

on all sides with leaves, up to its very top, so that to be confined for room, would be in every way prejudicial to the healthy development of the plant; the roots would grow thin and tapering, and produce weak in-nutritious stems; whereas, if allowed full scope on good soils, they will rise to six or eight feet in height, having proportionate bulk and foliage, and yielding a very rich and nutritive milky juice.

Chicory is of far more value to mow and consume in hovel or byre, than to graze. It has been much used as a pasturage for sheep, and found to be very useful in this respect, for a small extent of chicory ground will fatten a large number of sheep; but then it is only the radical leaves shooting up close to the ground which are continually cropped by the sheep, the stalks not affording them proper nourishment. The best way is, to let the plant reach its full growth, the full succulence being retained until the flower-buds appear, in which state (not being permitted to flower) it has attained its greatest perfection; it may then be cut off near the ground, and will be eaten by all kinds of stock with the greatest relish and benefit.

As it is a plant of such speedy growth, and in all seasons, wet or dry, it cannot be too strongly recommended for general use, and more particularly for the smaller occupiers. Cow-keepers would do well to cultivate it, and cottagers ought by all means to employ it in a double manner.

Chicory is now grown in many parts of England, chiefly for the sake of preparing a "substitute for coffee" from the root—a practice which has existed on the Continent for nearly seventy years; "and of all plants," says Von Thaer, "which have been proposed as substitutes for coffee, and which, when roasted and steeped in boiling water, yielded an infusion resembling coffee, chicory is the only one which has maintained its ground."

This plant has been considered to like a dry sandy soil the best, but has been proved to grow the best (as regards its roots) upon a loamy soil, with a clayey sub-soil, dry, deep, and rich; in fact, chicory very much resembles the carrot, and the mode of cultivating one is much like that of the other.

In preparing the land for a root crop, deep-ploughing is recommended; but, unless the soil is very deep, it is probable that subsoil-ploughing will answer better. The surface must be well worked; indeed, it cannot be reduced to too fine a mould. As the plants are a long time in coming up, generally five or six weeks from the time of sowing the seed, it is necessary that the land should be very clean, or the weeds (particularly chickenweed) are liable to overtop and smother the young plants. The time of sowing varies in different districts; in the midland and eastern counties, the second or third week in May is considered best, for if sown earlier (when cultivating for the root), many of the plants will run to seed; in which case they are called "runners," or "trumpeters," and must be carefully dug out and destroyed, when the time for taking up has arrived; because, if allowed to become mixed with the bulk, they will spoil the sample. The best crops have been obtained when the seed has been sown broadcast; but the preference is usually given to drilling, the crop being more easily hoed and cleansed.—The rows are generally from nine to twelve inches apart; and about three or four lbs. of seed per acre is the quantity used. Most of the cultivators of chicory single out the plants so as to leave spaces between them in the rows, each about six or eight inches long; but there are many who do not do this, fancying that four or five small plants produce more weight of root than one large plant; the expediency of this, however,

is very questionable, as it does not allow of the land being nearly so well cleaned as when the practice of singling is adopted.

In October or November, the work of taking up may be commenced, and continued during the winter (if the crop cannot be previously secured), until it is finished. Although the roots penetrate a long way downwards, they become too thin below fourteen or fifteen inches to be useful, and the utmost care is also required in order to get up that portion of the root which will prove profitable. In some cases, chicory has been ploughed up, about twelve inches deep, with a strong cast-iron plough drawn by six horses; having men to fork each furrow to pieces, with common potato forks, before a second furrow is ploughed upon it, and women and children, following to pick up the roots and cut off the tops. But the best method is found to be that of digging up the roots with double-pronged, strongly made, iron forks, the blades being about fourteen inches in length, and each fork, with shaft and handle complete, weighing about eight lbs. The plan of ploughing is liable to bring too much of the sub-soil to the surface, and costs quite as much, if not more, than digging.—The advantage which is looked for in ploughing is, to insure getting the roots up from a greater depth than can be done by digging, as a great number break off about eight or nine inches long, unless a boy is employed to assist the diggers, and is very carefully to pull the top at the precise time that the man presses the root upward with his fork.

When dug, the tops should be neatly cut off, and the roots conveyed to the washing-house to be washed clean. Sometimes they are covered down in pits or graves, as a matter of convenience, but, generally speaking, they are taken to the washing-house immediately after been taken up. They are then cut into small pieces by a turnip cutter, or by hand, the object being to have the pieces of as uniform a size as possible. The slices are then dried in a kiln; this process wasting the chicory from 75 to 80 per cent. It is then marketable, and is usually sold to the drysalers and grocers, who roast and grind it as they do coffee. The amount of profit attending the cultivation of chicory for its roots, is very uncertain—the crop varying from eight to sixteen tons per acre. The only record we have seen, stated £19 15s. 6d. as the cost, and £22 10s. as the return per acre, in the instance recorded. One to one and a quarter tons of roots (when dried) is an average crop. The price at market during the past year has been £20 to £22 per ton. The cost of manufacturing may be estimated £4 10s. to £5 per acre.

The leaves are an excellent fodder for cattle of all kinds, which usually devour them with avidity; but (as in the case of the tops of turnips, which are dragged up and carted from the land) when chicory is grown for the sake of its roots, more of the tops gets ploughed in for manure than consumed. Some growers have lately been using the leaves as a substitute for wheat, or rather as an adulterator of it; but how far they will answer the purpose, it is premature to say. The leaves are also said to be used for adulterating tobacco.

The root, when roasted and ground (after being dried in a kiln, as mentioned above), is considered to be an admirable substitute for coffee; and as an addition—say one-third of chicory to two-thirds of coffee—to be an improvement to all sorts. It is more especially employed, however, to mix with colonial coffee; which fact was satisfactorily proved to the commissioners of excise, a few years ago, when it was shewn, that if the consumption of chicory were prohibited, less colonial coffee would be consumed. It is also said to be used