

The Federal Government has also agreed to pay to the Province of New Brunswick, during a three-year period ending Mar. 31, 1956, one-third of the cost up to a maximum of \$3,000,000 of an aerial spraying operation against the spruce budworm in the northern part of the Province. The Government of New Brunswick is also contributing one-third of the cost, the remaining third being contributed by the forest industries in the area affected. In the early summer of 1953, more than 1,000,000 gallons of DDT insecticide were sprayed over an area of about 2,800 sq. miles. The Federal Government contributed \$1,000,000 to the cost of the budworm spraying operation in 1953-54. Subsequent studies by forest entomologists of the Federal Department of Agriculture showed that the average mortality of budworm larvæ from spraying ranged from 87 to 99 p.c. Damage to foliage was light enough so that only a small part of the area needs to be resprayed to save it from further damage by the budworm.

**Recent Advances in Forest Management Programs.**—During recent years an increasing interest has been shown by governments and industry alike in programs to stimulate production of forest products and, at the same time, perpetuate Canada's forest resources. Most of the provinces require timber operators on Crown lands to submit forest inventories of their cutting areas and to prepare management plans covering operations for a stated period of time.

Saskatchewan has taken an effective step towards conservation of its forest resources by curtailing the annual cut to an amount approximating 5 p.c. of the estimated stand of merchantable spruce saw-timber in each particular district.

In British Columbia the granting of forest-management licences under authority of an amendment in 1947 to the British Columbia Forest Act will, undoubtedly, lead to a great improvement in forestry practice in that Province. Continuity of tenure, which is essential to the successful operation of a sustained-yield program, is assured by these licences under which the Minister of Lands and Forests of British Columbia may enter into long-term timber agreements with operators. At the end of 1953 a total of 14 Management Licence contracts were in effect, with an allowable annual cut on a sustained-yield basis of 70,800,000 cu. feet; and there were 25 Public Working Circles over the whole province, with an annual allowable cut of 133,700,000 cu. feet; making a total on sustained-yield equal to more than 25 p.c. of the total forest production of the Province. In 1948 a further amendment to the British Columbia Forest Act established a Forest Development Fund of \$2,500,000 for the building of forest roads and bridges intended for the economical harvesting of forest products.

The Provinces of Nova Scotia, New Brunswick and Ontario have each appointed an Advisory Committee composed of representatives of the provincial government, the forest industries and other organizations interested in the welfare of the forests, so that forest problems can be discussed and a concerted effort made to solve them for the benefit of all. Efforts are being made, especially in Quebec and Ontario, to encourage the establishment and maintenance of forests on a community basis.

The use of air photographs for forestry purposes is a comparatively new field in which progress has been made in both research and practice (*see* p. 454). By the use of such photographs the Forestry Branch of the Department of Northern Affairs and National Resources has been continuing its work on the aerial forest mapping of federally administered lands and other territories. Forest inventory maps, for