

maintained at strategic points. These crews, when not engaged on fire-suppression duties, are employed on the construction and maintenance of roads, trails, telephone lines, fire guards and other improvements.

Portable gasoline pumps and linen fire hose are important items of equipment and may be carried by canoe, motor-boat, automobile, aircraft, pack-saddle or backpack. The pumps provide hose pressures of up to 200 lb. per sq. inch, depending upon the elevation above and distance from the water supply; hose lines of over a mile in length are frequently used. Small hand-pumps supplied by 5-gallon portable containers are also effective. Bulldozers and ploughs are commonly used for fire-line construction and trucks fitted with water tanks and power pumps are employed for the control of fires adjacent to roads. Despite the provision of these mechanical aids, more than half of all fires are fought with hand tools.

The various government forest authorities conduct forest conservation publicity work independently and in co-operation with the Canadian Forestry Association. Since its beginning in 1900, the CFA 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 Canada. Efforts are made through the schools, by specially appointed junior forest wardens and other means, to educate the younger generation on the value of the forests and on the seriousness of the devastation caused by fire and the means of preventing such devastation.

Forest Fire Statistics.—During 1952 there were 5,101 forest fires compared with 4,529 in 1951 and an average for the period 1942-51 of 5,121. However, the average size of forest fires in 1952 and in 1951 was smaller than the average for the ten-year period, the area burned in the two later years being 991,196 acres and 896,426 acres, respectively, and the ten-year average being 1,622,364 acres. The estimated values destroyed in 1952 were 20 p.c. less than in 1951 and 5 p.c. less than the average; the actual cost of fire fighting was 39 p.c. less than in 1951 and 37 p.c. more than the average.

Although April and May were unusually dry months for Newfoundland and April was dry in Nova Scotia and fire occurrence was then highest above normal, the greatest fire damage occurred in these Provinces in July. In New Brunswick and Quebec over 80 p.c. of the damage occurred in the July-August period and no serious fire situation developed during the exceptionally dry autumn. Weather conditions in Ontario were generally favourable for fire protection and the acreage burned in that Province was less than one-tenth of the annual average for 1942-51; most of the fires occurred in April and May. Manitoba's one hazardous period was in April, but Saskatchewan had a very lengthy dangerous season. Most fires in Saskatchewan occurred in April and May but some were reported in November and December. The northeastern districts of Alberta suffered a severe drought during April and May when almost all of the Province's fire damage occurred. In British Columbia hazard conditions were not extensive but periods of high danger developed west of the Rockies in May and over the whole province in July and August. The fire period in the Northwest Territories extended from April to early August but cool damp weather in Yukon Territory precluded danger of fire there.