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TURNIPS.

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TURNIPS.

Perhaps no garden crop is more widely planted for fall and winter use in this state than turnips, certainly none is grown with more ease or with more uniform success. The requirements for this crop are very simple. The soil must be either naturally rich or it must be made so by abundant applications of stable manure, or of some complete fertilizer; and it must be made fine and mellow for the seed. It is not necessary for the manure to be well rotted for turnips. That fresh from the lot or the stable will do as well, provided only that it is well wet down by rain before planting. When planted broadcast no cultivation will be required, but it is usually best, especially early in the season, to sow in drills in order to admit of cultivation either by wheel hoe or narrow horse cultivator. If there is sufficient moisture in the soil to ensure the prompt germination of the seed, and to allow the young plant to get well established, turnips will grow and thrive with comparatively little rain fall. They occupy the ground only during the late summer and fall when gardens are too often given up to weeds. Although of such easy cultivation it is evident that the crop is not as widely planted as it should be, since it is a common thing to see ruta bagas imported from Tennessee exposed for sale in the towns of middle Alabama. There is certainly no reason why every part of this state should not raise a full home supply of this vegetable for the table; and it seems probable that when our agricultural methods become better systematized that they will be grown far in excess of this need, and be utilized as an adjunct stock food. It is hardly probable that turnips will ever come to take the prominent place in the regular farm rotation here that they do in England and some other countries, but there can be little doubt that they could be profitably grown for stock feed as a catch crop on early cow pea stubble, and to

utilize various odd corners about a farm that would otherwise be allowed to grow up in grass and weeds.

Feeding experiments at the north where turnips or other root crops have been used in comparison with corn ensilage have uniformly turned out in favor of the ensilage as being the cheaper. Our conditions are, however, different. After harvesting a crop of ensilage corn we can still plant a crop of turnips, thus getting both ensilage and turnips from the same land, a case where their comparative values need not be studied quite so closely. Again at the North it is necessary to gather and store the turnip crop, which, with so bulky a product, adds materially to its cost. Here they may be allowed to stand in the field and be harvested as needed, which saves expense, besides utilizing the feeding value of the tops. As a feed for sheep even the labor of gathering may be avoided, for by a system of moveable hurdles or fences the crop may be pastured down to the great benefit of both land and sheep. Land so pastured would be found to be so effectively "cow penned" as to need little or no fertilizer for a full crop of corn the following spring. This suggestion is recommended to the earnest consideration of the sheep men of our coast counties, where it is now recognized that some provision for winter feed would add largely to the productiveness of the flocks.

Turnips are among our hardiest vegetables in their ability to withstand cold. They are seldom injured by the winters of middle and south Alabama. During severe seasons it has been noticed that some kinds resist the cold better than others. Over forty varieties of turnips, many of them imported from France, were planted at this Station last year, one of the principal objects of the experiment being to test their comparative hardiness. The winter proved to be an average one, the lowest point indicated by a self-registered thermometer being only 11 degrees on January 28. This temperature was not a severe test and none of the kinds were injured enough to entirely destroy their feeding value, but it was noticed that those kinds in which the habit of growth was shallow, thus exposing considerable portions of the root, soon became flabby or corky and unfit for table

use. This corroborates previous observations and shows that the root is the tenderest part of the plant, and that varieties are hardy or not according as the habit of growth leaves the root exposed or protected by the soil. Varieties of turnips may be classified according to their shape into flats, globes and longs. The flat turnips all seem to have a shallow habit and to grow much exposed. They are valuable for their earliness but should not be planted for a winter crop. The longs, though rooting deeply enough, usually expose fully a third of their length so that they are quite as tender as the flats. They seem to have nothing to particularly recommend them and their general planting is not advised. The hardiest varieties, as well as the heaviest yielders, will be found among the globes; and varieties should be selected from this class for the general crop. The flesh of turnips is either white or yellow. So far the deepest rooting, best protected, and therefore the hardiest kinds have been found among the yellow fleshed varieties. It may safely be asserted that the hardiest varieties of turnips to resist cold will be found among the yellow globes.

Turnip seed may be planted at any time during the period of summer rains, say from the first of July on, but the earlier plantings will be more troubled with grass and weeds, and will not make such good roots as those which come on later after the nights are cooler. The best time for planting the main crop for late fall and winter use will depend somewhat on the season, so it is usually best to make a number of successive plantings. In the latitude of Auburn the best results will usually follow planting during the last half of August or early in September. Later plantings are frequently so retarded by the long drouths of October and November that they do not develop good roots before growth is stopped by cold. With the first warm days of early spring such plants will run up to seed without ever making good roots. For a spring crop plant in February, or not later than the first week in March. Quite young seedlings are rather tender so that winter plantings are sometimes lost from sudden freezes. In the coast counties there are

usually enough warm days during the winter so that growth in hardy plants is not entirely suspended; and plantings of turnips may be made at any time during the fall and winter with a reasonable prospect of success.

It is customary to delay planting till just after a good rain when the seed will come up quickly in the still moist soil. When the soil is very dry seed may also be planted safely for it will lie unharmed in the soil till rain comes to give sufficient moisture for germination; but very heavy rains falling after the seed is planted will in most soils form a hard crust that prevents many of the little plants from coming through, thus giving a poor, uneven stand. When seed is planted in soil that is only slightly moist there is danger that it will sprout, and that the little plants may dry out and die before reaching the surface. If it is desired to plant when the ground is dry the safest plan is to open rather deep drills, and at night half fill them with water. Early in the morning before the sun dries up this moisture sow the seed and cover lightly by brushing in a little dry dirt with an old stubby broom. Turnip seed is small and should not be covered deeply. This mulch of dry dirt prevents the loss of the water by evaporation and also the baking of the soil so that seed planted in this way comes up very promptly. As the plants grow the drill can be filled in during cultivation. This method of planting will be found successful on well prepared land even in quite dry weather. If the seed is planted and then watered on the surface, the water will quickly evaporate leaving a hard crust that prevents the coming up of the seed.

VARIETIES.

It is not intended to weary the reader with a detailed account of all the kinds grown on the Station grounds during the last year. It will be sufficient to say that none of the foreign kinds tested seemed to excell the varieties commonly grown in this country. The general conclusion as to varieties may be summed up as follows. For the early crop, and to plant in succession for marketing when young,

plant the flat kinds. For the main crop for late fall and early winter use, and especially for stock feed, plant the globes. For late winter use plant the yellow globes. For spring planting, especially if a little late, plant the flats.

RUTA BAGAS.—The ruta bagas are usually classed with turnips though they should really be considered as a distinct vegetable. Cultural requirements and uses are the same as with the true turnips. They require a somewhat longer growing season and should be planted the last of July or the first half of August in this latitude. The yield on good soil is even heavier than with turnips, and they are eaten by cattle with greater relish. They are quite hardy, but will not stand as much cold as the yellow globe turnips. Each seedsman has some special strain of purple top ruta baga but for practical purposes all are much alike.

EXTRA EARLY PURPLE TOP MILAN.—This has proved to be one of the earliest and most desirable of the flat kinds. Planted August 26, it was ready for use by October 1. The foliage is rather scanty, but the roots are good sized, sweet and tender. It stands closer planting than the larger topped kinds, the roots fairly piling up on each other in the row.

PURPLE TOP STRAP LEAF.—This is one of the standard flat kinds that has much merit for general planting. It will probably make useable roots on poorer land and with less manure than any other kind. It is a heavy cropper but is from one to two weeks later than the Milan, and is not quite so delicate in flavor.

EARLY WHITE FLAT DUTCH.—This is a good reliable flat kind but it has no advantage over the other two mentioned except that its pure white color makes it rather more attractive for market purposes. In season it matures with the last or possibly a little later.

SCARLET KASMYR.—This is a very early flat turnip of recent introduction that is being extensively advertised. In color it resembles a scarlet radish which makes it a very striking novelty. It is almost as early as the Milan and fairly productive, but as grown here it develops a strong bitter taste.

making it almost uneatable when cooked. It cannot be recommended.

PURPLE TOP WHITE GLOBE.—This well known kind may be considered the standard of excellence among the white fleshed globes, and it is strongly recommended for general planting. It is a rank grower and a great yielder. The roots are large and shapely and of good quality. Among other desirable white fleshed globes may be mentioned the following: Early Auvergne Red Top, White Broad Leaf Globe, Red Top Norfolk, White Norfolk and Green Top Norfolk. These were all grown from French seed.

GOLDEN BALL.—This is, on the whole, the most satisfactory of the yellow globes. It is of good medium size, good flavor, matures early, but keeps in the ground as well or better than any of the other kinds.

YELLOW ABERDEEN PURPLE TOP.—This is a very rank growing late maturing kind. The tops are exceedingly heavy and vigorous but are quite liable to mildew. The root is larger and coarser than in the Golden Ball. It is a valuable kind for stock, and especially for sheep, as the heavy tops would furnish a great amount of pasturage for these animals.

Two varieties of so-called winter turnips of southern origin were planted, but the seed came late, and was not sown till the last of September. The tops remained green all winter, but neither kind produced roots of edible size, and both ran to seed very early in the spring. The test was not satisfactory.

Among the imported novelties Black Alsatian deserves a word of notice on account of its superior flavor. As grown here it was a very small, long or carrot shaped turnip, covered throughout by a dull black, cracked, exceedingly unattractive looking skin. The flesh, however, was white and fine grained with a peculiarly sweet nutty flavor unlike any of the kinds usually grown. The yield was very small and it can only be recommended to those who prefer quality to quantity and good looks.