

Selling Timber: Weight Versus Volume

Fact Sheet

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Timber is generally sold by weight (tonnes) or volume (cubic meters, m³). When comparing weight and volume measurements, it is essential to understand that timber's weight can change, but its volume generally remains the same.

Selling timber by weight

Timber can begin to dry out as soon as it is felled. If timber is left sitting on the roadside, moisture evaporates, and the timber loses weight. This should be kept in mind if timber is being sold by weight. If it is not transported to its destination soon after harvesting, this weight reduction may result in loss of income to the owner.

Timber weight per unit volume can vary depending on several factors including;

- Tree species,
- Length of time at the roadside,
- Log size,
- Weather conditions.

To avoid loss of income, when selling on a weight basis, the owner should agree through the terms of a timber sales contract, that the logs are moved within an agreed period of time after harvest to the weighbridge.

Volume/Weight Measurement

A system for measuring timber by volume can be facilitated at the sawmill weighbridge. Timber arriving at the mill is converted from weight to volume using a correction factor that takes into account the weight loss post-harvest. Volume/weight measurement has the potential to produce highly acceptable levels of precision in timber sale volume measurement.

When compared with alternative methods, volume/weight measurement is quite intensive with the sampling for volume/weight factors carried out when the timber lorry is entering the processing facility. This means that volume/weight factors used are directly representative of the status of the timber as it crosses the weighbridge.

Volume/weight sampling is carried out over the whole duration of a sale of timber. Therefore, the volume/weight factors also remain relevant over the duration of a sale.

The conversion rate from weight to volume is calculated by sampling a selected number of lorry loads from which representative log samples are taken. These logs are each measured for weight and volume from which the conversion factor is calculated. This can then be applied to every load from the specific harvest after it is weighted at the weigh bridge.





Challenges of a volume/weight system

Volume/weight measurement requires resources at a certified weighbridge over the period of a sale. This can represent a considerable cost although this can be significantly reduced if these resources are deployed over larger timber volumes and over a number of sales proceeding concurrently.

Volume/weight measurement will require pre-harvest measurement information which also will be a cost to the seller.

In terms of timber security, a volume/weight system does not stand alone and must be used in conjunction with other security measures e.g. timber dispatch system and adequate harvest supervision.

Economies of scale

Volume/weight measurement can be used for both standing and roadside sales and is particularly suited to larger sales and in situations where a number of sales are simultaneously being sold by a single concern to a single processor. This can present a challenge to owners of smaller forests. However, this challenge may be alleviated by cooperation of forest owners selling to the same buyer, for example through a forest owner group or a forester coordinating a group of timber harvest sales.

