

Timber Price Reporting: How Do I Get a Report and What Does It Mean?

Kyle Cunningham
Associate Professor
of Forestry

In past years, the availability of timber price reports has been limited. The limited availability of reports has been a cause of uncertainty among nonindustrial private forest landowners as to whether they are receiving fair market value for their standing timber. In some cases, a lack of reporting may have been a contributing factor to timberland owners not receiving fair market value for their timber.

Historically, timber price reports have been available through fee-based subscriptions. Fee-based reports have been a great resource for those operating a timber business. However, for many forest landowners having only occasional timber sales, this method of reporting could be considered as impractical. Some years ago several states began maintaining reports based on surveys of mills, timber buyers, consultants handling timber sales and others. Recently, private timber price reporting firms have developed packages available for generalized price reporting at the state level. Today, through private fee-based subscriptions, private-based state level reporting and government-based state level reporting, there is much

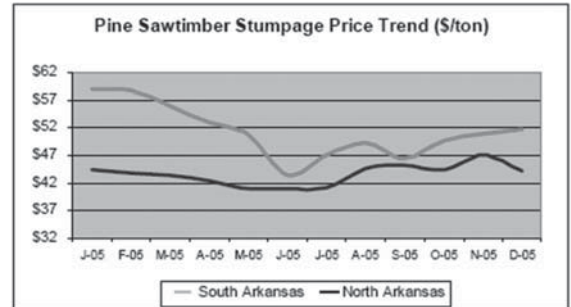


Figure 1. Timber price reports provide trends in dollars over time.

more timber price information available to forest landowners.

The Arkansas Timber Market Report

In an attempt to fill the void of timber price data available in Arkansas, the University of Arkansas Division of Agriculture, Cooperative Extension Service worked to come up with a timber market report for Arkansas. The report was designed to provide generalized pricing data that would help forest landowners get an idea of current and past ranges in timber price. The **Arkansas Timber Market Report** is produced quarterly and is available on the web (http://www.arnatural.org/News/Timber_Report/default.htm). Timber price data dating back to 2004 can be obtained from the report (older price data is available upon request).

*Arkansas Is
Our Campus*

Visit our web site at:
<https://www.uaex.uada.edu>

The quarterly report is generated for separate regions (North and South Arkansas). The regional separation is in place because timber markets greatly differ in the two regions. The South is composed more of pine-based timberlands and mills (with bottomland hardwoods also). The North region is composed primarily of upland hardwoods and smaller mills.

The report provides generalized price data (in dollars per ton) for pine and hardwood timber products. Pine products include sawtimber, chip-n-saw and pulpwood. Pine sawtimber trees are greater than 12 inches in diameter at breast height (DBH). This material is used primarily for construction grade lumber. Pine chip-n-saw trees are typically 9 to 12 inches at DBH and are first sawn for a few boards then chipped for pulpwood. Pine pulpwood trees are typically 6 to 9 inches at DBH and are used to make various paper products. Hardwood sawtimber trees are typically greater than 12 inches at DBH and, based on tree quality, are used for a variety of products such as flooring, cabinetry, furniture, crossties or some other product. Hardwood pulpwood trees are typically 6 to 12 inches at DBH and are used to make various paper products. Based on the species of tree and quality, hardwood tree values can vary greatly.

What does the report tell me?

The Arkansas Timber Market Report provides stumpage prices (standing timber values) for North and South Arkansas. The report provides data that are useful in determining recent and past market trends. The report provides a “general” idea of what one might expect from a timber sale. The report can be used to evaluate price trends over time, which can be useful in determining the proper time to conduct a timber sale. Figure 2 illustrates pine sawtimber prices in South Arkansas between 2004 and 2009. The prices over this time period demonstrate two main characteristics: (1) prices are higher during winter months and decrease as mill inventories increase through the dry summer season and (2) pine sawtimber prices steadily declined during the five-year period. From this data, forest landowners may decide to wait until prices increase to sell their timber.

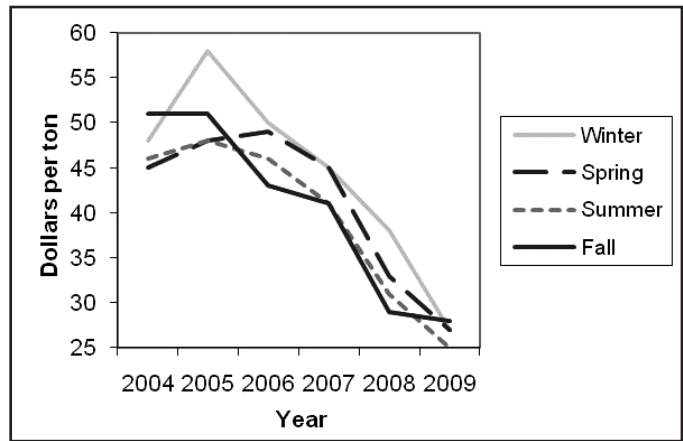


Figure 2. Seasonal pine sawtimber prices in South Arkansas between 2004 and 2009.

What does the report NOT tell me?

The Arkansas Timber Market Report does not provide information on the exact price any particular timber sale should receive. The report does not provide information about prices at the mill (delivered prices). Also, the report does not provide price data for specific hardwood species (such as red or white oak) or log grades. The hardwood sawtimber price is reflective of an average of low- and high-quality hardwood trees.

The Arkansas Timber Market Report does not provide current timber prices. The prices in the report are from the previous quarter, so they may be as much as three months old. Timber prices follow seasonal trends. Look at timber price reports from two or three previous years to get an idea of the seasonal trends. Understanding those trends will help you figure out whether you should make a seasonal adjustment to the timber prices in the most recent price report.

Factors That Affect Timber Prices

The actual amount received from a sale may depend on many variables – weather, access, distance to a mill, individual tree characteristics and other factors. Weather can play a significant role in timber prices for a specific time period. For example, timberland capable of being harvested during wet periods will typically have higher values during wet seasons. Access to a particular tract can also affect prices. If there are a limited number of entry points to the

tract, the cost to the logger is higher and, therefore, the landowner may receive a lower price. The distance between a timber stand and the mill receiving the logs can have great impact on the value of a timber tract. This is especially so during times of high fuel costs, impacting the cost to the hauler and again affecting the price the landowner receives.

Individual tree characteristics such as species, size and quality can greatly impact the price for a given tract of timber. The demand for one product over another (such as pine sawlogs vs. hardwood sawlogs) can affect the value of a tract based on its composition. For example, if there is high demand in the export market (say to Europe) for red oak flooring, then a stand containing significant amounts of high-quality red oak may have a higher value than a stand of primarily white oak and other hardwoods.

Road weight limits, timber tract size and many other factors may also impact the price of timber for a given tract. All of these considerations should be evaluated when attempting to value a stand of timber. After an evaluation of current conditions for the market and the tract in question, a more informed decision on whether to harvest immediately or wait until market conditions change can be made.

Tons vs. Board Feet

One problem with timber price reports is that the units used may differ depending on the source of the data. Historically, most standing timber has been valued for purchase using dollars per thousand board feet (dollars per MBF). However, delivered logs to the mill are valued in dollars per ton. This can create confusion in translating standing timber prices to delivered log prices. Care should be taken to ensure that the proper units are being applied when valuing timber. When conducting a timber inventory, have the forester report both tons and board feet.

Attempting to mathematically convert between volume and weight is not as easy as 1, 2, 3. The size (diameter) of a tree greatly affects the weight conversion factor to be used. For example, a 12-inch pine tree may use a conversion of 12 tons per 1,000 Doyle

board feet, while a 20-inch pine tree may use a conversion of 6 tons per 1,000 Doyle board feet. There are several factors that create these discrepancies, but the problem is defining a universal weight-to-volume conversion factor. For general purposes, the conversion factors employed by the Arkansas severance tax laws provide a good average (see below). If more accuracy is desired, there are tables available that provide a conversion based on tree size and log rule utilized. (For more detailed information, see UACES fact sheets FSA5017, *Landowner's Guide to Determining Weight and Value of Standing Pine Trees*, and FSA5021, *Landowner's Guide to Determining Weight and Value of Standing Hardwood Trees*.)

The Arkansas Timber Market Report presents dollars per ton. However, as stated earlier, many timber inventory reports are in Doyle board feet, usually represented in thousands (1,000 Doyle bd. ft. = 1 MBF). Using the Arkansas severance tax average conversion factors, converting from board feet to tons is made easier. **Note:** *Always convert from either volume to weight or weight to volume and then apply the appropriate price. Do not use the conversion factors directly on the price itself, as this can create an erroneous result.*

Weight-to-volume conversion factors

(based on severance tax laws)

Sawtimber:

Pine	1,000 board feet (Doyle log rule) = 8 tons
Hardwood	1,000 board feet (Doyle log rule) = 8 tons

Pulpwood:

Pine	1 cord = 2.5 tons
Hardwood	1 cord = 3.0 tons

Example:

Joe Timberland hired a consulting forester to inventory his timber. The forester provided Joe with an inventory report presenting timber volume in Doyle board feet. Joe went to the Cooperative Extension Service web site (http://www.arnatural.org/News/Timber_Report/default.htm) and found a timber price report listing prices in **dollars per ton** instead of **dollars per board foot**. How should Joe estimate the stumpage value of his timber?

Joe could ask his consulting forester to provide the inventory estimates in tons per acre instead of board feet per acre. However, Joe needs an estimate of the value of his timber right now. How can he do that?

The inventory report Joe received said he had 10 cords of pine pulpwood per acre and 7,000 Doyle board feet of pine sawtimber per acre. Joe's first step should be to convert the pulpwood from cords per acre to tons per acre by applying the Arkansas severance tax conversion factor of 1 cord of pine pulpwood = 2.5 tons. That works out to:

10 cords per acre * 2.5 tons per cord = 25 tons of pine pulpwood per acre

In a similar manner, Joe should use the Arkansas severance tax conversion factor of 1,000 Doyle board feet = 8 tons to convert the sawtimber volume to weight. That works out to:

7,000 board feet per acre * 8 tons per 1,000 board feet = 56 tons of pine sawtimber per acre

Joe now has the weight of the pine pulpwood and sawtimber per acre. He can go to the timber price report he downloaded from the Extension web site, apply the dollar per ton figures and estimate the value of his timber. The fourth quarter 2007 timber price report says that pine pulpwood in South Arkansas averaged \$14.47 per ton. That works out to:

25 tons per acre * \$14.47 per ton = \$361.75 per acre in pine pulpwood

The fourth quarter 2007 timber price report says that pine sawtimber in South Arkansas averaged \$40.95 per ton. That works out to:

56 tons per acre * \$40.95 per ton = \$2,293.20 per acre in pine sawtimber

When Joe adds up the pine pulpwood and pine sawtimber, he'll find his timber was worth around:

\$361.75 per acre in pulpwood + \$2,293.20 per acre in sawtimber = \$2,654.95 per acre

Joe decided to have his timber cruised because he received a letter offering him \$1,100 per acre for his timber. Should Joe sell his timber for \$1,100 per acre? Probably not. Joe may not know exactly what his timber is worth because stumpage prices change daily and are affected by many factors, but Joe knows it's worth a lot more than \$1,100 per acre because he took the time to find out. Joe also downloaded a fact sheet, FSA5014, What Should I Know About Selling My Timber?, from the Cooperative Extension Service web site to learn how to get the best price for his timber.

Take-Home Points

- There are multiple avenues for obtaining timber prices today. Determining which method best fits a particular need is key to obtaining the proper value for a tract.
- Timber tract values may greatly differ depending on several tract characteristics.
- The price report discussed here provides generalized values for two regions in Arkansas.
- Timber price reports provide good information to evaluate market trends over time.
- Care should be taken when selecting a volume measure to value timber or when attempting to convert between board feet and tons.
- If unsure, always seek professional assistance before attempting a timber sale.

Printed by University of Arkansas Cooperative Extension Service Printing Services.

KYLE CUNNINGHAM is an Extension Associate Professor of Forestry with the University of Arkansas, Division of Agriculture, Cooperative Extension Service, Little Rock.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director, Cooperative Extension Service, University of Arkansas. The Arkansas Cooperative Extension Service offers its programs to all eligible persons regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status and is an Affirmative Action/Equal Opportunity Employer.