

United States  
Department of  
Agriculture

Forest Service



Southern  
Research Station

Resource Bulletin  
SRS-132

# Arkansas's Timber Industry—An Assessment of Timber Product Output and Use, 2005

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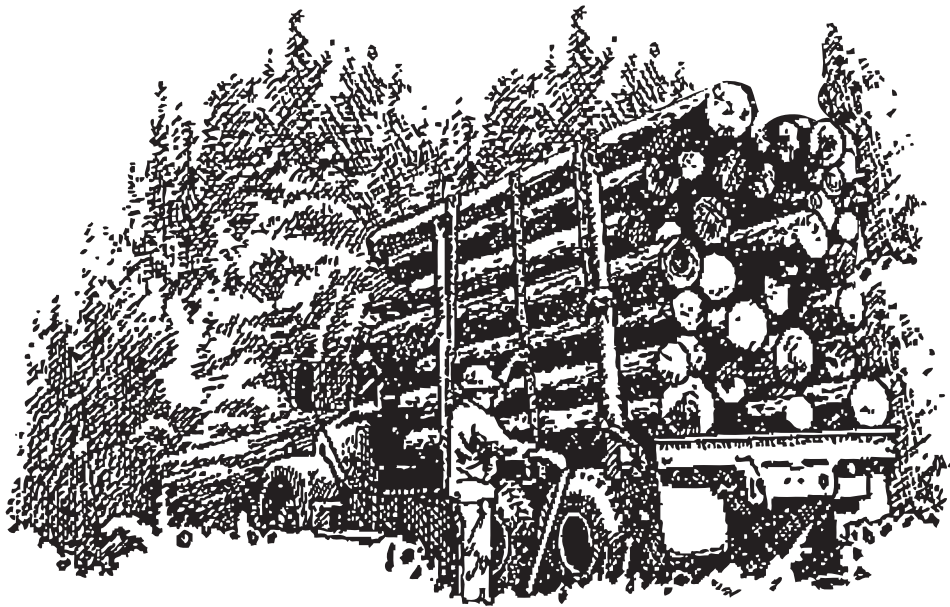


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March 2008

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## Foreword

This report contains the findings of a 2005 canvass of primary wood-using plants in Arkansas, and presents changes in product output and residue use since 2002. 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 2005 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 wood processors in Arkansas was conducted in 2006 to obtain information for 2005. In addition, roundwood from out-of-State mills known to be using logs or bolts harvested from Arkansas timberland was incorporated into Arkansas 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 Teddy Reynolds and Roger Conner for review and comments; Carolyn Steppleton for her tireless efforts in processing and accuracy of the data; Sonja Oswalt for the mill map; 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 Arkansas 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/php/tpo2/tpo.php>.

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.

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<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.

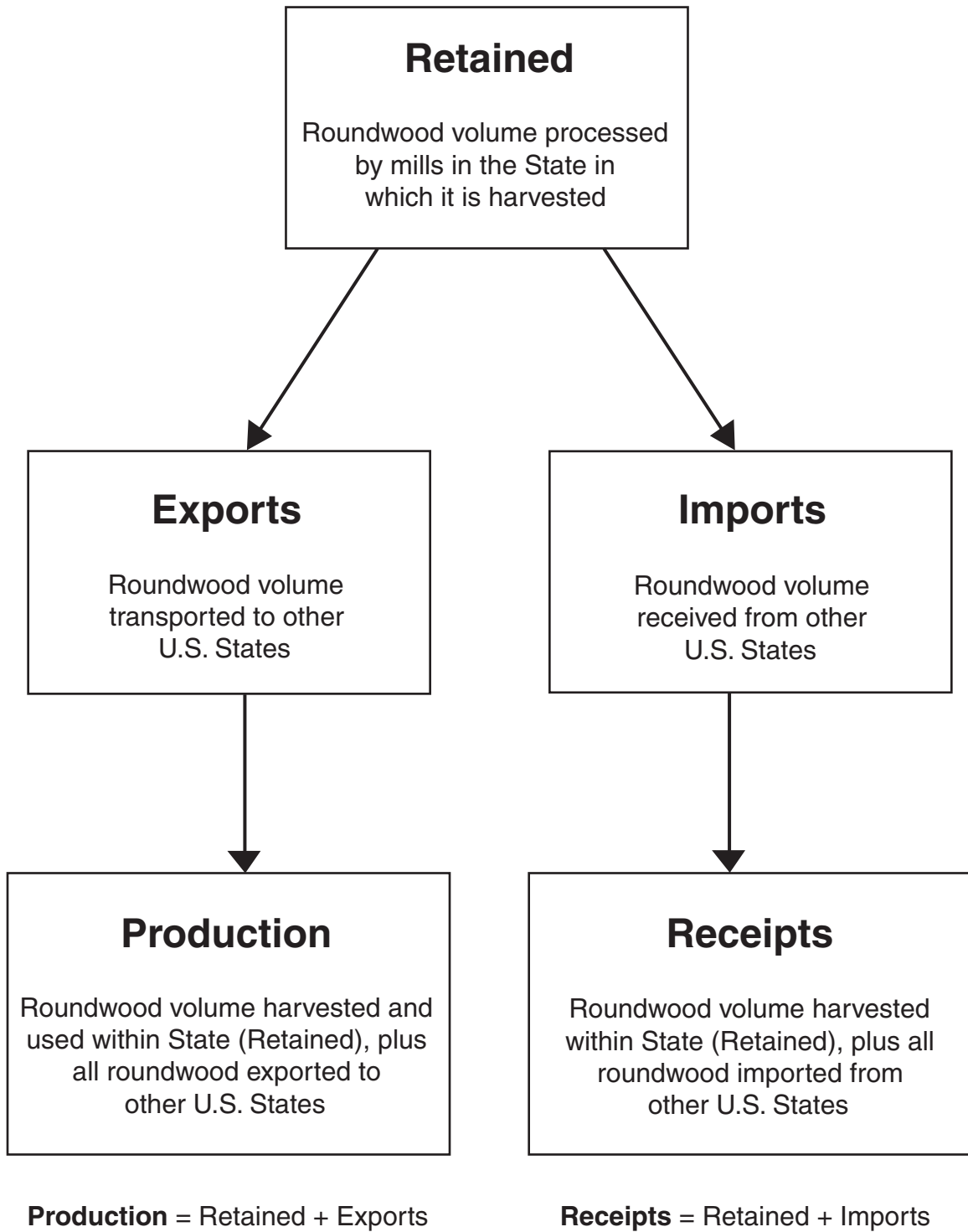


Figure 1—Movement of roundwood exports and imports within the United States.

# Arkansas's Timber Industry— An Assessment of Timber Product Output and Use, 2005

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## Output of Industrial Timber Products

Note: The reader should understand that certain terms—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

- The combined industrial TPO from roundwood and plant byproducts increased from 1.01 billion cubic feet in 2002 to 1.10 billion cubic feet in 2005.
- TPO from roundwood totaled 749 million cubic feet, an increase of 69 million cubic feet, or 10 percent, while output of plant byproducts increased 27 million cubic feet, or 8 percent, to 353 million cubic feet.
- Output of softwood roundwood products increased 6 percent to 539 million cubic feet, while output of hardwood roundwood products was up 22 percent to 210 million cubic feet (fig. 2).
- Saw logs and pulpwood were the principal roundwood products in 2005. Together both totaled 624 million cubic feet and accounted for 83 percent of the State's total roundwood output (fig. 3).
- Total receipts at Arkansas mills, which included roundwood harvested and retained in the State and roundwood imported from other States, was 814 million cubic feet. The number of primary roundwood-using plants in Arkansas was 156 (fig. 4).
- Across all products, 88 percent of roundwood harvested was retained for processing at Arkansas mills. Exports of roundwood to other States amounted to 89 million cubic feet, while imports of roundwood amounted to

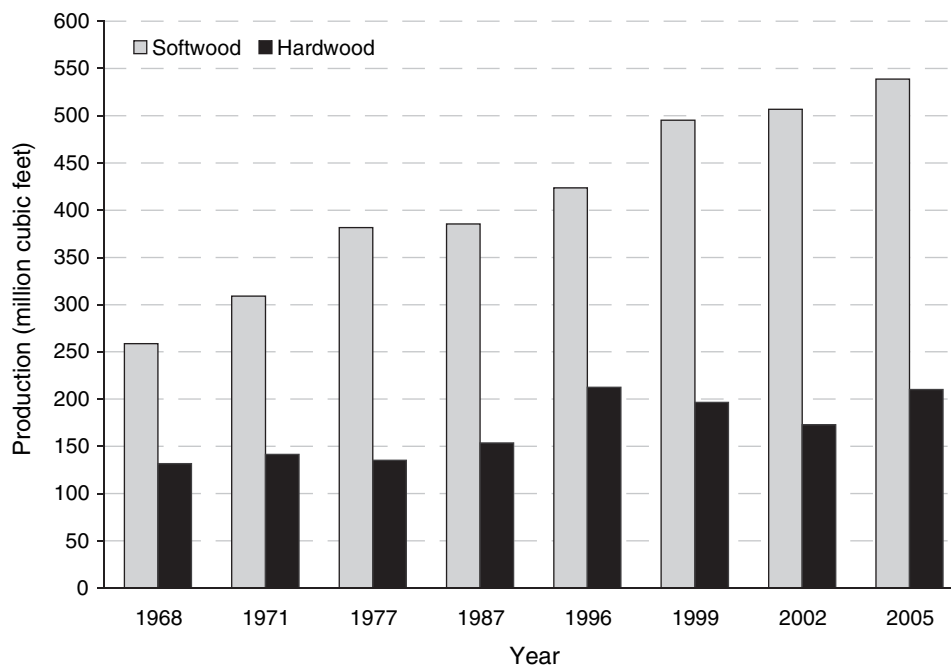


Figure 2—Roundwood production for all products by species group and year (see page 8 for references for individual years).

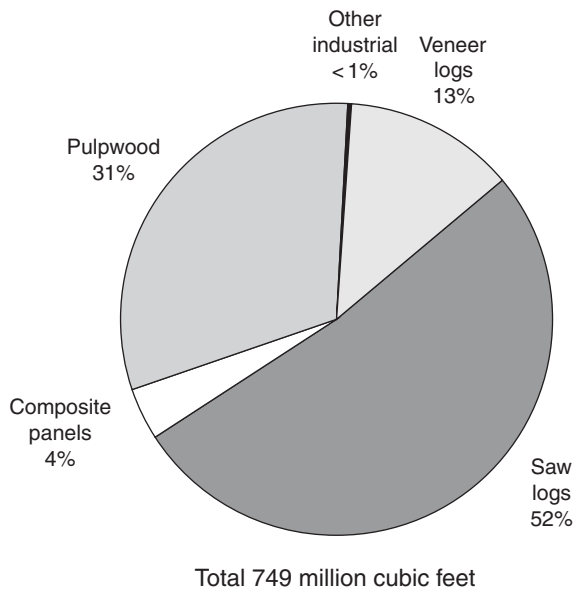


Figure 3—Roundwood production by type of product, 2005.

155 million cubic feet making the State a net importer of roundwood. Tables A.8 to A.11 show exports to and imports from other States by individual product type.

### Saw Logs

- Saw logs accounted for 52 percent of the State's total roundwood products. Output of softwood saw logs was 289 million cubic feet (1.61 billion board feet, International ¼-inch rule), while that of hardwood saw logs was 100 million cubic feet (605 million board feet, International ¼-inch rule) (fig. 5).
- In 2005, 139 sawmills were canvassed for this bulletin. Total saw-log receipts increased 61 million cubic feet to 437 million cubic feet. Softwood receipts were up 17 percent to 334 million cubic feet, while hardwood receipts increased 13 percent to 102 million cubic feet. Of the 139 canvassed mills in 2005, 50 percent had receipts of <5 million board feet, while 25 percent had receipts >10 million board feet. Only 15 mills, or 11 percent, had receipts >50 million board feet, but these mills accounted for 66 percent of the sawmill receipts.

### Primary wood-using mills

- Sawmill (0–5 mmbf)
- Sawmill (5–20 mmbf)
- Sawmill (>20 mmbf)
- ▲ Composite panel
- ✚ Veneer
- Pulpmill
- ◆ Plywood mill
- ☆ Other mill

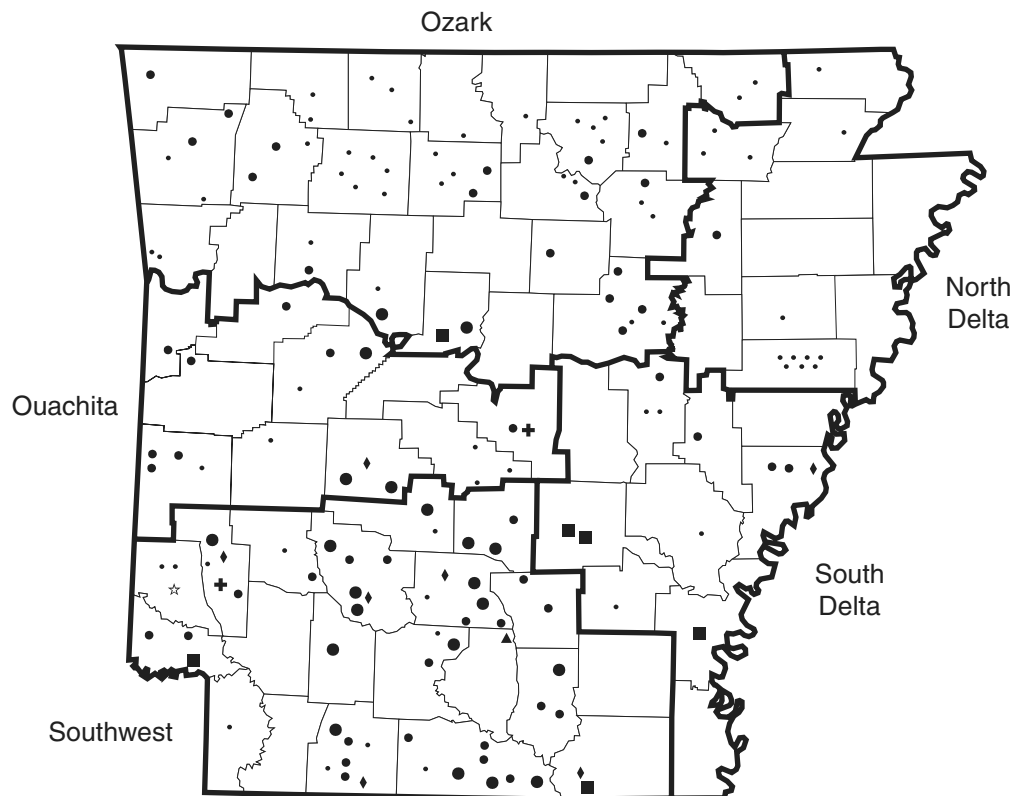


Figure 4—Primary wood-using mills by region, 2005.



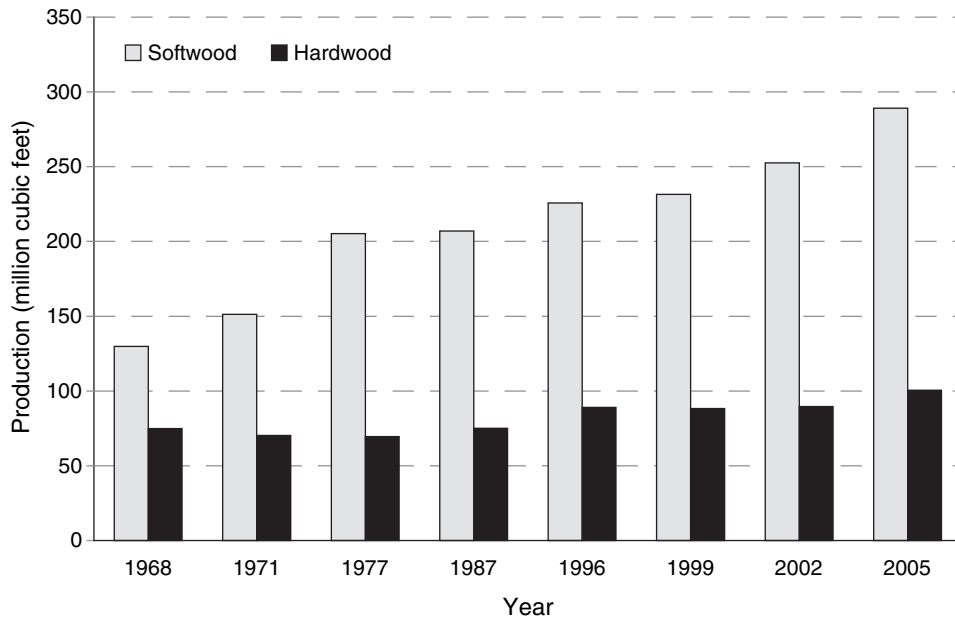


Figure 5—Roundwood saw-log production by species group and year (see page 8 for references for individual years).

- Arkansas retained 96 percent of its saw-log production for in-State manufacture. Saw-log imports amounted to 62 million cubic feet, while exports totaled 14 million cubic feet in 2005, making the State a net importer of saw logs.

### Pulpwood

- Total pulpwood production, including chipped roundwood, was up 22 million cubic feet, or 10 percent, to 235 million cubic feet (3.16 million cords) and accounted for 31 percent of the State's total roundwood TPO. Softwood output decreased 3 percent to 131 million cubic feet (1.80 million cords), while hardwood output increased 33 percent to 104 million cubic feet (1.36 million cords) (fig. 6).
- Six pulpmills were operating and receiving roundwood in 2005, the same as in 2002. Total pulpwood receipts for these mills increased 32 million cubic feet to 242 million cubic feet, accounting for 30 percent of receipts for all mills.
- Seventy-one percent of roundwood cut for pulpwood was retained for processing at Arkansas pulpmills. Roundwood pulpwood accounted for 75 percent of total known exports and 48 percent of total imports.

Roundwood pulpwood exports were 67 million cubic feet, while imports totaled 74 million cubic feet.

### Veneer Logs

- Output of veneer logs in 2005 totaled 95 million cubic feet and accounted for 13 percent of the State's total roundwood TPO volume. Softwood veneer production declined < 1 percent to 89 million cubic feet (514 million board feet, International ¼-inch rule), while output of hardwood veneer logs increased 18 percent to 6 million cubic feet (36 million board feet, International ¼-inch rule) (fig. 7).
- In 2005, Arkansas had nine veneer mills, a loss of one mill since 2002. Receipts of veneer logs increased 2 percent to 109 million cubic feet. Softwood veneer receipts were up < 1 percent to 102 million cubic feet, while hardwood veneer receipts increased 18 percent to 7 million cubic feet.
- Arkansas retained 95 percent of its veneer-log production for processing at in-State veneer mills. Imports totaled 18 million cubic feet, while exports totaled 5 million cubic feet, making the State a net importer of roundwood veneer logs.

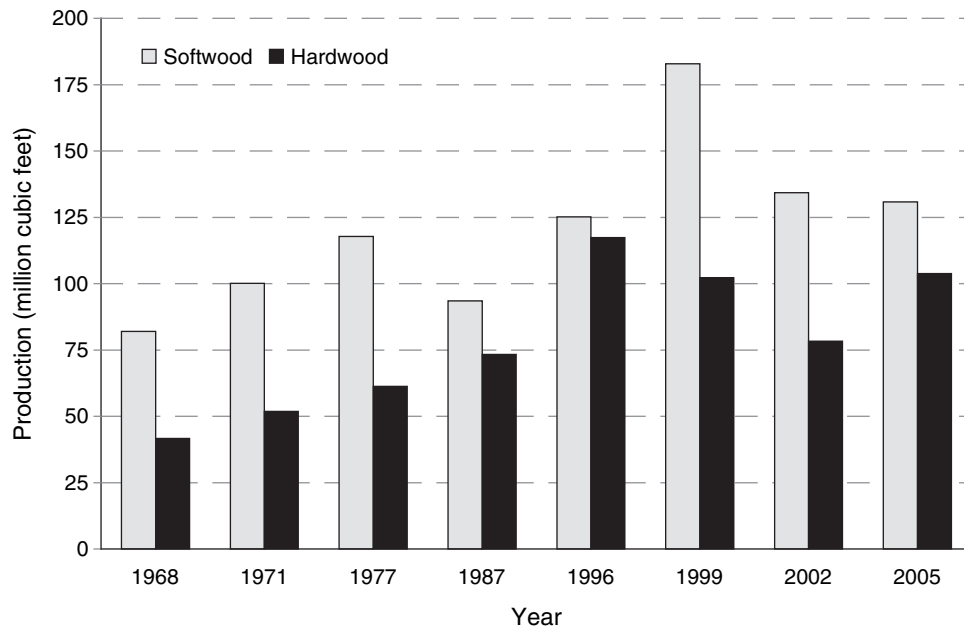


Figure 6—Roundwood pulpwood production by species group and year (see page 8 for references for individual years).

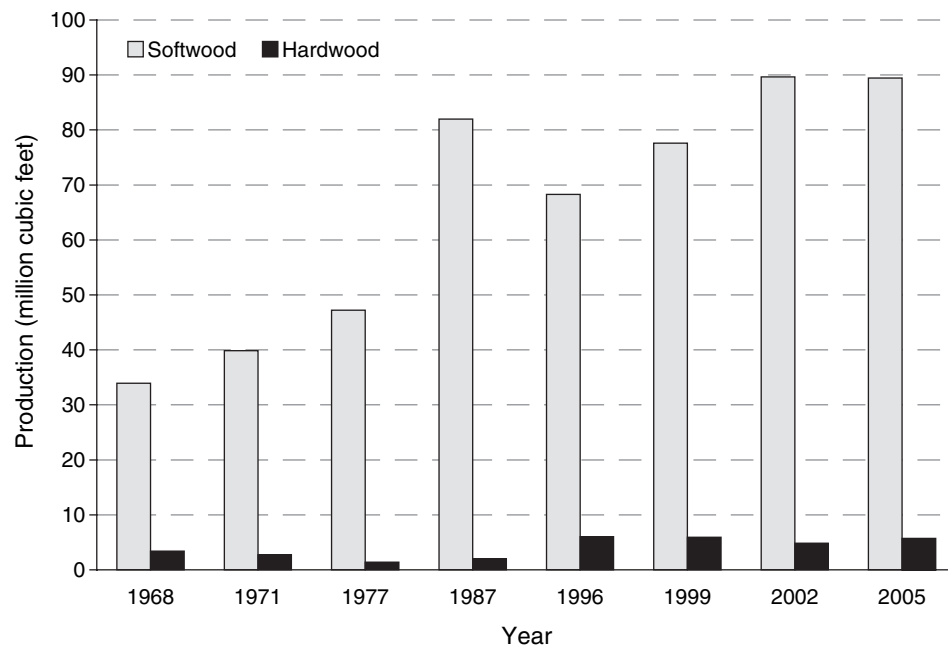


Figure 7—Roundwood veneer-log production by species group and year (see page 8 for references for individual years).

### Composite Panels

- Roundwood harvested from Arkansas’s forests for composite panels increased 1 percent to 28 million cubic feet (381,059 cords). Softwood output accounted for 99 percent of the composite panel production in Arkansas (fig. 8).

### Other Industrial Products

- Roundwood harvested for other industrial uses such as poles, posts, firewood, logs for log homes, and other industrial products, decreased 42 percent to 2 million cubic feet. Other industrial product volume accounted for < 1 percent of the State’s total TPO volume. Softwood output accounted for all of the other industrial product volume.

### Plant Byproducts

- In 2005, processing of primary products in Arkansas mills generated 354 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 154 million cubic feet, while bark volume totaled 76 million cubic feet. Sawdust and shavings constituted

35 percent of total residues, or 124 million cubic feet (fig. 9).

- The processing of saw logs generated 264 million cubic feet of residue, accounting for 75 percent of the total residue produced (fig. 10).

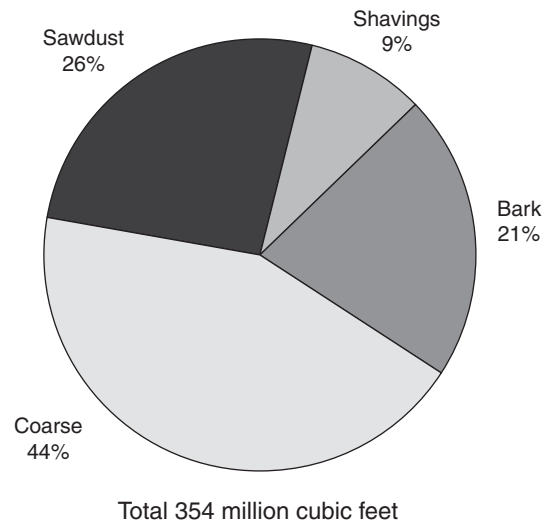


Figure 9—Primary mill residue by residue type, 2005.

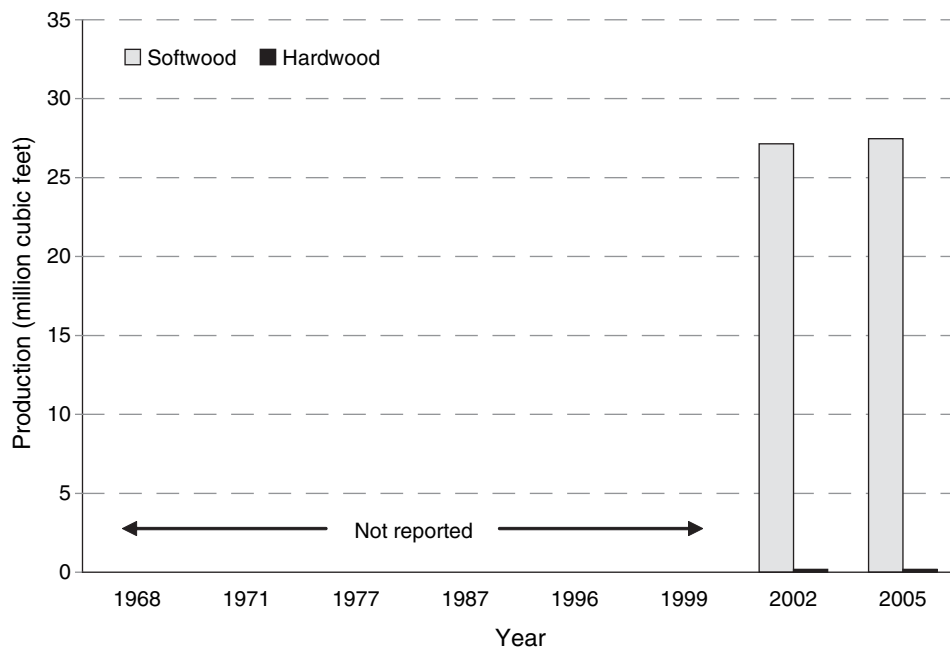


Figure 8—Roundwood production for composite panels by species group and year (see page 8 for references for individual years).

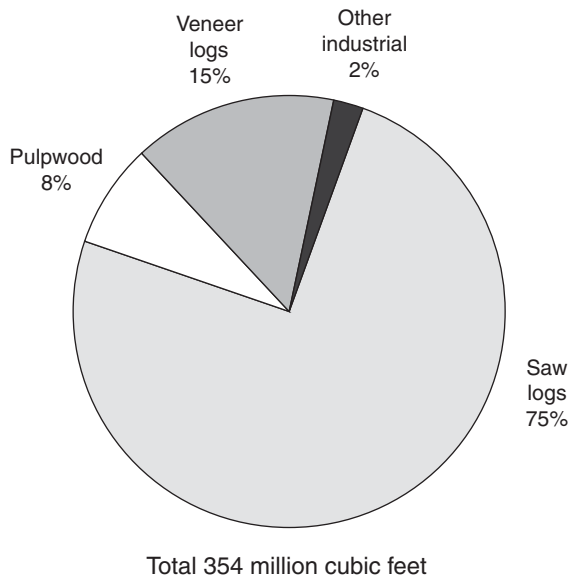


Figure 10—Primary mill residue produced by roundwood type, 2005.

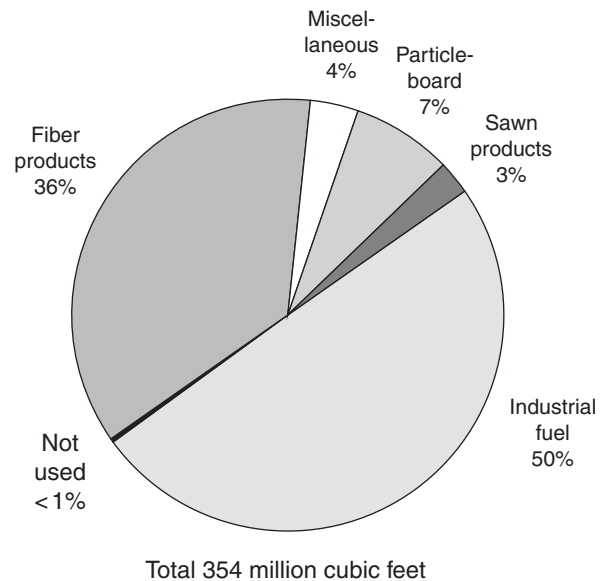


Figure 11—Disposal of residue by product, 2005.

- Virtually all of residues were used for a product (fig. 11). One hundred and twenty-nine million cubic feet, or 84 percent, of the coarse residues were used for fiber products. Most bark was used as industrial fuel or miscellaneous products, while 72 percent of the sawdust and shavings was used for industrial fuel.

## County Data

- Table A.14 shows softwood and hardwood product output by county and individual product type. All 75 counties in Arkansas had roundwood output. Seven counties (Ashley, Clark, Columbia, Drew, Grant, Pike, and Union) had combined softwood and hardwood product output of more than 25 million cubic feet each. These seven counties' total product output amounted to nearly 233 million cubic feet and accounted for 31 percent of the State's total product output.

## Total Roundwood Output

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

## Source

- In addition to the 749 million cubic feet of roundwood output for industrial roundwood, an estimated 20 million cubic feet were harvested for domestic fuelwood, bringing Arkansas's total roundwood output to 769 million cubic feet.
- Ninety-four 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 45 million cubic feet, or 6 percent, of total roundwood output (fig. 12).

## Ownership

- Nonindustrial private forest lands contributed 396 million cubic feet, or 52 percent, of the total roundwood output, while forest industry lands accounted for 341 million cubic feet, or 44 percent, of the total output. Public lands made up the remaining 4 percent, or 33 million cubic feet (fig. 13).

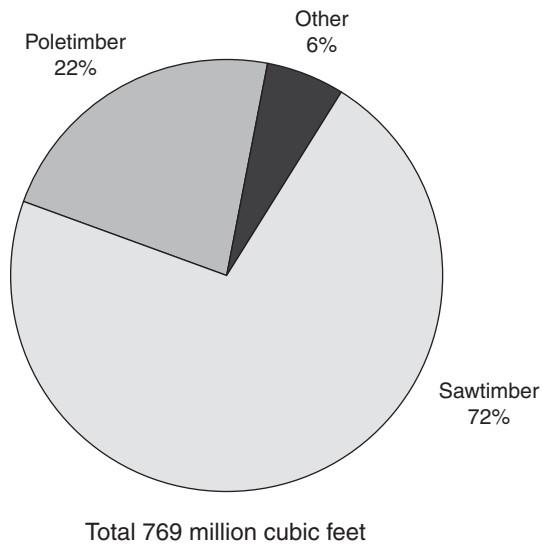


Figure 12—Roundwood output by source, 2005.

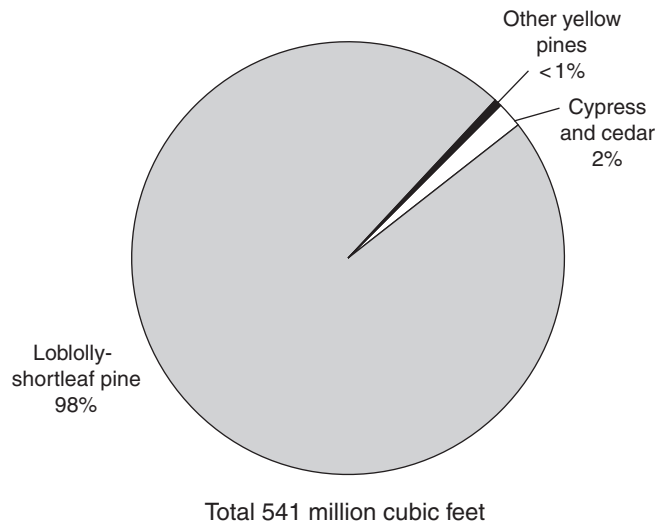


Figure 14—Roundwood output by softwood species group, 2005.

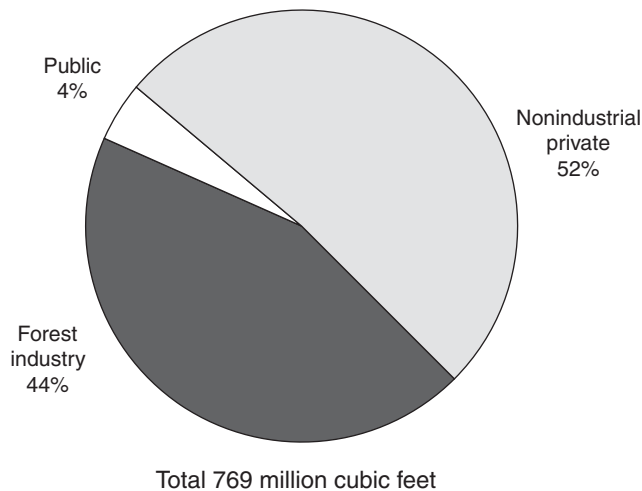


Figure 13—Roundwood output by ownership, 2005.

## Species

- The loblolly and shortleaf pine group provided the most volume of any softwood species group, accounting for 98 percent of the total softwood output (fig. 14). The cedar, cypress, and other pine types accounted for the remaining 2 percent of the softwood output. In hardwoods, the red oak and white oak groups combined accounted for 131 million cubic feet, or 58 percent, of total hardwood output (fig. 15).

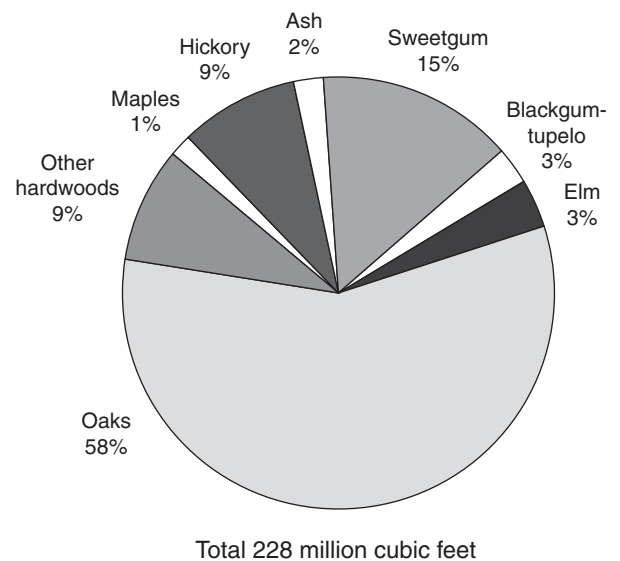


Figure 15—Roundwood output by hardwood species group, 2005.

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## 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.

**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.

**Fuelwood production.** The volume of roundwood harvested to produce some form of energy, e.g., heat and steam, in residential, industrial or institutional settings.

**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 1/4-inch rule.** A log rule or formula for estimating the board-foot volume of logs, allowing 1/2-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 1/4-inch of kerf is assumed. This rule is used as the USDA 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 nonpulpmills, 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 ¼-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 ¼-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).

## Metric Equivalents

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1 acre = 4046.86 m<sup>2</sup> or 0.404686 ha  
 1 cubic foot = 0.028317 m<sup>3</sup>  
 1 inch = 2.54 cm or 0.0254 m  
 Breast height = 1.4 m above the ground  
 1 square foot = 929.03 cm<sup>2</sup> or 0.0929 m<sup>2</sup>  
 1 square foot basal area per acre = 0.229568 m<sup>2</sup>/ha  
 1 pound = 0.454 kg  
 1 ton = 0.907 MT

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

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Saw logs	
Softwood	0.18018 cubic foot = 1 board foot 5.55 board feet = 1 cubic foot
Hardwood	0.16556 cubic foot = 1 board foot 6.04 board feet = 1 cubic foot
Veneer logs	
Softwood	0.17391 cubic foot = 1 board foot 5.75 board feet = 1 cubic foot
Hardwood	0.15873 cubic foot = 1 board foot 6.30 board feet = 1 cubic foot
Pulpwood <sup>b</sup>	
Softwood	72.5 cubic feet per cord
Hardwood	76.6 cubic feet per cord

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<sup>a</sup> Conversion factors vary with stem size (d.b.h.) and species.

<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)	
Eastern redcedar	<i>Juniperus virginiana</i> L.	Apple	<i>Malus</i> spp. Mill.
Shortleaf pine	<i>Pinus echinata</i> Mill.	Chinaberry	<i>Melia azedarach</i> L.
Loblolly pine	<i>P. taeda</i> L.	White mulberry	<i>Morus alba</i> L.
Baldcypress	<i>Taxodium distichum</i> L.	Red mulberry	<i>M. rubra</i> L.
Hardwoods		Water tupelo	<i>Nyssa aquatica</i> L.
Florida maple	<i>Acer barbatum</i> Michx.	Blackgum	<i>N. sylvatica</i> Marsh.
Boxelder	<i>A. negundo</i> L.	Swamp tupelo	<i>N. sylvatica</i> var. <i>biflora</i> (Walt.) Sarg.
Red maple	<i>A. rubrum</i> L.	Eastern hophornbeam	<i>Ostrya virginiana</i> (Mill.) K. Koch
Silver maple	<i>A. saccharinum</i> L.	Sourwood	<i>Oxydendrum arboreum</i> (L.) DC.
Sugar maple	<i>A. saccharum</i> Marsh.	Royal paulownia	<i>Paulownia tomentosa</i> (Thunb.) Sieb. & Zucc. ex Steud.
Ohio buckeye	<i>Aesculus glabra</i> Willd.	Redbay	<i>Persea borbonia</i> (L.) Spreng.
Ailanthus	<i>Ailanthus altissima</i> (Mill.) Swingle	Water-elm	<i>Planera aquatica</i> J. F. Gmel.
Tung-oil-tree	<i>Aleurites fordii</i> Hemsl.	American sycamore	<i>Platanus occidentalis</i> L.
Serviceberry	<i>Amelanchier</i> spp. Medic.	Eastern cottonwood	<i>Populus deltoides</i> Bartr. ex Marsh.
River birch	<i>Betula nigra</i> L.	Plums, cherries (other than black cherry)	<i>Prunus</i> spp. L.
Chittamwood	<i>Bumelia lanuginosa</i> (Michx.) Pers.	Black cherry	<i>P. serotina</i> Ehrh.
Water hickory	<i>Carya aquatica</i> (Michx. f.) Nutt.	White oak	<i>Quercus alba</i> L.
Bitternut hickory	<i>C. cordiformis</i> (Wangenh.) K. Koch	Scarlet oak	<i>Q. coccinea</i> Muenchh.
Pignut hickory	<i>C. glabra</i> (Mill.) Sweet	Durand oak	<i>Q. durandii</i> Buckl.
Pecan	<i>C. illinoensis</i> (Wangenh.) K. Koch	Southern red oak	<i>Q. falcata</i> Michx.
Shellbark hickory	<i>C. laciniosa</i> (Michx. f.) Loud.	Cherrybark oak	<i>Q. falcata</i> var. <i>pagodifolia</i> Ell.
Nutmeg hickory	<i>C. myristiciformis</i> (Michx. f.) Nutt.	Laurel oak	<i>Q. laurifolia</i> Michx.
Shagbark hickory	<i>C. ovata</i> (Mill.) K. Koch	Overcup oak	<i>Q. lyrata</i> Walt.
Mockernut hickory	<i>C. tomentosa</i> (Poir.) Nutt.	Bur oak	<i>Q. macrocarpa</i> Michx.
Allegheny chinkapin	<i>Castanea pumila</i> Mill.	Blackjack oak	<i>Q. marilandica</i> Muenchh.
Chinkapin	<i>Castanopsis</i> (D. Don) Spach	Swamp chestnut oak	<i>Q. michauxii</i> Nutt.
Sugarberry	<i>Celtis laevigata</i> Willd.	Chinkapin oak	<i>Q. muehlenbergii</i> Engelm.
Hackberry	<i>C. occidentalis</i> L.	Water oak	<i>Q. nigra</i> L.
Eastern redbud	<i>Cercis canadensis</i> L.	Nuttall oak	<i>Q. nuttallii</i> Palmer
Flowering dogwood	<i>Cornus florida</i> L.	Pin oak	<i>Q. palustris</i> Muenchh.
American smoketree	<i>Cotinus obovatus</i> Raf.	Willow oak	<i>Q. phellos</i> L.
Hawthorn	<i>Crataegus</i> spp. L.	Northern red oak	<i>Q. rubra</i> L.
Common persimmon	<i>Diospyros virginiana</i> L.	Shumard oak	<i>Q. shumardii</i> Buckl.
American beech	<i>Fagus grandifolia</i> Ehrh.	Post oak	<i>Q. stellata</i> Wangenh.
White ash	<i>Fraxinus americana</i> L.	Delta post oak	<i>Q. stellata</i> var. <i>paludosa</i> Sarg.
Green ash	<i>F. pennsylvanica</i> Marsh.	Black oak	<i>Q. velutina</i> Lam.
Pumpkin ash	<i>F. profunda</i> (Bush) Bush	Black locust	<i>Robinia pseudoacacia</i> L.
Blue ash	<i>F. quadrangulata</i> Michx.	Willow	<i>Salix</i> spp. L.
Waterlocust	<i>Gleditsia aquatica</i> Marsh.	Sassafras	<i>Sassafras albidum</i> (Nutt.) Nees
Honeylocust	<i>G. triacanthos</i> L.	American basswood	<i>Tilia americana</i> L.
Kentucky coffeetree	<i>Gymnocladus dioica</i> (L.) K. Koch	White basswood	<i>T. heterophylla</i> Vent.
American holly	<i>Ilex opaca</i> Ait.	Winged elm	<i>Ulmus alata</i> Michx.
Butternut	<i>Juglans cinerea</i> L.	American elm	<i>U. americana</i> L.
Black walnut	<i>J. 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.	September elm	<i>U. serotina</i> Sarg.
Osage-orange	<i>Maclura pomifera</i> (Raf.) Schneid.	Rock elm	<i>U. thomasi</i> Sarg.
Cucumbertree	<i>Magnolia acuminata</i> L.	Sparkleberry	<i>Vaccinium arboreum</i> Marsh.
Bigleaf magnolia	<i>M. macrophylla</i> Michx.		
Sweetbay	<i>M. virginiana</i> L.		

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

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



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**Table A.1—Output of industrial products by product and species group, Arkansas, 2002 and 2005**

Product and species group	Year		Change	Change
	2002	2005		
	----- thousand cubic feet -----			percent
Saw logs				
Softwood	252,493	289,161	36,668	14.5
Hardwood	89,622	100,433	10,811	12.1
Total	342,115	389,594	47,479	13.9
Veneer logs				
Softwood	89,633	89,449	-184	-0.2
Hardwood	4,859	5,717	858	17.7
Total	94,492	95,166	674	0.7
Pulpwood <sup>a</sup>				
Softwood	134,317	130,774	-3,543	-2.6
Hardwood	78,276	103,848	25,572	32.7
Total	212,593	234,622	22,029	10.4
Composite panels				
Softwood	27,141	27,475	334	1.2
Hardwood	187	187	0	—
Total	27,328	27,662	334	1.2
Other industrial				
Softwood	3,045	1,794	-1,251	-41.1
Hardwood	41	0	-41	-100.0
Total	3,086	1,794	-1,292	-41.9
All industrial				
Softwood	506,629	538,653	32,024	6.3
Hardwood	172,985	210,185	37,200	21.5
Total	679,614	748,838	69,224	10.2
Byproduct output				
Softwood	251,034	268,145	17,111	6.8
Hardwood	75,317	84,753	9,436	12.5
Total	326,351	352,898	26,547	8.1
Total output				
Softwood	757,663	806,798	49,135	6.5
Hardwood	248,302	294,938	46,636	18.8
Total	1,005,965	1,101,736	95,771	9.5

— = negligible.

<sup>a</sup> Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (3,709,000 cubic feet in 2002 and 2,942,000 cubic feet in 2005).

**Table A.2—Roundwood receipts by product and species group, Arkansas, 2002 and 2005**

Product and species group	Year		Change	Change
	2002	2005		
	----- thousand cubic feet -----			percent
Saw logs				
Softwood	285,321	334,374	49,053	17.2
Hardwood	90,393	102,380	11,987	13.3
Total	375,714	436,754	61,040	16.2
Veneer logs				
Softwood	100,895	101,504	609	0.6
Hardwood	6,082	7,186	1,104	18.2
Total	106,977	108,690	1,713	1.6
Pulpwood <sup>a</sup>				
Softwood	103,819	98,226	-5,593	-5.4
Hardwood	106,173	143,527	37,354	35.2
Total	209,992	241,753	31,761	15.1
Other industrial				
Softwood	28,620	27,174	-1,446	-5.1
Hardwood	0	0	0	—
Total	28,620	27,174	-1,446	-5.1
Total output				
Softwood	518,655	561,278	42,623	8.2
Hardwood	202,648	253,093	50,445	24.9
Total	721,303	814,371	93,068	12.9

— = negligible.

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulpmills (4,149,000 cubic feet in 2002 and 3,348,000 cubic feet in 2005).

**Table A.3—Number of primary wood-using plants by industry, Arkansas, 1968 to 2005**

Industry	Year							
	1968	1971	1977	1987	1996	1999	2002	2005
	<i>number</i>							
Sawmills	448	278	384	274	286	308	260	139
Veneer or plywood mills	12	13	8	8	10	10	10	9
Pulpmills	7	7	8	8	8	8	6	6
Composite panel mills	0	0	0	0	0	0	1	1
Other mills	104	108	72	35	15	10	11	1
All plants	571	406	472	325	319	336	288	156

**Table A.4—Roundwood receipts by sawmill size, Arkansas, 2002 and 2005**

Sawmill size class <sup>a</sup> <i>mmbf</i>	2002			2005		
	Mills	Volume		Mills	Volume	
	<i>number</i>	<i>mbf</i>	<i>percent</i>	<i>number</i>	<i>mbf</i>	<i>percent</i>
< 1	0	0	0	5	1,433	0
1.0–4.99	68	211,835	9	64	195,000	8
5.0–9.99	30	209,746	9	35	233,155	10
10.0–49.99	19	365,270	16	20	386,333	16
> 50	15	1,496,340	66	15	1,618,727	66
Total	132	2,283,191	100	139	2,434,648	100

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

**Table A.5—Roundwood receipts by species and type of mill, Arkansas, 2005**

Species	All mills	Type of mill				
		Sawmills	Veneer mills		Pulpmills <sup>a</sup>	Other mills
			Pine plywood	Other veneer		
<i>thousand cubic feet</i>						
<b>Softwood</b>						
Yellow pine	462,966	334,288	101,504	0	NA	27,174
White pine	0	0	0	0	NA	0
Cedar	6	6	0	0	NA	0
Cypress	80	80	0	0	NA	0
Other softwood	0	0	0	0	NA	0
Unclassified	98,226	0	0	0	98,226	0
Total softwoods	561,278	334,374	101,504	0	98,226	27,174
<b>Hardwood</b>						
Blackgum and tupelo	2,557	1,845	530	182	NA	0
Soft maple	474	209	265	0	NA	0
Sweetgum	9,357	8,185	791	381	NA	0
Yellow-poplar	7,471	6,761	529	181	NA	0
Other soft hardwood	7,456	5,872	1,058	526	NA	0
Hickory	7,597	7,068	529	0	NA	0
Red oak	39,251	38,541	529	181	NA	0
White oak	27,582	26,872	529	181	NA	0
Other hard hardwood	7,821	7,027	794	0	NA	0
Unclassified	143,527	0	0	0	143,527	0
Total hardwoods	253,093	102,380	5,554	1,632	143,527	0
All species	814,371	436,754	107,058	1,632	241,753	27,174

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, Arkansas, 2002 and 2005**

Year	Production	Exported to other States	Retained	Imported from other States	Receipts
<i>thousand cubic feet</i>					
<b>Softwood</b>					
2002	506,629	58,592	448,037	70,618	518,655
2005	538,653	64,267	474,386	86,892	561,278
<b>Hardwood</b>					
2002	172,985	24,761	148,224	54,424	202,648
2005	210,185	25,054	185,131	67,962	253,093
<b>All species</b>					
2002	679,614	83,353	596,261	125,042	721,303
2005	748,838	89,321	659,517	154,854	814,371

**Table A.7—Industrial roundwood movement by product and species group, Arkansas, 2005**

Product and species group	Production	Exported to other States	Retained	Imported from other States	Receipts
<i>thousand cubic feet</i>					
Saw logs					
Softwood	289,161	9,076	280,085	54,289	334,374
Hardwood	100,433	5,383	95,050	7,330	102,380
Total	389,594	14,459	375,135	61,619	436,754
Veneer logs					
Softwood	89,449	4,494	84,955	16,549	101,504
Hardwood	5,717	13	5,704	1,482	7,186
Total	95,166	4,507	90,659	18,031	108,690
Pulpwood <sup>a</sup>					
Softwood	130,774	47,481	83,293	14,933	98,226
Hardwood	103,848	19,471	84,377	59,150	143,527
Total	234,622	66,952	167,670	74,083	241,753
Other industrial					
Softwood	29,269	3,216	26,053	1,121	27,174
Hardwood	187	187	0	0	0
Total	29,456	3,403	26,053	1,121	27,174
All products					
Softwood	538,653	64,267	474,386	86,892	561,278
Hardwood	210,185	25,054	185,131	67,962	253,093
Total	748,838	89,321	659,517	154,854	814,371

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

**Table A.8—Saw-log volume by destination, source, and species group, Arkansas, 2005**

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Arkansas (retained)	375,135	280,085	95,050
Exports to			
Iowa	57	0	57
Louisiana	8,178	6,861	1,317
Mississippi	775	0	775
Missouri	1,983	337	1,646
Oklahoma	3,464	1,878	1,586
Tennessee	2	0	2
Total	14,459	9,076	5,383
Imports from			
Louisiana	34,069	29,429	4,640
Mississippi	523	0	523
Missouri	511	0	511
Oklahoma	9,861	8,572	1,289
Texas	16,655	16,288	367
Total	61,619	54,289	7,330

**Table A.9—Veneer volume by destination, source, and species group, Arkansas, 2005**

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Arkansas (retained)	90,659	84,955	5,704
Exports to			
Indiana	7	7	0
Louisiana	4,393	4,393	0
Missouri	13	0	13
Oklahoma	94	94	0
Total	4,507	4,494	13
Imports from			
Louisiana	12,276	12,276	0
Mississippi	2,698	1,216	1,482
Oklahoma	1,796	1,796	0
Texas	1,261	1,261	0
Total	18,031	16,549	1,482

**Table A.10—Pulpwood volume by destination, source, and species group, Arkansas, 2005<sup>a</sup>**

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Arkansas (retained)	167,670	83,293	84,377
Exports to			
Louisiana	27,906	21,184	6,722
Oklahoma	22,195	19,205	2,990
Texas	16,851	7,092	9,759
Total	66,952	47,481	19,471
Imports from			
Alabama	457	0	457
Florida	59	0	59
Kentucky	24	0	24
Louisiana	15,469	5,255	10,214
Mississippi	18,741	714	18,027
Missouri	3,456	0	3,456
Oklahoma	9,432	1,806	7,626
Texas	26,445	7,158	19,287
Total	74,083	14,933	59,150

<sup>a</sup> Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills.

**Table A.11—Other industrial volume by destination, source, and species group, Arkansas, 2005<sup>a</sup>**

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Arkansas (retained)	26,053	26,053	0
Exports to			
Louisiana	625	438	187
Mississippi	147	147	0
Missouri	105	105	0
Oklahoma	2,526	2,526	0
Total	3,403	3,216	187
Imports from			
Louisiana	792	792	0
Texas	329	329	0
Total	1,121	1,121	0

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

**Table A.12—Primary mill residue volume by roundwood type, species group, and residue type, Arkansas, 2005**

Roundwood type and species group	All types	Residue type			
		Bark	Coarse	Sawdust	Shavings
<i>thousand cubic feet</i>					
Saw logs					
Softwood	199,400	22,407	87,743	59,198	30,052
Hardwood	65,037	10,402	31,992	20,606	2,037
Total	264,437	32,809	119,735	79,804	32,089
Veneer logs					
Softwood	51,199	7,049	32,473	11,677	0
Hardwood	2,531	779	1,108	644	0
Total	53,730	7,828	33,581	12,321	0
Pulpwood					
Softwood	9,795	9,795	0	0	0
Hardwood	18,157	18,157	0	0	0
Total	27,952	27,952	0	0	0
Other industrial <sup>a</sup>					
Softwood	7,753	7,144	609	0	0
Hardwood	0	0	0	0	0
Total	7,753	7,144	609	0	0
Total					
Softwood	268,147	46,395	120,825	70,875	30,052
Hardwood	85,725	29,338	33,100	21,250	2,037
Total	353,872	75,733	153,925	92,125	32,089

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

**Table A.13—Disposal of residue at primary wood-using plants by product, species group, and type of residue, Arkansas, 2002 and 2005**

Product and species group	All types		Bark		Coarse		Sawdust		Shavings	
	2002	2005	2002	2005	2002	2005	2002	2005	2002	2005
	<i>thousand cubic feet</i>									
Fiber products										
Softwood	106,853	109,542	0	0	106,853	108,814	0	0	0	728
Hardwood	18,519	19,848	0	0	18,519	19,848	0	0	0	0
Total	125,372	129,390	0	0	125,372	128,662	0	0	0	728
Particleboard										
Softwood	23,868	25,860	0	0	455	455	7,019	7,090	16,394	18,315
Hardwood	13	0	0	0	0	0	13	0	0	0
Total	23,881	25,860	0	0	455	455	7,032	7,090	16,394	18,315
Charcoal/ chemical wood										
Softwood	0	0	0	0	0	0	0	0	0	0
Hardwood	0	1,119	0	112	0	651	0	356	0	0
Total	0	1,119	0	112	0	651	0	356	0	0
Sawn products										
Softwood	3,297	9,319	0	0	3,297	9,319	0	0	0	0
Hardwood	0	0	0	0	0	0	0	0	0	0
Total	3,297	9,319	0	0	3,297	9,319	0	0	0	0
Fuel										
Softwood	110,253	114,319	42,177	44,279	9,392	2,234	53,944	61,380	4,740	6,426
Hardwood	54,381	61,343	22,878	28,013	11,702	11,601	17,901	19,777	1,900	1,952
Total	164,634	175,662	65,055	72,292	21,094	13,835	71,845	81,157	6,640	8,378
Miscellaneous										
Softwood	6,763	9,105	1,676	2,114	9	3	1,183	2,405	3,895	4,583
Hardwood	1,621	2,443	541	1,012	456	513	571	833	53	85
Total	8,384	11,548	2,217	3,126	465	516	1,754	3,238	3,948	4,668
Not used										
Softwood	0	2	0	2	0	0	0	0	0	0
Hardwood	783	972	125	201	410	487	248	284	0	0
Total	783	974	125	203	410	487	248	284	0	0
All products										
Softwood	251,034	268,147	43,853	46,395	120,006	120,825	62,146	70,875	25,029	30,052
Hardwood	75,317	85,725	23,544	29,338	31,087	33,100	18,733	21,250	1,953	2,037
Total	326,351	353,872	67,397	75,733	151,093	153,925	80,879	92,125	26,982	32,089

**Table A.14—Roundwood timber product output by county, product, and species group, Arkansas, 2005**

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>											
Arkansas	560	14,334	106	1,401	0	818	425	12,115	0	0	29	0
Ashley	42,405	8,689	8,952	1,766	23,793	0	7,862	6,923	1,769	0	29	0
Baxter	319	842	293	842	0	0	0	0	0	0	26	0
Benton	35	1,911	0	1,906	0	2	35	3	0	0	0	0
Boone	103	893	77	891	0	2	0	0	0	0	26	0
Bradley	17,179	7,325	8,875	2,177	1,689	1	4,593	5,147	2,022	0	0	0
Calhoun	13,097	3,996	7,671	2,129	2,156	45	743	1,822	2,527	0	0	0
Carroll	82	1,095	82	1,092	0	2	0	1	0	0	0	0
Chicot	1,791	3,077	0	1,111	0	0	780	1,966	1,011	0	0	0
Clark	21,708	8,351	16,834	1,688	2,222	1	2,614	6,662	0	0	38	0
Clay	62	538	62	537	0	0	0	1	0	0	0	0
Cleburne	1,911	1,362	53	662	0	0	1,858	700	0	0	0	0
Cleveland	20,139	3,871	8,184	2,024	6,448	39	1,414	1,808	3,539	0	554	0
Columbia	21,668	3,526	15,516	2,308	3,640	0	2,109	1,177	193	41	210	0
Conway	5,379	5,206	3,371	0	0	0	2,008	5,206	0	0	0	0
Craighead	0	319	0	62	0	0	0	257	0	0	0	0
Crawford	87	1,384	65	1,378	0	0	22	6	0	0	0	0
Crittenden	0	539	0	522	0	0	0	17	0	0	0	0
Cross	0	1,386	0	720	0	636	0	30	0	0	0	0
Dallas	21,119	3,429	11,083	1,767	4,465	30	2,791	1,632	2,780	0	0	0
Desha	0	4,062	0	523	0	583	0	2,956	0	0	0	0
Drew	24,138	5,148	2,575	974	11,923	12	7,084	4,162	2,527	0	29	0
Faulkner	1,099	2,328	548	0	0	182	551	2,146	0	0	0	0
Franklin	1,221	1,005	1,076	1,004	0	0	145	1	0	0	0	0
Fulton	443	981	417	978	0	0	0	3	0	0	26	0
Garland	14,259	1,717	8,263	1,343	4,020	8	1,471	366	505	0	0	0
Grant	28,813	2,079	10,862	2,005	2,551	11	13,884	63	1,516	0	0	0
Greene	8	361	3	361	0	0	5	0	0	0	0	0
Hempstead	18,201	5,466	12,926	720	1,510	108	3,765	4,638	0	0	0	0
Hot Spring	9,108	1,806	6,659	1,475	719	2	1,225	329	505	0	0	0
Howard	16,147	4,148	7,196	1,211	1,794	195	6,778	2,742	379	0	0	0
Independence	990	3,019	243	1,812	0	0	495	1,207	252	0	0	0
Izard	508	1,557	508	1,549	0	0	0	8	0	0	0	0
Jackson	0	1,089	0	1,089	0	0	0	0	0	0	0	0
Jefferson	9,692	1,839	1,816	1,558	1,635	12	4,696	269	1,516	0	29	0
Johnson	6,675	2,080	5,928	638	0	0	747	1,442	0	0	0	0
Lafayette	13,180	2,016	8,809	1,170	3,533	0	838	782	0	64	0	0
Lawrence	64	1,796	57	1,796	7	0	0	0	0	0	0	0
Lee	0	2,021	0	1,122	0	795	0	104	0	0	0	0
Lincoln	2,007	4,518	0	644	981	6	492	3,868	505	0	29	0
Little River	10,828	4,718	5,456	1,046	1,265	123	3,602	3,549	505	0	0	0
Logan	2,414	787	1,409	649	0	0	1,005	138	0	0	0	0
Lonoke	926	1,605	118	1,468	0	136	556	1	252	0	0	0

*continued*



**Table A.14—Roundwood timber product output by county, product, and species group, Arkansas, 2005 (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	79	3,561	79	3,315	0	2	0	244	0	0	0	0
Marion	231	1,156	205	1,154	0	2	0	0	0	0	26	0
Miller	12,960	2,533	9,698	618	155	14	3,107	1,901	0	0	0	0
Mississippi	33	1,199	33	1,199	0	0	0	0	0	0	0	0
Monroe	169	1,661	99	1,579	0	0	70	82	0	0	0	0
Montgomery	7,140	2,066	4,853	1,610	1,488	0	420	456	379	0	0	0
Nevada	18,910	5,796	12,946	1,392	1,364	0	4,600	4,342	0	62	0	0
Newton	4,429	2,377	4,428	2,375	0	2	1	0	0	0	0	0
Ouachita	18,323	5,620	13,596	3,585	661	1	2,707	2,034	1,264	0	95	0
Perry	10,188	800	6,638	455	600	10	2,950	335	0	0	0	0
Phillips	230	2,120	0	842	0	689	230	589	0	0	0	0
Pike	22,398	3,011	12,966	1,626	1,175	130	7,837	1,255	0	0	420	0
Poinsett	0	13	0	13	0	0	0	0	0	0	0	0
Polk	11,842	4,547	7,976	3,078	1,342	0	2,107	1,469	379	0	38	0
Pope	9,054	2,009	7,996	1,399	0	0	1,058	610	0	0	0	0
Prairie	1,342	1,401	106	1,338	0	0	1,236	63	0	0	0	0
Pulaski	4,025	906	2,547	568	239	243	1,239	95	0	0	0	0
Randolph	98	1,416	98	1,416	0	0	0	0	0	0	0	0
Saline	18,314	1,500	8,470	894	3,236	113	5,597	493	1,011	0	0	0
Scott	4,408	2,734	2,488	1,539	0	0	1,541	1,195	379	0	0	0
Searcy	1,720	1,527	1,679	1,526	0	1	41	0	0	0	0	0
Sebastian	310	70	297	0	0	0	13	70	0	0	0	0
Sevier	12,998	3,930	5,832	1,439	1,402	167	5,259	2,324	505	0	0	0
Sharp	280	1,804	278	1,804	0	0	2	0	0	0	0	0
St. Francis	0	1,622	0	850	0	477	0	295	0	0	0	0
Stone	881	3,230	504	2,894	0	0	377	336	0	0	0	0
Union	28,428	12,550	19,093	3,603	1,720	4	6,675	8,923	750	20	190	0
Van Buren	3,297	1,668	2,209	672	0	0	1,088	996	0	0	0	0
Washington	72	2,338	72	2,332	0	0	0	6	0	0	0	0
White	6,446	3,136	149	2,856	0	91	5,792	189	505	0	0	0
Woodruff	0	1,585	0	1,582	0	0	0	3	0	0	0	0
Yell	11,683	2,080	7,733	762	1,716	22	2,234	1,296	0	0	0	0
All counties	538,653	210,185	289,161	100,433	89,449	5,717	130,774	103,848	27,475	187	1,794	0

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (2,942,000 cubic feet in 2005).

**Table A.15—Total roundwood output by product, species group, and source of material, Arkansas, 2005**

Product and species group	All sources	Total	Growing-stock trees		Other sources
			Sawtimber	Poletimber	
<i>thousand cubic feet</i>					
Saw logs					
Softwood	289,161	282,151	265,223	16,929	7,010
Hardwood	100,433	98,082	92,246	5,836	2,351
Total	389,594	380,233	357,468	22,765	9,361
Veneer logs and bolts					
Softwood	89,449	87,212	83,725	3,488	2,237
Hardwood	5,717	5,616	5,616	0	101
Total	95,166	92,828	89,341	3,488	2,338
Pulpwood					
Softwood	130,774	122,814	46,986	75,829	7,960
Hardwood	103,848	88,427	34,429	53,998	15,421
Total	234,622	211,241	81,414	129,827	23,381
Composite panels					
Softwood	27,475	25,139	11,060	14,079	2,336
Hardwood	187	166	85	81	21
Total	27,662	25,305	11,145	14,160	2,357
Poles and posts					
Softwood	1,690	1,388	1,268	120	302
Hardwood	0	0	0	0	0
Total	1,690	1,388	1,268	120	302
Other miscellaneous					
Softwood	104	98	77	21	6
Hardwood	0	0	0	0	0
Total	104	98	77	21	6
Total industrial products					
Softwood	538,653	518,802	408,338	110,465	19,851
Hardwood	210,185	192,291	132,376	59,915	17,894
Total	748,838	711,093	540,713	170,380	37,745
Fuelwood					
Softwood	2,358	2,051	1,643	408	307
Hardwood	17,851	10,582	8,994	1,588	7,269
Total	20,209	12,633	10,637	1,996	7,576
All products					
Softwood	541,011	520,854	409,981	110,873	20,157
Hardwood	228,036	202,873	141,370	61,503	25,163
Total	769,047	723,726	551,350	172,376	45,321

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, Arkansas, 2005**

Species group and survey region	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
<i>thousand cubic feet</i>				
<b>Softwood</b>				
South Delta	16,791	54	7,427	9,310
North Delta	167	0	52	115
Southwest	393,465	3,067	235,031	155,368
Ouachita	84,954	17,280	43,200	24,474
Ozark	45,634	588	4,540	40,507
Total softwoods	<u>541,011</u>	<u>20,988</u>	<u>290,250</u>	<u>229,773</u>
<b>Hardwood</b>				
South Delta	39,749	2,536	7,047	30,166
North Delta	11,337	0	402	10,935
Southwest	106,330	1,950	36,277	68,103
Ouachita	18,668	5,648	3,770	9,249
Ozark	51,952	1,491	2,790	47,671
Total hardwoods	<u>228,036</u>	<u>11,625</u>	<u>50,287</u>	<u>166,124</u>
All species	<u>769,047</u>	<u>32,612</u>	<u>340,537</u>	<u>395,897</u>

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, Arkansas, 2005**

Species group and detailed species group	Total	Product						Fuel-wood
		Saw logs	Veneer logs	Pulpwood	Composite panels	Poles and posts	Other miscellaneous	
<i>thousand cubic feet</i>								
<b>Softwood</b>								
Cedar	8,229	6,364	60	1,654	98	2	16	35
Loblolly-shortleaf pine	529,867	281,188	88,921	128,440	27,300	1,665	43	2,311
Other yellow pines	937	848	0	40	0	0	46	3
Cypress	1,978	762	469	639	77	23	0	8
<b>Total softwoods</b>	<b>541,011</b>	<b>289,161</b>	<b>89,449</b>	<b>130,774</b>	<b>27,475</b>	<b>1,690</b>	<b>104</b>	<b>2,358</b>
<b>Hardwood</b>								
Soft maple	3,111	1,482	50	1,334	1	0	0	243
Hard maple	508	444	0	25	0	0	0	40
Hickory	20,252	8,886	352	9,427	2	0	0	1,586
Beech	895	471	1	353	0	0	0	70
Ash	5,519	2,538	256	2,291	3	0	0	432
Black walnut	225	207	0	0	0	0	0	18
Sweetgum	33,322	11,476	547	18,637	55	0	0	2,608
Yellow-poplar	105	96	0	0	0	0	0	8
Blackgum-tupelo	6,493	2,609	75	3,296	4	0	0	508
Sycamore	921	421	6	422	0	0	0	72
Cottonwood	2,422	1,911	174	148	0	0	0	190
Black cherry	1,189	420	65	612	0	0	0	93
Select white oaks	28,638	15,432	265	10,688	11	0	0	2,242
Other white oaks	29,690	13,262	889	13,183	32	0	0	2,324
Select red oaks	14,586	7,470	281	5,687	5	0	0	1,142
Other red oaks	58,422	25,524	1,769	26,490	68	0	0	4,573
Basswood	75	69	0	0	0	0	0	6
Elm	7,895	2,574	246	4,457	1	0	0	618
Other eastern hardwoods	13,767	5,143	743	6,799	4	0	0	1,078
<b>Total hardwoods</b>	<b>228,036</b>	<b>100,433</b>	<b>5,717</b>	<b>103,848</b>	<b>187</b>	<b>0</b>	<b>0</b>	<b>17,851</b>
<b>All species</b>	<b>769,047</b>	<b>389,594</b>	<b>95,166</b>	<b>234,622</b>	<b>27,662</b>	<b>1,690</b>	<b>104</b>	<b>20,209</b>

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, Arkansas, 2005**

Species group and detailed species group	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
<i>thousand cubic feet</i>				
Softwood				
Cedar	8,229	39	416	7,775
Loblolly-shortleaf pine	529,867	20,919	288,768	220,181
Other yellow pines	937	0	28	909
Cypress	1,978	30	1,039	908
Total softwoods	541,011	20,988	290,250	229,773
Hardwood				
Soft maple	3,111	110	915	2,085
Hard maple	508	0	0	508
Hickory	20,252	906	2,896	16,450
Beech	895	41	206	648
Ash	5,519	276	1,428	3,816
Black walnut	225	0	0	225
Sweetgum	33,322	936	9,654	22,732
Yellow-poplar	105	0	0	105
Blackgum-tupelo	6,493	234	1,207	5,051
Sycamore	921	5	216	700
Cottonwood	2,422	190	74	2,158
Black cherry	1,189	21	142	1,026
Select white oaks	28,638	2,588	6,303	19,747
Other white oaks	29,690	2,275	5,981	21,434
Select red oaks	14,586	624	3,260	10,702
Other red oaks	58,422	2,113	13,148	43,161
Basswood	75	0	0	75
Elm	7,895	322	1,325	6,248
Other eastern hardwoods	13,767	984	3,532	9,252
Total hardwoods	228,036	11,625	50,287	166,124
All species	769,047	32,613	340,537	395,897

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



**Bentley, James W.; Howell, Michael; Johnson, Tony G.** 2008. Arkansas's timber industry—an assessment of timber product output and use, 2005. Resour. Bull. SRS-132. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 31 p.

In 2005, roundwood output from Arkansas's forests totaled 749 million cubic feet. Mill byproducts generated from primary manufacturers were 354 million cubic feet. Almost all plant residues were used, primarily for fuel and fiber products. Saw logs were the leading roundwood product at 390 million cubic feet; pulpwood ranked second at 235 million cubic feet; and veneer logs were third at 95 million cubic feet. The number of primary processing plants was 156 in 2005. Receipts for those mills totaled 814 million cubic feet.

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



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