

an annually-growing desert area in the parts of Canada, seems hardly to be a fair one. Those who, like most farmers, sit at home.

Nearer at home, the farmer's interest naturally is, or should be, in his own wood-lot.

When the first settlers in the Eastern Provinces hewed their farms out of the forest, turning into pasture and field the larger part of their holdings, they left parts uncut for their domestic wood supply—the farm wood-lot. This was to furnish fence-posts and rails, repair-wood for buildings and implements, and, above all, fuel. It was natural to clear the better land first, and to leave for the wood-lot the poorer parts; and this is proper. Unsuitableness of the ground for farm use, and inconvenience of location, were probably the main or only considerations by which the wood-lot was reserved. It is not likely that the idea of a timber crop, which could be reaped and regrown at will, like other farm crops, had been present either in locating or in using the wood-lot. It was considered merely a storehouse of material from which the farmer might draw at any time to supply his needs. If the intention had been to make it serve its purpose continuously, it was certainly, in most cases, treated most improperly—culled and cut, without any regard to reproduction. Instead of using first the dead and dying, the crooked and inferior trees, the limbs and leavings, for fire-wood, and thus improving the condition of the remaining growth, body-wood of the best trees was considered none too good for the stove, and the best trees of the best kind were chosen for posts, fence-rails and other inferior uses.

As a consequence of this culling system, which left only undesirable kinds and trees—the weeds among tree-growth—many wood-lots have become well-nigh useless—mere weed patches. Many have ceased to supply even the domestic fire-wood. The soil, which was of little use for anything but a timber crop, is rendered still less useful under this treatment, and, in addition, being compacted by the constant running of cattle, the starting of a crop of seedlings is made nearly impossible. It would not pay to turn it into a field or pasture; the farm has by so much lost in value, simply because the wood-lot was worked like a mine, instead of like a crop. If, after cutting the original growth, a new crop sprang up, this was merely an accident or natural sequence, not a result secured by a deliberate effort or premeditated plan, except in sporadic cases. In the deciduous forest, composed of broad-leaf trees, the sprouting capacity of the stumps was responsible for regrowth, and many wood-lots became sprout-lands, which were cut over and over again, also without any care for the stocks, and, by this neglect and the browsing of cattle, became poorer and poorer.

Now, especially in the peninsula of Ontario, the stores of the farm wood-lots have begun to show signs of exhaustion, and, indeed, during the late anthracite coal strike in the United States, a real fuel famine was experienced in some parts of this section. It is, therefore, proper time to look after the recuperation of these mismanaged wood-lots, and, by the judicious use of the axe, cutting out the poor kinds and poor individuals, and giving chance for more valuable kinds to develop, to put these lots in better producing condition.

Moreover, a considerable portion of almost any farm contains land not fit for farm use, because of soil conditions, abandoned pastures and slashes, being too rocky, too dry, too wet. These are the very portions of the farm that should be devoted to tree-growth. In Southern Ontario alone, 20 to 25 per cent. of the farms are in that condition. The true farmer abhors waste, and it would be to his interest if he used this soil, these waste corners, for the only crop that will pay—a timber crop.

It is covering up unsightly parts, which, if properly managed, increase the value of a farm, and besides providing the needed wood supply, often the conditions of the farm in general are improved by a forest-growth, which may act as a wind-break to protect the neighboring field against evaporation, a soil cover to prevent erosion and washing of the soil, or it may preserve the flow of a spring which in the open would dry out.

As to the profitableness of such wood-lot-planting, this is in the first place indirectly to be found in an improvement of the general looks of

pounding planting cost at 5 per cent., \$16.90, or 68 cents a cord, which, at that time, even for fuel-wood, will not be a high figure. But, to be sure, fence-posts and other more valuable material will be cut from such wood-lots; and, if the crop is allowed to grow longer, the result would improve.

That forestry pays in the long run, is so convincingly proved by European experience that it needs no other argument. At the time when the German forest administrations began their operations, market and forest conditions were somewhat similar to ours. At present, they make

regularly every year, without cutting into capital, from \$3 to \$6 per acre per year in the smaller administrations, with 200,000 to 500,000 acres, and \$2 to \$3 for the largest forest administrations which control millions of acres.

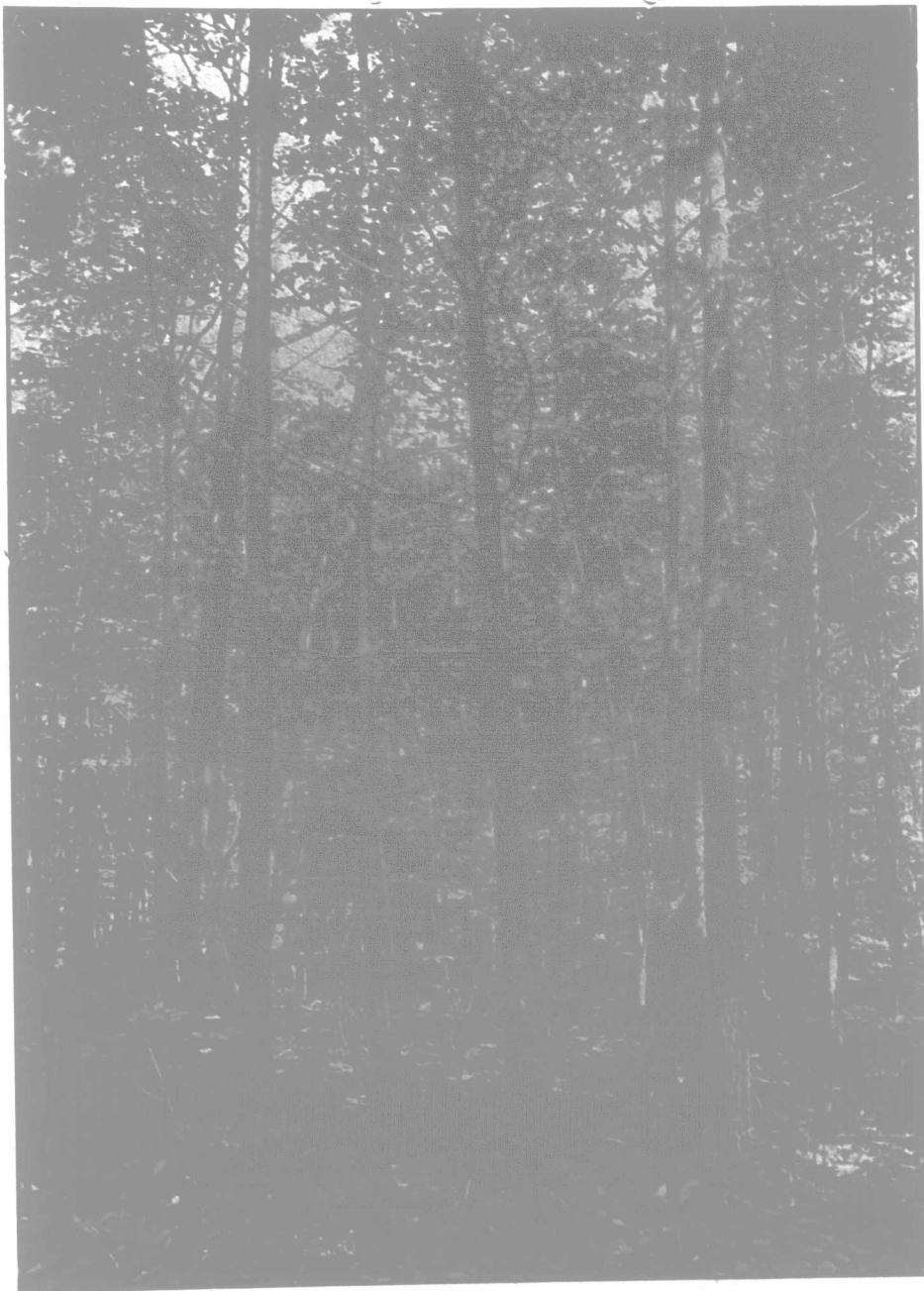
The Pennsylvania Railroad Company in the United States has lately gone into the business of planting for railroad ties. Their forester figures are as follows:

Cost of land at \$10, at 4½ per cent. for forty years.....	\$ 58.16
Cost of plant-material and planting, \$10, at 4½ per cent., for forty years.....	58.16
Taxes, 3 cents per annum, at 4½ per cent., for forty years	3.21
Management and protection, 15 cents, at 4½ per cent., for forty years	16.05
Cost of sawing and hewing 400 ties, at 10 cents.....	40.00
Cost of hauling 400 ties, at 5 cents	20.00
	\$195.58

By the above estimate, the initial investment of \$20.00, together with the annual recurring charges for taxes, management, and protection, would pay compound-interest charges of 4½ per cent. per annum, and, in addition, at the end of the period, 400 ties would be produced per acre, at a cost of 48 cents each, which is less than the market price of such ties today.

The Ontario Government has taken a wise step last year in buying up waste lands in the Province and planting them to timber. It is the proper policy for the Government to do this on extensive tracts, but every individual farmer can do it, with the same satisfaction, on his limited waste areas.

Much is being done through colleges and universities to impress on the agriculturists of Canada the importance of forest growth in crop-growing, and to equip them with a knowledge of methods to be adopted and trees to be selected for different soils and different parts of the Dominion. Such steps on the part of educational forces should be sufficient to induce those farmers who have bush land on their farms to give reasonable time and labor to ensure healthy growth and avoid deforestation. The exercise of judgment in setting out new forest areas is demanded, but the increasing value of timber of all kinds should be a mighty force in persuading the preservation of what areas now are in forest. Besides, there is the question of water supply, which is so necessary to all crops, the conservation of moisture resulting from melting snows and copious rains of spring and early summer, and the desirable shelter from storm and blast. Particularly during the winter season does the presence of forest growth along the highways become duly appreciated. In most cases a little underbrushing or cleaning up will do much to improve the appearance, and to make conditions such that young trees will come along to fill in spaces left where timber or fire-wood has been cut. Perhaps time spent on judicious planting of certain varieties in one corner or along a side will improve the wood-lot one hundred per cent. In too many cases free access of stock results in injury.



A Wood-lot Protected from Grazing for a Number of Years. Now well filled with young sapling growth. A good opportunity for pruning dead branches and slight thinning.

the farm, and otherwise as stated, but eventually in the wood product.

While, under varying conditions, the actual cost and result will, of course, vary, it is safe to figure that planting can be done at a cost of considerably within \$10 per acre. The knowing farmer should, indeed, be able to do it at half that cost. It would be a poor acre, indeed, that did not produce, if properly tended, at a rate of a cord per year during the first twenty-five years, so that at that time a yield of twenty-five cords should result. This will then have cost, com-

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Typical Southern Laurentian Uncut. Barnard Depot, Burnt Lake, Algonquin Park, Ont.