

NATURAL RESOURCES OF THE DOMINION OF CANADA.

value. It is estimated that the annual growth of merchantable timber is much greater than the annual cut at the present time.

The forests on the islands and along the mainland coast, especially in the south, are very dense. One acre is said to have yielded 300,000 feet of lumber, and the average yield per acre is estimated to be about 45,000 feet. These forests have probably suffered less from fires than those in any other section of North America, owing to the heavy rainfall. This is one reason why so many of the trees are large, although the great size must be attributed chiefly to the fact that the climate and soil are favourable to rapid growth. In some sections of the interior, where the climate is dry, there have been serious forest fires. Even in the southern interior the forests are much less dense than on the coast, and the trees are smaller, while the northern interior is generally sparsely timbered and the trees are comparatively small.

In a country with so many varieties of climate it is manifest that there must be variation in the character of the tree growths. The most important tree of British Columbia is the Douglas fir, which takes its name from an eminent botanist who explored the province in the early years of the last century. This tree is very widely distributed in southern British Columbia and extends as far east as the Bow river in Alberta. It attains its greatest size in Vancouver island, on the mainland coast opposite Vancouver island, and in river valleys near the coast, many of the trees in those districts being of great age and enormous size. The age of a full-grown tree is said to average 500 years, and there are many specimens from 600 to 700 years old. The Douglas fir sometimes towers to a height of 300 feet, with a diameter of fifteen feet, but such trees are exceptional. However, trees 250 feet high and ten feet in diameter are often seen; they commonly reach a height of 180 feet with a diameter of four to five feet, the trunk being straight and clear of branches for upwards of 100 feet. In the interior of the province the trees are not so large. The wood is of great value for structural purposes, while the bark is useful in tanning. Tests made by railway engineers to ascertain the relative value of Douglas fir and oak for the building of railway cars showed that the Douglas fir would withstand a greater strain than the oak.

Next in importance to the Douglas fir is the red cedar, which rivals it in size. It grows in all parts of the province, but the largest trees are found in the coast districts, where the Douglas fir thrives best.

There are four varieties of spruce in British Columbia—white, black, Engelmann and Sitka. The most valuable is the Sitka—(*Picea sitchensis*), which is sometimes called Menzies spruce and sometimes British Columbia spruce. It thrives in the humid atmosphere of the north Pacific coast and the islands. The Engelmann spruce grows extensively in the interior.

Western hemlock grows abundantly along the coast, especially in the north, and in those sections of the interior where the rainfall is heavy. In Queen Charlotte islands and other islands adjacent to the northern coast the Douglas fir, so abundant in Vancouver Island, does not grow, but there are large quantities of red cedar, spruce and hemlock, while the yellow cedar or yellow cypress seems to thrive better