

University of Minnesota  
Agricultural Experiment Station

*Tables for Determining Contents of  
Standing Timber in Minnesota,  
Michigan, and Wisconsin*

Compiled by  
Cloquet Forest Experiment Station  
Division of Forestry

and

Lake States Forest Experiment Station,  
Forest Service, U.S. Department of Agriculture



UNIVERSITY FARM, ST. PAUL

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## INTRODUCTION

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A knowledge of the contents of standing trees, whether in board measure, cubic feet, cords, ties, or other forest products is basic to any woods operation. Tables showing the contents of average trees of given sizes according to some unit of measure are known as **volume tables**. Such tables are used in estimating the amount of standing timber for purposes of purchase or sale and for logging operations; and to determine the stand and growth of timber for the purpose of appraisal of fire damage, trespass, and forest valuation, and management in general; and also for all kinds of scientific studies involving volume, growth, and yield. The need of volume tables is therefore apparent.

The purpose of this bulletin is to bring together in a handy and readily available form the volume tables for the forest trees of the Lake States—Michigan, Wisconsin, and Minnesota. Some 93 volume tables, covering 25 species, have been included. Of these, 31 tables have not been published hitherto and for 15 tables the actual field data were collected and the computations made by the Cloquet and Lake States Forest Experiment Stations.

Very few or no volume tables for the Lake States region are as yet available for such species as balsam; white cedar; cottonwood; elm; hickories; red maple; black, bur, red, scarlet, and white oaks; second-growth red and white pines; and black spruce. As these are important commercial species in the Lake States, it was thought advisable, at least for the present, to include for these species volume tables prepared in other regions, as the Northeast. These tables may be too high or too low for local conditions in the Lake States. They are, however, the best that are available at present, and if used with occasional checks, may prove serviceable.

The volume tables in this bulletin are not equally reliable. Some are not based on a sufficiently large number of trees to be fully representative of all conditions. Others were not compiled with the same thoroughness or by the same methods and therefore are not truly comparable. On each table, the number of trees upon which it is based, the locality in which the data were collected, the name of the person who collected the field data, and the compiler of the table, if it were not done by the same person, are indicated. Other information is given that may prove helpful in an intelligent application of the tables.

All volume tables have limitations and their use requires judgment and knowledge of conditions under which they are to be applied.

Volume tables are based on measurements taken on a large number of felled trees. The values given are therefore average values. It can not be expected that a single tree taken at random will have the exact contents given in the table. It is only by applying the average values to a large number of trees that a fairly reliable estimate of the contents of standing timber can be secured.