

cut-over areas to determine the number of seed trees remaining after the logging operations. At the same time, studies were made on the influence upon the re-establishment of the commercial species of various agencies, such as logging without burning, logging with burning, and the presence of underbrush.

After a brief description of the mature forests in the southern coastal forests of British Columbia, the following report passes to a description of the young forests (the forest reproduction) dominated by fir, hemlock or cedar (pp. 9-13). The section of the report following this deals with the agencies which accelerate or retard the establishment of young forests. The last topic is discussed under such headings as logging without burning, logging with burning and the under-vegetation (pp. 13-19). The recommendations based upon the results of the investigations are presented in the final section (pp. 19-21).

The statements in regard to the ages of the older trees are to be considered only as approximate. The age is determined by counting the annual growth rings on the stumps, so an addition must be made for the time taken by the young tree to reach stump height. This period varies according to the favour of the growth conditions in which the seedling found itself; it may have grown in height very slowly or very rapidly. For example, some seedlings in very dense stands on poor soil were found to make an average height growth of three inches a year for the first ten years, while, on the other hand, seedlings in the best soil conditions grew at the rate of over a foot a year in the same time. From the measurement of several hundred seedlings in various conditions of density and soil, the rate of six inches a year for the first ten years was taken as the average height growth, and the age of a tree to the height of the stump was calculated on this basis.

The young trees, whose ages were to be determined, were cut flush with the ground, so the results in this case are quite accurate. There are chances of error in determining the age of fire scars, as it may happen that a growth layer is not laid down in some years on the side of the tree where the rings were counted.

MATURE FORESTS

In the coastal region of British Columbia, included in this report, from sea level to an elevation of approximately 2,000 feet, Douglas fir is the predominant tree species in the mature forest, both as to numbers, since it comprises from 70 to 80 per cent of the stands, and as to growth conditions, since it overtops its associates in the forest and furnishes the greater portion of the lumber. If, however, the