ESTIMATES OF MERCHANTABLE VOLUME

IN THE NORTHERN JARRAH FOREST

by

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INTRODUCTION

The accurate assessment of merchantable volume of individual trees or plots is a difficult task which is subject to a number of errors. Not all of these sources of error (e.g. the accuracy of the volume table, the volume loss due to smashing) are under the assessor's direct control. There have been few investigations into this aspect of Forest Inventory. The results from 75 plots established in the Northern Jarrah Forest are discussed in this report.

METHOD

The plots were established in forests treemarked for felling. Each marked tree was inspected by the assessor, numbered, its girth breast height recorded and the merchantable bole length estimated by eye. After making due allowance for any visible defect, the volume was read off from the Abbreviated Volume Table, Jarrah, 1957.

The trees were then felled and crowned off by the mill faller in his normal operations. Prior to snigging, the prepared log or logs were measured (centre girth x log length), a girth correction for bark was subtracted and the volume calculated from the Cubic Contents of Logs Table.

RESULTS

A summary of the results is presented in the following table on the next page.

The results obtained by these assessors are not strongly biased and are quite precise. Over the 75 plots, an accurate and precise estimate of merchantable volume has been obtained.

Comparison of the Estimated Merchantable
Volumes and the Volume removed in Trade
Operations

Assessor	No. of Plots	Sum of the Estimated Merchant- able Vols. (cub. ft.)	Sum of the Volume Removed (cub. ft)	Mean Difference per Plot		95% Confidence Limits of the Mean Differ- ence per Plot	
				cub. ft.	%	cub. ft.	%
A	13	10,796	10,288	+39.1	+4.7	90.8	10.9
B	30	23,224	23,730	-16.9	-2.2	60.9	7.9
C	32	28,283	27,623	+20.6	+2.3	52.9	6.0
Total	75	62,303	61,641	+ 8.8	+1.1	35.6	4.3