

# Connecticut Agricultural Experiment Station.

New Haven, Nov. 12, 1878.

BULLETIN No. 20.

*Fertilizer Analyses.*

**208** Ground Bone. Sampled Oct. 5, 1878.

**209** Bone Sawings. Bone sawed in water, dried and sold in dry state. Sampled Aug. 30.

The above are sold by The Rogers and Hubbard Co., of Middletown. The samples were drawn and sent by Charles Fairchild, Esq., Middletown.

**210** Muriate of Potash 80 per cent. standard.

**211** No. 1 Peruvian Guano, "Lobos." Guarantee: 6 per cent. Ammonia, 15-20 per cent. Phosphoric Acid, 3-5 per cent. Potash.

**210** and **211** are from the stock of Chapman and Van Wyck, 170 Front St., N. Y. The samples were taken Oct. 8, by G. M. Barber, Esq., New Britain.

	<b>208</b>	<b>209</b>	<b>210</b>	<b>211</b>
Nitrogen,	4.00	3.02	----	5.14†
Soluble Phos. Acid,	----	----	----	5.19
Reverted Phos. Acid,	----	----	----	5.73
Insoluble Phos. Acid,	24.13	25.97	----	8.69
Potash,	----	---	55.01*	3.75
Calculated value per ton,	\$36.13	\$48.63	\$49.51	\$59.40
Cost,	\$30.00	\$30.00	\$40.00‡	\$51.00

\* Equivalent to 87.2 per cent. of Muriate of Potash.

† Equivalent to 6.24 per cent. of Ammonia.

‡ The potash actually costs 3½ cents per pound.

W. H. Bowker & Co. note several errors in 19th Bulletin and furnish the subjoined corrections.

a. The articles made by W. H. B. & Co. are designated the "*Stockbridge Manures*" (not Stockbridge Fertilizers).

b. **175**, for Strawberries and **193**, for Kitchen Garden, contain *sulphate* and not *muriate* of potash. This would raise the valuation several dollars per ton.

c. **181** is *Bowker's* (not Stockbridge) *Loam Dressing*, price \$65 per ton (not \$130). Contains *muriate* of potash.

d. **193**, Kitchen Garden Manure, price \$50 per ton (not \$60).

e. **195**, Corn Manure, price \$50 per ton (not \$55).

f. **197** is *Grass Manure*, top dressing (not Hay Fertilizer).

In reference to these errors it may be said—

a, c and f. The Bulletin gave the names that were furnished with the samples.

b. **175** contains sulphate and but little *muriate* of potash. Its estimated value is therefore \$48.24 per ton. **193**, however, contains 6.8 per cent. of chlorine or 2.9 per cent. more than the amount

necessary (3.9 per cent.) to form muriate with the potash present. The advantage, if any, of buying a sulphate is avoidance of chlorine compounds. This advantage is not offered by 193. The potash used in 193 can, at the most, be credited as that of a low-grade sulphate worth 6 cents per lb., and the valuation corrected accordingly, is \$40.68.

c. 181 The selling price named to the Station was 65 cents per bag of 10 lbs. From this was computed the ton-price reported, which is evidently unjust to the manufacturer.

d. 193 Selling price was \$3.00 per 100 lbs.

e. 195 Selling price was \$5.00 per 200 lbs. The ton-price was misprinted \$56, should be \$50.

f. 197 Selling price was \$5.00 per 150 lbs.

In all cases the Stockbridge Manures were sold by Olds & Whipple, with "freight added."

Here follow the amended names, valuations, and prices.

175 Stockbridge Strawberry Manure. Sent by P. M. Augur, Middlefield.

181 Bowker's Lawn Dressing.

193 Stockbridge Manure for Kitchen Garden.

195 Stockbridge Manure for Corn.

196 Stockbridge Manure for Squashes, Cucumbers and Tomatoes.

197 Stockbridge Grass Manure, top-dressing.

181, 193, 195, 196 and 197 were sold by Olds & Whipple, Hartford, Ct. Samples were taken May 1, 1878, by J. J. Webb.

	176	181	193	195	196	197
	Pr. ct.	Pr. ct.	Pr. ct.	Pr. ct.	Pr. ct.	Pr. ct.
Nitrogen as Nitric Acid,	.....	.....	.....	1.39	.....	6.68
Nitrogen as Ammonia,	2.32	7.99	.....	2.23	1.45	.....
Organic Nitrogen,	2.10	.....	4.57	2.61	3.61	.....
Sol. Phos. Acid,	6.64	5.17	4.83	2.11	4.95	2.11
Reverted Phos. Acid,	1.13	.....	0.79	1.64	.....	.....
Insoluble Phos. Acid,	0.24	.....	0.17	2.22	.....	.....
Potash,	6.49*	6.55	7.22†	6.95	7.66*	10.38
Estimated Value, per ton,	\$48.24	\$55.01	\$40.68	\$45.31	\$43.02	\$56.28
Cost, per ton,	\$52.33	\$65.00	\$50.00	\$50.00	\$55.00	\$66.07
Cost, per bag,	{ 150 lbs.	10 lbs.	100 lbs.	200 lbs.	200 lbs.	150 lbs.
	{ \$4.00	\$0.65	\$3.00	\$5.00	\$5.00	\$5.00

\* As Sulphate, valued at 7½ cents per pound.

† As low-grade Sulphate, valued at 6 cents per pound. In the others, potash as muriate, is valued at 4½ cents.

The station is now ready to test Sugar Beets as to their Sugar value. Send 6 to 10 roots representing an average of the crop. Send as soon as possible, but so that the roots will not freeze. Give also answers to the questions found on p. 104 of Report of Station for 1877.

S. W. JOHNSON, *Director.*

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