The Research Branch also carries out experiments in control, utilizing cultural techniques, chemicals and biological control agents including parasites, predators and insect pathogens. Technical advisory services are provided in evaluating possibilities of eradication or control, or other applications of research results. Recent examples include recommendations for reduction of seedling losses in forest tree nurseries through cultural techniques and chemical applications; the co-operative organization of cull surveys to improve forest inventories; consultation with local authorities on the Dutch elm disease problem in New Brunswick, Quebec and Ontario, designed to limit spread and damage through control of the disease vectors and sanitation procedures; and technical co-operation with provincial governments and industrial agencies in the organization of spraying operations against the spruce budworm in New Brunswick and Quebec, and the black-headed budworm and ambrosia beetles in British Columbia.

Subsection 2.—Provincial Forestry Programs

All forested land in provincial territory, with the exception of the minor portions in National Parks, forest experiment stations, military areas and Indian reserves (see Table 2, p. 21), is administered by the respective provincial governments. The forestry program of each province is outlined below.

Newfoundland.—Geographically, the Province of Newfoundland has two separate regions—the Island and Labrador on the mainland. The productive forested land of the Island is estimated at 12,758 sq. miles and of Labrador at 17,747 sq. miles, a total of 30,505 sq. miles. Only 578 sq. miles are classified as farm woodlots. Most of Labrador's forests are leased but are as yet virtually untouched.

A large part of the forest land in the interior of the Island is leased, licensed or owned by paper companies, but a three-mile-wide belt along most of the coastline is retained as unoccupied Crown land for the purpose of providing firewood, construction material, fencing material, etc., for the local population. Within this coastal forest belt every household has legal right to cut 2,000 cu. feet of wood a year for domestic use. This form of cutting is generally without any control or restriction but a policy is being introduced whereby cutting in certain 'management areas' is controlled by forest officers.

Commercial timber-cutting on unoccupied Crown lands has been by permit since 1952; permits for amounts up to 120 cords per person are issued by the field staff but permits for larger quantities must be approved by the government. The number of large permits varies from 10 to 25 each year and usually cover stands damaged by wind, fire or insects. Unoccupied Crown land is divided into 21 Forest Inspector Districts averaging 281 sq. miles in size. The Island is also divided into three Forest Regions, each with a Supervisor who is in charge of Inspectors and is responsible to the Deputy Minister of Resources.

The lack of roads into the remote forests makes fire prevention difficult. Twenty-three well-equipped forest fire depots with radiotelephones are scattered along the coast, and 14 lookout towers, also equipped with radiotelephones, cover a large portion of the forested area. One aircraft, equipped with water-dropping tanks, is stationed at Gander throughout the fire season; it patrols isolated forests and transports fire fighting equipment and crews when necessary. A helicopter is also used at times for this purpose. The forest fire staff, including permanent Inspectors, is approximately 110. The two paper companies maintain their own fire protection organizations.

Forest research for Newfoundland is performed by the Forestry Branch of the federal Department of Northern Affairs and National Resources. No reforestation is done in the province.