

VARIETIES.

There is at present seed of a great number of so-called varieties offered for sale in Canada. Many of these are practically the same varieties under different names, but, even after allowing for a large duplication, there are still between forty and fifty distinct varieties to choose from. Roughly, these may be grouped into seven classes, viz.: Yellow Globe, Red Globe, Yellow Tankard, Red Tankard, Yellow Intermediate, Long Red, and the various types of Half-sugar mangels. Of these latter the majority are either intermediate or long, and vary in colour from white to intermediate between white and red, and white and yellow.

According to the variety tests conducted annually by the Dominion Experimental Farms, the most profitable varieties are found among the Half-sugar, Yellow Intermediate, and Long Red classes, the three heaviest yielding varieties being Giant Half Sugar White, Giant Yellow Intermediate, and Gate Post. Either of these varieties may be depended upon to produce a satisfactory crop in any section of Canada where mangel growing is profitable.

GROWING AND HANDLING OF SEED ROOTS.

The mangel is a biennial plant and requires two years to complete its life cycle. The first year the mangel itself is formed, and the second year this mangel throws out seed stalks which bear the seed. The seed grower must, therefore, grow the roots, harvest them in the fall, store them throughout the winter and plant them again the following spring in order to procure a crop of seed.

Selection of Seed Roots.—When choosing roots to be used for seed production the following year, a very close selection is advisable. All roots selected should be perfectly sound, free from diseases, and conform as nearly as possible to the ideal type of the variety. They should be uniform in colour, size, shape and general character of top. Prongy roots should be avoided.

Seed grown from roots selected, as outlined above, is much more likely to produce roots of a uniformly good type, than seed grown from the general run of roots. Purity of the variety should always be maintained and by careful selection the grower can not only maintain the purity but also improve the variety.

For seed, full grown or medium sized roots, perfect in all respects, should be selected. Abnormally large roots should not be selected. They are rarely perfectly sound, are difficult to store and keep, and do not produce a larger quantity, nor better quality of seed than normal specimens of the variety.

Where seed growing is carried out on a commercial basis, the seed is generally produced from so-called rootlings, i.e., roots which, on account of late seeding, have, at the end of the growing season, reached the thickness of a finger. Although advantageous, seed raising from rootlings cannot at present be generally recommended. The chief reason for this is that the rootlings do not exhibit the characters of the variety clearly enough, and as a consequence there is a danger of choosing roots, for seed raising, which in some particular lack in uniformity.

Harvesting Seed Roots.—When harvesting seed roots, rough handling should be avoided. Roots that are badly bruised or broken are very likely to rot, and the rotting roots may infect the sound ones, lessening their vitality and reducing their seed-producing capacity. The roots should be carefully pulled, leaving intact as many of the fibrous roots as possible. The top should be carefully trimmed off with a knife, but not so close as to injure the crown. Twisting off the top will often seriously injure the crown, and roots thus damaged will not send out satisfactory seed stalks.

Storing of Seed Roots.—Seed roots should be stored during winter in such a manner as to insure a maximum vitality at the time of planting the following spring. Excessive evaporation or growth, that would not seriously damage the roots for feeding purposes, will lessen their vitality and should be guarded against. Mangels for seed raising should, therefore, be kept at a temperature that is high enough to prevent freezing and yet low enough to prevent growth. A temperature of from 33 to 38 degrees F. will be found satisfactory. A well constructed and properly ventilated