

lish farmer—but ask Mr. Tom Irving or Mr. James Drummond how much their men plough a day, on an average, and they will reply : an acre or, at most, an acre and a quarter.

And, as far as I can judge, there are very few farmers here who know the value of a grubber or scarifier. Why, half the ploughing might be saved by a judicious use of this invaluable tool. On the heavy clay soils, the plough should never be used in preparation for grain- or root-crops in the spring. A good, deep fall-furrow, with the *crumb-furrow* well laid up—not left unploughed as we see it in the narrow ridges of the St-Hyacinthe district—and packed close, the water-furrows well cleared out, and the field kept clear off cattle, and there will be no more need of the plough's services until the following autumn; and not then, in the case of the land we are laying down to permanent grass. Why bury the fine mould the frost has made, and bring up a lot of clods? Far better harrow the land well; put the grubber through, along and across; sow the grain with a drill, if you have one, if not, cover with the grubber again, and then with the harrows, and finish the work always with the roller. For roots or corn, grub several times, harrow and roll until the surface is fine, and then sow in rows on the flat. In this case, the manuring will of course have been done in the autumn. If spring manuring be necessary, I suppose you must use the double-mouldboard plough and make drills to receive the manure; but I am convinced that, on heavy land in this hot summer-climate, sowing on the flat is infinitely preferable to sowing on raised drills, and much more easy of execution.

I would not mow my permanent pasture at all. Feeding off when young and keeping the grass level-fed, is far better than letting the blades grow tall and cutting them. Look at the Sherbrooke Street lawns. They are kept close-cut by the machine, and never allowed to grow above two inches high at most; and would any one desire to see a finer, thicker *bottom* than they show? No sheep should feed on our young grass for the first two or three years, and no stock should be allowed to trample and poach the pasture in wet weather. Would it be asking too much to beg that the droppings of cows and horses be knocked about now and then? Chain- or bush-harrows should be passed over the pasture every spring, and a heavy roller afterwards. (1) What ever ditch-scrappings, pond-mud, or other stuff you may have at hand may be turned up with a moderate share of dung, and spread on the grass in the field. The finely ground Indian bone-meal would help the pasture amazingly, but, best of all, and I firmly believe the most profitable of all means of feeding the grass, would be to give some additional food to the stock while on it. It does not signify what it is you add to their rations of grass: linseed or cotton-seed cake, pease-meal, corn-meal, bran, crushed oats, &c., will all answer your purpose.

**Deep-ploughing.**—One great advantage we shall derive from the proposed extension of the cultivation of sugar beets in this country is the suppression of the theory so commonly held as true here, that deep-ploughing is in all cases injurious to farm-crops. I say to *farm-crops*, because even the shallowest of ploughmen turn up their *gardens* to a fair depth. The Brabant plough, with which my young friend, the Comte des Etangs, intends to work up the beet-crop land he contracts to manage, turns over a furrow of 12 x 17 inches, or even deeper still, and as that is in the same proportion as my favourite 7 x 10, I fancy it will lay the ground in a proper position to benefit to the utmost possible degree by the pulverising effects of the frost. This, then, will show if deep-ploughing tends to increase or diminish the yield of the root-

crop, and the subsequent grain-crop will prove an indication of its effects on the straw-crop. No one, that I know of, proposes to plough deep for grain, or indeed for an unmanured crop of any kind, or to plough anything but an ordinary depth in the spring; but a good deep furrow in the fall, well set up at the proper angle, I must be pardoned for thinking to be the best preparation possible for the crops in the whole rotation. (1)

I remember meeting a Mr. Hora, a farmer near Kingston, Ont., who did not believe in fall-ploughing. I went to look at his farm, and I found that his fall-ploughing had been done thus: a broad, shallow furrow, about 4 x 9 inches laid over, necessarily, nearly flat; and the snow, and the rain, and the thaws, had beaten the crest of the furrows, such as they were, down level, so that the harrows had nothing to lay hold of. And yet many people "don't hold with fall-ploughing"!

**Spring-lambs.**—It is a pitiable sight to look at some of the lambs hanging up in the butcher's shops in Montreal at this season. (2) Miserable little things, weighing about, at the outside, 3 lbs. or 4 lbs. a quarter; in fact, I have seen some Norfolk hares very nearly as large. And it is not as if the butchers would not pay a good price for good things—if they could get them.—On Tuesday, Feb. 23rd, two lambs were sold in the market which fetched, one, \$9.50, the other \$8.00! The higher priced one was said to be two months old, i. e., it was lambled on, or about, Christmas day. Now, allowing its residence in its mother's womb to have cost \$1.50, it is evident that the lamb paid a dollar a week for its keep from the time of birth. Profitable enough, this rearing of spring lambs, if they are properly looked after.

This is not a job that is easily overdone, either. It requires too much nicety in feeding and ventilation to be very popular. The sheds must be kept as clean and sweet as a lady's drawing-room, and though the air must be let in freely, the cold must be kept out. All the old "house-lamb" breeders of my day, even as long ago as the "thirties", used to have at least one thermometer in the shed, even in the mild climate of the S. E. of England. (3)

The best food for early lambs is half linseed cake and half white pease: the former fattens, the latter firms the flesh. We generally used to kill at about from 10 to 12 weeks old—not the house-lamb, for I never grow any—, by which time, with plenty of the food I mention, a lamb of the Hampshire-down breed ought to weigh 4½ stone (38 lbs.) the carcass.

Here, of course, all the early lambs must be kept in doors till they are sent to market, and I think that any one who sent up weekly to Montreal, from about the beginning of March to the 1st May, a couple of lambs of decent weight—say, from 28 lbs. to 32 lbs.—well fattened on firm trough-food, would not repent him of the exertions they had cost him when he came to settle up with his chapman.

I am *told* that the lamb above mentioned as having brought its proprietor \$9.50 weighed, dead, 24 lbs.; therefore the butcher must have paid 40 cents a pound for him!

**Sheep in England.**—In a late number of the *Vermont Watchman*, Dr. Hoskins, talking of sheep, thus explains the discrepancy noticed by the *Springfield Republican* between

(1) I regret to see that Mr. Saunders, of the Experiment-farm at Ottawa has decided that the beet-crop is not likely to pay in Canada, unless a bonus of four million dollars a year be granted to the growers and manufacturers.

(2) February. Now, March 25th, some good ones are to be seen. But why are the earliest almost invariably black lambs? A. R. J. F.

(3) Regularity of temperature is the great point. A. R. J. F.

(1) The Messrs. Dawes of Lachine, Canadian born and bred, chain-harrow and roll their grass-land every spring. A. R. J. F.