

The Connecticut Agricultural Experiment Station.

BULLETIN No. 84.

JUNE, 1885.

The object of these Bulletins is to place in the hands of those concerned the results of the station work as promptly as possible.

As required by law, a package of each Bulletin is mailed to every post-office in the State. The package is directed to the Postmaster, with a request to distribute to farmers. The number sent will be increased in any case on application.

The Bulletins are also regularly sent to every newspaper in the State, and to the Secretary of each Agricultural society, Farmer's club and Grange whose address is known to the Station.

The Bulletins will be regularly sent, also, on application, to any private address in Connecticut. Such application, as a rule, must be renewed annually.

To citizens of other States remitting fifty cents, the publications of the current year, including Bulletins and Annual Report, will be mailed as they appear. Applications should be made early in the year.

NOTES AND CORRECTIONS IN BULLETIN No. 83.

Page 4, fifth line from the bottom, for **1384** read **1381**.

Page 8, the valuation of Acme Fertilizer No. 2, Station No. **1388** is \$43.29 per ton.

Page 8, the retail price of Shoemaker's Swift Sure Superphosphate, No. **1362** is \$40.00 per ton.

It was agreed last March by the chemist of the Pennsylvania Board of Agriculture and by the Massachusetts, New Jersey and Connecticut Experiment Stations to value insoluble phosphoric acid in ammoniated superphosphates at 4 cents per pound. By a misunderstanding insoluble phosphoric acid has been valued at 4½ cents per pound in the analyses hitherto published this year by this Station. Since the average error in valuation caused by this mistake is only thirteen cents per ton, and the maximum error forty-five cents, it is not thought necessary to republish the analyses with corrected valuations. They will be correctly printed in the Annual Report.

OBSERVANCE OF THE FERTILIZER LAW.

Manufacturers who have paid Analysis Fees as required by the Fertilizer Law, and Fertilizers for which the Fees have been thus paid for the year ending May, 1886.

<i>Firm.</i>	<i>Brand of Fertilizer.</i>
Adams & Thomas, Springfield, Mass.	Adams Market Bone Fertilizer. " Fine Ground Bone.
Anderson, W. H., Putnam, Ct.	Ground Bone.
Baker, H. J. & Bro., 215 Pearl St., N. Y.	A. A. Ammoniated Superphosphate. Pelican Bone Fertilizer. Potato Fertilizer. Corn " Tobacco " Castor Pomage Kainit. Muriate of Potash.
Bennett, P. W., Rock Fall, Conn.	Ground Bone.
Bosworth Bros., Putnam, Conn.	Superphosphate of Lime. Ground Bone.
Bowker Fertilizer Co., 43 Chatham St., Boston, Mass.	Stockbridge Grain Manure. " Forage Crop Manure. " Vegetable " Bowker's Hill and Drill Phosphate " Dissolved Bone. " Fish and Potash. " Dry Fish. " Kainit.
Bradley Fertilizer Co., 27 Kilby St., Boston, Mass.	Bradley's Superphosphate. B. D. Sea Fowl Guano. Original Coe's Superphosphate. Complete Manure for Corn and Grain. " Potatoes and Root Crops.
Buffalo Fertilizer & Chemical Works, Buffalo, N. Y.	Circle Brand Bone and Potash. Buffalo Ammoniated Bone Superphosphate. Buffalo Potato, Hop and Tobacco Phosphate. Buffalo Superphosphate [2]. Queen City Phosphate. Pure Ground Bone.

<i>Firm.</i>	<i>Brand of Fertilizer.</i>
Chemical Ammoniate & Oil Co., N. Y., per Geo. A. Niles, Danielsonville, Ct. Clark's Cove Guano Co., New Bedford, Mass.	Niles' Special Fertilizer. Great Planet "A" Brand. Bay State Fertilizer. Unicorn Ammoniated Superphosphate. Ammoniated Bone Superphosphate. Alkaline Bone. Excelsior Guano. Ground Bone. Ralston's Potato Phosphate. Castor Pomace.
Coe, E. Frank, 16 Burling Slip, New York, N. Y.	Common Sense Fertilizer, No. 2. " " " [D].
Collier White Lead & Oil Co., St. Louis, Mo., by F. Ellsworth, Hartford, Ct. Common Sense Fertilizer Co., Boston, Mass.	Bone Dust. Darling's Ground Bone. " " Animal Fertilizer. Ammoniated Bone Superphosphate. Soluble Pacific Guano. Ground Bone. Pure Ground Bone. Pure Bone Phosphate. Peruvian Guano Standard.
Peter Cooper's Glue Factory, N. Y. Darling, L. B., Fertilizer Co., Pawtucket, R. I. Dickinson, D. B., Middle Haddam, Ct. Glidden & Curtis, Boston, Mass. Hall, W. Burr, Wallingford, Ct. Harris, G. H. & Son, Eagleville, Ct.	Sparrow's Bone and Potash Phosphate. " " B. B. Phosphate. Ground Bone. Crescent Bone. Standard Superphosphate. Ammoniated Dissolved Bone. Potato Fertilizer. U. S. Phosphate. Ground Bone. Superphosphate.
Hurtado & Co., 16 and 18 Exchange Place, New York City. Judson & Sparrow, 38 South Market St., Boston, Mass. Lister Bros., Newark, N. J.	Mapes' Potato Manure. " " Corn " " " " Complete Manure (Light Soil). " " " (General use). " " Tobacco " (Conn. Brand). " " " (for use with stems) " " Complete " (A Brand). " " Nitrogenized Superphosphate. " " High Grade Superphosphate. " " Fine Dissolved Bone. " " Muriate of Potash. " " Nitrate of Soda. " " Sulphate of Ammonia.
Lombard & Matthewson, Warrenville, Ct. Mapes' Formula and Peruvian Guano Co., 158 Front St., New York, N. Y.	Acme Fertilizer, No. 1. " " " No. 2. I. X. L. Ammoniated Superphosphate Fish and Potash. Raw Bone Phosphate. Pure Ground Bone. Standard Phosphate. Chittenden's Fish and Potash. " " Ammoniated Bone Super- phosphate. Chittenden's Complete Fertilizer. Cook's Blood Guano.
Meyer, C., Jr., Maspeth, L. I.	
Miles, George W., Milford.	
Miller, G. W., Middlefield, Conn.	
Mitchell, A., Linden, N. J. National Fertilizer Co., Bridgeport, Ct.	
Niles, G. A. (See Chemical Ammoniate & Oil Co.) Peck Brothers, Northfield, Ct.	Peck Brothers' Pure Ground Bone.

<i>Firm.</i>	<i>Brand of Fertilizer.</i>
Pinney, R. E., Suffield, Ct.	"Potash and Phosphoric Acid."
Plumb & Winton, Bridgeport, Ct.	Bone Fertilizer.
	Ground Bone.
Preston Fertilizer Co., Greenpoint, L. I.	Preston's Ammoniated Superphosphate.
	" Ground Bone.
	" Fish Guano.
Quinnipiac Fertilizer Co., New London, Conn.	Nitrate of Soda.
	Fish and Potash, Plain Brand.
	" " Crossed Brand.
	Phosphate.
	Extra Phosphate.
	Dry Ground Fish.
Ralston, J. (See E. Frank Coe).	Farmers' Friend Fertilizer.
Read & Co., 88 Wall St., N. Y.	Ammoniated Superphosphate.
Sanford, Chas., Redding Ridge, Conn.	Goodenough Phosphate.
Shoemaker, M. L. & Co., Philadelphia, by F. Ellsworth, Hartford, Ct.	Echo Phosphate.
	Swift Sure Superphosphate.
	" " Bone Meal.
	Kainite.
Slade, F. C., Oakville, Ct.	Ground Bone.
Sisson & Strong, North Lyme, Ct.	Elizabethport Glue Works Ammoniated Superphosphate.
	Ground Bone.
Smith, Edmund, South Canterbury, Ct.	Castor Pomace.
St. Louis Lead & Oil Co., St. Louis, Mo.	Stearns' Ammoniated Bone Superphosphate.
Stearns & Co., 149 Front St., N. Y.	Eagle Brand Fish and Potash.
	Ground Fish Guano.
Thomson, Paul, 232 State St., Hartford.	Charter Oak Fertilizer.
Tropic Guano Co., Elizabethport, N. J.	XXX Guano.
Wilcox, L. & Co., Mystic Bridge, Ct.	Wilcox's Prepared Fertilizer.
	" Acidulated Fish Guano.
	" Dry Ground Fish.
Wilkinson & Co., 239 Center St., N. Y.	Wilkinson's Ammoniated Superphosphate.
Williams, Clark & Co., 101 Pearl St., N. Y. City.	Americus Ammoniated Superphosphate.
	" Potato Fertilizer.
	" Bone Meal.
	Royal Bone.
	Acorn Brand Muriate of Potash.
	" " German Potash Salts.
	Fish and Potash.
	Dry Ground Fish.
	Bone and Potash.
	Dried Blood.
	Americus Tobacco Fertilizer.

FERTILIZER ANALYSES.

1438. Muriate of Potash. Manufactured by H. J. Baker & Bro. Sampled and sent by Dennis Fenn, Milford.

1466. Sulphate of Potash. Manufactured by the Quinnipiac Fertilizer Co. Sampled by Station Agent, from stock of E. S. Roberts, E. Canaan.

ANALYSES AND VALUATION.

	1438	1466
Potash,.....	50.66	26.62
Equivalent Muriate,.....	80.2	
Potash costs per lb.,.....	4.19c.	6.57c.
Cost per ton,.....	*\$42.50	\$35.00

* f. o. b. in New York.

COTTON HULL ASHES.

1407. Cotton Hull Ashes. Purchased by F. Ellsworth, Hartford. Sampled and sent April 20, by H. S. Frye, Poquonnock.

1408. Cotton Hull Ashes. Purchased by F. Ellsworth. Sampled and sent by H. W. Alford, Poquonnock.

1441. Cotton Hull Ashes. Sampled and sent by Olds & Whipple, Hartford. The sample was taken from a car load which had been thoroughly worked over and mixed.

1476. Cotton Hull Ashes. Sampled and sent by J. M. Brown, Poquonnock from stock of R. E. Pinney, Suffield.

1482. Potash and Phosphoric Acid. Sampled and sent by John Mason, Warehouse Point, from stock bought of R. E. Pinney, Suffield.

ANALYSES AND VALUATIONS.

	1407	1408	1441	1476	1482
Soluble Phosphoric Acid,.....	1.19	1.92	2.27	2.02	.40
Reverted Phosphoric Acid,.....	5.06	4.61	7.69	8.06	5.60
Insoluble Phosphoric Acid,.....	1.53	1.33	1.17	1.42	.36
Potash soluble in water,.....	24.82	28.74	24.53	19.14	22.28
Insoluble in acid,.....	19.32	14.51			
Cost per ton,.....	\$35.00	35.00	35.00	39.00	39.00
Valuation per ton,.....	\$46.84	53.04	52.43	44.85	42.13

In these samples of Cotton Hull Ashes soluble phosphoric acid has been valued at 9 cents per pound, reverted phosphoric acid at 8 cents and insoluble phosphoric acid at 2 cents. Potash soluble in water has been valued at $7\frac{1}{4}$ cents per pound.

The potash insoluble in water has not been valued at all. The material is free from chlorine.

These ashes have been a cheap and excellent source of potash and phosphoric acid. It is, however, very difficult to secure an accurate sample of a large lot. The sample **1441** was drawn with great care and no doubt accurately represents the composition of one large lot.

ANALYSES OF BONE.

1402. L. B. Darling's Ground Bone. Sampled and sent by Station Agent from stock of Olds & Whipple, Hartford.

1417. Lombard & Matthewson's Ground Bone. Sampled and sent by Station Agent from stock of Durkee, Styles & Co., Willimantic.

1431. W. H. Anderson's Fine Ground Bone. Sampled and sent by Station Agent from Manufacturers' Mill.

MECHANICAL ANALYSES.

		1402	1417	1431
Finer than	$\frac{1}{30}$ inch,-----	78	38	64
"	$\frac{1}{25}$ "-----	22	18	26
"	$\frac{1}{12}$ "-----	--	23	10
"	$\frac{1}{6}$ "-----	--	21	--
Coarser than	$\frac{1}{2}$ "-----	--	--	--
		100	100	100

CHEMICAL ANALYSES AND VALUATIONS.

	1402	1417	1431
Nitrogen,-----	3.16	4.12	2.93
Phosphoric Acid,-----	25.22	19.93	23.71
Cost per ton,-----	\$42.00	38.00	40.00
Valuation per ton,-----	\$40.81	34.10	37.37

HOME-MIXED FERTILIZERS.

In the last Bulletin were given Analyses of Muriate of Potash (1378), Sulphate of Ammonia (1379) and Acid Phosphate (1380) and of a home-mixed Fertilizer (1381) prepared from them by J. J. Webb, Esq., Hamden. The formula by which the raw materials were mixed was not stated, as it was not exactly known by the Station at the time. Since then the matter has been discussed at length in the Connecticut Farmer and the New England Homestead, and it has been claimed that the sample brought to the Station did not fairly represent the quality of the mixture nor did its composition correspond with Mr. Webb's formula.

At the suggestion of Mr. Webb an agent of the Station drew a sample on May 18th, from his stock. The agent found 45 packages, barrels and bags, containing 200 lbs. each. They were together in a barn, well protected from the wet. He drew a sample from each of seven packages, the seven samples were well

mixed and from this mixture a sample was brought to the Station and analyzed. It is numbered **1481**.

As the analysis differed widely from that of Mr. Webb's sample the Station sent another agent to draw another sample in order to see whether the goods were sufficiently uniform to admit of fair sampling by the method employed. This sample, numbered **1489**, was drawn on May 25th from five packages in the same lot. The sampling was done with a little more than usual care, the rule usually followed being to draw from *at least* three bags and if there are more than 30 packages, to draw from one in every ten.

In the New England Homestead of May 16, Mr. Webb gives the exact proportion in which the raw materials were mixed, together with the actual cost of the raw materials, which were bought in the latter part of February. Mr. Webb's figures are as follows :

12000 lbs. acid phosphate @ \$28.00 per ton,.....	\$168.00
4145 lbs. muriate potash @ 1.8 cts. per lb.,.....	77.76
4084 lbs. sulphate of ammonia @ 3¼ cts. per lb.,.....	132.73
Freight bills to New Haven,	15.15

20229

\$393.64

Or \$38.91 per ton for the goods in New Haven, unmixed.

Assuming that these goods have the composition of the samples analyzed and reported in the last bulletin and that they were perfectly mixed, it is easy to calculate what would be the composition of the home-mixed Fertilizer, and also its valuation. This has been done and the result is given under "Formula" in the following statement, along with the analyses of the samples.

	Formula.	1481	1489	1381
Nitrogen.....	4.19	4.07	4.30	5.23
Soluble Phosphoric Acid, ..	----	11.77	----	10.68
Reverted Phosphoric Acid, ..	----	.71	----	.80
Insoluble Phosphoric Acid, ..	----	.25	----	.27
Total Phosphoric Acid,	12.28	12.73	12.73	11.75
Potash,.....	10.61	10.50	10.23	9.60
Valuation,.....	\$45.91	46.10	46.71	47.73

The analyses show that Mr. Webb's sample did not accurately represent the quality of the goods, that the two samples drawn by different agents of the Station at different times were fairly alike, that they agree very well with the composition of the goods as deduced from the amount of material mixed, and they also indicate that the samples of the *raw* materials drawn by Mr. Webb were fair.

SUPERPHOSPHATES AND SPECIALS.

Station No.	Name or Brand.	Manufacturer.	Dealer.	Sampled and sent by
1422	Alkaline Bone.	E. Frank Coe, New York.	John O. Fox, Putnam.	Station Agent.
1468	Americus Brand Tobacco Fertilizer.	Williams, Clark & Co., New York.	E. S. Roberts, East Canaan.	Station Agent.
1423	Bay State Fertilizer.	Clark's Cove Guano Co., New Bedford, Mass.	J. E. Leonard, Jewett City.	Station Agent.
1429	Baker's Pure Dissolved Bone.	H. J. Baker & Bro., New York.	Dennis Fenn, Milford.	Dennis Fenn, Milford.
1389	Bowker's Dissolved Ground Bone.	Bowker Fertilizer Co., Boston, Mass.	Coburn & Gale, Hartford.	Station Agent.
1390	Bowker's Hill and Drill Phosphate.	Bowker Fertilizer Co., Boston, Mass.	Coburn & Gale, Hartford.	Station Agent.
1472	Chittenden's Grain Fertilizer.	National Fertilizer Co., Bridgeport.	John S. Kirkham, Newington.	Joshua Belden, Newington.
1473	Chittenden's Root Fertilizer.	National Fertilizer Co., Bridgeport.	John S. Kirkham, Newington.	Joshua Belden, Newington.
1471	Chittenden's Complete Fertilizer for Tobacco.	National Fertilizer Co., Bridgeport.	John S. Kirkham, Newington.	Thos. R. Atwood, Newington.
1410	Common Sense Fertilizer. D.	Common Sense Fertilizer Co., Boston, Mass.	James Greenfield, New London.	Station Agent.
1419	Common Sense Fertilizer. No. 2.	Common Sense Fertilizer Co., Boston, Mass.	James Greenfield, New London.	Station Agent.
1399	Darling's Animal Fertilizer.	L. B. Darling Fertilizer Co., Pawtucket, R. I.	Olds & Whipple, Hartford.	Station Agent.
1449	Excelsior Guano.	E. Frank Coe, New York.	Noble Bennett, New Milford.	Station Agent.
1490	XXX Guano.	Tropic Guano Co., Elizabethport, N. J.	Usher & Thinker, Plainville.	Station Agent.
1477	Great Planet A. brand.	Clark's Cove Guano Co., Bedford.	A. L. Chamberlain & Co., Fair Haven.	A. L. Chamberlain.
1414	High Grade Ammoniated Bone Superphosphate.	E. Frank Coe, New York.	J. P. Barstow, Norwich.	Station Agent.
1434	Niles' Special Fertilizer.	Chemical Ammoniate and Oil Co., Brooklyn, N. Y.	Geo. A. Niles, Danielsonville.	Station Agent.

SUPERPHOSPHATES AND SPECIALS. (Continued.)

Station No.	Name or Brand.	Manufacturer.	Dealer.	Sampled and sent by
1400	Potato, Hop and Tobacco Phosphate.	L. L. Crocker, Buffalo, N. Y.	H. A. Stillman, Hartford.	Station Agent.
1395	Quinnipiac Fish and Potash, Crossed fishes brand.	Quinnipiac Fertilizer Co., New London.	Olds & Whipple, Hartford.	Station Agent.
1397	Quinnipiac Phosphate.	Quinnipiac Fertilizer Co., New London.	Olds & Whipple, Hartford.	Station Agent.
1356	Quinnipiac Extra Superphosphate.	Quinnipiac Fertilizer Co., New London.	R. B. Bradley & Co., City.	Station Agent.
1359	Quinnipiac Dry Ground Fish.	Quinnipiac Fertilizer Co., New London.	R. B. Bradley & Co., City.	Station Agent.
1421	Ralston's Potato Fertilizer.	John Ralston, New York.	Arnold Rudd, New London.	Station Agent.
1437	Royal Bone.	Williams, Clark & Co., New York.	John A. Paine, Danielsonville.	Station Agent.
1474	Sanford's Bone Superphosphate.	Chas. Sanford, Redding Ridge.	Manufacturer.	Turney Sanford, Redding.
1425	Stearns' Fish Guano.	Stearns & Co., New York.	J. E. Leonard, Jewett City.	Station Agent.
1391	Stockbridge Vegetable Manure.	Bowker Fertilizer Co., Boston, Mass.	Coburn & Gale, Hartford.	Station Agent.
1392	Stockbridge Grain Manure.	Bowker Fertilizer Co., Boston, Mass.	Coburn & Gale, Hartford.	Station Agent.
1393	Stockbridge Forage Crop Manure.	Bowker Fertilizer Co., Boston, Mass.	Coburn & Gale, Hartford.	Station Agent.
1401	Soluble Pacific Guano.	Glidden & Curtis, Boston, Mass.	H. A. Stillman, Hartford.	Station Agent.
1432	Superphosphate of Lime.	Bosworth Bros., Putnam, Ct.	John A. Paine, Danielsonville.	Station Agent.
1478	Unicorn Ammoniated Superphosphate.	Clark's Cove Guano Co., New Bedford, Mass.	A. L. Chamberlain & Co., Fair Haven.	A. L. Chamberlain.
1487	Home Made Superphosphate.	C. P. Augur, Whitneyville.	-----	C. P. Augur.
1475	Home Mixed Fertilizer.	J. M. Brown, Poquonnock.	-----	J. M. Brown.
1484	Home Mixed Fertilizer.	Edward Davis, Whitneyville, Ct.	-----	Station Agent.
1480	Home Mixed Superphosphate.	W. F. Andross, E. Hartford.	-----	W. F. Andross.

SUPERPHOSPHATES AND SPECIALS. (Continued.)

Station Number.	Name or Brand.	NITROGEN.		PHOSPHORIC ACID.						POTASH.		Chlorine.	Cost per ton.	Valuation per ton.	
		Found.	Guaranteed.	Soluble.	Reverted.	Insoluble.	Total Phosphoric acid.	Guaranteed.	Found.	Available.	Found.				Guaranteed.
1422	Alkaline Bone	1.39	0.83	7.46	2.46	2.29	12.21	10.00	9.92	9.00	1.52	1.06	47.00	\$28.00	\$26.27
1468	Americus Brand Tobacco Fertilizer	3.96	4.11	5.13	1.13	.13	6.29	-----	6.26	4.00	10.07	8.00	2.40	42.00	38.09
1423	Bay State Fertilizer	3.42	2.40	9.12	.80	1.06	10.98	9.50	9.92	8.00	2.82	2.00	3.41	40.00	33.26
1429	Baker's Pure Dissolved Bone	-----	-----	15.83	1.24	.37	17.44	17.00	17.07	-----	-----	-----	-----	29.00*	30.77
1389	Bowker's Dissolved Ground Bone	2.23	2.10	9.59	1.17	.63	11.49	10.00	10.86	8.00	2.34	2.20	3.03	35.00	29.90
1390	Bowker's Hill and Drill Phosphate	2.80	2.50	8.88	1.16	.74	10.78	11.00	10.04	-----	2.59	2.00	3.22	40.00†	30.79
1472	Chittenden's Grain Fertilizer	4.30	3.70	5.28	4.43	2.40	12.11	8.00	9.71	6.00	6.04	5.00	5.79	45.00	39.12
1473	Chittenden's Root Fertilizer	4.40	3.30	5.47	3.35	2.22	11.04	8.00	8.82	6.00	6.08	6.00	5.85	45.00	38.00
1471	Chittenden's Complete Fertilizer for Tobacco	4.30	3.29	4.82	4.47	3.84	13.13	8.00	9.29	6.00	4.74	4.32	0.90	45.00	40.54
1410	Common Sense Fertilizer—[D]	1.09	1.00	.64	1.86	.38	2.88	2.00	2.50	-----	1.80	1.00	-----	20.00	9.88
1419	Common Sense Fertilizer, No. 2	1.65	2.00	.10	3.08	.88	4.06	4.00	3.18	-----	2.72	3.00	3.30	35.00	14.06
1399	Darling's Animal Fertilizer	4.43	3.30	.65	6.55	3.51	10.71	10.00	7.20	-----	5.39	4.00	7.54	42.00	35.34
1449	Excelsior Guano	3.69	3.29	8.59	1.06	1.30	10.95	10.00	9.65	-----	2.83	2.70	.40	45.00	35.27
1490	XXX Guano	1.66	1.65	6.22	7.89	4.75	18.86	-----	14.11	11.00	4.55	4.00	4.23	33.00	37.47
1477	Great Planet—[A]	3.95	3.29	6.02	1.12	1.06	8.20	-----	7.14	7.00	11.05	9.50	8.26	48.00	37.15
1414	High Grade Ammoniated Bone Superphosphate	2.30	2.10	8.17	2.22	1.91	12.30	10.00	10.39	9.00	1.68	1.08	.25	34.00	30.49
1434	Niles' Special Fertilizer	2.60	2.69	9.07	.89	.61	10.57	11.23	9.96	10.14	6.74	5.12	7.65	38.00	33.33
1400	Potato, Hop and Tobacco Phosphate	2.90	2.00	7.13	1.93	1.30	10.36	-----	9.06	8.00	5.68	3.50	5.07	40.00	32.36

* f. o. b. New York.

† Manufacturer states that "most of it will be sold through Connecticut this year at \$38.00."

SUPERPHOSPHATES AND SPECIALS.

Station Number.	Name or Brand.	NITROGEN.		PHOSPHORIC ACID.						POTASH.		Chlorine.	Cost per ton.	Valuation per ton.	
		Found.	Guaranteed.	Soluble.	Reverted.	Insoluble.	Total Phos- phoric Acid.	Guaranteed.	Available.	Found.	Guaranteed.				
1395	Quinnipiac Fish and Potash, Crossed fishes brand	3.55	3.25	.66	3.41	3.17	7.24	5.00	4.07	3.00	3.90	3.00	1.14	\$38.00	\$27.03
1397	Quinnipiac Phosphate	3.25	2.50	7.86	1.97	.73	10.56	---	9.83	8.00	2.37	2.00	2.37	40.00	31.67
1356	Quinnipiac Extra Superphosphate	2.34	1.75*	6.14	2.65	1.05	9.84	10.00	8.79	8.00	2.14	1.08	3.25	36.00	26.48
1359	Quinnipiac Dry Ground Fish	8.67	7.00	.77	3.51	2.46	6.74	6.00	4.28	4.00	---	---	---	38.00	40.18
1421	Ralston's Potato Fertilizer	1.73	1.65	7.90	1.53	1.86	11.29	---	9.43	8.00	4.91	3.79	.57	40.00	31.00
1437	Royal Bone	1.14	.82	4.25	3.24	1.31	8.80	7.00	7.49	---	2.69	2.00	.68	36.00*	20.40
1474	Santord's Bone Superphosphate	2.38	1.65	4.05	2.55	5.90	12.50	---	6.60	8.00	6.50	2.00	7.30	35.00	30.19
1423	Stearns' Fish Guano	8.70	7.80	.93	3.89	2.00	6.82	6.90	4.82	---	---	---	---	40.00	41.01
1391	Stockbridge Vegetable Manure	3.80	3.25	6.54	1.01	1.11	8.66	---	7.55	8.00	7.11	7.00	6.49	45.00†	34.11
1392	Stockbridge Grain Manure	3.80	3.25	7.71	1.86	.67	10.24	7.00	9.57	6.00	4.66	4.00	5.05	45.00†	35.10
1393	Stockbridge Forage Crop Manure	5.43	5.50	6.49	1.00	.92	8.41	6.00	7.49	5.00	2.98	2.50	1.29	45.00†	36.95
1401	Soluble Pacific Guano	2.72	2.00	7.75	1.91	2.57	12.23	---	9.66	---	1.75	2.00	2.07	38.00	31.28
1432	Superphosphate of Lime	2.23	2.00	4.94	5.25	4.51	14.70	---	10.19	---	2.77	2.00	2.50	38.00	31.28
1478	Unicorn Ammoniated Superphosphate	2.60	1.90	7.10	1.37	2.42	10.89	---	8.47	8.50	2.47	2.25	1.01	36.00	29.05
1487	Home Made Fertilizer (C. P. Augur)	2.39	---	8.01	1.00	.37	9.38	---	9.01	---	13.37	---	---	36.28	30.43
1475	Home Mixed Fertilizer (J. M. Brown)	3.52	---	none	5.01	.27	5.28	---	5.01	---	6.64	---	---	26.00	30.43
1484	Home Mixed Fertilizer (Edward Davis)	3.61	---	11.19	.53	.29	12.01	---	11.72	---	8.33	---	---	36.00	41.30
1480	Home Mixed Fertilizer (W. F. Andross)	4.05	---	1.92	10.35	1.50	13.77	---	12.27	---	7.09	---	---	---	41.83

* Price given by dealer. Manufacturer states that it retails for \$27.50 to \$30.00.
 † Price given by the dealer. Manufacturer states it will be generally sold in Connecticut for \$42.50.