

VOLUME TABLES FOR SCOTS PINE

[524.315 : 174.7 *Pinus sylvestris* (492)]

Summary of the report published on pages 290—292

Under the supervision of a committee, the Forest Mensuration Department of the Agricultural University and the Forest Experiment Station T.N.O., both at Wageningen, have constructed a volume table for Scots pine, based on 1116 measurements (in 1 or 2 m sections) of felled trees. The distribution of the observations over diameter and height classes is shown in table A¹⁾.

The volume table itself (table 1) has been calculated according to Näsund's form factor equation $f = p + q \frac{1}{h} + r \frac{h}{d}$. For the parameters p, q en r was found 0.3714; 1.3789 and 0.0527 respectively.

Table 1 gives the total stem wood volume outside bark, whereas the form factors for total stem wood are given in table 2.

Table 3 gives the reduction percentages for merchantable wood outside bark (up to an actually found top diameter of 2—10 centimeters approx., depending on tree size and quality), as measured in one section. These figures are mentioned in each first line of a pair (behind the word „met”), whereas the merchantable volume inside bark is mentioned in each second line (behind "zonder”).

The table was checked on merchantable volume of 26 lots, consisting of 2898 trees in all. Each lot was either a complete stand or a randomly chosen sample of a stand.

It appeared that the stand averages may deviate considerably from the table values. The range of these deviations even reaches from —17.3 to +16.3 per cent. The average of all trees, on the other hand, does not show a significant difference with the table. (The individual lot data are given in table B).

The committee recommends to apply this volume table for management and census purposes without reserve. In selling standing timber, however, a check of the table by felling some 20 or 25 randomly chosen sample trees, is indispensable. If one thus calculates a local reduction coefficient, even high deviations can be reduced to about 3 per cent., which is satisfactory accurate.

¹⁾ All tables follow after page 292.