MIDHURST PROVINCIAL FOREST STATION*

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THE Provincial Forest Station is admirably situated in regard to highway and railway facilities. It is only six miles north-west of Barrie on paved highway No. 26, and the main line of the Canadian Pacific Railway from Toronto to Sudbury passes within a quarter of a mile of headquarters. The Canadian National Railway has a line within two miles. These features are a tremendous asset during the spring shipping season.

The Station covers approximately 1200 acres of land. On it are the headquarters buildings comprising office, barn, implement shed, shipping shed and recreational hall. In addition to these, there are a pumping station and six homes for employees, including the forester's residence. Of the 1200 acres, 200 acres are cleared and tillable and are used for the propagation of trees for reforestation work; 550 acres are plantations of various species of conifers; 150 acres are young hardwood and hardwoods mixed with conifers, and the remainder is of a swamp type including pure stands of cedar and mixed cedar, balsam, black spruce and tamarack. This latter type is the composition of the Minesing swamp, of which this area forms a small part.

The land on which the plantations are established and most of the nursery ground, was formerly an excellent pine country and was logged at the same time as the Camp Borden plains. At one time there were four saw-mills and a power plant situated within a mile of each other on Willow Creek, which crosses the north-east section of the property. After the area was logged, the lighter soil became a commons. It was used for pasture land and was subject to repeated grass fires until taken over for a nursery site by the Ontario government in the fall of 1922. In 1928 some excellent land suitable for nursery work was added to the property. This comprises the area toward the west of the nursery.

The Station is still in the development stage and the hedges and wind-breaks, in many cases, have been planted only a few years. The past severe winter and the dry spring played havoc with the lawns and young trees. It will take several years to counteract the damage suffered.

The nursery soil at this station ranges from a coarse sand to an excellent clay loam. The seed-bed land is located in the sandy section which is closer to headquarters. Some of this soil is also used for transplants. Most of the

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soil at the west end of the nursery is of a heavier type and is excellent for the raising of spruce, white pine, cedar and various hardwoods. The sandy soil is excellent for the propagation of red pine as it is slightly acid. This condition, if present, in seed-bed soil helps to control the worst of our seed-bed fungi, namely, the damping-off fungus.

This season we shipped between four and five million trees of which over two million were red pine. Coniferous trees are either three or four years old when ready for shipping. Hardwoods are either one or two years old. The majority of trees shipped are of the coniferous species. The total number of hardwoods shipped does not exceed 500,000.

The nursery land is divided into two acre compartments. The compartments are 175 feet by 500 feet and run north and south. They are divided by spruce hedges. In areas where they are exposed a double windbreak of spruce and Scotch pine is used. The Scotch pine gives quicker protection and will be trimmed so as not to exceed twelve feet in height. The compartments were laid out running north and south as the prevailing winds are from the west and north-west.

Sweet clover is used almost exclusively as a two-year fallow crop as there is an abundant area of nursery land. This cuts down materially on the use of barnyard manure as a fertilizer.

An adequate supply of water is of paramount importance in nursery practice. The supply at this Station is derived from a spring situated on the property. The water is pumped by means of a 40 H.P. electric motor and centrifugal pump to a 20,000 gallon tank. The tank itself is elevated 100 feet above the nursery ground to give sufficient force to work the automatic sprinkler system used on the seed-bed land. The water is fed to the nursery seed-bed land by means of four-inch mains. Transplanted stock is not irrigated.

The reservoirs at the source of supply of the water consist of; one built by the government and the other established on government property by the Canadian Pacific Railway to supply water for their trains at the Midhurst station. The Canadian Pacific Railway built a large reservoir and a cement pump-house in close proximity to our pumping station. The water from their reservoir is pumped to a large 100,000 gallon tank near the railway station.

The land around these reservoirs has been beautified and developed for park purposes and "Springwater Park," aptly named because of the source of the water supply, is a very popular pleasure ground. It is used extensively for large picnics, family reunions, and is viewed as a beauty spot by many hundreds of visitors during the summer. To those visitors is demonstrated in a practical way the possibilities and results of reforesting waste land and the means of establishing windbreaks and shelterbelts.