A PRIVATE COMPANY FORESTRY PROJECT

By ELLWOOD WILSON¹

When the Southern Canada Power Company built its first power development to utilize the waters of the St. Francis River in Quebec to serve the region known as "The Eastern Townships" comprising the counties which lie along the United States boundary it acquired the riparian rites along about eighteen miles at various points on the river. In buying these it was often necessary to purchase entire farms extending sometimes a mile back of the river. Some of these were rented to the original owners or others for a nominal sum and the payment of insurance on the existing buildings. The area thus acquired amounted to 4300 acres and some more land has been bought since then from time to time.

In 1925, Mr. J. S. H. Wurtele, a Vice-President of the Company, became interested in conservation and planted a few trees at the Hemmings Falls power station. During 1926 and 1927 some 2000 white pine and spruce were planted on vacant lands near the power house and the earth-fill dam. The planting was carried out by the power house staff as an experiment and with the hope that it would render the area more attractive and in time yield some financial return. Without any definite program, about 1,500 trees were set out in 1928 and 500 in 1929. The results obtained were encouraging enough to awaken interest and in 1929 an area unsuitable for farming was planted with 8000 transplants. The trees were set out by the power house staff with the help of a couple of laborers. The following year a survey was made, 900 trees planted to replace casualties and 8000 more trees were set out. This program was continued for the next three years. In 1934, on the basis of the planting already done, a grant of trees from the Quebec Government was obtained and this, together with some purchased trees, allowed 14,000 to be planted.

It was then felt that technical assistance was needed and a contract was made with a forester to plant trees and this arrangement was continued until 1941. Up to 1941 305,000 trees had been set out but many replacements had had to be made to cover casualties.

In August, 1941, a fire started on adjoining properties and burnt over 575 acres and killed 50,000 young Norway spruce planted that spring and some standing timber. All the wood that could be salvaged was cut and sold.

The operation was now beginning to assume quite a little importance and it was felt that the Company was not having the success it should have in comparison with other operations. Part of the trouble was due to poor stock and part to poor planting methods and costs were higher than seemed reasonable. Little or nothing was being done to improve natural stands of timber which the Company owned and from which revenue should be obtained. Plantations were not being properly cared for and nothing was being done to combat insect attacks. It was also felt that fire prevention work should be better organized. It was realized, on the one hand, that if the policy of just

¹ Consulting Forester, Knowlton, P.Q.

planting in the hope of ultimately having some growth that might prove valuable were continued, results would be disappointing and, on the other hand, given suitable organization, supervision and effort the possibility of building up a worthwhile and valuable forest property was good.

In 1942 authority was given to set up a Forestry Department. A consulting forester was engaged and Mr. J. L. Morin was made manager. The first necessity was a good nursery and this was constructed at a point about seven miles below Drummondville on the St. Francis River. The nursery was to have a capacity of 150,000 trees per year, but it grew until in the spring of 1951 there were 589,000 trees for reforestation and 53,421 for ornamental purposes. This ensures enough for reforestation work and enough for sale to considerably augment the nursery's income.

During the summer of 1942 and that of 1943 the total area was surveyed and it was found that it consisted of natural growth timber, 917 acres of gray birch, 201 acres of young growth, 535 acres of plantations, 1484 acres of land suitable for planting, 279 acres of burnt over land and 440 acres of land unfit for farming or planting.

Fire lines have been plowed along the roads leading through the property and these are harrowed each year to make them serviceable. Fire fighting equipment is always ready for use, and patrol by both ground and air is carried out during the summer months. Many summer cottages dot the area and picnickers are a constant menace. During the months of November and December it is necessary to patrol the plantations to prevent trees being stolen for Christmas trees.

The Company's property has been set aside by law as a game sanctuary and all hunting is forbidden. Pheasants are raised and liberated and in time it is hoped to have a beaver colony.

Experiments have been carried out in the making of charcoal from gray birch, the removal of gray birch by tearing it out with a buster plow and by underplanting it with spruce. Where this last is done there has been some trouble from hares, but if the shade is not too dense both spruce, balsam and white pine grow successfully. On one large area, after taking off the mature and defective trees in an improvement operation, white spruce was underplanted and has been very successful. All possible efforts are being made to find out the best methods of growing the more valuable hardwoods such as oak, ash and basswood. Experiments have also been tried with yellow birch. Everyone knows how difficult it is to get reproduction of white pine in old white pine stands. It comes in easily in open areas bordered by white pine but very poorly under natural conditions in old stands, unless the soil is almost pure sand. It is hoped that some information may be obtained that will be of use. For several years the best conditions for natural red oak reproduction have been investigated and it has been found that the stands must be opened up but the operation is a delicate one. If there is too much light other species seed in, and if there is not enough the young oaks do not grow, but remain stagnant for several years until their light requirements are met. The species is also very susceptible to cold winds and the young trees may remain without

dying or growing for as many as ten years. When protected by windbreaks or other trees or by cylinders of fine wire or tar paper until they attain a height of about two feet they do well. A plantation of red oak and red pine made in 1938, using acorns, is now over twenty-one feet in height and growing nicely.

Lodgepole pine and western yellow pine are doing well. Black walnut has not been a success owing to the nature of the soil and too much exposure. Hybrid larch from Scotch seed has done quite well and hybrid poplars, obtained by courtesy of the Forestry Branch, Department of Resources and Development, Ottawa, are being tried out. It seems quite possible that poplar will be more and more used for pulp and lumber. Ordinary Carolina poplar planted in 1938 is now over sixty feet in height and 15.3 inches in diameter, d.b.h., with a merchantable volume of 11.2 cubic feet and form class 62.5.

Two years ago white and Norway spruce were planted in rows about one hundred and fifty feet long on the same site by all known planting methods and the results will be watched with interest. It is also the intention to find out what effect spraying with D.D.T. will have on white pine weevil. The damage from this insect is so serious in this region to both white pine and Norway spruce that it has been inadvisable to plant them.

The Company is doing its best to help the farmers with the care and management of their woodlots. It gives free information and carries a regular forestry column in its bi-monthly news sheet "Contact" which has a circulation of about 60,000 copies and goes to every customer of the Company.