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South Carolina's Timber Industry—An Assessment of Timber Product Output and Use, 2009

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and Tim O. Adams**

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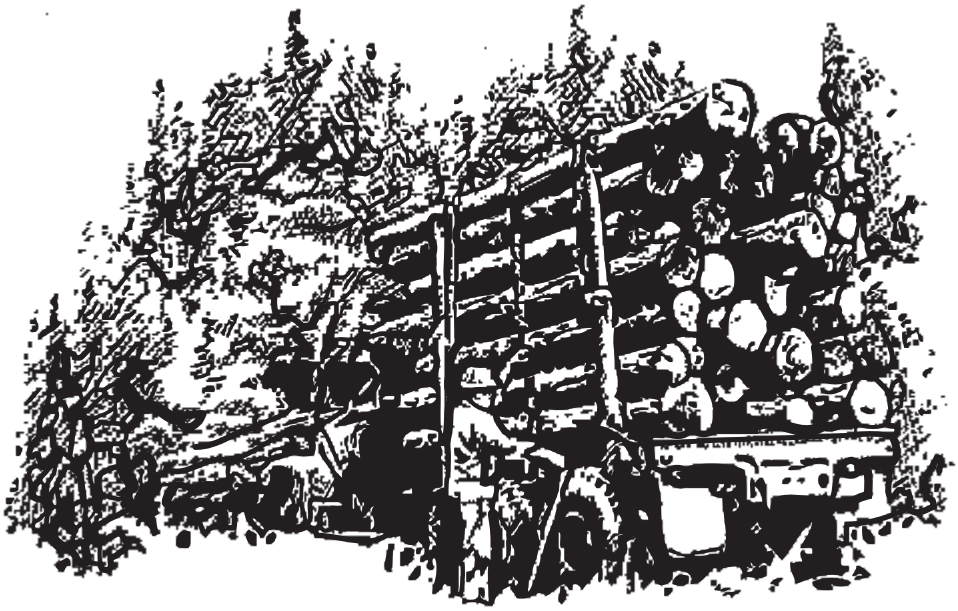

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Foreword

This report contains the findings of a 2009 canvass of all primary wood-using plants in South Carolina, and presents changes in product output and residue use since 2007. It complements the Forest Inventory and Analysis annual 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 2009 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 South Carolina was conducted in 2010 to obtain information for 2009. In addition, roundwood from out-of-State mills known to be using logs or bolts harvested from South Carolina timberland was incorporated into South Carolina 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 1936, 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 Southern Research Station (SRS) gratefully acknowledges the tremendous cooperation and assistance provided by the South Carolina Forestry Commission (Byron Rominger and the FIA field crew) in collecting mill data. Appreciation is also extended to forest industry and mill managers for providing timber products information.

The authors thank Byron Rominger, Dr. Thomas Straka, and Micky Scott for review and comments; Carolyn Steppleton and Michael Howell for their tireless efforts in processing and accuracy of data; Helen Beresford for timber product output database maintenance and support; Anne Jenkins, Janet Griffin, Sharon Johnson, and Charlene Walker for tables, graphs, statistical checking, and styling; and the SRS Technical Publications Team for editorial review and publication of this report.

Timber Product Output Database Retrieval System

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

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

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

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

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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.

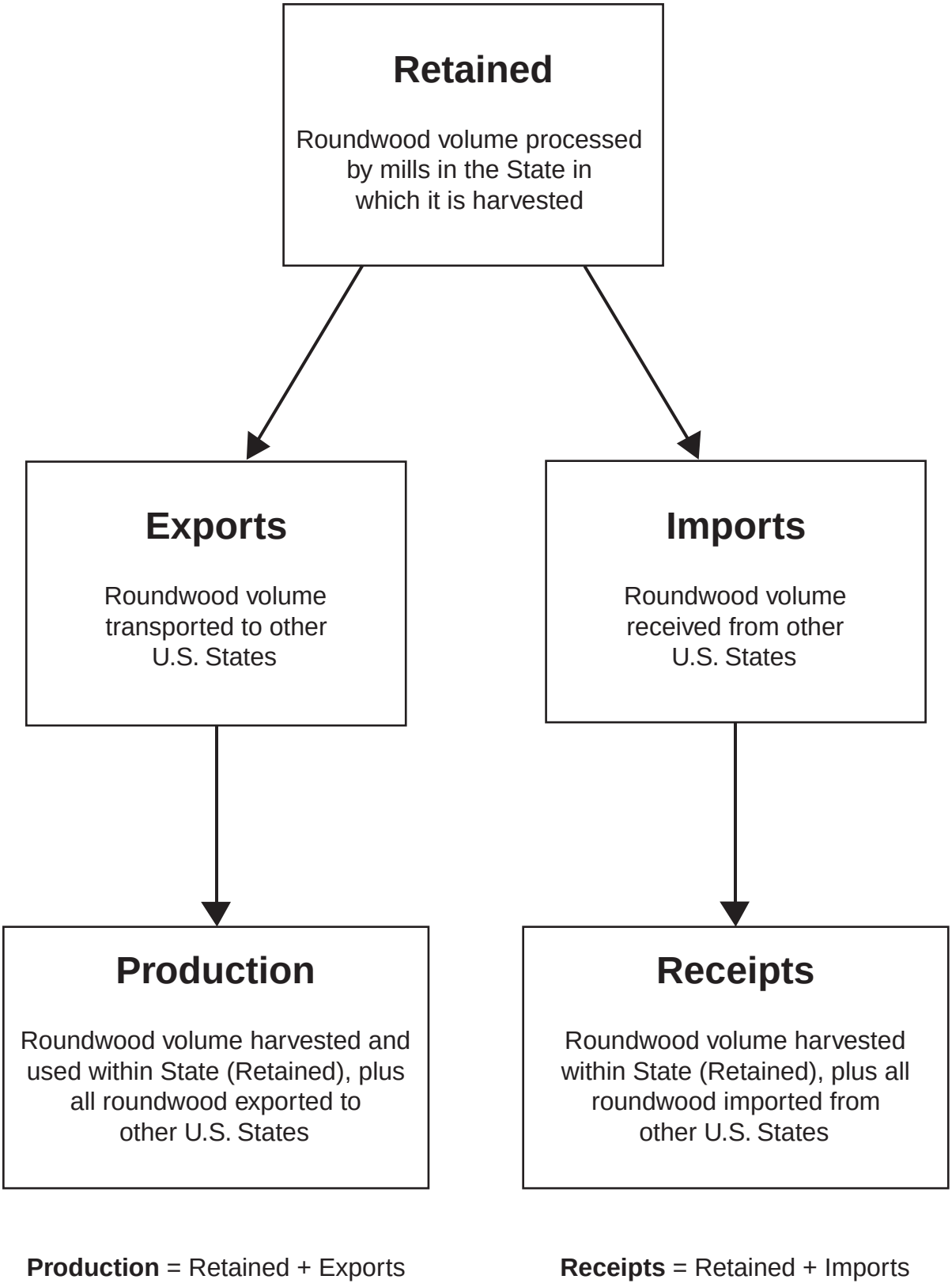

Figure 1—Movement of roundwood exports and imports within the United States.

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Output of Industrial Timber Products

Note: Certain terms used in this bulletin—retained, export, import, production, and receipts—have specialized meanings unique to the Forest Inventory and Analysis Work Units across the country that deal with timber product output (TPO) (fig. 1). Unless otherwise indicated, the context for production and receipts comparisons (increases, decreases, and stabilizations) throughout the report is from 2007 to 2009.

All Products

- Industrial TPO from roundwood was down 48.6 million cubic feet, or 8 percent, from 612.8 million cubic feet in 2007 to 564.2 million cubic feet in 2009.
- With the exception of pulpwood and other industrial products, all product output categories were down substantially in 2009. Output of softwood roundwood products was down 8 percent to 471.9 million cubic feet, while hardwood roundwood products declined 7 percent to 92.3 million cubic feet (fig. 2).
- Pulpwood and saw logs were the principal roundwood products in 2009. Combined output of these products totaled 486.9 million cubic feet and accounted for 86 percent of South Carolina's total roundwood output (fig. 3).
- Total receipts at South Carolina mills, which included roundwood harvested and retained in the State and roundwood imported from other States, declined 4 percent to 547.3 million cubic feet, while output of utilized plant byproducts declined 24 percent to 133.2 million cubic feet.
- The number of primary roundwood-using plants in South Carolina increased by two in 2009 to 77 mills. Six sawmills closed and one sawmill reopened for a net loss of five sawmills. One post mill closed and two veneer mills closed, however, the State gained 10 new other mills such as mulch and shavings mills (fig. 4).

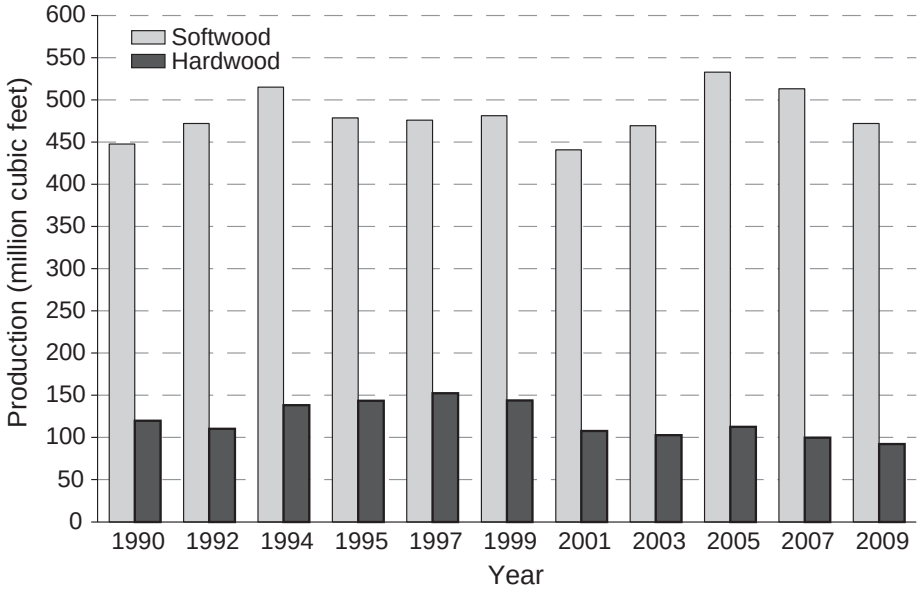

Figure 2—Roundwood production for all products by species group and year (see page 7 for references for individual years), South Carolina.

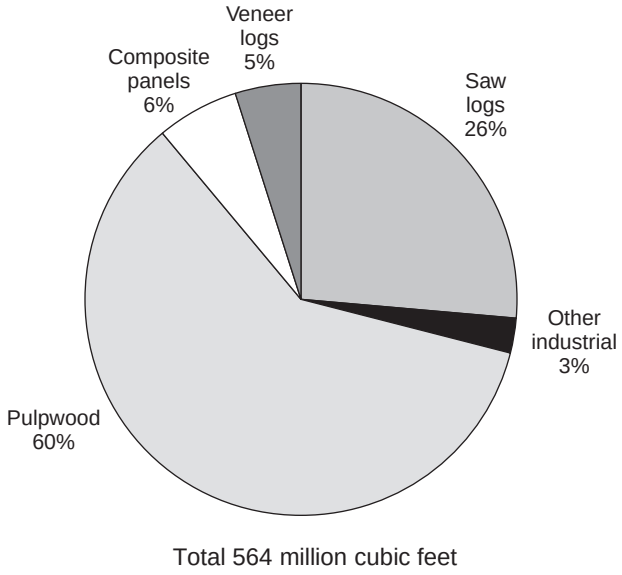

Figure 3—Roundwood production by type of product, South Carolina, 2009.

- Across all products, 87 percent of roundwood harvested was retained for processing at South Carolina mills. Exports of roundwood to other States amounted to 75.9 million cubic feet, while imports of roundwood amounted to 59.0 million cubic feet making the State a net exporter of roundwood. Tables A.8 to A.11 show exports to and imports from other States by individual product type.

Pulpwood

- Since 2007, pulpwood production, including chipped roundwood, increased 34.6 million cubic feet to 338.1 million cubic feet and accounted for 60 percent of the State's total roundwood TPO. Softwood output increased 15 percent to 265.1 million cubic feet (3.9 million cords), while hardwood output remained stable at 73.0 million cubic feet (1.0 million cords) (fig. 5).

- Seven pulpmill facilities were operating and receiving roundwood in South Carolina in 2009, the same since 1999. Total pulpwood receipts for these mills were up 36.6 million cubic feet to 321.1 million cubic feet, accounting for 59 percent of total receipts for all mills.

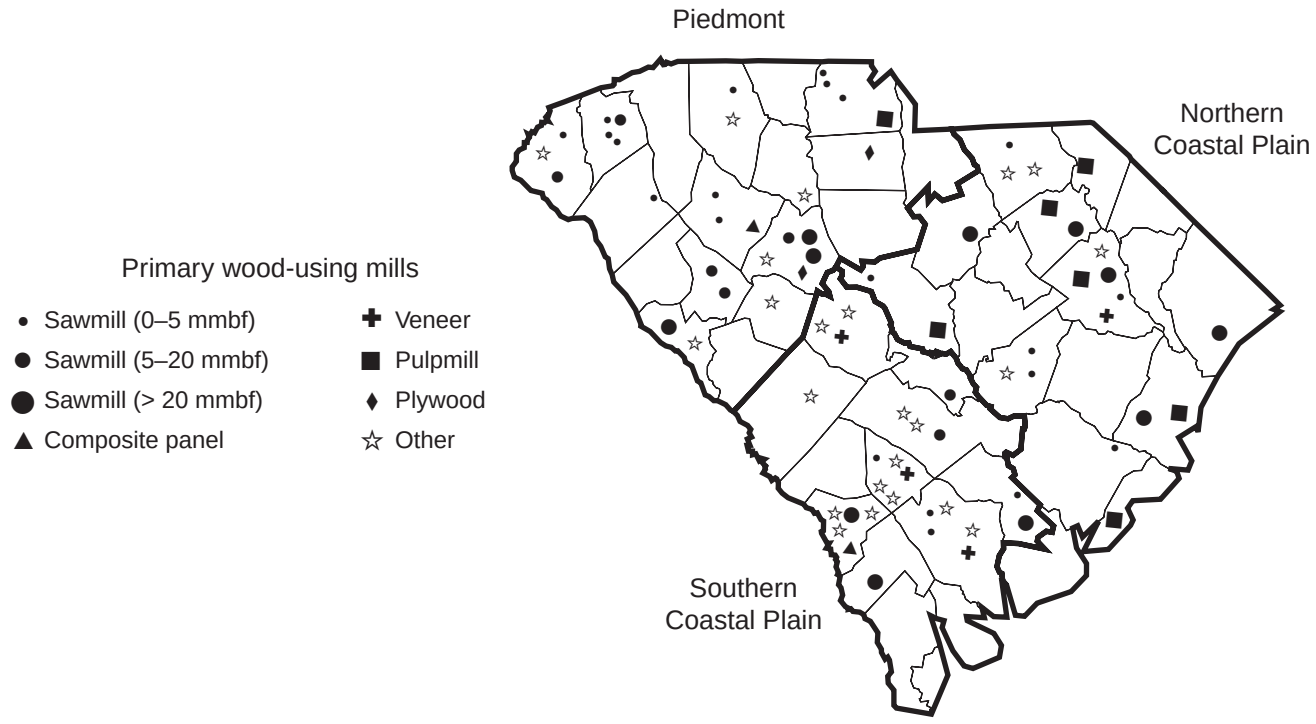

Figure 4—Primary wood-using mills by region, South Carolina, 2009.

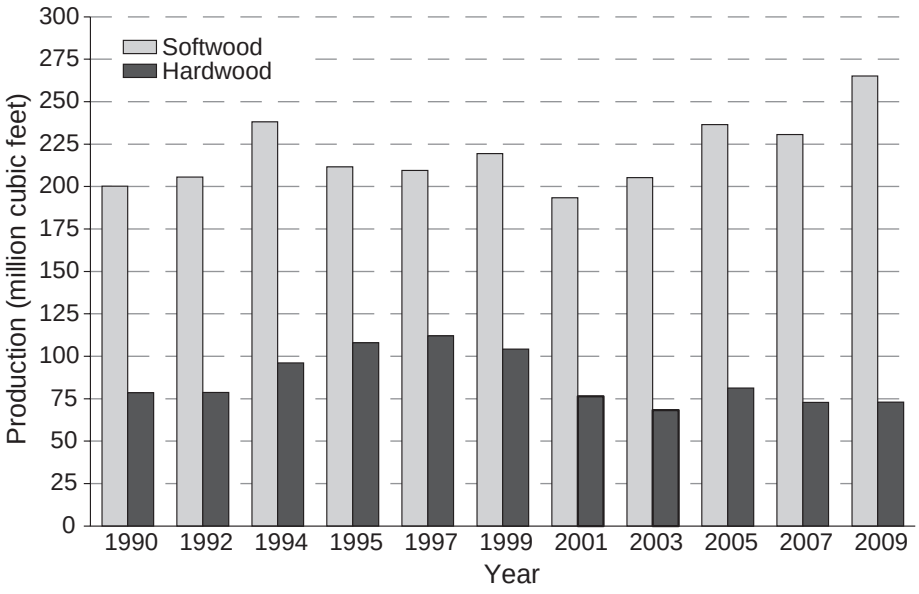

Figure 5—Roundwood pulpwood production by species group and year (see page 7 for references for individual years), South Carolina.

- Eighty-three percent of roundwood cut for pulpwood was retained for processing at South Carolina pulpmills. Roundwood pulpwood accounted for 74 percent of total known exports and 67 percent of total imports. Roundwood pulpwood exports amounted to 56.2 million cubic feet, or 16.9 million cubic feet more than was imported.

Saw Logs

- Saw logs accounted for 26 percent of the State's total roundwood products. Output of softwood saw logs declined 34 percent to 134.5 million cubic feet (747.5 million board feet, International ¼-inch rule); hardwood saw-log output declined 35 percent to 14.3 million cubic feet (85.5 million board feet, International ¼-inch rule) (fig. 6).

- In 2009, South Carolina had 39 sawmills, 5 fewer than in 2007. Total saw-log receipts were down 60.5 million cubic feet to 139.5 million cubic feet. Softwood saw-log receipts declined 30 percent to 130.1 million cubic feet, while hardwood receipts were down 37 percent to 9.4 million cubic feet.

- Of the 39 sawmills operating in 2009, 9 mills, or 23 percent, had receipts of <1 million board feet, while 12, or 31 percent of the mills, had receipts >10 million board feet. Those 12 mills accounted for 89 percent, or 696.2 million board feet, International ¼-inch rule, of saw-log receipts.

- South Carolina retained 88 percent of its saw-log production for within State manufacture, with saw-log exports exceeding imports by >9.3 million cubic feet in 2009.

Veneer Logs

- Output of veneer logs in 2009 totaled 27.7 million cubic feet and accounted for 5 percent of South Carolina's total roundwood TPO volume. Softwood veneer production was down 28 percent to 23.9 million cubic feet (136.1 million board feet, International ¼-inch rule); output of hardwood veneer logs dropped 20 percent to 3.8 million cubic feet (23.3 million board feet, International ¼-inch rule) (fig. 7).

- Six veneer mills were operating in South Carolina, two less than in 2007. Receipts of veneer logs were down 12 percent to 32.1 million cubic feet. Softwood veneer receipts declined 10 percent to 28.1 million cubic feet, while hardwood veneer receipts fell 19 percent, or 1.0 million cubic feet, to 4.0 million cubic feet.

- South Carolina retained 95 percent of its veneer-log production for processing at veneer mills within the State. Exports amounted to 1.4 million cubic feet, while imports totaled 5.7 million cubic feet.

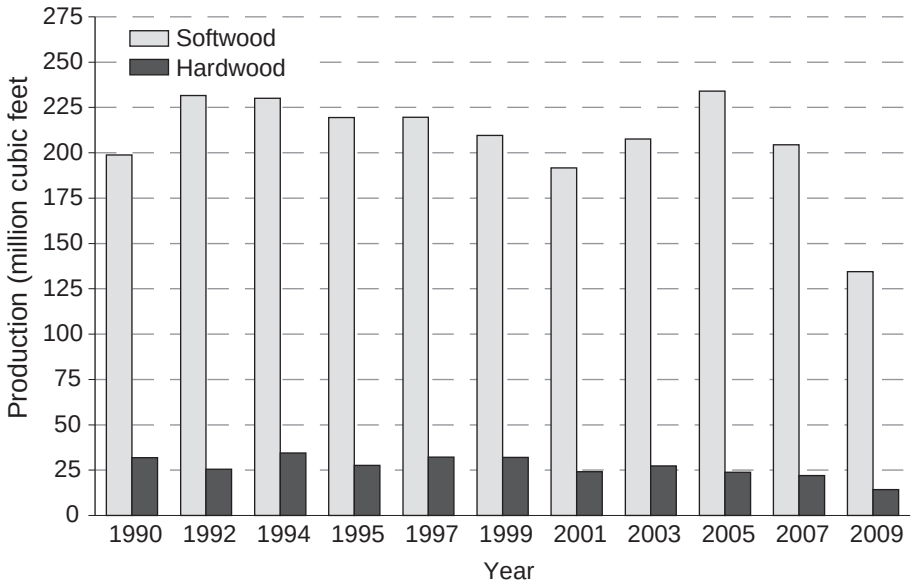

Figure 6—Roundwood saw-log production by species and year (see page 7 for references for individual years), South Carolina.

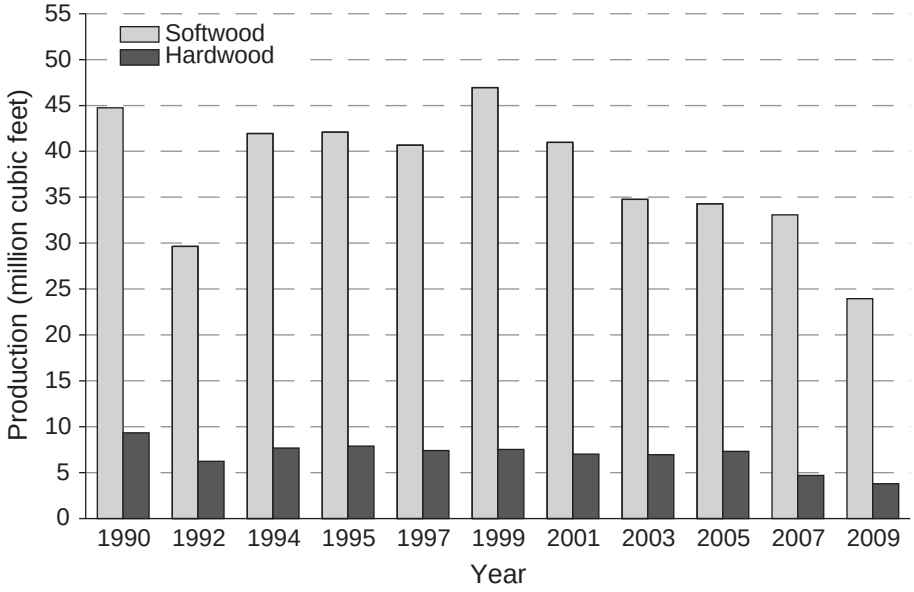

Figure 7—Roundwood veneer-log production by species and year (see page 7 for references for individual years), South Carolina.

Composite Panels

- Roundwood harvested from South Carolina's forests for composite panels declined 12 percent to 34.7 million cubic feet (506,000 cords). Softwood output accounted for all of composite panel production in South Carolina.

Other Industrial Products

- Roundwood harvested for other industrial uses such as poles, posts, mulch, industrial fuelwood, residential firewood, logs for log homes, and all other industrial products totaled 14.8 million cubic feet, a 163-percent increase since 2007. Softwood made-up 92 percent of the other industrial products volume.

- The number of plants producing other industrial products totaled 23 in 2009. Industrial fuel accounted for 5.3 million cubic feet of receipt volume for this category.

Plant Byproducts

- In 2009, processing of primary products in South Carolina mills generated 133.2 million cubic feet of wood and bark residues. Coarse residues from all primary products accounted for 32 percent, or 43.0 million cubic feet, and bark volume accounted for 38 percent, or 50.9 million cubic feet. Sawdust and shavings made-up 30 percent of total residues, or 39.3 million cubic feet (fig. 8).

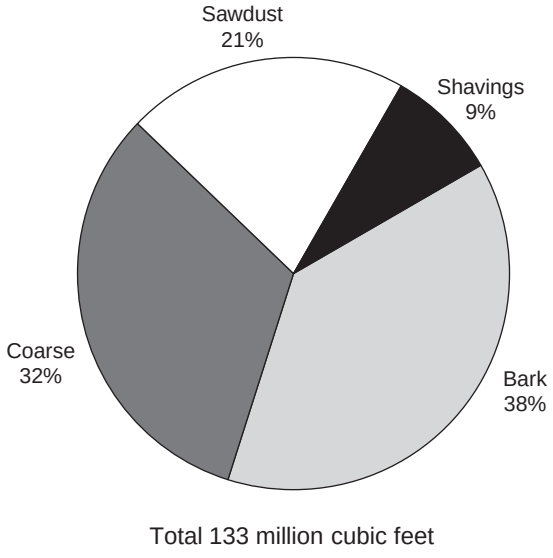

Figure 8—Primary mill residue by residue type, South Carolina, 2009.

- The processing of saw logs generated 78.6 million cubic feet of mill residues, accounting for 59 percent of the total residues produced (fig. 9).

- All of the wood and bark residues were used for products. Fifty-six percent, or 74.5 million cubic feet, of the residue was used for industrial fuel (fig. 10). Eighty-six percent of the bark was used for industrial fuel, while 75 percent

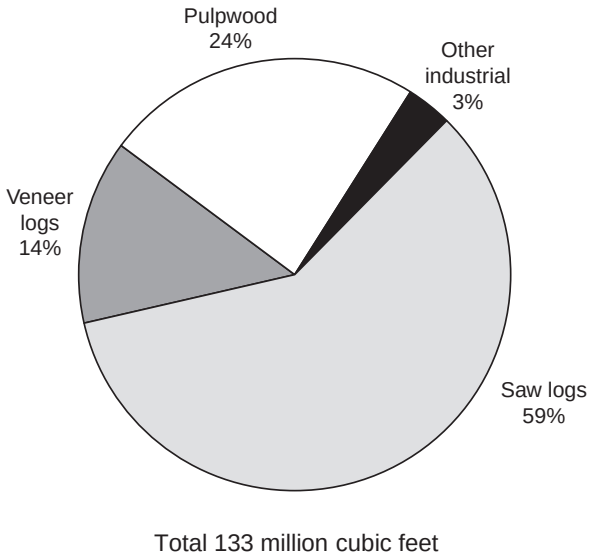

Figure 9—Primary mill residue produced by roundwood type, South Carolina, 2009.

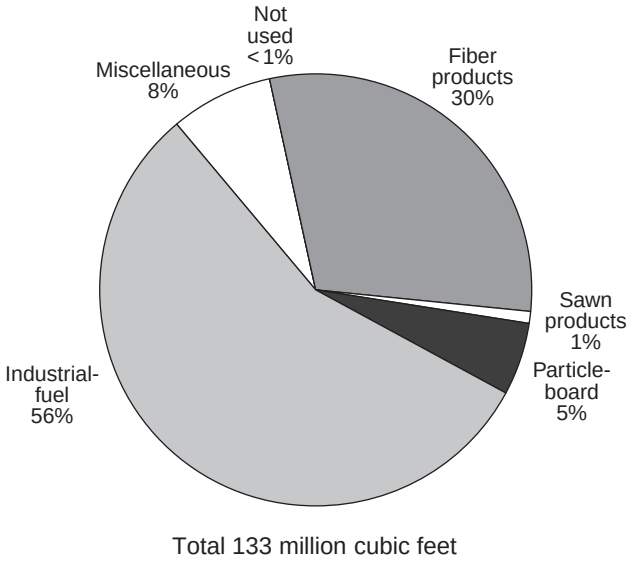

Figure 10—Disposal of residue by product, South Carolina, 2009.

of the sawdust and shavings were used for industrial fuel. Nearly 40.0 million cubic feet, or 93 percent, of the coarse residues were used to manufacture fiber products.

County Data

- Table A.14 shows softwood and hardwood product output by county and individual product type. All 46 counties in South Carolina had softwood and hardwood output. Four counties (Colleton, Fairfield, Florence, and Georgetown) had combined softwood and hardwood product output of >20 million cubic feet each. These four counties total product output amounted to >110.1 million cubic feet and accounted for 20 percent of the State's total product output.

Total Roundwood Output

Using the latest inventory data for South Carolina, product output was estimated by source, ownership, and detailed species group.

Source

- In addition to the 564.2 million cubic feet of roundwood output for industrial roundwood products, an estimated 33.1 million cubic feet were harvested for within State residential fuelwood, bringing South Carolina's total roundwood output to 597.3 million cubic feet.

- Ninety-four percent, or 559.9 million cubic feet, of total roundwood output was considered growing-stock volume (sawtimber and poletimber) from timberland sources (fig. 11). Other sources (such as saplings; stumps, tops, and limbs of trees on timberland; and trees on nonforest land) contributed an estimated 37.4 million cubic feet, or 6 percent of total roundwood output.

Ownership

- An estimated 435.5 million cubic feet, or 73 percent, of the total roundwood output came from nonindustrial private forest lands.

- Forest industry lands contributed 116.0 million cubic feet, or 19 percent of the output. Public lands made-up the remaining 8 percent, or 45.8 million cubic feet (fig. 12).

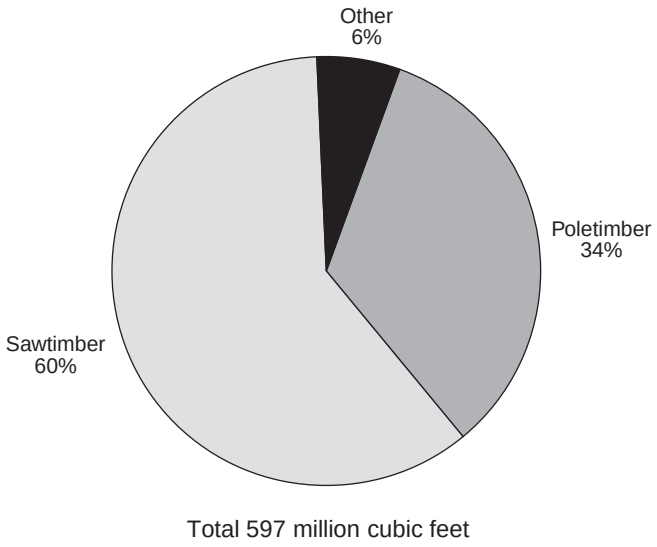

Figure 11—Roundwood output by source, South Carolina, 2009.

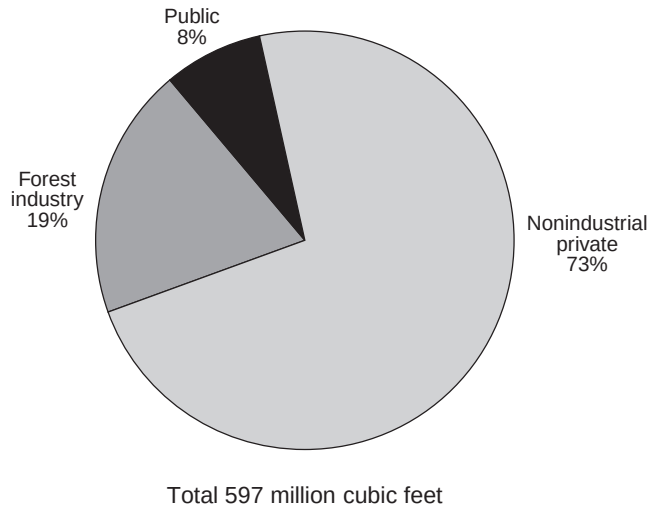

Figure 12—Roundwood output by ownership, South Carolina, 2009.

Species

- The loblolly and shortleaf pine group provided more volume than any other softwood species group, accounting for 87 percent of the total softwood output (fig. 13). The longleaf and slash pine type accounted for another 8 percent of the softwood output.

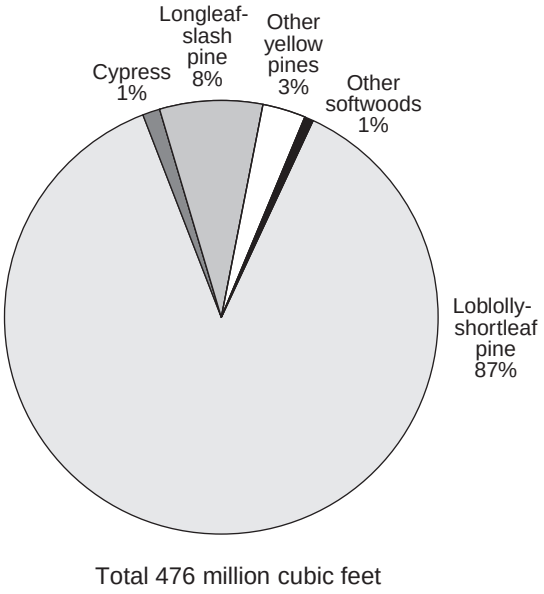

Figure 13—Roundwood output by softwood species group, South Carolina, 2009.

- The red oak and white oak groups combined accounted for 42.2 million cubic feet, or 35 percent of total hardwood output (fig. 14). Sweetgum accounted for another 30.3 million cubic feet, or 25 percent, of total hardwood output.

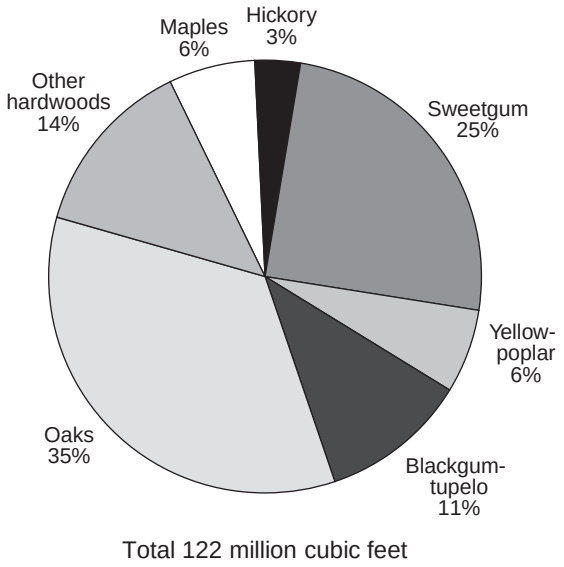

Figure 14—Roundwood output by hardwood species group, South Carolina, 2009.

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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.

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, such as gums, yellow-poplar, cottonwoods, red maple, basswoods, and willows.

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

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

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

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

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

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

Logging residues. The unused portion of 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.

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

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).

Conversion Factors[a]

Saw logs	
Softwood	0.18018 cubic foot = 1 board foot 5.55 board feet = 1 cubic foot
Hardwood	0.16750 cubic foot = 1 board foot 5.97 board feet = 1 cubic foot
Veneer logs	
Softwood	0.17601 cubic foot = 1 board foot 5.68 board feet = 1 cubic foot
Hardwood	0.16340 cubic foot = 1 board foot 6.12 board feet = 1 cubic foot
Pulpwood[b]	
Softwood	68.6 cubic feet per cord
Hardwood	70.5 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 South Carolina during the most recent survey period.

[b] Cubic feet of solid wood per cord.

Species List[a]

Common name	Scientific name[b]
Softwoods	
Atlantic white-cedar	*Chamaecyparis thyoides* (L.) B.S.P.
Southern redcedar	*Juniperus silicicola* (Small) Bailey
Eastern redcedar	*J. virginiana* L.
Shortleaf pine	*Pinus echinata* Mill.
Slash pine	*P. elliottii* Engelm.
Spruce pine	*P. glabra* Walt.
Longleaf pine	*P. palustris* Mill.
Pitch pine	*P. rigida* Mill.
Pond pine	*P. serotina* Michx.
Eastern white pine	*P. strobus* L.
Loblolly pine	*P. taeda* L.
Virginia pine	*P. virginiana* Mill.
Baldcypress	*Taxodium distichum* (L.) Rich.
Pondcypress	*T. distichum* var. *nutan* (Ait.) Sweet
Eastern hemlock	*Tsuga canadensis* (L.) Carr.
Hardwoods	
Florida maple	*Acer barbatum* Michx.
Boxelder	*A. negundo* L.
Red maple	*A. rubrum* L.
Silver maple	*A. saccharinum* L.
Sugar maple	*A. saccharum* Marsh.
Buckeye	*Aesculus* spp. L.
Ohio buckeye	*A. glabra* Willd.
Ailanthus	*Ailanthus altissima* (Mill.) Swingle
Tung-oil tree	*Aleurites fordii* Hemsl.
Serviceberry	*Amelanchier* spp. Med.
River birch	*Betula nigra* L.
American hornbeam	*Carpinus caroliniana* Walt.
Hickory	*Carya* spp. Nutt.
Water hickory	*C. aquatica* (Michx. f.) Nutt.
Bitternut hickory	*C. cordiformis* (Wangenh.) K. Koch
Pignut hickory	*C. glabra* (Mill.) Sweet
Pecan	*C. illinoensis* (Wangenh.) K. Koch
Shellbark hickory	*C. laciniosa* (Michx. f.) Loud.
Nutmeg hickory	*C. myristicaeformis* (Michx. f.) Nutt.
Shagbark hickory	*C. ovata* (Mill.) K. Koch
Black hickory	*C. texana* Buckl.
Mockernut hickory	*C. tomentosa* Nutt.
Allegheny chinkapin	*Castanea pumila* Mill.
Chinkapin	*Castanopsis* (D. Don) Spach
Catalpa	*Catalpa* spp. Scop.
Sugarberry	*Celtis laevigata* Willd.
Hackberry	*C. occidentalis* L.
Eastern redbud	*Cercis canadensis* L.
Flowering dogwood	*Cornus florida* L.
Hawthorn	*Crataegus* spp. L.
Common persimmon	*Diospyros virginiana* L.
American beech	*Fagus grandifolia* Ehrh.
White ash	*Fraxinus americana* L.
Pumpkin ash	*F. profunda* (Bush) Bush
Blue ash	*F. quadrangulata* Michx.
Waterlocust	*Gleditsia aquatica* Marsh.
Honeylocust	*G. triacanthos* L.
Kentucky coffeetree	*Gymnocladus dioicus* (L.) K. Koch
Hardwoods (continued)	
American holly	*Ilex opaca* Ait.
Black walnut	*Juglans nigra* L.
Sweetgum	*Liquidambar styraciflua* L.
Yellow-poplar	*Liriodendron tulipifera* L.
Osage-orange	*Maclura pomifera* (Raf.) Schneid.
Cucumbertree	*Magnolia acuminata* L.
Southern magnolia	*M. grandiflora* L.
Bigleaf magnolia	*M. macrophylla* Michx.
Sweetbay	*M. virginiana* L.
Apple	*Malus* spp. Mill.
Chinaberry	*Melia azedarach* L.
White mulberry	*Morus alba* L.
Red mulberry	*M. rubra* L.
Water tupelo	*Nyssa aquatica* L.
Blackgum	*N. sylvatica* Marsh.
Swamp tupelo	*N. sylvatica* var. *biflora* (Walt.) Sarg.
Eastern hophornbeam	*Ostrya virginiana* (Mill.) K. Koch
Sourwood	*Oxydendrum arboreum* (L.) DC.
Redbay	*Persea borbonia* (L.) Spreng.
American sycamore	*Platanus occidentalis* L.
Cottonwood	*Populus* spp. L.
Black cherry	*Prunus serotina* Ehrh.
White oak	*Quercus* alba L.
Scarlet oak	*Q. coccinea* Muenchh.
Durand oak	*Q. durandii* Buckl.
Southern red oak	*Q. falcata* Michx.
Cherrybark oak	*Q. falcata* var. *pagodaefolia* Ell.
Bluejack oak	*Q. incana* Bartr.
Turkey oak	*Q. laevis* Walt.
Laurel oak	*Q. laurifolia* Michx.
Overcup oak	*Q. lyrata* Walt.
Swamp chestnut oak	*Q. michauxii* Nutt.
Chinkapin oak	*Q. muehlenbergii* Engelm.
Water oak	*Q. nigra* L.
Nuttall oak	*Q. nuttallii* Palmer
Pin oak	*Q. palustris* Muenchh.
Willow oak	*Q. phellos* L.
Chestnut oak	*Q. prinus* L.
Northern red oak	*Q. rubra* L.
Shumard oak	*Q. shumardii* Buckl.
Post oak	*Q. stellata* Wangenh.
Black oak	*Q. velutina* Lam.
Live oak	*Q. virginiana* Mill.
Black locust	*Robinia pseudoacacia* L.
Willow	*Salix* spp. L.
Sassafras	*Sassafras albidum* (Nutt.) Nees
American basswood	*Tilia americana* L.
White basswood	*T. heterophylla* Vent.
Winged elm	*Ulmus alata* Michx.
American elm	*U. americana* L.
Cedar elm	*U. crassifolia* Nutt.
Slippery elm	*U. rubra* Muhl.
September elm	*U. serotina* Sarg.
Rock elm	*U. thomasii* Sarg.

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

[b] Little (1979).

Appendix

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Table A.1—Output of industrial products by product and species group, South Carolina, 2007 and 2009

Product and species group	Year 2007	2009	Change	Change
	- - - - thousand cubic feet - - - -			*percent*
Saw logs				
Softwood	204,382	134,525	-69,857	-34.2
Hardwood	22,108	14,337	-7,771	-35.2
Total	226,490	148,862	-77,628	-34.3
Veneer logs				
Softwood	33,091	23,948	-9,143	-27.6
Hardwood	4,705	3,777	-928	-19.7
Total	37,796	27,725	-10,071	-26.6
Pulpwood[a]				
Softwood	230,722	265,073	34,351	14.9
Hardwood	72,777	73,000	223	0.3
Total	303,499	338,073	34,574	11.4
Composite panels				
Softwood	39,286	34,712	-4,574	-11.6
Hardwood	97	0	-97	-100.0
Total	39,383	34,712	-4,671	-11.9
Other industrial				
Softwood	5,637	13,639	8,002	142.0
Hardwood	0	1,160	1,160	—
Total	5,637	14,799	9,162	162.5
All industrial				
Softwood	513,118	471,897	-41,221	-8.0
Hardwood	99,687	92,274	-7,413	-7.4
Total	612,805	564,171	-48,634	-7.9

— = negligible.

[a] Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (3,516,000 cubic feet in 2007 and 8,582,000 cubic feet in 2009).

Table A.2—Roundwood receipts by product and species group, South Carolina, 2007 and 2009

Product and species group	Year 2007	2009	Change	Change
	- - - - thousand cubic feet - - - -			*percent*
Saw logs				
Softwood	185,175	130,140	-55,035	-29.7
Hardwood	14,828	9,373	-5,455	-36.8
Total	200,003	139,513	-60,490	-30.2
Veneer logs				
Softwood	31,362	28,093	-3,269	-10.4
Hardwood	4,940	3,990	-950	-19.2
Total	36,302	32,083	-4,219	-11.6
Pulpwood[a]				
Softwood	207,342	252,042	44,700	21.6
Hardwood	77,208	69,093	-8,115	-10.5
Total	284,550	321,135	36,585	12.9
Other industrial[b]				
Softwood	48,030	53,331	5,301	11.0
Hardwood	0	1,213	1,213	—
Total	48,030	54,544	6,514	13.6
Total output				
Softwood	471,909	463,606	-8,303	-1.8
Hardwood	96,976	83,669	-13,307	-13.7
Total	568,885	547,275	-21,610	-3.8

[a] Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (3,597,000 cubic feet in 2007 and 9,618,000 cubic feet in 2009).

[b] Includes 5,281,000 cubic feet used as industrial fuel in 2009.

Table A.3—Number of primary wood-using plants by type of mill, South Carolina, 1989 to 2009

Type of mill	Year 1989	1992	1994	1995	1997	1999	2001	2003	2005	2007	2009
						number					
Sawmills	87	79	76	70	66	63	51	51	48	44	39
Veneer mills	17	14	14	14	12	12	9	8	8	8	6
Pulpmills	8	9	8	8	8	7	7	7	7	7	7
Composite panel mills	0	0	0	0	0	0	1	1	1	2	2
Other mills	5	9	7	7	6	8	8	8	11	14	23
All plants	117	111	105	105	99	90	76	75	75	75	77

Table A.4—Roundwood receipts by sawmill size, South Carolina, 2007 and 2009

Sawmill size class[a]	2007			2009		
	Mills	Volume		Mills	Volume	
mmbf	*number*	*mbf*	*percent*	*number*	*mbf*	*percent*
< 1.0	7	3,549	0	9	2,971	0
1.0–4.99	12	35,282	3	12	37,535	5
5.0–9.99	11	77,274	7	6	42,305	6
10.0–49.99	5	140,079	13	5	158,094	20
> 50	9	861,080	77	7	538,121	69
Total	44	1,117,264	100	39	779,026	100

[a] Based on volume received as opposed to actual capacity.

Table A.5—Roundwood receipts by species and type of mill, South Carolina, 2009

Species	All mills	Sawmills	Veneer mills		Pulpmills[a]	Other mills[b]
			Pine plywood	Other veneer		
	thousand cubic feet					
Softwood						
Yellow pine	208,382	129,306	28,093	0	NA	50,983
Eastern white pine	157	157	0	0	NA	0
Cedar	239	9	0	0	NA	230
Cypress	2,706	668	0	0	NA	2,038
Other softwood	80	0	0	0	NA	80
Unclassified	252,042	0	0	0	252,042	0
Total softwoods	463,606	130,140	28,093	0	252,042	53,331
Hardwood						
Blackgum and tupelo	510	311	0	199	NA	0
Soft maple	527	274	159	94	NA	0
Sweetgum	2,624	1,513	635	340	NA	136
Yellow-poplar	3,166	2,264	478	407	NA	17
Other soft hardwood	732	58	159	0	NA	515
Hickory	708	150	0	538	NA	20
Red oak	3,467	2,571	0	778	NA	118
White oak	2,003	1,887	0	116	NA	0
Other hard hardwood	839	345	0	87	NA	407
Unclassified	69,093	0	0	0	69,093	0
Total hardwoods	83,669	9,373	1,431	2,559	69,093	1,213
All species	547,275	139,513	29,524	2,559	321,135	54,544

NA = not applicable.

[a] Only collected by softwood and hardwood and includes roundwood chipped.

[b] Includes 5,281,000 cubic feet used as industrial fuel in 2009.

Table A.6—Industrial roundwood movement by year and species group, South Carolina, 2007 and 2009

Year	Production	Exported to other States	Retained	Imported from other States	Receipts
			thousand cubic feet		
			Softwood		
2007	513,118	81,627	431,491	40,418	471,909
2009	471,897	58,937	412,960	50,646	463,606
			Hardwood		
2007	99,687	20,860	78,827	18,149	96,976
2009	92,274	16,985	75,289	8,380	83,669
			All species		
2007	612,805	102,487	510,318	58,567	568,885
2009	564,171	75,922	488,249	59,026	547,275

Table A.7—Industrial roundwood movement by product and species group, South Carolina, 2009

Product and species group	Production	Exported to other States	Retained	Imported from other States	Receipts
			thousand cubic feet		
Saw logs					
Softwood	134,525	12,742	121,783	8,357	130,140
Hardwood	14,337	5,475	8,862	511	9,373
Total	148,862	18,217	130,645	8,868	139,513
Veneer logs					
Softwood	23,948	1,037	22,911	5,182	28,093
Hardwood	3,777	341	3,436	554	3,990
Total	27,725	1,378	26,347	5,736	32,083
Pulpwood[a]					
Softwood	265,073	45,024	220,049	31,993	252,042
Hardwood	73,000	11,169	61,831	7,262	69,093
Total	338,073	56,193	281,880	39,255	321,135
Other industrial					
Softwood	48,351	134	48,217	5,114	53,331
Hardwood	1,160	0	1,160	53	1,213
Total	49,511	134	49,377	5,167	54,544
All products					
Softwood	471,897	58,937	412,960	50,646	463,606
Hardwood	92,274	16,985	75,289	8,380	83,669
Total	564,171	75,922	488,249	59,026	547,275

[a] Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills.

Table A.8—Saw-log volume by destination, source, and species group, South Carolina, 2009

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
South Carolina (retained)	130,645	121,783	8,862
Exports to			
Georgia	8,323	6,640	1,683
North Carolina	9,894	6,102	3,792
Total	18,217	12,742	5,475
Imports from			
Georgia	7,388	7,070	318
North Carolina	1,480	1,287	193
Total	8,868	8,357	511

Table A.9—Veneer volume by destination, source, and species group, South Carolina, 2009

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
South Carolina (retained)	26,347	22,911	3,436
Exports to			
Florida	137	137	0
Georgia	148	0	148
Michigan	12	12	0
North Carolina	1,061	868	193
Virginia	20	20	0
Total	1,378	1,037	341
Imports from			
Georgia	2,248	2,238	10
North Carolina	3,488	2,944	544
Total	5,736	5,182	554

Table A.10—Pulpwood volume by destination, source, and species group, South Carolina, 2009[a]

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
South Carolina (retained)	281,880	220,049	61,831
Exports to			
Georgia	29,531	22,747	6,784
North Carolina	26,246	21,927	4,319
Tennessee	416	350	66
Total	56,193	45,024	11,169
Imports from			
Georgia	5,076	4,235	841
North Carolina	33,736	27,755	5,981
Kentucky	48	0	48
Tennessee	31	0	31
Virginia	364	3	361
Total	39,255	31,993	7,262

[a]Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills.

Table A.11—Other industrial volume by destination, source, and species group, South Carolina, 2009[a]

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
South Carolina (retained)	49,377	48,217	1,160
Exports to			
Georgia	134	134	0
Total	134	134	0
Imports from			
Georgia	4,786	4,786	0
North Carolina	381	328	53
Total	5,167	5,114	53

[a] Includes poles, posts, mulch, firewood, log homes, charcoal, and all other industrial mills.

Table A.12—Primary mill residue volume by roundwood type, species group, and residue type, South Carolina, 2009

Roundwood type and species group	All types	Residue type			
		Bark	Coarse	Sawdust	Shavings
		thousand cubic feet			
Saw logs					
Softwood	73,346	11,086	32,663	18,450	11,147
Hardwood	5,235	1,008	2,375	1,852	0
Total	78,581	12,094	35,038	20,302	11,147
Veneer logs					
Softwood	15,778	2,448	6,658	6,672	0
Hardwood	2,593	443	1,007	1,143	0
Total	18,371	2,891	7,665	7,815	0
Pulpwood					
Softwood	23,640	23,640	0	0	0
Hardwood	8,077	8,077	0	0	0
Total	31,717	31,717	0	0	0
Other industrial[a]					
Softwood	4,511	4,221	290	0	0
Hardwood	0	0	0	0	0
Total	4,511	4,221	290	0	0
Total					
Softwood	117,275	41,395	39,611	25,122	11,147
Hardwood	15,905	9,528	3,382	2,995	0
Total	133,180	50,923	42,993	28,117	11,147

[a] Includes poles, pilings, posts, composite panels, and other industrial products.

Table A.13—Disposal of residue at primary wood-using plants by product, species group, and type of residue, South Carolina, 2007 and 2009

Product and species group	All types		Bark		Coarse		Sawdust		Shavings	
	2007	2009	2007	2009	2007	2009	2007	2009	2007	2009
	thousand cubic feet									
Fiber products										
Softwood	46,817	37,246	0	0	46,817	37,246	0	0	0	0
Hardwood	4,226	2,729	0	0	4,226	2,729	0	0	0	0
Total	51,043	39,975	0	0	51,043	39,975	0	0	0	0
Particleboard										
Softwood	11,112	7,229	0	0	1,307	0	424	747	9,381	6,482
Hardwood	0	0	0	0	0	0	0	0	0	0
Total	11,112	7,229	0	0	1,307	0	424	747	9,381	6,482
Sawn products										
Softwood	1,680	1,189	0	0	1,680	1,189	0	0	0	0
Hardwood	0	0	0	0	0	0	0	0	0	0
Total	1,680	1,189	0	0	1,680	1,189	0	0	0	0
Industrial fuel										
Softwood	81,479	63,053	45,390	35,614	2,111	852	31,422	24,241	2,556	2,346
Hardwood	13,768	11,494	9,924	8,246	446	511	3,366	2,737	32	0
Total	95,247	74,547	55,314	43,860	2,557	1,363	34,788	26,978	2,588	2,346
Miscellaneous										
Softwood	14,414	8,558	6,575	5,781	2,091	324	1,918	134	3,830	2,319
Hardwood	2,095	1,682	1,185	1,282	176	142	734	258	0	0
Total	16,509	10,240	7,760	7,063	2,267	466	2,652	392	3,830	2,319
Not used										
Softwood	31	0	5	0	16	0	10	0	0	0
Hardwood	255	0	13	0	1	0	241	0	0	0
Total	286	0	18	0	17	0	251	0	0	0
All products										
Softwood	155,533	117,275	51,970	41,395	54,022	39,611	33,774	25,122	15,767	11,147
Hardwood	20,344	15,905	11,122	9,528	4,849	3,382	4,341	2,995	32	0
Total	175,877	133,180	63,092	50,923	58,871	42,993	38,115	28,117	15,799	11,147

Table A.14—Roundwood timber product output by county, product, and species group, South Carolina, 2009

County	All products		Saw logs		Veneer logs		Pulpwood[a]		Composite panel		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
	thousand cubic feet											
Abbeville	6,904	1,433	2,697	343	622	0	2,528	1,090	945	0	112	0
Aiken	15,923	1,842	6,741	671	995	2	3,318	1,142	3,693	0	1,176	27
Allendale	14,470	1,069	5,695	0	0	151	3,553	840	4,497	0	725	78
Anderson	2,753	1,247	1,273	546	497	0	509	701	405	0	69	0
Bamberg	9,353	2,089	2,368	147	0	241	3,402	1,701	2,998	0	585	0
Barnwell	11,738	404	4,119	102	0	21	2,956	281	3,997	0	666	0
Beaufort	3,915	642	1,988	0	0	98	1,650	544	249	0	28	0
Berkeley	17,487	1,448	3,047	81	262	0	14,064	1,281	0	0	114	86
Calhoun	3,558	751	767	83	124	30	2,610	638	0	0	57	0
Charleston	10,465	1,125	4,007	0	0	90	6,351	1,035	0	0	107	0
Cherokee	2,738	1,305	971	479	0	0	1,709	826	0	0	58	0
Chester	10,043	1,917	866	29	1,579	129	7,046	1,759	135	0	417	0
Chesterfield	10,543	2,886	3,015	1,006	469	14	6,822	1,768	0	0	237	98
Clarendon	9,754	1,575	853	100	0	0	8,804	1,475	0	0	97	0
Colleton	31,386	4,284	13,476	290	0	653	13,320	3,341	3,248	0	1,342	0
Darlington	3,271	883	2,117	0	124	71	942	800	0	0	88	12
Dillon	3,485	2,791	655	205	260	69	2,254	2,517	0	0	316	0
Dorchester	10,558	2,138	3,459	450	0	168	6,582	1,520	249	0	268	0
Edgefield	12,387	1,623	3,264	568	870	0	6,294	1,028	1,350	0	609	27
Fairfield	26,291	1,914	3,168	2	3,349	114	18,776	1,798	540	0	458	0
Florence	17,857	5,124	3,258	310	0	69	14,391	4,733	0	0	208	12
Georgetown	21,292	1,927	9,841	150	0	0	11,155	1,765	0	0	296	12
Greenville	2,749	1,741	753	837	248	0	1,401	904	270	0	77	0
Greenwood	8,189	1,819	2,167	511	746	74	2,695	1,207	2,430	0	151	27
Hampton	15,745	1,551	5,942	0	0	87	7,201	1,464	2,248	0	354	0
Horry	15,639	2,860	4,648	65	477	33	10,286	2,750	0	0	228	12
Jasper	13,454	1,538	6,493	3	0	90	6,392	1,445	249	0	320	0
Kershaw	15,083	2,856	1,984	171	1,241	129	11,559	2,525	0	0	299	31
Lancaster	10,530	2,145	1,126	398	783	42	8,230	1,677	0	0	391	28
Laurens	7,749	2,906	1,476	725	1,345	75	3,290	2,106	1,485	0	153	0
Lee	4,876	1,379	507	0	0	121	4,332	1,246	0	0	37	12
Lexington	5,565	1,746	1,063	171	622	77	2,835	875	270	0	775	623
Marion	4,412	1,627	2,521	293	130	69	1,533	1,253	0	0	228	12
Marlboro	7,188	2,394	1,502	211	0	172	5,351	1,999	0	0	335	12
McCormick	8,387	1,017	4,644	612	870	0	2,197	405	540	0	136	0
Newberry	15,480	3,026	3,850	304	2,589	133	7,349	2,554	1,485	0	207	35
Oconee	3,804	1,826	987	869	124	0	2,427	957	0	0	266	0
Orangeburg	15,078	2,347	3,928	350	248	51	9,501	1,938	999	0	402	8
Pickens	1,705	1,427	680	729	124	0	830	698	0	0	71	0
Richland	9,880	2,278	1,135	506	967	118	7,651	1,654	0	0	127	0
Saluda	10,126	1,236	1,570	120	1,340	86	5,152	1,030	1,890	0	174	0
Spartanburg	4,456	2,505	722	699	751	106	2,474	1,700	135	0	374	0
Sumter	9,538	4,385	2,591	83	0	0	6,939	4,294	0	0	8	8
Union	7,924	3,145	885	512	1,096	159	5,461	2,474	405	0	77	0
Williamsburg	12,703	2,407	5,088	100	0	0	7,317	2,307	0	0	298	0
York	5,466	1,696	618	506	1,096	235	3,634	955	0	0	118	0
All counties	471,897	92,274	134,525	14,337	23,948	3,777	265,073	73,000	34,712	0	13,639	1,160

[a] Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (8,582,000 cubic feet in 2009).

Table A.15—Total roundwood output by product, species group, and source of material, South Carolina, 2009

Product and species group	All sources	Growing-stock trees		Other sources
		Total	Sawtimber	Poletimber	
	thousand cubic feet			
Saw logs					
Softwood	134,525	130,115	121,751	8,364	4,410
Hardwood	14,337	14,059	13,215	844	278
Total	148,862	144,174	134,966	9,208	4,688
Veneer logs and bolts					
Softwood	23,948	23,392	23,025	367	556
Hardwood	3,777	3,734	3,734		43
Total	27,725	27,126	26,759	367	599
Pulpwood					
Softwood	265,073	247,846	112,229	135,617	17,227
Hardwood	73,000	67,592	35,235	32,357	5,408
Total	338,073	315,438	147,464	167,974	22,635
Composite panels					
Softwood	34,712	32,273	14,882	17,391	2,439
Hardwood	0	0	0	0	0
Total	34,712	32,273	14,882	17,391	2,439
Poles and posts					
Softwood	4,484	4,107	3,995	112	377
Hardwood	0	0	0	0	0
Total	4,484	4,107	3,995	112	377
Other miscellaneous					
Softwood	9,155	7,629	6,103	1,526	1,526
Hardwood	1,160	951	744	208	209
Total	10,315	8,581	6,847	1,734	1,734
Total industrial products					
Softwood	471,897	445,362	281,985	163,378	26,535
Hardwood	92,274	86,336	52,928	33,408	5,938
Total	564,171	531,698	334,913	196,786	32,473
Residential fuelwood					
Softwood	3,645	1,383	755	628	2,262
Hardwood	29,445	26,769	24,370	2,399	2,676
Total	33,090	28,152	25,125	3,027	4,938
All products					
Softwood	475,542	446,746	282,740	164,006	28,796
Hardwood	121,719	113,105	77,298	35,806	8,614
Total	597,261	559,850	360,038	199,812	37,411

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

Table A.16—Total roundwood output by species group, survey region, and ownership class, South Carolina, 2009

Species group and survey region	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
		thousand cubic feet		
Softwoods				
Southern Coastal Plain	151,908	11,857	44,097	95,954
Northern Coastal Plain	174,813	16,302	56,822	101,689
Piedmont	148,821	12,793	5,736	130,291
Total softwoods	475,542	40,952	106,656	327,934
Hardwoods				
Southern Coastal Plain	26,912	1,098	2,190	23,625
Northern Coastal Plain	50,054	3,098	6,910	40,046
Piedmont	44,753	651	206	43,896
Total hardwoods	121,719	4,847	9,306	107,566
All species	597,261	45,798	115,962	435,501

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

Table A.17—Total roundwood output by species group, detailed species group, and product, South Carolina, 2009

Species group and detailed species group	Total	Product						
		Saw logs	Veneer logs	Pulpwood	Composite panels	Poles and posts	Other miscellaneous	Residential fuelwood
		thousand cubic feet						
Softwood								
Cedar	533	61	71	370	12	4	11	4
Longleaf-slash pine	36,478	12,491	1,099	19,364	2,221	253	769	280
Eastern white pine	2,599	671	85	1,644	0	0	180	20
Loblolly-shortleaf pine	414,539	116,442	21,803	229,381	31,830	4,122	7,782	3,178
Other yellow pines	15,249	3,285	767	10,322	360	75	325	116
Cypress	6,145	1,575	123	3,992	288	30	88	47
Total softwoods	475,542	134,525	23,948	265,073	34,712	4,484	9,155	3,645
Hardwood								
Soft maple	7,852	754	297	4,867	0	0	34	1,900
Hickory	4,154	517	177	2,416	0	0	39	1,005
Beech	46	8	1	26	0	0	0	11
Ash	3,436	211	119	1,814	0	0	461	831
Black walnut	791	205	1	384	0	0	10	191
Sweetgum	30,255	3,437	826	18,521	0	0	152	7,319
Yellow-poplar	7,644	1,638	180	3,960	0	0	16	1,849
Blackgum-tupelo	13,397	912	469	8,697	0	0	78	3,241
Sycamore	643	0	27	460	0	0	0	156
Cottonwood	28	0	2	19	0	0	0	7
Black cherry	1,301	202	61	708	0	0	15	315
Select white oaks	4,072	727	97	2,250	0	0	13	985
Other white oaks	4,090	634	118	2,335	0	0	14	989
Select red oaks	1,863	170	92	1,135	0	0	16	451
Other red oaks	32,137	3,528	1,064	19,642	0	0	129	7,775
Elm	4,039	637	80	2,225	0	0	121	976
Other eastern hardwoods	5,971	758	165	3,541	0	0	63	1,445
Total hardwoods	121,719	14,337	3,777	73,000	0	0	1,160	29,445
All species	597,261	148,862	27,725	338,073	34,712	4,484	10,315	33,090

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

Table A.18—Total roundwood output by species group, detailed species group, and ownership class, South Carolina, 2009

Species group and detailed species group	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
		thousand cubic feet		
Softwood				
Cedar	533	8	16	509
Longleaf-slash pine	36,478	13,610	3,950	18,918
Eastern white pine	2,599	1,747	0	852
Loblolly-shortleaf pine	414,539	25,123	97,012	292,404
Other yellow pines	15,249	465	3,989	10,796
Cypress	6,145	0	1,689	4,456
Total softwoods	475,542	40,952	106,656	327,934
Hardwood				
Soft maple	7,852	365	834	6,653
Hickory	4,154	180	310	3,664
Beech	46	0	3	42
Ash	3,436	193	304	2,940
Black walnut	791	0	0	790
Sweetgum	30,255	1,282	1,886	27,086
Yellow-poplar	7,644	131	67	7,446
Blackgum-tupelo	13,397	186	2,030	11,181
Sycamore	643	336	308	0
Cottonwood	28	0	0	28
Black cherry	1,301	37	62	1,202
Select white oaks	4,072	161	130	3,780
Other white oaks	4,090	88	263	3,739
Select red oaks	1,863	4	183	1,677
Other red oaks	32,137	1,343	2,335	28,460
Elm	4,039	152	221	3,666
Other eastern hardwoods	5,971	389	370	5,213
Total hardwoods	121,719	4,847	9,306	107,566
All species	597,261	45,798	115,962	435,501

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

Johnson, Tony G.; Adams, Tim O. 2011. South Carolina's timber industry—an assessment of timber product output and use, 2009. Resour. Bull. SRS–174. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 27 p.

In 2009, industrial roundwood output from South Carolina's forests totaled 564.2 million cubic feet, 8 percent less than in 2007. Mill byproducts generated from primary manufacturers decreased 24 percent to 133.2 million cubic feet. All plant residues were used, primarily for fuel and fiber products. Pulpwood was the leading roundwood product at 338.1 million cubic feet; saw logs ranked second at 148.9 million cubic feet; composite panels were third at 34.7 million cubic feet. The number of primary processing plants totaled 77 in 2009. Total receipts declined 4 percent to 547.3 million cubic feet.

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

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