

it is impossible that a good braird of healthy plants can result, whatever be the character of the soil or the quality of the seed. And a second evil follows. The weakness of the seedlings greatly increases their liability to the attacks of the fly and to other maladies; for it is well known in Vegetable Pathology, as in Animal, that weak individuals are not only the first that suffer from epidemic distempers, but are likewise most liable to the prey of parasitical insects and fungi. In fact the best time for sowing turnips is immediately after or during a very gentle shower, but if the ground be wet, or severe rain follow the sowing, the results are often injurious, especially in clay soils. An abundant supply of seeds should be given, at least three or four pounds per acre; but in the case of Swedes this is not imperative, as blanks may be filled up by transplanting. It is a prevalent mistake in this country, as well as in the United States to exercise parsimonious economy of seed. Sowing takes place early in July, but Swedes may be sown in June. The sown white turnips may be delayed till late in July. In course of three weeks after sowing, the plants will have attained several inches in height, and then require the application of the horse-hoe, for the destruction of the numerous annual weeds that will have sprung; this is followed by the hand-hoers, who thin out the plants to proper distances apart, and rid them of the remaining weeds. In a fortnight more, another crop of weeds will probably call for another application of the horse hoe to be followed as before by the hand-hoers. The only other operation required is the earthing up of the bulbs by the double mould-board plough, which serves to destroy any additional weeds and keeps the bulbs high and dry in the wet weather that may be expected to wards winter.

When the pastures cease to yield a supply of herbage, the turnips are to be taken up as required for feeding, the softest white sorts being taken first as the kinds that are most liable to suffer from frosts and wet weather. White turnips should all be consumed before frost comes on, as they cannot be long kept in store.

As a certain portion of the turnip crop, more especially the Swedes, is intended for Winter and Spring food, it becomes necessary to store the bulbs before the approach of winter.

Various kinds of turnip-slicers, turnip-graters, and pulping machines are in use for the purpose of reducing the bulbs to such a state of comminution as to facilitate mastication, and particularly to enable the farmer to mix with them chaff and other kinds of food that could not be conveniently used alone. In feeding horses with turnips this is the preferable mode of offering them.

Of all cultivated plants, the genus *Brassica*, to which the turnip belongs, is

peculiarly prone to run into extraordinary in some cases grotesque, forms. *Brassica oleracea*, in its numerous varieties of Drumhead, Sugar-loaf and open Cabbage, Scotch Kail, Broccoli, Kohl Rabi, and Brussel's Sprouts, presents one of the most motley family groups that ever puzzled a Vegetable Morphologist. The turnip species has not caught up quite so many separate phases of character, but enough to render it one of our most important agricultural products, and to incite cultivators to still further improvement in the way of raising new and superior varieties.

In selecting from the numerous list of known sorts, the farmer must be partly guided by the intrinsic value of the varieties, partly by the capabilities of the land he means to lay under this crop, and partly by the special manner in which he intends to use the produce. There are many good sorts, each of which has its peculiar recommendations; but experience alone can guide the farmer in selecting those best suited for the various soils of his farm, and for the special mode of feeding, &c., which he follows.

The following list of sorts includes all the varieties most worthy of cultivation. We have appended notes indicating the peculiarities of the principal sorts:—

**SWEDISH TURNIPS:** *Lothian Purple-top.*

*Green-top.* An old variety, much esteemed by several growers.

*Laird's Purple-top.* A valuable, hardy and distinct variety, of fine form, grows to large size, and late in running to seed.

*Skirring's Purple-top.* An excellent sort. Yields a great weight per acre, hardy, and keeps well.

*Mason's Purple top.*

*Fettercairn Green-top.*

*White fleshed.* Considered inferior to other Swedes.

**RED TURNIP:** *Round. Tankard.*

*Woolton Hybrid.* Said to be a superior variety.

*Globe.*

**GREEN TURNIPS:** *Globe.* Produces a good crop, and comparatively hardy. *Round. Tankard.*

**WHITE TURNIPS:** *Globe.* If the seed be got pure this will prove a very useful sort, growing in any soil, arriving quickly at maturity, and yielding a large amount of food.—Valuable for early use.

*Pomeranian Globe. Round.*

*Six Weeks or Stubble.* Arrives sooner at maturity than most other sorts, suitable for sowing in Autumn after a corn crop, hence the name of the variety.

*Tankard.*

**YELLOW TURNIPS:** *Green-top Bullock.* An esteemed old variety, of medium size.

*Purple-top do.* Resembles the last, except in color. Approaches the Swedes in solidity.

*Skirring's Purple top Yellow Bullock.* An improvement on the preceding, and an excellent feeding turnip, producing a large crop, and highly esteemed for dairy purposes; but ought to be protected so soon as frosts begin.

*Tweeddale Purple-top Yellow Bullock.* A carefully improved variety.

*Border Imperial Purple-top do.* Said to be in full perfection earlier, and to stand as long as Swedes. A very free grower; but in some localities appears to be liable to mildew.

**HYBRID TURNIPS:** *Dale's.* A quick grower, and a very superior sort, combining to some extent the large size of the white Globe with the firmness of the Swede. Well adapted for poor soils. Variable in form. Ought to be seeded from carefully picked and transplanted bulbs.

*Cruickshank Green-top.* A new hybrid between the Swedish Turnip and Kohl Rabi.

The respective merits of the different sorts of turnips, their applicability to different purposes, and for different localities and soils, have long engaged the attention of agriculturists, and the subject has been fully discussed before the Highland and Agricultural Society of Scotland.—Mr. Gibson, Woolmet, East Lothian, states that the following are the sorts grown around Edinburgh:—1. White Globe; 2. Hardy Green Globe; 3. Purple-top Yellow; 4. Green-top Yellow; 5. Dale's Hybrid; also Swedes, of various kinds. The first he characterises as the most valuable of all for early use, although its cultivation had been discouraged by the sale of spurious seed; the second is esteemed for crop and hardness, and for leaving the land in better condition than some other varieties; the 3rd is esteemed more highly by the dairyman than any other sort, which is attributed to the careful way in which the variety has for many years been selected and grown for seed; the 4th is likewise a valuable variety; the fifth produces a good crop, is well adapted for poor soils, and worthy of receiving more attention in proper selection from seed than has hitherto been the practice. While the varieties enumerated are mostly used by dairymen, the varieties of Swedish turnip, on the other hand, are chiefly sought after by those engaged in the manufacture of beef and mutton. "It is now fifteen years," says Mr. Gibson, "since I got Skirring's Liverpool Improved Purple-top Swede from himself. I was so bigoted in opinion as to the superiority of what was generally called East Lothian Swede, and some other varieties grown there and elsewhere, that I continued to grow them alongside of Skirring's Swede, year after year, but