

APPLE CULTURE AT THE CENTRAL EXPERIMENTAL FARM.

Most of the information contained in this bulletin is based on experience gained in growing apple trees and apples at the Central Experimental Farm. The lines of work have included the testing of the hardiness, productiveness, quality, and relative freedom from disease of the different varieties of apples. New varieties have been originated, tested, described and named. Records have been kept each year of the individual yields of each bearing tree in the orchards since 1898. The different methods of propagating and grafting have been tried, using various stocks for this purpose. The top-grafting of tender varieties on hardy stocks has received much attention. Different methods of culture have been tried in the orchard and various cover crops have been tested to ascertain which were the best.

Spraying has been a prominent feature of the work since 1890, and many experiments have been tried with different mixtures and solutions for controlling insect pests and fungous diseases.

The apple orchards at the Central Experimental Farm were started in 1887, but it was not until the spring of 1888 that much progress was made. Since that time the number of varieties tested and the area devoted to this fruit have both increased very much. Up to the present time 734 named varieties have been tested, of which 613 are now growing. Many other unnamed seedlings sent in for test have also been tried. Many of the varieties have been replaced several times so as to be certain that they were too tender for this climate. The Russian apples have received especial attention as it was thought that these would prove of particular value for the northern parts of this country. There have been about 160 Russian varieties tested, though many thought at first to be different have proved to be identical. There are 1,114 apple trees in permanent positions in the main orchards, occupying about 18½ acres, and 61 crab apples. There is also a small closely planted orchard mainly of the Wealthy apple; another small orchard containing trees of the best seedlings originated at Ottawa. Still another small orchard contains trees of cross-bred apples originated in the Horticultural Division. There is also an orchard containing cross-bred apples originated by the late Dr. Wm. Saunders, and there is another orchard of seedling apple trees. Scattered through the permanent orchards and used as fillers between the permanent trees are seedling and cross-bred apple trees which are left until they fruit. In all about 25 acres are devoted to the apple in 1915.

EXPERIMENTS WITH APPLES AT THE BRANCH EXPERIMENTAL FARMS AND STATIONS.

The main experiment carried on at the older experimental farms and stations is the testing of varieties to determine which are the best for the parts of Canada in which the farms are situated, and in the prairie provinces to determine, in some places, if any varieties would succeed. Much data have been obtained, and information as to results has been published from time to time in the annual reports.

At the newer stations cultural experiments have been planned and are being carried out. At the experimental station, Kentville, N.S., where many cultural experiments are under way, some results have already been published. The cost of developing an orchard at the Experimental Farm, Nappan, N.S., has been reported on from time to time. Other stations at which cultural experiments are being carried on are: Cap Rouge, Que.; Ste. Anne de la Poëtière, Que.; Lennoxville, Que.; Lethbridge, Alta.; Invermere, B.C.; Summerland, B.C.; and Sidney, B.C.