

Canadian Forestry Journal

VOL. XVI.

OTTAWA, CANADA, JANUARY, 1920.

No. 1.



Foresters running a survey through open country.

HOW FOREST SURVEYS ARE MADE

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With the rise in stumpage values, greater accuracy in timber estimating has become necessary. In the days of plenty, the "timber looker" had only to wander through a tract until he saw enough timber to justify a purchase or an operation, but to-day, with standing white pine selling at \$20.00 per thousand feet, and other species, formerly regarded as of little or no value, commanding proportional prices in the lumber industry, the making of a forest survey has become a technical undertaking requiring a knowledge of surveying and forest mensuration. A forest survey should include not only an estimate of the amount of timber but the preparation of a map from which logging operations can be intelligently planned.

Except where great accuracy is desired and tract to be covered is small it is unnecessary, if not impossible, to measure all the trees so that estimates of the total stand are almost always based on average yields found on sample areas. The sample areas may be taken in small blocks at regular intervals throughout the tract, but the better way is to lay them out in strips running across the tract.

The percentage of the area to be actually cruised depends on the degree of accuracy desired, the area of the tract and the nature of the country. On large areas, of say a township in extent, where topographical and forest conditions are more or less uniform, an actual cruise of five per cent of the area or in some