

 UI Extension Forestry Information Series

## Measuring Logs and Understanding How Logs Are Sold

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Non-industrial private forestland (NIPF) owners use negotiating skills and business savvy to deal with loggers, mill agents, and log brokers. Other NIPF owners rely on professional forestry consultants to find the best markets. Whichever method is used, some level of confusion remains when timber products are measured for sale to mills.

Timber products are bought and sold under many scales of measurement, including: the Scribner board foot scale, cubic scale, per ton, by the cord, and even lineal foot measurements. The most widely used system in our region is the Scribner board foot scale. The Scribner board foot scale was developed by a Christian minister named Scribner, who lived in a logging town before the turn of the century. Evidently, he had a lot of time on his hands, which he spent measuring how many boards could be cut from a log. He did this by simply diagramming one-inch thick boards on circles of various diameters. He used fairly large logs and the ¼" saw kerf that was standard at the time. His system was adapted across most of the west and has been used for over 100 years. State-licensed scalers using this method will measure the small end of a log, refer to the Scribner table, and record the number of board feet in the log.

The Scribner board foot scale measures log volume, not lumber recovery. The differences between log volume and lumber recovery are significant. Log volume, using Scribner scale, is an estimate of the number of boards that can be cut from a cross section of the small end of the log. Lumber recovery is the actual number of boards that the mill cuts from the log. Scribner tables have changed very little. Lumber manufacturing technology, however, has changed significantly; saw kerfs are smaller, dimension cuts are

smaller, and computers help the sawyers cut an optimal pattern from each log.

To measure gross scale the scaler only measures length and small end diameter. After gross scale is calculated, the scaler determines net scale, which is much more complicated. To calculate net scale the scaler determines crook, sweep, checks, rot and other factors that influence lumber recovery from that log. Since this process can be very subjective, scalers in mills that buy Federal or State timber must be licensed by the state. Scalers must also pass periodic, stringent checks to keep their licenses. In addition, the State Board of Scaling Practices has adopted rules for log scaling and defect determination.

Most Idaho mills employ state certified log scalers to measure logs as they are purchased. If the mill you are considering does not - *caveat emptier* (buyer beware)! In these cases, the mill owner will generally scale all logs coming through the gate. While these mills might offer great prices for your logs, they do not have an unbiased source measuring them. Consider hiring a third party, such as a state licensed log scaler to measure logs before selling them to a mill not employing a state certified log scaler.

If you have questions or would like more information concerning log scaling and other forest management topics contact a University of Idaho Cooperative Extension System area extension forester or your local Idaho Department of Lands Forest Practices advisor.

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