No. 1.

SUPERPHOSPHATE.

	cwts.
Available phosphoric acid.....14 %	× 7 = 98 × 20 = $19.60

SPECIAL HIGH-GRADE SUPERPHOSPHATE.

Available phosphoric acid..18.50 % × 7 = 1.29 x 20 = $25.90

The selling prices of these fertilisers are, per ton :

Reliance brand.....	$27.00
Victor do	30.00
Royal Canadian brand.....	38.00
Capelton superphosphate.....	12.00
No. 1 do	17.00
Special High-grade superphosphate.....	25.00

All "cash, f. o. b., at Capelton."

I need not repeat my advice about mixed fertilisers. Potash is rarely needed here, and at all events, considering how very late our springs usually are, can hardly benefit the year's crop. Less than 40 lbs. of ammonia does but little good on an acre of land unless used as an assistance to half a dressing of dung. Still, as people will employ ready mixed manures for the sake of convenience, I do not think they will find anything better or cheaper than those offered for sale by Messrs. Nichols & Co.

One discrepancy I must point out: the price of phosphoric acid in the different samples of superphosphate is not constant! In the "Capelton" brand it costs 7 cents a pound : 9 % x20 = 180, which, multiplied by 7 = $12.60 a ton, the selling price being $12 50. Again, in the No. 1, superphosphate, 14 x 20 = 280, which, multiplied by 7 = $19.60, the selling price being $17.00; this would make the price of the phosphoric acid only 6 cents a pound, as nearly as possible : 280 x 6 = 16.80! In the special high-grade, again, 18.50 % x 20 = 370. which, multiplied by 7 = $25.90, the selling price being $25.00, and that is near enough.

I must earnestly hope that, now fertilisers are to be had at a fair price and of good quality, our farmers will at least try their effects on their crops, and that the Messrs. Nichols & Co. will reap the benefit of their spirited outlay. I never had the pleasure of meeting Mr. Nichols, but, if I can possibly manage it, I intend paying a visit to the Capelton factory and mines this summer, when I hope to make his acquaintance.

By the bye, speaking of superphosphate, it is curious to note how very carelessly some of the reports of the United-States Stations are edited. In the Alabama Station report we read as follows: "There was little apparent difference in effect between raw phosphate and superphosphate." No mention is made of what kind of raw phosphate was used, and it is very probable that an uninformed farmer reading this would be led to believe that any kind of raw phosphate would answer as well as superphosphate; whereas, the Carolina-rock is, of course, the sort alluded to. I hope the Seminary-station at St. Hyacinthe will make this season an exhaustive trial of our own *apatite* against superphosphate on thoroughly worn out land. The trial crop should be *swedes*.

Barley.—The following were the prices of barley—English and Foreign—on the Mark Lane market—London—on the 13th January :

ENGLISH.

Grinding.....	20 to 24	shillings per 8 bushels.
Distilling	26 to 30	" " "
Malting.....	32 to 50	" " "

FOREIGN.

Saale	38 to 50	per 448 lbs.
Moravian.....	38 to 50	" " "
French.....	27 to 35	per 416 lbs.

Thus, we see, that between the best samples of French and Saale barley there is a difference of nearly two shillings a bushel. I hear that the Minister of Agriculture of the Dominion has given orders for the purchase of $25,000 worth of 2-rowed barley from England for distribution among the farmers! (at $2.00 a bushel.) This, with a view to encourage the exportation of this grain to England, but I fear the English maltster will not find our Canadian grown barleys suited to his purpose. The Messrs. Dawes have, long ago, given up trying the 2-rowed kind, as they find the 6-rowed yields more to the acre and makes better beer. The Americans will have nothing to do with 2-rowed, and their purchases of Canadian barley are very large. The 2-rowed kind will, no doubt, answer here in spots, and where it does answer, it is a most superior grain; but it is so dependent upon the *soil* for its malting qualities that I do not think the very finest Chevalier barley will do much good to the general run of farmers in this country. In 1862, I imported Chevalier barley for seed thinking to benefit my neighbours at Chambly, thereby, as well as my own brewery. In three years time it had all run out. The soil did not suit it.

States' Malt.—Five min'tes after I had written the above, I accidentally picked up a scrap of paper containing the following report of the Boston Malt-market, dated Boston, January 29th, 1890 :

Malt.—trade dull.—6 *rowed State*, 70 *c.* ; 2-*rowed State*, 60 *c. to* 65 *c.*; 6-*rowed Canada*, 75 *c. to* 78 *c.*

As we have a hold on the United States' market, would it not be wise to try and retain it ?

Wheat- & maize-crops.—Mr. H. F. Barton, of Salt Lake City, Utah, grew this last season 80 bushels of wheat to the acre! I suppose the bushels were of 60 lbs. weight each, equal to about 75½ bushels English. A great crop indeed, and one rarely equalled in any country. Of maize, Mr. Drake, South Carolina, grew 225 bushels, but whether of corn on the cob or threshed out, I know not.

Melon fly.—I am told that rags dipped in petroleum and laid near plants of cucumbers, melons, squash, &c., will keep off the troublesome yellow-fly. Unnecessary to say that the rags need refreshing with the oil from time to time.

Insoluble phosphate.—I see some dealers still are inclined to put a certain value on the insoluble phosphoric acid in their superphosphates. A little consideration will show any one that after the rock has been subjected to such a powerful agent as sulphuric acid, if any phosphate remains unacted upon it must be of an extraordinarily refractory nature, and therefore not likely to be acted upon by any organic acid in the ground. Mr. Nichols, as I observed in the last number of the Journal, makes no mention of insoluble phosphoric acid, and therein acts very wisely and honestly.

Pulse crops.—Will any one tell me why dung from the farmyard increases largely the yield of horse- and haricot-beans, while artificial manures—barring land-plaster—according to my experience, have no effect upon them? *Ville* gives a mixture which he says improves the crop greatly, but as it embraces, among other things, 352 lbs. of plaster, I think we are at liberty to doubt the efficacy of the other constituents of the compound. The whole stands thus: