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

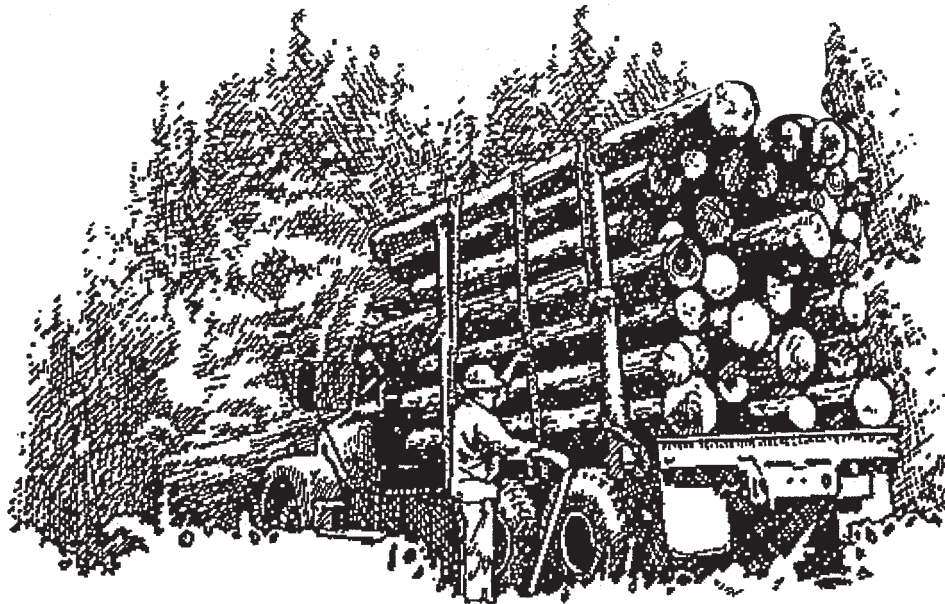
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Foreword

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

A 100-percent canvass of all wood processors in Tennessee was conducted in 2008 to obtain information for 2007. In addition, roundwood from out-of-State mills known to be using logs or bolts harvested from 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 Timothy Rials, Timothy Young, and Christopher Oswalt for review and comments; Carolyn Steppleton, Michael Howell, and James Bentley for their tireless efforts in processing and accuracy of the data; Helen Beresford for timber product output database maintenance and support; Anne Jenkins, Janet Griffin, Sharon Johnson, and Charlene Walker for tables, graphs, and statistical checking; and the Southern Research Station (SRS) Technical Publications Team for editorial review, styling, and publication of this report.

The SRS gratefully acknowledges the cooperation and assistance provided by the 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/>.

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 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.

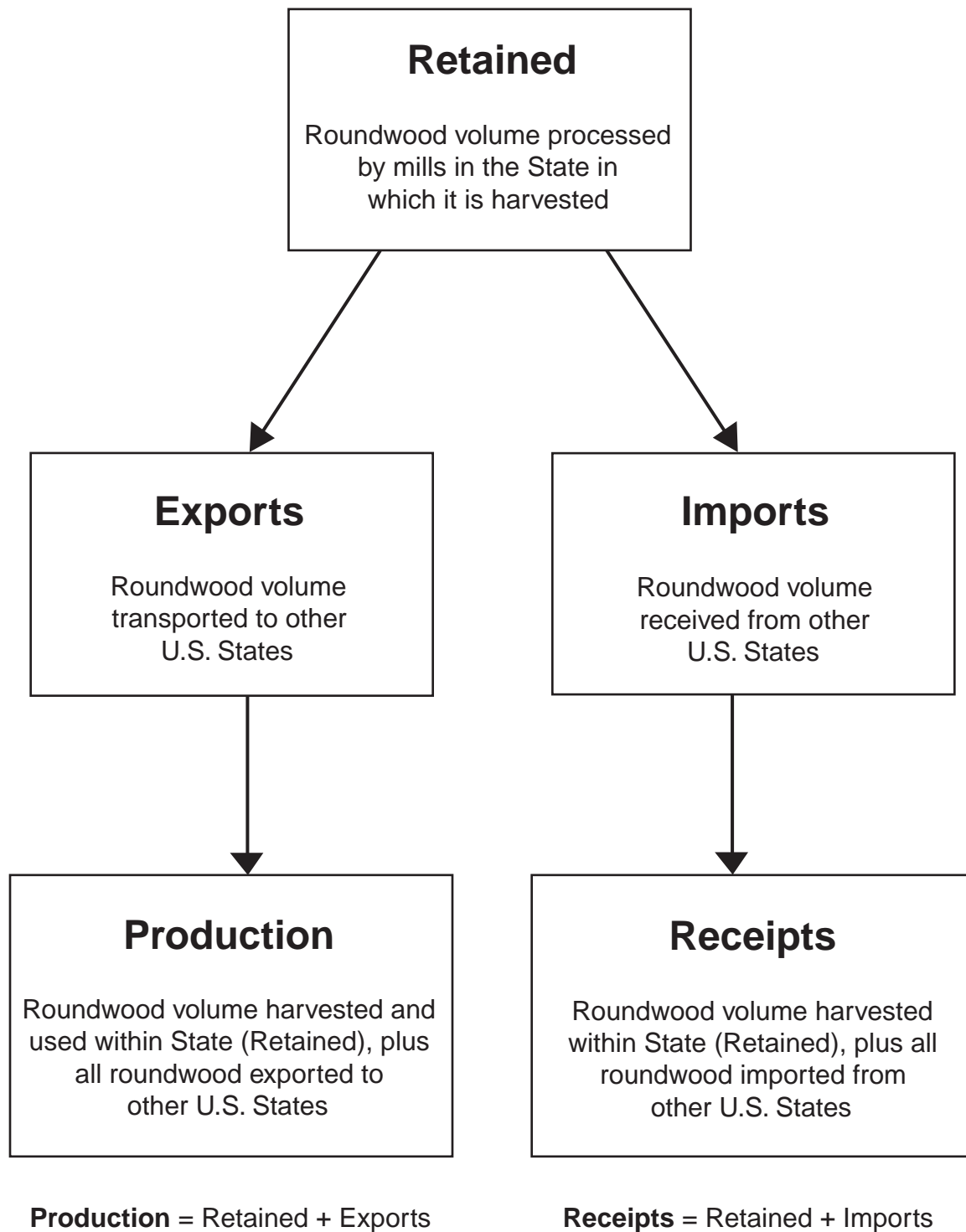


Figure 1—Movement of roundwood exports and imports within the United States.

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

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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 2005 and 2007, TPO from roundwood was down 28 million cubic feet, or 9 percent, to 297 million cubic feet, while output of utilized plant byproducts was down 5.2 million cubic feet to 114 million cubic feet.
- Output of softwood roundwood products declined 15 percent to 65 million cubic feet, and output of hardwood roundwood products decreased 7 percent to 232 million cubic feet (fig. 2).

- Saw logs and pulpwood were the principal roundwood products in 2007. Combined output of these products totaled 283 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 2 percent to 327 million cubic feet. At the same time, the number of primary roundwood-using plants in Tennessee was down from 354 in 2005 to 329 in 2007 (fig. 4).
- Across all products, 73 percent of roundwood harvested was retained for processing at Tennessee mills. Exports of roundwood to other States amounted to 80 million cubic feet, while imports of roundwood amounted to 110 million cubic feet making the State a net importer of roundwood. Tables A.8 to A.10 show exports to and imports from other States by individual product type.

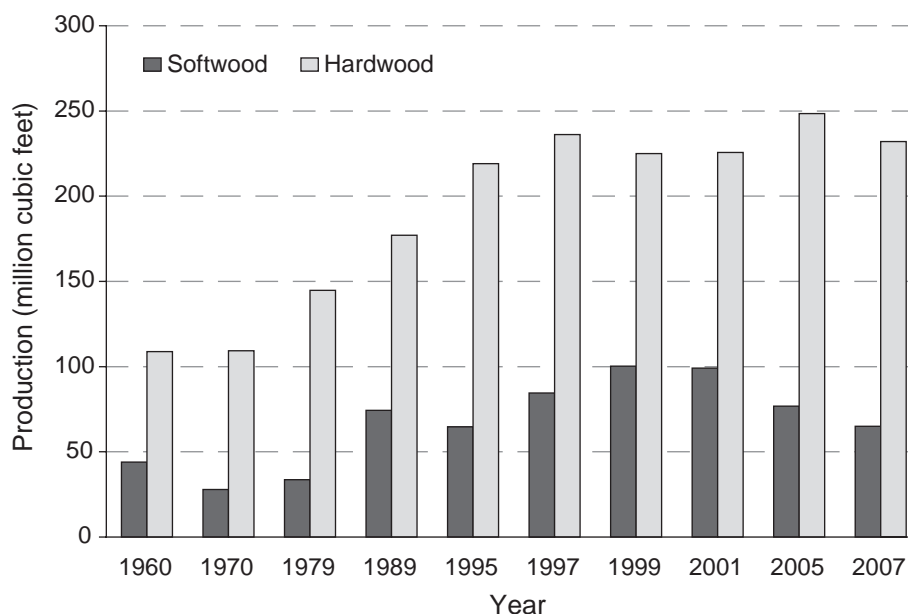


Figure 2—Roundwood production for all products by species group and year (see page 7 for references for individual years), Tennessee.

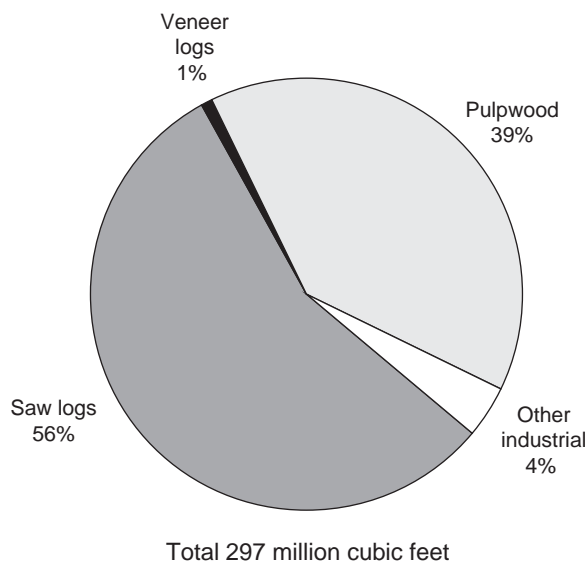


Figure 3—Roundwood production by type of product, Tennessee, 2007.

Saw Logs

- Saw logs accounted for 56 percent of the State's total industrial roundwood products. Output of softwood saw logs declined 51 percent to 13 million cubic feet (75 million board feet, International 1/4-inch rule), while that of hardwood saw logs was down 6 percent to 152 million cubic feet (918 million board feet, International 1/4-inch rule) (fig. 5).
- In 2007, Tennessee had 320 sawmills, a loss of 25 mills since 2005. Total saw-log receipts were down 9.6 million cubic feet to 157 million cubic feet. Softwood saw-log receipts declined 26 percent to 6 million cubic feet, and hardwoods decreased 5 percent to 151 million cubic feet. Of the 320 operating mills in 2007, 46 percent, or 147 mills, had receipts of <1 million board feet. Nineteen percent, or 60 mills, had receipts > 5 million board feet and accounted for 65 percent of the total saw-log receipts.
- Tennessee retained 88 percent of its saw-log production for in-State manufacture in 2007; saw-log exports amounted to 21 million cubic feet, while imports totaled 11 million cubic feet.

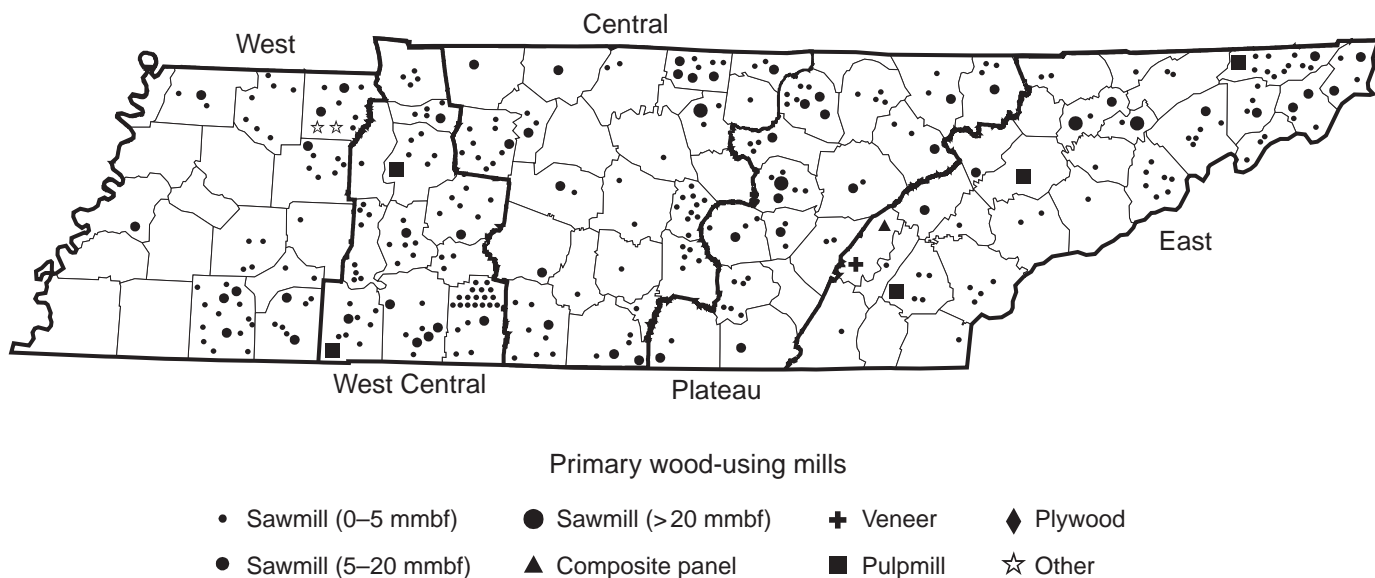


Figure 4—Primary wood-using mills by region, Tennessee, 2007.

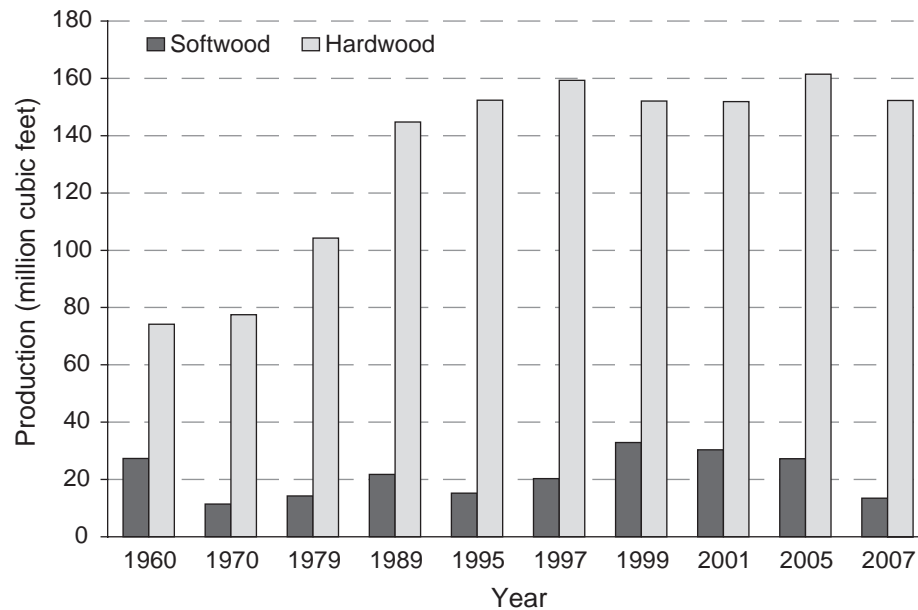


Figure 5—Roundwood saw-log production by species group and year (see page 7 for references for individual years), Tennessee.

Pulpwood

- Total pulpwood production decreased 4 million cubic feet to 117 million cubic feet and accounted for 39 percent of the State's total industrial roundwood TPO. Softwood output was up 8 percent to 43 million cubic feet (598,000 cords); hardwood output declined 9 percent to 74 million cubic feet (964,000 cords) (fig. 6).
- Five pulpmill facilities were operating and receiving roundwood in Tennessee in 2007. Total pulpwood receipts for these mills were up 16 million cubic feet to 152 million cubic feet, accounting for 46 percent of total receipts for all mills.
- Fifty-one percent of roundwood cut for pulpwood was retained for processing at Tennessee pulpmills. Roundwood pulpwood accounted for 71 percent of total known exports and 84 percent of total imports. Roundwood pulpwood imports amounted to 92 million cubic feet, 35 million cubic feet more than was exported.

Veneer Logs

- Output of veneer logs in 2007 totaled 2.4 million cubic feet and accounted for 1 percent of the State's total

industrial roundwood TPO volume. Hardwood veneer production increased 24 percent to 2.4 million cubic feet (15 million board feet, International ¼-inch rule), while there was not any softwood veneer production (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 11 percent from 13 million cubic feet in 2005 to 12 million cubic feet in 2007. Softwoods made up 70 percent of the other industrial product volume.

Plant Byproducts

- In 2007, processing of primary products in Tennessee mills generated 123 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 54 million cubic feet and bark volume totaled 37 million cubic feet. Sawdust and shavings made up 26 percent of total residues, or 32 million cubic feet (fig. 8).

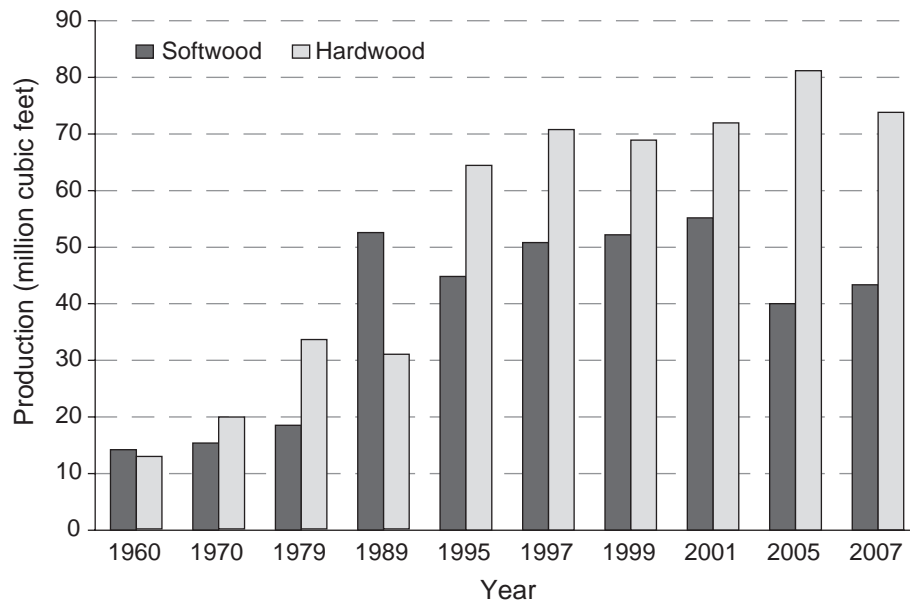


Figure 6—Roundwood pulpwood production by species group and year (see page 7 for references for individual years), Tennessee.

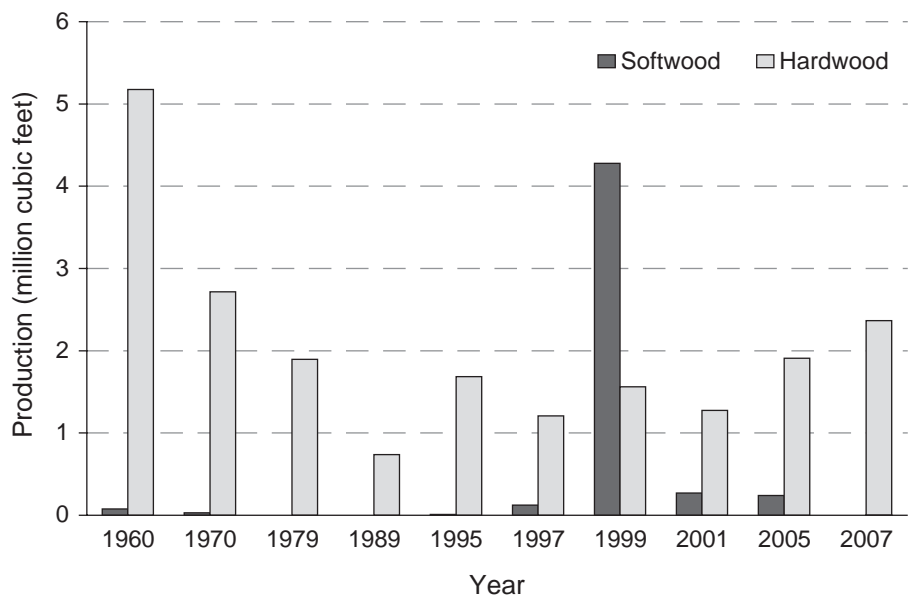


Figure 7—Roundwood veneer-log production by species group and year (see page 7 for references for individual years), Tennessee.

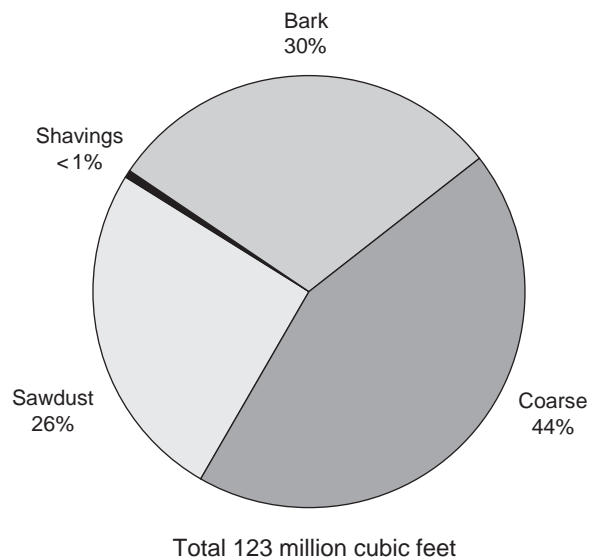


Figure 8—Primary mill residue by residue type, Tennessee, 2007.

- The processing of saw logs generated 102 million cubic feet of mill residues, accounting for 83 percent of the total residues produced (fig. 9).
- Seven percent of the wood and bark residues were not used for a product, while 41 percent of the residues were used for industrial fuel (fig. 10). Thirty-five million cubic feet, or 65 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 67 percent of the sawdust and shavings was used for industrial fuel.

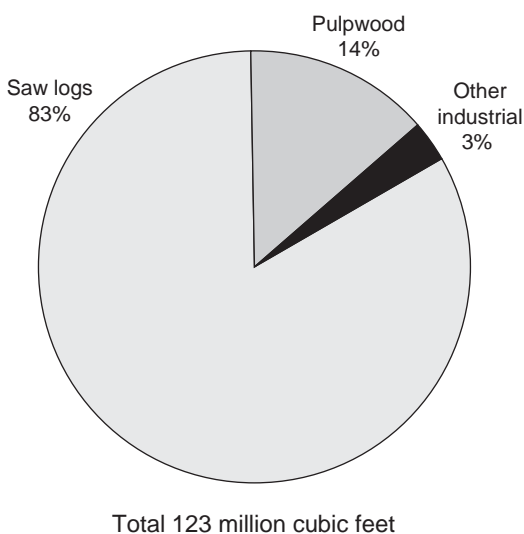


Figure 9—Primary mill residue produced by roundwood type, Tennessee, 2007.

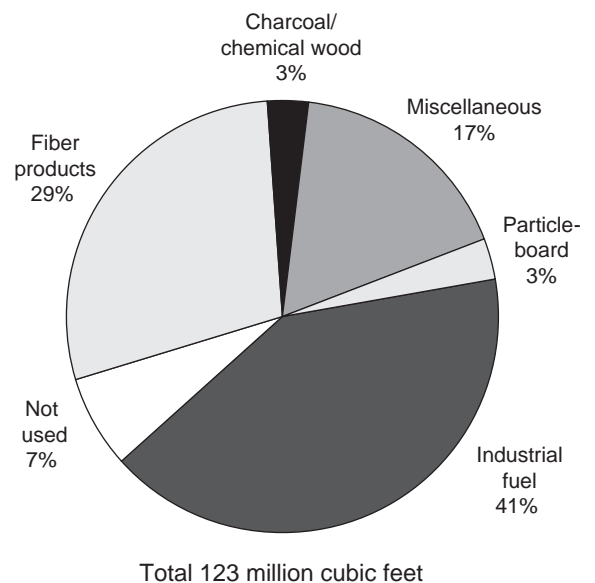


Figure 10—Disposal of residue by product, Tennessee, 2007.

County Data

- Table A.13 shows softwood and hardwood product output by county and individual product type. Out of 95 counties in Tennessee, all but one had hardwood output; however, 8 of the 95 counties did not have softwood output. Seven counties (Hardin, Hickman, Lawrence, Lewis, McNairy, Perry, and Wayne) had combined softwood and hardwood product output of >8 million cubic feet each. These seven counties' total product output amounted to nearly 77 million cubic feet and accounted for 26 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 297 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 325 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;

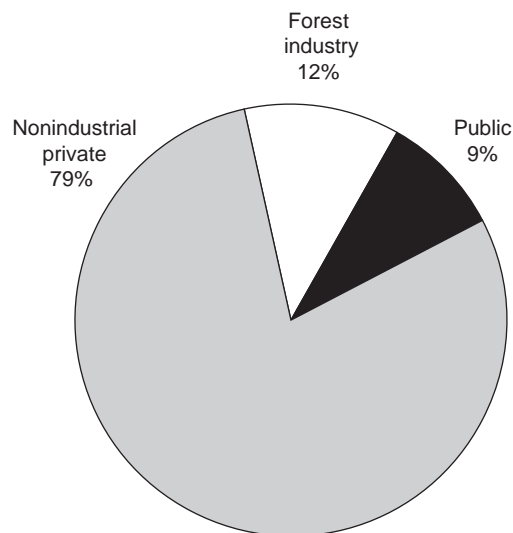
stumps, tops and limbs of trees on timberland; and trees on nonforest land) contributed an estimated 24 million cubic feet, or 7 percent of total roundwood output (fig. 11).

Ownership

- An estimated 257 million cubic feet, or 79 percent, of the total roundwood output in 2007 came from nonindustrial private forest lands. Forest industry lands contributed 38 million cubic feet, or 12 percent of the output. Public lands made up the remaining 9 percent, or 30 million cubic feet (fig. 12).

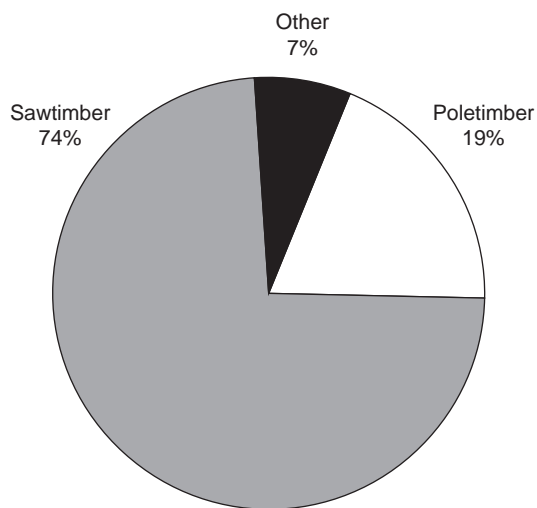
Species

- The loblolly-shortleaf pine group provided more volume than any other softwood species group, accounting for 56 percent of the total softwood output (fig. 13). The other yellow pine type accounted for another 37 percent of the softwood output. The red oak and white oak groups combined accounted for 132 million cubic feet, or 51 percent of total hardwood output (fig. 14).



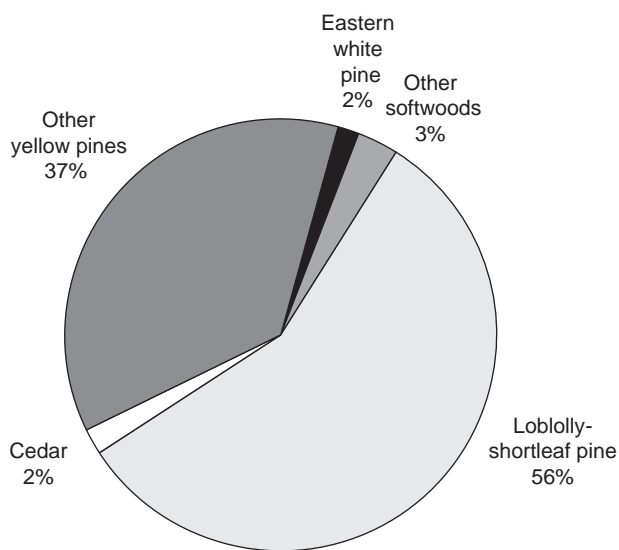
Total 325 million cubic feet

Figure 12—Roundwood output by ownership, Tennessee, 2007.



Total 325 million cubic feet

Figure 11—Roundwood output by source, Tennessee, 2007.



Total 68 million cubic feet

Figure 13—Roundwood output by softwood species group, Tennessee, 2007.

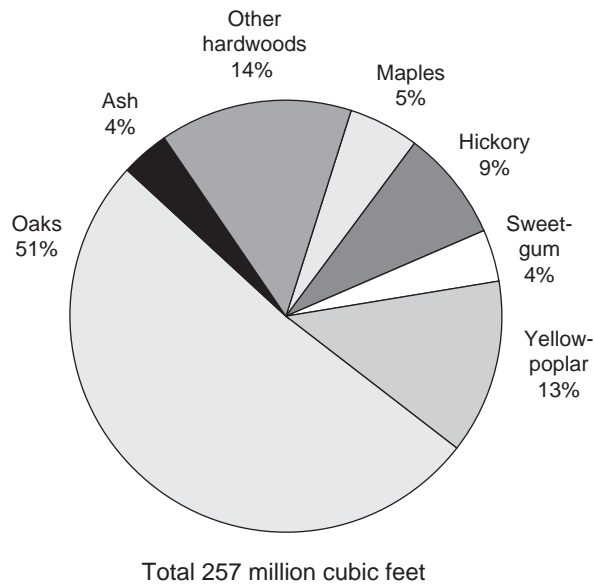


Figure 14—Roundwood output by hardwood species group, Tennessee, 2007.

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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.

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

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

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

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

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

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

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

Hardwoods. Dicotyledonous trees, usually broadleaf and deciduous.

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

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

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

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

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

International ¼-inch rule. A log rule or formula for estimating the board-foot volume of logs, allowing ½-inch of taper for each 4-foot length. The rule appears in a number of forms that allow for kerf. In the form used by FIA, a ¼-inch of kerf is assumed. This rule is used as the 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 nonpulp mills, chipped, and then sold to pulpmills for use as fiber. Includes tops, jump sections, whole trees, and pulpwood sticks.

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

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

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

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

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

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

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

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

Sawtimber volume. Growing-stock volume in the saw-log portion of sawtimber-sized trees in board feet (International 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).

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.		

^a Common and scientific names of tree species ≥ 1.0 inch d.b.h. occurring in the FIA sample.

^b Little (1979).

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

Product and species group	Year		Change	Change
	2005	2007		
	<i>----- thousand cubic feet -----</i>			<i>percent</i>
Saw logs				
Softwood	27,242	13,448	-13,794	-50.6
Hardwood	161,502	152,316	-9,186	-5.7
Total	188,744	165,764	-22,980	-12.2
Veneer logs				
Softwood	239	0	-239	-100.0
Hardwood	1,910	2,365	455	23.8
Total	2,149	2,365	216	10.1
Pulpwood				
Softwood	40,018	43,360	3,342	8.4
Hardwood	81,190	73,834	-7,356	-9.1
Total	121,208	117,194	-4,014	-3.3
Other industrial				
Softwood	9,240	8,218	-1,022	-11.1
Hardwood	3,948	3,565	-383	-9.7
Total	13,188	11,783	-1,405	-10.7
All industrial				
Softwood	76,739	65,026	-11,713	-15.3
Hardwood	248,550	232,080	-16,470	-6.6
Total	325,289	297,106	-28,183	-8.7

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

Product and species group	Year		Change	Change
	2005	2007		
	<i>----- thousand cubic feet -----</i>			<i>percent</i>
Saw logs				
Softwood	7,816	5,815	-2,001	-25.6
Hardwood	158,401	150,802	-7,599	-4.8
Total	166,217	156,617	-9,600	-5.8
Pulpwood				
Softwood	82,852	98,832	15,980	19.3
Hardwood	52,806	53,123	317	0.6
Total	135,658	151,955	16,297	12.0
Other industrial ^a				
Softwood	14,384	12,950	-1,434	-10.0
Hardwood	6,126	5,543	-583	-9.5
Total	20,510	18,493	-2,017	-9.8
Total output				
Softwood	105,052	117,597	12,545	11.9
Hardwood	217,333	209,468	-7,865	-3.6
Total	322,385	327,065	4,680	1.5

^a Includes veneer logs and composite panels.

Table A.3—Number of primary wood-using plants by type of mill, Tennessee, 1960 to 2007

Type of mill	Year									
	1960	1970	1979	1989	1995	1997	1999	2001	2005	2007
	<i>number</i>									
Sawmills	1,135	546	694	490	495	496	440	439	345	320
Veneer mills	9	6	5	3	2	2	2	2	1	1
Pulpmills	5	7	7	6	5	5	5	5	5	5
Composite panel mills	0	0	0	0	0	1	1	1	1	1
Other mills	133	64	32	24	1	1	3	3	2	2
All plants	1,282	623	738	523	503	505	451	450	354	329

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

Sawmill size class ^a <i>mmbf</i>	2005			2007		
	Mills	Volume		Mills	Volume	
	<i>number</i>	<i>mbf</i>	<i>percent</i>	<i>number</i>	<i>mbf</i>	<i>percent</i>
< 1.0	167	45,813	5	147	46,867	5
1.0–4.99	120	304,574	30	113	282,633	30
5.0–9.99	30	215,197	22	36	249,029	26
> 10.0	28	432,513	43	24	362,568	39
Total	345	998,097	100	320	941,097	100

^a Based on volume received as opposed to actual capacity.

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

Species	All mills	Type of mill		
		Sawmills	Pulpmills	Other mills
		<i>thousand cubic feet</i>		
Softwood				
Yellow pine	12,623	2,550	NA	10,073
Eastern white pine	4,739	2,045	NA	2,694
Cedar	790	609	NA	181
Cypress	514	512	NA	2
Other softwood	99	99	NA	0
Unclassified	98,832	0	98,832	0
Total softwoods	117,597	5,815	98,832	12,950
Hardwood				
Blackgum-tupelo	1,888	1,507	NA	381
Soft maple	3,809	3,040	NA	769
Sweetgum	7,076	5,353	NA	1,723
Yellow-poplar	36,575	35,185	NA	1,390
Other soft hardwood	2,623	2,055	NA	568
Hickory	9,643	9,443	NA	200
Red oak	40,982	40,724	NA	258
White oak	37,343	37,110	NA	233
Other hard hardwood	16,406	16,385	NA	21
Unclassified	53,123	0	53,123	0
Total hardwoods	209,468	150,802	53,123	5,543
All species	327,065	156,617	151,955	18,493

NA = not applicable.

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

Year	Production	Exported to other States	Retained	Imported from other States	Receipts
<i>thousand cubic feet</i>					
Softwood					
2005	76,739	31,904	44,835	60,217	105,052
2007	65,026	15,985	49,041	68,556	117,597
Hardwood					
2005	248,550	70,435	178,115	39,218	217,333
2007	232,080	64,356	167,724	41,744	209,468
All species					
2005	325,289	102,339	222,950	99,435	322,385
2007	297,106	80,341	216,765	110,300	327,065

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

Product and species group	Production	Exported to other States	Retained	Imported from other States	Receipts
<i>thousand cubic feet</i>					
Saw logs					
Softwood	13,448	8,588	4,860	955	5,815
Hardwood	152,316	11,927	140,389	10,413	150,802
Total	165,764	20,515	145,249	11,368	156,617
Pulpwood					
Softwood	43,360	7,348	36,012	62,820	98,832
Hardwood	73,834	50,082	23,752	29,371	53,123
Total	117,194	57,430	59,764	92,191	151,955
Other industrial					
Softwood	8,218	49	8,169	4,781	12,950
Hardwood	5,930	2,347	3,583	1,960	5,543
Total	14,148	2,396	11,752	6,741	18,493
All products					
Softwood	65,026	15,985	49,041	68,556	117,597
Hardwood	232,080	64,356	167,724	41,744	209,468
Total	297,106	80,341	216,765	110,300	327,065

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

Destination and source	All species	Species group	
		Softwood	Hardwood
thousand cubic feet			
Tennessee (retained)	145,249	4,860	140,389
Exports to			
Alabama	5,476	4,103	1,373
Georgia	1,078	550	528
Kentucky	6,312	385	5,927
Mississippi	5,068	3,343	1,725
Missouri	804	0	804
North Carolina	1,061	99	962
Virginia	716	108	608
Total	20,515	8,588	11,927
Imports from			
Alabama	4,139	67	4,072
Arkansas	19	0	19
Georgia	173	47	126
Kentucky	2,717	59	2,658
Mississippi	1,230	3	1,227
North Carolina	1,354	495	859
Virginia	1,736	284	1,452
Total	11,368	955	10,413

Table A.9—Pulpwood volume by destination, source, and species group, Tennessee, 2007

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Tennessee (retained)	59,764	36,012	23,752
Exports to			
Alabama	32,722	5,672	27,050
Arkansas	2	0	2
Kentucky	15,609	979	14,630
North Carolina	7,890	1	7,889
South Carolina	304	0	304
Virginia	903	696	207
Total	57,430	7,348	50,082
Imports from			
Alabama	13,363	12,070	1,293
Georgia	26,836	20,314	6,522
Kentucky	3,899	1,024	2,875
Mississippi	33,671	27,730	5,941
North Carolina	7,823	1,180	6,643
South Carolina	503	502	1
Virginia	6,096	0	6,096
Total	92,191	62,820	29,371

Table A.10—Other industrial volume by destination, source, and species group, Tennessee, 2007

Destination and source	All species	Species group	
		Softwood	Hardwood
		<i>thousand cubic feet</i>	
Tennessee (retained)	11,734	8,169	3,565
Exports to			
Georgia	870	6	864
Indiana	84	0	84
Kentucky	43	43	0
North Carolina	1,315	0	1,315
Virginia	84	0	84
Total	2,396	49	2,347
Imports from			
Alabama	732	518	214
Georgia	3,093	2,196	897
Kentucky	2,550	1,808	742
South Carolina	366	259	107
Total	6,741	4,781	1,960

Table A.11—Primary mill residue volume by roundwood type, species group, and residue type, Tennessee, 2007

Roundwood type and species group	All types	Residue type			
		Bark	Coarse	Sawdust	Shavings
<i>thousand cubic feet</i>					
Saw logs					
Softwood	3,236	392	1,724	1,034	86
Hardwood	98,525	15,634	51,934	30,358	599
Total	101,761	16,026	53,658	31,392	685
Pulpwood					
Softwood	10,226	10,226	0	0	0
Hardwood	6,705	6,705	0	0	0
Total	16,931	16,931	0	0	0
Other industrial ^a					
Softwood	2,399	2,398	1	0	0
Hardwood	1,457	1,387	52	18	0
Total	3,856	3,785	53	18	0
Total					
Softwood	15,861	13,016	1,725	1,034	86
Hardwood	106,687	23,726	51,986	30,376	599
Total	122,548	36,742	53,711	31,410	685

^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, 2005 and 2007

Product and species group	All types		Bark		Coarse		Sawdust		Shavings	
	2005	2007	2005	2007	2005	2007	2005	2007	2005	2007
<i>thousand cubic feet</i>										
Fiber products										
Softwood	1,543	947	0	0	1,543	947	0	0	0	0
Hardwood	37,278	33,877	0	0	37,278	33,877	0	0	0	0
Total	38,821	34,824	0	0	38,821	34,824	0	0	0	0
Particleboard										
Softwood	181	53	0	0	140	38	41	15	0	0
Hardwood	2,329	3,702	0	0	1,672	2,993	657	687	0	22
Total	2,510	3,755	0	0	1,812	3,031	698	702	0	22
Charcoal/ chemical wood										
Softwood	12	90	0	0	11	63	1	27	0	0
Hardwood	1,270	3,709	22	44	471	1,264	777	2,401	0	0
Total	1,282	3,799	22	44	482	1,327	778	2,428	0	0
Sawn products										
Softwood	0	1	0	0	0	1	0	0	0	0
Hardwood	0	8	0	0	0	8	0	0	0	0
Total	0	9	0	0	0	9	0	0	0	0
Industrial fuel										
Softwood	12,009	13,263	10,987	12,571	188	170	827	518	7	4
Hardwood	41,796	37,160	11,675	11,642	6,362	4,425	23,203	20,852	556	241
Total	53,805	50,423	22,662	24,213	6,550	4,595	24,030	21,370	563	245
Miscellaneous										
Softwood	1,301	1,211	514	401	252	312	451	417	84	81
Hardwood	21,400	19,938	11,224	10,408	4,155	4,436	5,755	4,772	266	322
Total	22,701	21,149	11,738	10,809	4,407	4,748	6,206	5,189	350	403
Not used										
Softwood	298	296	39	44	185	194	73	57	1	1
Hardwood	7,701	8,293	1,506	1,632	4,673	4,983	1,514	1,664	8	14
Total	7,999	8,589	1,545	1,676	4,858	5,177	1,587	1,721	9	15
All products										
Softwood	15,344	15,861	11,540	13,016	2,319	1,725	1,393	1,034	92	86
Hardwood	111,774	106,687	24,427	23,726	54,611	51,986	31,906	30,376	830	599
Total	127,118	122,548	35,967	36,742	56,930	53,711	33,299	31,410	922	685

Table A.13—Roundwood timber products output by county, product, and species group, Tennessee, 2007

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	80	4,287	52	2,103	0	177	28	2,007	0	0	0	0
Bedford	805	321	109	244	0	0	696	77	0	0	0	0
Benton	1,360	1,763	81	1,331	0	0	1,272	400	0	0	7	32
Bledsoe	809	1,169	81	373	0	5	728	791	0	0	0	0
Blount	91	958	10	557	0	0	81	401	0	0	0	0
Bradley	1,224	873	184	452	0	0	1,040	421	0	0	0	0
Campbell	121	4,280	121	1,777	0	42	0	2,461	0	0	0	0
Cannon	37	2,338	28	2,112	0	0	9	226	0	0	0	0
Carroll	928	5,079	228	3,980	0	0	695	1,020	0	0	5	79
Carter	89	1,514	89	1,157	0	357	0	0	0	0	0	0
Cheatham	7	1,909	7	1,909	0	0	0	0	0	0	0	0
Chester	1,306	2,857	641	2,150	0	0	665	707	0	0	0	0
Claiborne	75	2,785	75	1,852	0	111	0	822	0	0	0	0
Clay	25	1,435	25	1,435	0	0	0	0	0	0	0	0
Cocke	229	870	179	595	0	228	50	47	0	0	0	0
Coffee	173	1,393	82	1,060	0	0	91	333	0	0	0	0
Crockett	8	0	0	0	0	0	8	0	0	0	0	0
Cumberland	1,923	3,892	0	1,605	0	0	1,018	1,916	905	371	0	0
Davidson	0	402	0	402	0	0	0	0	0	0	0	0
Decatur	2,257	3,663	14	2,803	0	0	2,243	860	0	0	0	0
DeKalb	140	2,097	140	2,073	0	0	0	24	0	0	0	0
Dickson	14	3,798	14	2,634	0	0	0	1,164	0	0	0	0
Dyer	22	967	22	881	0	0	0	86	0	0	0	0
Fayette	169	1,357	0	1,011	0	0	169	346	0	0	0	0
Fentress	89	1,683	43	1,156	0	0	46	527	0	0	0	0
Franklin	137	5,015	118	3,313	0	84	19	1,618	0	0	0	0
Gibson	32	507	0	465	0	0	32	42	0	0	0	0
Giles	265	4,385	100	3,934	0	0	165	451	0	0	0	0
Grainger	0	2,316	0	2,314	0	2	0	0	0	0	0	0
Greene	75	2,300	75	1,943	0	357	0	0	0	0	0	0
Grundy	1,286	5,822	54	2,127	0	0	1,232	3,695	0	0	0	0
Hamblen	0	1,007	0	1,006	0	0	0	1	0	0	0	0
Hamilton	1,324	727	164	488	0	3	1,154	236	0	0	6	0
Hancock	64	1,154	64	1,154	0	0	0	0	0	0	0	0
Hardeman	1,824	5,165	851	3,531	0	0	973	1,634	0	0	0	0
Hardin	5,599	6,155	1,317	3,930	0	9	4,282	2,216	0	0	0	0
Hawkins	119	2,847	119	1,587	0	477	0	783	0	0	0	0
Haywood	37	1,234	33	1,225	0	0	4	9	0	0	0	0
Henderson	349	2,730	8	1,608	0	0	341	1,122	0	0	0	0
Henry	584	3,239	135	2,715	0	0	442	445	0	0	7	79
Hickman	474	8,414	29	2,864	0	0	445	5,550	0	0	0	0
Houston	7	3,133	1	2,006	0	0	6	1,127	0	0	0	0
Humphreys	984	4,209	0	2,649	0	0	984	1,560	0	0	0	0
Jackson	116	2,094	116	2,094	0	0	0	0	0	0	0	0
Jefferson	0	278	0	278	0	0	0	0	0	0	0	0
Johnson	355	1,992	355	1,811	0	3	0	178	0	0	0	0
Knox	425	450	1	395	0	0	424	55	0	0	0	0
Lake	0	148	0	148	0	0	0	0	0	0	0	0
Lauderdale	12	1,089	12	1,087	0	0	0	2	0	0	0	0

continued

Table A.13—Roundwood timber products output by county, product, and species group, Tennessee, 2007 (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	3,386	4,659	1,456	3,513	0	0	1,930	1,146	0	0	0	0
Lewis	295	8,668	30	2,823	0	0	265	5,845	0	0	0	0
Lincoln	136	1,624	136	1,329	0	0	0	295	0	0	0	0
Loudon	338	84	1	58	0	0	337	26	0	0	0	0
Macon	27	4,444	27	4,444	0	0	0	0	0	0	0	0
Madison	222	3,251	25	2,564	0	0	197	687	0	0	0	0
Marion	2,201	3,672	2	1,239	0	0	2,199	2,433	0	0	0	0
Marshall	59	283	56	227	0	0	3	56	0	0	0	0
Maurry	109	2,942	3	2,073	0	0	106	869	0	0	0	0
McMinn	4,308	2,405	77	576	0	0	2,291	1,033	1,940	796	0	0
McNairy	3,443	5,924	1,271	3,420	0	0	2,172	2,504	0	0	0	0
Meigs	728	1,035	0	463	0	88	728	484	0	0	0	0
Monroe	3,912	3,311	268	990	0	6	410	988	3,234	1,327	0	0
Montgomery	204	2,140	14	2,095	0	0	190	45	0	0	0	0
Moore	66	799	66	644	0	0	0	155	0	0	0	0
Morgan	308	1,672	307	1,193	0	0	1	479	0	0	0	0
Obion	82	2,223	77	1,736	0	0	5	487	0	0	0	0
Overton	228	3,970	218	3,691	0	0	10	279	0	0	0	0
Perry	386	11,671	13	5,825	0	0	373	5,846	0	0	0	0
Pickett	16	641	16	641	0	0	0	0	0	0	0	0
Polk	951	1,111	364	448	0	0	587	663	0	0	0	0
Putnam	170	2,142	163	2,110	0	0	7	32	0	0	0	0
Rhea	3,354	2,014	95	290	0	13	1,189	862	2,070	849	0	0
Roane	29	1,127	19	940	0	0	10	187	0	0	0	0
Robertson	14	506	14	506	0	0	0	0	0	0	0	0
Rutherford	14	353	14	352	0	0	0	1	0	0	0	0
Scott	314	5,042	271	2,788	0	42	0	2,212	0	0	43	0
Sequatchie	754	1,491	39	423	0	0	715	1,068	0	0	0	0
Sevier	50	307	38	268	0	0	12	39	0	0	0	0
Shelby	27	646	3	639	0	0	24	7	0	0	0	0
Smith	257	1,063	257	1,063	0	0	0	0	0	0	0	0
Stewart	967	3,494	2	2,243	0	0	965	1,251	0	0	0	0
Sullivan	25	499	25	499	0	0	0	0	0	0	0	0
Sumner	0	1,395	0	1,395	0	0	0	0	0	0	0	0
Tipton	0	823	0	822	0	0	0	1	0	0	0	0
Trousdale	14	406	14	406	0	0	0	0	0	0	0	0
Unicoi	94	1,217	94	940	0	277	0	0	0	0	0	0
Union	80	1,004	0	800	0	0	80	204	0	0	0	0
Van Buren	950	1,725	60	1,002	0	0	890	723	0	0	0	0
Warren	198	2,657	190	2,051	0	0	8	606	0	0	0	0
Washington	55	1,407	55	1,407	0	0	0	0	0	0	0	0
Wayne	8,498	9,336	1,702	3,998	0	0	6,796	5,338	0	0	0	0
Weakley	984	2,532	113	1,832	0	0	870	668	0	0	1	32
White	674	4,535	26	3,580	0	0	648	955	0	0	0	0
Williamson	0	1,006	0	1,006	0	0	0	0	0	0	0	0
Wilson	50	724	50	640	0	84	0	0	0	0	0	0
All counties	65,026	232,080	13,448	152,316	0	2,365	43,360	73,834	8,149	3,343	69	222

Table A.14—Total roundwood output by product, species group, and source of material, Tennessee, 2007

Product and species group	All sources	Total	Growing-stock trees		Other sources
			Sawtimber	Poletimber	
thousand cubic feet					
Saw logs					
Softwood	13,448	13,112	12,398	713	336
Hardwood	152,316	148,750	139,825	8,925	3,566
Total	165,764	161,862	152,223	9,639	3,902
Veneer logs and bolts					
Softwood	0	0	0	0	0
Hardwood	2,365	2,324	2,324	0	41
Total	2,365	2,324	2,324	0	41
Pulpwood					
Softwood	43,360	40,065	25,029	15,035	3,295
Hardwood	73,834	65,373	37,078	28,296	8,461
Total	117,194	105,438	62,107	43,331	11,756
Poles and posts					
Softwood	20	15	8	7	5
Hardwood	0	0	0	0	0
Total	20	15	8	7	5
Other miscellaneous					
Softwood	8,198	7,146	4,127	3,019	1,052
Hardwood	3,565	2,971	1,157	1,814	594
Total	11,763	10,117	5,283	4,833	1,646
Total industrial products					
Softwood	65,026	60,337	41,562	18,775	4,689
Hardwood	232,080	219,419	180,383	39,035	12,661
Total	297,106	279,756	221,946	57,810	17,350
Domestic fuelwood					
Softwood	3,054	2,717	2,012	706	337
Hardwood	24,591	18,689	14,754	3,935	5,902
Total	27,645	21,407	16,766	4,641	6,238
All products					
Softwood	68,080	63,055	43,574	19,481	5,025
Hardwood	256,671	238,108	195,138	42,970	18,563
Total	324,751	301,162	238,712	62,451	23,589

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, 2007

Species group and survey region	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
<i>thousand cubic feet</i>				
Softwoods				
West	10,500	493	1,170	8,837
West Central	25,349	1,405	8,507	15,437
Central	2,651	255	0	2,396
Plateau	10,655	1,597	4,053	5,005
East	18,925	132	935	17,858
Total softwoods	68,080	3,882	14,666	49,533
Hardwoods				
West	43,984	8,812	527	34,645
West Central	72,069	8,932	8,262	54,875
Central	41,871	2,888	696	38,287
Plateau	54,642	4,785	12,889	36,967
East	44,105	424	1,131	42,549
Total hardwoods	256,671	25,842	23,505	207,324
All species	324,751	29,724	38,171	256,857

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, 2007

Species group and detailed species group	Total	Product					Domestic fuelwood
		Saw log	Veneer	Pulpwood	Poles and posts	Other miscellaneous	
					<i>thousand cubic feet</i>		
Softwood							
Cedar	1,362	402	0	767	1	131	61
Eastern white pine	1,071	447	0	524	2	50	48
Loblolly-shortleaf pine	38,472	8,893	0	27,821	13	19	1,726
Other yellow pines	24,981	3,548	0	14,007	5	6,299	1,121
Cypress	26	5	0	19	0	0	1
Hemlock	2,169	152	0	222	0	1,698	97
Total softwoods	68,080	13,448	0	43,360	20	8,198	3,054
Hardwood							
Soft maple	7,038	4,531	331	1,432	0	70	674
Hard maple	6,164	2,909	0	2,663	0	1	591
Other birch	109	63	0	35	0	0	10
Yellow birch	2,491	684	4	669	0	895	239
Hickory	21,939	13,289	63	6,420	0	64	2,102
Beech	4,134	3,031	2	704	0	0	396
Ash	9,606	7,119	54	1,497	0	15	921
Black walnut	4,911	3,897	45	485	0	12	471
Sweetgum	9,433	6,348	28	2,004	0	150	904
Yellow-poplar	33,676	22,913	297	6,952	0	288	3,226
Blackgum-tupelo	2,719	1,407	2	1,003	0	47	260
Sycamore	5,301	3,574	330	890	0	0	507
Cottonwood	1,932	1,385	0	362	0	0	185
Black cherry	2,777	1,856	25	623	0	8	266
Select white oaks	47,507	25,246	492	16,487	0	731	4,551
Other white oaks	30,074	15,707	209	11,239	0	37	2,881
Select red oaks	12,649	7,549	0	3,667	0	221	1,212
Other red oaks	41,779	22,074	348	14,461	0	892	4,003
Basswood	814	613	90	33	0	0	78
Elm	3,776	2,414	28	916	0	55	362
Other eastern hardwoods	7,844	5,707	16	1,292	0	77	752
Total hardwoods	256,671	152,316	2,365	73,834	0	3,565	24,591
All species	324,751	165,764	2,365	117,194	20	11,763	27,645

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, 2007

Species group and detailed species group	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
<i>thousand cubic feet</i>				
Softwood				
Cedar	1,362	79	66	1,217
Eastern white pine	1,071	28	46	997
Loblolly-shortleaf pine	38,472	2,458	9,113	26,901
Other yellow pines	24,981	1,273	5,439	18,270
Cypress	26	4	0	22
Hemlock	2,169	40	2	2,127
Total softwoods	68,080	3,882	14,666	49,533
Hardwood				
Soft maple	7,038	966	1,080	4,993
Hard maple	6,164	1,530	2,013	2,621
Other birch	109	1	2	106
Yellow birch	2,491	32	0	2,459
Hickory	21,939	3,331	1,296	17,312
Beech	4,134	268	139	3,726
Ash	9,606	1,106	148	8,353
Black walnut	4,911	149	137	4,625
Sweetgum	9,433	1,509	349	7,575
Yellow-poplar	33,676	2,167	2,217	29,292
Blackgum-tupelo	2,719	174	332	2,213
Sycamore	5,301	583	87	4,632
Cottonwood	1,932	384	12	1,535
Black cherry	2,777	196	384	2,198
Select white oaks	47,507	5,000	3,556	38,951
Other white oaks	30,074	2,022	4,991	23,060
Select red oaks	12,649	1,369	907	10,373
Other red oaks	41,779	3,340	5,181	33,257
Basswood	814	5	2	807
Elm	3,776	433	328	3,014
Other eastern hardwoods	7,844	1,279	343	6,222
Total hardwoods	256,671	25,842	23,505	207,324
All species	324,751	29,724	38,171	256,857

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

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In 2007, roundwood output from Tennessee's forests was 297 million cubic feet. Mill byproducts generated from primary manufacturers totaled 114 million cubic feet. Seventy percent of the plant residues were used primarily for fuel and fiber products. Saw logs were the leading roundwood product at 166 million cubic feet; pulpwood ranked second at 117 million cubic feet; other industrial products were third at 12 million cubic feet. There were 329 primary processing plants operating in Tennessee in 2007. Total receipts amounted to 327 million cubic feet.

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



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