

CHAPTER IX.—FORESTRY.*

A short article on "Physiography, Geology and Climate as affecting the Forests" was published at pp. 311-313 of the 1934-35 Year Book.

Section 1.—Main Types of Forest Growth.

Physiographic, climatic and soil conditions in Canada favour the coniferous type of forest. While the more fertile portions of Ontario, Quebec and the Maritime Provinces once supported a heavy virgin growth of hardwoods, the greater part of Canada's present forest area is covered with spruce, pine, balsam, Douglas fir and other coniferous softwoods.

Three main groups of forest growth in Canada follow the three main physiographic regions. The Cordilleran Region includes the Pacific slope and the Rocky mountains; the Great Plains Region covers the area east of the Rockies draining into the Arctic ocean and Hudson bay, and the Eastern Region, covers the basin of the Great Lakes and the St. Lawrence, together with the Maritime Provinces.

The Cordilleran Forests.—The Cordilleran Forest Region extends from the Pacific coast to the eastern foothills of the Rockies and may be subdivided into the Coast Belt, the Interior Dry Belt, the Interior Wet Belt, the Rocky Mountain Belt, the Northern Interior Belt and the Sub-Arctic Belt.

In this region the mountain ranges run approximately parallel to the Pacific coast from northwest to southeast. The chief rivers follow the valleys between these ranges, breaking through in some cases along connecting valleys eventually to reach the Pacific ocean.

The Coast Belt includes the western slope of the Coast and Cascade mountains and the Insular system, the higher elevations of which form Vancouver island, the Queen Charlotte group and other islands along the coast. The islands off the coast are of Palæozoic rocks and the Coast mountains are granitic.

The climate in this belt is mild and equable with heavy precipitation, varying from 40 to 120 inches per annum, about 70 p.c. of which falls during the autumn and winter months. These conditions are conducive to the luxuriant growth of coniferous forests producing not only the largest trees but the heaviest stands in the Dominion. Individual trees of Douglas fir, western red cedar and Sitka spruce frequently contain from 5,000 to 10,000 ft. b.m. and stands yielding 50,000 to 100,000 ft. b.m. per acre are not uncommon.

Several distinct forest types occur, their character being determined primarily by temperature and precipitation which, in turn, are influenced by altitude and latitude. At the lower elevations in the southern part of the belt, Douglas fir, western red cedar, and western hemlock predominate with lowland and amabilis firs and western white pine as secondary species. In the north, Sitka spruce replaces Douglas fir and white pine. Alpine fir, yellow cedar and mountain hemlock are characteristic species of the higher altitudes and less favourable sites.

The Interior Dry Belt includes the semi-arid southern part of the Interior Plateau with the lowest annual precipitation and extremes of temperature which are unfavourable to tree growth. *Ponderosa* or yellow pine is the most important

*Material in this chapter has been prepared by R. G. Lewis, B.Sc.F., Chief of the Forestry Branch of the Dominion Bureau of Statistics, in co-operation with Roland D. Craig, F.E., of the Forest Service of the Department of the Interior. The Forestry Branch of the Bureau of Statistics collects and compiles statistics relating to forest production and publishes four annual printed reports covering the lumber industry, the pulp and paper industry and the wood-using and paper-using industries of Canada. These printed reports are usually preceded by a number of preliminary mimeographed reports, one for each important industry or group of industries. For detailed list of publications see Chapter XXIX.