

As to the Second remark, I can only say that Temperance people must walk very circumspectly, and weigh their every action with due caution. They have numerous enemies—enemies who are always on the alert, and always eager to pick a hole, however small, in the conduct of any of the Sons.

And Lastly,—For the sake of example, I would forbid any Temperance follower to think of doing such a thing hinted of in the above question. Why, sir, the whole doctrine of Teetotalism is made up of Example,—its whole structure is built upon the foundation of Example,—and it is a noble foundation, a firm one, too, because composed and cemented by "Love, Purity, and Fidelity." I remain, Yours, &c.,

PLEDGE TO THE LETTER.

Agriculture.

BEEF.

Beet, a plant of the genus *Beta*, in the class *Pentandria*, and order *Digynia* of Linnæus, and, in the natural order, *Chenopodea* of Jussieu.

There are two distinct species of beet commonly cultivated, each containing several varieties, the one called the *Cicla*, or *Hortensis*, producing succulent leaves only, the other the *Vulgaris*, distinguished by its large fleshy root. The *cicla* is chiefly cultivated in gardens as a culinary vegetable, and forms one of the principal vegetables used by agricultural laborers and small occupiers of land in many parts of Germany, France, and Switzerland. A variety known by the name of *Swiss chard*, produces numerous large succulent leaves, which have a very solid rib running along the middle. The leafy part being stripped off and boiled, is used as a substitute for greens and spinach, and the rib and stalk are dressed like asparagus or scorzonera; they have a pleasant, sweet taste, and are more wholesome than the cabbage tribe. In a good soil the produce is very abundant, and if cultivated on a large scale in the field, this species of beet would prove a valuable addition to the plants raised for cattle. By cultivating it in rows, and frequently hoeing and stirring the intervals, it would be an excellent substitute for a fallow on good light loams.

All cattle are very fond of the leaves of this beet, which add much to the milk of cows without giving it that bad taste which is unavoidable when they are fed with turnips or cabbages, and which is chiefly owing to the greater rapidity with which the latter undergo the putrefactive fermentation. If sown in May, in drills two feet wide, and thinned out to the distance of a foot from plant to plant in the rows, they will produce an abundance of leaves, which may be gathered in August and September, and will grow again rapidly, provided a bunch of the centre leaves be left on each plant. They do not sensibly exhaust the soil. These leaves, when boiled or steamed with bran, cut chaff, or refuse grain, are an excellent food for pigs, or bullocks put up to fatten.

The second species, the *Vulgaris*, or beet-root, has been long cultivated in gardens; especially that variety called the red beet, which, when boiled and sliced, makes such an excellent addition to winter salad. It is a native of the south of Europe, and hence all the varieties are tender, and destroyed by frost when in their young state. It thrives best in a rich, light, dry soil, and, from the length of its taproot, requires a considerable depth. The white beet is an excellent root, and is preferred by many to the larger and more common intermediate varieties. It has been lately in great repute in France and Belgium for the manufacture of sugar. It is not commonly cultivated in our gardens, and we only notice it as being, with the red beet, the parent of those varieties which have been introduced into field culture.

The common field-beet for cattle, which has been long known in Germany, was introduced into England at the latter end of the last century; and its introduction is generally attributed to the late Dr. Lettsom, a physician of great reputation, and one of the Society of Friends. The German name is *mangold wurzel*, or *mangold root*, but it is commonly pronounced *mangel wurzel*, which means *scarcity root*; and by a strange translation, it is called in French *racine d'abondance*, or root of *plenty*, as well

as *racine de disette*, or root of *scarcity*. The name of *field-beet* is much more appropriate.

The improved variety of this beet, which grows to a very large size in good soil, has a red skin, and when cut through appears veined with red, in concentric circles. The principal part of the root rises often a foot and more above the ground, and the leaves, which are large and succulent, spring from the crown of the root. There is a limit, however, beyond which the root does not improve in quality as it increases, and the roots of a moderate size contain more saccharine and nutritive matter in the same bulk than the larger. This is particularly the case with those varieties from which sugar is extracted. The soil best adapted for the beet-root is a deep sandy loam, naturally rich, or made so by repeated manuring. The manure should be well incorporated with the soil, and if any is added for this crop, it should be well rotted and ploughed in deep. The application of liquid manure during the growth of the plant greatly increases the roots; but it is also said to make them more watery, and for the sugar beet it is not recommended. The seed, which should be chosen from the most perfect plants, is sown in May: if sown sooner, there is some danger from the frosty nights which often occur about the beginning of that month; or if the spring is warm and genial, it gets too forward, and instead of increasing in the root, it shoots up a seed-stalk, and the root becomes comparatively useless. If it is sown later than May, it never arrives at a full size before the approach of winter: hence the first or second week in May is the best time in our climate. It is found by experience that those plants of beet which grow from seed sown where they are to remain have larger roots, in general, than those which are transplanted; the seed is therefore usually drilled, or dibbled, in rows from twenty-four to thirty inches distant; the seeds are put in about an inch deep, and when they are dibbled, the holes are about four inches asunder, and two or three seeds are put in a hole. After they come up and are out of danger of frost or insects, they are thinned out, so as to leave the plants a foot asunder. Where the plants have failed, the intervals are filled up by transplanting some of those which are superfluous in other parts: in doing this it is essential that the fibres of the roots be not torn off in pulling up the plant; and if they are taken up carefully with some of the mould adhering to the roots, it will well repay the additional trouble. If the ground is well prepared, there is little fear of the plants not coming up, or of their being destroyed by the fly, as is too often the case with turnips. A sprinkling of liquid manure along the rows, about the time that the plants first appear above ground, will in general secure an abundance of them; and this may be done with much less trouble than would be imagined, by those who have never practised it. It requires only a water-cart, with a large cask and two leather hose, kept at a proper distance from each other by a stick between them, so that they may pour the liquid manure over two rows at once. If the field be not above a mile from the tank, a man and horse will water two acres in a day, and if the distance is half a mile, four acres; the expense will be amply repaid in the crop.*

On a very large scale this may not be so practicable; but wherever a field of beet is near the home-stall, it should never be omitted: the evident advantage of it will soon remove any objection arising from trouble or expense. When the plants are three inches above ground, they may be thinned out a foot apart in the rows: the intervals between the rows may be stirred with the plough, grubber, or horse-hoe, and the intervals from plant to plant in the row, with the hand hoe. The ground cannot be kept too fine and open, provided the soil be not extremely porous, and the weather very dry; in that case it must not be stirred so much, for fear of the moisture evaporating too much. It is a common practice to throw the earth from the rows against the roots; but the most experienced cultivators do not approve of the method: on the contrary, they recommend drawing the earth from the plants, or at least laying the whole ground level. Where the soil is naturally rich and deep, the drills may be made on the level

* If the water cart contains 100 gallons, it will water one-third of an acre in rows at three feet distance; the horse will go over one mile and a half in an ordinarily shaped field to water an acre, to which must be added twice the distance from the tank, taken three times. This makes in all $1\frac{1}{2} + 6$, or $7\frac{1}{2}$ miles for each acre, when the distance is one mile.