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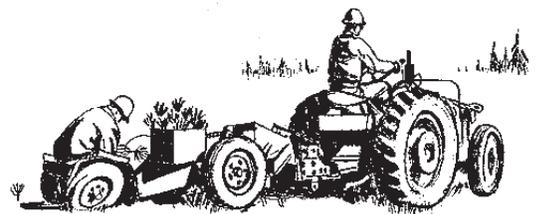
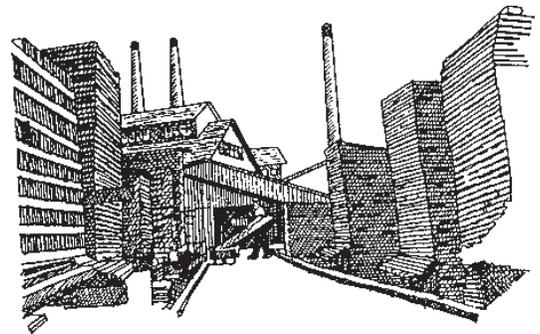
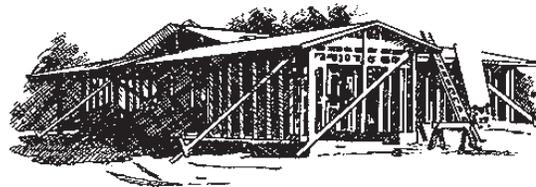


Southern
Research Station

Resource Bulletin
SRS-70

South Carolina's Timber Industry— An Assessment of Timber Product Output and Use, 1999

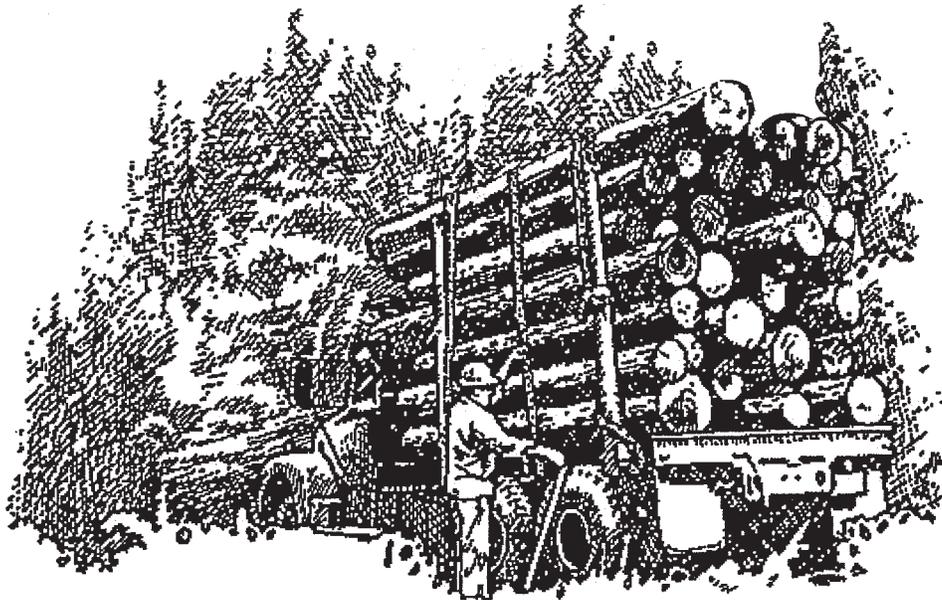
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Foreword

This report contains the findings of a 1999 canvass of all primary wood-using plants in South Carolina, and presents changes in product output and residue use since 1997. 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 1999 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 2000 to obtain information for 1999. 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 southeastern pulpmills. Medium density fiberboard, insulating board, and hardboard plants were included in this survey.

Acknowledgments

The authors thank Dean Carson for review and comments; Dale Gormanson from the North Central Research Station for the maps; Anne Jenkins, Susan Bowman, and Donna Burnett for tables, graphs, and statistical checking; and Paul Smith, Diana Corbin, and Louise Wilde for editorial review, styling, and publication of this report.

The Southern Research Station gratefully acknowledges the cooperation and assistance provided by the South Carolina Forestry Commission, and the Cooperative Extension Service, Clemson University in collecting mill data. Appreciation is also extended to forest industry and mill managers for providing timber products information.

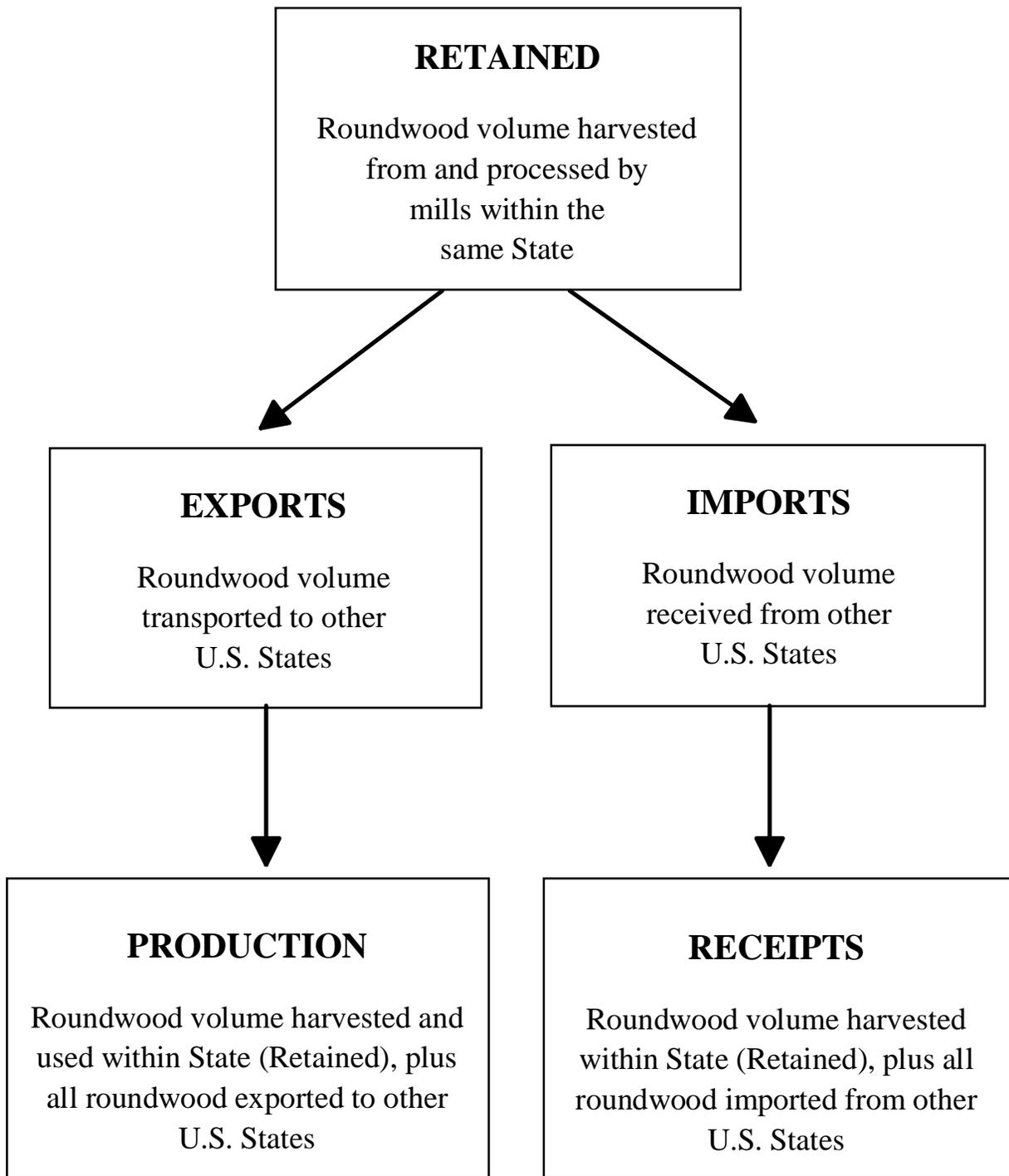


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^a All tables in this report are available in Microsoft® Excel workbook files. Upon request, these files will be supplied on 3½-inch diskettes.

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Production = Retained + Exports

Receipts = Retained + Imports

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 report—retained, export, import, production, and receipts—have specialized meanings unique to the Forest Inventory and Analysis Units across the country that deal with timber products output (fig. 1).

All Products

- Between 1997 and 1999, the combined industrial timber products output (TPO) from roundwood and plant byproducts declined 1 percent from 828 to 822 million cubic feet.
- Timber products output from roundwood was down 3 million cubic feet, or less than 1 percent, to 625 million

cubic feet, while output of plant byproducts declined 2 percent to 197 million cubic feet.

- Output of softwood roundwood products increased 1 percent to 481 million cubic feet, while hardwood roundwood products declined 6 percent to 144 million cubic feet (fig. 2).
- Figures 3 and 4 display softwood and hardwood county-level intensity of roundwood production for all industrial products across South Carolina. The data are depicted in cubic feet produced per acre of census land area. Counties with the highest production intensity are depicted in the darker shades. For softwoods the darkest shade represents more than 40 cubic feet of production per acre, while for hardwoods the darkest shade represents more than 15 cubic feet per acre.

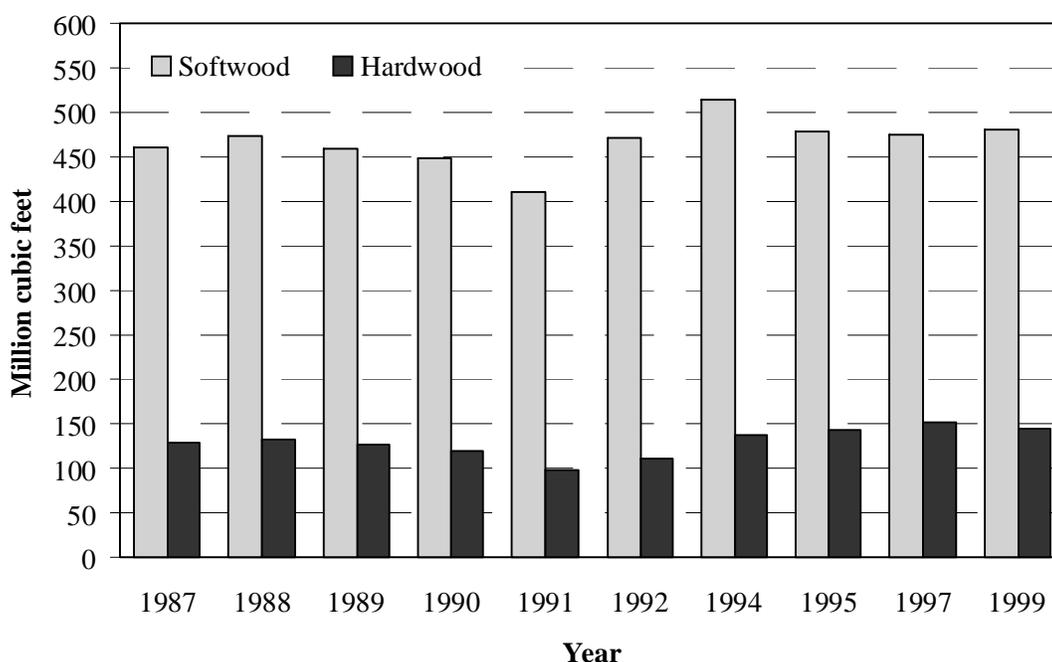


Figure 2—Roundwood production for all products by species group and year (see page 9 for references for individual years).

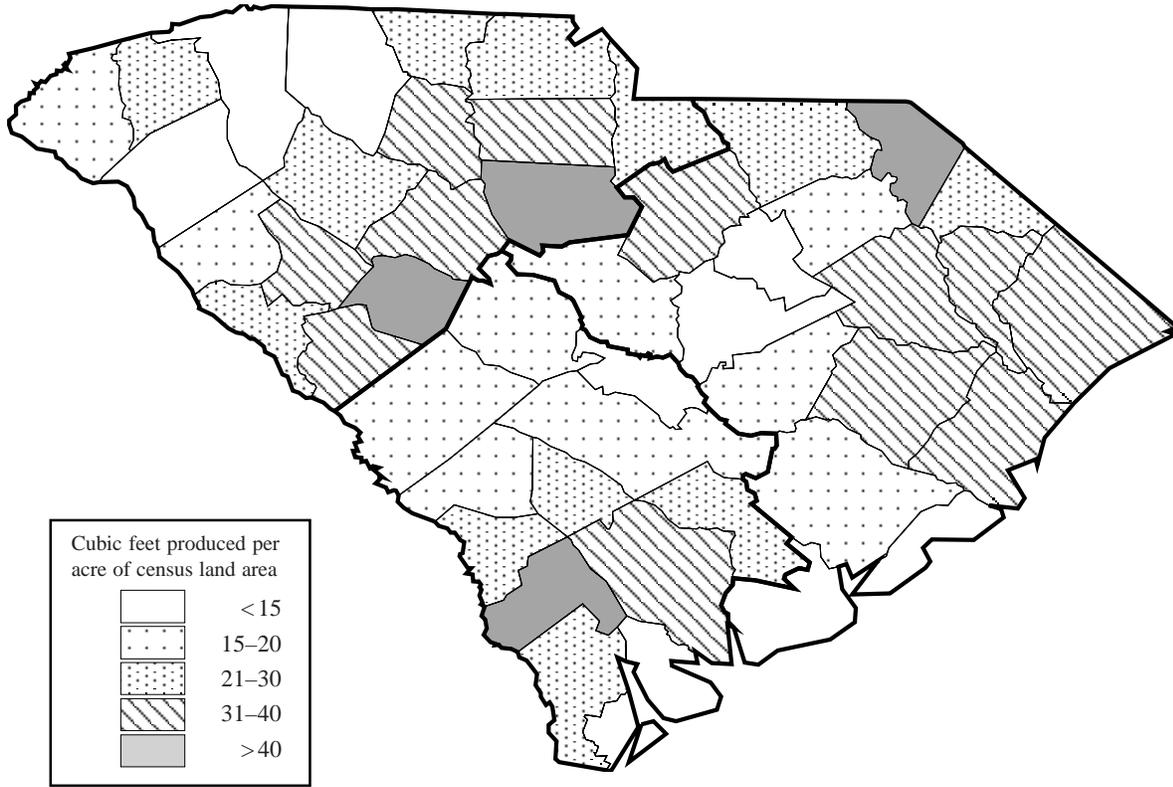


Figure 3—Intensity of roundwood softwood output for all industrial products in South Carolina by county, 1999.

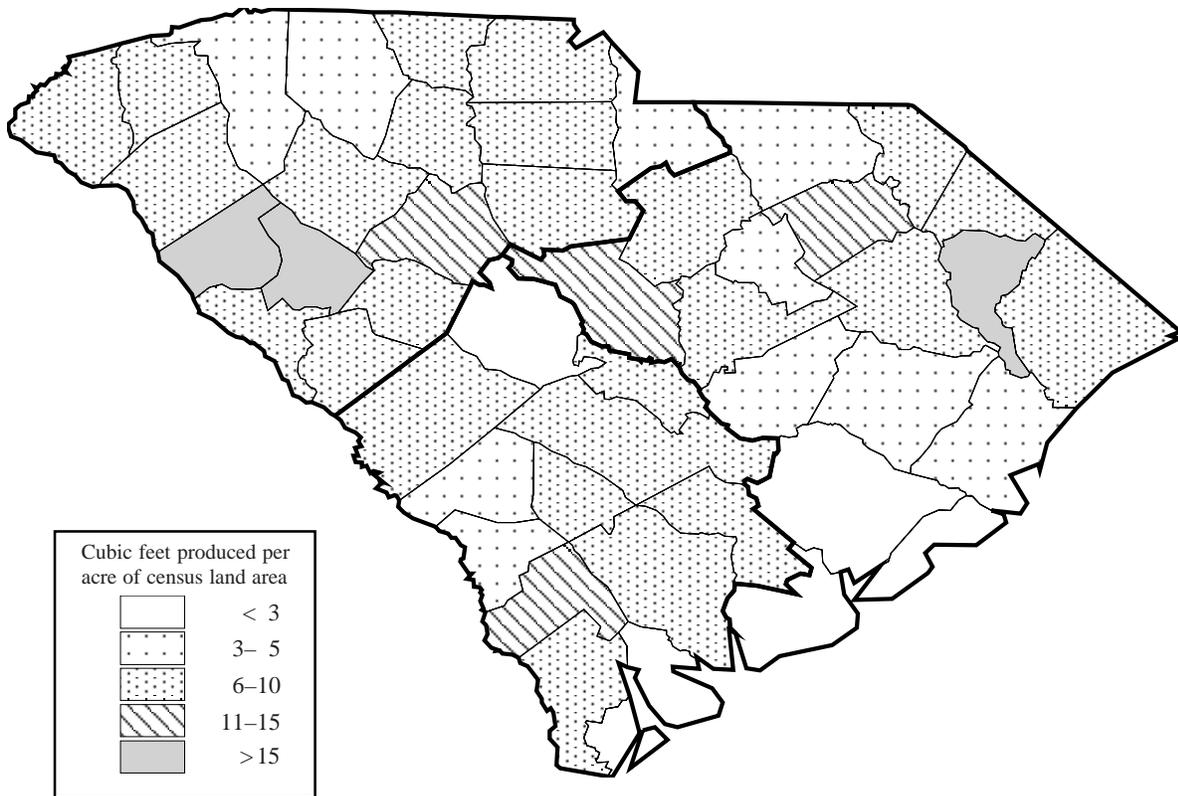


Figure 4—Intensity of roundwood hardwood output for all industrial products in South Carolina by county, 1999.

- Pulpwood and saw logs were the principal roundwood products in 1999. Combined output of these products totaled 565 million cubic feet and accounted for 90 percent of South Carolina’s total roundwood output (fig. 5).
- Total receipts at South Carolina mills, which included roundwood harvested and retained in the State and roundwood imported from other States, declined 5 percent to 587 million cubic feet. At the same time, the number of primary roundwood-using plants in South Carolina was down from 92 in 1997 to 90 in 1999.

Pulpwood

- Pulpwood production, including chipped roundwood, was up 2 million cubic feet to 324 million cubic feet and accounted for 52 percent of the State’s total roundwood TPO. Softwood output was up 5 percent to 219 million cubic feet (3.2 million cords), while hardwood output declined 7 percent to 104 million cubic feet (1.5 million cords) (fig. 6).

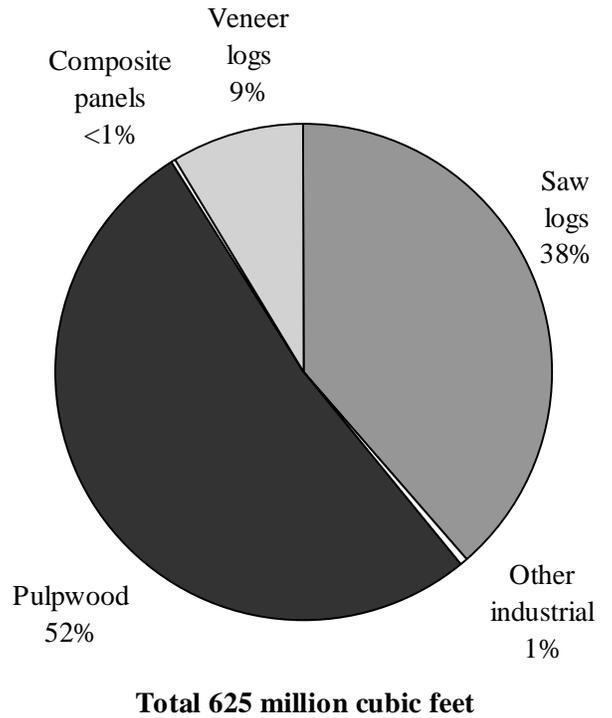


Figure 5—Roundwood production by type of product, 1999.

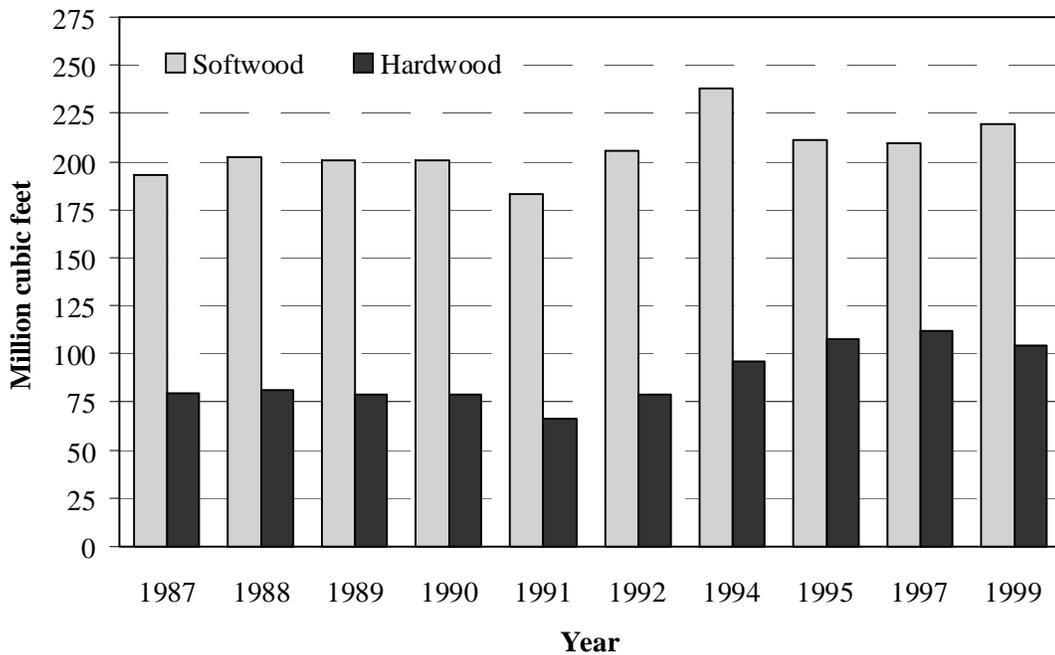


Figure 6—Roundwood pulpwood production by species group and year (see page 9 for references for individual years).

- Seven pulpmill facilities were operating and receiving roundwood in South Carolina in 1999, one less than in 1997. Total pulpwood receipts for these mills were down 27 million cubic feet to 301 million cubic feet, accounting for 51 percent of total receipts for all mills.
- Seventy-six percent of roundwood cut for pulpwood was retained for processing at South Carolina pulpmills. Roundwood pulpwood accounted for 71 percent of total known exports and 78 percent of total imports. Roundwood pulpwood exports amounted to 79 million cubic feet, or 23 million cubic feet more than was imported.

Saw Logs

- Saw logs accounted for 38 percent of the State’s total roundwood products. Output of softwood saw logs declined 5 percent to 210 million cubic feet (1.2 billion board feet, International ¼-inch rule); hardwood saw logs remained stable at 32 million cubic feet (191 million board feet, International ¼-inch rule) (fig. 7).
- In 1999, South Carolina had 63 sawmills, a net loss of 3 mills since 1997. Total saw-log receipts were down 15

million cubic feet to 229 million cubic feet. Softwood saw-log receipts declined 6 percent to 204 million cubic feet, while those of hardwoods dropped 10 percent to 25 million cubic feet. Of the 63 mills operating in 1999, 8 percent had receipts of less than 1 million board feet, while 40 percent had receipts greater than 10 million board feet. Those 25 mills accounted for 88 percent of saw-log receipts.

- South Carolina retained 89 percent of its saw-log production for domestic manufacture, with saw-log exports exceeding imports by 13 million cubic feet in 1999.

Veneer Logs

- Output of veneer logs in 1999 totaled 54 million cubic feet and accounted for 9 percent of South Carolina’s total roundwood TPO volume. Softwood veneer production was up 15 percent to 47 million cubic feet (267 million board feet, International ¼-inch rule); output of hardwood veneer logs increased 2 percent to 7.5 million cubic feet (46 million board feet, International ¼-inch rule) (fig. 8).
- Twelve veneer mills were operating in South Carolina, the same as in 1997. Receipts of veneer logs increased 17

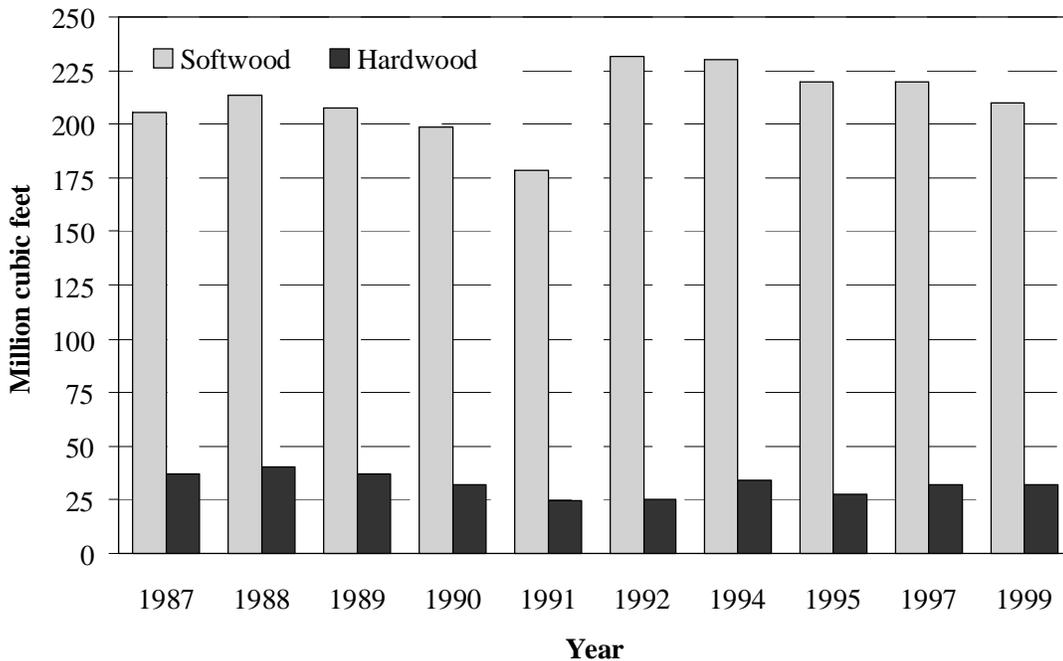


Figure 7—Roundwood saw-log production by species group and year (see page 9 for references for individual years).

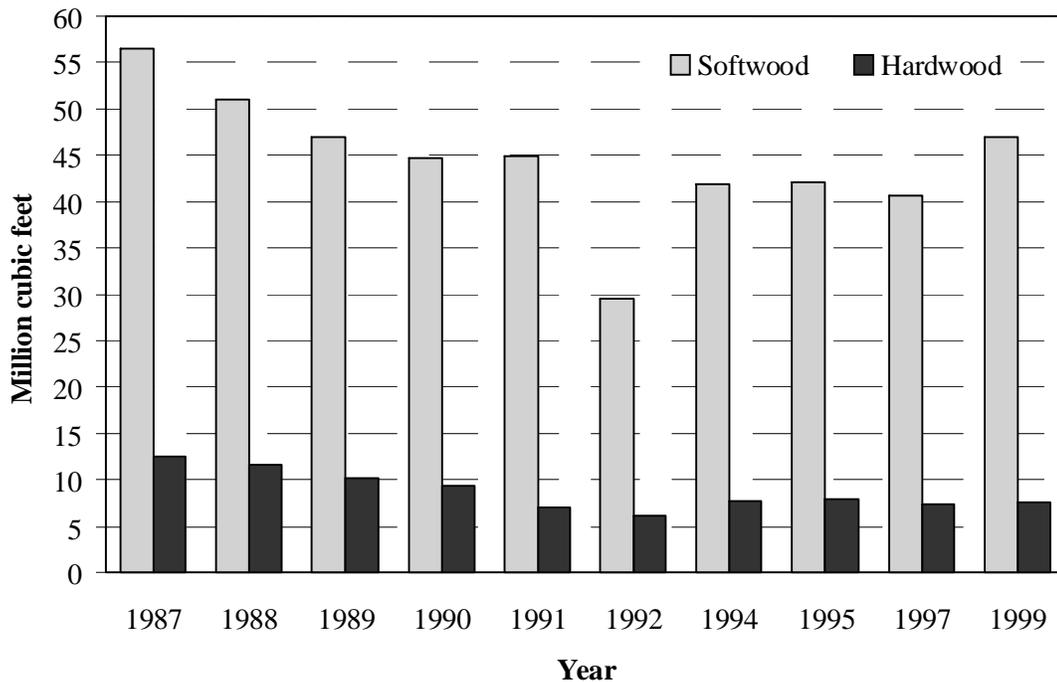


Figure 8—Roundwood veneer-log production by species group and year (see page 9 for references for individual years).

percent to 54 million cubic feet. Softwood veneer receipts were up 7 million cubic feet to 46 million cubic feet.

- South Carolina retained 95 percent of its veneer-log production for processing at domestic veneer mills. Imports amounted to 2 million cubic feet, while exports totaled 3 million cubic feet.

Composite Panels

- Roundwood harvested from South Carolina's forests for composite panels declined 57 percent to 1.4 million cubic feet (21 thousand cords). Softwood output accounted for 95 percent of composite panel production in South Carolina.
- All of the composite panel roundwood output was exported to Georgia mills.

Other Industrial Products

- Roundwood harvested for other industrial uses such as poles, posts, mulch, firewood, logs for log homes, and all other industrial products totaled 4 million cubic feet, a

14-percent increase since 1997. Softwood made up all of the other industrial products volume.

- The number of plants producing other industrial products totaled eight in 1999. Receipts of other industrial products totaled 4 million cubic feet.
- South Carolina was a net exporter of roundwood used for other industrial products; all of the 389 thousand cubic feet imported (as well as the 405 thousand cubic feet exported) was softwood.

Plant Byproducts

- In 1999, processing of primary products in South Carolina mills generated 197 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 70 million cubic feet, while bark volume totaled 64 million cubic feet. Sawdust and shavings made up 32 percent of total residues, or 63 million cubic feet (fig. 9).

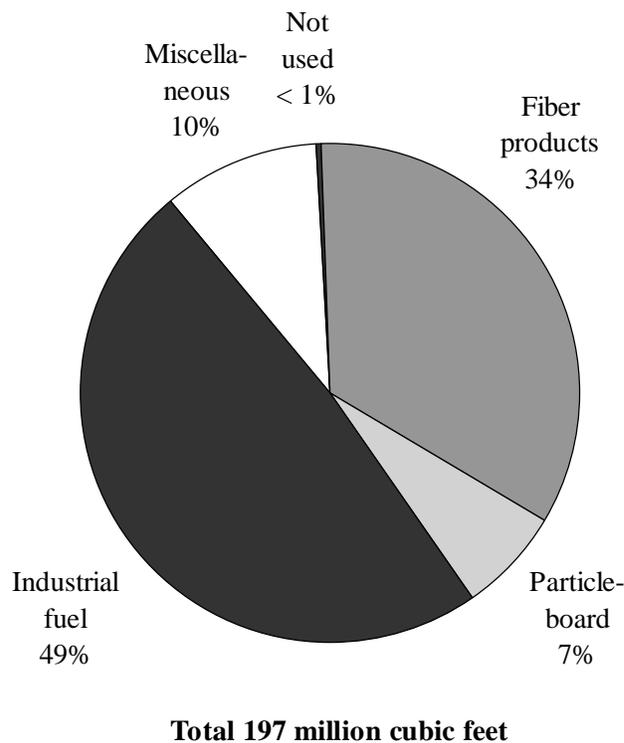
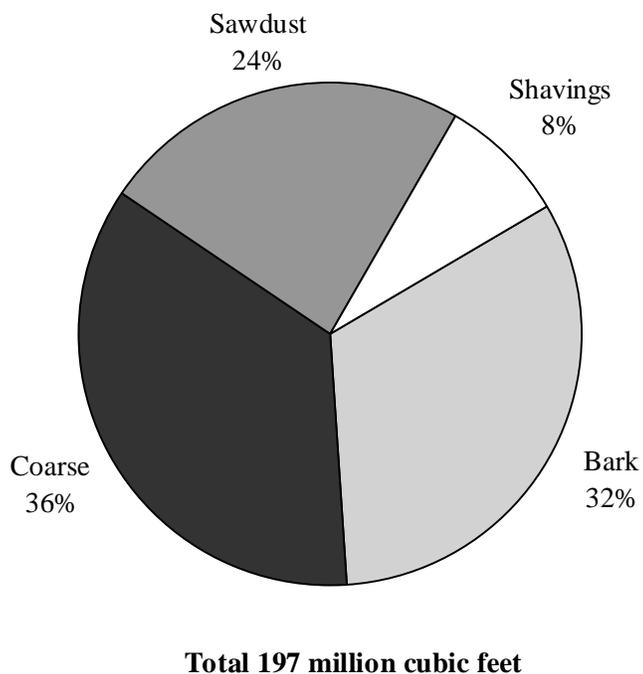


Figure 9—Primary mill residue by residue type, 1999.

Figure 10—Disposal of residue by product, 1999.

- Almost all of the wood and bark residues were used for products. Forty-nine percent of the residue was used for industrial fuel (fig. 10). More than 61 million cubic feet, or 88 percent, of the coarse residues were used to manufacture fiber products. Most of the bark was used for industrial fuel or other miscellaneous products, while 58 percent of the sawdust and shavings were used for industrial fuel.
- The processing of saw logs generated 124 million cubic feet of mill residues, accounting for 63 percent of the total residues produced (fig. 11).

Regional Trends

- Hardwood output of industrial roundwood products declined across all regions of South Carolina; softwood output declined in the Southern Coastal Plain and Piedmont regions of South Carolina.
- The Northern Coastal Plain had the largest increase of 14 percent, with all of the increase occurring in softwood output.

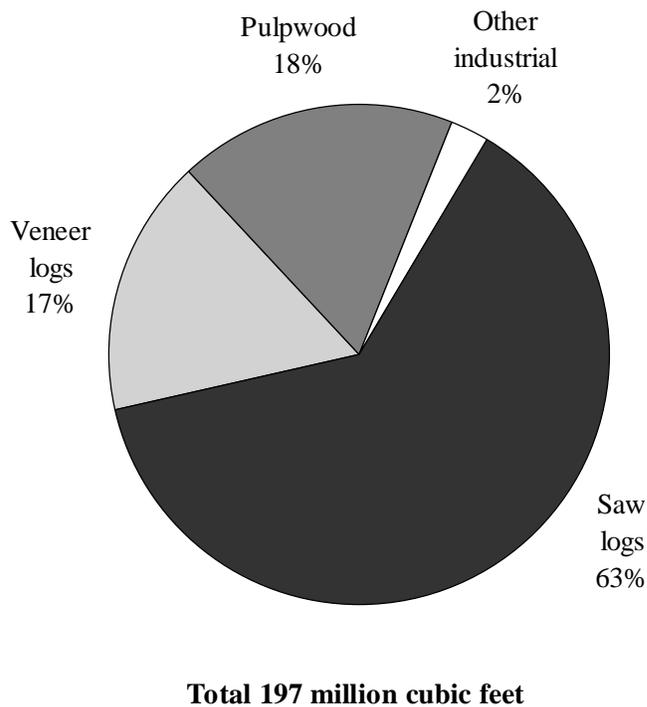


Figure 11—Primary mill residue produced by roundwood type, 1999.

Southern Coastal Plain Region

- Roundwood output from the Southern Coastal Plain region totaled 152 million cubic feet, down 9 percent since 1997. Softwood output declined 8 percent to 120 million cubic feet, while hardwood output dropped 12 percent to 32 million cubic feet.
- Saw-log production of 73 million cubic feet accounted for 48 percent of the total roundwood output for the region. Pulpwood accounted for 45 percent of the region's TPO and 21 percent of the State's roundwood pulpwood output.
- In the Southern Coastal Plain region, 30 primary wood-using plants were operating during 1999: 18 sawmills, 6 veneer or plywood mills, and 6 other miscellaneous mills. These mills processed 24 percent of the State's total roundwood output.

Northern Coastal Plain Region

- Roundwood output from the Northern Coastal Plain region totaled 233 million cubic feet, an increase of 14 percent.
- Production of pulpwood was up 23 percent and accounted for 56 percent of the region's total roundwood output and 40 percent of the State's total roundwood pulpwood output. Saw-log production of 88 million cubic feet accounted for 38 percent of the region's total roundwood output.
- The 26 mills operating in the Northern Coastal Plain region in 1999 included 15 sawmills, 4 veneer or plywood mills, 6 pulpmills, and 1 other miscellaneous mill. These mills processed 37 percent of the State's total roundwood output.

Piedmont Region

- Roundwood output from the Piedmont region of South Carolina totaled 241 million cubic feet, a decline of 6 percent since 1997. Roundwood production from this region accounted for 39 percent of the total roundwood TPO for the State.
- Pulpwood production was down 9 percent to 125 million cubic feet, accounting for 52 percent of the region's total TPO. Saw-log production of 81 million cubic feet accounted for another 34 percent of the region's total roundwood output.

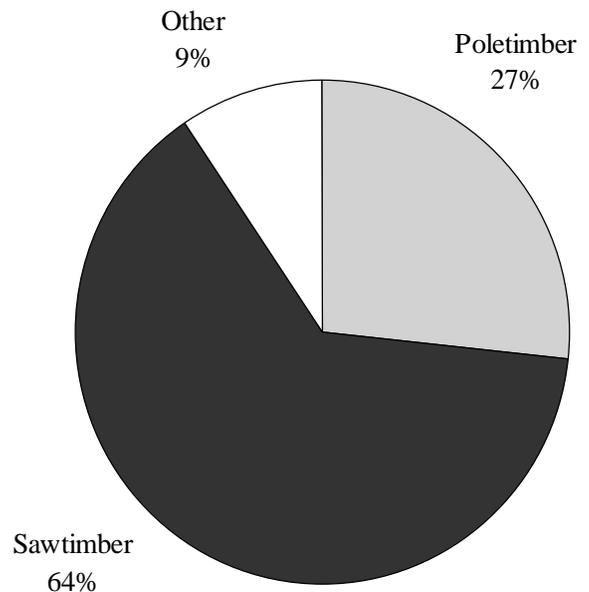
- The 34 primary wood-using plants operating in the Piedmont region included 30 sawmills, 2 veneer or plywood mills, 1 pulpmill, and 1 other miscellaneous mill.

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 625 million cubic feet of roundwood output for industrial roundwood products, an estimated 36 million cubic feet were harvested for domestic fuelwood, bringing South Carolina's total roundwood output to 661 million cubic feet.
- Ninety-one 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 63 million cubic feet, or 9 percent of total roundwood output (fig. 12).



Total 661 million cubic feet

Figure 12—Roundwood output by source, 1999.

Ownership

- An estimated 437 million cubic feet, or 66 percent, of the total roundwood output came from nonindustrial private forest (NIPF) lands.
- Forest industry lands contributed 171 million cubic feet, or 26 percent of the output. Public lands made up the remaining 8 percent, or 53 million cubic feet (fig. 13).

Species

- The loblolly and shortleaf pine group provided more volume than any other softwood species group, accounting for 74 percent of the total softwood output (fig. 14). The longleaf and slash pine type accounted for another 16 percent of the softwood output.
- The red oak and white oak groups combined accounted for 71 million cubic feet, or 40 percent of total hardwood output (fig. 15).

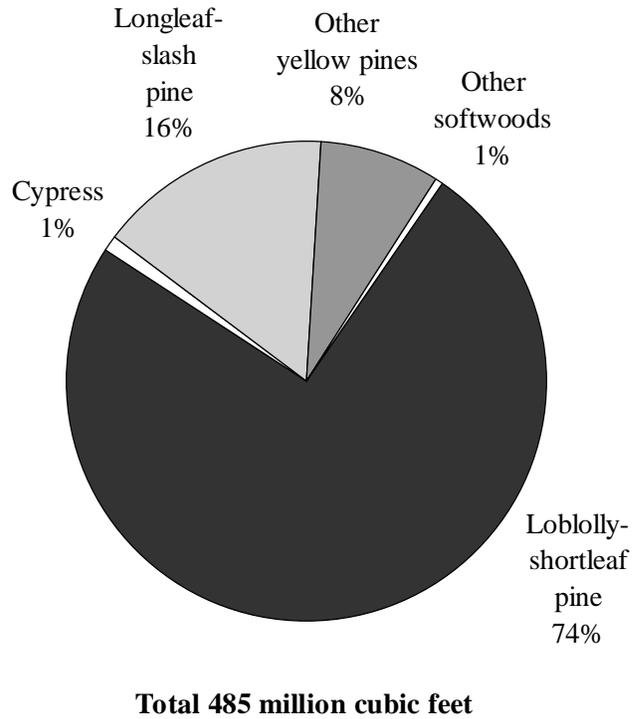


Figure 14—Roundwood output by softwood species group, 1999.

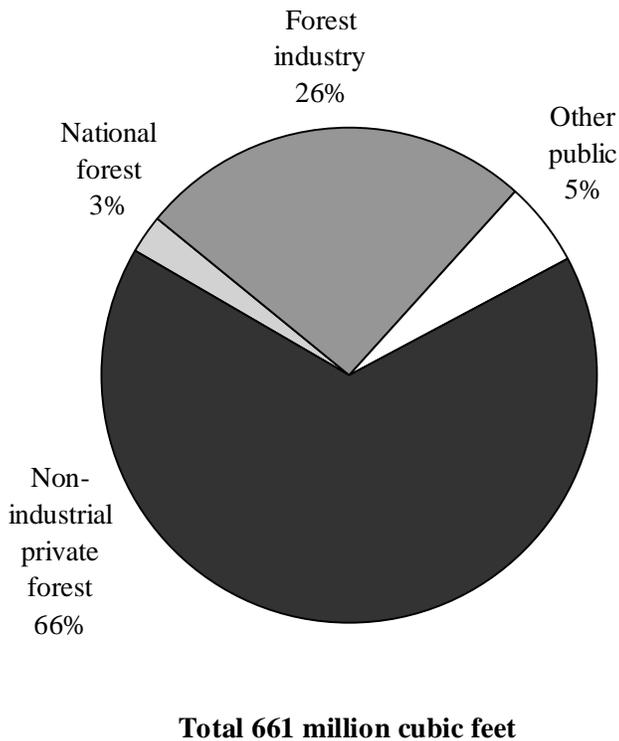


Figure 13—Roundwood output by ownership, 1999.

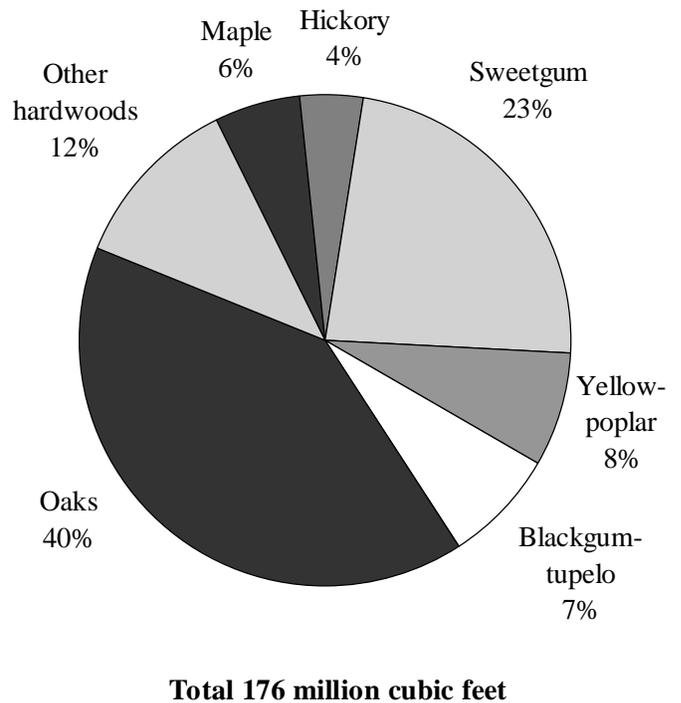


Figure 15—Roundwood output by hardwood species group, 1999.

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Definition of Terms

Board foot. Unit of measure applied to roundwood. It relates to lumber that is 1-foot long, 1-foot wide, and 1-inch thick (or its equivalent).

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

Composite products. 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 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 waferboard or chipboard.

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

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

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

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

Hardwoods. Dicotyledonous trees, usually broadleaf and deciduous.

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

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

Imports. The volume of 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, and veneer logs, intended to be processed into primary wood products, such as lumber, wood pulp, and 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 chippings, 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.

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.

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

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, and wood pulp.

Production. The total volume of 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 chipboard, 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 products. Any primary product, such as lumber, poles, pilings, pulp, or fuelwood that is produced from roundwood.

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

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.

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 less than 1.0 inch d.b.h. and greater than 1 foot tall for hardwoods, greater than 6 inches tall for softwood, and greater than 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 scalelike.

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 products. Roundwood products and byproducts.

Timber products output. The total volume of roundwood products from all sources plus the volume of byproducts

recovered from mill residues (equals roundwood product drain).

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 plant 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 sawtimber 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.

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Table 1—Output of industrial products by product and species group, South Carolina, 1997 and 1999

Product and species group	Year		Change	Percent change
	1997	1999		
<i>Thousand cubic feet</i>				
Saw logs				
Softwood	219,571	209,572	-9,999	-4.6
Hardwood	32,153	32,113	-40	-0.1
Total	251,724	241,685	-10,039	-4.0
Veneer logs				
Softwood	40,669	46,938	6,269	15.4
Hardwood	7,414	7,536	122	1.6
Total	48,083	54,474	6,391	13.3
Pulpwood^a				
Softwood	209,515	219,352	9,837	4.7
Hardwood	112,047	104,264	-7,783	-6.9
Total	321,562	323,616	2,054	0.6
Composite panels				
Softwood	2,593	1,374	-1,219	-47.0
Hardwood	748	74	-674	-90.1
Total	3,341	1,448	-1,893	-56.7
Other industrial				
Softwood	3,471	3,972	501	14.4
Hardwood	0	0	0	--
Total	3,471	3,972	501	14.4
All industrial				
Softwood	475,819	481,208	5,389	1.1
Hardwood	152,362	143,987	-8,375	-5.5
Total	628,181	625,195	-2,986	-0.5
Byproduct output				
Softwood	167,866	162,523	-5,343	-3.2
Hardwood	32,180	33,893	1,713	5.3
Total	200,046	196,416	-3,630	-1.8
Total output				
Softwood	643,685	643,731	46	0.0
Hardwood	184,542	177,880	-6,662	-3.6
Total	828,227	821,611	-6,616	-0.8

-- = negligible.

^a Includes roundwood delivered to nonpulp mills, then chipped and sold to pulpmills (9,957,000 cubic feet in 1997 and 11,055,000 cubic feet in 1999).

**Table 2—Roundwood receipts by product and species group,
South Carolina, 1997 and 1999**

Product and species group	Year		Change	Percent change
	1997	1999		
<i>Thousand cubic feet</i>				
Saw logs				
Softwood	215,783	203,575	-12,208	-5.7
Hardwood	27,695	24,975	-2,720	-9.8
Total	243,478	228,550	-14,928	-6.1
Veneer logs				
Softwood	38,359	45,723	7,364	19.2
Hardwood	7,401	7,777	376	5.1
Total	45,760	53,500	7,740	16.9
Pulpwood^a				
Softwood	219,710	225,326	5,616	2.6
Hardwood	108,076	75,518	-32,558	-30.1
Total	327,786	300,844	-26,942	-8.2
Composite panels				
Softwood	0	0	0	--
Hardwood	0	0	0	--
Total	0	0	0	--
Other industrial				
Softwood	3,411	3,956	545	16.0
Hardwood	0	0	0	--
Total	3,411	3,956	545	16.0
Total output				
Softwood	477,263	478,580	1,317	0.3
Hardwood	143,172	108,270	-34,902	-24.4
Total	620,435	586,850	-33,585	-5.4

-- = negligible.

^a Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (11,352,000 cubic feet in 1997 and 12,266,000 cubic feet in 1999).

Table 3—Number of primary wood-using plants by industry, South Carolina, 1979–1999

Industry	Year									
	1979	1983	1985	1987	1989	1992	1994	1995	1997	1999
Sawmills	128	113	118	99	87	79	76	70	66	63
Veneer mills	24	21	21	20	17	14	14	14	12	12
Pulpmills	7	8	8	8	8	9	8	8	8	7
Composite panel mills	0	0	0	0	0	0	0	0	0	0
Other mills	4	6	8	6	5	9	7	7	6	8
All plants	163	148	155	133	117	111	105	99	92	90

Table 4—Roundwood receipts by sawmill size, South Carolina, 1997 and 1999

Sawmill size class ^a	1997			1999		
	Number of mills	Thousand board feet	Percent of volume	Number of mills	Thousand board feet	Percent of volume
<i>Million board feet</i>						
<1.0	7	1,995	--	5	1,681	0
1.0–4.99	18	51,077	4	20	61,527	5
5.0–9.99	14	99,917	7	13	89,449	7
10.0–49.99	17	359,718	26	16	379,287	30
>50	10	850,955	63	9	747,711	58
Total	66	1,363,662	100	63	1,279,655	100

-- = negligible.

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

Table 5—Roundwood receipts by species and type of mill, South Carolina, 1999

Species	Type of mill						
	All mills	Sawmills	Veneer mills		OSB ^a and panels	Pulpmills ^b	Other mills
			Pine plywood	Other veneer			
<i>Thousand cubic feet</i>							
Softwood							
Yellow pine	251,353	201,704	45,618	75	0	NA	3,956
Eastern white pine	301	301	0	0	0	NA	0
Cedar	3	3	0	0	0	NA	0
Cypress	1,597	1,567	0	30	0	NA	0
Other softwood	0	0	0	0	0	NA	0
Unclassified	225,326	0	0	0	0	225,326	0
Total softwoods	478,580	203,575	45,618	105	0	225,326	3,956
Hardwood							
Blackgum and tupelo	1,749	925	0	824	0	NA	0
Soft maple	768	733	0	35	0	NA	0
Sweetgum	5,305	2,275	1,825	1,205	0	NA	0
Yellow-poplar	6,889	4,370	1,407	1,112	0	NA	0
Other soft hardwood	4,404	4,367	0	37	0	NA	0
Hickory	906	527	0	379	0	NA	0
Red oak	6,992	6,120	118	754	0	NA	0
White oak	3,574	3,500	39	35	0	NA	0
Other hard hardwood	2,165	2,158	0	7	0	NA	0
Unclassified	75,518	0	0	0	0	75,518	0
Total hardwoods	108,270	24,975	3,389	4,388	0	75,518	0
All species	586,850	228,550	49,007	4,493	0	300,844	3,956

NA = not applicable.

^a OSB = oriented strand board.

^b Only collected by softwood and hardwood and includes roundwood chipped.

Table 6—Industrial roundwood movement by year and species group, South Carolina, 1997 and 1999

Year	Production	Exported to	Retained	Imported from	Receipts
		other States		other States	
<i>Thousand cubic feet</i>					
Softwood					
1997	475,819	86,793	389,026	88,237	477,263
1999	481,208	63,450	417,758	60,822	478,580
Hardwood					
1997	152,362	45,782	106,580	36,592	143,172
1999	143,987	46,778	97,209	11,061	108,270
All species					
1997	628,181	132,575	495,606	124,829	620,435
1999	625,195	110,228	514,967	71,883	586,850

Table 7—Industrial roundwood movement by product and species group, South Carolina, 1999

Product and species group	Production	Exported to other States	Retained	Imported from other States	Receipts
<i>Thousand cubic feet</i>					
Saw logs					
Softwood	209,572	19,005	190,567	13,008	203,575
Hardwood	32,113	7,787	24,326	649	24,975
Total	241,685	26,792	214,893	13,657	228,550
Veneer logs					
Softwood	46,938	2,298	44,640	1,083	45,723
Hardwood	7,536	649	6,887	890	7,777
Total	54,474	2,947	51,527	1,973	53,500
Pulpwood^a					
Softwood	219,352	40,368	178,984	46,342	225,326
Hardwood	104,264	38,268	65,996	9,522	75,518
Total	323,616	78,636	244,980	55,864	300,844
Composite panels					
Softwood	1,374	1,374	0	0	0
Hardwood	74	74	0	0	0
Total	1,448	1,448	0	0	0
Other industrial					
Softwood	3,972	405	3,567	389	3,956
Hardwood	0	0	0	0	0
Total	3,972	405	3,567	389	3,956
All products					
Softwood	481,208	63,450	417,758	60,822	478,580
Hardwood	143,987	46,778	97,209	11,061	108,270
Total	625,195	110,228	514,967	71,883	586,850

^a Includes roundwood chipped.

Table 8—Saw-log volume by destination, source, and species group, South Carolina, 1999

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>Thousand cubic feet</i>			
South Carolina (retained)	214,893	190,567	24,326
Exports to:			
Florida	56	56	0
Georgia	16,243	15,677	566
North Carolina	10,492	3,272	7,220
Tennessee	1	0	1
Total	26,792	19,005	7,787
Imports from:			
Georgia	3,633	3,305	328
North Carolina	10,024	9,703	321
Total	13,657	13,008	649

Table 9—Veneer volume by destination, source, and species group, South Carolina, 1999

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>Thousand cubic feet</i>			
South Carolina (retained)	51,527	44,640	6,887
Exports to:			
Georgia	876	524	352
North Carolina	2,060	1,767	293
Virginia	11	7	4
Total	2,947	2,298	649
Imports from:			
Georgia	457	0	457
Maryland	11	0	11
North Carolina	1,469	1,083	386
Virginia	36	0	36
Total	1,973	1,083	890

Table 10—Pulpwood volume by destination, source, and species group, South Carolina, 1999^a

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>Thousand cubic feet</i>			
South Carolina (retained)	244,980	178,984	65,996
Exports to:			
Alabama	858	858	0
Georgia	55,503	20,775	34,728
North Carolina	22,275	18,735	3,540
Total	78,636	40,368	38,268
Imports from:			
Georgia	6	6	0
Kentucky	28	1	27
North Carolina	55,512	46,335	9,177
Virginia	318	0	318
Total	55,864	46,342	9,522

^a Includes roundwood chipped that was delivered to nonpulpmills, then chipped and sold to pulpmills.

Table 11—Composite panel volume by destination, source, and species group, South Carolina, 1999

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>Thousand cubic feet</i>			
South Carolina (retained)	0	0	0
Exports to:			
Georgia	1,448	1,374	74
Total	1,448	1,374	74

Table 12—Other industrial volume by destination, source, and species group, South Carolina, 1999^a

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>Thousand cubic feet</i>			
South Carolina (retained)	3,567	3,567	0
Exports to:			
Florida	19	19	0
Georgia	313	313	0
North Carolina	73	73	0
Total	405	405	0
Imports from:			
Georgia	195	195	0
North Carolina	194	194	0
Total	389	389	0

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

Table 13—Primary mill residue volume by roundwood type, species group, and residue type, South Carolina, 1999

Roundwood type and species group	All types	Residue type			
		Bark	Coarse	Sawdust	Shavings
<i>Thousand cubic feet</i>					
Saw logs					
Softwood	109,370	17,340	46,539	28,856	16,635
Hardwood	14,130	2,681	6,478	4,923	48
Total	123,500	20,021	53,017	33,779	16,683
Veneer logs					
Softwood	27,769	3,983	12,932	10,854	0
Hardwood	5,272	861	2,187	2,224	0
Total	33,041	4,844	15,119	13,078	0
Pulpwood					
Softwood	20,941	20,941	0	0	0
Hardwood	14,584	14,584	0	0	0
Total	35,525	35,525	0	0	0
Composite panels					
Softwood	0	0	0	0	0
Hardwood	0	0	0	0	0
Total	0	0	0	0	0
Other industrial^a					
Softwood	5,075	3,282	1,793	0	0
Hardwood	0	0	0	0	0
Total	5,075	3,282	1,793	0	0
Total					
Softwood	163,155	45,546	61,264	39,710	16,635
Hardwood	33,986	18,126	8,665	7,147	48
Total	197,141	63,672	69,929	46,857	16,683

^a Includes poles, pilings, posts, and other industrial products.

Table 14—Disposal of residue at primary wood-using plants by product, species group, and type of residue, South Carolina, 1997 and 1999

Product and species group	All types		Bark		Coarse		Sawdust		Shavings	
	1997	1999	1997	1999	1997	1999	1997	1999	1997	1999
<i>Thousand cubic feet</i>										
Fiber products										
Softwood	56,524	60,121	0	0	54,723	54,451	669	2,813	1,132	2,857
Hardwood	7,538	7,226	0	0	7,538	6,770	0	456	0	0
Total	64,062	67,347	0	0	62,261	61,221	669	3,269	1,132	2,857
Particleboard										
Softwood	18,694	12,831	0	163	6,287	319	5,239	6,603	7,168	5,746
Hardwood	246	480	0	8	203	0	0	456	43	16
Total	18,940	13,311	0	171	6,490	319	5,239	7,059	7,211	5,762
Charcoal/chemical wood										
Softwood	120	1,238	45	449	0	24	75	765	0	0
Hardwood	7	952	0	0	7	574	0	378	0	0
Total	127	2,190	45	449	7	598	75	1,143	0	0
Sawn products										
Softwood	1,626	3,133	0	0	1,626	3,133	0	0	0	0
Hardwood	119	13	0	0	119	13	0	0	0	0
Total	1,745	3,146	0	0	1,745	3,146	0	0	0	0
Fuel										
Softwood	76,905	72,350	39,178	38,344	2,458	2,797	31,130	27,078	4,139	4,131
Hardwood	21,827	23,357	14,611	16,803	562	946	6,623	5,577	31	31
Total	98,732	95,707	53,789	55,147	3,020	3,743	37,753	32,655	4,170	4,162
Miscellaneous										
Softwood	13,997	12,850	5,601	6,233	651	287	2,576	2,429	5,169	3,901
Hardwood	2,443	1,865	1,293	1,282	194	357	947	225	9	1
Total	16,440	14,715	6,894	7,515	845	644	3,523	2,654	5,178	3,902
Not used										
Softwood	205	632	59	357	141	253	5	22	0	0
Hardwood	47	93	40	33	0	5	7	55	0	0
Total	252	725	99	390	141	258	12	77	0	0
All products										
Softwood	168,071	163,155	44,883	45,546	65,886	61,264	39,694	39,710	17,608	16,635
Hardwood	32,227	33,986	15,944	18,126	8,623	8,665	7,577	7,147	83	48
Total	200,298	197,141	60,827	63,672	74,509	69,929	47,271	46,857	17,691	16,683

Table 15—Roundwood timber products output by product and species group, Southern Coastal Plain of South Carolina, 1997 and 1999

Product and species group	Year		Change	Percent change
	1997	1999		
<i>Thousand cubic feet</i>				
Saw logs				
Softwood	72,735	67,010	-5,725	-7.9
Hardwood	7,769	5,996	-1,773	-22.8
Total	80,504	73,006	-7,498	-9.3
Veneer logs				
Softwood	4,933	5,625	692	14.0
Hardwood	2,937	3,287	350	11.9
Total	7,870	8,912	1,042	13.2
Pulpwood^a				
Softwood	51,503	45,080	-6,423	-12.5
Hardwood	25,748	22,994	-2,754	-10.7
Total	77,251	68,074	-9,177	-11.9
Composite panels				
Softwood	0	0	0	--
Hardwood	0	0	0	--
Total	0	0	0	--
Other industrial				
Softwood	1,313	1,984	671	51.1
Hardwood	0	0	0	--
Total	1,313	1,984	671	51.1
All industrial				
Softwood	130,484	119,699	-10,785	-8.3
Hardwood	36,454	32,277	-4,177	-11.5
Total	166,938	151,976	-14,962	-9.0

-- = negligible.

^a Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (2,566,000 cubic feet in 1997 and 5,264,000 cubic feet in 1999).

Table 16—Roundwood timber products output by county, product, and species group, Southern Coastal Plain of South Carolina, 1999

County	All products		Saw logs		Veneer logs		Pulpwood ^a		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>											
Aiken	11,194	4,021	6,086	787	244	95	4,500	3,139	0	0	364	0
Allendale	6,199	983	4,707	98	0	293	1,339	592	0	0	153	0
Bamberg	7,075	2,020	4,494	452	119	371	2,291	1,197	0	0	171	0
Barnwell	7,049	1,423	4,982	248	119	316	1,791	859	0	0	157	0
Beaufort	3,535	294	2,600	12	119	146	816	136	0	0	0	0
Calhoun	2,999	1,475	1,347	406	358	56	1,294	1,013	0	0	0	0
Colleton	24,587	4,955	13,144	1,303	1,913	545	9,286	3,107	0	0	244	0
Dorchester	10,028	3,454	4,384	1,009	597	152	4,935	2,293	0	0	112	0
Hampton	15,152	3,922	8,982	98	358	645	5,513	3,179	0	0	299	0
Jasper	12,027	2,395	6,390	111	0	137	5,480	2,147	0	0	157	0
Lexington	7,915	1,210	4,715	152	125	16	2,855	1,042	0	0	220	0
Orangeburg	11,939	6,125	5,179	1,320	1,673	515	4,980	4,290	0	0	107	0
All counties	119,699	32,277	67,010	5,996	5,625	3,287	45,080	22,994	0	0	1,984	0

^a Includes roundwood delivered to nonpulp mills, then chipped and sold to pulpmills (5,264,000 cubic feet in 1999).

Table 17—Roundwood timber products output by product and species group, Northern Coastal Plain of South Carolina, 1997 and 1999

Product and species group	Year		Change	Percent change
	1997	1999		
<i>Thousand cubic feet</i>				
Saw logs				
Softwood	70,268	77,082	6,814	9.7
Hardwood	10,664	11,006	342	3.2
Total	80,932	88,088	7,156	8.8
Veneer logs				
Softwood	13,978	12,166	-1,812	-13.0
Hardwood	998	709	-289	-29.0
Total	14,976	12,875	-2,101	-14.0
Pulpwood^a				
Softwood	73,056	98,039	24,983	34.2
Hardwood	33,881	32,913	-968	-2.9
Total	106,937	130,952	24,015	22.5
Composite panels				
Softwood	0	0	0	--
Hardwood	0	0	0	--
Total	0	0	0	--
Other industrial				
Softwood	1,522	795	-727	-47.8
Hardwood	0	0	0	--
Total	1,522	795	-727	-47.8
All industrial				
Softwood	158,824	188,082	29,258	18.4
Hardwood	45,543	44,628	-915	-2.0
Total	204,367	232,710	28,343	13.9

-- = negligible.

^a Includes roundwood delivered to nonpulp mills, then chipped and sold to pulpmills (4,441,000 cubic feet in 1997 and 4,422,000 cubic feet in 1999).

Table 18—Roundwood timber products output by county, product, and species group, Northern Coastal Plain of South Carolina, 1999

County	All products		Saw logs		Veneer logs		Pulpwood ^a		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>											
Berkeley	13,537	1,681	3,454	439	956	6	9,127	1,236	0	0	0	0
Charleston	6,526	686	2,142	0	119	0	4,265	686	0	0	0	0
Chesterfield	12,907	2,044	4,205	948	0	40	8,702	1,056	0	0	0	0
Clarendon	6,144	1,642	1,818	665	478	6	3,848	971	0	0	0	0
Darlington	6,673	3,888	4,236	2,770	121	0	2,316	1,118	0	0	0	0
Dillon	5,744	2,136	2,854	553	317	0	2,481	1,583	0	0	92	0
Florence	16,036	3,870	9,091	601	1,596	124	5,215	3,145	0	0	134	0
Georgetown	20,323	2,021	8,991	0	610	5	10,640	2,016	0	0	82	0
Horry	23,364	5,155	14,840	648	1,099	24	7,270	4,483	0	0	155	0
Kershaw	14,323	2,757	4,994	659	1,726	129	7,479	1,969	0	0	124	0
Lee	3,378	922	1,777	260	239	0	1,362	662	0	0	0	0
Marion	9,857	5,111	5,076	1,207	494	69	4,183	3,835	0	0	104	0
Marlboro	17,895	2,456	3,991	465	2,024	31	11,880	1,960	0	0	0	0
Richland	9,576	5,318	2,593	360	456	221	6,527	4,737	0	0	0	0
Sumter	2,953	2,443	844	871	239	6	1,870	1,566	0	0	0	0
Williamsburg	18,846	2,498	6,176	560	1,692	48	10,874	1,890	0	0	104	0
All counties	188,082	44,628	77,082	11,006	12,166	709	98,039	32,913	0	0	795	0

^a Includes roundwood delivered to nonpulp mills, then chipped and sold to pulpmills (4,422,000 cubic feet in 1999).

Table 19—Roundwood timber products output by product and species group, Piedmont of South Carolina, 1997 and 1999

Product and species group	Year		Change	Percent change
	1997	1999		
<i>Thousand cubic feet</i>				
Saw logs				
Softwood	76,568	65,480	-11,088	-14.5
Hardwood	13,720	15,111	1,391	10.1
Total	90,288	80,591	-9,697	-10.7
Veneer logs				
Softwood	21,758	29,147	7,389	34.0
Hardwood	3,479	3,540	61	1.8
Total	25,237	32,687	7,450	29.5
Pulpwood^a				
Softwood	84,956	76,233	-8,723	-10.3
Hardwood	52,418	48,357	-4,061	-7.7
Total	137,374	124,590	-12,784	-9.3
Composite panels				
Softwood	2,593	1,374	-1,219	-47.0
Hardwood	748	74	-674	-90.1
Total	3,341	1,448	-1,893	-56.7
Other industrial				
Softwood	636	1,193	557	87.6
Hardwood	0	0	0	--
Total	636	1,193	557	87.6
All industrial				
Softwood	186,511	173,427	-13,084	-7.0
Hardwood	70,365	67,082	-3,283	-4.7
Total	256,876	240,509	-16,367	-6.4

-- = negligible.

^a Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (2,950,000 cubic feet in 1997 and 1,369,000 cubic feet in 1999).

Table 20—Roundwood timber products output by county, product, and species group, Piedmont of South Carolina, 1999

County	All products		Saw logs		Veneer logs		Pulpwood ^a		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>												
Abbeville	5,315	5,640	1,947	167	344	40	2,859	5,433	0	0	165	0
Anderson	5,292	3,687	2,093	1,890	438	113	2,615	1,684	0	0	146	0
Cherokee	6,454	2,315	1,225	707	884	516	4,345	1,092	0	0	0	0
Chester	13,330	2,847	3,208	549	4,222	414	5,745	1,884	0	0	155	0
Edgefield	11,426	2,471	6,457	0	624	0	4,259	2,471	0	0	86	0
Fairfield	19,236	4,004	5,737	167	3,717	351	9,638	3,486	0	0	144	0
Greenville	4,248	2,154	1,350	1,491	249	40	2,649	623	0	0	0	0
Greenwood	10,607	13,048	4,586	782	1,884	286	4,137	11,980	0	0	0	0
Lancaster	9,952	1,906	1,361	468	2,453	255	6,138	1,183	0	0	0	0
Laurens	11,458	3,650	3,609	1,107	2,759	255	5,053	2,288	0	0	37	0
McCormick	6,661	1,280	3,712	417	749	0	2,177	863	0	0	23	0
Newberry	14,569	5,685	6,582	362	2,634	159	5,209	5,164	0	0	144	0
Oconee	6,902	3,442	3,895	1,198	366	216	1,954	1,991	687	37	0	0
Pickens	7,527	2,600	4,397	1,459	257	44	2,186	1,060	687	37	0	0
Saluda	13,196	2,689	7,839	622	1,499	0	3,720	2,067	0	0	138	0
Spartanburg	6,572	2,665	2,690	1,592	249	0	3,633	1,073	0	0	0	0
Union	10,329	3,055	3,236	803	2,221	251	4,734	2,001	0	0	138	0
York	10,353	3,944	1,556	1,330	3,598	600	5,182	2,014	0	0	17	0
All counties	173,427	67,082	65,480	15,111	29,147	3,540	76,233	48,357	1,374	74	1,193	0

^a Includes roundwood delivered to nonpulp mills, then chipped and sold to pulpmills (1,369,000 cubic feet in 1999).

Table 21—Total roundwood output by product, species group, and source of material, South Carolina, 1999

Product and species group	All sources	Total	Growing-stock trees		Other sources
			Sawtimber	Poletimber	
<i>Thousand cubic feet</i>					
Saw logs					
Softwood	209,572	192,114	189,465	2,649	17,458
Hardwood	32,113	30,200	29,625	575	1,913
Total	241,685	222,314	219,090	3,224	19,371
Veneer logs and bolts					
Softwood	46,938	43,266	42,746	520	3,672
Hardwood	7,536	7,450	7,450	0	86
Total	54,474	50,716	50,196	520	3,758
Pulpwood					
Softwood	219,352	196,814	89,726	107,088	22,538
Hardwood	104,264	95,475	36,991	58,484	8,789
Total	323,616	292,289	126,717	165,572	31,327
Composite panels					
Softwood	1,374	1,236	560	676	138
Hardwood	74	68	26	42	6
Total	1,448	1,304	586	717	144
Poles and posts					
Softwood	3,642	3,021	2,944	78	621
Hardwood	0	0	0	0	0
Total	3,642	3,021	2,944	78	621
Other miscellaneous					
Softwood	330	270	198	73	60
Hardwood	0	0	0	0	0
Total	330	270	198	73	60
Total industrial products					
Softwood	481,208	436,722	325,638	111,084	44,486
Hardwood	143,987	133,193	74,092	59,100	10,794
Total	625,195	569,914	399,730	170,184	55,281
Fuelwood					
Softwood	4,077	1,939	1,060	879	2,138
Hardwood	32,041	26,874	21,454	5,420	5,167
Total	36,118	28,813	22,514	6,299	7,305
All products					
Softwood	485,285	438,661	326,698	111,963	46,624
Hardwood	176,028	160,066	95,546	64,520	15,962
Total	661,313	598,727	422,244	176,483	62,586

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

Table 22—Total roundwood output by species group, survey region, and ownership class, South Carolina, 1999

Species group and survey region	Total	Ownership class			
		National forest	Other public	Forest industry	Nonindustrial private
<i>Thousand cubic feet</i>					
Softwoods					
Southern Coastal Plain	120,712	0	6,994	28,059	85,660
Northern Coastal Plain	189,677	4,231	11,016	60,325	114,105
Piedmont	174,896	8,204	4,294	48,012	114,386
Total softwoods	485,285	12,435	22,303	136,396	314,151
Hardwoods					
Southern Coastal Plain	39,461	0	722	9,184	29,556
Northern Coastal Plain	54,558	338	4,021	10,327	39,872
Piedmont	82,009	3,740	9,252	15,156	53,860
Total hardwoods	176,028	4,078	13,995	34,667	123,288
All species	661,313	16,513	36,298	171,063	437,439

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

Table 23—Total roundwood output by species group, detailed species group, and product, South Carolina, 1999

Species group and detailed species group	Total	Product						
		Saw log	Veneer	Pulpwood	Composite panel	Poles and posts	Other miscellaneous	Fuelwood
<i>Thousand cubic feet</i>								
Softwood								
Cedar	2,845	790	668	1,329	0	18	16	24
Longleaf-slash pine	77,048	35,313	3,985	36,350	0	746	8	646
White pine	337	173	16	122	23	0	0	3
Loblolly-shortleaf pine	360,999	154,158	38,887	160,924	1,068	2,627	303	3,033
Other yellow pines	38,089	16,227	2,914	18,139	283	204	2	321
Cypress	5,967	2,912	468	2,489	0	48	0	50
Total softwoods	485,285	209,572	46,938	219,352	1,374	3,642	330	4,077
Hardwood								
Soft maple	9,916	1,865	355	5,890	2	0	0	1,805
Other birch	712	228	42	313	0	0	0	130
Hickory	7,375	1,668	262	4,101	2	0	0	1,342
Beech	525	156	22	250	1	0	0	96
Ash	5,307	873	223	3,244	1	0	0	966
Black walnut	54	2	4	38	0	0	0	10
Sweetgum	40,994	5,589	1,826	26,117	1	0	0	7,462
Yellow-poplar	13,323	3,304	604	6,971	19	0	0	2,425
Blackgum-tupelo	12,889	2,105	501	7,934	2	0	0	2,346
Sycamore	1,759	231	137	1,071	0	0	0	320
Cottonwood	645	103	50	375	0	0	0	117
Black cherry	411	72	28	236	1	0	0	75
Select white oaks	15,220	3,478	544	8,412	15	0	0	2,770
Other white oaks	6,931	1,415	232	4,019	3	0	0	1,262
Select red oaks	6,212	914	204	3,962	2	0	0	1,131
Other red oaks	42,491	7,987	2,154	24,593	23	0	0	7,735
Elm	4,578	596	143	3,005	1	0	0	833
Other Eastern hardwoods	6,684	1,528	204	3,732	3	0	0	1,216
Total hardwoods	176,028	32,113	7,536	104,264	74	0	0	32,041
All species	661,313	241,685	54,474	323,616	1,448	3,642	330	36,118

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

Table 24—Total roundwood output by species group, detailed species group, and ownership class, South Carolina, 1999

Species group and detailed species group	Total	Ownership class			
		National forest	Other public	Forest industry	Nonindustrial private
<i>Thousand cubic feet</i>					
Softwood					
Cedar	2,845	130	102	969	1,644
Longleaf-slash pine	77,048	708	8,174	21,096	47,070
White pine	337	44	8	0	285
Loblolly-shortleaf pine	360,999	11,044	12,393	106,212	231,350
Other yellow pines	38,089	508	1,448	6,866	29,266
Cypress	5,967	0	179	1,252	4,536
Total softwoods	485,285	12,435	22,303	136,396	314,151
Hardwood					
Soft maple	9,916	107	722	2,131	6,957
Other birch	712	84	162	154	311
Hickory	7,375	155	1,127	1,369	4,725
Beech	525	8	53	54	410
Ash	5,307	84	487	867	3,869
Black walnut	54	0	0	20	33
Sweetgum	40,994	746	3,118	7,855	29,276
Yellow-poplar	13,323	261	863	2,760	9,439
Blackgum-tupelo	12,889	60	696	2,704	9,429
Sycamore	1,759	292	15	560	891
Cottonwood	645	0	61	174	411
Black cherry	411	18	27	50	316
Select white oaks	15,220	565	1,231	2,800	10,624
Other white oaks	6,931	233	882	1,147	4,668
Select red oaks	6,212	174	677	1,594	3,768
Other red oaks	42,491	1,068	2,849	8,621	29,954
Elm	4,578	157	359	822	3,240
Other Eastern hardwoods	6,684	68	663	985	4,969
Total hardwoods	176,028	4,078	13,995	34,667	123,288
All species	661,313	16,513	36,298	171,063	437,439

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



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In 1999, roundwood output from South Carolina's forests totaled 625 million cubic feet, 1 percent less than in 1997. Mill byproducts generated from primary manufacturers declined 2 percent to 197 million cubic feet. Almost all plant residues were used primarily for fuel and fiber products. Pulpwood was the leading roundwood product at 324 million cubic feet; saw logs ranked second at 242 million cubic feet; veneer logs were third at 54 million cubic feet. The number of primary processing plants declined from 92 in 1997 to 90 in 1999. Total receipts declined 5 percent to 587 million cubic feet.

Keywords: Pulpwood, residues, roundwood, saw logs, veneer logs, wood movement.

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