

sowing the seed, should follow each other as closely as possible, that the seed may have all the moisture from both ground and manure. In dry seasons, the seed should be sown deeper than when the weather is wet; and when the land is very dry, it has been found of considerable benefit to moisten the manure before applying it to the land.

The plants will, in general, make their appearance about ten days or a fortnight after they are sown, according to the quality of the soil and the state of the weather. When the second or rough leaves are about two inches high, a horse-hoeing is given between the ridgelets, to cut up the weeds close to the turnip plants. The hand-hoe is then introduced, to thin the plants, leaving them at intervals of from eight to ten inches apart, the Swedish kind being somewhat wider. This distance is thought quite sufficient to ensure plants neither too large nor too small in size. The soft turnip, when allowed too great a distance, is apt to become very large, and its nutritive juices are found to be quite lost.—The Swedish and other hard turnips should be allowed sufficient room to become as large as possible, for their nature is such that there is no fear of their ever being over bulky. The hand-hoeing and thinning are generally performed by women and boys, and three expert hoers will go over an acre a-day. A few days after the hoeing, a small swing-plough is used to make small ridgelets between the rows; and when weeds are still in abundance, it will be necessary again to horse or hand hoe the ground, which levels the intermediate ridgelet. After all weeds are thoroughly destroyed, and the thinning is accomplished, the earth is sometimes gathered up about the plants by means of a small plough, with two mould-boards. This operation, however, is objected to, on the plea that the earth prevents the bulbs from growing, and also when the produce is to be consumed on the ground, the sheep may be injured by falling into the hollows between the rows. On wet soils, the earthing up is very beneficial, as it allows the free discharge of superabundant moisture; and when the weather is frosty, the earth is an excellent protection to the plants. Some farmers do not use the small plough between the rows, contenting themselves with hand and horse hoeing, which, when the soil is dry and well prepared, are thought quite sufficient. However, if couch-grass and other weeds infest the soil, the ploughing is the easiest way of getting rid of them. The expense of weeding and thinning turnips varies; but ten shillings an acre may be considered as about the sum.

The produce and quality of this must vary, like every other crop, according to the nature of the soil and season. A good crop of the white globe turnip will weigh twenty-five or thirty tons an acre, and even forty, if the season is favourable. The Swedish and yellow kinds weigh a few tons less. Of late, there have been instances of much heavier crops; and it is stated in the Farmer's Magazine, that above sixty tons have been raised on an English acre, the leaves not included. Such an extraordinary crop, however, must have been produced by larger applications of manure than usual, or from lime having been applied to the soil previously, and the fertility communicated in no way exhausted. It is stated by Sir John Sinclair, that on a farm belonging to the late Mr. Rennie of Phantassie, the produce per acre was thirty tons of Swedes, and forty tons of the common globe; the Swedes were manured at the rate of twelve, and the common turnips at ten tons per acre. The largeness of this crop was attributed to the circumstance that the land had been limed at the rate of 300 bushels per Scots acre, though so far back as sixteen years ago. It appears, from a paper published by the Kilsyth Farmer's Society, that, in a competition which took place in that parish, the produce per acre was—yellow, 40 tons 8 cwt.; Aberdeen, or green-top yellow, 40 tons 17 cwt.; Dale's hybrid, 35 tons 11 cwt.

Turnips may either be consumed on the fields where they grow, on grass fields, in fold-yards, or in feeding-houses; and in the vicinity of large towns they are sold to cowfeeders. The greater part are eaten by sheep, which sometimes belong to fleshers; and in this case the turnips are sold growing, at so much per acre. The price depends upon the weight of the crop, being greatest near large cities. It is stated that fields of turnips near London have been sold so high as eight or ten guineas an acre, which is considered an average price; but in the neighbourhood of Edinburgh, thirty pounds, and even a larger sum,

has been got for an acre of good turnips. Turnip crops, when intended to be consumed on the ground by sheep, are divided into lots, by means of hurdles or nets, in order to have them regularly consumed. When the first lot is nearly eaten, the shell, or parts which the sheep have left, are taken out of the ground, and a new portion lotted out for them. It is usual to leave the part of the field just cleaned open, for the sheep to lie in, and to consume any nutritive matter which may remain in the shells. Sometimes a part of the turnips are taken from the field before the sheep are turned in; but this must depend upon the nature of the soil. Cases will occur where the soil will be so much benefited by the sheep, that it is more profitable to consume the whole; and in very rare instances, the ground may be so rich, that the succeeding crop will be injured by eating any part of the turnips on the field. In wet weather, the turnips ought to be carted to an adjacent grass field, it being thought injurious to allow the sheep to lie on the turnip field during rain.

A cheap and expeditious mode of lifting turnips has been practised in Ireland. The tops are first shaved off with a scythe, and given to young cattle, and the bulbs are ploughed out of the soil, which being afterwards barrowed, they are left entirely free of the ground. The turnips are then gathered into carts, commencing at the top of the field and going regularly down, so that none may be bruised; and it is calculated that six labourers will lift an acre of turnips by this method in a day.

Young cattle and sheep, when shedding their teeth, are unable to break the hard whole turnips, and in this case it is necessary to cut the bulb into slices, which may be done either by a chopping knife, or a machine made for the purpose; or they may be bruised by a mallet. In England, this operation is now frequently performed by a slicing-cart. When the leaves are taken off, the bulbs are picked up and put into the cart, and when the horse moves forward, the turnips are cut into slices of any size. The pieces are scattered behind the cart, and not a vestige will be left uneaten by the flock. The teeth of the sheep are by this means preserved; and old ones may be fattened upon turnips so cut, which they could not otherwise eat. The practice of consuming turnips by sheep is of great advantage to light dry soils; but when the land is wet and tenacious, it is not so beneficial. Sandy soils are rendered more adhesive by the trampling of the sheep; and the refuse of the turnips and manure of the sheep both help to make the land more fertile.

When turnips are to be stored, the leaves and tap-roots should be cut off, to prevent overheating. They may then either be piled under a shed or in the open air, and covered with straw or turf. The juicy nature of turnips prevents them from keeping long, and indeed the common kinds are seldom stored at all. They are easily injured by the frosts of high and exposed districts; and it is probable that storing many of them, even in mild climates, would be attended with considerable loss. Where turnips are cultivated on a large scale, the trouble and expense of storing them all would be too great to be generally practised.

EDUCATION.

The following singularly interesting and important appeal has been recently made in one of the most celebrated works of the present day, the "*Martyr of Erromanga*" to the school teachers of Britain. We think it would be wrong to withhold it from the members of that important profession in Canada.

TO THE TEACHERS OF BRITISH AND OTHER DAY SCHOOLS.

On the cultivation of the Missionary Spirit as a branch of Education, and the preference due to Missionary Work.

Benefactors of your country and of mankind! to the Christian pastor, the true patriot, the statesman, and the philosopher, your system and labours present a spectacle of the deepest interest. The edifices in which you exercise your functions, are centres of influence of which it is difficult to describe the limits. The economy of our world supplies no standard by which to measure the importance of your services. Like the true ministers of religion, the utility of your labours is not to be estimated by their earthly reward. The rude millions of which society is composed, cannot yet appreciate them. Be not discouraged, however; but, with