provide an increasing demand for the so-called inferior classes of wood so that more complete utilization of the forest resources through the elimination of much of the waste that now occurs can be expected. (See also pp. 432-438 "Productive Capacity of the Forests".

2.—Average Annual Forest Depletion during the Period 1939-48

Item	Usable Wood	Percentages of—	
		Utilization or Wastage	Depletion
	M cu. ft.		
Products Utilized—			
Logs and Bolts—			
Domestic use	1,021,316	38·0	29·9
Export	26,399	1·0	0·8
Pulpwood—			
Domestic use	662,292	24·6	19·4
Export	151,324	5·6	4·4
Fuelwood	725,768	27·0	21·2
Hewn railway ties	8,684	0·4	0·3
Pit props	20,758	0·8	0·6
Poles, posts, rails	35,659	1·3	1·0
Miscellaneous products	35,773	1·3	1·1
Annual Utilization	**2,687,973**	**100·0**	**78·7**
Wastage—			
By forest fires	228,266	31·3	6·7
By insects and disease	500,000	68·7	14·6
Annual Wastage	**728,266**	**100·0**	**21·3**
Annual Depletion	**3,416,239**	...	**100·0**

Increment.—Practically all the depletion or drain on the forests is concentrated in the 473,000 sq. miles of productive forest classed as accessible. Replacement of normal depletion by this area alone requires an average annual growth rate of about 11 cu. ft. per acre. Complete estimates of the rates at which the forests of Canada grow are not yet available. The vast size of the country, the diversity of growing conditions, and the complex character of the forests themselves, place great difficulties in the way of estimating growth. The results of numerous studies made by the Forestry Branch indicate, beyond reasonable doubt, that over considerable tracts annual growth exceeds 25, 30 or even 40 cu. ft. per acre per annum; however, there are other areas classed as productive on which the growth is much less.

Natural reproduction of forest tree species in Canada is fortunately good except in a few localities. After an area has been cut over or burned, young growth usually appears within a short time. Thus, the re-establishment of some sort of forest growth is a less difficult problem than it is in many other countries. There is, however, no guarantee that the species reproduced will be of the kinds desired by industry. Most of the wood used in Canada is softwood and, while in general, softwood reproduction is fairly satisfactory, there are considerable areas in which a combination of cutting and fire have resulted, either in the permanent destruction of the forest or in the replacement of valuable stands by inferior types.

Many stands of 'second growth' that have come up after cutting or fire are now reaching merchantable size and are beginning to attract attention. Anticipating the need for practical guidance in the management of these accessible young forests, the Forestry Branch has a number of experiments in progress at the various Forest