

Increment.—From the long-term point of view it is believed that total depletion of our forests can be replaced by an average growth rate over the productive forest area of between 8 and 9 cu. ft. per acre annually. This very low rate is almost certainly being maintained or exceeded. But practically all of the depletion is in fact concentrated on the 430,000 sq. miles of productive forest which is classed as accessible, and replacement of normal depletion by this area alone requires an average growth rate of more than 14 cu. ft. Under war conditions the rate is probably close to 16 cu. ft. per acre per annum. In the present state of our knowledge it would be unsafe to assume that this average is being maintained throughout the area concerned. Complete estimates of the rates at which the forests of Canada grow are not yet available. The vast size of the country, the diversity of growing conditions, and the complex character of the forests themselves, place great difficulties in the way of estimating growth. Numerous studies have been made by the Dominion Forest Service which indicate, beyond reasonable doubt, that over considerable tracts annual growth exceeds 25, 30 or even 40 cu. ft. per annum; but there are other areas classed as productive on which the growth is much less.

Natural reproduction of forest tree species in Canada is fortunately prolific, except in a few localities. After an area has been cut over or burned, young growth usually appears within a short time. Thus the re-establishment of some sort of forest growth is a less difficult problem than it is in many other countries. There is, however, no guarantee that the species reproduced will be of the kinds desired by industry. Most of the wood used in Canada is softwood and in general, softwood reproduction is fairly good; but there are considerable areas in which a combination of overcutting and repeated fires have resulted, not in the permanent destruction of the forest, but in the replacement of valuable stands by new ones of inferior quality.

There is no room for doubt that the introduction of better methods of forest management, including the provision of more adequate forest protection, can make the forests of Canada more productive than they have ever been. It is true that stocks of very large trees, whose growth required upwards of 300 years, are disappearing and will not be replaced; but, though the forest industries of the future must use smaller logs than did those of the past, good forest management can make possible a considerable expansion of those industries as and when market conditions warrant.

The potential capacity of many of our forest soils to produce more usable wood in a given period than they have ever done in the past is already being demonstrated on such areas as the Dominion Forest Experiment Station at Petawawa, and on some of the better-managed farm woodlots.

Section 5.—Forest Administration

Subsection 1.—Administration of Dominion and Provincial Timber Lands

Although the forest resources are, generally speaking, under the control of the provinces, forests of the National Parks, Forest Experiment Stations and the Northwest Territories and Yukon are administered by the Dominion Government.

In Canada the general policy of both the Dominion Government and the Provincial Governments has been to dispose of the timber by means of licences to cut, rather than to sell timber-land outright. Under this system the State retains ownership of the land and control of the cutting operations. Revenue is derived in the form of stumpage bonuses (either in lump sums or in payments made as the