

THE CANADA PROVISION TRADE.

A movement is being made in several of the Agricultural districts of England, to effect the abolition of the malt tax, as a preliminary step to the adoption of malt as a common article for fattening cattle. The great value of malt for this purpose has already been proved by successful experiments; and the duty, which amounts to more than 3s. 9d. currency per bushel, is now the only bar to its general use: in fattening sheep also it has been found highly valuable. Why should not our farmers make use of malt in fattening their cattle? There is no tax upon it; and, if used, a superior quality of beef would be produced. Canada beef is not worth near so much as English beef in the markets of London and Liverpool. This arises from a defect in the quality of our beef. Improvement in the method of feeding must be adopted. We take our beef, as we do the rest of our surplus produce, to the English market; which is, in fact, the world's market, where we meet the world's competition. To be able to carry off the best prizes, we must produce the best articles. When a farmer competes for a prize at our Provincial Exhibition, or at a County or even a Township Cattle Show, the field of competition is comparatively narrow; but still he prepares for the friendly contest. He perhaps intends to exhibit an ox, the breeding and symmetry of which he regards as coming up very close to the line of perfection; but he knows a neighbour who intends to exhibit a similar animal: he therefore does all he can to add to the weight and increase the quality of his own; conscientious, that without great care on his own part, his more active neighbour will carry off the prize. He is sure of being second, if not first, of ten competitors: his breed has been selected with care; he has paid the most scrupulous attention to the mode of feeding; and when the anxiously looked-for day of exhibition arrives, he carries off the prize. If he had exercised less care, judgment, and industry, his neighbour would have left him behind in the race of competition. This is an illustration, on a small scale, of the preparation to be made, and the competition to be encountered, at the shambles of London and Liverpool. There he has to compete with beef fed in every conceivable way; every available kind of food has been made use of to produce the beef he finds there. The Englishman has had recourse to oil-cake, oats, carefully cut turnip and a great variety of other vegetables and preparations. He finds foreign beef that has been fed on malt, oil-cake, and other articles, of which he has not availed himself; he finds, in short, that he gets the very lowest market price for his beef: the high prices, which may be regarded in the light of premiums, are all carried off by others. But still he has no self-reproaches; he has sold his beef in Amherstburg, or London, or Hamilton, or Toronto, or Cobourg, or Kingston, or Montreal, and he gives himself no further trouble about it: he knows that he has sold it; but he does not know, and apparently he does not care, whether he has been able to obtain the highest market price. This general apathy must be overcome. Our farmers are able to compete with those of any country in Europe; for, if they have not advantages that others possess, they are free from many disadvantages that others are not, and, therefore, stand very nearly upon an equality. Let them no longer tacitly acknowledge an inferiority that does not exist. But they must feel their position: they must bear in mind that they are competing with all the world; and the glory of the triumph will be measured by the magnitude of the difficulty they have overcome. The competitors are numerous, but the race-ground is even. The rack-rents, the tithes, and high taxes, which fall so heavy a burden on the English farmer, are far more than a set-off to the deduction from the English price, that our farmers have to submit to, in the shape of

freight, insurance, commission, &c. The Canadian farmer, then, can compete with the English farmer: but he must improve upon his present practice, and adopt the best practices of English farmers. And he may act upon plans which the English farmer cannot adopt. For example, he may feed his cattle on malt, which, from the heavy tax upon that material in England, the English farmer cannot do. He may manufacture it himself: no expensive machinery is required.

Barley is rendered more valuable for the food of animals by the process of malting, by which a portion of the starchy matter of the grain is converted into sugar. This process of conversion is occasioned by the growth of the grain, the sugar being produced for the sustenance of the young roots before they are capable of extracting their food from the earth.

Malting consists of four distinct operations. 1st. *steeping*; 2nd. *couching*; 3rd. *flooring*; and 4th. *kiln-drying*.

The steeping should be continued for forty or fifty hours, care being taken that the grain is well covered with water. The absorption of water will increase the weight of the grain about 20 per cent.; when the increase is greater the aerespire will have grown too much, and occasioned a waste of saccharine matter.

Couching is the operation of spreading the steeped grain on the floor, or sometimes enclosing it within boards, called, couch frames. The sweating occasioned by the moisture, which the grain has absorbed, produces germination, in which regularity is secured by constant turning of the heap. The proper temperature to be observed is from 55° to 62°. The aerespire should not be suffered to grow more than three-fourths or four-fifths the length of the grain, otherwise there will be a loss of saccharine matter, to increase which is the sole object of malting, when the malt is intended as food for cattle or sheep. The couching generally occupies about fourteen days. Malt cannot well be made in the summer, as the growing goes on much too rapid in hot weather.

The kiln-drying at once checks all further vegetation. The heat is commenced at about 90° and very gradually raised to about 140°, and sometimes even as high as 170°. If the temperature be too high before the malt is thoroughly dried, there will be a great loss of saccharine matter. The lower the degree of heat with which the malt is dried, the more sugar will it contain. This is important to be borne in mind. Malt contains between three and four times the quantity of sugar that raw barley contains.

We have described the process of Malting on account of the alleged value of malt in feeding cattle. Though we have spoken of barley, any grain is convertible into malt. Here is an article of food, the use of which, with an improved breed, would make our beef equal to any in the world. As many farmers use grain in fattening cattle, a great saving would be produced by converting it into malt.

The use of oil-cake, also, should no longer be neglected. In future numbers of our Journal we shall enter fully into the subject of growing linseed, for which our climate and soil are well adapted. The making and use of oil-cake, and every other means calculated to improve the character of our Provision trade, will have our attention.

DESTROYING THE GRUB AND WIRE-WORM.

In a recent conversation with an intelligent farmer of Cayuga Co., N. Y., he described the method by which he saved his corn crop from the destruction of the wire-worm and grub. This former of these depredators appeared in such numbers—something less than a bushel per square rod of land, and their ravages were great. He ascertained by observation that they did not descend deep into the soil at the usual time of ploughing sward land for corn, but continued mostly among the roots of the grass. His object, therefore, was to bury them alive. This he accomplished by turning over the sod with a powerful

team to a depth of at least 8 inches, the soil being rather heavy. The surface was then pressed down evenly and firmly with a heavy roller. By this process several inches of compact soil lay above the region of the wire-worms, and as a consequence, whenever they attempted to pass upwards to the surface, they met with too formidable a resistance to penetrate. Hence, they continued with the grass below, and perished with its decay. Whether this be the true explanation or not, one thing was certain,—that where the corn was formerly almost wholly destroyed, it is now full and even in the rows, without the usual, numerous vacant spaces over the field, always existing under the old practice.

By a similar process of observation, he was enabled to destroy the grubs. He discovered that these depredators, instead of remaining at the surface, like the wire-worm, descend deeply, and hence that deep ploughing brings nearly all of them to the surface. Hence by the use of a heavy roller, many of them were crushed, and the remainder immovably compressed in the solid earth, till a fine toothed harrow passing over the surface, tore out and destroyed them. The utility of this practice, like that of the former, has been amply proved by successful experiment.—[Albany Cultivator.

FINE WOOL—MANAGEMENT OF SHEEP.

Mr. Ebenezer Bridge, of Pomfret, Vt., has furnished us with some excellent specimens of fine wool from his flock of Pular Merino sheep. His flock consists of 4 or 500. The average weight of fleeces, when washed, is 4½ lbs. One stock buck produced 11½ lbs. washed wool. The fleece of one year weighing 7½ lbs. One ewe, two years old, yielded 7 lbs. of superior wool, a sample of which we have seen. 25 yearling bucks all May lambs, produced on an average, 5½ lbs to the fleece. 119 yearlings, being all retained of this age, all May lambs, averaged 3½ lbs. to the fleece.

The specimens of wool which Mr. B. has furnished are of a fine and beautiful texture.

The price at which we have sold his wool for three years past have averaged 37½ cents per pound and he finds the business of wool growing to be very good at these prices.

In his winter management they are fed with good hay in the morning and at night, and with wheat and oat straw, cleanly thrashed, at noon. He gives his ewes grain about two weeks, between hay and grass, which is usually the latter part of April. A peck of corn is fed daily to 100 sheep. His lambs have half this quantity of grain all winter, excepting when they have roots.—His sheep have free excess to pure water at all seasons.

About sixteen years ago he kept a flock without water in the winter, as many farmers practice, and they became poor and lost their lambs, while another flock that had water, and the same keeping otherwise did well. Mr. B. thinks that water is also necessary for sheep in the summer. He keeps about 100 in a flock in winter, and usually not more than that in summer.

His sheep have no lambs till May; in connection with this arrangement the ewes have grain about three weeks, commencing the first of December.—[Boston Cultivator.

HEDGES.

The native thorn, (*Crataegus Crusgalli*) sometimes called cockspur thorn, makes an excellent hedge. The seeds are difficult to manage, but if you should gather them now, put them into scalding water, and let them lie until cold and plant them immediately. Many of them will come up next spring. Some of them will not vegetate until the following season. They may be sown in a box and kept in an exposed situation. The seeds of evergreens may, as soon as ripe, be sown in a box, and left exposed until spring when they will vegetate.

We think our cedar would make an admirable evergreen hedge.

Beech nuts may be gathered and sown now. Cover them slightly. The beech, if kept headed down, will grow bushy, and its branches will present an almost impenetrable barrier to hogs and cattle. It is a hardy and long-lived tree.—[American paper.

CORRESPONDENCE.

For the Canada Farmer.

AGRICULTURAL HINTS.

Coal tar, diluted with water, affords the best and most economical preservation against the ravages of the lungeous fly. It is to be sprinkled over such trees as are infested with the insect.

It has been ascertained that hemp is not, of itself, prejudicial to other crops; but, like other plants, if it be suffered to remain too long upon the ground it injures the productive power of the land, with respect to certain descriptions of produce.

It is well known, says the Parisian Society of Agriculture, that trees die away when their roots come in contact with the roots of decayed oak trees. The cause of this seems to be, that certain dead roots are susceptible of a cryptogamic vegetation, which is propagated by contact, and destroys healthy vegetation.

The Parisian Agricultural Society is of opinion that the shortening of the branches of fruit trees imparts additional vigour; and that the removal of the large vertical roots (tap roots, I presume) has, in general, a pernicious effect. J. J.

CULTIVATION OF THE WINDSOR BEAN.

To the Editors of the Canada Farmer.

Sirs,—As I have seen no attempt to cultivate the Windsor Bean, in Canada, I have thought that a short description of the mode in which I have seen it successfully cultivated in England, might be useful to the farmers of this country.

Of this species of bean, there are three varieties; all similar in shape, size and appearance, except colour, in which they differ. The Green bean, being of the colour indicated by its name; the Windsor is brownish, and another variety, the name of which I forget, inclines more to white. In shape they are flat; about an inch and one-eighth in length, and half an inch in width. This short description is necessary from the fact that the bean is almost unknown to our native Canadian Farmers.

Even in England they have not been grown to that extent which a wise economy would have dictated, as a general rule, their cultivation is confined rather to the garden than the farm; but I have seen several acres of them grown together in a field, and with careful management, the crop proved exceedingly prolific; the yield per acre, averaging nearly 70 bushels. They are unsuited to a sandy soil; and owing to the largeness and weight of their stalks on which the wind takes great effect, their roots can acquire a sufficiently firm hold in no soil but a pretty strong clay or marl. The time for setting them is as early in the Spring as the ground is ready to receive them. They should be planted in rows two feet apart, and about four inches distant in the row. The method of setting which I have seen practised in England, where they have been grown on a large scale, was thus:—The land after having been ploughed, and become sufficiently dry, was broken down with a pair of light harrows; then, to ensure regularity, a line was drawn along the ground, and holes were made with a common *aidling-iron*. Boys or girls, then dropped one bean into each hole, and the seed was afterwards covered by again harrowing the land.

When the plants are a few inches high, the crop requires weeding, which can be most easily done with a *horse-hoe*, or a Cultivator, for the passing of which between the two rows, there will be sufficient space.

This crop will leave the land in a fine state for raising wheat, and when a dead fallow is necessary, it comes in best between a bean and wheat crop.

The Windsor bean in its green state, is pre-eminently valuable for the table; for which purpose it is to be found for sale at every market throughout England. In its hard state it serves as excellent food for horses, cattle or hogs.—From its flatness it is difficult to grind; and indeed an attempt to grind a quantity of these beans, has rather the effect of bruising them.—Boiling or steaming answers well when they are required as food for cattle or hogs. The best pork I ever saw was fed on these beans.

The adaptation of the Windsor bean to the climate and soil of Canada, might be tested on a scale that would preclude the possibility of loss, and if the result were favorable, great benefit would arise to our farmers from its regular cultivation.

RUSTICUS.

Nelson, Gore District.