

The following table presents a statement of the *real* and selling values of the principal brands of commercial manures employed in the State of Vermont. The remarkable points in the table are these: 1. That the manures are, on the average, 33 per cent dearer than they should be; 2. That the amount of nitrogen per cent is so absurdly small that it is no wonder that so many farmers in the States complain that they derive no benefit from chemical manure; 3. That the names of four out of the six samples convey no idea of the materials of which the manures are composed, and the names of the other are vague: *ammoniated bone superphosphate*, should be, *ammoniated dissolved bones*. The valuation of the constituents was made by the chemists attached to the stations of four different states, and ought to be pretty correct.

Now, take the first on the list, Bradley's X L Superphosphate, and just see what a quantity of it must be used to

produce a crop of wheat, for instance. I should not expect much wheat if I gave the land less than 40 lbs of nitrogen to the acre: it would take more than 1500 lbs. of Bradley's manure to provide that amount, at a cost of \$23.50! And so on for the rest.

ARTHUR R. JENNER FUST.

CORRESPONDENCE.

In your January number, you kindly give us one of Sir J. B. Lawes' tables, which tells us that oxen, sheep and pigs void about 95 % of the food they consumed. That I take to be the maximum, and only to be obtained when the greatest care is exercised so that not the smallest portion of either the solid or liquid is allowed to go to waste.

The manure from a pregnant animal or a milch cow will not yield such a high percentage, as a portion of the food will be taken up by the fetus or turned into milk as the case may be. Waring, in his Book of the Farm, tells us that: "Except when peat, sand, &c., are used, stable manure contains nothing but what has already formed a part of plants and it contains every ingredient that plants require for their growth. This however states but one half of the question; the other half and a very important one it is, is as follows: a given quantity of farm-yard manure does not contain all that is needed to produce the same quantity of vegetable matter that constituted the food and litter of the animals by which it was produced."

I take it for granted that Waring is supposing that the manure has been properly taken care of and every portion saved.

Now look at the way many of our farmers treat their manure. They simply throw the solid excrement and what little of the liquid may be retained in the litter in a heap in their yards, to be bleached by the sun and leached by the rain, till they are ready to use it on their land. They then spend both time and labor in spreading this, that they call *good* manure, over their fields, and are surprised they do not get heavy crops. The truth is they have allowed the most valuable part to be taken away by the sun and rain, and do not know it.

As it is a well proved fact that a ton of hay or other farm crop turned into manure will not produce a like quantity of vegetable matter, is it not time that our farmers considered this subject well, before their farms cease to produce paying crops, and look for some method by which they can prevent further deterioration? Neither rotation nor "meliorating" crops will do it. To those who sell hay grain, &c., I would suggest that they take better care of what manure they make and supplement it with some good commercial fertiliser. To those who sell cattle or horses, or fatten beef for amusement—I question if there is any profit in it in this province—to buy cotton-seed meal, or linseed, good bran, and such other feed as they may require, and then take care of their manure. Not long ago I was talking with a breeder of thoroughbred cattle: he told me that he had found it impossible to raise roots successfully without the use of concentrated manures, even if they cost him \$50 p. ton. I think most of our farmers will find the use of commercial fertilizers preferable to increasing their present stock of cattle and buying feed for the purpose of making more manure, as it will require no extra capital; and although it may seem costly, a small quantity goes a long way. It is more easily applied to the land than farm-yard manure, and being in a soluble condition, is available as plant food just at the time a young plant wants nourishment. Don't for a moment suppose I am not a strong advocate for farm-yard manure when it is properly managed. But for root, crops and corn that, owing to our short season, require to be forced ahead, I think a good concentrated manure is best, or,

BRAND.	Number of Licens.	Nitrogen.	PHOSPHORIC ACID.					Polash.	Selling price for 2,000 Pounds.	Valuation of 2,000 Pounds at Station's Prices.	Percentage Difference between Selling Price and Valuation.
			Soluble in Water.	Soluble in Ammonium Citrate, "Reverted."	Insoluble.	Available.	Total.				
Bradley's X L Superphosphate	2	2.60	7.25	1.69	2.57	8.94	11.51	2.39	\$38.00	\$26.81	42
Standard Fertilizer	8	2.65	6.19	2.89	2.62	9.08	11.70	2.12	37.00	26.89	37
Bowker's Hill and Drill	11	2.91	7.60	2.73	1.25	10.33	11.53	1.49	38.00	28.47	33
Buffalo Ammoniated Bone Superphosphate	12	3.23	7.34	2.60	1.51	9.94	11.45	1.69	38.00	29.27	30
Americus Ammoniated Bone Superphosphate	18	2.70	7.14	2.74	1.24	9.88	11.12	3.01	38.00	28.28	34
Quinnipiac Phosphate	22	3.42	7.31	2.90	1.42	10.21	11.63	2.33	38.00	30.95	22