The House of Commons Standing Committee on Mines, Forests and Waters studied the forestry situation exhaustively during two sessions of Parliament, hearing evidence from many organizations and individuals from all parts of Canada. Its report in 1959 stressed the importance of the forest industries to the nation and recommended in part that a separate Forestry Department should be established and that the functions of the Forestry Branch of the Department of Northern Affairs and National Resources and those of the Forest Biology Division of the Department of Agriculture should be co-ordinated in the recommended Forestry Department. The Speech from the Throne on Jan. 14, 1960 asked for authorization for "the establishment of a new department to be concerned with affairs relating to the forests of Canada and their most effective utilization and conservation" The Department of Forestry Act received Royal Assent on Aug. 1, 1960 and became effective upon Proclamation on Oct. 1, 1960.

The Department of Forestry Act (which repealed the Canada Forestry Act of 1949) sets out the duties, powers and functions of the Minister of Forestry as extending to and including "all matters over which the Parliament of Canada has jurisdiction relating to the forests of Canada". The Minister is to consult with and inaugurate conferences of provincial or municipal authorities, universities, representatives of industry or other interested persons. The Act provides for the establishment of forestry experimental areas on federal lands and for regulations for the protection, care and management of such areas. It provides also for the submission to Parliament of an annual report on activities of the Department for each fiscal year and for various operational matters.

The *Forest Research Branch* conducts both basic and applied research related to forest management and forest fire control. The basic research is to gain an understanding of the natural processes governing the behaviour of forests and forest fires, while the applied research is concerned with the application of such knowledge in the development of methods for the establishment, growing, harvesting and protection of forests.

Forest management research deals with silviculture, ecology and forest mensuration and inventory. Many of the silvicultural studies involve (*a*) assessing the factors responsible for the success or failure of natural regeneration following various cutting methods and treatment of seed beds, (*b*) comparing different methods of seeding and planting, and (*c*) determining the effects of different methods of intermediate cutting on the development of residual trees and stands. Studies are made of growth and yield and of successional changes in most of the important forest types. Techniques used in mensuration are constantly under review and study; new methods are tested and developed. Application of silvicultural techniques as well as research in regulation of cut and in methods of protection are aimed at determining how forests may be maintained at the highest levels of production. The relationships between forest growth and site are being studied with a view to the assessment of long-term productivity. The requirements of light, temperature and moisture that will produce optimum conditions for growth and development are being determined for the seedlings of many important species of trees. The physiological processes of growth and reproduction are under investigation for a limited number of species. In tree breeding, superior strains are selected or developed and there is a continual improvement in propagation and breeding techniques. Research in forest soils is directed toward determining the relation of tree growth and nutrition to chemical and physical properties of the soil.

Research in forest inventory methods is of increasing importance because of the continuing programs of forest inventories being conducted in most provinces and in the northern Territories. Data from air photographs are correlated with field observations to develop new techniques of timber estimating. The use of stand volume tables and various methods of field sampling are being investigated and compared. Research is continuing in methods for measuring tree images and tree shadows to determine heights, crown widths, canopy density and other data from photographs taken in different seasons of the year under various conditions. The use of large-scale photography of sample areas is also being investigated and studies are being made in the identification of species and sub-types.