

remaining fifty-three acres comprises twenty-one acres of forest belt, thirty of ornamental grounds and two for the nursery and rose garden.

**Apples.**—The testing of apple varieties for their commercial value has been an important branch of the work. Outside of those originated at the Farm, over six hundred varieties are now being tested, and those found most suitable are recommended throughout the country. Seedling apples have received considerable attention. Cross-breeding with standard varieties is under way, the object being to obtain better hardy varieties. About nine hundred trees are under observation.

**Cover Crops.**—Cover crops in orchards provide an important field for investigation. Their purpose is, (1) to add humus to the soil, (2) the utilization of any plant food which the trees do not

require (this is returned to the soil the next spring) (3) to take up and transpire water in certain cases; thus lessening the amount available to the trees. This results in earlier ripening of the wood, and consequently lessens danger of winter injury. Among the best cover crops are red clover, summer vetch, rape, hairy vetch and crimson clover.

**Vegetables.**—Vegetables have been studied from the standpoints of earliness, yield and quality, and with a view toward the development of early and better varieties. Particular attention has been given to potatoes, peas and tomatoes.

**Spraying.**—Spraying methods are practised every year in order to check fungus diseases and insect pests.

#### CEREAL DIVISION

Investigations of this department comprise:



Cereal Plots C.E.F., Ottawa