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EDITORIAL.

waste Land Changed to Forest.

The forestry problem, like every other problem in which agriculturists are interested, must be considered from an economic standpoint. In most cases a demand is made for immediate returns. Forestry enthusiasts have not been able to convince the public that the returns accruing the first, or second, or third season after planting young trees assumes large proportions, but in a report just issued by the Ontario Department of Agriculture, Professor E. J. Zavitz, of Ontario Agricultural College, combines figures with logical arguments to show wherein Ontario farmers can benefit by judicious reforestation of waste lands.

True, trees do not develop into salable timber in a few years. But there are other considerations besides direct cash from the lumber or cordwood sold. What of the influence on field-crop yields, because of increased moisture supply due to snow being held during winter, and the conservation of moisture during the growing season by bush-land checking the free sweep of the winds? It is necessary to consider more than the area that is devoted to tree production. There are few localities in Ontario in which one farmer, or more, cannot be found who will testify to the benefits of forest-growth, by stating that the yield on a certain field, protected from the sweep of the prevailing winds, was one to five bushels greater than that of another area of similar soil, but not so protected. On a hundred-acre farm, with sixty acres in crop, an increase equal to two bushels of wheat per acre, at the average market price of wheat-say, 75 cents-would mean \$1.50 per acre, or a total of \$90 increased returns from practically the same labor and general expenses. On exposed tracts, these figures would be much greater. Particularly in dry, windy seasons is this the case. And this benefit is observable not only on acres immediately contiguous. lands have an influence for good on a wide dis-

In all parts of the Province areas have been cleared that never should have been a lure to agriculturists. Why should man or beast be called upon to labor on hilly tracts, while areas that are more level, and just as fertile, remain untouched? Spring freshets and summer floods result in washouts that never would have been possible had nature's trees remained.

From the æsthetic side, too, there are many factors worth considering. The natural beauty of the country is enhanced; birds are provided with shelter and nesting places; wild game is supplied with a desirable breeding-ground; recreation grounds for the people are preserved; and streams are sustained and made more attractive to fishermen.

Man's inherent tendency to satisfy a selfish interest, without regard to the future, has resulted in a sad neglect of wooded lands and a gradual denudation of acres that never should have been used for agricultural purposes, and which, as bush land, were of benefit to the surrounding district. When forest trees are available, a call to meet payments usually brings disaster to the bush land. Evidently, no thought is given for the smaller growth that rapidly is developing into a valuable asset. In some cases few young saplings or seedling are to be found, because of the annual inroads of the live stock of the farm. These are problems that can be solved by the individual. Keep stock out of the woodland, at the until the saplings have grown up thick and the most scattering bush will soon iself if unpastured.

Development in manufacturing, and a conse-

quent lavish consumption of all kinds of wood, have brought about a scarcity that is becoming alarming. Gradually-increasing prices point to abnormal profits from all wooded land. The United States, recognizing the rapid decrease in home supply, evinces alarm by a proposal to reduce the United States tariff on lumber from \$2 to \$1 per thousand. This is an augury of still further increases in lumber prices, and the Americans wish to preserve their home supply by making conditions for import easier. Canadians should exercise the strictest care in cutting down trees, and also take precautions to induce continuous cropping on areas on which trees now

But that is not all. The non-agricultural lands already bared of trees can be made to give profitable crops by skilled methods of reforesting. Already, some Ontario townships comprise as low as five per cent. wooded land. In 1904, the average for all settled townships was fifteen per A deplorable feature is the scarcity of valuable hardwood. On almost every farm there are at least a few acres that can best be left in bush. Then, there are large tracts of land not suited for agricultural purposes. Private owners must arrange to manage properly the former; for the latter, the only solution seems to be permanent management as Provincial, or possibly municipal, forests.

The problem of reforestation, as considered by Prof. Zavitz, does not advise expenditures in replanting, except where reasonable fire protection is provided, or where there is no chance of natural reproduction of desirable species. As a financial investment, figures are given, taking into account rate of interest, cost of land, cost of plant material, cost of planting, cost of management, and protection and taxation. A thorough investigation in Southern ()ntario furnished a basis for expenditures. Taking one acre of white pine as a unit, the total expense, at the end of 40 years, is calculated to be \$71.92, and at the end of 60 years, \$160.34. Past experion soil similar to that of Southern Ontario non-agricultural tracts, indicates that an acre of 60-year white pine, artificially planted, will contain about 200 trees, ranging from 12 inches to 24 inches in diameter. At a stumpage value of \$10 per thousand feet, this one acre would be worth \$800, giving a net profit of \$639.66 in 60 years This is equivalent to a yearly rental of \$3.25, capitalized at 31 per cent., in addition to 31 per cent. interest on all money invested.

Abandoned farms are to be found. In other instances families are trying hard to eke out a living on lands that are not in condition for field-crop production. Rye is most commonly grown. Figuring labor at \$2.50 per day for man and team, the cost of production is placed at \$3.72 per acre. The average yield is about ten bushels per acre, which, at 75c., gives a return of \$7.50, or the discouraging balance of \$3.78.

The dearth of timber, and the prospect for present high prices being augmented, demands that farmers study the forestry question. For the year ending March 31st, 1908, Canada imported \$9,953,164 worth of forest products, including oak, southern pine, cherry, chestnut, hickory, fence posts and railroad ties. Judicious cutting of trees, careful management of bush lands, and systematic planting of non-agricultural areas, are worth considering.

Funny that "no," one of the easiest words in the English language to pronounce, is often the hardest to say.

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Grain-and-hay Rut. One great trouble with farming in Eastern Canada is that too much land is devoted to oats and grass, and not half enough to corn, roots and clover. The grain-and-hay rut still holds down many a farmer and impoverishes many a farm. An idea prevails that cultivated crops require too much work, and that seeding to clover is too expensive to be indulged in more than once in five or six years. So they go on mowing their sod-bound timothy and June-grass meadows, till they will no longer yield a ton to the acre, and sowing nearly all their plowed acreage to grain, chiefly oats, harvesting thirty or thirtyfive bushels to the acre, and complaining because profits are meagre, and their fields become weedinfested and poor. Of course, they cannot afford to hire much, because the aggregate annual returns scarcely yield decent wages to themselves, let alone interest on capital invested; and, of course, they hesitate to invest money in clover seed, because, when they do sow it, they are so uncertain of a return, owing to the land having become depleted of humus and plant food. is an awful rut, this grain-and-hay habit, from which so many find it hard to break away-an uninteresting, uninviting annual round. No wonder the young men long to get away from it.

Happily, here and there are progressive-spirited farmers, who have stepped out of the beaten path up on to the highway of a broader outlook. They have resolved to solve the labor and fertility problems, by growing more productive crops, by adopting rational rotation methods, and at the same time introducing variety into their work. They have begun, perhaps, if in the corn belt, by building a silo and planting corn after sod, following with grain, and seeding to clover, feeding both silage and clover hay to stock. The corn cleans the land and produces incredible quantities of good cattle feed. The fine state of tilth in which it leaves the land is well adapted to a crop of grain, and clover being sown frequently in short rotation builds up the soil and renders it easier to get future stands of clover. Corn and clover are a wonderful pair for soil renovation, as well as for the feeding of stock. Combined in the ration, one supplies what the other lacks, while the growing of both, and feeding them upon the farm, both cleans and enriches the

The new crops and the new system of management add interest to the farm work. What more refreshing than the verdant clover-seeding and the fragrant clover bloom? What more stimulating or more uplifting than the springing field of corn, rich-green in its vegetative luxuriance. A well-attended corn crop is a wonderful educator in plant physiology, as well as in principles of soil cultivation. There should be ten to twentyfive acres of it on every farm in Eastern Canada, where corn matures either for husking or ensilage purposes, or, better still, for both.

With waste lands reforested; rough, watered areas seeded to permanent pastures; rolling, clay hillsides in alfalfa, and the rest of the land worked under a short rotation of corn and roots, followed by grain seeded to clover, and the bulk of all the produce fed to good stock, with the manure carefully saved and applied, returns from our farms could be easily doubled in ten years; fertility increased, average crop yields raised, and more labor employed, at a much higher wage, with a fair profit still to the good. Too many acres are producing ten or fifteen dollar crops of oats and hay, instead of thirty-dollar crops of ensilage corn.