaranteed.	Valuation of Official Sample.	Valuation According to Guaranteed Analysis.
Swift & Co., Chicago.	Raw Bone Meal.	.....	.....	.....	.....	.....	.....	23.52	23.00	.....	.....	3.96	3.75	.....	.....	28.75	27.50
Swift & Co., Chicago.	Diamond <S> Phosphate	6.50	2.53	0.55	.....	9.59	11.00	9.03	10.00	.....	.....	.....	.....	.....	.....	11.75	12.50
Swift & Co., Chicago.	Bone Meal.	.....	.....	.....	.....	25.66	25.00	.....	.....	.....	.....	2.81	2.50	.....	.....	23.50	25.25
Swift & Co., Chicago.	Pure Acid Phosphate.	11.00	5.80	0.91	.....	17.71	17.00	16.80	16.00	.....	.....	.....	.....	.....	.....	19.25	18.50
Swift & Co., Chicago.	Vegetable Grower	1.97	4.28	0.77	.....	10.02	10.00	9.25	9.00	3.30	3.25	1278	1000	39.25	35.25	.....	.....
Virginia-Carolina Chem. Co., Richmond, Va.	Allison & Addison's Star Br'd Guano	6.52	2.23	3.25	.....	12.00	.....	8.75	8.00	1.85	1.61	1.67	1.00	20.75	17.75	.....	.....
Virginia-Carolina Chem. Co., Richmond, Va.	Allison & Addison's Little 3T Grain and Grass Grower	6.36	2.85	1.82	.....	11.08	.....	9.21	8.00	0.33	0.82	3.00	2.00	19.25	16.00	.....	.....
Virginia-Carolina Chem. Co., Richmond, Va.	Allison & Addison's Standard Acid Phosphate	8.39	3.70	2.37	.....	14.16	.....	12.69	12.00	.....	.....	.....	.....	.....	.....	15.25	14.50
Virginia-Carolina Chem. Co., Richmond, Va.	S. W. Travers' Beef Blood and Bone Fert.	6.65	6.00	2.60	2.00	1.15	.....	10.10	9.00	9.25	8.00	2.03	1.61	1.90	1.00	21.75	17.75
Virginia-Carolina Chem. Co., Richmond, Va.	S. W. Travers' Champion Corn Grower	6.23	6.00	2.43	2.00	0.93	.....	9.59	9.00	8.66	8.00	0.95	0.82	1.77	1.00	17.00	14.75
Virginia-Carolina Chem. Co., Richmond, Va.	S. W. Travers' Capital Bone & Potash Compound	7.00	8.00	3.51	2.00	0.28	.....	10.82	11.00	10.54	10.00	.....	.....	2.29	2.00	16.00	15.00
Virginia-Carolina Chem. Co., Richmond, Va.	S. W. Travers' Capital Dissol'd S. C. Bone	9.02	9.00	3.82	3.00	0.78	.....	13.62	13.00	12.84	12.00	.....	.....	.....	.....	15.50	14.50
Virginia-Carolina Chem. Co., Richmond, Va.	S. W. Travers' Dissolved Bone Phosphate	12.90	11.00	2.09	2.00	0.46	.....	15.45	15.00	14.99	14.00	.....	.....	.....	.....	17.50	16.50
Walker, Startman & Co., Pittsburg.	Four Fold.	5.66	3.75	3.27	4.25	2.69	.....	11.62	9.00	8.93	8.00	2.16	1.61	2.80	2.00	23.25	19.00
Walker, Startman & Co., Pittsburg.	Grain King.	7.48	4.25	3.41	4.75	1.40	.....	12.29	10.00	10.89	9.00	1.20	0.82	4.83	4.00	24.00	91.50

TABLE I—Continued.

NAME AND ADDRESS OF MANUFACTURER.	NAME OF BRAND.	Soluble Phosphoric Acid in Official Sample.	Soluble Phosphoric Acid Guaranteed.	Reverted Phosphoric Acid in Official Sample.	Reverted Phosphoric Acid Guaranteed.	Insoluble Phosphoric Acid in Official Sample.	Insoluble Phosphoric Acid Guaranteed.	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid Guaranteed.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid Guaranteed.	Nitrogen in Official Sample.	Nitrogen Guaranteed.	Potash in Official Sample.	Potash Guaranteed.	Valuation of Official Sample.	Valuation According to Guaranteed Analysis.
		Walker, Stratman & Co., Pittsburg.	Big Bonanza.....	6.48	4.00	3.30	5.00	3.21	13.62	10.00	9.78	9.00	2.17	1.64	5.04	4.00	27.00	22.25
Walker, Stratman & Co., Pittsburg.	Potato Special.....	5.08	3.75	3.47	4.25	4.45	.....	13.00	9.00	8.55	8.00	2.89	2.50	7.90	6.00	32.25	27.00
Walker, Stratman & Co., Pittsburg.	Meat, Blood, and Bone with Potash	5.17	3.75	2.95	4.25	2.90	.....	11.02	9.00	8.12	8.00	3.49	3.25	8.90	8.00	31.75	32.00
Walker, Stratman & Co., Pittsburg.	Pure Raw Bone Meal.....	.....	.....	.....	.....	.....	.....	23.92	22.00	.....	.....	3.67	3.25	.....	.....	28.00	25.50
Walker, Stratman & Co., Pittsburg.	Bone and Meat.....	.....	.....	.....	.....	.....	.....	19.49	16.00	.....	.....	4.31	3.25	.....	.....	27.00	22.00
Walker, Stratman & Co., Pittsburg.	Phosphoric Acid and Potash	8.04	5.50	3.75	4.50	0.36	.....	12.15	11.00	11.79	10.00	.....	.....	2.77	2.00	17.75	15.00
Walker, Stratman & Co., Pittsburg.	Help Mate.....	9.28	7.00	5.83	5.00	0.47	.....	15.58	13.00	15.11	12.00	.....	.....	.....	.....	17.50	14.50
Wheeling Butchers' Ass'n, Wheeling	Ohio Valley Bone Dust.....	.....	.....	.....	.....	.....	.....	15.20	17.00	.....	.....	3.00	3.12	.....	.....	20.75	22.25
Woodridge, Rob't A., Co., Balto....	Florida Acid Phosphate.....	9.74	.....	6.56	.....	0.88	.....	17.18	.....	16.30	14.00	.....	.....	.....	.....	18.75	16.50
Woodridge, Rob't A., Co., Balto....	German Potash Mixture.....	7.23	.....	4.09	.....	0.78	.....	12.10	.....	11.82	10.00	.....	.....	2.10	2.00	16.50	15.00
Woodridge, Rob't A., Co., Balto....	Liberty Bell Potash Mixture...	8.79	.....	2.63	.....	0.65	.....	12.07	.....	11.42	12.00	.....	.....	4.28	3.00	19.25	18.00
Woodridge, Rob't A., Co., Balto....	Old Sledge Phosphate.....	4.90	.....	4.08	.....	1.77	.....	10.75	.....	8.98	8.00	1.11	0.82	1.61	1.00	18.00	14.75
Woodridge, Rob't A., Co., Balto....	Champion Giant Phosphate...	8.79	.....	0.03	.....	1.52	.....	10.34	.....	8.82	9.00	1.03	0.82	2.60	2.00	18.76	17.00
Woodridge, Rob't A., Co., Balto....	Chieftain Bone & Stock Phos...	4.14	.....	5.03	.....	1.91	.....	11.08	.....	9.17	8.00	1.64	1.64	2.43	2.00	21.00	19.00
Woodridge, Rob't A., Co., Balto....	Triumph Pure Bone Phos.....	5.56	.....	3.24	.....	1.46	.....	10.26	.....	8.80	8.00	1.37	1.24	4.26	4.00	21.75	20.00

TABLE II—Continued.

NAME OF MANUFACTURER.	BRAND.	The American Agricultural Chemical Company, New York and Baltimore.													Laboratory Number.			
		Agents' Number.	Soluble Phosphoric Acid in Official Sample.	Soluble Phosphoric Acid in Inspectors' Sample.	Reverted Phosphoric Acid in Official Sample.	Reverted Phosphoric Acid in Inspectors' Sample.	Insoluble Phosphoric Acid in Official Sample.	Insoluble Phosphoric Acid in Inspectors' Sample.	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid in Inspectors' Sample.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid in Inspectors' Sample.	Nitrogen in Official Sample.	Nitrogen in Inspectors' Sample.		Potash in Official Sample.	Potash in Inspectors' Sample.	Valuation of Official Sample.
	Bradley Soluble Bone	31	10.86	3.91	2.19	16.96	14.77	0.97	1.10	5.37	2.46	17.75	17.75	19.50	19.50	20.50	20.50	418
		6	4.45	3.70	1.38	12.33	8.15	0.73	1.10	5.37	2.46	17.75	17.75	19.50	19.50	20.50	20.50	4250
	Canton Chemical Baker's Special Wheat, Corn and Grass Mixture	31	7.05	2.23	1.56	10.84	9.28	0.85	0.85	2.20	0.20	18.00	18.00	19.50	19.50	20.50	20.50	4306
		71	7.54	2.49	1.59	11.62	10.03	1.09	1.09	2.21	0.21	19.50	19.50	20.50	20.50	21.50	21.50	4224
	Canton Chemical Soluble Bone and Potash	68	6.37	3.00	0.70	12.98	9.37	1.67	1.67	3.00	0.33	17.50	17.50	19.50	19.50	20.50	20.50	4290
		34	5.27	5.58	0.65	11.90	11.25	0.65	0.65	2.06	0.06	16.50	16.50	19.50	19.50	20.50	20.50	4311
	Canton Chemical Baker's Dissolved S. C. Bone	6	13.38	3.75	0.19	17.10	16.93	0.17	0.17	0.17	0.17	18.75	18.75	19.50	19.50	20.50	20.50	4249
		71	11.74	4.28	0.69	16.71	16.02	0.69	0.69	0.69	0.69	18.00	18.00	19.50	19.50	20.50	20.50	4259
	Cleveland Dryer XXX Phosphate and Potash	34	12.81	3.46	0.77	16.94	16.27	0.67	0.67	0.67	0.67	18.75	18.75	19.50	19.50	20.50	20.50	4312
		28	13.93	2.93	0.00	17.46	16.86	0.60	0.60	0.60	0.60	19.25	19.25	20.50	20.50	21.50	21.50	4200
	Cleveland Dryer XXX Phosphate and Potash	15	12.23	2.38	0.19	15.51	14.61	0.90	0.90	0.90	0.90	17.25	17.25	19.50	19.50	20.50	20.50	4294
		15	7.24	4.26	0.83	11.46	11.30	0.16	0.16	0.16	0.16	17.75	17.75	19.50	19.50	20.50	20.50	4295
	Detrick's Kangaroo Complete Compound	28	5.81	2.76	0.20	10.77	8.57	2.20	2.20	1.03	1.03	22.50	22.50	24.00	24.00	25.00	25.00	4069
		50	3.17	4.52	3.43	11.12	7.69	0.43	0.43	1.77	1.77	2.80	2.80	3.00	3.00	3.20	3.20	4149
	Detrick's Imperial Compound	31	3.16	5.48	3.80	11.44	8.64	0.80	0.80	1.64	1.64	3.09	3.09	3.20	3.20	3.40	3.40	4185
		31	6.98	2.85	0.69	12.52	9.83	2.69	2.69	1.70	1.70	1.88	1.88	2.00	2.00	2.20	2.20	4197

TABLE II -- Continued.

NAME OF MANUFACTURER.	BRAND.	Agents Number.	Soluble Phosphoric Acid in Official Sample.	Soluble Phosphoric Acid in Inspectors Sample.	Reverted Phosphoric Acid in Official Sample.	Reverted Phosphoric Acid in Inspectors Sample.	Insoluble Phosphoric Acid in Official Sample.	Insoluble Phosphoric Acid in Inspectors Sample.	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid in Inspectors Sample.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid in Inspectors Sample.	Nitrogen in Official Sample.	Nitrogen in Inspectors Sample.	Potash in Official Sample.	Potash in Inspectors Sample.	Valuation of Official Sample.	Valuation of Inspectors Sample.	Laboratory Number.
			9	7.61	5.90	2.72	3.67	1.52	2.67	11.83	11.61	10.33	9.57	...	2.69	1.78	16.50	14.75	4112
The American Agricultural Chemical Company, New York and Baltimore.	Detrick's Soluble Bone Phosphate and Potash	9	7.61	5.90	2.72	3.67	1.52	2.67	11.83	11.61	10.33	9.57	...	2.69	1.78	16.50	14.75	4112	
	Detrick's Soluble Bone Phosphate and Potash	3	...	6.91	...	3.67	...	1.96	...	12.54	...	10.58	...	...	2.02	...	16.00	4132
	Detrick's Soluble Bone Phosphate and Potash	50	...	4.67	...	3.54	...	2.57	...	10.78	...	8.21	...	...	1.92	...	13.75	4151
	Detrick's Soluble Bone Phosphate and Potash	31	...	5.10	...	3.95	...	2.53	...	11.58	...	9.25	...	...	2.07	...	14.75	4202
	Detrick's Dissolved S. C. Bone	50	12.50	10.27	2.39	3.06	0.92	2.97	13.81	16.30	14.89	13.33	17.50	16.50	4150
	Detrick's Dissolved S. C. Bone	51	...	12.17	...	3.26	...	2.48	...	17.91	...	15.43	...	...	...	...	18.50	4174
	Detrick's Dissolved S. C. Bone	31	...	10.67	...	4.84	...	1.52	...	17.03	...	15.51	...	...	...	...	18.25	4201
	Detrick's Dissolved S. C. Bone	28	...	14.61	...	3.67	...	0.69	...	18.40	...	17.71	...	...	...	...	20.25	4233
	Detrick's Dissolved S. C. Bone	29	...	11.13	...	4.80	...	1.19	...	17.12	...	15.93	...	...	...	...	18.50	4241
	Great Eastern Soluble Bone and Potash	67	8.17	5.45	3.58	5.68	0.93	1.43	12.98	12.56	12.05	11.13	2.08	1.69	17.25	16.00	4195
Great Eastern Soluble Bone and Potash	38	...	7.60	...	2.99	...	0.33	...	11.92	...	10.39	...	...	...	2.14	...	15.75	4356
Great Eastern English Grower	67	6.37	2.41	1.78	5.71	0.75	1.62	8.90	9.80	8.15	8.18	0.95	1.21	2.50	2.53	17.50	18.25	4205	
Great Eastern English Grower	42	...	7.00	...	2.30	...	0.95	...	10.25	...	9.30	...	0.87	...	2.38	...	18.25	4299	
Great Eastern English Grower	73	...	0.74	...	6.85	...	2.67	...	9.66	...	7.19	...	0.85	...	1.82	...	16.00	4351	
Great Eastern English Grower	38	...	6.08	...	2.60	...	0.72	...	9.40	...	8.68	...	0.96	...	2.25	...	17.75	4361	

TABLE II—Continued.

NAME OF MANUFACTURER.	BRAND.	Agents Number.	New York and Baltimore.													Laboratory Number.				
			Soluble Phosphoric Acid in Official Sample.	Soluble Phosphoric Acid in Inspectors Sample.	Reverted Phosphoric Acid in Official Sample.	Reverted Phosphoric Acid in Inspectors Sample.	Insoluble Phosphoric Acid in Official Sample.	Insoluble Phosphoric Acid in Inspectors Sample.	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid in Inspectors Sample.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid in Inspectors Sample.	Nitrogen in Official Sample.	Nitrogen in Inspectors Sample.	Potash in Official Sample.		Potash in Inspectors Sample.	Valuation of Official Sample.	Valuation of Inspectors Sample.	
The American Agricultural Chemical Company,		Great Eastern Dissolved Bone	67	13.61	13.24	1.25	3.84	1.51	1.02	16.40	18.10	14.86	17.08	.....	.....	.....	.....	17.50	19.75	4190
		Great Eastern Dissolved Bone	73	.....	12.32	.....	4.10	.....	0.70	.....	17.12	.....	16.42	.....	.....	.....	.....	.....	19.00	4352
		Lazaretto Dissolved Phosphate and Potash	71	7.15	5.39	4.48	1.76	0.82	0.84	12.45	10.99	11.63	10.15	.....	.....	3.11	1.58	18.00	14.75	4166
		Maryland "O. K." Ammoniated Fertilizer	2	8.29	5.81	3.02	3.22	1.18	1.33	12.49	10.36	11.31	9.63	0.71	1.00	2.53	1.78	19.75	17.75	4106
		Maryland Tornado Fertilizer	72	6.96	7.87	4.57	3.61	0.80	1.22	12.37	12.70	14.53	11.40	.....	.....	.....	2.53	22.50	17.50	4181
		Maryland Tornado Fertilizer	18	.....	9.68	.....	2.89	.....	1.11	.....	13.68	.....	12.57	.....	.....	4.90	.....	21.25	4339	
		Maryland Bono Superphosphate	61	6.39	5.83	5.09	4.93	3.01	1.33	14.46	12.09	11.45	10.76	.....	.....	2.52	2.10	17.75	16.25	4125
		Maryland Bono Superphosphate	72	.....	6.37	.....	3.29	.....	1.18	.....	10.81	.....	9.63	.....	.....	.....	2.15	.....	15.00	4180
		Maryland Bono Superphosphate	57	.....	4.08	.....	5.73	.....	1.45	.....	11.86	.....	10.41	.....	.....	1.92	.....	15.75	4218	
		Maryland Bono Superphosphate	32	.....	6.27	.....	4.26	.....	0.60	.....	11.13	.....	10.53	.....	.....	2.10	.....	15.25	4236	
		Maryland Dissolved S. C. Bone	2	13.30	8.74	2.62	3.97	0.52	2.56	16.44	15.27	15.92	12.71	.....	.....	.....	.....	18.50	15.75	4107
		Maryland Dissolved S. C. Bone	61	.....	12.40	.....	3.66	.....	0.43	.....	16.49	.....	16.06	.....	.....	.....	.....	.....	18.50	4122
		Maryland Dissolved S. C. Bone	72	.....	11.82	.....	2.47	.....	1.60	.....	15.89	.....	14.29	.....	.....	.....	.....	.....	17.00	4182
		Maryland Dissolved S. C. Bone	57	.....	12.52	.....	4.14	.....	0.24	.....	16.90	.....	16.66	.....	.....	.....	.....	.....	18.00	4219
		Maryland Dissolved S. C. Bone	32	.....	6.97	.....	6.78	.....	3.07	.....	16.82	.....	13.75	.....	.....	.....	.....	.....	17.00	4243
		Maryland Dissolved S. C. Bone	32	.....	12.42	.....	3.45	.....	0.84	.....	16.71	.....	15.87	.....	.....	.....	.....	.....	18.50	4273

TABLE II—Continued.

NAME OF MANUFACTURER.	BRAND.	Agents Number.	The American Agricultural Chemical Company, New York and Baltimore.										Laboratory Number.		
			Soluble Phosphoric Acid In Official Sample.	Soluble Phosphoric Acid In Inspectors Sample.	Reverted Phosphoric Acid In Official Sample.	Reverted Phosphoric Acid In Inspectors Sample.	Insoluble Phosphoric Acid In Official Sample.	Insoluble Phosphoric Acid In Inspectors Sample.	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid in Inspectors Sample.	Available Phosphoric Acid In Official Sample.	Available Phosphoric Acid In Inspectors Sample.		Nitrogen in Official Sam- ple.	Nitrogen in Inspectors Sample.
	Maryland Dissolv'd S. C. Bone phosphate.	18	13.13	4.13	0.33	17.59	17.36	1.08	0.95	1.10	18.00	19.7	4340		
	Pacific A No. 1 Phosphate.	10	4.63	3.63	1.61	10.17	8.57	1.51	1.59	1.10	14.75	14.75	4120		
	Pacific Dissolved Bone Phos- phate.	10	10.06	4.53	0.81	15.49	14.65	1.59	1.43	1.05	17.25	17.50	4115		
	Susquehanna Alkaline Bone Phosphate.	48	8.17	3.21	1.65	11.95	10.90	1.43	1.35	2.04	16.25	14.50	4217		
	Susquehanna XXV Phos- phate.	48	6.58	2.23	2.37	11.43	9.25	2.78	2.47	2.13	18.25	17.25	4090		
	Susquehanna XXV Phos- phate.	48	3.61	3.86	1.32	8.79	7.47	1.32	0.96	1.11	15.25	15.25	4216		
	Susquehanna Superior Roek Phosphate.	48	15.16	6.29	0.28	17.09	16.81	0.95	0.28	0.95	19.25	19.00	4215		
	Williams & Clark's Royal Bone Phosphate.	14	6.01	3.27	1.21	10.91	12.49	2.23	1.09	3.66	21.50	20.25	4278		
	Williams & Clark's Pacific Crop Producer.	23	4.64	3.95	1.68	10.27	8.86	3.67	1.08	3.01	18.25	16.75	4332		
	Williams & Clark's Prolific Crop Producer.	18	4.70	2.81	1.88	9.39	7.51	2.81	0.97	1.33	15.75	15.75	4347		
	Williams & Clark's Prolific Stock Producer.	64	5.37	2.96	1.47	9.80	8.13	2.96	0.91	1.15	15.00	15.00	4354		
	Williams & Clark's Dissolved Bone and Potash	18	7.41	6.69	0.74	12.41	11.35	6.69	1.28	2.48	18.00	18.00	4313		
	Williams & Clark's Dissolved Bone and Potash	64	7.16	3.4	0.79	11.35	10.56	3.4	0.79	1.86	15.50	15.50	4353		
	Williams & Clark's Acorn Acid Phosphate.	18	12.01	2.62	0.86	15.49	17.8	2.62	0.86	1.86	17.25	18.75	4342		
	Zell's Dissolved S. C. Phos- phate.	58	10.11	2.28	1.07	13.46	12.39	2.28	1.07	1.29	15.25	18.50	4248		

TABLE U—Continued.

NAME OF MANUFACTURER.	BRAND.	Agents Number.																
		Soluble Phosphoric Acid in Official Sample.	Soluble Phosphoric Acid in Inspectors Sample.	Reverted Phosphoric Acid in Official Sample.	Reverted Phosphoric Acid in Inspectors Sample.	Insoluble Phosphoric Acid in Official Sample.	Insoluble Phosphoric Acid in Inspectors Sample.	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid in Inspectors Sample.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid in Inspectors Sample.	Nitrogen in Official Sample.	Nitrogen in Inspectors Sample.	Valuation of Official Sample.	Valuation of Inspectors Sample.	Laboratory number.		
The American Agricultural Chemical Company, New York and Baltimore.	Zell's Dissolved S. C. Phosphate.	33	9.20	3.66	1.38	11.24	12.86	11.24	12.86	8.26	8.88	0.72	0.88	2.20	2.40	17.00	4.03	4256
	Zell's Dissolved S. C. Phosphate.	68	7.71	6.82	1.62	13.18	14.76	13.18	14.76	8.26	8.88	0.72	0.88	2.20	2.40	17.00	4.03	4288
	Zell's Economizer.	25	6.91	5.91	1.91	2.36	1.01	1.65	9.89	9.95	8.85	0.97	0.70	2.85	1.95	18.75	16.25	4130
	Zell's Economizer.	32	5.88	2.80	1.32	10.00	8.08	10.00	8.08	8.08	0.72	0.72	2.13	2.13	16.75	16.75	4210	
	Zell's Economizer.	39	5.82	2.13	1.46	9.72	8.26	9.72	8.26	8.26	0.88	0.88	2.20	2.20	17.00	4.03	4303	
	Zell's Economizer.	26	6.69	2.39	1.51	10.39	9.08	10.39	9.08	9.08	0.72	0.72	2.40	2.40	17.50	4.16	4316	
	Zell's Economizer.	7	4.25	3.12	1.17	8.81	7.37	8.81	7.37	7.37	0.99	0.99	1.54	1.54	16.00	4.350	4350	
	Zell's Little Giant.	25	5.55	4.06	2.44	2.95	1.07	1.41	9.06	8.42	7.99	0.97	0.45	1.92	1.36	16.75	15.25	4128
	Zell's Little Giant.	39	3.08	4.27	1.43	8.78	7.35	8.78	7.35	7.35	1.00	1.00	1.44	1.44	15.75	4.00	4300	
	Zell's Little Giant.	21	3.77	3.43	1.52	8.22	7.20	8.22	7.20	7.20	0.91	0.91	1.71	1.71	15.50	4.337	4337	
	Zell's Little Giant.	26	4.35	3.36	1.73	9.08	7.95	9.08	7.95	7.95	0.87	0.87	1.54	1.54	16.00	4.346	4346	
	Zell's Little Giant.	7	5.63	3.25	1.34	10.22	8.88	10.22	8.88	8.88	0.91	0.91	2.01	2.01	17.50	4.318	4318	
	Zell's Electric Phosphate.	25	6.29	4.51	3.97	5.91	0.97	1.46	11.23	11.91	10.26	10.45	3.09	1.87	16.75	15.75	4129	
	Zell's Electric Phosphate.	39	4.46	7.22	1.46	12.14	11.68	12.14	11.68	11.68	1.98	1.98	2.05	2.05	14.75	4.335	4335	
Zell's Electric Phosphate.	21	5.21	3.92	1.97	11.10	9.13	11.10	9.13	9.13	2.05	2.05	2.05	2.05	14.75	4.335	4335		
Zell's Electric Phosphate.	7	4.52	6.26	1.28	12.06	10.78	12.06	10.78	10.78	2.33	2.33	2.33	2.33	16.50	4.349	4349		

TABLE II—Continued.

NAME OF MANUFACTURER.	BRAND.	Agents Number.	Analysis											Laboratory Number.					
			Soluble Phosphoric Acid in Official Sample.	Soluble Phosphoric Acid in Inspectors Sample.	Reverted Phosphoric Acid in Official Sample.	Reverted Phosphoric Acid in Inspectors Sample.	Insoluble Phosphoric Acid in Official Sample.	Insoluble Phosphoric Acid in Inspectors Sample.	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid in Inspectors Sample.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid in Inspectors Sample.	Nitrogen in Official Sample.		Nitrogen in Inspectors Sample.	Potash in Official Sample.	Potash in Inspectors Sample.	Valuation of Official Sample.	Valuation of Inspectors Sample.
The American Agricultural Chemical Company, New York and Baltimore.	Zell's Ammoniated Bone Superphosphate.	Su-25	6.77	5.85	1.98	2.09	1.11	1.91	9.86	9.85	8.75	7.94	1.71	1.62	3.20	2.02	21.75	19.25	4127
Do.	Zell's Ammoniated Bone Superphosphate.	Su-32	.....	7.27	.....	1.77	.....	1.25	10.31	.....	9.06	.....	1.65	.....	2.68	.....	.....	20.50	4262
Do.	Zell's Dissolved Bone phosphate.	Phos-25	11.62	13.04	2.41	3.43	1.05	0.51	15.08	16.18	14.03	16.47	.....	.....	.....	.....	16.75	19.00	4131
Do.	Zell's Dissolved Bone phosphate.	Phos-40	.....	12.58	.....	3.42	.....	0.59	16.39	.....	16.00	.....	.....	.....	.....	.....	.....	18.50	4147
Do.	Zell's Dissolved Bone phosphate.	Phos-4	.....	12.47	.....	3.05	.....	0.70	16.82	.....	16.12	.....	.....	.....	.....	.....	.....	18.75	4171
Do.	Zell's Dissolved Bone phosphate.	Phos-40	.....	13.60	.....	3.43	.....	0.88	17.91	.....	17.03	.....	.....	.....	.....	.....	.....	19.50	4192
Do.	Zell's Dissolved Bone phosphate.	Phos-58	.....	12.31	.....	3.98	.....	0.47	16.76	.....	16.29	.....	.....	.....	.....	.....	.....	18.75	4247
Do.	Zell's Dissolved Bone phosphate.	Phos-33	.....	12.43	.....	2.80	.....	1.62	16.25	.....	15.23	.....	.....	.....	.....	.....	.....	17.75	4252
Do.	Zell's Dissolved Bone phosphate.	Phos-32	.....	13.28	.....	3.41	.....	0.35	17.04	.....	16.69	.....	.....	.....	.....	.....	.....	19.00	4271
Do.	Zell's Dissolved Bone phosphate.	Phos-39	.....	12.67	.....	3.97	.....	0.81	17.45	.....	16.64	.....	.....	.....	.....	.....	.....	19.25	4302
Do.	Zell's Dissolved Bone phosphate.	Phos-24	.....	12.37	.....	2.18	.....	0.72	15.77	.....	15.05	.....	.....	.....	.....	.....	.....	17.50	4336
Armour Fertilizer Works, Chicago.	Star Phosphate	.....	10.04	11.99	6.79	5.36	0.91	0.79	17.74	18.14	16.88	17.35	.....	.....	.....	.....	19.25	19.75	4245
Armour Fertilizer Works, Chicago.	Star Phosphate	.....	.....	10.54	.....	6.10	.....	0.75	17.39	.....	16.64	.....	.....	.....	.....	.....	.....	19.25	4244
Armour Fertilizer Works, Chicago.	Star Phosphate	.....	.....	6.81	.....	10.62	.....	1.77	19.10	.....	17.33	.....	.....	.....	.....	.....	.....	20.00	4229

TABLE II—Continued.

NAME OF MANUFACTURER.	BRAND.	Agents Number.	Soluble Phosphoric Acid	Soluble Phosphoric Acid	Reverted Phosphoric Acid	Reverted Phosphoric Acid	Reported Phosphoric Acid	Reported Phosphoric Acid	Insoluble Phosphoric Acid	Insoluble Phosphoric Acid	Total Phosphoric Acid in	Total Phosphoric Acid in	Total Phosphoric Acid in	Available Phosphoric Acid	Available Phosphoric Acid	Nitrogen in Official Sam-	Nitrogen in	Potash in Official Sam-	Potash in Inspectors Sam-	Valuation of Official Sam-	Valuation of Inspectors	Laboratory Number.		
			in Official Sample.	in Inspectors Sample.	in Official Sample.	in Inspectors Sample.	in Official Sample.	in Inspectors Sample.	in Official Sample.	in Inspectors Sample.	in Official Sample.	in Inspectors Sample.	in Official Sample.	in Inspectors Sample.	in Official Sample.	in Inspectors Sample.	ple.	ple.	ple.	ple.	ple.	ple.		
Baltimore Pulverizing Co., Baltimore.	Farmers' Favorite Fertilizer.	66	1.68	4.07	1.20	6.95	6.95	5.75	1.12	2.32	15.50	4092	5.75	1.12	2.32	15.50	4092	15.50	4092	15.50	4092	15.50	4092	
Baltimore Pulverizing Co., Baltimore.	Farmers' Favorite Fertilizer.	71	1.42	4.70	0.60	6.72	6.72	6.12	0.89	2.52	15.25	4230	6.12	0.89	2.52	15.25	4230	15.25	4230	15.25	4230	15.25	4230	
Baltimore Pulverizing Co., Baltimore.	Special Spring and Fall Mix-ture.	66	3.99	6.91	0.96	11.00	8.57	10.04	8.01	2.01	15.25	4097	8.01	2.01	15.25	12.50	4097	15.25	4097	12.50	4097	12.50	4097	
Baltimore Pulverizing Co., Baltimore.	Special Spring and Fall Mix-ture.	66	1.42	7.48	0.63	9.53	9.53	8.50	1.54	13.50	4223	8.50	1.54	13.50	4223	13.50	4223	13.50	4223	13.50	4223	13.50	4223	
Baltimore Pulverizing Co., Baltimore.	Special Spring and Fall Mix-tures	71	1.34	7.84	0.63	9.81	9.81	9.18	1.45	13.75	4228	9.18	1.45	13.75	4228	13.75	4228	13.75	4228	13.75	4228	13.75	4228	
Baltimore Pulverizing Co., Baltimore.	Ground Blood.	71	.....	.....	.....	0.51	0.51	.....	.....	.....	.....	4101	.....	.....	.....	.....	4101	.....	.....	.....	.....	.....	4101
Baltimore Pulverizing Co., Baltimore.	Corn and Oats Phosphate.	71	.....	7.20	0.99	8.19	8.19	7.20	0.18	1.30	12.25	4102	7.20	0.18	1.30	12.25	4102	12.25	4102	12.25	4102	12.25	4102
Baltimore Pulverizing Co., Baltimore.	S. C. Bone.	66	10.50	5.72	1.10	16.09	16.02	14.99	15.61	.....	.....	4221	14.99	.....	.....	17.75	4221	17.75	4221	17.75	4221	17.75	4221
Baltimore Pulverizing Co., Baltimore.	S. C. Bone.	71	9.18	5.16	0.95	15.29	15.29	14.34	.....	.....	.....	4103	14.34	.....	.....	18.00	4103	18.00	4103	18.00	4103	18.00	4103
Baltimore Pulverizing Co., Baltimore.	German Kainit.	71	.....	.....	.....	.....	.....	.....	.....	.....	.....	4108	.....	.....	.....	.....	4108	.....	.....	.....	.....	.....	4108
Baugh & Sons Co., Balto.	Soluble Alkaline Superphosphate.	35	8.55	8.80	1.47	13.77	13.77	10.12	.....	.....	.....	4308	10.12	.....	2.80	17.00	4308	17.00	4308	16.25	4308	16.25	4308
Baugh & Sons Co., Balto.	Dissolved Animal Bone, War-ranted Pure.	63	3.25	17.46	1.61	20.14	20.14	16.19	18.63	2.17	2.13	20.75	4253	16.19	20.75	4253	20.75	4253	20.75	4253	20.75	4253
Baugh & Sons Co., Balto.	Double Eagle Phosphate.	13	5.49	4.19	2.08	11.43	11.64	9.75	8.50	1.82	1.86	20.25	4184	9.75	20.25	4184	20.25	4184	20.25	4184	20.25	4184
Baugh & Sons Co., Balto.	Double Eagle Phosphate.	28	4.55	4.81	1.82	11.18	11.18	9.36	.....	.....	.....	4212	9.36	.....	1.87	20.75	4212	20.75	4212	20.75	4212	20.75	4212
Baugh & Sons Co., Balto.	Double Eagle Phosphate.	35	4.17	5.02	2.16	11.95	11.95	9.19	.....	.....	.....	4307	9.19	.....	1.77	20.50	4307	20.50	4307	20.50	4307	20.50	4307
Baugh & Sons Co., Balto.	Double Eagle Phosphate.	47	4.55	4.86	2.56	11.97	11.97	9.41	.....	.....	.....	4315	9.41	.....	2.00	21.25	4315	21.25	4315	21.25	4315	21.25	4315

TABLE II—Continued.

NAME OF MANUFACTURER.	BRAND.	Agents Number.	Analysis of Phosphate and Potash										Valuation of Official Sample.	Valuation of Inspectors Sample.	Laboratory Number.					
			Soluble Phosphate Acid in Official Sample.	Soluble Phosphate Acid in Inspectors Sample.	Reverted Phosphate Acid in Official Sample.	Reverted Phosphate Acid in Inspectors Sample.	Insoluble Phosphate Acid in Official Sample.	Insoluble Phosphate Acid in Inspectors Sample.	Total Phosphate Acid in Official Sample.	Total Phosphate Acid in Inspectors Sample.	Available Phosphate Acid in Official Sample.	Available Phosphate Acid in Inspectors Sample.								
G. Ober & Sons Co., Balto.	Farmers Mixture.	13	9.22	8.70	0.86	2.14	1.00	1.20	11.08	12.04	10.05	10.81	1.19	1.15	2.43	2.35	20.50	4841		
Do.	Farmers Mixture.	68	.....	10.21	.....	0.92	.....	1.18	.....	12.31	.....	11.13	.....	1.13	.....	1.99	.....	20.50	4289
Do.	Farmers Mixture.	71	.....	8.64	.....	1.65	.....	1.20	.....	11.49	.....	10.29	.....	1.36	.....	2.26	.....	20.75	4109
Do.	Dissolved Bone Phosphate and Potash.	66	9.91	9.98	1.71	1.53	0.26	0.26	11.88	11.77	11.62	11.51	.....	.....	4.34	1.98	19.70	16.50	4091
Do.	Dissolved Bone Phosphate and Potash.	66	.....	10.12	.....	2.00	.....	0.17	.....	12.88	.....	12.21	.....	.....	.....	2.33	.....	17.50	4238
Do.	Dissolved Bone Phosphate and Potash.	68	.....	10.49	.....	2.62	.....	0.64	.....	13.75	.....	13.11	.....	.....	.....	2.54	.....	18.75	4286
Do.	Dissolved Bone Phosphate.	18	13.93	14.17	1.85	3.71	0.25	0.32	16.06	18.20	15.78	17.88	.....	.....	.....	.....	18.5	20.50	4338
Do.	Dissolved Bone Phosphate.	66	.....	13.27	.....	2.72	.....	0.47	.....	16.23	.....	15.99	.....	.....	.....	.....	.....	18.50	4096
Do.	Dissolved Bone Phosphate.	66	.....	15.43	.....	2.67	.....	0.55	.....	18.65	.....	18.10	.....	.....	.....	.....	.....	20.50	4240
Do.	Dissolved Bone Phosphate.	68	.....	14.06	.....	3.43	.....	0.15	.....	17.67	.....	17.49	.....	.....	.....	.....	.....	19.75	4287
Do.	Dissolved Bone Phosphate.	71	.....	14.29	.....	3.01	.....	0.55	.....	17.85	.....	17.30	.....	.....	.....	.....	.....	19.75	4272
Ohio Farmers Fertilizer Co., Columbus.	Acid Phosphate.	41	9.24	1.07	2.79	9.01	.....	54	1.48	13.57	11.56	12.03	10.08	.....	.....	.....	15.00	13.00	4138
Do.	Acid Phosphate.	52	.....	7.18	.....	3.48	.....	2.17	.....	12.88	.....	10.66	.....	.....	.....	.....	.....	13.75	4358
Do.	Acid Phosphate.	70	.....	6.51	.....	4.74	.....	1.75	.....	13.00	.....	11.25	.....	.....	.....	.....	.....	14.25	4250
Do.	Soluble Bone and Potash.	41	7.53	0.96	2.26	7.18	1.36	1.54	11.15	9.67	9.79	8.14	8.24	1.44	22.50	13.00	4136
Do.	Soluble Bone and Potash.	52	.....	5.44	.....	2.84	.....	1.39	.....	9.67	.....	8.28	.....	.....	.....	2.56	.....	14.50	4355

TABLE II—Continued.

NAME OF MANUFACTURER.	BRAND.	Agents Number.	Soluble Phosphoric Acid in Official Sample.		Soluble Phosphoric Acid in Inspectors Sample.		Reverted Phosphoric Acid in Official Sample.		Reverted Phosphoric Acid in Inspectors Sample.		Insoluble Phosphoric Acid in Official Sample.		Insoluble Phosphoric Acid in Inspectors Sample.		Total Phosphoric Acid in Official Sample.		Total Phosphoric Acid in Inspectors Sample.		Available Phosphoric Acid in Official Sample.		Available Phosphoric Acid in Inspectors Sample.		Nitrogen in Official Sample.		Nitrogen in Inspectors Sample.		Potash in Official Sample.		Potash in Inspectors Sample.		Valuation of Official Sample.		Valuation of Inspectors Sample.		Laboratory Number.
			Agents Number.	Inspectors Sample.	Official Sample.	Inspectors Sample.	Official Sample.	Inspectors Sample.	Official Sample.	Inspectors Sample.	Official Sample.	Inspectors Sample.	Official Sample.	Inspectors Sample.	Official Sample.	Inspectors Sample.	Official Sample.	Inspectors Sample.	Official Sample.	Inspectors Sample.	Official Sample.	Inspectors Sample.	Official Sample.	Inspectors Sample.	Official Sample.	Inspectors Sample.	Official Sample.	Inspectors Sample.	Official Sample.	Inspectors Sample.	Official Sample.	Inspectors Sample.			
Ohio Farmers Fertilizer Co., Columbus, Ohio.	Soluble Bone and Potash.	70	1.91	6.75	1.50	10.16	8.66	0.90	0.74	2.37	14.50	4282																							
Ohio Farmers Fertilizer Co., Columbus, Ohio.	General Crop Fish Guano.	10	5.93	5.93	1.01	9.34	6.57	0.90	0.74	3.91	19.50	4116																							
Ohio Farmers Fertilizer Co., Columbus, Ohio.	General Crop Fish Guano.	41	4.67	4.63	2.11	11.41	9.20	0.99	0.99	1.18	17.50	4137																							
Ohio Farmers Fertilizer Co., Columbus, Ohio.	General Crop Fish Guano.	52	5.40	5.71	2.46	13.75	11.10	0.83	0.83	1.15	18.75	4168																							
Ohio Farmers Fertilizer Co., Columbus, Ohio.	General Crop Fish Guano	52	5.56	3.50	1.78	10.84	9.06	0.65	0.65	2.31	17.00	4380																							
Ohio Farmers Fertilizer Co., Columbus, Ohio.	General Crop Fish Guano.	70	4.20	4.58	1.54	10.32	8.78	1.27	1.27	1.28	18.00	4281																							
Ohio Farmers Fertilizer Co., Columbus, Ohio.	Corn, Oats and Wheat Fish Guano.	10	6.09	5.94	1.07	9.82	7.86	2.69	1.03	4.05	14.48	25,75																							
Ohio Farmers Fertilizer Co., Columbus, Ohio.	Fine Ground Bone Meal.	10	.....	.....	.....	15.45	.....	.....	.....	.....	.....	19.25															
Ohio Farmers Fertilizer Co., Columbus, Ohio.	Potato and Truck Fertilizer.	10	1.00	4.92	1.91	7.83	5.92	.....	.....	4.25	24.00	4119																					
Ohio Farmers Fertilizer Co., Columbus, Ohio.	Potato and Truck Fertilizer.	55	5.90	4.55	2.32	12.77	10.45	1.80	1.80	3.98	24.50	4321																							
Piedmont Mt. Airy Guano Company, Baltimore.	Farmers High Grade Bone and Potash.	57	7.45	1.90	0.91	11.74	10.26	9.92	9.35	2.46	16.00	14.75																							
Piedmont Mt. Airy Guano Company, Baltimore.	Farmers High Grad Bone and Potash.	36	1.61	8.36	0.97	10.94	9.97	.....	.....	2.78	16.25																						
Piedmont Mt. Airy Guano Company, Baltimore.	Farmers High Grade Bone and Potash.	.....	6.18	5.46	4.76	16.31	11.55	.....	.....	1.44	17.00																					
Piedmont Mt. Airy Guano Company, Baltimore.	Pure Raw Bone Mixture.	54	4.07	5.78	4.67	15.58	13.29	9.56	8.62	1.86	20.25																								
Piedmont Mt. Airy Guano Company, Baltimore.	Pure Raw Bone Mixture.	36	4.70	5.90	4.55	15.15	10.60	.....	.....	1.63	20.75																						

TABLE II—Continued.

NAME OF MANUFACTURER.	BRAND.	Agents Number.	Soluble Phosphoric Acid in Official Sample.	Soluble Phosphoric Acid in Inspectors Sample.	Reverted Phosphoric Acid in Official Sample.	Reverted Phosphoric Acid in Inspectors Sample.	Insoluble Phosphoric Acid in Official Sample.	Insoluble Phosphoric Acid in Inspectors Sample.	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid in Inspectors Sample.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid in Inspectors Sample.	Nitrogen in Official Sample.	Potash in Official Sample.	Potash in Inspectors Sample.	Valuation of Official Sample.	Valuation of Inspectors Sample.	Laboratory Number.
Piedmont Mt. Airy Guano Company, Baltimore.	High Grade S. C. Bone.	5	12.81	12.10	1.74	2.15	2.70	0.35	17.25	14.60	14.55	14.25	.....	.....	.....	17.50	16.75	4191
Piedmont Mt. Airy Guano Company, Baltimore.	High Grade S. C. Bone	.....	8.11	.....	.....	9.11	.....	0.95	18.17	.....	17.22	.....	.....	.....	.....	.....	19.75	1164
Rasin-Monumental Co., Baltimore.	Rasins, Bone and Potash Fertilizer.	29	11.00	3.13	2.44	6.01	0.38	2.83	13.82	11.97	13.41	9.11	.....	3.23	1.33	20.25	14.00	4123
Rasin-Monumental Co., Baltimore.	Rasins Acid Phosphate.	29	15.11	10.14	0.63	3.35	0.56	3.50	16.30	17.08	15.74	13.49	.....	.....	.....	18.25	16.75	4121
Rienmond Guano Co., Richmond, Va.	Bone Mixture	49	6.48	2.62	2.57	5.41	1.10	2.87	10.15	10.90	9.05	8.03	1.24	1.33	1.44	0.78	18.25	1141
Rienmond Guano Co., Richmond, Va.	Premium Wheat Grower.	30	6.58	2.93	2.61	5.46	0.33	2.52	10.20	10.91	9.27	8.39	1.26	1.66	2.39	2.10	19.50	4157
Rienmond Guano Co., Richmond, Va.	Premium Wheat Grower.	49	.....	3.12	.....	5.72	.....	2.81	11.65	.....	8.84	.....	1.11	.....	1.36	.....	17.75	4112
Rienmond Guano Co., Richmond, Va.	High Grade Acid Phosphate.	30	12.23	9.67	3.53	4.81	1.67	3.16	17.39	17.64	15.76	14.48	.....	.....	.....	18.00	17.75	4163
Rienmond Guano Co., Richmond, Va.	High Grade Acid Phosphate.	49	.....	10.21	.....	4.30	.....	4.86	19.37	.....	14.51	.....	.....	.....	.....	.....	18.00	4145
Swift & Co., Chicago.	Superphosphate	23	5.74	2.06	3.21	10.17	1.56	2.89	10.52	15.12	8.96	12.23	2.09	1.50	2.96	2.56	23.00	4327
Swift & Co., Chicago.	Superphosphate	32	.....	2.14	.....	10.21	.....	1.01	13.39	.....	12.38	.....	1.54	.....	1.94	.....	23.00	4227
Swift & Co., Chicago.	Superphosphate.	49	0.97	.....	.....	7.39	.....	3.51	11.87	.....	8.36	.....	1.84	.....	1.82	.....	20.75	4146
Swift & Co., Chicago.	Superphosphate.	66	.....	5.68	.....	3.14	.....	3.42	12.24	.....	8.82	.....	1.74	.....	1.84	.....	20.75	4065
Swift & Co., Chicago.	Superphosphate	66	.....	1.70	.....	12.50	.....	1.67	15.27	.....	14.20	.....	1.94	.....	1.58	.....	24.50	4222
Swift & Co., Chicago.	Complete Fertilizer.	17	5.95	4.09	2.67	6.23	2.38	3.93	11.00	14.25	8.62	10.32	1.26	1.15	2.10	0.94	18.75	4313
Swift & Co., Chicago.	Complete Fertilizer.	23	4.36	.....	.....	8.20	.....	3.98	15.54	.....	12.56	.....	1.72	.....	1.26	.....	22.75	4328

TABLE II—Continued.

NAME OF MANUFACTURER.	BRAND.	Agents Number.	Analysis										Laboratory Number.					
			Soluble Phosphoric Acid in Official Sample.	Soluble Phosphoric Acid in Inspectors Sample.	Reverted Phosphoric Acid in Official Sample.	Reverted Phosphoric Acid in Inspectors Sample.	Insoluble Phosphoric Acid in Official Sample.	Insoluble Phosphoric Acid in Inspectors Sample.	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid in Inspectors Sample.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid in Inspectors Sample.		Nitrogen in Official Sample.	Nitrogen in Inspectors Sample.	Potash in Official Sample.	Potash in Inspectors Sample.	Valuation of Official Sample.
Swift & Co., Chicago.....	Complete Fertilizer.....	49	4.23	5.69	4.70	4.70	14.02	9.32	1.92	1.87	21.00	4141						
Swift & Co., Chicago.....	Raw Bone Meal.....	49	.....	.....	.....	23.52	21.93	.....	3.96	4.10	28.75	4144		
Swift & Co., Chicago.....	Raw Bone Meal.....	71	.....	.....	.....	22.79	.....	.....	3.86	.....	27.75	4105
Swift & Co., Chicago.....	Bone Meal.....	17	.....	.....	.....	25.67	26.42	.....	2.81	2.46	26.50	4314		
Swift & Co., Chicago.....	Bone Meal.....	23	.....	.....	.....	25.91	.....	.....	2.71	.....	26.50	4326
Swift & Co., Chicago.....	Bone Meal.....	32	.....	.....	.....	26.38	.....	.....	3.86	.....	28.50	4226
Swift & Co., Chicago.....	Bone Meal.....	32	.....	.....	.....	26.07	.....	.....	1.71	.....	23.50	4270
Swift & Co., Chicago.....	Bone Meal.....	66	.....	.....	.....	25.51	.....	.....	2.43	.....	25.25	4098
Swift & Co., Chicago.....	Bone Meal.....	66	.....	.....	.....	26.64	.....	.....	2.66	.....	26.75	4220
Swift & Co., Chicago.....	Bone Meal.....	71	.....	.....	.....	25.37	.....	.....	2.76	.....	26.25	4104
Virginia-Carolina Chemical Co., Richmond, Va.	Allison & Addison Star Brand Guano.	51	6.52	2.23	2.71	3.25	2.92	12.00	11.04	8.75	8.12	1.85	1.70	1.07	1.26	20.75	19.25	4159
Virginia-Carolina Chemical Co., Richmond, Va.	Allison & Addison Star Brand Guano.	51	5.92	3.23	2.39	11.45	9.15	1.12	17.75	15.25	4162
Virginia-Carolina Chemical Co., Richmond, Va.	Allison & Addison Standard Acid Phosphate.	51	8.39	6.72	3.70	5.41	2.37	2.75	14.46	14.88	12.09	12.13	15.25	15.25	4155
Virginia-Carolina Chemical Co., Richmond, Va.	Allison & Addison Standard Acid Phosphate.	31	6.56	6.14	2.67	15.40	12.73	15.75	15.75	4203
Virginia-Carolina Chemical Co., Richmond, Va.	Allison & Addison Little Giant Grain and Grass Grower.	31	6.36	5.13	2.85	4.02	1.82	11.08	10.77	9.21	9.15	0.93	0.91	3.00	1.67	19.25	17.50	4206

TABLE II—Continued.

NAME OF MANUFACTURER.	BRAND.	Agents Number.	Soluble Phosphoric Acid in Official Sample.	Soluble Phosphoric Acid in Inspectors' sample.	Reverted Phosphoric Acid in Official Sample.	Reverted Phosphoric Acid in Inspectors' sample.	Insoluble Phosphoric Acid in Official Sample.	Insoluble Phosphoric Acid in Inspectors' sample.	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid in Inspectors' sample.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid in Inspectors' Sample.	Nitrogen in Official Sample.	Potash in Official Sample.	Valuation of Official Sample.	Valuation of Inspectors' Sample.	Laboratory Number.	
Virginia-Carolina Co., Richmond.	Allison & Addison Little's Grain and Grass Grower.	51	4.73	2.22	2.22	1.60	8.55	6.95	0.88	1.94	15.50	15.50	15.50	15.50	15.50	15.50	4161	
Virginia-Carolina Co., Richmond.	S. W. Traver's Capital Bone and Potash Compound.	31	7.00	2.48	3.54	5.26	0.28	3.16	10.82	10.90	10.51	7.74	2.29	1.32	16.00	12.75	4189	
Virginia-Carolina Co., Richmond.	S. W. Traver's Capital Bone and Potash Compound.	51	4.25	5.83	5.83	2.67	12.75	10.08	12.75	10.08	10.08	10.08	1.29	1.29	11.75	11.75	4158	
Virginia-Carolina Co., Richmond.	S. W. Traver's Capital Dissolved S. C. Bone.	40	9.02	7.91	3.82	4.82	0.78	2.62	13.62	15.48	12.84	12.86	.....	.....	15.50	16.00	4165
Virginia-Carolina Co., Richmond.	S. W. Traver's Capital Dissolved S. C. Bone.	51	8.60	4.60	.....	3.71	.....	16.91	.....	13.20	.....	.....	.....	.....	16.50	14.56	4156
Virginia-Carolina Co., Richmond.	S. W. Traver's Dissolved Bone Phosphate.	14	12.00	12.86	2.09	4.72	0.46	4.47	15.45	18.05	14.99	17.58	.....	.....	17.50	20.25	4359
Virginia-Carolina Co., Richmond.	S. W. Traver's Dissolved Bone Phosphate.	51	8.32	4.82	.....	3.55	.....	16.68	.....	13.14	.....	.....	.....	.....	16.25	14.54	4154
Walker, Stratman & Co., Pitsburg.	Four Fold	.....	4.56	1.87	3.27	2.96	2.61	3.02	11.62	10.88	8.93	7.83	2.16	1.83	23.25	20.50	4172
Walker, Stratman & Co., Pitsburg.	Four Fold	.....	1.31	4.35	.....	2.48	.....	11.14	.....	8.66	.....	1.75	.....	2.43	21.00	4236	
Walker, Stratman & Co., Pitsburg.	Four Fold	.....	4.11	4.73	.....	2.87	.....	11.71	.....	8.81	.....	1.96	.....	2.63	22.25	4333	
Walker, Stratman & Co., Pitsburg.	Four Fold	.....	4.06	3.40	.....	2.97	.....	10.43	.....	7.46	.....	1.92	.....	2.09	20.50	4320	
Walker, Stratman & Co., Pitsburg.	Grain King	.....	7.48	3.41	4.05	1.40	1.38	12.29	12.58	10.89	11.20	1.29	1.09	1.83	21.00	23.50	4274
Walker, Stratman & Co., Pitsburg.	Big Bonanza	46.48	6.00	3.30	2.83	3.24	4.17	43.02	43.00	9.78	8.83	2.17	1.63	5.04	4.05	47.00	4178
Walker, Stratman & Co., Pitsburg.	Potato Special	15.58	6.90	3.47	4.33	1.45	0.41	13.00	11.61	8.55	11.23	2.89	1.81	7.90	6.23	27.75	4291

TABLE II—Continued.

NAME OF MANUFACTURER.	BRAND.	Agents Number.																	
		Soluble Phosphoric Acid in Official Sample.	Soluble Phosphoric Acid in Inspectors Sample.	Reverted Phosphoric Acid in Official Sample.	Reverted Phosphoric Acid in Inspectors Sample.	Insoluble Phosphoric Acid in Official Sample.	Insoluble Phosphoric Acid in Inspectors Sample.	Total Phosphoric Acid in Official Sample.	Total Phosphoric Acid in Inspectors Sample.	Available Phosphoric Acid in Official Sample.	Available Phosphoric Acid in Inspectors Sample.	Nitrogen in Official Sample.	Nitrogen in Inspectors Sample.	Potash in Official Sample.	Potash in Inspectors Sample.	Valuation of Official Sample.	Valuation of Inspectors Sample.	Laboratory Number.	
Walker, Stratman & Co., Pittsburg.	Pure Raw Bone Meal	4	.....	.....	.....	.....	.....	23.92	23.71	.....	.....	3.67	3.71	.....	.....	28.00	28.00	4167
Walker, Stratman & Co., Pittsburg.	Pure Raw Bone Meal	46	23.97	23.97	3.76	28.25	28.25	4275
Walker, Stratman & Co., Pittsburg.	Pure Raw Bone Meal	60	23.92	23.92	3.76	28.25	28.25	4319
Walker, Stratman & Co., Pittsburg.	Bone and Meat	4	.....	.....	.....	.....	.....	19.49	18.49	.....	.....	4.31	2.01	.....	.....	27.00	20.00	4166
Walker, Stratman & Co., Pittsburg.	Bone and Meat	15	.....	.....	.....	.....	.....	20.00	20.00	.....	.....	.....	2.35	.....	.....	.....	22.25	4297
Walker, Stratman & Co., Pittsburg.	Phosphoric Acid and Potash.	15	8.04	5.63	3.76	1.74	0.36	2.16	12.15	13.23	11.79	10.37	2.71	2.77	1.97	17.75	16.00	4293
Walker, Stratman & Co., Pittsburg.	Phosphoric Acid and Potash.	60	.....	4.76	.....	5.83	.....	1.09	.....	11.63	.....	10.69	.....	.....	.....	.....	16.75	4318
Walker, Stratman & Co., Pittsburg.	Help Mate.	15	9.28	7.84	5.83	5.85	0.47	2.21	15.58	15.93	15.11	13.69	.....	.....	.....	17.50	16.75	4492
Walker, Stratman & Co., Pittsburg.	Florida Acid Phosphate.	.....	1	9.74	10.53	6.56	5.42	0.88	0.78	17.18	16.63	16.50	15.84	.....	.....	18.75	18.50	4237
Walker, Stratman & Co., Pittsburg.	Florida Acid Phosphate.	63	.....	12.88	.....	4.17	.....	0.13	.....	17.18	.....	17.65	.....	.....	.....	.....	19.50	4229
Walker, Stratman & Co., Pittsburg.	German Potash Mixture.	37	7.23	7.71	4.09	3.15	0.78	0.73	12.10	11.59	11.32	10.86	2.10	2.27	16.50	16.25	4334
Walker, Stratman & Co., Pittsburg.	Liberty Bell Potash Mixture.	1	79	7.87	2.63	5.21	0.65	0.40	12.07	13.51	11.42	13.11	4.28	2.79	19.25	19.00	4231
Walker, Stratman & Co., Pittsburg.	Liberty Bell Potash Mixture.	21	.....	8.16	.....	4.23	.....	0.17	.....	13.57	.....	13.20	.....	.....	2.90	.....	19.25	4242
Walker, Stratman & Co., Pittsburg.	Liberty Bell Potash Mixture.	37	.....	8.42	.....	3.46	.....	0.27	.....	12.05	.....	11.78	.....	.....	3.26	.....	18.25	4314
Walker, Stratman & Co., Pittsburg.	Liberty Bell Potash Mixture.	62	.....	8.17	.....	2.36	.....	0.31	.....	10.84	.....	10.63	.....	.....	3.11	.....	18.00	4186
Walker, Stratman & Co., Pittsburg.	Triumph Pure Bone Phos.	1	56	4.23	3.21	4.46	1.46	0.88	10.26	9.51	8.80	8.66	1.37	1.29	4.26	4.11	21.75	20.75	4232
Walker, Stratman & Co., Pittsburg.	Champion Giant Phosphate.	63	8.79	16.31	0.03	0.50	1.02	1.23	10.34	12.04	8.82	10.81	1.05	0.87	2.69	2.19	18.75	19.50	4268

Robert A. Wooldridge & Co., Baltimore.

Table III.—Is devoted to fertilizers registered under the New Law, and consists essentially of a comparison of two series of statements in regard to the brands of fertilizers therein mentioned; the first by the manufacturer and copied verbatim from his affidavit; the second, being the results of examination of samples found on sale in the State.

The amount of the various constituents claimed, and the amount found in the samples collected by the inspectors are arranged in parallel columns.

As has been carefully explained in previous publications of this Station, this New Law demands a consideration not only of the *amount* of the various constituents of plant food claimed to be contained in a fertilizer, but also the *quality*, or to quote the Statute, "*the materials from which said constituents are derived.*"

As to the materials mentioned as sources of the various constituents it should be said of the comparatively few brands in this table, that all are doubtless as claimed with the exceptions of "Superphosphate" and "Bone and Animal Tankage," manufactured by Marietta Bone and Phosphate Co., where it is claimed that the potash is derived from "Sulphate of Potash," while as a matter of fact it is derived from "Kainit." In order to be perfectly fair it should be said that there was in this instance, an excellent opportunity for a misunderstanding on the part of Manufacturers trying for the first time to comply with the rather unusual requirements of this New Law. "Sulphate of Potash" was claimed and "Kainit" was found, but the potash in Kainit is present as sulphate of potash. The law requires that such materials shall be stated clearly in commercial terms. "Kainit" is the commercial term that would have described most accurately the source of Potash in this instance. Had Kainit been stated, the purchaser would have been advised that the fertilizer contained about so much common salt along with compounds of magnesia, which ac-

ording to the best authorities might be desirable or objectionable according to circumstances, and it does not matter whether such opinions in regard to such matters be true or false; whether manufacturers attach any importance to such matters, or whether the farmers know, or care anything about them, it is clearly the intention of this Statute that the purchaser shall be provided with just such information at the time the purchase is made, and this will have to be done. We heartily approve of this feature of the New Law. Indeed we can hardly understand how any one is to use a fertilizer to the best advantage without such information in regard to the materials from which it is manufactured, and we believe that this provision of the Law will eventually be found to be a matter of the greatest interest, not only to the purchaser but also to the manufacturer of commercial fertilizers.

We have given somewhat more space to this matter than would have been necessary, but for the fact that it affords an opportunity to make clear to manufacturers the character and object of the requirements of this Law, with the hope that similar misstatements may be avoided in the future. We will be perfectly frank to state that we have no reason for believing that the misstatement in question was other than the result of a misunderstanding.

TABLE III.

Showing claims and analysis of samples of brands registered in 1901, under revised act, concerning commercial fertilizers.

MANUFACTURER.	BRAND.	Laboratory Number.	soluble Phosphoric Acid Guaranteed.	Soluble Phosphoric Acid Found.	Reverted Phosphoric Acid Guaranteed.	Reverted Phosphoric Acid Found.	Insoluble Phosphoric Acid Guaranteed.	Insoluble Phosphoric Acid Found.	Total Phosphoric Acid Guaranteed.	Total Phosphoric Acid Found.	Available Phosphoric Acid Guaranteed.	Available Phosphoric Acid Found.	Nitrogen Guaranteed.	Nitrogen Found.	Potash Guaranteed.	Potash Found.
American Agricultural Chem. Co., Baltimore.	Canton Chemical Game Guano.....	4365	6.00	6.55	2.00	2.01	1.00	1.64	9.00	10.20	8.00	8.56	1.65	1.57	2.00	2.01
Armour Fertilizer Works, Balti- more.	Wheat, Corn and Oats Special.....	4265	6.00	2.56	2.00	0.74	2.00	2.61	10.00	12.91	8.00	10.80	0.82	0.96	1.00	2.10
S. Frank & Sons, Zanesville, Ohio..	Electric.....	4176	.....	3.61	.....	6.53	2.00	2.26	13.00	12.40	11.00	10.14	.....	.....	.....	.....
S. Frank & Sons, Zanesville, Ohio..	Enterprise.....	4177	.....	10.66	.....	3.58	1.00	3.03	17.00	17.27	16.00	14.24	.....	.....	.....	.....
S. Frank & Sons, Zanesville, Ohio..	Anti-trust.....	4175	.....	4.00	.....	4.85	2.00	1.88	11.00	10.73	9.00	8.85	0.82	0.82	1.00	1.02
Marietta Bone and Phosphate Co., Marietta, Ohio.	Superphosphate.....	4324	.....	1.85	.....	5.10	.....	2.62	12.00	9.57	9.00	6.95	1.75	0.85	3.00	3.31
Marietta Bone and Phosphate Co., Marietta, Ohio.	Bone and Animal Tankage.....	4325	.....	1.28	.....	5.18	.....	2.70	10.00	9.16	8.00	6.46	1.00	0.78	1.50	2.76
G. Ober & Sons Co., Baltimore.....	Special Mixture of Wheat.....	4263	7.50	8.56	1.50	2.44	1.50	1.15	10.50	12.15	9.00	11.00	0.82	1.20	2.00	2.15
G. Ober & Sons Co., Baltimore.....	Shenandoah Bone Phosphate.....	4258	6.00	9.22	2.00	2.27	3.00	0.77	11.00	12.26	8.00	11.49	1.64	2.00	2.00	2.21
G. Ober & Sons Co., Baltimore.....	S. & S. Special Wheat Compound..	4234	6.50	8.99	2.00	2.51	1.50	1.09	10.00	12.59	8.50	11.50	1.45	2.86	2.00	2.91
R. H. Pollock, Baltimore..	Dissolved S. C. Bone.....	4269	.....	11.86	.....	4.24	1.00	0.70	15.00	16.80	14.00	16.10	.....	.....	.....	.....
Virginia Carolina Chemical Co., Richmond, Va.	Guaranteed 14 per cent. Acid Phos- phate.	4225	12.00	10.27	2.00	5.04	1.00	2.19	15.00	17.15	14.00	15.31	.....	.....	.....	.....
Virginia Carolina Chemical Co., Richmond, Va.	Guaranteed 14 per cent. Acid Phos- phate.	4257	.....	13.22	.....	4.34	.....	1.57	.....	19.13	.....	17.56	.....	.....	.....	.....
Virginia State Fertilizer Company, Richmond, Va.	Blood and Bone Phosphate.....	4143	.....	6.59	.....	4.65	1.00	2.38	10.00	13.59	9.00	11.24	0.82	1.17	1.00	0.82
Virginia State Fertilizer Company, Richmond, Va.	Glit Edge Dissolved Bone and Potash.	4139	.....	2.81	.....	4.89	1.00	1.98	9.50	9.68	8.50	7.70	.....	.....	2.00	1.46

TABLE III--Continued.

Laboratory Number.	GUARANTEED SOURCE OF PHOSPHORIC ACID.	GUARANTEED SOURCE OF NITROGEN.	GUARANTEED SOURCE OF POTASH.
4305	Bone Tankage and Phosphate Rock	Bone Tankage.	20 per cent Manure Salt.
4265	Florida Acid Phosphate	Bone Tankage	Kainit.
4176	Phosphate Rock		
4177	Phosphate Rock		
4175	Acid Phosphate.	Beef and Pork Cracklings.	Muriate.
4324	Bone and Animal Substances and Phosphate Rock.	Bone and Animal Substances.	Sulphate of Potash.
4325	Bone and Animal Substances and Phosphate Rock.	Bone and Animal Substances and Nitrate of Soda.	Sulphate of Potash.
4263	High Grade Florida Phosphate Tankage and Fish.	High Grade Bone and Blood Tankage and High Grade Fish.	Sulphate of Potash.
4258	High Grade Florida Phosphate Tankage and Fish.	High Grade Bone and Blood Tankage and High Grade Fish.	Sulphate of Potash.
4234	High Grade Florida Phosphate Tankage and Fish.	High Grade Bone and Blood Tankage and High Grade Fish.	Sulphate of Potash.
4269	Phosphate Rock		
4225	Charleston and Tennessee Rock.		
4257	Charleston and Tennessee Rock.		
4143	Tennessee Phosphate Rock.	Tankage.	Sylvinite.
4139	Tennessee Phosphate Rock.		Sylvinite.

- 1 T. H. Avery, Jones' Springs, 4231, 4232, 4237.
- 2 Burns Bros., Charleston, 4106, 4107.
- 3 George Brinkman, Grafton, 4132.
- 4 W. H. Brand, Laurel Point, 4166, 4167, 4171, 4172, 4178.
- 5 H. C. Bair Hardware Co., Alderson, 4188, 4191, 4193, 4194, 4199, 4201.
- 6 W. H. Brady, Berkeley Springs, 4249, 4250.
- 7 Belington Mill Co., Belington, 4348, 4349, 4350.
- 8 John Burdette, Hurricane, 4357.
- 9 W. F. Carrothers, Little Falls, 4112.
- 10 Gilbert Core, Jimtown, 4115, 4116, 4117, 4118, 4119, 4120, 4121.
- 11 Charles Coombs, Morgantown, 4126.
- 12 E. W. Clark, Dellslow, 4175, 4176, 4177.
- 13 L. W. Conway, Laurel Point, 4183, 4184.
- 14 O. R. Carmen, Wellsburg, 4276, 4277, 4278, 4279.
- 15 Cox & Bro., West Union, 4291, 4292, 4293, 4294, 4295, 4296, 4297, 4298.
- 16 J. J. Chisler, Fairmont, 4304.
- 17 W. L. Cole, Clarksburg, 4313, 4314.
- 18 A. G. Chrislip, Philippi, 4338, 4339, 4340, 4341, 4342, 4343, 4347.
- 19 Damron Feed & Seed Co., Huntington, 4170.
- 20 A. S. Dannon, Shepherdstown, 4241.
- 21 DeHaven & Hudson, Cherry Run, 4242.
- 22 N. E. Duckworth, West Union, 4283, 4284, 4285.
- 23 W. R. Dudley, Wheeling, 4326, 4327, 4328, 4332.
- 24 Dyer & Switzer, Philippi, 4335, 4336, 4337.
- 25 Exchange Mill Co, Grafton, 4127, 4128, 4129, 4130, 4131.
- 26 A. R. Feaser, Terra Alta, 4345, 4346.
- 27 G. S. F. Griffith, Moundsville, 4333.
- 28 Henshaw & Lichlider, Martinsburg, 4093, 4094, 4099, 4208, 4209, 4210,
4211, 4212, 4213, 4214, 4233, 4245.
- 29 Isaac Hite, Morgantown, 4123, 4124.
- 30 J. E. Hines, ————, 4157, 4163.
- 31 J. W. Hedrick, Alderson, 4185, 4189, 4196, 4197, 4198, 4200, 4202, 4203,
4204, 4206, 4207.
- 32 G. T. Hodges, Shepherdstown, 4225, 4226, 4227, 4236, 4243, 4244, 4260,
4262, 4265, 4270, 4271, 4273.
- 33 R. Hunter, Berkeley Springs, 4252, 4356.
- 34 J. M. Hagerty, Farmington, 4305, 4306, 4311, 4312.
- 35 C. Hall, Farmington, 4307, 4308, 4309, 4310.
- 36 James Hawker, Manington, 4329, 4330.
- 37 — Howe, Philippi, 4334, 4344.

- 38 T. M. Harbour, Hurricane, 4356, 4361.
 39 J. L. Hall, Fairmont, 4300, 4301, 4302, 4303.
 40 Johnson & Gwine, Ronceverte, 4147, 4148, 4165, 4192.
 41 Kinsley & Price, Uffington, 4136, 4137, 4138.
 42 Kane & Keyser, West Union, 4299.
 43 C. D. Kyle, Wheeling, 4324, 4325.
 44 J. F. Kinley, Scary, 4359.
 45 W. N. Lemon, Shepherdstown, 4239, 4254.
 46 J. S. Liggett, Wellsburg, 4274, 4275.
 47 R. T. Lowndes, Clarksburg, 4315, 4316, 4317.
 48 J. H. Miller & Son, Martinsburg, 4090, 4100, 4215, 4216, 4217.
 49 J. M. Miller & Bro., Roncevert, 4139, 4140, 4141, 4142, 4143,
 4144, 4145, 4146, 4152.
 50 McClung & Rader, Ronceverte, 4149, 4150, 4151, 4153.
 51 E. W. McNeer, Lowell, 4154, 4155, 4156, 4158, 4159, 4161, 4162.
 52 C. V. McClung, Hurricane, 4168, 4355, 4358, 4360.
 53 Mossman Bros., Huntington, 4169, 4173.
 54 W. H. McCallister, Hurricane, 4174.
 55 Walter Marshall, Wheeling, 4321, 4322, 4323.
 56 J. H. Metz, Martinsburg, 4235.
 57 McKown & Busey, Martinsburg, 4218, 4219.
 58 J. T. Morrison, Bedington, 4247, 4248.
 59 Capt. Melvin, Duffields, 4267.
 60 J. D. Owens, Weston, 4318, 4319, 4320.
 61 J. A. Poole, Morgantown, 4122, 4125.
 62 T. Price, Clinton Furnace, 4186.
 63 J. H. Phillips & Sons, Berkeley Springs, 4229, 4246, 4251, 4253, 4255,
 4261, 4254, 4268.
 64 Cicero Phillips, Belington, 4353, 4354.
 65 L. G. Reppert, Easton, 4113, 4114.
 66 Sencindiver & Stewart, Martinsburg, 4091, 4092, 4095, 4096, 4097,
 4098, 4220, 4221, 4222, 4223, 4234, 4238, 4240.
 67 J. E. Sinbaugh, Alderson, 4190, 4195, 4205.
 68 W. F. Hill, Pennsboro, 4286, 4287, 4288, 4289, 4290.
 69 J. P. Thompson, ————, 4179.
 70 Taylor & Athey, Parkersburg, 4280, 4281, 4282.
 71 Washington & Alexander, Charleston, 4101, 4102, 4103, 4104, 4105,
 4108, 4109, 4224, 4228, 4230, 4257, 4258, 4259, 4263, 4266, 4269, 4272.
 72 J. L. Woodyard, Pruntytown, 4180, 4181, 4182.
 73 R. H. Woodford, Philippi, 4351, 4352.
 74 Henry Zembro, Fetterman, 4133, 4134, 4135.

