

Marketing Your Timber: The Products

Forest products and Mississippi have a long history. Mississippi southern pine lumber helped rebuild Chicago after the great fire of 1871. Mississippi pine poles and piling were used to build the Panama Canal.

Millions of Mississippi cross-ties were used in building the nation's railroads in the early 1900's. Mississippi hardwoods have been used for years to make furniture, flooring, cabinets, and moldings that grace the finest buildings and homes in America. Today, Mississippi's forest products remain important to domestic and international markets.

The forests of Mississippi provide timber for a multitude of manufactured products. More than 850 Mississippi manufacturers use wood to make a diverse group of products. Softwood trees, mostly pine, are used to produce structural lumber, plywood, poles, timbers, and decking. Loblolly, slash, shortleaf, and longleaf comprise more than 85 percent of all products made from pine.

Hardwood timber is much more diverse, with more than 30 commercially important species in Mississippi. The wood of these hardwood trees varies widely in structure, strength, texture, and color. Many species, such as red oak, white oak, ash, poplar, sweetgum, and pecan are used for lumber. Others are used for specialty products. Mississippi companies use hardwood timber to manufacture lumber, furniture, cabinets, molding, flooring, picture frames, caskets, and many other products.

Often, the product has a strong influence on the price a buyer can pay for standing timber. The end product makes a difference in the amount buyers will bid for a landowner's timber.

Knowledge of forest products is fundamental to helping forest landowners effec-

tively market timber. For example, if a landowner doesn't realize that 30 percent of his pine timber can produce poles, he is less likely to receive that added value. A basic understanding of the major forest product groups is essential to helping landowners get the highest price when marketing their timber.

The Basic Products

Pulpwood (also chipwood, paperwood) has been an important forest product in Mississippi for many years. It accounts for about one-quarter of the annual harvest value of Mississippi's forest products. It is defined as wood cut primarily to be a source of wood fiber for producing paper, fiberboard, or other fiber products.

Trees of any size can be used for pulpwood, but trees in the range of 5 to 9 inches D.B.H. (diameter at breast height) are normally used. These trees are cut after a saw-timber harvest or as a separate operation to thin a crowded stand. Sometimes, low-quality stands are completely harvested for pulpwood to regenerate the forest to more desirable species. Also, larger trees with disease or defects that prevent their use for lumber will be used as pulpwood.

Pulpwood is often measured in cords or, more recently, in tons. A cord is a stack of wood 4 feet high, 8 feet long, and 4 feet wide, including wood, air, and bark. Cords measure volume, and the amount of wood in a cord varies somewhat, depending on the size of the logs in the stack. (A cord of logs 20 inches in diameter will have less air space than a cord of logs 8 inches in diameter). For this reason, and because transport of pulpwood by truck has become common, the forest industry favors weight measure-

ment of pulpwood. Today, it is common to see pulpwood referred to in tons.

Though the weight of a unit of wood can vary by species, size, and season, standard pulpwood weights have been established by law in Mississippi. In 1983, the Mississippi Legislature approved House Bill Number 363 to establish the following official weights for a cord of pulpwood:

pine	5,200 pounds	2.6 tons
soft hardwood	5,400 pounds	2.7 tons
mixed hardwood	5,600 pounds	2.8 tons
hard hardwood	5,800 pounds	2.9 tons

These weights do not apply to damaged pulpwood. Pulpwood sold in Mississippi must be sold either by volume (cords) or by weight using these standard weights.

At one time in Mississippi, there were markets only for pine pulpwood. As the paper industries increased their use of hardwood pulp, markets for pulpwood also increased. Today, markets for both pine and hardwood pulpwood are active in most areas of our state.

Sawtimber (also sawlogs) is the most important category of Mississippi forest products and accounts for nearly two-thirds of the annual harvest value. Both pine and hardwood species are harvested each year, but the pine sawlog harvest volume is usually more than twice that of hardwood.

Sawtimber or sawlogs are defined as trees large enough to be cut into lumber. Specifications for sawlogs refer to length and diameter inside the bark (d.i.b.) at the small end. Log specifications are regional and vary between pine and hardwood. Most mills have log specifications based on the type of equipment being used in their particular mill. Several industries purchase sawlogs using exact specifications for special products. Some of these will be discussed in a later section of this publication.

Sawtimber is usually measured in board feet. A board foot is a unit of measurement defined as a board 1 inch thick, 12 inches long, and 12 inches wide. Board feet is used as a measure because the aim of lumber manufacturing is to produce rectangular lumber from round logs. Board feet estimates how much lumber a certain size log will yield. Normally, logs are measured in thousands of board feet (MBF).

Log rules estimate the lumber volume in logs. A log rule is a mathematical formula that predicts lumber yield based on log measurements and sawing variables. Hundreds of log rules have been developed since the 1800's. In Mississippi the Doyle log rule was the official, statutory unit for sawlog transactions for many years until the law was changed in 1996. Today sawlog purchases may be made by volume, using cubic feet or the Doyle, Scribner Decimal C, or International 1/4 inch log rules. In addition, sawlogs may be purchased by weight in standard 2000-pound tons.

As with pulpwood, the forest industry has begun to purchase sawlogs by weight. Weight scaling is a convenient method for some mills but does not apply to all operations. Uniform weights for sawtimber have not been established as they have in pulpwood, primarily because weight conversion of logs to lumber volume is much more complicated. Factors such as species, origin of the logs, location in the state, log diameter, and mill equipment make uniform weights for sawtimber difficult to calculate and less useful.

Special Products

Chip-n-Saw is a registered trade name for a sawing machine that cuts small logs into lumber and chips in a single operation. This innovation is about 30 years old and has only begun to affect Mississippi markets since the mid-1980's. As the use of this machine spread, some forest industry firms began to purchase a category of smaller logs commonly called "chip-n-saw." Some firms that previously had used only sawlogs installed chip-n-saw mills and began using smaller logs also. The result has been the creation of a new category of forest product called "chip-n-saw" (not to be confused with chipwood) that includes the large pulpwood and small sawlog diameter range. Chip-n-saw logs are usually between 8 and 12 inches D.B.H. (although some chip-n-saw machines can process up to a 22-inch log), and since chip-n-saw logs yield lumber and chips, they can bring higher stumpage prices to the landowner than pulpwood.

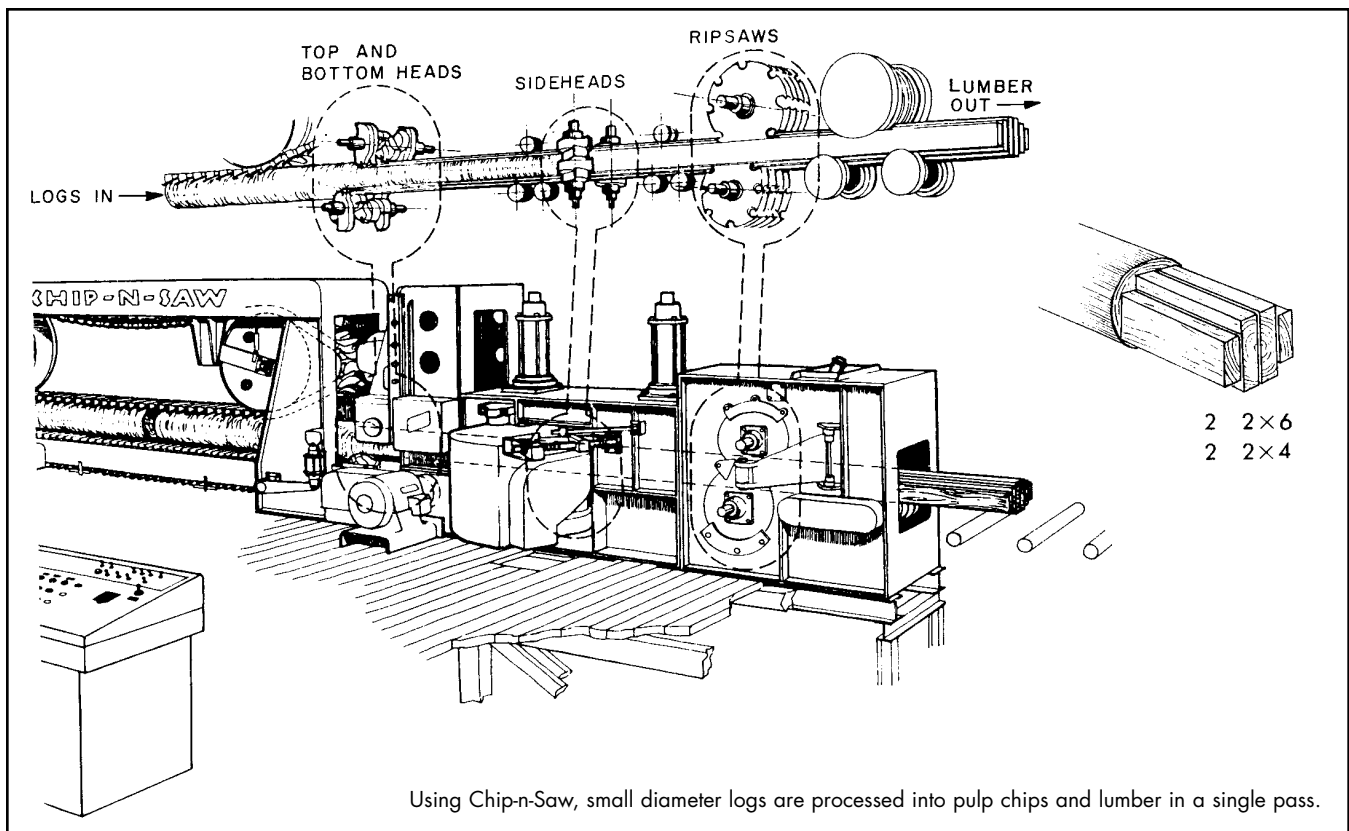
Chip-n-saw logs are not just large pulpwood. Because they will be used to make lumber (typically 2 by 4's or 2 by 6's) the qualifications for a log to be chip-n-saw are more strict than for pulpwood. Usually the specifications for chip-n-saw logs will include a minimum butt diameter, minimum top diameter, a minimum length, and a low allowance for defects such as disease or crookedness. All chip-n-saw can be used for pulpwood, but all pulpwood is not good enough to be chip-n-saw.

Chip-n-saw is commonly purchased and handled in tree lengths like pulpwood, with prices being quoted by the cord or ton, but prices can also be quoted by MBF, similar to sawtimber.

If you, as a landowner, are confused about which offer might be best among offers given in different measurement units, ask the buyers to tell you their conversion factors or to furnish you a bid in a unit you prefer.

Poles and Piling are another special category of pine logs. Although in other regions of the country hardwood species have been used for poles and piling, most of the market is now dominated by softwoods. Southern pine is a major species used for poles and piling because of its strength and treatability.

Poles are used for applications such as electrical and utility transmission lines, street lights, outdoor billboards, pole buildings, and many others.



Using Chip-n-Saw, small diameter logs are processed into pulp chips and lumber in a single pass.

Piles are poles or heavy timbers that are driven into the ground to provide a secure foundation for structures built on soft, wet, or submerged sites. Piling is used for buildings, wharfs, and bridge foundations built near water or on soft soils.

Specifications for poles and piling are very exact and are described by the American National Standards Institute. To qualify as a pole or piling, a tree must meet criteria for diameter, length, straightness, grain, knots, and rate of growth, among others. Poles are divided into 15 classes, each with minimum size and length requirements.

Trade in the smaller class poles is the most consistent business for pole companies. These utility poles used for distribution lines usually range from 35 to 50 feet long. This means poles can be merchandised out of sawtimber and sometimes chip-n-saw sales, so landowners should not forget the pole market as a marketing opportunity. As few as five to ten utility poles per acre, or just two larger poles (80 feet or longer) per acre can be an acceptable cut.

Poles are purchased on a per thousand board feet basis, such as sawtimber, or by the piece. You should identify and contact pole companies in your market area to explore the opportunities for selling poles before making a timber sale.

Veneer Logs (peeler logs, plywood logs) - Both hardwood and pine logs are used to make veneer. Pine logs are used mostly to make veneer for southern pine structural plywood. There are some pine plywood mills

in Mississippi, largely in the central and southern parts of the state.

Hardwood logs produce veneer that is used for many interior and decorative purposes. Hardwood veneers are used for furniture, boxes, cabinets, doors, baskets, plywood, flooring, and other products. The most common hardwood species used for veneer in Mississippi are red oak, white oak, yellow poplar, sweet-gum, and pecan.

Pine veneer logs are often purchased from landowners by a procurement forester as sawtimber or from other companies who merchandise their logs. You can increase your odds of capturing this value by asking plywood companies to bid when you market timber.

It is less common in Mississippi for landowners to market veneer hardwood logs. Usually, veneer logs are sold as part of a hardwood sawtimber sale and then merchandised to the veneer market from the mill. The main reason for this is that hardwood log value depends on grade, and few landowners are experienced enough to recognize they have veneer grade material. Also, since only high quality logs are suitable for decorative veneers and only a few species may be in demand at a particular time, veneer logs often represent a small portion of the sale volume. The mill yard is a logical and efficient place for a veneer buyer to purchase logs.

If you have a stand with enough volume and quality of veneer grade trees, you should explore the veneer market. As a first step, consult a forester to see if your

trees meet the veneer grade. Then a few phone calls to local hardwood mills should help identify a veneer buyer for your area.

Unique Species and Uses - Periodically, very specialized demands and markets arise for specific products or species. Many of these markets are regional and localized, such as mine timbers in West Virginia, charcoal wood in Tennessee, and cooperage (wood used to make barrels) in Illinois. Landowners who stay informed about the local timber market can make substantial income from specialty products now and then.

Persimmon (*Diospyros virginiana*) logs have been in demand in Mississippi over the years. Persimmon wood is very hard and has superior shock resistance. These qualities make it excellent material for use in golf club heads. Persimmon trees with straight trunks, no heart rot, and 9 inches or larger DBH have brought high prices from persimmon buyers for Mississippi landowners.

Paulownia (*Paulownia tomentosa*) is another specialty species that has been in demand. Paulownia is a tree native to Asia that has escaped and become naturalized in the eastern United States. It has been found growing in the Mississippi Delta and south along the Mississippi River. Paulownia logs have been in high demand in Japan and periodically bring excellent prices to landowners in Mississippi.

Examples of other specialty products have been red cedar (*Juniperus virginiana*), pine fence posts, dogwood (*Cornus florida*) bolts for spindles, pine straw in south Mississippi, and lighter wood in Alabama.

How Does Product Knowledge Affect You?

Have you ever sold a car? To market that car properly, you have to know how old it is, how it works, how many miles it's been driven, and who owned it before. You should also know many other facts about it. Without a detailed understanding of that car, your ability to sell it for maximum value will be limited, especially if you're trying to sell it to an experienced buyer, like a used car dealer.

The same is true when marketing your timber. You must know the type of timber you have, what species it is, and the products that can be made from it. For example, forest landowners who sell pine poles for sawtimber prices miss a chance for additional income.

Through a lack of knowledge, many landowners do not get full value from their timber when it is sold. Landowners who educate themselves about forest products before marketing their timber will be more likely to be satisfied with their efforts when the timber is sold.

Marketing is an important stage in the life of your forest. Before you market your timber, learn all you can about what's in your forest. By doing so, you will help yourself get full value for your forest and ensure that a new forest will take its place for the future.