

District Offices are maintained at St. John's Nfld.; Fredericton, N.B.; Valcartier, Que.; Winnipeg, Man.; and Calgary, Alta. A special research unit at the headquarters at Ottawa serves as a district office for Ontario so far as forest research work is concerned. Forest Experiment Stations are located at Acadia near Fredericton, N.B.; Valcartier, Que.; Petawawa, Ont.; Riding Mountain National Park, Man.; and Kananaskis, Alta. Forest Products Laboratories are located at Ottawa and Vancouver.

The Forest Operations Division is concerned primarily with the administration of federal-provincial forestry agreements under the Canada Forestry Act. The duties involved include examination of programs for forest inventory, forest fire protection and reforestation which are submitted annually by the provinces as a basis for federal participation in costs, and examination of work carried out in accordance with these programs prior to payment by the Federal Government under the terms of the agreements. A co-operative agreement between the Governments of Canada and New Brunswick, under which the Federal Government is paying one-third of the cost of an aerial spraying operation against the spruce budworm in northern New Brunswick, is also administered by the Forest Operations Division.

Forest Research

Research in silviculture and management has been concentrated since World War II upon problems of regeneration, growth and stand development, and on harvest cutting methods. A regeneration survey extending from the Rocky Mountains to the Atlantic Coast has provided information on the status of regeneration on cut-over and burned lands and has been followed by more intensive work to assess the factors responsible for the success or failure of regeneration and to devise practical methods of obtaining reproduction. Studies are made of growth and succession in the most important forest types and of development of a satisfactory basis for classifying forest sites for effective growth and productivity. Research in tree breeding is also carried on for artificial propagation by selection and development of superior strains. Research in forest management devises methods of applying the knowledge of silviculture, regulation of cut and protection in order to manage the forest at its highest production level.

In the field of forest-fire research, the Federal Forestry Branch is working towards full co-operation with the provincial forest services to achieve the best methods of forest-fire protection. The leading contributions of the Branch to date have been in the field of fire-hazard research and in the development of equipment and techniques for fire-fighting. Increasing attention, however, is being given to research in such fields as fire-control planning, visible area mapping, detection and communications equipment, and the training of fire crews. A number of provincial forest-protection services are also engaged in research activities. Notable advances have been made in several provinces in the development of forest communications equipment, the dropping of supplies to fire-fighters by parachute, and the design of mechanical fire-fighting equipment.

Research in forest inventory methods is of increasing importance because of the greatly expanded inventory programs being conducted in most provinces. Data from photographs are correlated with field work to develop new techniques of timber estimating. Various methods of sampling are being investigated and compared. Research is being continued in methods for measuring tree images and tree shadows to determine heights, crown widths, crown closure and other data from photographs taken in different seasons of the year under various conditions. Studies are also being made in the