

improvement. The reforestation program has been expanding yearly with emphasis on the genetic improvement of the white spruce. As the program progresses, the genetic improvement program will be carried out on all commercially important tree species.

**Nova Scotia.** Of Nova Scotia's land area of 20,402 sq miles, 17,159 sq miles are classed as forest and most of the forest land is considered suitable for regular harvesting. Although 91% of the forest land in Canada is held by the Crown in the right of the federal and provincial governments, only 22% is so held in Nova Scotia.

Provincial Crown lands are administered by the Department of Lands and Forests through a staff of foresters and rangers. Extension personnel assist owners of small private woodlands. The Department administers the Lands and Forests Act as it pertains to all lands and is responsible for forest fire suppression. Forest fire detection is facilitated through 35 observation towers and an aerial patrol service with one helicopter and six fixed-wing aircraft. In 1974, 579 fires burned 4,473 acres of forest. Five fires exceeded 100 acres, and the largest covered 1,529 acres. Fire suppression crews and rangers with equipment are stationed throughout the province.

The forest industry is of prime importance to the economy of Nova Scotia, contributing directly or indirectly around \$130 million to the gross provincial product annually. There are in operation some 414 sawmills of various types and sizes, one hardboard mill, two newsprint mills, one groundwood pulp mill and one chemical pulp mill. These mills accounted for 36 million cubic feet (MM cu ft) of sawlog materials, and consumed just over 85 MM cu ft of pulpwood in 1973, excluding nearly 9 MM cu ft of pulp chips from sawmill residues. In addition, 6.4 MM cu ft of pulpwood were exported and 480 M cu ft of pit props, poles and pilings were produced.

The reforestation program has been active since the 1930s. Experimental work on container planting, direct seeding, soil capability and site preparation continues and efforts are being made to improve seed sources. Total softwood inventory as at July 1974 was 13 million seedlings and transplants, and 1.6 million trees were planted.

Timber, pulpwood and Christmas trees are sold through public tender, and cutting on Crown lands is done under recommendation of resource managers of the Department of Lands and Forests. Management cruises, regeneration studies and experimental cuttings are conducted on Crown lands and a program of operating these lands under long-term, integrated-use management plans is under way. During 1973-74, 3,695 acres of Crown forest were thinned and improved, bringing the total acreage of Crown silvicultural treatments to 40,495 since 1965.

The provincial forest inventory, a continuous system designed to operate on a seven-year cycle, was in its last year in 1973 and the second inventory cycle had commenced. In the second cycle the province will be covered in 10 years. Aerial colour photography, begun on Cape Breton Island in 1969, is being extended to the remainder of the province. Remeasurement of a system of 1,750 permanent sample plots was started, and is providing continuing data on growth and drainage.

Forest research is carried on by federal government agencies and by the Nova Scotia Research Foundation. Investigations cover stand improvement, tree nutrition, cutting methods, and insect and disease activities. Extension projects include fire prevention, a province-wide motion picture program, distribution of information on forest and wildlife conservation, promotion of the Christmas tree industry, a hunter safety program, woodlot improvement, preparation of material for the mass media, and technical assistance to sawmill operators.

**New Brunswick.** Of the total land area of New Brunswick (27,835 sq miles), approximately 87% is classed as forest land suitable for regular harvest of which the Crown, in right of the province, owns about 46%. About 2% is owned by the federal government and the remainder is privately owned. The total volume of standing timber in the province is estimated at 20,400 MM cu ft; coniferous species make up 70% and deciduous species the remainder.

Protection from forest fires, the first requirement for forest conservation, is mainly the responsibility of the Department of Natural Resources which also carries out duties in connection with game management and protection, mines, water, and the administration of provincial Crown lands. A large-scale aerial spraying program to protect balsam fir and spruce