

As it is important to obtain apples suitable for the prairie provinces of Canada as soon as possible, another method than that followed by the late Dr. Wm. Saunders is being practised by the writer. Seed was sown in 1910 of some of the hardiest Russian apples, including Transparent, Charlamoff, Beautiful Arcade, Oldenburg, Tetel'ky, Anis, Antonovka, and Hibernial. More seedlings of these and other varieties have been grown since and from these about 75,000 have been sent as yearlings to the Dominion Experimental Farms in the prairie provinces and planted close together in nursery rows. After three years any which prove hardy may be removed to an orchard for further test or are left to fruit in the nursery row. Many of these have proved hardy so far. It is planned to continue this work in the hope that from some of these hardy Russians, which stand so much cold in Russia, will be obtained some which will be useful in the cold districts of Canada, where early growth in the spring followed by frost seems as destructive as low temperatures of winter.

In addition to the trees sent from Ottawa, other trees of the same varieties have been grown from the seed of fruit ripened in Manitoba for comparison. At the Brandon Experimental Farm some seedlings of the Cluster, a cross-bred variety fruited there, are promising.

CHARACTERS OF SEEDLING APPLES ORIGINATED IN THE HORTICULTURAL DIVISION.

Descriptions are taken of the seedling apples which are originated in the Horticultural Division, whether they are good, medium or poor. In doing this, it is possible to tell after a time what parent varieties are giving the largest proportion of promising varieties, and what the least. It gives valuable information for future work in breeding apples, as showing what characters of the female parent are apparent or conspicuous in the seedlings. The descriptions of these seedlings were all made by the writer, hence the same relative values are more likely to be given to the characters of the different seedlings than if several persons having different standards had described them.

In the following table, certain characters of 1,211 seedlings of twelve varieties are given in such a form that they can be readily compared. These seedlings were raised from seed saved from apples which fruited in 1898. The flowers were not hand-pollenized and the male parents can only be suggested by the characters of the seedlings and the varieties which grew nearest to the tree from which the seed was taken. Of these we have a record. While the male parent is thus not known with certainty, a study of the following table will be found very interesting and, it is hoped, suggestive. The following characters of the seedlings of the twelve varieties are quite marked.

Fameuse Seedlings.—It is generally supposed that seedlings of Fameuse resemble the female parent in a marked degree. In this case the number of good Fameuse seedlings has been small, while a large proportion of the seedlings of McIntosh, which is a seedling of Fameuse, have been good.

Gano Seedlings.—A large proportion of the seedlings resemble the female parent in regularity of form, in colour, in absence of flavour, and in having large seeds. A large proportion of the seedlings are winter apples like the female parent.

American Golden Russet Seedlings.—It is interesting to note that of 28 seedlings which have fruited none have russet skins. In 78.58 per cent green or yellow predominates. A comparatively small proportion has been propagated and only one has been thought good enough to name.

Langford Beauty Seedlings.—A large proportion are handsome, fine-grained apples of the Fameuse type with a marked resemblance to the female parent or to Louise, a seedling of Fameuse.