

The facility with which the work will be performed, as well as the goodness of it, will depend essentially upon the accuracy of the ploughman's eye, and his skill and experience in operations of this nature. The binoir will in general be found to be preferable to the plough on hilly fields, because in turning over the soil it enables the laborer to exercise his will and judgment with greater freedom.

It is a beautiful sight to see the order and regularity with which rapid declivities can be ploughed by skillful men who are accustomed to the use of this instrument. By means of the arrangement of which we have been speaking and by giving an oblique direction to the furrows the water may be made to drain away so gradually as not to carry any portion of earth with it nor yet deepen the furrows through which it passes.—*Thaer's Principles of Agriculture.*

**THE FIELD BEET.**—This pla. also called *mangold wurzel*, and sometimes *root of scarcity*, (*mangel wuizel*) is with all its varieties, either a descendant of the *beta vulgaris* alone, or the result of the mixture of this plant with the *beta esculenta*; I regard the difference pointed out by the botanists between these two plants as too insignificant, and as far as my observations goes, too vague to serve as the foundation of an absolute distinction. It appears to me that the crossing of the deep red colored garden beet and the white beet has given rise to all the existing varieties of this plant, some approaching to the former and others to the latter species: and that from these again new varieties are continually produced, among which we now and then meet with individuals belonging to one or other of the original species. It is therefore impossible to distinguish precisely between the various kinds of beet any more than between the several kinds of other cultivated plants, the varieties of which pass one into the other by insensible gradations.

The two kinds of beet which occupy the extremities of the series are the deep red beet, which has long been cultivated in our kitchen gardens and that which is perfectly white, between these are the large scarlet beet: the flesh colored beet which is sometimes marked with rings of that color; the variety which is red without and perfectly white within: the yellow beet, and that whose color is a mixture of yellow and white. The color of the root commonly resembles that of the leaves or rather of their edges, which are either quite green or tinged with red. Even seed taken exclusively from one plant always produces several different varieties. The unmixed red and white are however the most constant. The pale red beet is the largest and most

productive of all, and is therefore usually cultivated as food for cattle. There are two varieties of this, one whose root buries itself under ground and another which shows a disposition to rise above the surface. My own observations lead me to consider these dispositions as essential to the varieties in question, but the nature of the soil has also considerable influence upon them. I once divided with a friend a quantity of seed which had been given to me as belonging to the variety which rises above ground. My land was ploughed to the depth of ten inches, and his to a small depth only.

On a soil of small depth the variety which grows above ground is certainly to be preferred, as on such a soil it produces a heavier crop than the other, but on a deep soil the underground variety is preferable if only from being less exposed to injury from frost in autumn. The yellow and white beets on the other hand, have the advantage of possessing greater consistence, and resisting cold rather better: but for Agricultural purposes these qualities do not compensate the greater volume obtained from the reddish varieties. But, grows on all soils which contain a moderate quantity of moisture and a large proportion of nutritive matter, but on sandy soil its size is small, unless indeed, a large quantity of rain fall during the period of its growth. On a light soil rich in humus and moist by situation it becomes watery and very thick, but hollow in the middle and difficult to preserve from rotting quickly. The soil best adapted for beet is an argillaceous soil possessing moderate tenacity. On land of this description it always succeeds, and acquires more consistence than on any other kind of soil. I therefore make it a rule in the cultivation of weeded crops to sow the greatest quantity of beet on tenacious soil, and of swedish turnips on those which are sandy.

To produce beet of a large size, the soil must be well manured, but it matters not whether the manuring has been performed expressly for the beet or for a preceding crop, provided that in the latter case, the soil still remains in good condition. Fresh manure should be mixed with the vegetable soil by two ploughings at the least.

The deeper the soil the better it is adapted for the growth of beet: to obtain a good crop of this vegetable on a soil of small depth it is better to sow or plant it on beds or ridges.

The seed may be then sown on the spot where the plant is to grow, the individual grains may be placed in separate holes, or the seed may be drilled at least twice as thickly as the plants are to remain, but this latter method is practicable only on a warm light soil which is tolerably free from weeds, for the germ has some difficulty in opening the hard skin in which it