

Although there was a reduction of 41,200,000 cu. feet in the amount of lumber cut from Crown lands as the woods industry continued to cut back operations (more than 92 p.c. of the reduction being caused by a drop in pulpwood production), the cut of such species as hemlock, cherry and oak showed slight increases. There was almost nine times as much softwood cut as hardwood—264,252,540 cu. feet and 31,554,930 cu. feet, respectively. Timber revenues to the Department in 1960 maintained the decade's annual average, which was more than double that of the ten years prior to 1951.

Preliminary reports to Dec. 1, 1960 documented 956 forest fires with 31,386 acres burned over. More than one-third of the fires took place in July and accounted for 27,575 acres of the destroyed area. Sioux Lookout district where 20,303 acres were burned over was hardest hit, followed by Geraldton district where 4,772 acres were burned over. Lightning caused 310 fires and 646 were caused by the carelessness of forest users. However, it is noteworthy that the proportion of man-caused fires in 1960, at 68 p.c., was the second lowest for the past 15 years (in 1955, 59 p.c. of the fires were man-caused). This trend, despite increased use of the forests, points in part to the success of the Department's work in fire prevention education through radio, television, publications, contests, lectures, films and advertising. Although the 1960 average of 33 acres destroyed per fire was considerably higher than the 1959 average of five acres, the latest ten-year average (1951-60) of 71.2 acres destroyed by each fire was an encouraging decrease from the 117.5-acre average recorded for 1941-50.

Detecting fires in their infancy and confining them to small areas has been accomplished largely by the Department's continual improvement in equipment and fire fighting methods; many of these advancements have been employed in other parts of the world. Water-dropping from aircraft is still one of the most effective means of fire containment in use. Late in 1959, work commenced on the development of float-type cargo-dropping racks for *Beaver* and *Otter* aircraft, designed to replace manual dropping through the camera hatch. The Air Service Section of the Department, with its fleet of 46 aircraft, spent 4,053 hours on fire-ranging tours, more than one-third of the total hours logged in all its operations, which included transporting personnel on administrative duties, fish and wildlife services, forest management and mercy flights.

During the year ended Mar. 31, 1960, 41,682,125 units of nursery stock were furnished through the Reforestation Section, an increase of more than 8,000,000 over any previous year. There were 23,448,118 trees planted on Crown land, 13,809,125 on private land and 4,114,129 on lands managed for counties, townships and conservation authorities. Tree seeds were collected, processed and sown, and nursery operations continued to develop toward an output of approximately 60,000,000 units per annum.

Areas managed by the Department in agreement with counties, townships and conservation authorities increased by 7,348 acres during 1960 to reach a total of 143,312 acres, contained in 42 Agreement Forests. These constituted 22 county forests with 94,512 acres, six township forests with 1,774 acres and 14 conservation authorities with 47,026 acres. Amendments to the Forestry Act provided that a conservation authority in a municipality may receive a grant for the purpose of assisting in the acquisition of land for forestry purposes.

Silviculture—reproducing, tending and improving forest crops—was carried out under two main phases: (1) artificial regeneration—more than 91,000,000 trees were planted during the past five years and a program to assess tree survival was started; and (2) stand improvement—which continued the establishment of demonstration units in various regions to study silvicultural characteristics of commercial trees and the training of forest management personnel. Stand improvement work was done on 12,227 acres during 1959-60. Forest management improvements required research into cutting practices, thinning by chemical and mechanical means, and the use of fire for silvicultural purposes.