

Trees as Snow Guards

Railways Planting Trees to Protect Lines from Drifting Snow and Sand

The railways of Canada are taking an increasing interest in the planting of trees and shrubs to secure better control of drifting snow and drifting sand, both of which interfere seriously with the operation of trains.

East of Montreal near Vaucluse, in Quebec, light drifting sand has given trouble to the Canadian Pacific since the very thin snow was blown up. Hot boxes resulted to rolling stock and passengers suffered from dust. The ordinary right-of-way fence was covered by the sand, and cattle could stray out on the track. Snow fences were used to some advantage, but in a bad season these would be almost covered up.

In 1915 a number of grasses, including Brome, were planted but perished from the heat, which is excessive on these exposed sand beds. This spring, 3,500 cuttings of cottonwood (*Populus deltoides*) and 1,000 one-year transplanted jack pines were planted. An examination made after the trees and cuttings were in the ground a month showed that approximately 95 per cent were making good progress.

The cottonwood was placed in rows two and one-half feet apart, the distance between the rows being four feet. The jack pine was planted in rows six feet apart, distance between the rows five feet. The distance from the last row to the centre of the track is about 150 feet. All the planting parallels the track.

It is hoped that the vigorous growth of the cottonwood will protect the jack pine until such time as the latter can take care of itself. If the results prove satisfactory, other situations along the company's line will be planted in the near future. The unusual amount of rain which has occurred this spring and early summer has contributed very materially to the prospects of success.

For a permanent snow fence which would grow rapidly and have sufficient foliage, 6,000 Norway spruce and 15,000 caragana were planted. The former were five-year transplants, of from 20 to 24 inches height, of heavy sturdy crown and well-developed root system. The caragana were from 30 to 48 inches in height and about three years of age. The caragana, as well as 1,500 lilacs used in mixtures for snow breaks, are from the nursery of the company at Wolsley, Sask.

The following methods of planting were carried out: Where the distance from the track to the right-

of-way fence is over 50 feet, a "standard" break was put in, viz., one row of spruce was planted 8 feet apart, and in front of this, caragana were placed two and one half feet apart. The distance between the rows is 6 feet. If there was only 50 feet between the track and the fence, one row of Norway spruce was planted 6 feet apart, or two rows of caragana four to six feet apart. On several situations one row of caragana was planted.

The open-grown Norway spruce is the best tree that can be used for snow breaks in eastern Canada. It is of rapid growth, is comparatively free from enemies, and branches close to the ground. It will require protection from fire. It is expected that the Norway spruce will be effective as a snow break alone in five years.

Caragana arborescens, the Siberian pea tree, when well trimmed, at its present height ought to provide a good mesh for snow break the second year after planting. Caragana is hardy, free from insect attacks, not attacked by cattle, of quick growth and beautiful foliage. It sprouts well.

At some of the company's stations, spruce, caragana and lilac were used for wind break and for improving the grounds.—B.M.W.

Varieties of Grain

Farmers Should Know the Names of Seeds They Sow

Twenty per cent of the 400 farmers visited in the Agricultural Survey in Ontario in 1915 did not know the name of any variety of grain sown on their farms. In Dundas county, where 100 farms were visited, of a total of 86 farmers growing barley only 11 knew the variety grown. Fifty-two per cent of the 400 farmers visited in the province were growing barley and only 18 per cent knew the name of the variety.

Only 64 per cent of all the farmers visited knew the name of the variety of oats they were sowing. Those who do not know the variety used may be sowing grain unsuited for their farms. There is very little excuse for the prevalence of such conditions. Every farmer sowing an unknown grain lives within reach of some farmer who grows a known sort of proved excellence, from whom seed can be obtained. Farmers wishing to obtain seed for next year should arrange for it early and choose a variety which has been tested and proved to be good. The Central Experimental Farm at Ottawa and the various Agricultural Colleges have carried on such tests for the benefit of farmers, the results of which may be obtained free upon application.—F.C.N.

Making Use of Untillable Land

Most Farmers Have Land Which Could Be Used for Sheep Raising

Fifty-seven per cent of the 400 farmers visited in 1915 by the Commission of Conservation in the four counties of Carleton, Dundas, Northumberland and Waterloo possess untillable land other than that in woods. The average amount per farm of untillable land, of those having such, ran as high, in one county, as 53 acres; the lowest average in any one county was 15 acres.

Only 14 per cent of all the farmers visited kept sheep. In one county only four farmers among the 100 visited were keeping sheep, although only four to each of the four farms. In this particular county, on 72 of the 100 farms visited, there were over 1,000 acres of untillable land and only 16 sheep, when there might well have been 16 sheep on each farm. No class of live stock is so well able as sheep to turn to good account untillable and otherwise waste land. It has been well demonstrated by experiments that the keeping of a small farm flock headed by a pure bred ram is a profitable undertaking. They need very little care and yield two crops a year—lambs and wool. Expensive buildings are not necessary, as sheep require only to be kept dry and protected from stormy weather, with a little extra care at lambing time.

Fewer bad weeds would be found on Canadian farms if more sheep were kept, as sheep will eat almost all classes of weeds.

Every Canadian farmer is not urged to go into sheep husbandry, but much idle land could and should be utilized as sheep pasture. It will pay. Those interested should write to the Ontario Department of Agriculture, Toronto, for bulletin No. 214, or to the Sheep Branch of the Dominion Department of Agriculture, Ottawa, for the splendid bulletins published on various phases of the sheep industry.—F.C.N.

HOW TO PREVENT FIRE

Keep waste paper, packing material and rubbish cleaned up.

Make frequent personal inspections from a fire standpoint.

See that your electric wiring is standard, and be careful in the use of electric devices.

Have all smoke-pipes and chimneys inspected and properly repaired before starting fires for the winter.

Be careful about the use of matches. Provide safe receptacles for them both before and after use.

Feel your personal responsibility as to possible loss of life and property by fire and act accordingly.

QUEBEC FOREST NURSERY

The provincial forest nursery at Berthierville, Quebec, has this year shipped out 400,000 forest tree seedlings, in addition to those utilized by the forest service on Crown lands. Of these, 250,000 were sold to the Laurentide Company, for planting on their property near Grand'mere, P.Q. This shipment supplements the large supply available from the company's own nursery at Grand'mere, the capacity of which has been increased materially. Another progressive concern which is undertaking forest planting is the Riordon Pulp and Paper Company, which, like the Laurentide Company, employs a forester, and which has purchased 20,000 tree seedlings for planting on their property in the vicinity of St. Jovite, P.Q. The third large shipment to the Berthierville nursery was to the Perthuis seignory, which purchased 50,000 young trees. This is the sixth year during which plant material has been secured from the Berthierville nursery for planting on this seignory. The balance of the 400,000 total was disposed of to colleges and private individuals. Gradually, the necessity for planting is becoming recognized, to secure the re-establishment of the forest where sufficient seed trees are no longer available for natural reproduction.—C.L.

Save the Trees

More Attention Being Paid to Their Protection by Railways and Others

That the shade tree increases the value of property, and adds much to the beauty of surroundings is being more and more appreciated. Municipal corporations are encouraging the planting of trees in greater numbers, as well as protecting those they already have. Many estimates have been made as to the actual cash value of a growing shade tree, but all concede that its aesthetic greatly exceeds its monetary value. In the transfer of real estate, a favourably situated shade tree will enhance the value of the property out of all proportion to the intrinsic value of the tree. From a financial standpoint, therefore, the shade trees should be protected.

Several railways are giving careful attention to the trees. Not only are they protecting, by special patrols and otherwise, the forests along their lines, but, at no inconsiderable expense, they are protecting them on their rights-of-way. One railway line was diverted from its originally planned route to save two handsome maple trees. Considerable attention and much favourable comment has been bestowed upon this considerate action of the railway corporation.