

This is an utter mistake, and if the idea is to be put in practice, the latter end of these farmers will be worse than the former. It would be far better to continue to sow by hand and cover the seed with the harrows, than to trust to these machines to do the whole work. The two advantages possessed by the sower are these: the grain is distributed equally, and the grubber-teeth following enter it more deeply than can the harrows.

The land should be prepared for the sower just as it should be prepared for the drill. The harrows should thoroughly pulverize the furrows before sowing: how many *tines* or strokes will depend upon the state of the soil, but it should be made quite free from clods, and equally worked all over. I have mentioned before that land properly harrowed should tread evenly, and if the foot be drawn across the ridges, it should meet with no impediment. Then, the land is fit for the machine, and a couple of strokes with the harrows, followed by the roller, at once on light land, and when the grain is about three inches high on heavy land, will complete the job.

If grass-seeds are to be sown, they had better be deposited after the grain is harrowed; as, otherwise, they would be buried too deeply. In this case, the grubber-teeth of the sower must of necessity be kept out of work. On heavy land, in an early season, I prefer letting the grain get well up—say four inches high—sowing the grass-seeds, covering them with a light, short-tined harrow, and finishing, as usual, with the roller. (1)

My friends evidently imagined that these sowers were going to save them a rare quantity of seed grain! Nothing of the sort. The same quantity must be employed whether it is sown by hand or by machine. It is a pity people will not learn to reason a little about these things instead of trusting to the assertions of interested agents. With the drill, which deposits the seed in rows, and at an equal depth, there is a saving of seed; but, where the grain is scattered abroad over the surface of the land, what difference can it make whether it is done by hand or by machine? There is too little seed sown to the acre already.

**Nutritive ratio.**—A correspondent wishes to know what is the rule for finding out the nutritive ratio of cattle-food. It is simple enough, provided you have the analysis of the food at hand: Multiply the fat by 2.4, and add the product to the carbohydrates, dividing the sum by the albuminoids. Thus supposing we want to find the nutritive ratio of a food containing, of albuminoids 3.19 %; of carbohydrates 12.71 %; of fat 0.75 %; we proceed as follows:

$$.75 \times 2.4 + 12.71 \div 3.19 = 4.5$$

and the nutritive ratio, therefore, of the food is as 1:4.5. Of course, the "digestible nutrients," as they are called, and not the whole organic substances, must be taken for this purpose.

**Re-mounts for England.**—I see by the papers that horses are wanted by the War-office in London for the English cavalry, artillery, and transport-service. The American journals say that it is proposed to buy 3,000 here in Canada—if the suitable stamp can be found. This is encouraging; for many a man in Ontario has a good colt which he would be glad to sell at a fair price, and in this province, though we have very few horses that would suit, there is no reason why we should not re-model our breeding stock. Canadians ponies

(1) The arrangement of the grass-seed apparatus in the Wisner sower is very good. The seed falls behind the grubber teeth, and a rolling would be sufficient to cover it.

A. R. J. F.

are capital in their way, but it is not ponies that are wanted. Hambletonian trotters are not the thing either. The shoulder of the French Canadian is too upright by half, and the general run of horses in the Eastern Townships are cowhocked. A close-built, stocky thoroughbred would improve the former, and a Cleveland would give weight and power to the latter. But I suppose the intense prejudice of the farmers of both the French and English districts in favour of the American market, will prevent their making any attempt to alter the type.

**Hand-feeding.**—An old book on farming (1774) tells me a thing I did not know before: in Lincolnshire, England, it was the custom years before the date mentioned, to give bullocks at pasture oilcake in addition to their grass! A remarkable fact, showing that the modern English farmer is not so early a bird as he thinks he is, for the additional food on second-rate pasture is supposed to be quite a new idea.

**Errata.**—I knew I was about the worst proof-reader in the world, but I did not think I was so bad as to leave such stupid work behind me as the following errors: April number, p. 52, l. 17 from top, col. 1; for *sell* read *sells*, and same p. and col. line 15 from bottom, for "The small Belgian sort and the *petit tabac canadien* are the sort"; read "The small Belgian and the *petit tabac canadien* are the sorts." And the article is my own too, which makes it worse!

**Lunar superstitions.**—Some time ago, M. Chapais, in answer to a correspondent, expressed his opinion that if the land was well manured and cultivated, the moon had no influence on the crop. The querist had propounded the theory that potatoes planted, *crescente luna*, in the increase of the moon produced tubers, but if set in the decrease of the moon, *quando scema la luna*, all that resulted was haulm! Well, we have a good deal of these remanets floating about this part of the world still. Though the great Herschell, more than seventy years ago, showed that the moon had no influence on the changes of the weather, it is impossible to persuade the older *habitans* of the truth of his assertion. Pork, also, salted when the moon is waning, will not keep! So strong a hold has this reverence for our satellite upon the mind of the people, that the men who make a business of castrating stock in this village, positively refused to operate on three young boars belonging to M. Séraphin Guèvremont, unless he would let them wait until the apparition of the new moon!

**Agriculturalist.**—I see this word—six syllables—used constantly in the papers of the United States to express a farmer. If we must use a latin word, why not take the old form, which may be found in many dictionaries, &c., of the last century, *agricultor*?

**Insecticides.**—I met with the following recipe for an insecticide the other day. It seems as if it might be useful. "Rectified oil of turpentine and alcohol, 4 oz. of each." Mixed with q. s. water, this ought to kill the cabbage caterpillar. Experiments would be needed to find out the proper point of dilution.

**Bad seed.**—A very progressive farmer from Saint-Roch, a station on the Montreal and Sorel railroad, which, I am happy to say, started into new life on the 14th inst., after four months' hibernation, asked me if I could account for none of his fodder corn germinating last season! The solution of the enigma was easy enough, the agricultural society to which the unfortunate belongs had bought kiln-dried