

Since its beginning in 1900, the Canadian Forestry Association has played an important part in securing popular co-operation in reducing the fire hazard. By means of its magazine, which has a large circulation, by railway lecture cars and motor-trucks provided with motion-picture equipment, and by co-operation with radio broadcasting stations and the press, the Association reaches a large proportion of the population of the Dominion. Special efforts are made through the schools by specially appointed junior forest wardens and other means, to educate the younger generation as to the value of forests, the devastation caused by fire and the means of preventing such destruction.

Subsection 3.—Scientific Forestry

The great forestry problem is the management of Crown forests, first under provisional and later under more intensive working plans, so as to ensure a sustained yield. Forest research activities in this direction are now assuming great importance. The Dominion Forest Service operates five forest experiment stations with a total area of 227 sq. miles. Here investigations of the underlying principles governing the growth of forests are made and practical methods of management are tested.

About 600 technically trained foresters are employed by the Dominion, by provincial forest services or by paper and lumber companies. A considerable number of foresters are actively engaged in commercial logging operations. In addition to administrative work, these men carry on forest surveys either for the estimation of timber-stands and making of maps, or to determine natural growth and reproduction conditions and factors. An outstanding development of recent years has been the extensive use of aerial photography for forest surveys. With the co-operation of the Royal Canadian Air Force and the Hydrographic and Map Service, the Dominion Forest Service has taken a leading part in the development of means for the interpretation of the photographs for forestry purposes. Most of the provincial forest services and many of the timber-owning companies also make extensive use of aerial photographs. It is now possible not only to map the areas covered by the various forest types but to estimate the volume of standing timber with an accuracy that compares favourably with ground surveys. Photographic prints covering 850,000 sq. miles are now available in the air-photograph library, and about 123,000 sq. miles of forest area have been mapped and classified from air photographs.

Research Work in Forestry.—In a special article on Scientific and Industrial Research in Canada, which appears at pp. 979-1012 of the 1940 Year Book, a comprehensive review of all phases of scientific research work being undertaken by the various Government Departments is given. Specifically at pp. 993-995 research in forest economics, silviculture, forest-fire protection and forest products is covered.

Section 6.—Forest Utilization

Subsection 1.—Woods Operations

A short review of the differences in logging methods throughout Canada is given at pp. 195-196 of the 1941 Year Book.

In connection with operations in the woods it should be borne in mind that the forests not only provide the raw material for the sawmills, pulp-mills, wood distillation, charcoal, excelsior and other plants, but that they also provide logs, pulpwood and bolts for export in the unmanufactured state, and fuel, poles, railway