

crop to his own tenants, and so warmly interested himself in the matter as to secure from the wits and courtiers of his own day the cognomen of "Turnip Townshend." His Lordship's zealous exertions, seconded by the land-owners in his neighbourhood, soon resulted in the spread of turnip cultivation over the whole county of Norfolk; whence it gradually made its way into every other district of England, leading to the cultivation of vast heaths, wastes, sheep-walks, and rabbit warrens, and raising rents from one or two shillings to fifteen or twenty shillings per acre. In consequence of these improvements, remarked Sir Walter Scott, "some of the finest corn crops in the world are now growing upon lands, which before the introduction of the turnip husbandry, produced a very scanty supply of grass for a few lean and half-starved rabbits." The general field culture of turnips in Scotland, dates from the middle of last century; but Swedish Turnips (which although originally of Swedish origin, reached Britain through Germany) were not general in Scotland before the beginning of the present century.

When Turnip cultivation was first introduced, sowing broadcast was adopted, and continued in practice, especially in Norfolk, a long time. A much more profitable system is now employed, namely, cultivation in rows, which not only economizes labour, but is greatly superior with respect to produce, and deserves to be classed, as one of the greatest improvements in modern culture. And it has not only secured more abundant crops, and at less expenditure of labor, than the ancient method, but has likewise supplied a ready means of improving worthless soils by subjecting them to the only species of cultivation for which they are applicable.

This is one of the most important crops of modern husbandry, and of late years has been greatly extended in consequence of the failures of the potatoe,—so much so indeed, that some agriculturists begin to fear that it is cultivated to an unprofitable extent in England. Certain it is that its culture is pushed beyond all limits of soil and climate. In all parts of the country even in the stiffest undrained soils, we have remarked the attempt to cultivate turnips, in some places where another crop would afford more profitable results. It is not so, however, in Nova Scotia; our farmers may be said to be only beginning to appreciate the value of a crop which is especially suited to our soils and climate.

While Turnips in general thrive on a light soil, there are certain varieties more suitable than others for certain conditions of soil and climate. The Swedish kinds in particular, while the hardiest of the race, and requiring a longer period for their development than the others, likewise require the best lands, which more over must be prepared by heavy manuring;

they will even thrive in soil which has a large admixture of clay. We often see theoretical writers appeal to the native conditions under which a wild plant flourishes as necessarily requiring imitation in the successful culture of its improved varieties. This, however, is an erroneous assumption, and could scarcely lead to a greater error in any department of practical farming than in the cultivation of Turnips. Where, for example, do we find the wild Turnip growing so much at home, as a native plant, as on the borders of neglected fields and on the dry thin soil of rocky pastures? To grow our improved varieties in such situations would cause them speedily to revert to the original form of the species. The value of the plant, as an agricultural plant, entirely depends upon the excessive (abnormal) development of one of its organs, and to keep up this abnormal condition of the organ, it is essential to continue the cultivation of the plant under circumstances similar to those which first induced it. Hence the care which is necessarily bestowed in manuring and otherwise carefully preparing the soil for this crop, in providing, in fact, for the cultivated plant conditions precisely the converse of those naturally sought for by the wild one.

We have already indicated the preference of turnips for light dry soils; they will succeed, even in very sandy soils if duly prepared by judicious manuring.—But all clayey soils and other heavy, undrained lands, are more or less unsuitable; although a perfect system of drainage and complete tillage have converted even the most stubborn soils into turnip land. In fact, whatever be the nature of the soil, thorough drainage, deep tillage and pulverization, and judicious application of suitable manure, are essential to successful cultivation. On stiff and moorish soils an application of lime will be attended by beneficial results.

In the rotation, a turnip crop usually follows a grain crop, especially wheat or oats. The preparation of the soil is similar to that for other green crops.

So soon as the grain is secured, the land should be prepared by deep ploughing, keeping in view, 1st, that soil cannot be too deep for turnips; and 2nd, that it is necessary to pass the plough below the roots of Triticum (Couchgrass) in order that this most noisome of all weeds may be effectually removed. In the following spring, when the grain and potato crops are in, and other pressing work past, the plough should be again applied to the turnip land, together with the harrow, roller, and other available means, for cleaning it perfectly and thoroughly pulverizing it; the weeds and stones being carried off the field. Some agriculturists prefer cleaning the ground thoroughly in the autumn, than which there is perhaps no plan so cheap or effectual, as it materially lightens

the spring work, rendering the cleaning more perfect, and facilitates the whole process of spring-preparation and sowing, which would immediately follow each other. In the case of Swedes, the ground should always receive good Autumn preparation.

The turnip crop ought to receive a liberal supply of manure, at least 10 or 12 tons of ordinary farm manure per acre; but it is usual to give a larger supply than this even to land in good heart. Town manures are valued for this crop; and crushed bones have been applied with the best effects, either when covered in the drills in the manner of ordinary dung, or when sown by machine along with the seeds, so as to be in immediate contact in the drill with the latter. Of late years guano has been largely used as a turnip manure, either separately or combined with other manurial substances. 2 cwt. of guano and 12 loads of farm yard manure per acre are considered sufficient to ensure a good crop. Numerous experiments have been undertaken from time to time to test the value of different manures, but the kinds of soil, modes of cultivation, and qualities of manures are so variable as to render any generalization difficult. In reporting a series of experiments to the Highland Society, Mr. Wilson concluded, that when guano and bone dust could be obtained at a moderate price, they might, in all cases, be applied with the farm-yard dung to turnips with advantage. He found the crop to be greater when these two substances were applied together than when applied separately; guano applied alone causes a rapid growth, and the turnips have a tendency to ripen prematurely; while, on the other hand, the bone dust causes them to come away slowly, but continues to grow them till the season is far advanced.—When both are conjoined, the guano secures a regular braird, while the bones keep the turnips in a growing state during autumn.

From the above remarks it will appear that guano, bones, and similar manures, are not so advantageously applied alone as when mixed, showing that singly they are not sufficient for this crop, whose return depends, more than any other, upon the manure employed.

All practical agriculturists agree that after the land is duly prepared and the drills made, the seed should be committed to the soil with expedition; but while all admit the importance of this rule, there are still many who neglect it in practice. In dry seasons this should be particularly attended to. The turnip seed naturally comes away quickly, and it is therefore essential that it should be placed in a moist bed capable of supplying the wants of rapid growth; but if the land be allowed to lie for several days after being prepared and the surface thus get parched