

United States
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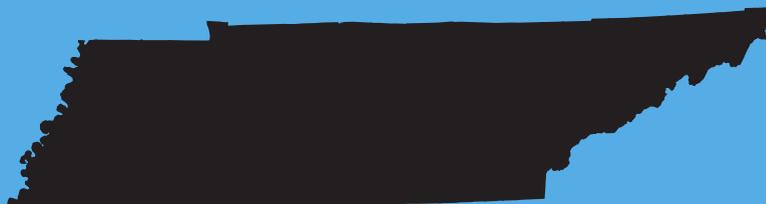


Southern
Research Station

Resource Bulletin
SRS-126

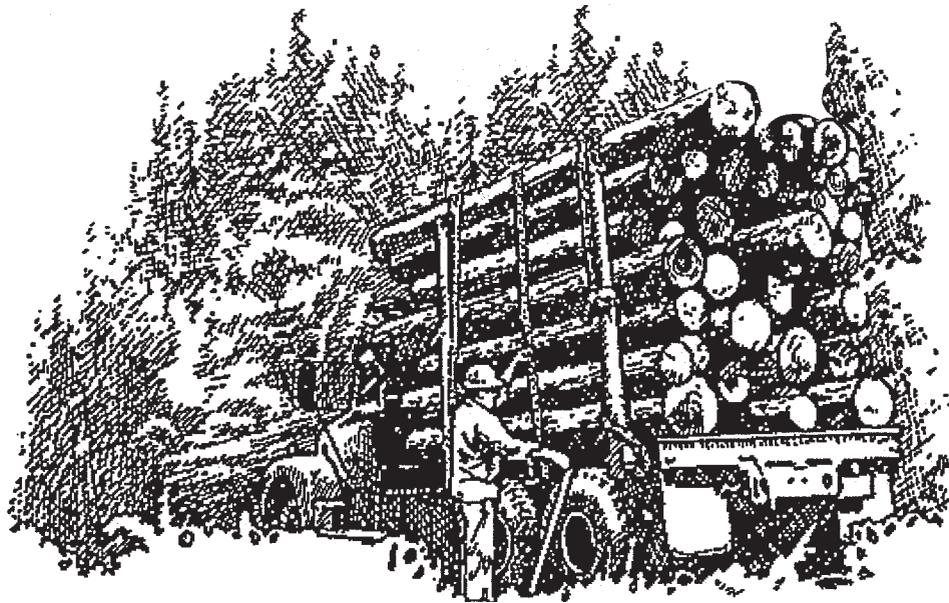
Tennessee's Timber Industry— An Assessment of Timber Product Output and Use, 2005

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December 2007

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Foreword

This report contains the findings of a 2005 canvass of all primary wood-using plants in Tennessee, and presents changes in product output and residue use since 2001. 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 100-percent canvass of all wood processors in Tennessee 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 Tennessee timberland was incorporated into Tennessee 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 1949, and are currently conducted every 2 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 David Arnold and Christopher Oswalt 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 Tennessee Department of Agriculture, Division of Forestry 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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^a 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.

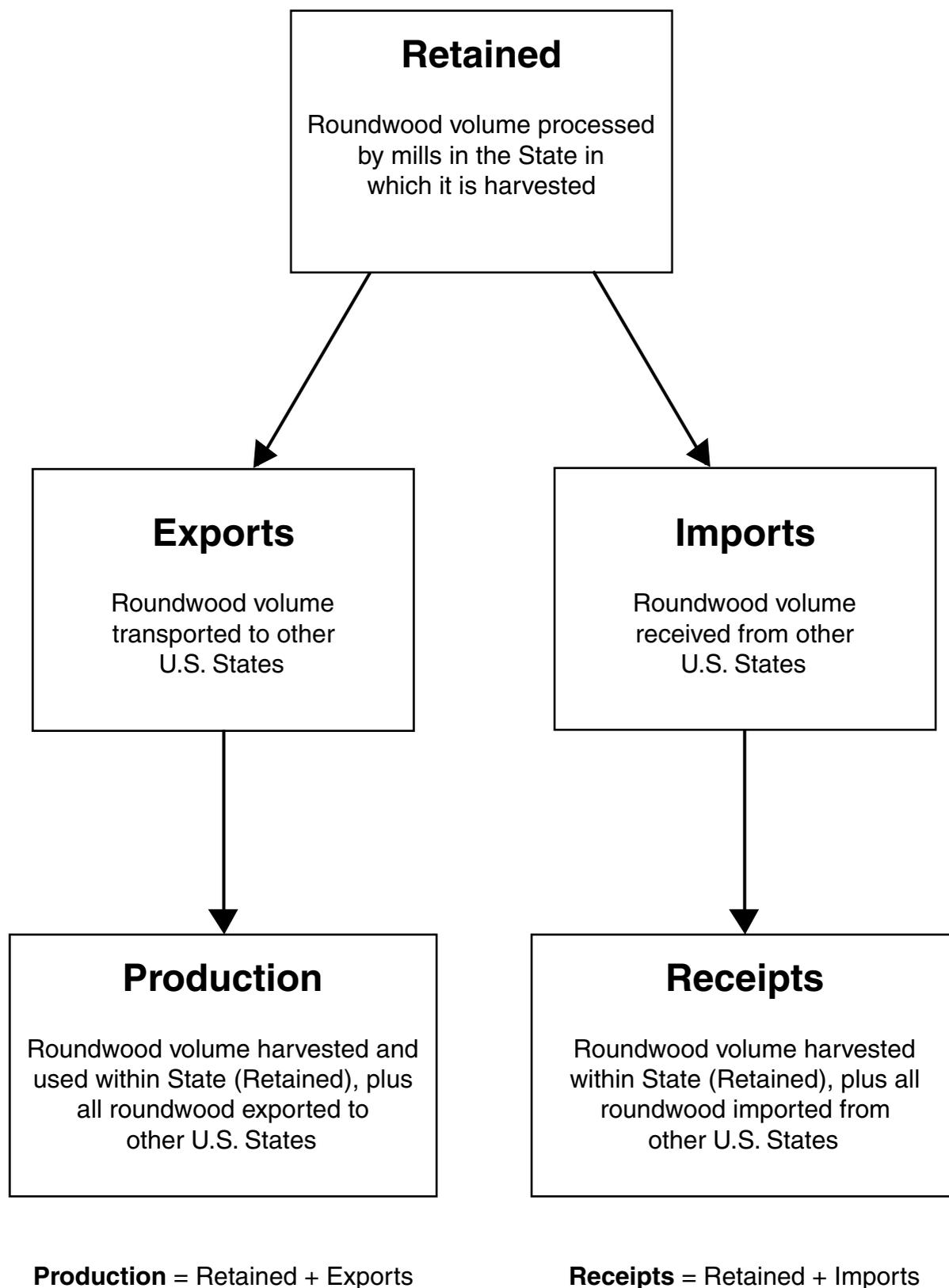


Figure 1—Movement of roundwood exports and imports within the United States.

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

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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

- Between 2001 and 2005, the combined industrial TPO from roundwood and plant byproducts increased 2 percent to 444 million cubic feet.
- TPO from roundwood was up 573,000 cubic feet, or <1 percent, to 325 million cubic feet, while output of plant byproducts was up 6.1 million cubic feet to 119 million cubic feet.

- Output of softwood roundwood products declined 23 percent to 77 million cubic feet, while output of hardwood roundwood products increased 10 percent to 249 million cubic feet (fig. 2).
- Saw logs and pulpwood were the principal roundwood products in 2005. Combined output of these products totaled 310 million cubic feet and accounted for 95 percent of Tennessee's total industrial roundwood output (fig. 3).
- Total receipts at Tennessee mills, which included roundwood harvested and retained in the State as well as roundwood imported from other States, increased by 4 percent to 322 million cubic feet. At the same time, the number of primary roundwood-using plants in Tennessee was down from 450 in 2001 to 354 in 2005 (fig. 4).

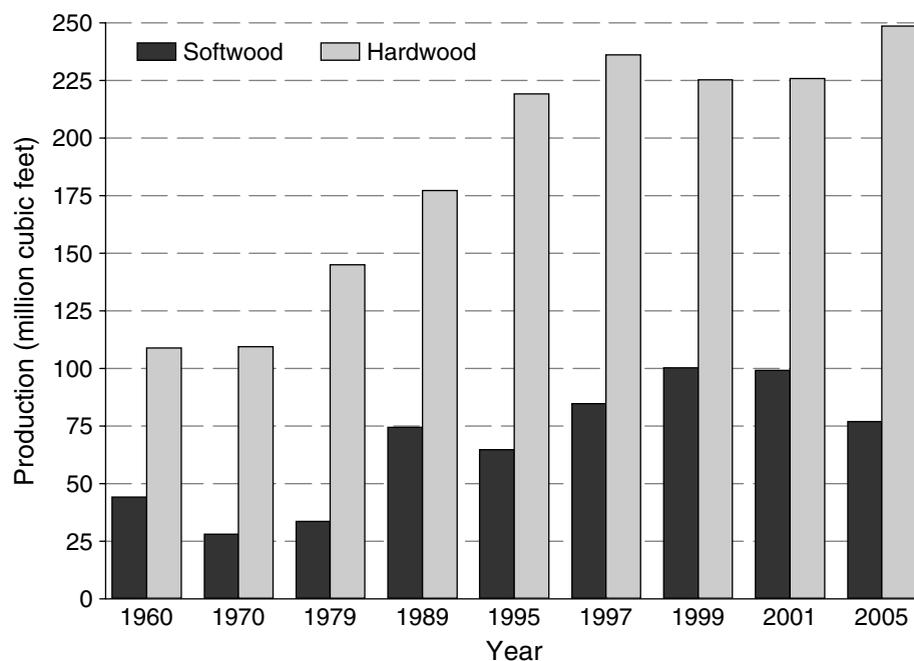


Figure 2—Roundwood production for all products by species group and year (see page 7 for references for individual years).

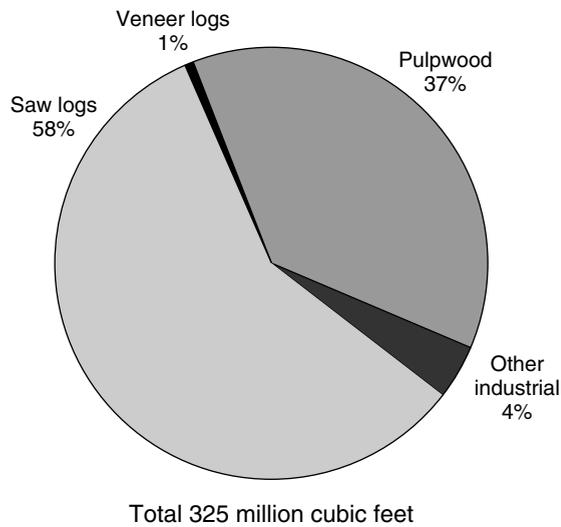


Figure 3—Roundwood production by type of product, 2005.

Saw Logs

- Saw logs accounted for 58 percent of the State’s total industrial roundwood products. Output of softwood saw logs declined 10 percent to 27 million cubic feet (152 million board feet, International ¼-inch rule), while that of hardwood saw logs was up 6 percent to 162 million cubic feet (973 million board feet, International ¼-inch rule) (fig. 5).
- In 2005, Tennessee had 345 sawmills, a loss of 94 mills since 2001. Total saw-log receipts were down 2.1 million cubic feet to 166 million cubic feet. Softwood saw-log receipts declined 55 percent to 8 million cubic feet, while those of hardwoods increased 5 percent to 158 million cubic feet. Of the 345 operating mills in 2005, 48 percent, or 167 mills, had receipts of < 1 million board feet. Seventeen percent, or 58 mills, had receipts > 5 million board feet and accounted for 65 percent of the total saw-log receipts.
- Tennessee retained 82 percent of its saw-log production for in-State manufacture in 2005; saw-log exports amounted to 34 million cubic feet, while imports totaled 12 million cubic feet.
- Across all products, 69 percent of roundwood harvested was retained for processing at Tennessee mills. Exports of roundwood to other States amounted to 102 million cubic feet, while imports of roundwood amounted to 99 million cubic feet making the State a net exporter of roundwood. Tables A.8 to A.10 show exports to and imports from other States by individual product type.

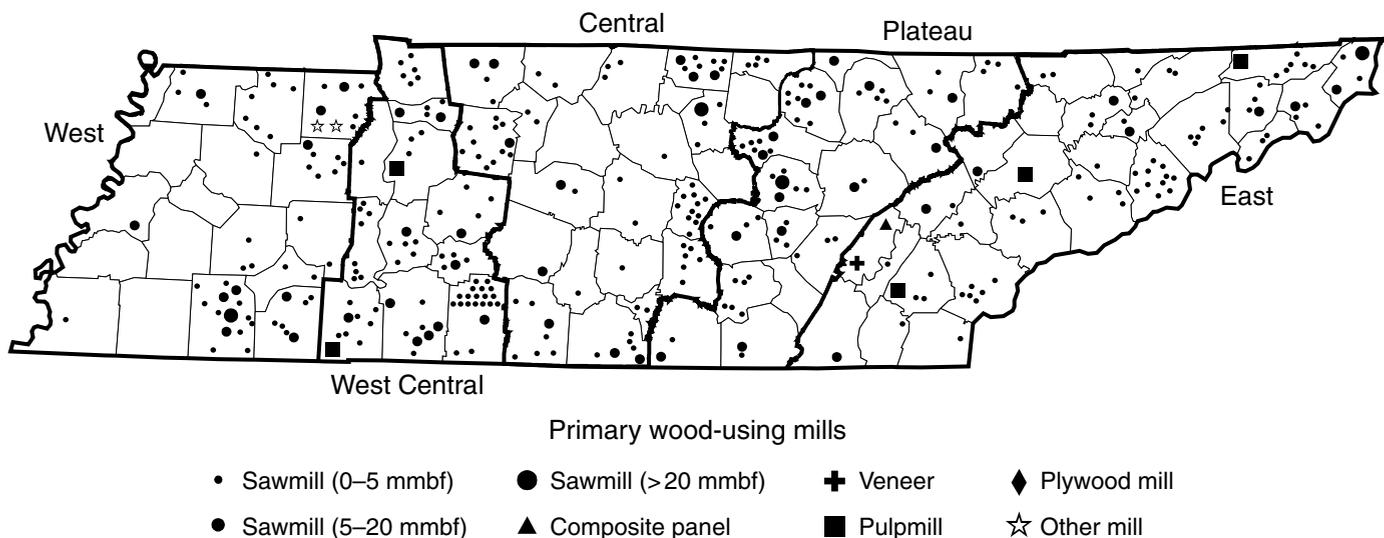


Figure 4—Primary wood-using mills by region, 2005.

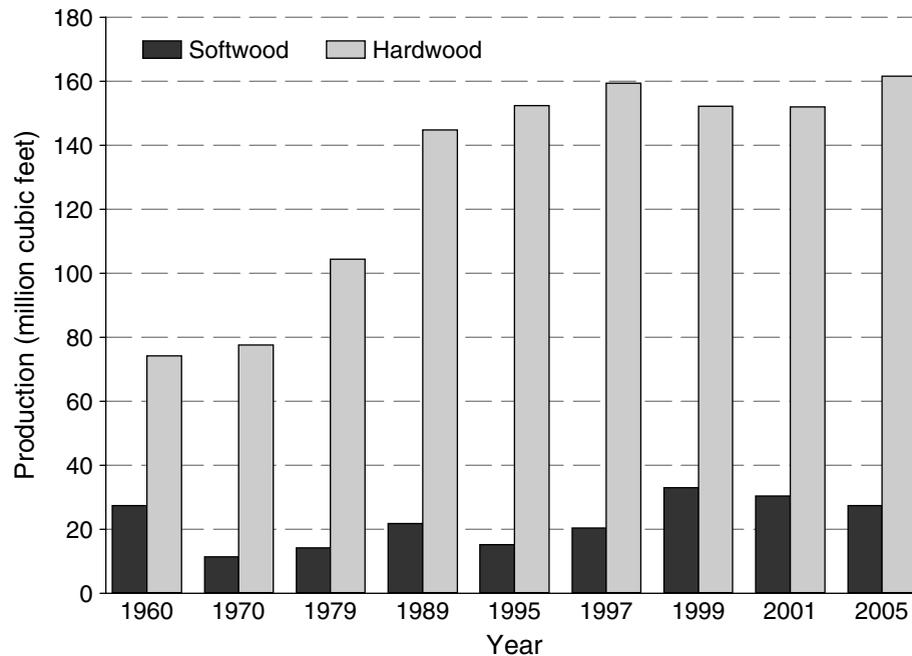


Figure 5—Roundwood saw-log production by species group and year (see page 7 for references for individual years).

Pulpwood

- Total pulpwood production decreased 6 million cubic feet to 121 million cubic feet and accounted for 37 percent of the State's total industrial roundwood TPO. Softwood output was down 28 percent to 40 million cubic feet (552,000 cords); hardwood output increased 13 percent to 81 million cubic feet (1.06 million cords) (fig. 6).
- Five pulpmill facilities were operating and receiving roundwood in Tennessee in 2005. Total pulpwood receipts for these mills were up 9 million cubic feet to 136 million cubic feet, accounting for 42 percent of total receipts for all mills.
- Forty-six percent of roundwood cut for pulpwood was retained for processing at Tennessee pulpmills. Roundwood pulpwood accounted for 64 percent of total known exports and 81 percent of total imports. Roundwood pulpwood imports amounted to 80 million cubic feet, 14 million cubic feet more than was exported.

Veneer Logs

- Output of veneer logs in 2005 totaled 2.1 million cubic feet and accounted for 1 percent of the State's total industrial roundwood TPO volume. Softwood veneer

production decreased 12 percent to 239,000 cubic feet (1.4 million board feet, International ¼-inch rule), while output of hardwood veneer logs increased 50 percent to 2 million cubic feet (12 million board feet, International ¼-inch rule) (fig. 7).

Other Industrial Products

- Roundwood harvested for other industrial uses, such as composite panels, poles, posts, mulch, firewood, logs for log homes, and all other industrial products, was down 4 percent from 14 million cubic feet in 2001 to 13 million cubic feet in 2005. Softwoods made up 70 percent of the other industrial product volume.

Plant Byproducts

- In 2005, processing of primary products in Tennessee mills generated 127 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 57 million cubic feet and bark volume totaled 36 million cubic feet. Sawdust and shavings made up 27 percent of total residues, or 34 million cubic feet (fig. 8).

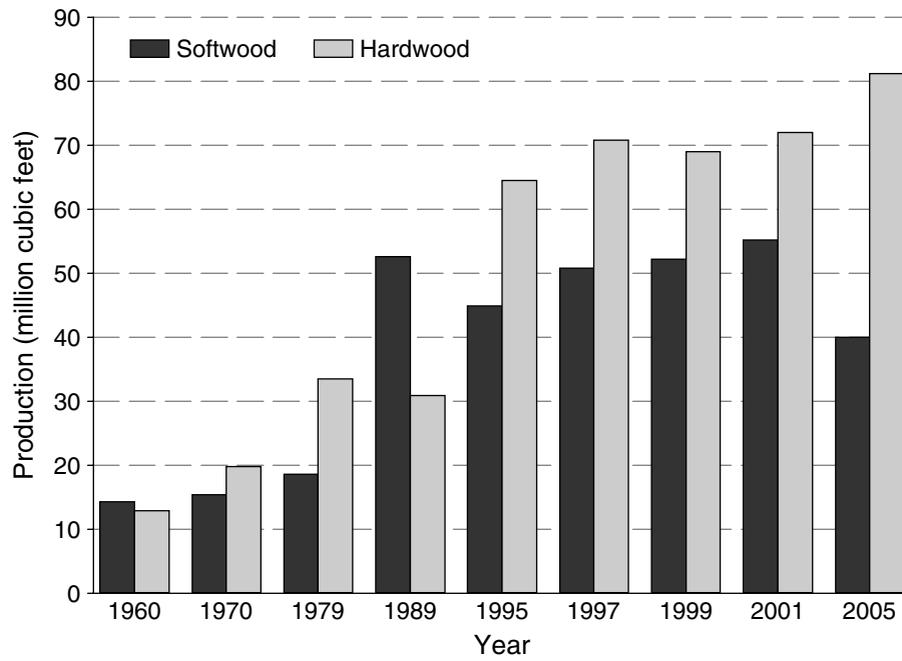


Figure 6—Roundwood pulpwood production by species group and year (see page 7 for references for individual years).

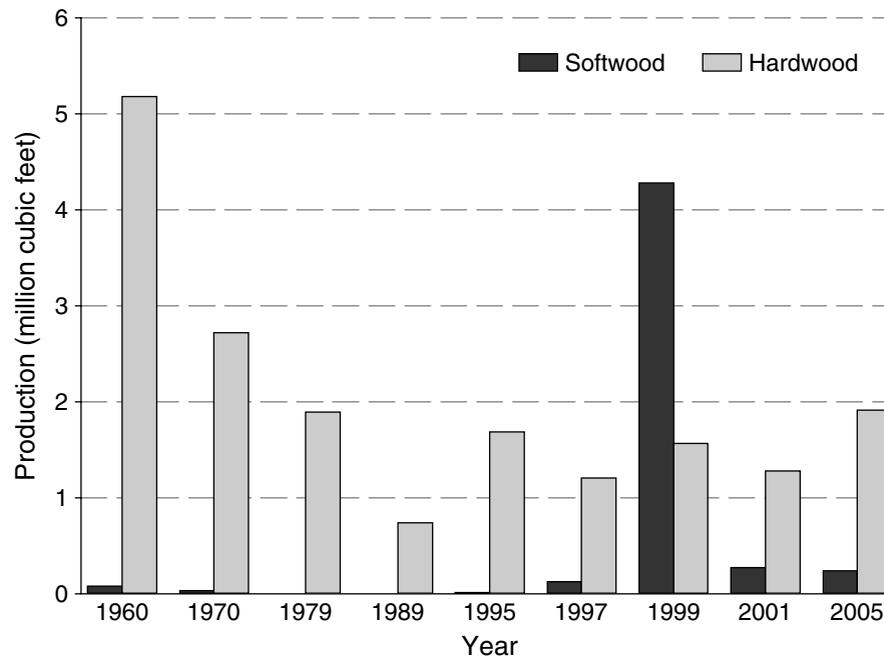


Figure 7—Roundwood veneer-log production by species group and year (see page 7 for references for individual years).

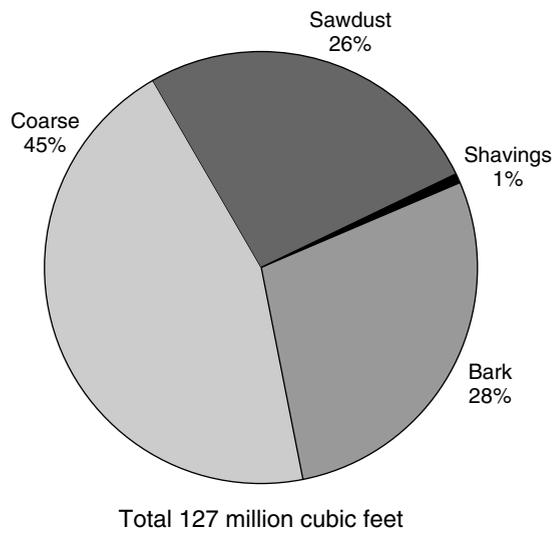


Figure 8—Primary mill residue by residue type, 2005.

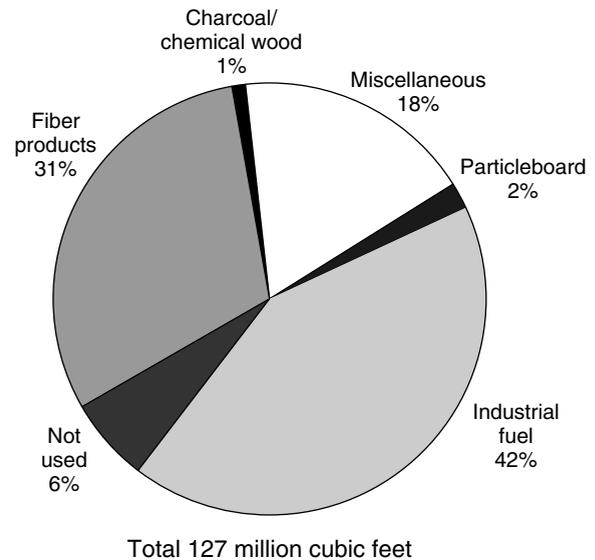


Figure 10—Disposal of residue by product, 2005.

- The processing of saw logs generated 108 million cubic feet of mill residues, accounting for 85 percent of the total residues produced (fig. 9).
- Six percent of the wood and bark residues were not used for a product, while 42 percent of the residues were used for industrial fuel (fig. 10). Thirty-nine million cubic feet, or 68 percent, of the coarse residues were used to manufacture fiber products. Most of the bark was used for industrial fuel or other miscellaneous products, and 72 percent of the sawdust and shavings were used for industrial fuel.

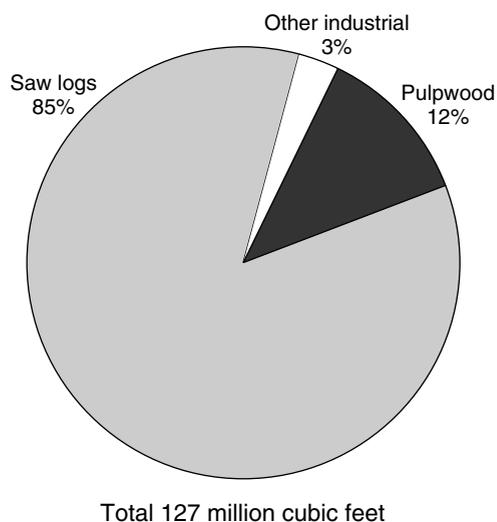


Figure 9—Primary mill residue produced by roundwood type, 2005.

County Data

- Table A.13 shows softwood and hardwood product output by county and individual product type. All 95 counties in Tennessee had hardwood output; however, 6 of the 95 counties did not have softwood output. Five counties (Campbell, Hardin, Hickman, Lawrence, and Wayne) had combined softwood and hardwood product output of more than 10 million cubic feet each. These five counties' total product output amounted to nearly 79 million cubic feet and accounted for 24 percent of the State's total product output.

Total Roundwood Output

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

Source

- In addition to the 325 million cubic feet of roundwood output for industrial products, an estimated 28 million cubic feet were harvested for domestic fuelwood, bringing Tennessee's total roundwood output to 354 million cubic feet.
- Ninety-three 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 24 million cubic feet, or 7 percent of total roundwood output (fig. 11).

Ownership

- An estimated 282 million cubic feet, or 80 percent, of the total roundwood output in 2005 came from nonindustrial private forest lands. Forest industry lands contributed 41 million cubic feet, or 11 percent of the output. Public lands made up the remaining 9 percent, or 31 million cubic feet (fig. 12).

Species

- The loblolly-shortleaf pine group provided more volume than any other softwood species group, accounting for 57 percent of the total softwood output (fig. 13). The other yellow pine type accounted for another 35 percent of the softwood output. The red oak and white oak groups combined accounted for 140 million cubic feet, or 51 percent of total hardwood output (fig. 14).

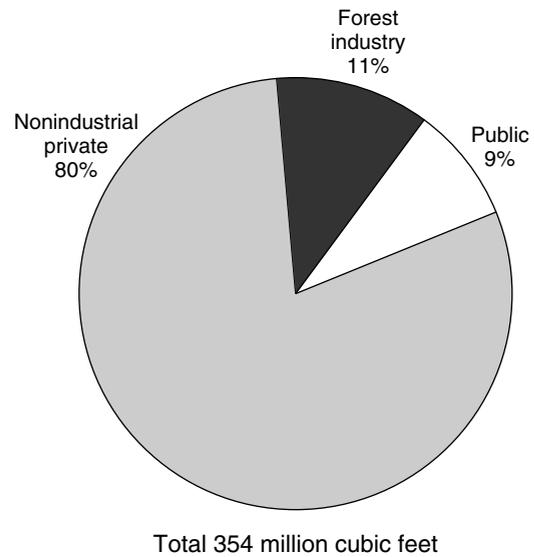


Figure 12—Roundwood output by ownership, 2005.

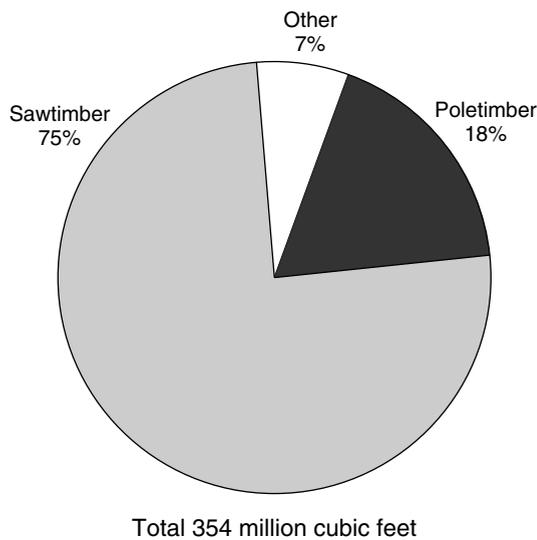


Figure 11—Roundwood output by source, 2005.

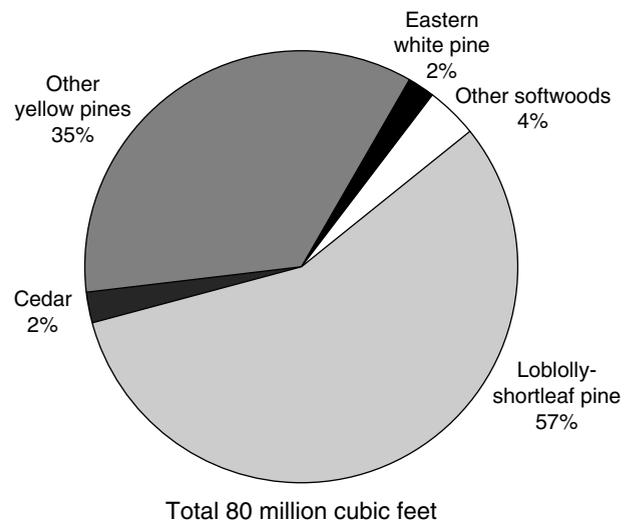


Figure 13—Roundwood output by softwood species group, 2005.

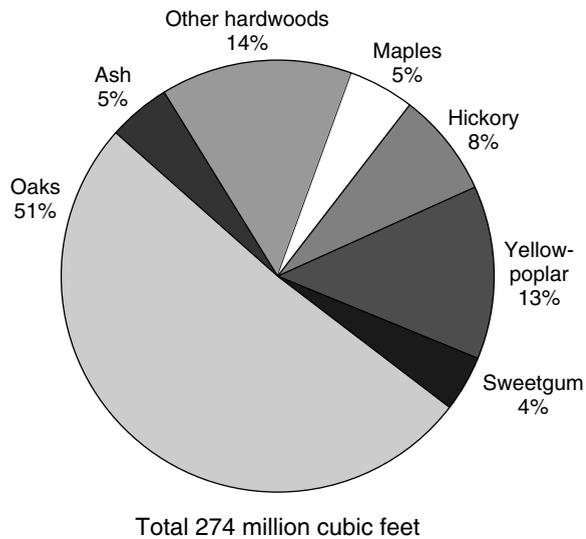


Figure 14—Roundwood output by hardwood species group, 2005.

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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 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 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

1 acre = 4,046.86 m ² or 0.404686 ha
1 cubic foot = 0.028317 m ³
1 inch = 2.54 cm or 0.0254 m
Breast height = 1.4 m above the ground
1 square foot = 929.03 cm ² or 0.0929 m ²
1 square foot per acre basal area = 0.229568 m ² /ha
1 pound = 0.454 kg
1 ton = 0.907 MT

Conversion Factors^a

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 ^b	
Softwood	72.5 cubic feet per cord
Hardwood	76.6 cubic feet per cord

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

^b Cubic feet of solid wood per cord.

Species List^a

Common name	Scientific name ^b	Common name	Scientific name ^b
Softwoods		Hardwoods (continued)	
Southern redcedar	<i>Juniperus silicicola</i> (Small) Bailey	Kentucky coffeetree	<i>Gymnocladus dioica</i> (L.) K. Koch
Eastern redcedar	<i>J. virginiana</i> L.	Silverbell	<i>Halesia</i> Ellis ex L.
Shortleaf pine	<i>Pinus echinata</i> Mill.	American holly	<i>Ilex opaca</i> Ait.
Table Mt. pine	<i>P. pungens</i> Lamb.	Butternut	<i>Juglans cinerea</i> L.
Pitch pine	<i>P. rigida</i> Mill.	(white walnut)	
Eastern white pine	<i>P. strobus</i> L.	Black walnut	<i>J. nigra</i> L.
Loblolly pine	<i>P. taeda</i> L.	Sweetgum	<i>Liquidambar styraciflua</i> L.
Virginia pine	<i>P. virginiana</i> Mill.	Yellow-poplar	<i>Liriodendron tulipifera</i> L.
Baldcypress	<i>Taxodium distichum</i> (L.) Rich.	Osage orange	<i>Maclura pomifera</i> (Raf.) Schneid.
Eastern hemlock	<i>Tsuga canadensis</i> (L.) Carr.	Cucumbertree	<i>Magnolia acuminata</i> L.
Hardwoods		Southern magnolia	<i>M. grandiflora</i> L.
Florida maple	<i>Acer barbatum</i> Michx.	Bigleaf magnolia	<i>M. macrophylla</i> Michx.
Boxelder	<i>A. negundo</i> L.	Apple	<i>Malus</i> spp. Mill.
Striped maple	<i>A. pensylvanicum</i> L.	Chinaberry	<i>Melia azedarach</i> L.
Red maple	<i>A. rubrum</i> L.	White mulberry	<i>Morus alba</i> L.
Silver maple	<i>A. saccharinum</i> L.	Red mulberry	<i>M. rubra</i> L.
Sugar maple	<i>A. saccharum</i> Marsh.	Water tupelo	<i>Nyssa aquatica</i> L.
Buckeye	<i>Aesculus</i> spp. L.	Blackgum	<i>N. sylvatica</i> Marsh.
Yellow buckeye	<i>A. octandra</i> Marsh.	Swamp tupelo	<i>N. sylvatica</i> var. <i>biflora</i> (Walt.) Sarg.
Ailanthus	<i>Ailanthus altissima</i> (Mill.) Swingle	Eastern hophornbeam	<i>Ostrya virginiana</i> (Mill.) K. Koch
Serviceberry	<i>Amelanchier</i> spp. Medic.	Sourwood	<i>Oxydendrum arboreum</i> (L.) DC.
Pawpaw	<i>Asimina</i> Adans.	Red spruce	<i>Picea rubens</i> Sarg.
River birch	<i>Betula nigra</i> L.	American sycamore	<i>Platanus occidentalis</i> L.
American hornbeam	<i>Carpinus caroliniana</i> Walt.	Cottonwood	<i>Populus</i> spp. L.
Hickory	<i>Carya</i> spp. Nutt.	Black cherry	<i>Prunus serotina</i> Ehrh.
Sand hickory	<i>C. pallida</i> (Ashe) Engl. & Graebn.	White oak	<i>Quercus alba</i> L.
Water hickory	<i>C. aquatica</i> (Michx. f.) Nutt.	Scarlet oak	<i>Q. coccinea</i> Muenchh.
Bitternut hickory	<i>C. cordiformis</i> (Wangenh.) K. Koch	Southern red oak	<i>Q. falcata</i> Michx.
Pignut hickory	<i>C. glabra</i> (Mill.) Sweet	Cherrybark oak	<i>Q. falcata</i> var. <i>pagodifolia</i> Ell.
Pecan	<i>C. illinoensis</i> (Wangenh.) K. Koch	Overcup oak	<i>Q. lyrata</i> Walt.
Shellbark hickory	<i>C. laciniosa</i> (Michx. f.) Loud.	Swamp chestnut oak	<i>Q. michauxii</i> Nutt.
Shagbark hickory	<i>C. ovata</i> (Mill.) K. Koch	Chinkapin oak	<i>Q. muehlenbergii</i> Engelm.
Mockernut hickory	<i>C. tomentosa</i> (Poir.) Nutt.	Water oak	<i>Q. nigra</i> L.
American chestnut	<i>Castanea dentata</i> (Marsh.) Borkh.	Pin oak	<i>Q. palustris</i> Muenchh.
Allegheny chinkapin	<i>C. 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.	Black locust	<i>Robinia pseudoacacia</i> L.
Hawthorn	<i>Crataegus</i> spp. L.	Willow	<i>Salix</i> spp. L.
Common persimmon	<i>Diospyros virginiana</i> L.	Sassafras	<i>Sassafras albidum</i> (Nutt.) Nees
American beech	<i>Fagus grandifolia</i> Ehrh.	American basswood	<i>Tilia americana</i> L.
White ash	<i>Fraxinus americana</i> L.	White basswood	<i>T. heterophylla</i> Vent.
Carolina ash	<i>F. caroliniana</i> Mill.	Winged elm	<i>Ulmus alata</i> Michx.
Green ash	<i>F. pennsylvanica</i> Marsh.	American elm	<i>U. americana</i> L.
Pumpkin ash	<i>F. profunda</i> (Bush) Bush	Slippery elm	<i>U. rubra</i> Muhl.
Waterlocust	<i>Gleditsia aquatica</i> Marsh.	Rock elm	<i>U. thomasi</i> Sarg.
Honeylocust	<i>G. triacanthos</i> L.		

^aCommon and scientific names of tree species > 1.0 inch d.b.h. occurring in the FIA sample.

^bLittle (1979).



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Table A.1—Output of industrial products by product and species group, Tennessee, 2001 and 2005

Product and species group	Year		Change	Change
	2001	2005		
	<i>----- thousand cubic feet -----</i>			<i>percent</i>
Saw logs				
Softwood	30,397	27,242	-3,155	-10.4
Hardwood	151,914	161,502	9,588	6.3
Total	182,311	188,744	6,433	3.5
Veneer logs				
Softwood	271	239	-32	-11.8
Hardwood	1,275	1,910	635	49.8
Total	1,546	2,149	603	39.0
Pulpwood				
Softwood	55,183	40,018	-15,165	-27.5
Hardwood	71,961	81,190	9,229	12.8
Total	127,144	121,208	-5,936	-4.7
Other industrial				
Softwood	13,266	9,240	-4,026	-30.3
Hardwood	449	3,948	3,499	779.3
Total	13,715	13,188	-527	-3.8
All industrial				
Softwood	99,117	76,739	-22,378	-22.6
Hardwood	225,599	248,550	22,951	10.2
Total	324,716	325,289	573	0.2
Byproduct output				
Softwood	20,327	15,046	-5,281	-26.0
Hardwood	92,657	104,073	11,416	12.3
Total	112,984	119,119	6,135	5.4
Total output				
Softwood	119,444	91,785	-27,659	-23.2
Hardwood	318,256	352,623	34,367	10.8
Total	437,700	444,408	6,708	1.5

Table A.2—Roundwood receipts by product and species group, Tennessee, 2001 and 2005

Product and species group	Year		Change	Change
	2001	2005		
	----- thousand cubic feet -----			percent
Saw logs				
Softwood	17,217	7,816	-9,401	-54.6
Hardwood	151,105	158,401	7,296	4.8
Total	168,322	166,217	-2,105	-1.3
Pulpwood				
Softwood	92,136	82,852	-9,284	-10.1
Hardwood	34,460	52,806	18,346	53.2
Total	126,596	135,658	9,062	7.2
Other industrial ^a				
Softwood	15,662	14,384	-1,278	-8.2
Hardwood	691	6,126	5,435	786.5
Total	16,353	20,510	4,157	25.4
Total output				
Softwood	125,015	105,052	-19,963	-16.0
Hardwood	186,256	217,333	31,077	16.7
Total	311,271	322,385	11,114	3.6

^aIncludes veneer logs and composite panels.

Table A.3—Number of primary wood-using plants by industry, Tennessee, 1960 to 2005

Industry	Year								
	1960	1970	1979	1989	1995	1997	1999	2001	2005
	number								
Sawmills	1,135	546	694	490	495	496	440	439	345
Veneer mills	9	6	5	3	2	2	2	2	1
Pulpmills	5	7	7	6	5	5	5	5	5
Composite panel mills	0	0	0	0	0	1	1	1	1
Other mills	133	64	32	24	1	1	3	3	2
All plants	1,282	623	738	523	503	505	451	450	354

Table A.4—Roundwood receipts by sawmill size, Tennessee, 2001 and 2005

Sawmill size class ^a <i>mmbf</i>	2001			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	235	62,709	6	167	45,813	5
1.0–4.99	150	385,912	38	120	304,574	30
5.0–9.99	32	227,381	23	30	215,197	22
>10.0	22	329,845	33	28	432,513	43
Total	439	1,005,847	100	345	998,097	100

^aBased on volume received as opposed to actual capacity.

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

Species	All mills	Type of mill		
		Sawmills	Pulpmills	Other mills
<i>thousand cubic feet</i>				
Softwood				
Yellow pine	15,713	4,525	NA	11,188
Eastern white pine	4,980	1,987	NA	2,993
Cedar	997	796	NA	201
Cypress	367	365	NA	2
Other softwood	143	143	NA	0
Unclassified	82,852	0	82,852	0
Total softwoods	105,052	7,816	82,852	14,384
Hardwood				
Blackgum and tupelo	1,844	1,421	NA	423
Soft maple	4,544	3,690	NA	854
Sweetgum	7,152	5,238	NA	1,914
Yellow-poplar	37,014	35,483	NA	1,531
Other soft hardwood	1,372	740	NA	632
Hickory	11,009	10,788	NA	221
Red oak	46,643	46,366	NA	277
White oak	38,310	38,057	NA	253
Other hard hardwood	16,639	16,618	NA	21
Unclassified	52,806	0	52,806	0
Total hardwoods	217,333	158,401	52,806	6,126
All species	322,385	166,217	135,658	20,510

NA = not applicable.

Table A.6—Industrial roundwood movement by year and species group, Tennessee, 2001 and 2005

Year	Production	Exported to other States	Retained	Imported from other States	Receipts
<i>thousand cubic feet</i>					
Softwood					
2001	99,117	19,230	79,887	45,128	125,015
2005	76,739	31,904	44,835	60,217	105,052
Hardwood					
2001	225,599	63,216	162,383	23,873	186,256
2005	248,550	70,435	178,115	39,218	217,333
All species					
2001	324,716	82,446	242,270	69,001	311,271
2005	325,289	102,339	222,950	99,435	322,385

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

Product and species group	Production	Exported to other States	Retained	Imported from other States	Receipts
<i>thousand cubic feet</i>					
Saw logs					
Softwood	27,242	20,629	6,613	1,203	7,816
Hardwood	161,502	13,624	147,878	10,523	158,401
Total	188,744	34,253	154,491	11,726	166,217
Pulpwood					
Softwood	40,018	10,868	29,150	53,702	82,852
Hardwood	81,190	54,895	26,295	26,511	52,806
Total	121,208	65,763	55,445	80,213	135,658
Other industrial					
Softwood	9,479	407	9,072	5,312	14,384
Hardwood	5,858	1,916	3,942	2,184	6,126
Total	15,337	2,323	13,014	7,496	20,510
All products					
Softwood	76,739	31,904	44,835	60,217	105,052
Hardwood	248,550	70,435	178,115	39,218	217,333
Total	325,289	102,339	222,950	99,435	322,385

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

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Tennessee (retained)	154,491	6,613	147,878
Exports to			
Alabama	12,628	11,056	1,572
Georgia	856	537	319
Kentucky	8,530	327	8,203
Mississippi	10,111	8,386	1,725
Missouri	310	0	310
North Carolina	615	107	508
Virginia	1,203	216	987
Total	34,253	20,629	13,624
Imports from			
Alabama	3,626	81	3,545
Arkansas	3	0	3
Georgia	741	510	231
Kentucky	2,083	61	2,022
Mississippi	1,587	0	1,587
North Carolina	2,457	408	2,049
Virginia	1,229	143	1,086
Total	11,726	1,203	10,523

Table A.9—Pulpwood volume by destination, source, and species group, Tennessee, 2005

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Tennessee (retained)	55,445	29,150	26,295
Exports to			
Alabama	39,686	9,946	29,740
Georgia	94	94	0
Kentucky	17,715	826	16,889
Louisiana	2	0	2
North Carolina	7,421	2	7,419
South Carolina	845	0	845
Total	65,763	10,868	54,895
Imports from			
Alabama	15,114	13,627	1,487
Georgia	23,039	16,805	6,234
Kentucky	2,827	427	2,400
Mississippi	25,319	21,590	3,729
North Carolina	7,319	691	6,628
South Carolina	598	562	36
Virginia	5,997	0	5,997
Total	80,213	53,702	26,511

Table A.10—Other industrial volume by destination, source, and species group, Tennessee, 2005

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Tennessee (retained)	13,014	9,072	3,942
Exports to			
Georgia	1,447	239	1,208
Indiana	90	1	89
Kentucky	81	81	0
Mississippi	59	59	0
North Carolina	562	27	535
Virginia	84	0	84
Total	2,323	407	1,916
Imports from			
Alabama	808	574	234
Georgia	3,448	2,441	1,007
Kentucky	2,836	2,010	826
South Carolina	404	287	117
Total	7,496	5,312	2,184

Table A.11—Primary mill residue volume by roundwood type, species group, and residue type, Tennessee, 2005

Roundwood type and species group	All types	Residue type			
		Bark	Coarse	Sawdust	Shavings
<i>thousand cubic feet</i>					
Saw logs					
Softwood	4,330	527	2,318	1,393	92
Hardwood	103,703	16,425	54,559	31,889	830
Total	108,033	16,952	56,877	33,282	922
Pulpwood					
Softwood	8,615	8,615	0	0	0
Hardwood	6,616	6,616	0	0	0
Total	15,231	15,231	0	0	0
Other industrial ^a					
Softwood	2,399	2,398	1	0	0
Hardwood	1,455	1,386	52	17	0
Total	3,854	3,784	53	17	0
Total					
Softwood	15,344	11,540	2,319	1,393	92
Hardwood	111,774	24,427	54,611	31,906	830
Total	127,118	35,967	56,930	33,299	922

^a Includes poles, pilings, posts, composite panels, veneer logs, and other industrial products.

Table A.12—Disposal of residue at primary wood-using plants by product, species group, and type of residue, Tennessee, 2001 and 2005

Product and species group	All types		Bark		Coarse		Sawdust		Shavings	
	2001	2005	2001	2005	2001	2005	2001	2005	2001	2005
	<i>thousand cubic feet</i>									
Fiber products										
Softwood	2,941	1,543	0	0	2,876	1,543	65	0	0	0
Hardwood	33,789	37,278	0	0	33,097	37,278	692	0	0	0
Total	36,730	38,821	0	0	35,973	38,821	757	0	0	0
Particleboard										
Softwood	46	181	0	0	45	140	1	41	0	0
Hardwood	1,807	2,329	15	0	1,760	1,672	32	657	0	0
Total	1,853	2,510	15	0	1,805	1,812	33	698	0	0
Charcoal/ chemical wood										
Softwood	0	12	0	0	0	11	0	1	0	0
Hardwood	712	1,270	64	22	411	471	237	777	0	0
Total	712	1,282	64	22	411	482	237	778	0	0
Sawn products										
Softwood	0	0	0	0	0	0	0	0	0	0
Hardwood	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Fuel										
Softwood	12,633	12,009	9,908	10,987	1,003	188	1,709	827	13	7
Hardwood	39,707	41,796	8,586	11,675	7,872	6,362	23,126	23,203	123	556
Total	52,340	53,805	18,494	22,662	8,875	6,550	24,835	24,030	136	563
Miscellaneous										
Softwood	4,707	1,301	3,161	514	492	252	890	451	164	84
Hardwood	16,642	21,400	9,133	11,224	3,350	4,155	3,817	5,755	342	266
Total	21,349	22,701	12,294	11,738	3,842	4,407	4,707	6,206	506	350
Not used										
Softwood	1,210	298	135	39	681	185	393	73	1	1
Hardwood	10,422	7,701	2,295	1,506	5,547	4,673	2,526	1,514	54	8
Total	11,632	7,999	2,430	1,545	6,228	4,858	2,919	1,587	55	9
All products										
Softwood	21,537	15,344	13,204	11,540	5,097	2,319	3,058	1,393	178	92
Hardwood	103,079	111,774	20,093	24,427	52,037	54,611	30,430	31,906	519	830
Total	124,616	127,118	33,297	35,967	57,134	56,930	33,488	33,299	697	922

Table A.13—Roundwood timber product output by county, product, and species group, Tennessee, 2005

County	All products		Saw logs		Veneer logs		Pulpwood		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>											
Anderson	24	3,136	5	2,893	0	101	19	142	0	0	0	0
Bedford	130	404	130	404	0	0	0	0	0	0	0	0
Benton	2,145	3,894	191	1,753	0	0	1,947	2,109	0	0	7	32
Bledsoe	1,301	1,601	104	825	0	4	1,197	772	0	0	0	0
Blount	548	827	5	163	212	125	331	539	0	0	0	0
Bradley	2,826	562	1,266	434	0	0	1,546	122	0	0	14	6
Campbell	149	10,411	149	3,174	0	44	0	7,193	0	0	0	0
Cannon	22	2,122	22	2,102	0	0	0	20	0	0	0	0
Carroll	460	6,231	96	4,378	0	0	359	1,774	0	0	5	79
Carter	164	1,652	154	1,456	10	186	0	10	0	0	0	0
Cheatham	2	831	2	831	0	0	0	0	0	0	0	0
Chester	1,111	2,551	642	2,128	0	0	455	423	0	0	14	0
Claiborne	87	1,954	87	1,603	0	265	0	86	0	0	0	0
Clay	32	1,740	32	1,740	0	0	0	0	0	0	0	0
Cocke	285	1,214	261	1,118	0	18	24	78	0	0	0	0
Coffee	105	1,825	0	1,209	0	0	105	616	0	0	0	0
Crockett	1	78	0	0	0	0	1	78	0	0	0	0
Cumberland	1,682	4,686	0	2,000	0	0	676	2,274	1,006	412	0	0
Davidson	6	173	6	173	0	0	0	0	0	0	0	0
Decatur	299	4,912	44	3,323	0	0	255	1,589	0	0	0	0
De Kalb	129	2,964	129	2,964	0	0	0	0	0	0	0	0
Dickson	6	2,053	2	2,053	0	0	4	0	0	0	0	0
Dyer	0	318	0	318	0	0	0	0	0	0	0	0
Fayette	285	2,153	1	2,074	0	0	270	79	0	0	14	0
Fentress	177	2,622	146	2,196	0	0	31	426	0	0	0	0
Franklin	1,006	4,582	986	3,205	0	101	20	1,276	0	0	0	0
Gibson	21	164	11	123	0	0	10	41	0	0	0	0
Giles	197	4,655	137	4,354	0	0	60	301	0	0	0	0
Grainger	40	542	9	502	0	0	31	40	0	0	0	0
Greene	43	2,070	43	2,064	0	6	0	0	0	0	0	0
Grundy	948	5,249	130	1,706	0	0	818	3,543	0	0	0	0
Hamblen	0	667	0	655	0	12	0	0	0	0	0	0
Hamilton	1,765	860	216	331	0	3	1,535	520	0	0	14	6
Hancock	61	653	61	653	0	0	0	0	0	0	0	0
Hardeman	3,382	5,595	1,988	4,726	0	0	1,380	869	0	0	14	0
Hardin	9,456	5,262	5,463	3,598	0	0	3,993	1,664	0	0	0	0
Hawkins	239	2,529	239	1,269	0	245	0	1,015	0	0	0	0
Haywood	18	1,560	13	1,432	0	0	5	128	0	0	0	0
Henderson	538	2,928	9	1,931	0	0	529	997	0	0	0	0
Henry	393	6,385	109	3,778	0	0	277	2,528	0	0	7	79
Hickman	188	13,677	28	4,346	0	0	160	9,331	0	0	0	0
Houston	4	2,249	4	2,247	0	0	0	2	0	0	0	0
Humphreys	161	3,050	8	2,281	0	0	153	769	0	0	0	0
Jackson	126	1,978	126	1,978	0	0	0	0	0	0	0	0
Jefferson	73	1,017	36	966	0	0	37	51	0	0	0	0
Johnson	676	2,505	665	2,057	10	187	1	261	0	0	0	0
Knox	558	254	1	136	0	0	557	118	0	0	0	0
Lake	0	256	0	256	0	0	0	0	0	0	0	0
Lauderdale	1	604	1	604	0	0	0	0	0	0	0	0

continued

Table A.13—Roundwood timber product output by county, product, and species group, Tennessee, 2005 (continued)

County	All products		Saw logs		Veneer logs		Pulpwood		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>											
Lawrence	6,197	7,977	5,223	3,797	0	0	974	4,180	0	0	0	0
Lewis	351	5,879	20	3,308	0	0	331	2,571	0	0	0	0
Lincoln	593	2,586	593	2,350	0	0	0	236	0	0	0	0
Loudon	286	542	0	337	0	0	286	205	0	0	0	0
Macon	1	5,215	1	5,215	0	0	0	0	0	0	0	0
Madison	119	1,840	5	1,647	0	0	114	193	0	0	0	0
Marion	1,936	3,160	1,014	1,491	0	0	922	1,669	0	0	0	0
Marshall	0	296	0	296	0	0	0	0	0	0	0	0
Maury	3	2,679	3	2,149	0	0	0	530	0	0	0	0
McMinn	2,855	1,584	156	364	0	0	543	335	2,156	885	0	0
McNairy	2,934	5,182	1,854	3,393	0	0	1,080	1,789	0	0	0	0
Meigs	301	468	3	3	0	104	298	361	0	0	0	0
Monroe	5,395	2,463	763	346	0	16	1,039	627	3,593	1,474	0	0
Montgomery	2	2,957	2	2,957	0	0	0	0	0	0	0	0
Moore	128	534	128	527	0	0	0	7	0	0	0	0
Morgan	538	1,791	439	1,510	0	0	99	281	0	0	0	0
Obion	80	3,185	38	3,174	0	0	42	11	0	0	0	0
Overton	372	5,591	316	5,112	0	0	56	479	0	0	0	0
Perry	990	3,674	11	3,504	0	0	979	170	0	0	0	0
Pickett	20	1,081	14	1,081	0	0	6	0	0	0	0	0
Polk	1,263	643	301	203	0	0	962	440	0	0	0	0
Putnam	319	3,168	200	2,912	0	0	119	256	0	0	0	0
Rhea	3,558	2,201	141	496	0	10	1,117	752	2,300	943	0	0
Roane	137	1,327	0	848	0	0	137	479	0	0	0	0
Robertson	5	592	5	592	0	0	0	0	0	0	0	0
Rutherford	0	61	0	61	0	0	0	0	0	0	0	0
Scott	736	1,480	655	1,416	0	44	0	20	0	0	81	0
Sequatchie	938	1,958	81	872	0	0	857	1,086	0	0	0	0
Sevier	178	159	22	76	0	0	156	83	0	0	0	0
Shelby	152	629	2	496	0	0	136	133	0	0	14	0
Smith	244	1,400	244	1,400	0	0	0	0	0	0	0	0
Stewart	84	5,772	0	2,752	0	0	84	3,020	0	0	0	0
Sullivan	24	917	24	917	0	0	0	0	0	0	0	0
Sumner	20	1,175	20	1,175	0	0	0	0	0	0	0	0
Tipton	6	590	6	536	0	0	0	54	0	0	0	0
Trousdale	6	215	6	215	0	0	0	0	0	0	0	0
Unicoi	76	1,114	69	986	7	128	0	0	0	0	0	0
Union	107	664	88	456	0	0	19	208	0	0	0	0
Van Buren	1,036	3,277	101	1,461	0	0	935	1,816	0	0	0	0
Warren	204	2,712	131	1,918	0	0	73	794	0	0	0	0
Washington	6	1,441	6	1,434	0	7	0	0	0	0	0	0
Wayne	10,965	14,232	685	3,245	0	0	10,280	10,987	0	0	0	0
Weakley	1,271	5,805	70	1,624	0	0	1,200	4,149	0	0	1	32
White	416	5,319	28	3,631	0	203	388	1,485	0	0	0	0
Williamson	0	1,786	0	1,786	0	0	0	0	0	0	0	0
Wilson	17	1,024	17	923	0	101	0	0	0	0	0	0
All counties	76,739	248,550	27,242	161,502	239	1,910	40,018	81,190	9,055	3,714	185	234

Table A.14—Total roundwood output by product, species group, and source of material, Tennessee, 2005

Product and species group	All sources	Total	Growing-stock trees		Other sources
			Sawtimber	Poletimber	
<i>thousand cubic feet</i>					
Saw logs					
Softwood	27,242	26,561	25,116	1,445	681
Hardwood	161,502	157,721	148,257	9,464	3,781
Total	188,744	184,282	173,373	10,909	4,462
Veneer logs and bolts					
Softwood	239	234	234	0	5
Hardwood	1,910	1,877	1,877	0	33
Total	2,149	2,110	2,110	0	39
Pulpwood					
Softwood	40,018	36,304	22,681	13,623	3,714
Hardwood	81,190	72,705	41,431	31,273	8,485
Total	121,208	109,009	64,113	44,896	12,199
Poles and posts					
Softwood	104	77	41	36	27
Hardwood	234	47	19	29	187
Total	338	125	60	64	213
Other miscellaneous					
Softwood	9,136	8,171	6,446	1,725	965
Hardwood	3,714	3,670	3,118	553	44
Total	12,850	11,842	9,564	2,277	1,008
Total industrial products					
Softwood	76,739	71,347	54,519	16,828	5,392
Hardwood	248,550	236,021	194,702	41,318	12,529
Total	325,289	307,367	249,221	58,146	17,922
Fuelwood					
Softwood	3,140	2,794	2,068	726	346
Hardwood	25,208	19,158	15,125	4,034	6,050
Total	28,348	21,952	17,193	4,759	6,396
All products					
Softwood	79,879	74,141	56,587	17,554	5,738
Hardwood	273,758	255,179	209,827	45,352	18,579
Total	353,637	329,319	266,414	62,906	24,318

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

Table A.15—Total roundwood output by species group, survey region, and ownership class, Tennessee, 2005

Species group and survey region	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
<i>thousand cubic feet</i>				
Softwoods				
West	11,214	593	2,158	8,463
West Central	32,103	540	11,404	20,158
Central	1,844	17	0	1,827
Plateau	12,258	1,395	4,474	6,390
East	22,460	263	788	21,408
Total softwoods	79,879	2,808	18,824	58,247
Hardwoods				
West	50,726	8,995	568	41,163
West Central	77,735	10,486	8,976	58,273
Central	43,247	2,604	670	39,973
Plateau	64,640	5,467	11,191	47,982
East	37,410	460	509	36,441
Total hardwoods	273,758	28,012	21,914	223,832
All species	353,637	30,820	40,738	282,079

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

Table A.16—Total roundwood output by species group, detailed species group, and product, Tennessee, 2005

Species group and detailed species group	Total	Product					Fuel-wood
		Saw log	Veneer	Pulpwood	Poles and posts	Other miscellaneous	
		<i>thousand cubic feet</i>					
Softwood							
Cedar	1,844	1,185	1	436	4	146	72
Eastern white pine	1,623	675	8	802	2	72	64
Loblolly-shortleaf pine	45,186	19,541	2	23,763	80	24	1,776
Other yellow pines	28,136	5,430	228	14,357	7	7,007	1,107
Cypress	126	2	0	108	11	0	5
Hemlock	2,964	409	1	551	0	1,887	117
Total softwoods	79,879	27,242	239	40,018	104	9,136	3,140
Hardwood							
Soft maple	7,142	4,236	196	1,973	8	71	657
Hard maple	6,257	3,093	10	2,577	1	0	576
Other birch	101	59	0	32	0	0	9
Yellow birch	1,858	253	11	428	0	994	171
Hickory	21,335	13,632	215	5,452	7	65	1,965
Beech	4,108	3,077	79	574	0	0	378
Ash	12,738	9,199	65	2,285	13	2	1,173
Black walnut	5,914	4,661	11	685	1	13	544
Sweetgum	11,465	6,752	27	3,469	51	110	1,056
Yellow-poplar	35,502	24,063	247	7,605	23	294	3,269
Blackgum-tupelo	2,620	1,372	4	952	3	49	241
Sycamore	6,067	4,091	171	1,247	0	0	559
Cottonwood	2,199	1,411	0	585	0	0	202
Black cherry	3,411	1,959	15	1,114	3	5	314
Select white oaks	50,648	26,631	385	18,159	25	785	4,663
Other white oaks	27,639	15,676	143	9,234	10	31	2,545
Select red oaks	15,109	7,912	68	5,495	26	216	1,391
Other red oaks	46,642	24,631	211	16,513	52	939	4,296
Basswood	799	717	2	7	0	0	74
Elm	4,214	2,449	14	1,302	7	54	388
Other eastern hardwoods	7,988	5,628	37	1,502	1	85	736
Total hardwoods	273,758	161,502	1,910	81,190	234	3,714	25,208
All species	353,637	188,744	2,149	121,208	338	12,850	28,348

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 ownership class, Tennessee, 2005

Species group and detailed species group	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
<i>thousand cubic feet</i>				
Softwood				
Cedar	1,844	88	57	1,699
Eastern white pine	1,623	40	77	1,505
Loblolly-shortleaf pine	45,186	1,517	12,013	31,656
Other yellow pines	28,136	1,106	6,674	20,356
Cypress	126	3	0	123
Hemlock	2,964	55	2	2,908
Total softwoods	79,879	2,808	18,824	58,247
Hardwood				
Soft maple	7,142	1,052	834	5,256
Hard maple	6,257	1,419	1,900	2,938
Other birch	101	2	1	97
Yellow birch	1,858	25	0	1,833
Hickory	21,335	2,866	1,372	17,097
Beech	4,108	346	72	3,689
Ash	12,738	1,332	213	11,192
Black walnut	5,914	230	255	5,429
Sweetgum	11,465	1,999	220	9,245
Yellow-poplar	35,502	2,629	1,475	31,397
Blackgum-tupelo	2,620	188	314	2,117
Sycamore	6,067	812	93	5,162
Cottonwood	2,199	246	13	1,939
Black cherry	3,411	253	410	2,748
Select white oaks	50,648	4,924	3,856	41,868
Other white oaks	27,639	1,986	4,328	21,325
Select red oaks	15,109	1,624	1,449	12,036
Other red oaks	46,642	4,592	4,475	37,575
Basswood	799	7	3	788
Elm	4,214	463	291	3,461
Other eastern hardwoods	7,988	1,012	337	6,639
Total hardwoods	273,758	28,012	21,914	223,832
All species	353,637	30,820	40,738	282,079

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



Bentley, James W.; Schnabel, Doug. 2007. Tennessee's timber industry—an assessment of timber product output and use, 2005. Resour. Bull. SRS-126. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 31 p.

In 2005, roundwood output from Tennessee's forests was 325 million cubic feet. Mill byproducts generated from primary manufacturers totaled 119 million cubic feet. Seventy-three percent of the plant residues were used primarily for fuel and fiber products. Saw logs were the leading roundwood product at 189 million cubic feet; pulpwood ranked second at 121 million cubic feet; other industrial products were third at 13 million cubic feet. There were 354 primary processing plants operating in Tennessee in 2005. Total receipts amounted to 322 million cubic feet.

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



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