hose pressures up to 200 lb. per square inch, depending upon the elevation above and distance from the water supply. Hose lines over a mile in length are frequently used. Small hand-pumps supplied by 5-gallon portable containers are also used effectively in many cases. Tractors equipped with bulldozers or ploughs are commonly used for fire-line construction. In some regions, trucks fitted with water tanks and power pumps are employed for the control of fires adjacent to roads.

In addition to these improved measures, the enactment of legislation has tended to reduce the fire menace. The establishment of close seasons for brush-burning, and seasons during which permits are required for setting out fires and for travel in the forests during dangerous dry periods, have been of enormous value as preventive measures. Education of the public as to the need for care with fire is, however, the basic method of reducing the large number of fires which occur each year as a result of man's negligence.

Another important advance in forest protection is the development by the Dominion Forest Service of methods for the daily measurement of the actual degree of forest-fire danger. In the forest types and regions in which the necessary research has been completed the forest authorities are able, not only to gauge the trend of increasing fire danger at any given time but, by the aid of weather forecasts, to anticipate the trend one or two days in advance and so regulate their activities to meet hazardous conditions as they develop. Increased attention is being devoted to the scientific planning of fire-control operations so as to achieve adequate protection at minimum cost.

The various governmental forest authorities conduct forest conservation publicity work independently and in co-operation with the Canadian Forestry Association. Since its beginning in 1900, that 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 Canada. 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.

Forest-Fire Statistics.—Records of forest-fire losses in Canada are now available for the fire seasons of both 1947 and 1948. The 1947 season was an unusually favourable one, except in the Maritime Provinces where severe drought conditions prevailed during the late summer and autumn. In 1948, on the other hand, measurable damage combined with fire-fighting cost was the second highest in 20 years, being exceeded only by that of 1941. Exceptionally dry weather over wide areas in the Great Lakes region and in Central Canada during the early summer and autumn months contributed to the bulk of the losses sustained.

Summary statistics of fire losses are given in Tables **4** and **5**. It should be noted that estimates of damage to timber are based on prevailing stumpage rates only, and take no account of other potential losses to the wood-using industries. Moreover, the estimated values destroyed make no provision for damage to soil and site quality, stream-flow regulation, wild life, or recreational and similar values, none of which can be reliably appraised in terms of dollars. Damage to property, such as buildings, logs and equipment is, however, included.