

it is almost practically impossible in Canada, for the reason that transportation is needed at the very season of the year when all other merchandize is being carried over the road; and railroad companies cannot show special favors to one industry and neglect all others. The time from harvesting until the roots are silotted is extremely limited. Harvesting is done rather late, and, for the proper delivery, several hundred cars would be required, which number is beyond the ability of the enterprising Canadian railroad organizations.

The beets had their necks sliced off before leaving the fields. This practice the farmer dislikes for the reason, as he argues, that it is to him an enormous loss of time and weight of the roots grown. But we again beg to call attention to the fact that the necks contain a large proportion of the salts, etc., taken from the soil. By plowing them under, the supposed exhausting effect resulting from beet-growing is evaded. Efforts, however, will be made in the future to leave the necks on and deduct a certain percentage for their weight. It is argued that they may be then more easily kept in silos, etc. This will increase considerably the cost of working per ton. In Germany this method is adopted, but it is the outcome of their special system of taxation. (We will not here, for the present, discuss the advantages or disadvantages of this custom.) The entire crop of beets last year was placed in a special building just outside of the main factory.

The permanent store-house for the roots is a wooden structure several hundred feet in length, with a capacity sufficient to hold 2,600 tons of beets. This, when we visited the Berthier factory, was entirely filled with beets, being nearly the entire crop. This store-house was supplied by carts which entered it by an inclined plane and emptied the roots into trap doors. Railway cars entered from a siding communicating with the main track. We examined the roots and found them in a tolerably good condition, with the exception of several hundred tons which had been frozen. In this store-house no effort has been made towards ventilation or preservation, other than protecting the roots from the rain or snow by a roof. When we consider that sugar beets to the value of nearly \$12,000 were thrown in heaps without regard to their possible decay, we cannot hope for any positive profit from their utilization. The intentions were to build partitions, thus localizing such trouble.

It was not considered advisable to build foundations, as the land is low and wet. Earth has been thrown against the sides of the store-house; this being a poor conductor, will in part protect the roots against the cold weather. But the

ends of the store-house being open, the cold naturally froze those roots with which it came in contact. A rather curious phenomenon has been noticed, which is, that in the greater number of cases the action of the frost has been confined to the exterior surface of the roots, its evil effects were consequently not as serious as if the entire beet had been congealed.

As regards the machinery for the factory, the order was given in February, 1881, and the delivery made in July, August and September. The total cost was \$85,000. The entire plans were made in Europe; boilers, piping, etc., brought over;—in other words, nothing was made here. The freight by steamer increased the cost, as it amounted to \$10,000. The delivery, however, was made with perfect regularity, and the principal obstacles to a complete success of the Berthier factory for the first season were due to the non-arrival of the bone-black. The bone-kiln turned out about half a ton daily. At that rate nearly three weeks would be required before the requisite amount could be obtained. The water difficulty had already commenced. The intentions were to bring it from the river by gravity, but the frosts retarded considerably this scheme. The foundations proper of the buildings were also more costly than was anticipated. The general plans of the roof was changed, as it was argued that the excessive weight of snow in the Canadian climate was such that roofs built after ordinary plans would not answer. It is not anticipated that the fuel question will give any trouble. The beets tested on an average before working about 11 per cent. of sugar. During the few days the factory worked about 150 tons *per diem*. The plant of the factory is for 200 tons in twenty-four hours.

It is not yet known what will be done with the pulp; there is some talk, however, of one gentleman in Montreal buying it to aid a cattle speculation. The farmers, having never tried it, can express no opinion as to its value. It is not yet known what will be done with the molasses. At one time, as already mentioned in *The Sugar Beet*, it was intended to suppress it entirely, and work by Legru's elution; but for complex reasons that project was abandoned. Several osmogenes can separate a large percentage of the sugar it contains, and the refuse from the carbonation can be used as a fertilizer. Later we hope to give our readers a plan of the Berthier factory, with a full description of the manner of working.—*From The Sugar Beet.*

In another column we publish an article from the *London Agricultural Gazette*, in which the advantages of *Earliness* are

set forth. The English farmers are having a very early season this year, with prospects of early harvest, but even that does not prevent them seeing how much is gained by early work, by selecting early varieties, and generally by holding on to the forelock of the season.

THERE is much in that good old Saxon word "Early." It is the early sun that ripens the corn; the early bird that catches the worm; the early cabbage that catches the price; the early lamb that makes the money; the early chicken that pays the henwife; the early gooseberry that commands the market; the early swarm that makes the honey; the early sown wheat that fills the bushel; the early sown barley that pleases the millster; the early sack of wheat that attracts the miller; the early peas that pay the rent; the early potatoes that fetch the money; the early shepherd that fattens the sheep; the early carter that pleases his master; the early farmer who grows rich; the early housewife that keeps her maids; and the early maid who keeps her place. *Earliness* is the true road to success, and the fact that so few succeed in the race of life is because so few can shake off dull sloth and early rise. There are some avocations in life in which early rising is not necessary, but they are chiefly of the kind to which another wise saying applies, that you cannot "burn the candle at both ends."

Such is not the case with farming, and we hold it as positively true that the man who intends to succeed in agriculture must be an early man. Early in rising, early in getting in his crops, early in reaping them, early in meeting his men, early at fairs, early in markets, early at home, and early to bed. Young men, especially, find it difficult to rise early, but this only accounts for the fact that so few of them are good for anything. The youth who cannot rise until he is "called," who will not get up when he is called, who comes down to breakfast in embroidered slippers, and cannot move out-of-doors until he has had his pipe, may be a "good fellow," a gentleman, and many other good things, but he is not going to succeed as a farmer, a landagent, or in any other rural occupation. He has mistaken his calling, and is himself a mistake. He ought to have been born rich; or, as they say in the canny North, his friends should have been born before him.

These thoughts respecting earliness in general, have suggested themselves to us as we thought of the great advantages of a few early turnips to the farmer. Also of early rape, and early summer keep for our flock. And they gradually extended themselves as we thought of the advantage of earliness in every way. It has