

United States  
Department of  
Agriculture

Forest Service

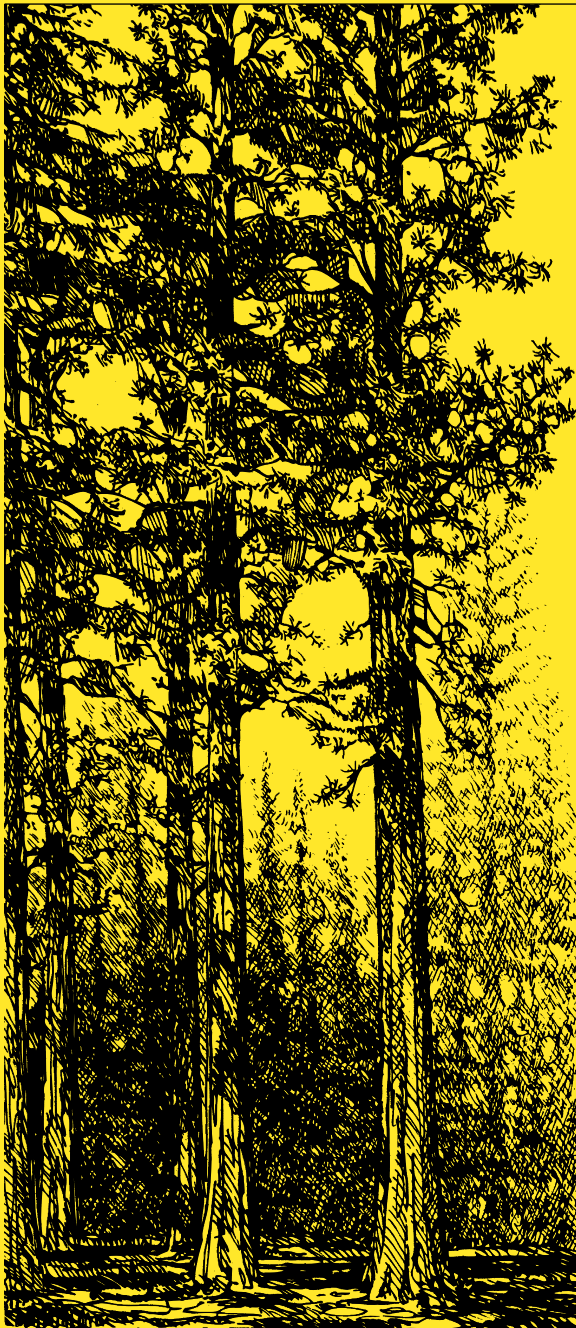


Southern  
Research Station

Resource Bulletin  
SRS-157

# Mississippi's Timber Industry—An Assessment of Timber Product Output and Use, 2007

Michael Howell and  
Tony G. Johnson

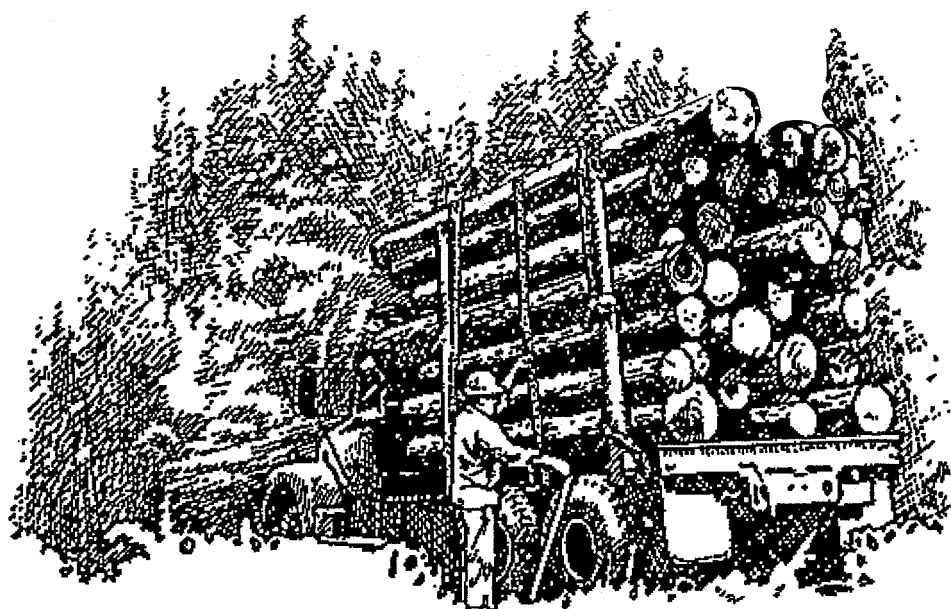


---

**The Authors:**

---

**Michael Howell**, Resource Forester; **Tony G. Johnson**, Resource Analyst, U.S. Forest Service, Southern Research Station, Knoxville, TN 37919.



July 2009

Southern Research Station  
200 W.T. Weaver Blvd.  
Asheville, NC 28804

## Foreword

This report contains the findings of a 2007 canvass of primary wood-using plants in Mississippi, and presents changes in product output and residue use since 2005. It complements the Forest Inventory and Analysis periodic inventory of volume and removals from the State's timberland. The canvass was conducted to determine the amount and source of wood receipts and annual timber product drain, by county, in 2007 and to determine interstate and cross-regional movement of industrial roundwood. Only primary wood-using mills were canvassed. Primary mills are those that process roundwood in log or bolt form or as chipped roundwood. Examples of industrial roundwood products are saw logs, pulpwood, veneer logs, poles, and logs used for composite board products. Mills producing products from residues generated at primary and secondary processors were not canvassed. Trees chipped in the woods were included in the estimate of timber drain only if they were delivered to a primary domestic manufacturer.

A canvass of all wood processors in Mississippi was conducted in 2008 to obtain information for 2007. In addition, roundwood from out-of-State mills known to be using logs or bolts harvested from Mississippi timberland was incorporated into Mississippi production estimates. Each mill was canvassed by mail or through personal contact at plant locations. Telephone contacts followed mailed questionnaire responses when additional information or clarification of a response was necessary. In the event

of a nonresponse, data collected in previous surveys were updated using current data collected for mills of similar size, product type, and location. Surveys for all timber products other than pulpwood began in 1948, and are currently conducted every 3 years.

Pulpwood production data were taken from an annual canvass of all southern pulpmills. Medium density fiberboard, insulating board, and hardboard plants were included in this survey.

## Acknowledgments

The authors thank Lance D. Stewart and Wayne Tucker for review and comments; Carolyn Steppleton for her tireless efforts in processing and accuracy of the data; Helen Beresford for timber product output database maintenance and support; Anne Jenkins, Janet Griffin, Sharon Johnson, and Charlene Walker for tables, graphs, and statistical checking; and the Southern Research Station (SRS) Technical Publications Team for editorial review, styling, and publication of this report.

The SRS gratefully acknowledges the cooperation and assistance provided by the Mississippi Forestry Commission in collecting mill data. Appreciation is also extended to forest industry and mill managers for providing timber products information.



## Timber Product Output Database Retrieval System

The Forest Inventory and Analysis (FIA) Research Work Unit of the USDA Forest Service developed the Timber Product Output (TPO) Database Retrieval System to help customers answer questions about timber harvesting and use in the Southern Region. This system acts as an interface to a standard set of consistently coded TPO data for each State and county in the region and Nation. This regional and national set of TPO data consists of 11 variables that describe for each county the roundwood products harvested, logging residues left in the woods, other timber removals (i.e. land clearing and reserved timber removals), and wood and bark residues generated by the county's primary wood-using mills. The system is available through the FIA Web site: <http://srsfia2.fs.fed.us/>.

The database is well documented and easy to use. The retrieval system allows the user to select the TPO variables of interest and generate a standard set of timber products, removals, and mill residue tables for the specified resource area, State, or region. The system has been logically divided into two sections to assist the user in making specific data requests. In section 1, the user will be asked to define the resource area, and section 2 generates tables for the specified area. In each section, the user is asked to supply specific options that will serve to customize the database retrieval.

There are four options available for defining the geographic area of interest. Each option provides an increasing level of detail. The region, subregion, State, or county defines an area. The user selects the option that best suits the level of detail required. Users who select county as an option should be aware that some counties have been combined due to data sensitivity. These combined counties are identified with asterisks in the output tables.

The TPO contacts are listed for each region to provide additional explanation or clarification.

Tony Johnson  
Southern Research Station  
USDA Forest Service  
4700 Old Kingston Pike  
Knoxville, TN 37919  
[tjohnson09@fs.fed.us](mailto:tjohnson09@fs.fed.us)  
865-862-2042

Helen Beresford  
Southern Research Station  
USDA Forest Service  
4700 Old Kingston Pike  
Knoxville, TN 37919  
[hberesford@fs.fed.us](mailto:hberesford@fs.fed.us)  
865-862-2091

James Bentley  
Southern Research Station  
USDA Forest Service  
4700 Old Kingston Pike  
Knoxville, TN 37919  
[jbentley@fs.fed.us](mailto:jbentley@fs.fed.us)  
865-862-2056

Carolyn Steppleton  
Southern Research Station  
USDA Forest Service  
200 W.T. Weaver Blvd.  
Asheville, NC 28804  
[csteppleton@fs.fed.us](mailto:csteppleton@fs.fed.us)  
828-257-4848

## Contents

	<i>Page</i>
Output of Industrial Timber Products . . . . .	1
All Products . . . . .	1
Saw Logs . . . . .	2
Pulpwood . . . . .	3
Veneer Logs . . . . .	3
Composite Panels . . . . .	5
Other Industrial Products . . . . .	5
Plant Byproducts . . . . .	5
County Data . . . . .	6
Total Roundwood Output . . . . .	6
Source . . . . .	6
Ownership . . . . .	6
Species . . . . .	7
References . . . . .	8
Glossary . . . . .	9
Conversion Factors . . . . .	12
Species List . . . . .	13
Appendix . . . . .	15
Index of Tables . . . . .	17
Tables A.1–A.18 <sup>a</sup> . . . . .	19

<sup>a</sup> All tables in this report are available in Microsoft® Excel workbook files. Upon request, these files will be supplied in the format the customer requests. The use of trade or firm names in this publication is for reader information and does not imply endorsement by the U.S. Department of Agriculture of any product or service.

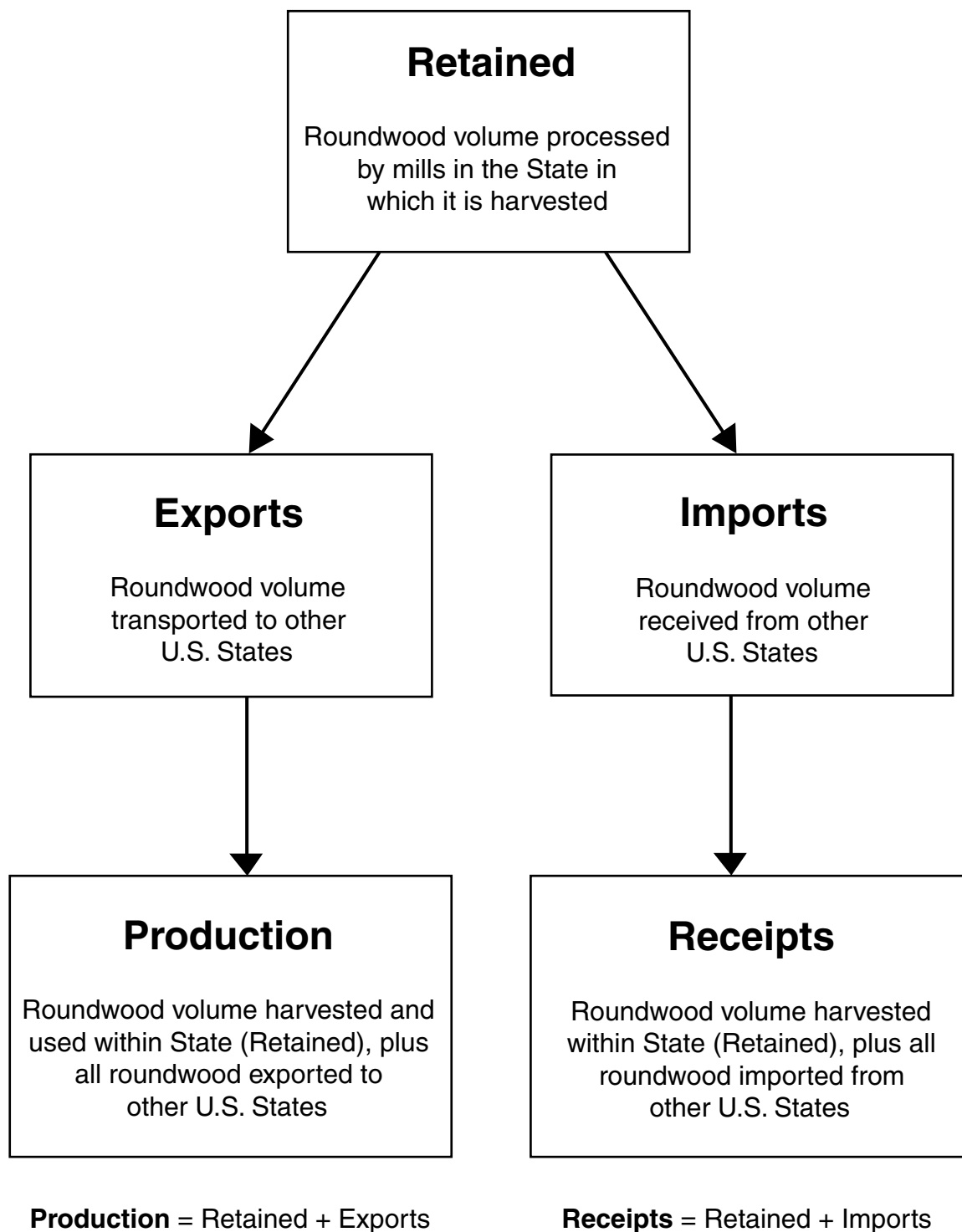


Figure 1—Movement of roundwood exports and imports within the United States.

# Mississippi's Timber Industry— An Assessment of Timber Product Output and Use, 2007

Michael Howell and Tony G. Johnson

## Output of Industrial Timber Products

Note: Certain terms used in this report—retained, export, import, production, and receipts—have specialized meanings and relationships unique to the Forest Inventory and Analysis Units across the country that deal with timber product output (TPO) (fig. 1).

### All Products

- TPO from roundwood was down 139 million cubic feet, or 13 percent, to 894 million cubic feet, while output of utilized plant byproducts declined 69 million cubic feet to 316 million cubic feet.
- Output of softwood roundwood products decreased 13 percent, totaling 680 million cubic feet, while output of hardwood roundwood products was down 15 percent to 214 million cubic feet (fig. 2).

- Pulpwood and saw logs were the principal roundwood products in 2007. Combined output of these two products totaled 779 million cubic feet and accounted for 87 percent of the State's total industrial roundwood output (fig. 3).
- Total receipts at Mississippi mills, which included roundwood harvested and retained in the State and roundwood imported from other States, decreased 18 percent to 746 million cubic feet. The number of primary roundwood-using plants in 2007 for Mississippi was 84, a loss of 32 mills from 2005 (fig. 4).
- Across all products, 74 percent of roundwood harvested was retained for processing at Mississippi mills. Exports of roundwood to other States amounted to 237 million cubic feet, while imports of roundwood amounted to 89 million cubic feet, making the State a net exporter of roundwood. Tables A.8 to A.11 show exports to and imports from other States by individual product type.

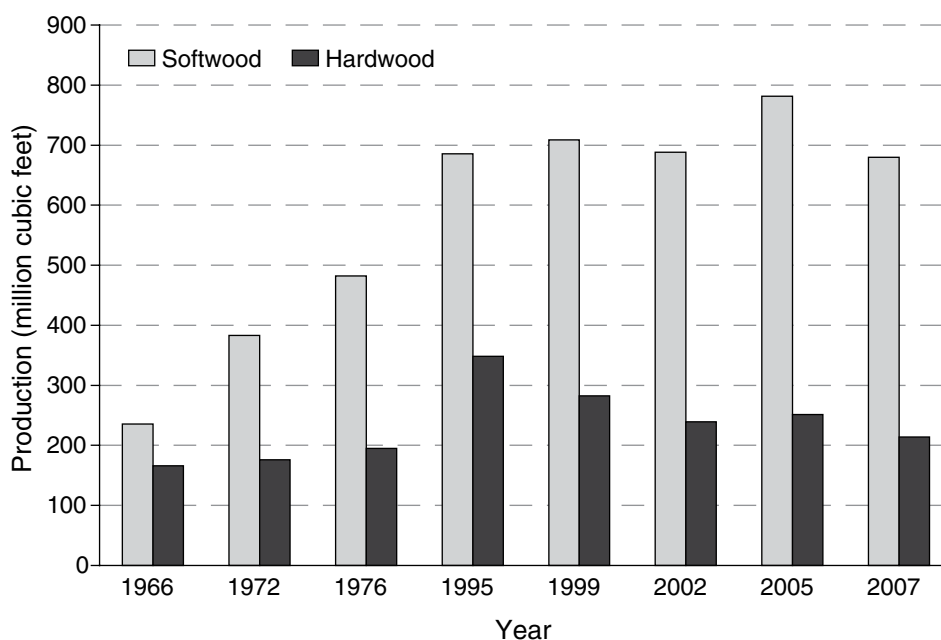


Figure 2—Roundwood production for all products by species group and year (see page 8 for references for individual years), Mississippi.

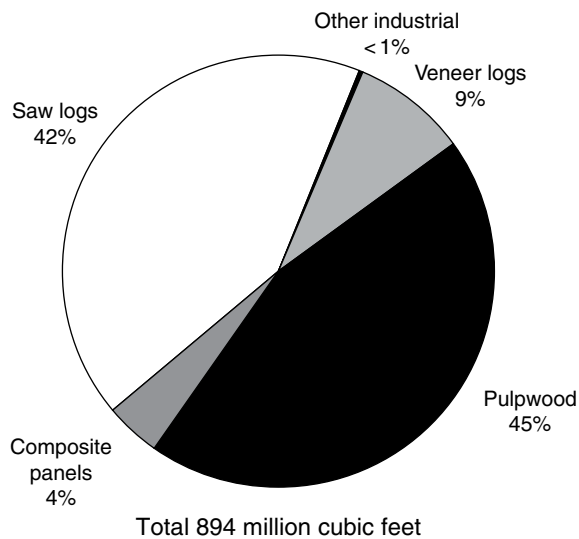


Figure 3—Roundwood production by type of product, Mississippi, 2007.

## Saw Logs

- Saw logs accounted for 42 percent of the State's total roundwood products. Output of softwood saw logs decreased 31 percent to 301 million cubic feet (1.64 billion board feet, International ¼-inch rule), while that of hardwood saw logs decreased 29 percent to 78 million cubic feet (466 million board feet, International ¼-inch rule) (fig. 5).
- In 2007, Mississippi had 66 sawmills, a loss of 27 mills since 2005. The total number of sawmills does not include the several one-man sawmills in the State. Total saw-log receipts were down 175 million cubic feet to 385 million cubic feet. Softwood saw-log receipts decreased 31 percent to 307 million cubic feet, while those of hardwoods decreased 32 percent to 78 million cubic feet. Of the operating mills in 2007, 12 percent had receipts of <5 million board feet, while 64 percent had receipts >10 million board feet. Those 42 mills, however, accounted for 93 percent of total saw-log receipts.

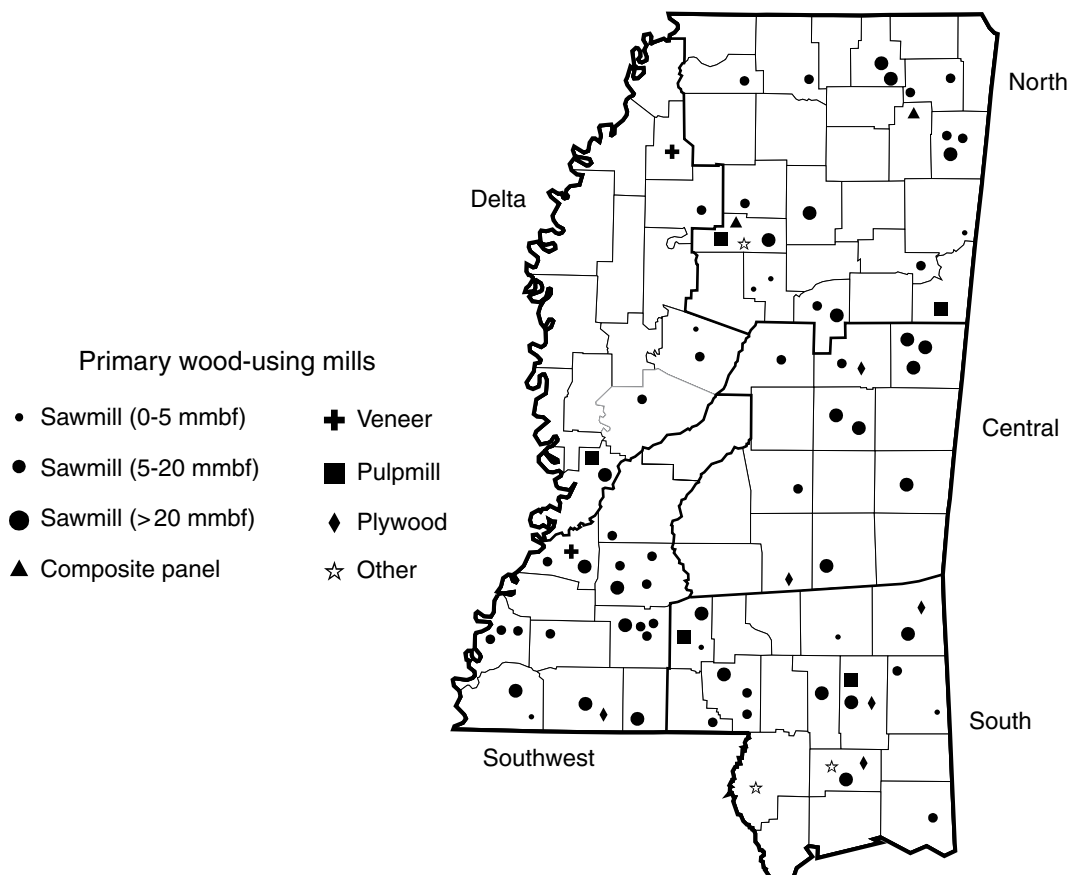


Figure 4—Primary wood-using mills by region, Mississippi, 2007.

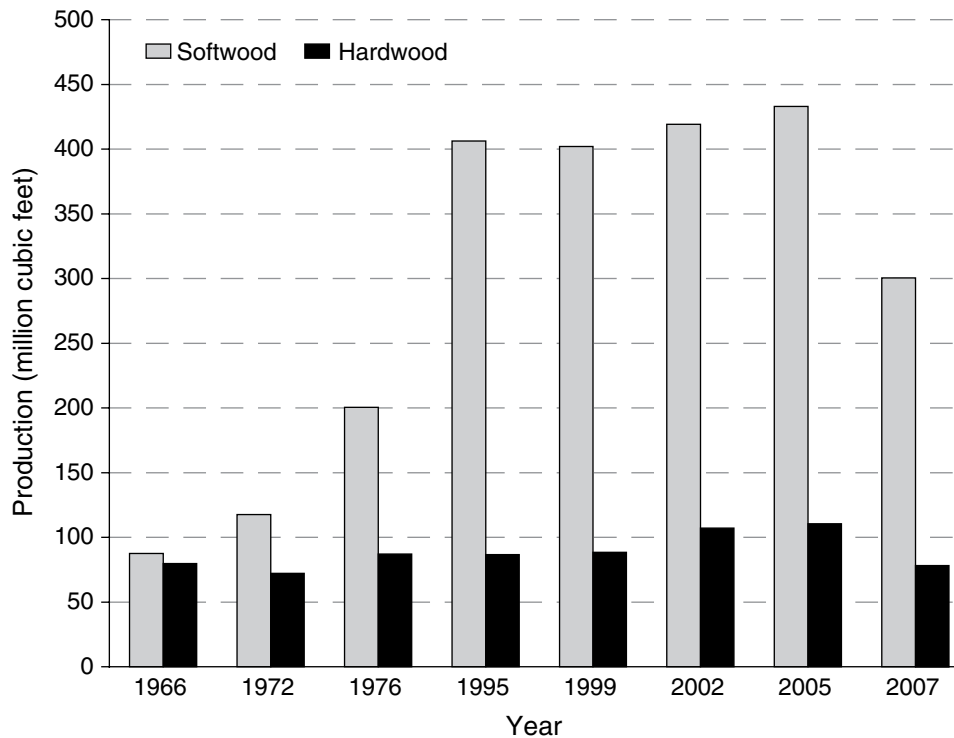


Figure 5—Roundwood saw-log production by species group and year (see page 8 for references for individual years), Mississippi.

- Mississippi retained 89 percent of its saw-log production for in-State manufacture, with saw-log imports exceeding exports by 6 million cubic feet in 2007.

cubic feet, and imports amounted to 30 million cubic feet, making the State a net exporter of roundwood pulpwood.

### Pulpwood

- Total pulpwood production, including chipped roundwood, was up 10 percent to 401 million cubic feet (5.46 million cords) and accounted for 45 percent of the State's total roundwood TPO. Softwood output increased 15 percent to 274 million cubic feet; hardwood output decreased 1 percent to 126 million cubic feet (fig. 6).
- Five pulpmill facilities were operating and receiving roundwood in Mississippi in 2007, the same as in 2005. Total pulpwood receipts for these mills increased 19 million cubic feet to 237 million cubic feet, accounting for 32 percent of total receipts for all mills.
- Fifty-two percent of roundwood cut for pulpwood was retained for processing at Mississippi pulpmills. Roundwood pulpwood accounted for 81 percent of total known exports and 33 percent of total imports. Roundwood pulpwood exports amounted to 193 million

### Veneer Logs

- Output of veneer logs in 2007 totaled 76 million cubic feet and accounted for 9 percent of the State's total roundwood TPO volume. Softwood veneer production was up 2 percent to 71 million cubic feet (413 million board feet, International ¼-inch rule); output of hardwood veneer logs decreased 43 percent to 5 million cubic feet (31 million board feet, International ¼-inch rule) (fig. 7).
- The number of veneer mills operating in Mississippi for 2007 was eight, a loss of four mills since 2005. Receipts of veneer logs decreased 1 percent to 84 million cubic feet.
- Mississippi retained 95 percent of its veneer-log production for processing at in-State veneer mills. Imports amounted to 12 million cubic feet, and exports totaled 4 million cubic feet, making the State a net importer of roundwood veneer logs.

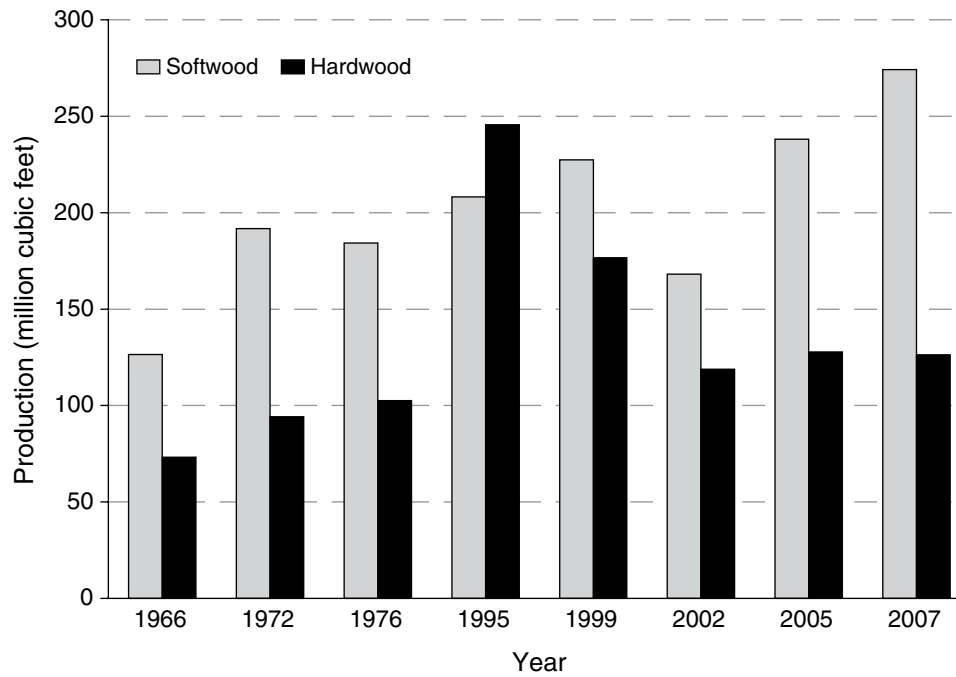


Figure 6—Roundwood pulpwood production by species group and year (see page 8 for references for individual years), Mississippi.

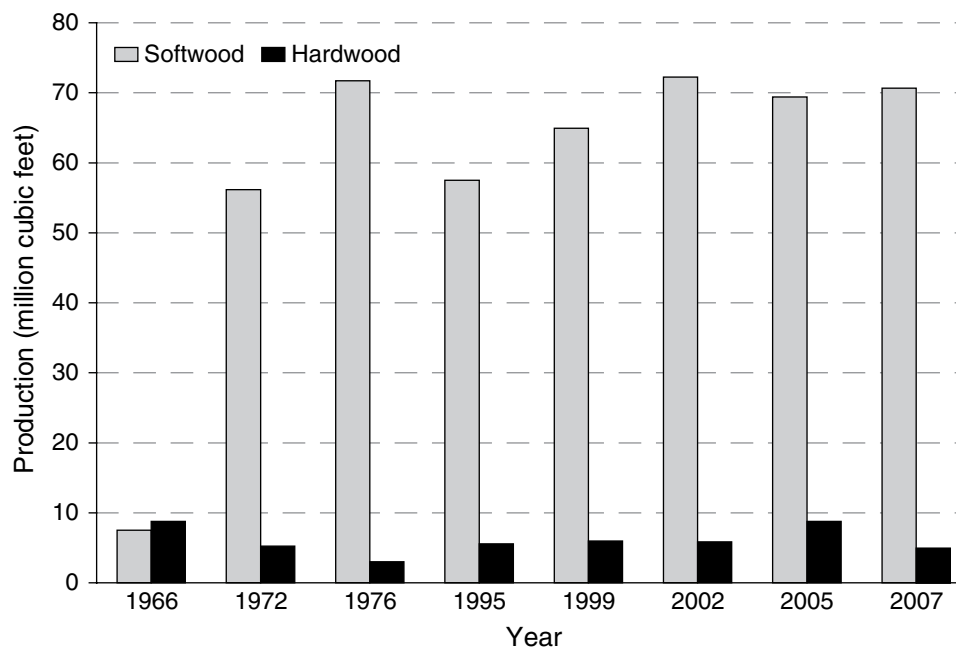


Figure 7—Roundwood veneer-log production by species group and year (see page 8 for references for individual years), Mississippi.

## Composite Panels

- Roundwood harvested from Mississippi's forests for composite panels decreased 14 percent and totaled 38 million cubic feet. Softwood output was down 16 percent to 33 million cubic feet (455,000 cords); hardwood production was up 2 percent to 5 million cubic feet (61,000 cords) (fig. 8). Softwood output accounted for 88 percent of all composite panel production in Mississippi.

## Other Industrial Products

- Roundwood harvested for other industrial uses such as poles, posts, mulch, firewood, logs for log homes, and all other industrial products totaled 2 million cubic feet, a 1-percent increase from 2005. Softwood made up all of the other industrial products volume.

## Plant Byproducts

- In 2007, processing of primary products in Mississippi mills generated 318 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 131 million cubic feet, while bark volume totaled 79 million cubic feet. Collectively, sawdust and

shavings made up 34 percent of total residues, or 108 million cubic feet (fig. 9).

- The processing of saw logs generated 226 million cubic feet of mill residues, accounting for 71 percent of the total residues produced (fig. 10).

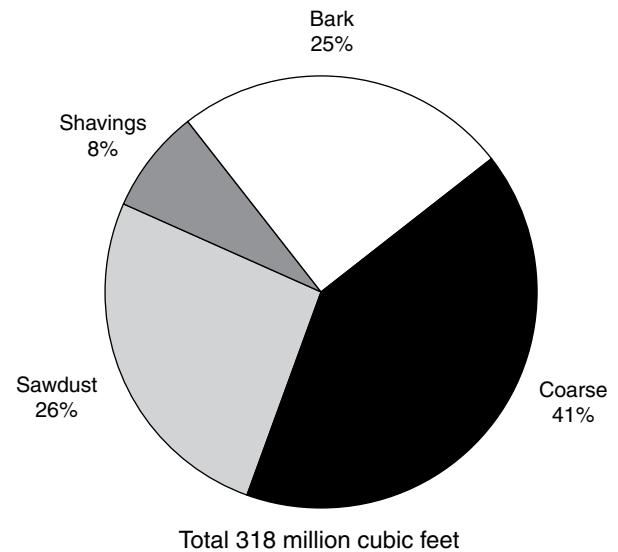


Figure 9—Primary mill residue by residue type, Mississippi, 2007.

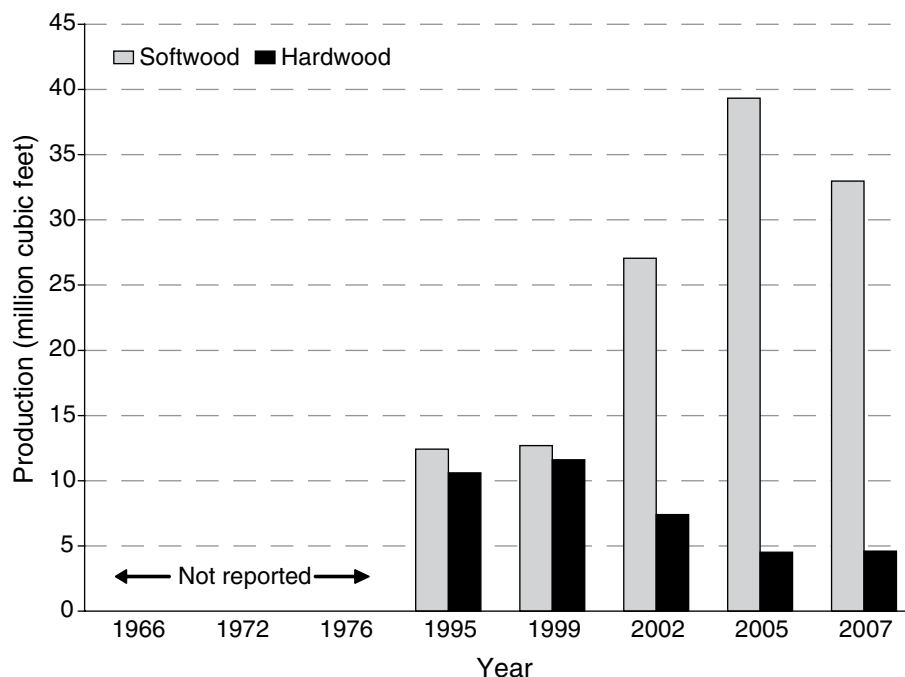


Figure 8—Roundwood composite panel production by species group and year (see page 8 for references for individual years), Mississippi.

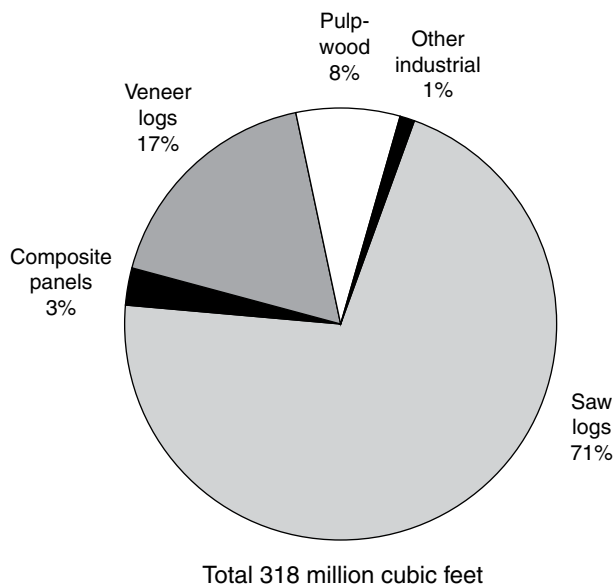


Figure 10—Primary mill residue produced by roundwood type, Mississippi, 2007.

- More than 316 million cubic feet, or 99 percent, of the wood and bark residues were used for a product; <1 percent of the residues were not used for a product; 48 percent of the residues were used for industrial fuel and 37 percent were used for fiber products (fig. 11). One hundred and seventeen million cubic feet, or 89 percent, of the coarse residues were used for fiber products. Most of the bark was used for industrial fuel or other miscellaneous products, while 67 percent of the sawdust and shavings were used for industrial fuel.

## County Data

- Table A.14 shows softwood and hardwood product output by county and individual product type. All 82 counties in Mississippi had roundwood output. Ten counties (Amite, Clarke, Copiah, Kemper, Lauderdale, Lincoln, Marion, Rankin, Wayne, and Winston) had combined softwood and hardwood product output of >20 million cubic feet each. These 10 counties' total product output amounted to nearly 246 million cubic feet and accounted for 27 percent of the State's total product output.

## Total Roundwood Output

Using the most recent inventory data for Mississippi, product output by source, ownership, and detailed species group was estimated.

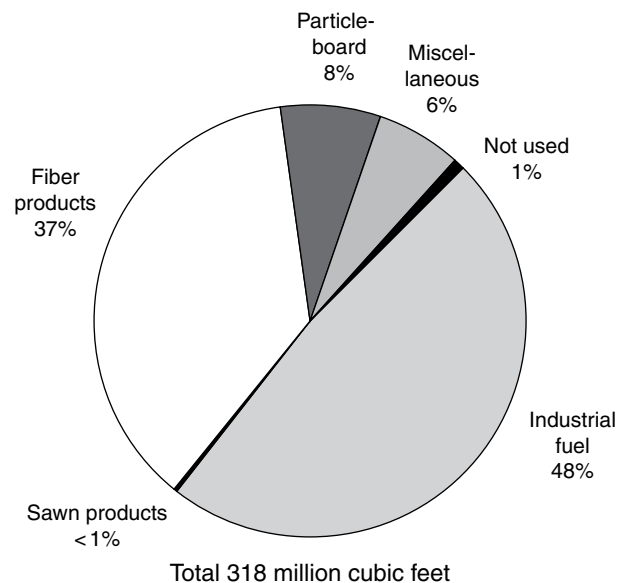


Figure 11—Disposal of residue by product, Mississippi, 2007.

## Source

- In addition to the 894 million cubic feet of roundwood output for industrial roundwood, an estimated 13 million cubic feet were harvested for domestic fuelwood, bringing Mississippi's total roundwood output to 908 million cubic feet.
- Eighty-eight percent of total roundwood output was considered growing-stock volume (sawtimber and poletimber) from timberland sources. Other sources (such as saplings; stumps, tops, and limbs of trees on timberland; and trees on nonforest land) contributed an estimated 109 million cubic feet, or 12 percent of total roundwood output (fig. 12).

## Ownership

- An estimated 676 million cubic feet, or 74 percent, of the total roundwood output came from nonindustrial private forest lands. Forest industry lands contributed 199 million cubic feet, or 22 percent of the output. Public lands made up the remaining 4 percent, or 32 million cubic feet (fig. 13).

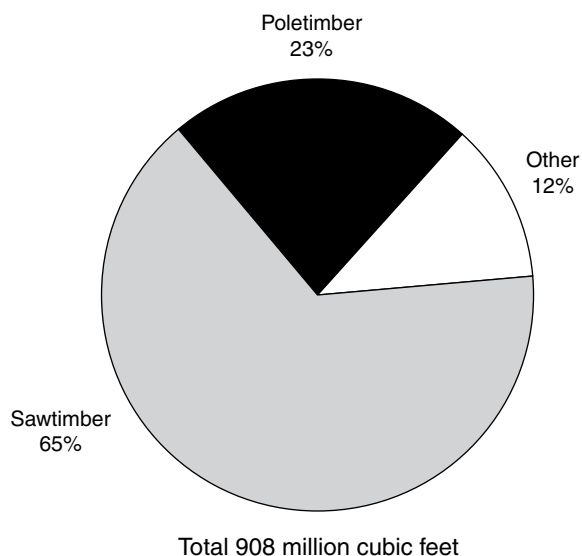


Figure 12—Roundwood output by source, Mississippi, 2007.

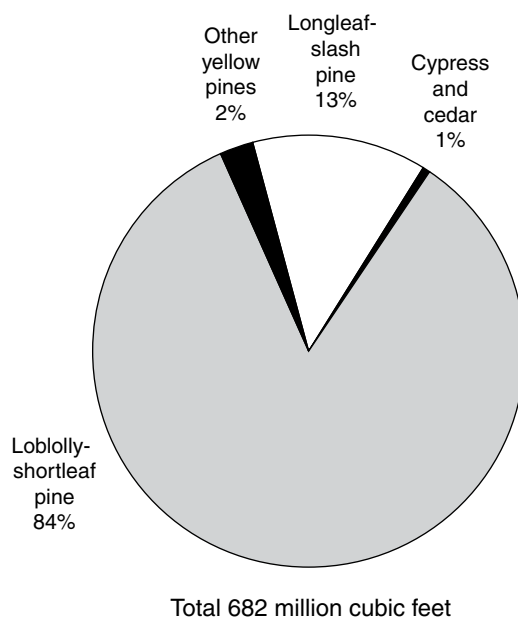


Figure 14—Roundwood output by softwood species group, Mississippi, 2007.

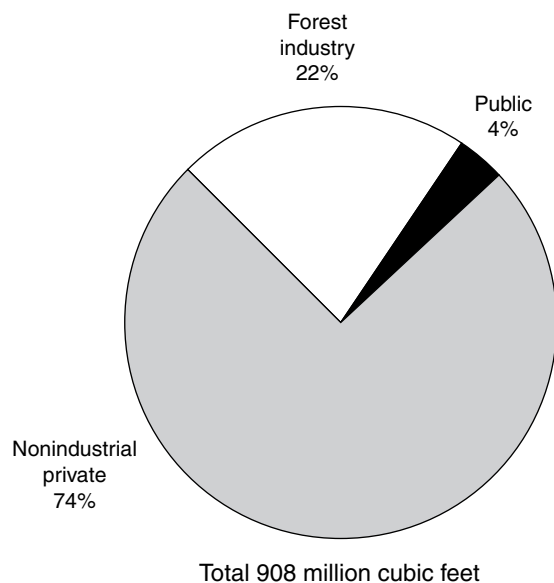


Figure 13—Roundwood output by ownership, Mississippi, 2007.

## Species

- The loblolly and shortleaf pine group provided the most volume of any softwood species group, accounting for 84 percent of the total softwood output (fig. 14). The longleaf-slash pine type accounted for 13 percent of the softwood output. In hardwoods, the red oak and white oak groups combined accounted for 113 million cubic feet, or 50 percent of total hardwood output (fig. 15).

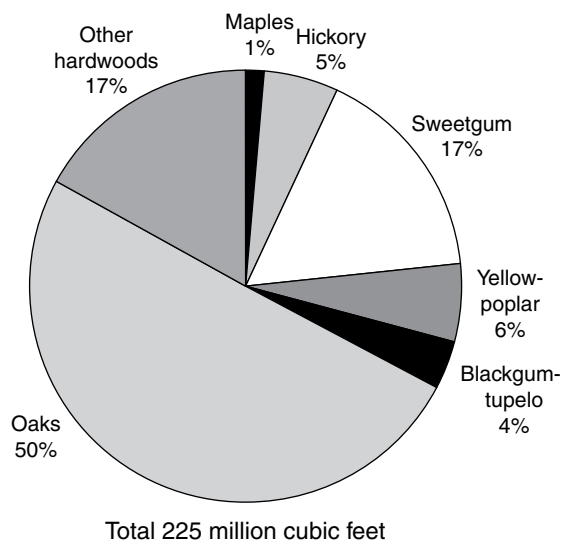


Figure 15—Roundwood output by hardwood species group, Mississippi, 2007.

## References

- Bentley, J.W.; Howell, M.; Johnson, T.G. 2008. Mississippi's timber industry—an assessment of timber product output and use, 2005. Resour. Bull. SRS-131. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 32 p. [2005].
- Bentley, J.W.; Johnson, T.G.; Howell, M. 2002. Mississippi's timber industry—an assessment of timber product output and use, 1999. Resour. Bull. SRS-80. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 40 p. [1999].
- Bertelson, D.F. 1973. Mississippi forest industries, 1972. Resour. Bull. SO-43. New Orleans: U.S. Department of Agriculture Forest Service, Southern Forest Experiment Station. 27 p. [1972].
- Bertelson, D.F. 1978. Mississippi forest industries, 1976. Resour. Bull. SO-68. New Orleans: U.S. Department of Agriculture Forest Service, Southern Forest Experiment Station. 25 p. [1976].
- Howell, M.; Johnson, T.G.; Bentley, J.W. 2005. Mississippi's timber industry—an assessment of timber product output and use, 2002. Resour. Bull. SRS-102. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 45 p. [2002].
- Little, E.L., Jr. 1979. Checklist of United States trees (native and naturalized). Agric. Handb. 541. Washington, DC: U.S. Department of Agriculture. 375 p.
- Stratton, D.P.; Howell, M.; Rometry, R. 1998. Mississippi's timber industry—an assessment of timber product output and use, 1995. Resour. Bull. SRS-29. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 23 p. [1995].
- Van Hooser, D.D. 1968. Mississippi forest industry. Resour. Bull. SO-12. New Orleans: U.S. Department of Agriculture Forest Service, Southern Forest Experiment Station. 25 p. [1966].

## Glossary

**Board foot.** A unit of measure applied to lumber that is 1-foot long, 1-foot wide, and 1-inch thick (or its equivalent) and also associated with roundwood as to its potential yield of such products.

**Byproducts.** Primary wood products, e.g., pulp chips, animal bedding, and fuelwood, recycled from mill residues.

**Composite panels.** Roundwood products manufactured into chips, wafers, strands, flakes, shavings, or sawdust and then reconstituted into a variety of panel and engineered lumber products.

**Consumption.** The quantity of a commodity, such as pulpwood, utilized by a particular mill or group of mills.

**Domestic fuelwood.** The volume of roundwood harvested to produce heat for residential settings.

**Drain.** The volume of roundwood removed from any geographic area where timber is grown.

**Exports.** The volume of domestic roundwood utilized by mills outside the State where timber was cut.

**Fiber products.** Byproducts used in the manufacture of pulp, paper, paperboard, and composite products, such as chipboard.

**Growing-stock removals.** The growing-stock volume removed from poletimber and sawtimber trees in the timberland inventory. (Note: Includes volume removed for roundwood products, logging residues, and other removals.)

**Growing-stock trees.** Living trees of commercial species classified as sawtimber, poletimber, saplings, and seedlings. Growing-stock trees must contain at least one 12-foot or two 8-foot logs in the saw-log portion, currently or potentially (if too small to qualify). The log(s) must meet dimension and merchantability standards and have, currently or potentially, one-third of the gross board-foot volume in sound wood.

**Growing-stock volume.** The cubic-foot volume of sound wood in growing-stock trees at least 5.0 inches d.b.h. from a 1-foot stump to a minimum 4.0-inch top d.o.b. of the central stem.

**Hardwoods.** Dicotyledonous trees, usually broadleaf and deciduous.

*Soft hardwoods.* Hardwood species with an average specific gravity of 0.50 or less, such as gums, yellow-poplar, cottonwoods, red maple, basswoods, and willows.

*Hard hardwoods.* Hardwood species with an average specific gravity >0.50, such as oaks, hard maples, hickories, and beech.

**Imports.** The volume of domestic roundwood delivered to a mill or group of mills in a specific State but harvested outside that State.

**Industrial fuelwood.** A roundwood product, with or without bark, used to generate energy at a manufacturing facility such as a wood-using mill.

**Industrial roundwood products.** Any primary use of the main stem of a tree, such as saw logs, pulpwood, veneer logs, intended to be processed into primary wood products such as lumber, wood pulp, sheathing, at primary wood-using mills.

**International ¼-inch rule.** A log rule or formula for estimating the board-foot volume of logs, allowing ½-inch of taper for each 4-foot length. The rule appears in a number of forms that allow for kerf. In the form used by FIA, a ¼-inch of kerf is assumed. This rule is used as the U.S. Forest Service standard log rule in the Eastern United States.

**Log.** A primary forest product harvested in long, primarily 8-, 12-, and 16-foot lengths.

**Logging residues.** The unused merchantable portion of growing-stock trees cut or destroyed during logging operations.

**Merchantable portion.** That portion of live trees 5.0 inches d.b.h. and larger between a 1-foot stump and a minimum 4.0-inch top d.o.b. on the central stem. That portion of primary forks from the point of occurrence to a minimum 4.0-inch top d.o.b. is included.

**Merchantable volume.** Solid-wood volume in the merchantable portion of live trees.

**Noncommercial species.** Tree species of typically small size, poor form, or inferior quality that normally do not develop into trees suitable for industrial wood products.

**Nonforest land.** Land that has never supported forests and land formerly forested where timber production is precluded by development for other uses.

**Nongrowing-stock sources.** The net volume removed from the nongrowing-stock portions of poletimber and sawtimber trees (stumps, tops, limbs, cull sections of central stem) and from any portion of a rough, rotten, sapling, dead, or nonforest tree.

**Other forest land.** Forest land other than timberland and productive reserved forest land. It includes available and reserved forest land that is incapable of producing annually 20 cubic feet per acre of industrial wood under natural conditions because of adverse site conditions such as sterile soils, dry climate, poor drainage, high elevation, steepness, or rockiness.

**Other products.** A miscellaneous category of roundwood products, e.g., cooperage, excelsior, shingles, and mill residue byproducts (charcoal, bedding, mulch, etc.).

**Other removals.** The growing-stock volume of trees removed from the inventory by cultural operations such as timber stand improvement, land clearing, and other changes in land use, resulting in the removal of the trees from timberland.

**Other sources.** (See: Nongrowing-stock sources.)

**Ownership.** The property owned by one ownership unit, including all parcels of land in the United States.

*National forest land.* Federal land that has been legally designated as national forests or purchase units, and other land under the administration of the Forest Service, including experimental areas and Bankhead-Jones Title III land.

*Forest industry land.* Land owned by companies or individuals operating primary wood-using plants.

*Nonindustrial private forest (NIPF) land.* Privately owned land excluding forest industry land.

Corporate. Owned by corporations, including incorporated farm ownerships.

Individual. All lands owned by individuals, including farm operators.

*Other public.* An ownership class that includes all public lands except national forests.

Miscellaneous Federal land. Federal land other than national forests.

State, county, and municipal land. Land owned by States, counties, and local public agencies or municipalities, or land leased to these governmental units for 50 years or more.

**Plant residues.** Wood material generated in the production of timber products at primary manufacturing plants.

*Coarse residues.* Material, such as slabs, edgings, trim, veneer cores and ends, which is suitable for chipping.

*Fine residues.* Material, such as sawdust, shavings, and veneer residue, which is not suitable for chipping.

*Plant byproducts.* Residues (coarse or fine) used in the further manufacture of industrial products for consumer use, or as fuel.

*Unused plant residues.* Residues (coarse or fine) that are not used for any product, including fuel.

**Poletimber-size trees.** Softwoods 5.0 to 8.9 inches d.b.h. and hardwoods 5.0 to 10.9 inches d.b.h.

**Posts, poles, and pilings.** Roundwood products milled (cut or peeled) into standard sizes (lengths and circumferences) to be put in the ground to provide vertical and lateral support in buildings, foundations, utility lines, and fences. May also include nonindustrial (unmilled) products.

**Primary wood-using plants.** Industries that convert roundwood products (saw logs, veneer logs, pulpwood, etc.) into primary wood products, such as lumber, veneer or sheathing, wood pulp.

**Production.** The total volume of known roundwood harvested from land within a State, regardless of where it is consumed. Production is the sum of timber harvested and used within a State, and all roundwood exported to other States.

**Pulpwood.** A roundwood product that will be reduced to individual wood fibers by chemical or mechanical means. The fibers are used to make a broad generic group of pulp products that includes paper products, as well as fiberboard, insulating board, and paperboard.

**Receipts.** The quantity or volume of industrial roundwood received at a mill or by a group of mills in a State, regardless of the geographic source. Volume of roundwood receipts is equal to the volume of roundwood retained in a State plus roundwood imported from other States.

**Retained.** Roundwood volume harvested from and processed by mills within the same State.

**Rotten trees.** Live trees of commercial species not containing at least one 12-foot saw log, or two noncontiguous saw logs, each 8 feet or longer, now or prospectively, primarily because of rot or missing sections, and with less than one-third of the gross board-foot tree volume in sound material.

**Rough trees.** Live trees of commercial species not containing at least one 12-foot saw log, or two noncontiguous saw logs, each 8 feet or longer, now or prospectively, primarily because of roughness, poor form, splits, and cracks, and with less than one-third of the gross board-foot tree volume in sound material; and live trees of noncommercial species.

**Roundwood (roundwood logs).** Logs, bolts, or other round sections cut from trees for industrial manufacture or consumer uses.

**Roundwood chipped.** Any timber cut primarily for industrial manufacture, delivered to nonpulp mills, chipped, and then sold to pulpmills for use as fiber. Includes tops, jump sections, whole trees, and pulpwood sticks.

**Roundwood product drain.** That portion of total drain used for a product.

**Roundwood products.** Any primary product, such as lumber, veneer, composite panels, poles, pilings, pulp, or fuelwood that is produced from roundwood.

**Salvable dead trees.** Standing or downed dead trees that were formerly growing stock and considered merchantable. Trees must be at least 5.0 inches d.b.h. to qualify.

**Saplings.** Live trees 1.0 to 5.0 inches d.b.h.

**Saw log.** A roundwood product, usually 8 feet in length or longer, processed into a variety of sawn products such as lumber, cants, pallets, railroad ties, and timbers.

**Saw-log portion.** The part of the bole of sawtimber trees between a 1-foot stump and the saw-log top.

**Saw-log top.** The point on the bole of sawtimber trees above which a conventional saw log cannot be produced. The minimum saw-log top is 7.0 inches d.o.b. for softwoods and 9.0 inches d.o.b. for hardwoods for FIA standards.

**Sawtimber-size trees.** Softwoods 9.0 inches d.b.h. and larger and hardwoods 11.0 inches d.b.h. and larger.

**Sawtimber volume.** Growing-stock volume in the saw-log portion of sawtimber-sized trees in board feet (International 1/4-inch rule).

**Seedlings.** Trees <1.0 inch d.b.h. and >1 foot tall for hardwoods, >6 inches tall for softwoods, and >0.5 inch in diameter at ground level for longleaf pine.

**Select red oaks.** A group of several red oak species composed of cherrybark, Shumard, and northern red oaks. Other red oak species are included in the “other red oaks” group.

**Select white oaks.** A group of several white oak species composed of white, swamp chestnut, swamp white, chinkapin, Durand, and bur oaks. Other white oak species are included in the “other white oaks” group.

**Softwoods.** Coniferous trees, usually evergreen, having leaves that are needles or scale like.

**Standard cord.** A unit of measure applied to roundwood, usually bolts or split wood. It is a stack of wood 4 feet high, 4 feet wide, and 8 feet long encompassing 128 cubic feet of wood, bark, and air space. This usually translates to approximately 75.0 to 81.0 cubic feet of solid wood for pulpwood, because pulpwood is more uniform.

**Standard unit.** A unit measure applied to roundwood timber products. Board feet (International 1/4-inch rule) is the standard unit used for saw logs and veneer; cords are used for pulpwood, composite panel, and fuelwood; hundred pieces for poles; thousand pieces for posts; and thousand cubic feet for all other miscellaneous forest products.

**Timberland.** Forest land capable of producing 20 cubic feet of industrial wood per acre per year and not withdrawn from timber utilization.

**Timber product output.** The total volume of roundwood products from all sources plus the volume of byproducts recovered from mill residues (equals roundwood product drain).

**Timber products.** Roundwood products and byproducts.

**Timber removals.** The total volume of trees removed from the timberland inventory by harvesting, cultural operations such as stand improvement, land clearing, or changes in land use. (Note: Includes roundwood products, logging residues, and other removals.)

**Tree.** Woody plants having one erect perennial stem or trunk at least 3 inches d.b.h., a more or less definitely formed crown of foliage, and a height of at least 13 feet (at maturity).

**Upper-stem portion.** The part of the main stem of saw-timber trees above the saw-log top and the minimum top diameter of 4.0 inches outside bark, or to the point where the main stem breaks into limbs.

**Utilization studies.** Studies conducted on active logging operations to develop factors for merchantable portions of trees left in the woods (logging residues), logging damage, and utilization of the unmerchantable portion of growing-stock trees and nongrowing-stock trees.

**Veneer log.** A roundwood product either rotary cut, sliced, stamped, or sawn into a variety of veneer products such as plywood, finished panels, veneer sheets, or sheathing.

**Weight.** A unit of measure for mill residues, expressed as oven-dry tons (2,000 oven-dry pounds).

### Conversion Factors<sup>a</sup>

---

Saw logs	
Softwood	0.18349 cubic foot = 1 board foot 5.45 board feet = 1 cubic foot
Hardwood	0.16807 cubic foot = 1 board foot 5.95 board feet = 1 cubic foot
Veneer logs	
Softwood	0.17094 cubic foot = 1 board foot 5.85 board feet = 1 cubic foot
Hardwood	0.16260 cubic foot = 1 board foot 6.15 board feet = 1 cubic foot
Pulpwood <sup>b</sup>	
Softwood	72.6 cubic feet per cord
Hardwood	75.0 cubic feet per cord

---

<sup>a</sup> Conversion factors vary with stem size (d.b.h.) and species. The factors shown are for trees of average diameters removed in Mississippi during the most recent survey period.

<sup>b</sup> Cubic feet of solid wood per cord.

## Species List<sup>a</sup>

Common name	Scientific name <sup>b</sup>	Common name	Scientific name <sup>b</sup>
Softwoods		Hardwoods (continued)	
Atlantic white-cedar	<i>Chamaecyparis thyoides</i> (L.) B.S.P.	Bigleaf magnolia	<i>M. macrophylla</i> Michx.
Southern redcedar	<i>Juniperus silicicola</i> (Small) Bailey	Sweetbay	<i>M. virginiana</i> L.
Eastern redcedar	<i>J. virginiana</i> L.	Apple	<i>Malus</i> spp. Mill.
Shortleaf pine	<i>Pinus echinata</i> Mill.	Chinaberry	<i>Melia azedarach</i> L.
Slash pine	<i>P. elliotii</i> Mill.	White mulberry	<i>Morus alba</i> L.
Spruce pine	<i>P. glabra</i> Walt.	Red mulberry	<i>M. rubra</i> L.
Longleaf pine	<i>P. palustris</i> Mill.	Water tupelo	<i>Nyssa aquatica</i> L.
Loblolly pine	<i>P. taeda</i> L.	Blackgum	<i>N. sylvatica</i> Marsh.
Virginia pine	<i>P. virginiana</i> Mill.	Swamp tupelo	<i>N. sylvatica</i> var. <i>biflora</i> (Walt.) Sarg.
Baldcypress	<i>Taxodium distichum</i> L.	Eastern hophornbeam	<i>Ostrya virginiana</i> (Mill.) K. Koch
Hardwoods		Sourwood	<i>Oxydendrum arboreum</i> L.
Florida maple	<i>Acer barbatum</i> Michx.	Royal paulownia	<i>Paulownia tomentosa</i> (Thunb.) Sieb. & Zucc. ex Steud.
Boxelder	<i>A. negundo</i> L.	Redbay	<i>Persea borbonia</i> L.
Red maple	<i>A. rubrum</i> L.	Water-elm	<i>Planera aquatica</i> J. F. Gmel.
Silver maple	<i>A. saccharinum</i> L.	American sycamore	<i>Platanus occidentalis</i> L.
Sugar maple	<i>A. saccharum</i> Marsh.	Cottonwood	<i>Populus</i> spp. L.
Ohio buckeye	<i>Aesculus glabra</i> Willd.	Black cherry	<i>Prunus serotina</i> Ehrh.
Buckeye	<i>A. spp.</i> L.	Plums, cherries (other than black cherry)	<i>P. spp.</i> L.
Ailanthus	<i>Ailanthus altissima</i> Mill.	White oak	<i>Quercus alba</i> L.
Tung-oil tree	<i>Aleurites fordii</i> Hemsl.	Scarlet oak	<i>Q. coccinea</i> Muenchh.
Serviceberry	<i>Amelanchier</i> spp. Medic.	Durand oak	<i>Q. durandii</i> Buckl.
River birch	<i>Betula nigra</i> L.	Southern red oak	<i>Q. falcata</i> Michx.
Chittamwood	<i>Bumelia</i> spp. (Michx.) Pers.	Cherrybark oak	<i>Q. falcata</i> var. <i>pagodifolia</i> Ell.
American hornbeam	<i>Carpinus caroliniana</i> Walt.	Bluejack oak	<i>Q. incana</i> Bartr.
Hickory	<i>Carya</i> spp. Nutt.	Turkey oak	<i>Q. laevis</i> Walt.
Water hickory	<i>C. aquatica</i> Michx.	Laurel oak	<i>Q. laurifolia</i> Michx.
Bitternut hickory	<i>C. cordiformis</i> (Wangenh.) K. Koch	Overcup oak	<i>Q. lyrata</i> Walt.
Pignut hickory	<i>C. glabra</i> (Mill.) Sweet	Blackjack oak	<i>Q. marilandica</i> Muenchh.
Pecan	<i>C. illinoensis</i> (Wangenh.) K. Koch	Swamp chestnut oak	<i>Q. michauxii</i> Nutt.
Shellbark hickory	<i>C. laciniata</i> (Michx. f.) Loud	Chinkapin oak	<i>Q. muehlenbergii</i> Engelm.
Nutmeg hickory	<i>C. myristiciformis</i> (Michx. f.) Nutt.	Water oak	<i>Q. nigra</i> L.
Shagbark hickory	<i>C. ovata</i> (Mill.) K. Koch.	Nuttall oak	<i>Q. nuttallii</i> Palmer
Mockernut hickory	<i>C. tomentosa</i> Nutt.	Pin oak	<i>Q. palustris</i> Muenchh.
Allegheny chinkapin	<i>Castanea pumila</i> Mill.	Willow oak	<i>Q. phellos</i> L.
Chinkapin	<i>Castanopsis</i> (D. Don) Spach	Chestnut oak	<i>Q. prinus</i> L.
Catalpa	<i>Catalpa</i> spp. Scop.	Northern red oak	<i>Q. rubra</i> L.
Sugarberry	<i>Celtis laevigata</i> Willd.	Shumard oak	<i>Q. shumardii</i> Buckl.
Hackberry	<i>C. occidentalis</i> L.	Post oak	<i>Q. stellata</i> Wangenh.
Eastern redbud	<i>Cercis canadensis</i> L.	Black oak	<i>Q. velutina</i> Lam.
Flowering dogwood	<i>Cornus florida</i> L.	Live oak	<i>Q. virginiana</i> Mill.
Hawthorn	<i>Crataegus</i> spp. L.	Black locust	<i>Robinia pseudoacacia</i> L.
Common persimmon	<i>Diospyros virginiana</i> L.	Willow	<i>Salix</i> spp. L.
American beech	<i>Fagus grandifolia</i> Ehrh.	Chinese tallowtree	<i>Sapium sebiferum</i> (L.) Roxb.
White ash	<i>Fraxinus americana</i> L.	Sassafras	<i>Sassafras albidum</i> (Nutt.) Nees
Green ash	<i>F. pennsylvanica</i> Marsh.	American basswood	<i>Tilia americana</i> L.
Water locust	<i>Gleditsia aquatica</i> Marsh.	White basswood	<i>T. heterophylla</i> Vent.
Honey locust	<i>G. triacanthus</i> L.	Winged elm	<i>Ulmus alata</i> Michx.
American holly	<i>Ilex opaca</i> Ait.	American elm	<i>U. americana</i> L.
Black walnut	<i>Juglans nigra</i> L.	Cedar elm	<i>U. crassifolia</i> Nutt.
Sweetgum	<i>Liquidambar styraciflua</i> L.	Slippery elm	<i>U. rubra</i> Muhl.
Yellow-poplar	<i>Liriodendron tulipifera</i> L.	Sparkleberry	<i>Vaccinium arboreum</i> Marsh.
Osage-orange	<i>Maclura pomifera</i> (Raf.) Schneid.		
Cucumbertree	<i>Magnolia acuminata</i> L.		
Southern magnolia	<i>M. grandiflora</i> L.		

<sup>a</sup> Common and scientific names of tree species  $\geq 1.0$  inch d.b.h. occurring in the FIA sample.

<sup>b</sup> Little (1979).



## **Appendix**



## Index of Tables

Table A.1—Output of industrial products by product and species group, Mississippi, 2005 and 2007

Table A.2—Roundwood receipts by product and species group, Mississippi, 2005 and 2007

Table A.3—Number of primary wood-using plants by type of mill, Mississippi, 1962 to 2007

Table A.4—Roundwood receipts by sawmill size, Mississippi, 2005 and 2007

Table A.5—Roundwood receipts by species and type of mill, Mississippi, 2007

Table A.6—Industrial roundwood movement by year and species group, Mississippi, 2005 and 2007

Table A.7—Industrial roundwood movement by product and species group, Mississippi, 2007

Table A.8—Saw-log volume by destination, source, and species group, Mississippi, 2007

Table A.9—Veneer volume by destination, source, and species group, Mississippi, 2007

Table A.10—Pulpwood volume by destination, source, and species group, Mississippi, 2007

Table A.11—Other industrial volume by destination, source, and species group, Mississippi, 2007

Table A.12—Primary mill residue volume by roundwood type, species group, and residue type, Mississippi, 2007

Table A.13—Disposal of residue at primary wood-using plants by product, species group, and type of residue, Mississippi, 2005 and 2007

Table A.14—Roundwood timber product output by county, product, and species group, Mississippi, 2007

Table A.15—Total roundwood output by product, species group, and source of material, Mississippi, 2007

Table A.16—Total roundwood output by species group, survey region, and ownership class, Mississippi, 2007

Table A.17—Total roundwood output by species group, detailed species group, and product, Mississippi, 2007

Table A.18—Total roundwood output by species group, detailed species group, and ownership class, Mississippi, 2007



**Table A.1—Output of industrial products by product and species group, Mississippi, 2005 and 2007**

Product and species group	Year		Change	Change
	2005	2007		
	----- thousand cubic feet -----			percent
Saw logs				
Softwood	432,908	300,541	-132,367	-30.6
Hardwood	110,394	78,241	-32,153	-29.1
Total	543,302	378,782	-164,520	-30.3
Veneer logs				
Softwood	69,401	70,675	1,274	1.8
Hardwood	8,752	4,967	-3,785	-43.2
Total	78,153	75,642	-2,511	-3.2
Pulpwood <sup>a</sup>				
Softwood	238,166	274,250	36,084	15.2
Hardwood	127,761	126,305	-1,456	-1.1
Total	365,927	400,555	34,628	9.5
Composite panels				
Softwood	39,332	32,980	-6,352	-16.1
Hardwood	4,524	4,606	82	1.8
Total	43,856	37,586	-6,270	-14.3
Other industrial				
Softwood	1,521	1,534	13	0.9
Hardwood	0	0	0	—
Total	1,521	1,534	13	0.9
All industrial				
Softwood	781,328	679,980	-101,348	-13.0
Hardwood	251,431	214,119	-37,312	-14.8
Total	1,032,759	894,099	-138,660	-13.4

— = negligible.

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (2,801,000 cubic feet in 2005 and 2,968,000 cubic feet in 2007).

**Table A.2—Roundwood receipts by product and species group, Mississippi, 2005 and 2007**

Product and species group	Year		Change	Change
	2005	2007		
	<i>----- thousand cubic feet -----</i>			<i>percent</i>
Saw logs				
Softwood	445,252	307,267	-137,985	-31.0
Hardwood	114,928	77,637	-37,291	-32.4
Total	560,180	384,904	-175,276	-31.3
Veneer logs				
Softwood	77,239	79,504	2,265	2.9
Hardwood	6,854	4,116	-2,738	-39.9
Total	84,093	83,620	-473	-0.6
Pulpwood <sup>a</sup>				
Softwood	206,014	218,597	12,583	6.1
Hardwood	12,810	18,862	6,052	47.2
Total	218,824	237,459	18,635	8.5
Other industrial				
Softwood	41,512	35,215	-6,297	-15.2
Hardwood	3,328	4,606	1,278	38.4
Total	44,840	39,821	-5,019	-11.2
Total output				
Softwood	770,017	640,583	-129,434	-16.8
Hardwood	137,920	105,221	-32,699	-23.7
Total	907,937	745,804	-162,133	-17.9

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulpmills (3,323,000 cubic feet in 2005 and 3,231,000 cubic feet in 2007).

**Table A.3—Number of primary wood-using plants by type of mill, Mississippi, 1962 to 2007**

Type of mill	Year								
	1962	1966	1972	1976	1995	1999	2002	2005	2007
	<i>number</i>								
Sawmills	290	305	241	218	84	84	92	93	66
Veneer mills	24	22	16	13	10	10	12	12	8
Pulpmills	6	7	8	7	7	7	6	5	5
Composite panel mills	0	0	0	0	2	2	3	3	2
Other mills	64	74	50	55	2	2	3	3	3
All plants	384	408	315	293	105	105	116	116	84

**Table A.4—Roundwood receipts by sawmill size, Mississippi, 2005 and 2007**

Sawmill size class <sup>a</sup> <i>mmbf</i>	2005			2007		
	Mills		Volume	Mills		Volume
	<i>number</i>	<i>mbf</i>	<i>percent</i>	<i>number</i>	<i>mbf</i>	<i>percent</i>
<1.0	2	1,537	0	0	0	0
1.0–4.99	17	50,436	2	8	23,069	1
5.0–9.99	19	146,941	5	16	121,784	6
10.0–49.99	36	734,982	23	26	568,574	26
>50	19	2,183,432	70	16	1,427,924	67
Total	93	3,117,328	100	66	2,141,351	100

<sup>a</sup> Based on volume received as opposed to actual capacity.

**Table A.5—Roundwood receipts by species and type of mill, Mississippi, 2007**

Species	All mills	Sawmills	Type of mill		Pulpmills <sup>a</sup>	Other mills
			Veneer type			
			Pine plywood	Other veneer		
<i>thousand cubic feet</i>						
Softwood						
Yellow pine	420,416	305,697	79,504	0	NA	35,215
Eastern white pine	0	0	0	0	NA	0
Cedar	0	0	0	0	NA	0
Cypress	1,390	1,390	0	0	NA	0
Other softwood	180	180	0	0	NA	0
Unclassified	218,597	0	0	0	218,597	0
Total softwoods	640,583	307,267	79,504	0	218,597	35,215
Hardwood						
Blackgum-tupelo	316	316	0	0	NA	0
Soft maple	0	0	0	0	NA	0
Sweetgum	11,074	5,503	594	371	NA	4,606
Yellow-poplar	9,287	7,993	994	300	NA	0
Other soft hardwood	1,363	1,363	0	0	NA	0
Hickory	2,276	1,908	0	368	NA	0
Red oak	34,526	33,296	0	1,230	NA	0
White oak	12,441	12,274	0	167	NA	0
Other hard hardwood	15,076	14,984	0	92	NA	0
Unclassified	18,862	0	0	0	18,862	0
Total hardwoods	105,221	77,637	1,588	2,528	18,862	4,606
All species	745,804	384,904	81,092	2,528	237,459	39,821

NA = not applicable.

<sup>a</sup> Collected only by softwood and hardwood and includes roundwood chipped.

**Table A.6—Industrial roundwood movement by year and species group, Mississippi, 2005 and 2007**

Year	Production	Exported to other States	Retained	Imported from other States	Receipts
<i>thousand cubic feet</i>					
<b>Softwood</b>					
2005	781,328	119,992	661,336	108,681	770,017
2007	679,980	116,344	563,636	76,947	640,583
<b>Hardwood</b>					
2005	251,431	131,562	119,869	18,051	137,920
2007	214,119	120,462	93,657	11,564	105,221
<b>All species</b>					
2005	1,032,759	251,554	781,205	126,732	907,937
2007	894,099	236,806	657,293	88,511	745,804

**Table A.7—Industrial roundwood movement by product and species group, Mississippi, 2007**

Product and species group	Production	Exported to other States	Retained	Imported from other States	Receipts
<i>thousand cubic feet</i>					
Saw logs					
Softwood	300,541	29,226	271,315	35,952	307,267
Hardwood	78,241	11,268	66,973	10,664	77,637
Total	378,782	40,494	338,288	46,616	384,904
Veneer logs					
Softwood	70,675	2,271	68,404	11,100	79,504
Hardwood	4,967	1,293	3,674	442	4,116
Total	75,642	3,564	72,078	11,542	83,620
Pulpwood <sup>a</sup>					
Softwood	274,250	84,775	189,475	29,122	218,597
Hardwood	126,305	107,901	18,404	458	18,862
Total	400,555	192,676	207,879	29,580	237,459
Other industrial					
Softwood	34,514	72	34,442	773	35,215
Hardwood	4,606	0	4,606	0	4,606
Total	39,120	72	39,048	773	39,821
All products					
Softwood	679,980	116,344	563,636	76,947	640,583
Hardwood	214,119	120,462	93,657	11,564	105,221
Total	894,099	236,806	657,293	88,511	745,804

<sup>a</sup> Includes roundwood chipped.

**Table A.8—Saw-log volume by destination, source, and species group, Mississippi, 2007**

Destination and source	All species	Species group	
		Softwood	Hardwood
		<i>thousand cubic feet</i>	
Mississippi (retained)	338,288	271,315	66,973
Exports to			
Alabama	19,818	13,121	6,697
Arkansas	528	0	528
Louisiana	18,589	16,102	2,487
Missouri	318	0	318
Tennessee	1,241	3	1,238
Total	40,494	29,226	11,268
Imports from			
Alabama	23,177	21,721	1,456
Arkansas	785	0	785
Louisiana	17,498	10,832	6,666
Tennessee	5,156	3,399	1,757
Total	46,616	35,952	10,664

**Table A.10—Pulpwood volume by destination, source, and species group, Mississippi, 2007<sup>a</sup>**

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Mississippi (retained)	207,879	189,475	18,404
Exports to			
Alabama	40,329	8,840	31,489
Arkansas	25,793	2,862	22,931
Florida	165	165	0
Kentucky	9,738	0	9,738
Louisiana	82,165	45,162	37,003
Tennessee	33,564	27,746	5,818
Texas	922	0	922
Total	192,676	84,775	107,901
Imports from			
Alabama	26,996	26,985	11
Florida	69	69	0
Louisiana	2,325	2,068	257
Tennessee	190	0	190
Total	29,580	29,122	458

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills.

**Table A.9—Veneer volume by destination, source, and species group, Mississippi, 2007**

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Mississippi (retained)	72,078	68,404	3,674
Exports to			
Alabama	926	926	0
Arkansas	1,293	0	1,293
Louisiana	1,345	1,345	0
Total	3,564	2,271	1,293
Imports from			
Alabama	7,184	7,176	8
Louisiana	4,358	3,924	434
Total	11,542	11,100	442

**Table A.11—Other industrial volume by destination, source, and species group, Mississippi, 2007<sup>a</sup>**

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Mississippi (retained)	39,048	34,442	4,606
Exports to Alabama	72	72	0
Total	72	72	0
Imports from Alabama	445	445	0
Arkansas	328	328	0
Total	773	773	0

<sup>a</sup> Includes composite panels, poles, posts, mulch, firewood, log homes, charcoal, and all other industrial mills.

**Table A.12—Primary mill residue volume by roundwood type, species group, and residue type, Mississippi, 2007**

Roundwood type and species group	All types	Residue type			
		Bark	Coarse	Sawdust	Shavings
thousand cubic feet					
Saw logs					
Softwood	181,671	27,211	85,460	45,285	23,715
Hardwood	43,976	8,866	18,072	16,281	757
Total	225,647	36,077	103,532	61,566	24,472
Veneer logs					
Softwood	52,052	7,541	23,959	20,552	0
Hardwood	3,931	487	2,186	1,258	0
Total	55,983	8,028	26,145	21,810	0
Pulpwood					
Softwood	22,354	22,354	0	0	0
Hardwood	2,243	2,243	0	0	0
Total	24,597	24,597	0	0	0
Composite panels					
Softwood	7,444	7,444	0	0	0
Hardwood	1,180	1,180	0	0	0
Total	8,624	8,624	0	0	0
Other industrial <sup>a</sup>					
Softwood	3,629	2,110	1,519	0	0
Hardwood	0	0	0	0	0
Total	3,629	2,110	1,519	0	0
Total					
Softwood	267,150	66,660	110,938	65,837	23,715
Hardwood	51,330	12,776	20,258	17,539	757
Total	318,480	79,436	131,196	83,376	24,472

<sup>a</sup> Includes poles, pilings, posts, and other industrial products.

**Table A.13—Disposal of residue at primary wood-using plants by product, species group, and type of residue, Mississippi, 2005 and 2007**

Product and species group	All types		Bark		Coarse		Sawdust		Shavings	
	2005	2007	2005	2007	2005	2007	2005	2007	2005	2007
<i>thousand cubic feet</i>										
Fiber products										
Softwood	104,568	99,111	0	0	104,568	99,111	0	0	0	0
Hardwood	26,397	17,927	0	0	26,397	17,927	0	0	0	0
Total	130,965	117,038	0	0	130,965	117,038	0	0	0	0
Particleboard										
Softwood	15,810	23,518	0	0	3,982	3,982	5,277	13,478	6,551	6,058
Hardwood	265	550	0	0	0	0	200	485	65	65
Total	16,075	24,068	0	0	3,982	3,982	5,477	13,963	6,616	6,123
Sawn products										
Softwood	4,547	883	0	0	4,547	883	0	0	0	0
Hardwood	3,221	208	0	0	3,221	208	0	0	0	0
Total	7,768	1,091	0	0	7,768	1,091	0	0	0	0
Industrial fuel										
Softwood	155,208	125,331	70,626	62,065	4,971	5,792	59,294	41,794	20,317	15,680
Hardwood	38,669	27,913	13,841	10,928	787	1,776	23,012	14,717	1,029	492
Total	193,877	153,244	84,467	72,993	5,758	7,568	82,306	56,511	21,346	16,172
Miscellaneous										
Softwood	31,519	16,531	6,679	4,332	610	413	18,027	9,809	6,203	1,977
Hardwood	5,233	4,221	2,116	1,802	297	297	2,345	1,922	475	200
Total	36,752	20,752	8,795	6,134	907	710	20,372	11,731	6,678	2,177
Not used										
Softwood	3,882	1,776	503	263	757	757	2,573	756	49	0
Hardwood	1,209	512	300	46	271	50	638	416	0	0
Total	5,091	2,288	803	309	1,028	807	3,211	1,172	49	0
All products										
Softwood	315,534	267,150	77,808	66,660	119,435	110,938	85,171	65,837	33,120	23,715
Hardwood	74,994	51,331	16,257	12,776	30,973	20,258	26,195	17,540	1,569	757
Total	390,528	318,481	94,065	79,436	150,408	131,196	111,366	83,377	34,689	24,472

**Table A.14—Roundwood timber product output by county, product, and species group, Mississippi, 2007**

County	All products		Saw logs		Veneer logs		Pulpwood <sup>a</sup>		Composite panels		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>thousand cubic feet</i>												
Adams	1,056	3,165	307	1,935	138	0	611	1,230	0	0	0	0
Alcorn	2,593	2,901	976	1,931	0	0	1,452	970	165	0	0	0
Amite	17,817	4,911	6,216	1,067	3,257	64	8,344	3,780	0	0	0	0
Attala	13,490	2,586	7,442	734	1,142	11	3,538	1,426	1,343	415	25	0
Benton	1,937	2,220	370	1,272	0	0	1,402	948	165	0	0	0
Bolivar	24	5,771	19	3,849	0	74	5	1,433	0	415	0	0
Calhoun	10,516	1,311	4,750	379	0	0	3,571	517	2,170	415	25	0
Carroll	9,645	2,911	2,876	633	528	0	3,050	1,725	3,191	553	0	0
Chickasaw	6,650	2,511	3,166	688	285	0	1,709	1,731	1,490	92	0	0
Choctaw	13,882	1,619	6,029	688	999	36	5,849	803	1,005	92	0	0
Claiborne	2,466	5,733	566	3,617	415	231	1,485	1,885	0	0	0	0
Clarke	16,472	3,649	8,328	862	1,173	2	6,966	2,785	0	0	5	0
Clay	4,583	1,012	2,366	827	0	0	1,391	185	826	0	0	0
Coahoma	22	4,956	22	4,222	0	374	0	176	0	184	0	0
Copiah	18,054	5,298	10,998	1,665	776	224	6,280	3,409	0	0	0	0
Covington	10,756	628	4,525	125	1,927	9	4,238	494	0	0	66	0
DeSoto	492	228	0	226	0	0	492	2	0	0	0	0
Forrest	9,220	466	3,195	429	2,847	3	3,103	34	0	0	75	0
Franklin	7,970	2,680	4,616	1,045	831	149	2,523	1,486	0	0	0	0
George	8,321	505	3,132	490	2,272	0	2,851	15	0	0	66	0
Greene	14,094	2,027	3,129	648	1,399	0	9,343	1,379	167	0	56	0
Grenada	4,514	909	2,253	234	0	0	1,086	399	1,175	276	0	0
Hancock	7,531	328	2,926	313	1,379	0	3,120	15	0	0	106	0
Harrison	8,315	380	3,157	376	727	0	4,315	4	0	0	116	0
Hinds	5,240	5,213	1,216	962	318	207	3,706	4,044	0	0	0	0
Holmes	5,883	4,167	1,715	1,090	428	0	2,733	2,847	1,007	230	0	0
Humphreys	177	389	177	188	0	0	0	201	0	0	0	0
Issaquena	3	3,076	0	1,512	0	0	3	1,564	0	0	0	0
Itawamba	5,865	1,830	2,111	701	0	0	2,101	1,129	1,653	0	0	0
Jackson	8,257	462	3,602	444	1,427	0	3,180	18	0	0	48	0
Jasper	15,134	872	7,309	99	4,616	27	3,209	746	0	0	0	0
Jefferson	5,101	2,303	1,318	881	554	0	3,229	1,422	0	0	0	0
Jefferson Davis	12,189	529	6,907	520	1,524	9	3,702	0	0	0	56	0
Jones	11,439	1,501	4,290	88	2,875	7	4,208	1,406	0	0	66	0
Kemper	27,424	2,026	19,742	721	1,571	0	6,057	1,305	0	0	54	0
Lafayette	4,622	1,953	1,514	1,510	0	0	1,106	305	2,002	138	0	0
Lamar	12,175	1,088	5,583	506	1,934	9	3,407	573	1,157	0	94	0
Lauderdale	17,112	14,333	8,259	1,449	719	2	8,122	12,882	0	0	12	0
Lawrence	13,102	1,278	7,594	618	318	3	5,190	657	0	0	0	0
Leake	9,509	1,814	4,046	960	1,713	2	3,558	760	167	92	25	0
Lee	2,434	732	912	375	0	0	365	357	1,157	0	0	0
Leflore	1,180	695	1,180	553	0	0	0	142	0	0	0	0
Lincoln	20,783	9,565	5,401	841	939	20	14,443	8,704	0	0	0	0
Lowndes	5,055	9,040	3,122	1,188	285	2	1,483	7,850	165	0	0	0

*continued*

**Table A.14—Roundwood timber product output by county, product, and species group, Mississippi, 2007 (continued)**

County	All products		Saw logs		Veneer logs		Pulpwood <sup>a</sup>		Composite panels		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>thousand cubic feet</i>												
Madison	5,706	2,666	1,014	904	857	16	3,668	1,654	167	92	0	0
Marion	15,699	4,636	8,609	681	1,524	48	4,803	3,907	661	0	102	0
Marshall	3,031	1,935	2,132	1,541	0	0	734	394	165	0	0	0
Monroe	10,169	6,144	5,969	1,666	142	0	2,240	4,478	1,818	0	0	0
Montgomery	4,758	2,903	1,479	586	142	91	1,433	1,857	1,679	369	25	0
Neshoba	11,936	3,632	7,008	1,628	1,428	272	3,140	1,732	335	0	25	0
Newton	10,648	1,818	7,590	220	614	9	2,444	1,589	0	0	0	0
Noxubee	15,679	1,165	9,119	1,076	571	14	5,964	75	0	0	25	0
Oktibbeha	7,788	619	4,281	482	428	2	2,746	89	333	46	0	0
Panola	4,343	4,250	2,056	888	0	494	1,786	2,684	501	184	0	0
Pearl River	16,204	1,811	5,049	322	1,924	0	9,103	1,489	0	0	128	0
Perry	13,266	445	3,410	216	1,545	0	8,227	229	0	0	84	0
Pike	7,782	1,137	4,857	423	384	0	2,541	714	0	0	0	0
Pontotoc	5,968	1,873	2,735	887	0	91	1,415	803	1,818	92	0	0
Prentiss	4,513	2,824	795	1,555	0	0	2,892	1,269	826	0	0	0
Quitman	1	193	0	106	0	87	1	0	0	0	0	0
Rankin	16,544	4,896	5,084	1,588	2,485	166	8,975	3,142	0	0	0	0
Scott	8,417	1,856	3,149	616	646	2	4,622	1,238	0	0	0	0
Sharkey	144	718	131	476	0	0	13	242	0	0	0	0
Simpson	16,385	1,289	9,996	643	2,024	9	4,365	637	0	0	0	0
Smith	17,969	1,991	2,324	507	3,715	732	11,930	752	0	0	0	0
Stone	15,393	0	3,893	0	4,242	0	7,156	0	0	0	102	0
Sunflower	0	189	0	189	0	0	0	0	0	0	0	0
Tallahatchie	1,570	866	1,143	448	0	28	260	252	167	138	0	0
Tate	1,062	1,020	0	808	0	120	559	46	503	46	0	0
Tippah	5,321	2,686	1,645	1,611	0	0	3,180	1,075	496	0	0	0
Tishomingo	6,897	1,458	3,204	699	0	0	3,528	759	165	0	0	0
Tunica	0	1,188	0	584	0	543	0	61	0	0	0	0
Union	3,425	2,207	821	1,467	0	0	1,282	740	1,322	0	0	0
Walthall	9,368	1,639	6,091	954	415	11	2,814	674	0	0	48	0
Warren	344	6,076	177	3,183	0	302	167	2,591	0	0	0	0
Washington	25	3,036	0	2,030	0	0	25	1,006	0	0	0	0
Wayne	16,628	5,954	7,605	400	1,421	21	7,527	5,533	0	0	75	0
Webster	11,329	1,322	7,291	430	571	5	2,126	657	1,341	230	0	0
Wilkinson	13,444	5,103	3,414	1,748	4,282	120	5,748	3,235	0	0	0	0
Winston	17,613	6,182	7,476	1,153	1,999	39	7,946	4,990	167	0	25	0
Yalobusha	5,460	1,310	2,253	529	0	0	1,696	320	1,511	461	0	0
Yazoo	2,047	3,511	1,379	1,536	0	280	668	1,649	0	46	0	0
All counties	679,980	214,119	300,541	78,241	70,675	4,967	274,250	126,305	32,980	4,606	1,534	0

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulpmills (2,968,000 cubic feet in 2007).

**Table A.15—Total roundwood output by product, species group, and source of material, Mississippi, 2007**

Product and species group	All sources	Total	Growing-stock trees		Other sources
			Sawtimber	Poletimber	
thousand cubic feet					
Saw logs					
Softwood	300,541	293,027	269,292	23,735	7,514
Hardwood	78,241	76,408	71,060	5,349	1,833
Total	378,782	369,436	340,352	29,084	9,346
Veneer logs and bolts					
Softwood	70,675	69,240	65,085	4,154	1,435
Hardwood	4,967	4,881	4,881	0	86
Total	75,642	74,121	69,966	4,154	1,521
Pulpwood					
Softwood	274,250	198,522	83,260	115,262	75,728
Hardwood	126,305	112,862	74,738	38,124	13,443
Total	400,555	311,384	157,998	153,386	89,171
Composite panels					
Softwood	32,980	25,975	12,955	13,020	7,005
Hardwood	4,606	4,217	2,367	1,849	389
Total	37,586	30,192	15,323	14,869	7,394
Poles and posts					
Softwood	1,534	1,472	1,414	58	62
Hardwood	0	0	0	0	0
Total	1,534	1,472	1,414	58	62
Total industrial products					
Softwood	679,980	588,236	432,007	156,229	91,744
Hardwood	214,119	198,368	153,046	45,322	15,751
Total	894,099	786,605	585,053	201,552	107,494
Domestic fuelwood					
Softwood	2,303	1,805	1,194	611	498
Hardwood	11,149	10,418	6,962	3,456	731
Total	13,452	12,223	8,156	4,067	1,229
All products					
Softwood	682,283	590,041	433,201	156,840	92,242
Hardwood	225,268	208,786	160,008	48,778	16,482
Total	907,551	798,828	593,209	205,619	108,723

Numbers in rows and columns may not sum to totals due to rounding.

**Table A.16—Total roundwood output by species group, survey region, and ownership class, Mississippi, 2007**

Species group and survey region	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
<i>thousand cubic feet</i>				
Softwood				
Delta	11,458	0	270	11,188
North	147,351	4,133	29,365	113,852
Central	215,059	5,318	45,184	164,557
South	202,640	12,422	64,011	126,207
Southwest	105,775	5,164	20,558	80,053
Total softwoods	682,283	27,037	159,388	495,858
Hardwood				
Delta	36,643	968	7,797	27,878
North	62,839	799	4,491	57,549
Central	50,614	1,287	9,317	40,010
South	24,910	208	9,276	15,425
Southwest	50,262	1,519	9,026	39,716
Total hardwoods	225,268	4,782	39,908	180,578
All species	907,551	31,819	199,296	676,436

Numbers in rows and columns may not sum to totals due to rounding.

**Table A.17—Total roundwood output by species group, detailed species group, and product, Mississippi, 2007**

Species group and detailed species group	Total	Product					
		Saw logs	Veneer logs	Pulpwood	Composite panels	Poles and posts	Domestic fuelwood
thousand cubic feet							
Softwood							
Cedar	2,566	1,443	96	869	148	1	9
Longleaf-slash pine	88,912	32,353	14,733	40,129	789	608	300
Loblolly-shortleaf pine	571,637	256,938	53,740	226,219	31,923	888	1,930
Other yellow pines	16,951	8,910	1,928	5,907	117	32	57
Cypress	2,218	897	178	1,126	3	5	8
Total softwoods	682,283	300,541	70,675	274,250	32,980	1,534	2,303
Hardwood							
Soft maple	3,244	1,061	95	1,860	68	0	161
Hard maple	73	31	6	33	1	0	4
Other birch	673	472	0	168	0	0	33
Hickory	12,026	4,324	249	6,558	300	0	595
Beech	2,136	637	40	1,349	5	0	106
Ash	4,080	2,274	157	1,319	128	0	202
Black walnut	36	15	0	15	5	0	2
Sweetgum	37,414	12,398	628	21,582	954	0	1,851
Yellow-poplar	12,751	4,046	149	7,742	183	0	631
Blackgum-tupelo	8,088	2,177	85	5,315	111	0	400
Sycamore	5,012	3,045	175	1,341	203	0	248
Cottonwood	5,046	2,478	359	1,959	0	0	250
Black cherry	2,154	716	44	1,269	18	0	107
Select white oaks	20,108	6954	318	11442	399	0	996
Other white oaks	12,157	3977	237	6897	445	0	602
Select red oaks	15,012	5325	361	8275	308	0	743
Other red oaks	65,928	20625	1416	39338	1285	0	3,263
Basswood	320	111	7	183	2	0	16
Elm	5,249	2,194	120	2,571	103	0	260
Other eastern hardwoods	13,759	5,381	519	7,089	89	0	681
Total hardwoods	225,268	78,241	4,967	126,305	4,606	0	11,149
All species	907,551	378,782	75,642	400,555	37,586	1,534	13,452

Numbers in rows and columns may not sum to totals due to rounding.

**Table A.18—Total roundwood output by species group, detailed species group, and ownership class, Mississippi, 2007**

Species group and detailed species group	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
<i>thousand cubic feet</i>				
Softwood				
Cedar	2,566	53	213	2,300
Longleaf-slash pine	88,912	8,038	27,972	52,902
Loblolly-shortleaf pine	571,637	17,897	126,200	427,539
Other yellow pines	16,951	297	4,463	12,190
Cypress	2,218	752	540	926
Total softwoods	682,283	27,037	159,388	495,858
Hardwood				
Soft maple	3,244	75	493	2,676
Hard maple	73	0	2	72
Other birch	673	12	7	654
Hickory	12,026	196	2,233	9,598
Beech	2,136	44	500	1,592
Ash	4,080	60	1,815	2,205
Black walnut	36	8	2	27
Sweetgum	37,414	756	5,226	31,432
Yellow-poplar	12,751	183	2,237	10,332
Blackgum-tupelo	8,088	89	2,577	5,422
Sycamore	5,012	37	1,788	3,187
Cottonwood	5,046	211	747	4,087
Black cherry	2,154	56	262	1,837
Select white oaks	20,108	366	3,138	16,605
Other white oaks	12,157	303	1,884	9,970
Select red oaks	15,012	464	2,652	11,895
Other red oaks	65,928	1,460	10,020	54,448
Basswood	320	3	75	242
Elm	5,249	67	1,254	3,928
Other eastern hardwoods	13,759	392	2,996	10,371
Total hardwoods	225,268	4,782	39,908	180,578
All species	907,551	31,819	199,296	676,436

Numbers in rows and columns may not sum to totals due to rounding.



**Howell, Michael; Johnson, Tony G.** 2009. Mississippi's timber industry—an assessment of timber product output and use, 2007. Resour. Bull. SRS-157. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 31 p.

In 2007, industrial roundwood output from Mississippi's forests totaled 894 million cubic feet, 13 percent less than in 2005. Mill byproducts generated from primary manufacturers decreased 18 percent to 316 million cubic feet. Almost all plant residues were used primarily for fuel and fiber products. Pulpwood was the leading roundwood product at 401 million cubic feet; saw logs ranked second at 379 million cubic feet; veneer logs were third at 76 million cubic feet. There was a total of 84 primary processing plants in 2007, a loss of 32 since 2005. Total receipts decreased 18 percent to 746 million cubic feet.

**Keywords:** FIA, pulpwood, residues, roundwood, saw logs, veneer logs, wood movement.



The Forest Service, U.S. Department of Agriculture (USDA), is dedicated to the principle of multiple use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the States and private forest owners, and management of the National Forests and National Grasslands, it strives—as directed by Congress—to provide increasingly greater service to a growing Nation.

The USDA prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.