United States
Department of
Agriculture

Forest Service

**Southern
Research Station**

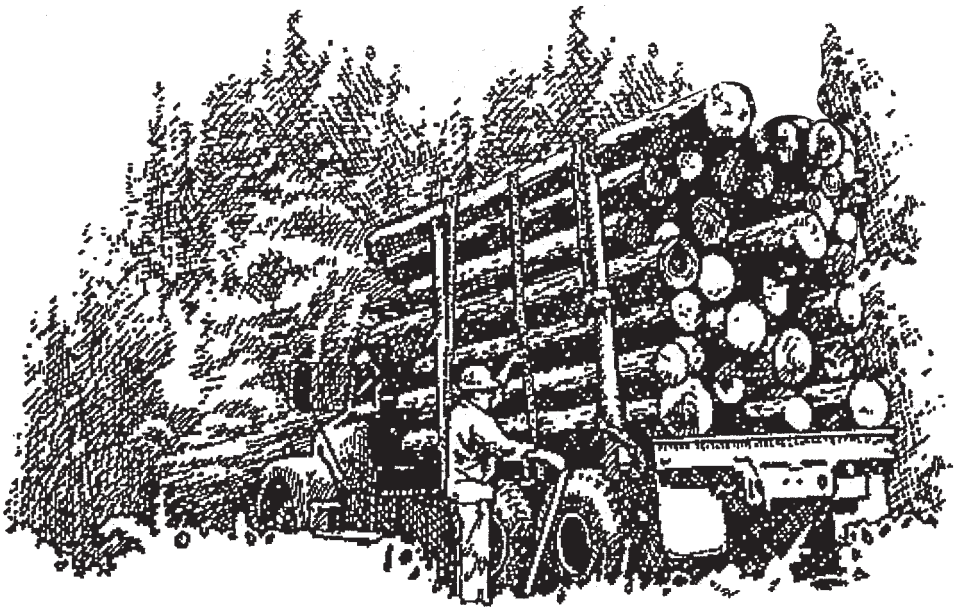
Resource Bulletin
SRS–161

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

**James R. Schiller,
Nathan McClure,
and Risher A. Willard**

The Authors:

James R. Schiller, Forester, U.S. Forest Service, Southern Research Station, Knoxville, TN 37919; **Nathan McClure**, Staff Forester, and **Risher A. Willard**, Staff Forester, Georgia Forestry Commission, Macon, GA 31202.



July 2009

Southern Research Station
200 W.T. Weaver Blvd.
Asheville, NC 28804

Foreword

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

A 100-percent canvass of all wood processors in Georgia was conducted in 2008 to obtain information for 2007. In addition, roundwood from out-of-State mills known to be using logs or bolts harvested from Georgia timberland was incorporated into Georgia 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 1961, and are currently conducted every 2 years.

Pulpwood production data were taken from an annual canvass of all southern pulpmills. Medium density fiberboard, insulating board, and hardboard plants were included in this survey.

Acknowledgments

The authors thank Dru Preston and Frank Green for review and comments; Carolyn Steppleton and Michael Howell for their tireless efforts in processing and accuracy of the data; Helen Beresford for timber product output database maintenance and support; Anne Jenkins, Janet Griffin, Sharon Johnson, and Charlene Walker for tables, graphs, and the Southern Research Station (SRS) Technical Publications Team for editorial review, styling, and publication of this report.

The SRS gratefully acknowledges the cooperation and assistance provided by the Georgia Forestry Commission in collecting mill data. Appreciation is also extended to forest industry and mill managers for providing timber products information.

Timber Product Output Database Retrieval System

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

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.

Tony Johnson
Southern Research Station
USDA Forest Service
4700 Old Kingston Pike
Knoxville, TN 37919
tjohnson09@fs.fed.us
865-862-2042

Helen Beresford
Southern Research Station
USDA Forest Service
4700 Old Kingston Pike
Knoxville, TN 37919
hberesford@fs.fed.us
865-862-2091

James Bentley
Southern Research Station
USDA Forest Service
4700 Old Kingston Pike
Knoxville, TN 37919
jbentley@fs.fed.us
865-862-2056

Carolyn Steppleton
Southern Research Station
USDA Forest Service
200 W.T. Weaver Blvd.
Asheville, NC 28804
csteppleton@fs.fed.us
828-257-4848

Contents

[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.

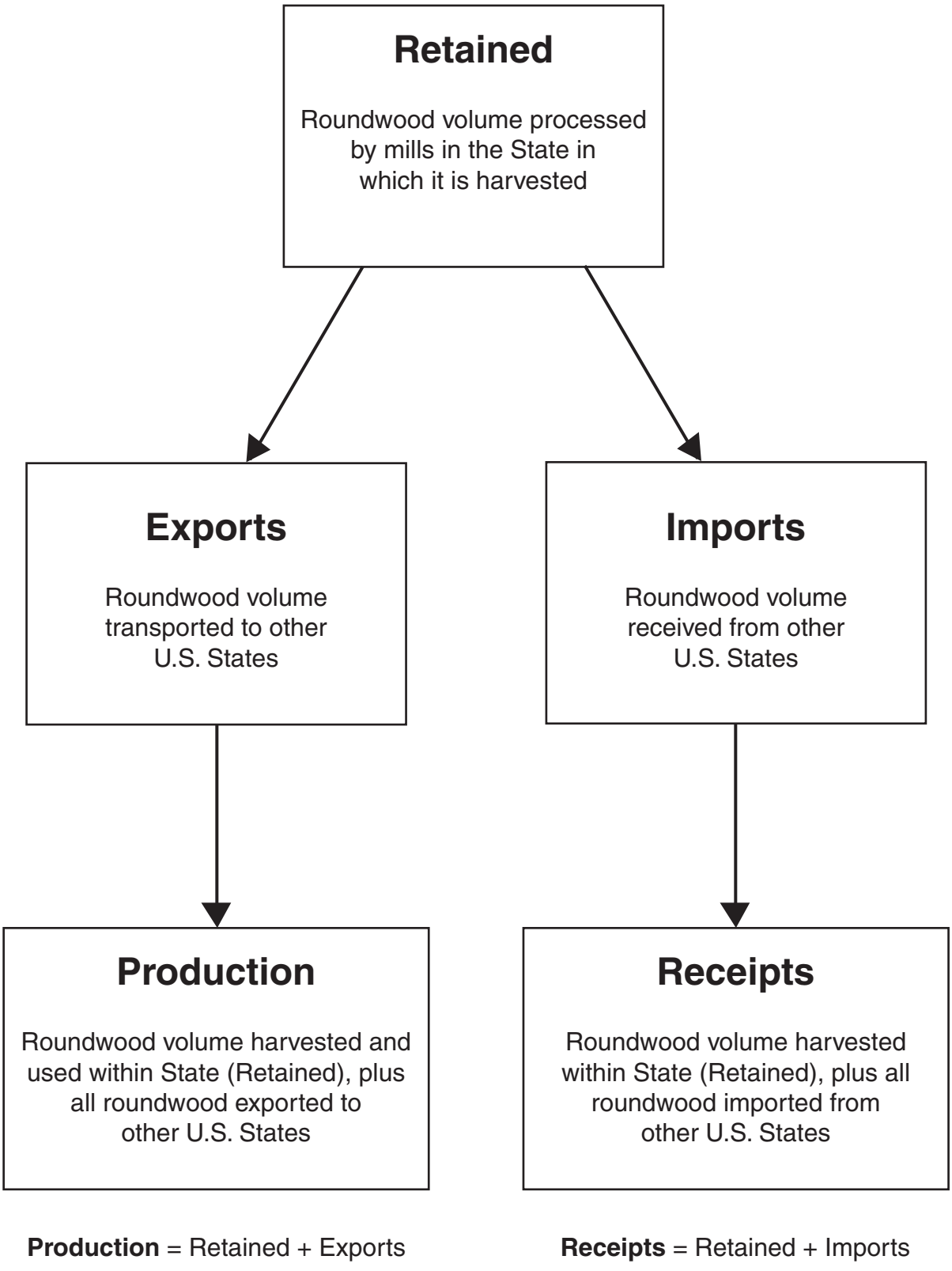


Figure 1—Movement of roundwood exports and imports within the United States.

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

James R. Schiller, Nathan McClure, and Risher A. Willard

Output of Industrial Timber Products

Note: Certain terms used in this report—retained, export, import, production, and receipts—have specialized meanings and relationships unique to the Forest Inventory and Analysis Work Units across the country that deal with timber product output (TPO) (fig. 1).

All Products

- TPO from roundwood increased 44.5 million cubic feet, or 3.8 percent, to 1.21 billion cubic feet, while output of utilized plant byproducts was down 25 million cubic feet, or 5.6 percent, to 413 million cubic feet.
- Output of softwood roundwood products increased 3.9 percent, totaling 1.04 billion cubic feet, while output of hardwood roundwood products was up 3.4 percent to 172 million cubic feet (fig. 2).
- Pulpwood and saw logs were the principal roundwood products in 2007. Combined output of these two products totaled 1.02 billion cubic feet and accounted for 85 percent of the State's total industrial roundwood output (fig. 3).
- Total receipts at Georgia mills, which included roundwood harvested and retained in the State and roundwood imported from other States, increased slightly (<1 percent) from 1.21 billion cubic feet to 1.22 billion cubic feet. At the same time, the number of primary roundwood-using plants in Georgia declined from 181 in 2005 to 168 in 2007 (fig. 4). The number of sawmills declined by 10, veneer mills declined by 1 and other miscellaneous mills declined by 2.
- Across all products, 85 percent of roundwood harvested was retained for processing at Georgia mills. Exports of roundwood to other States amounted to 180 million

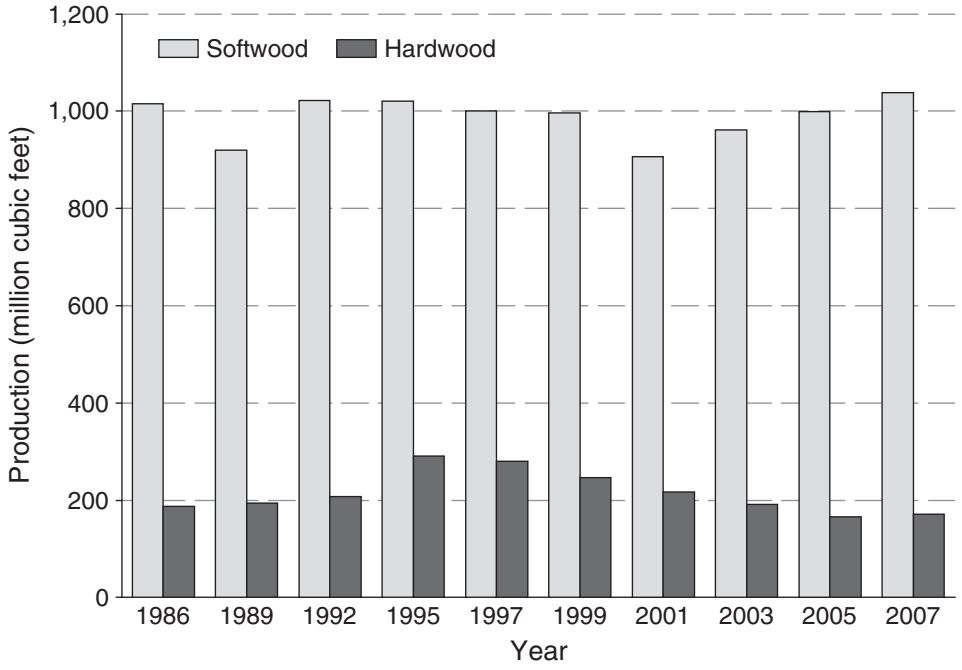


Figure 2—Roundwood production for all products by species group and year (see page 8 for references for individual years), Georgia.

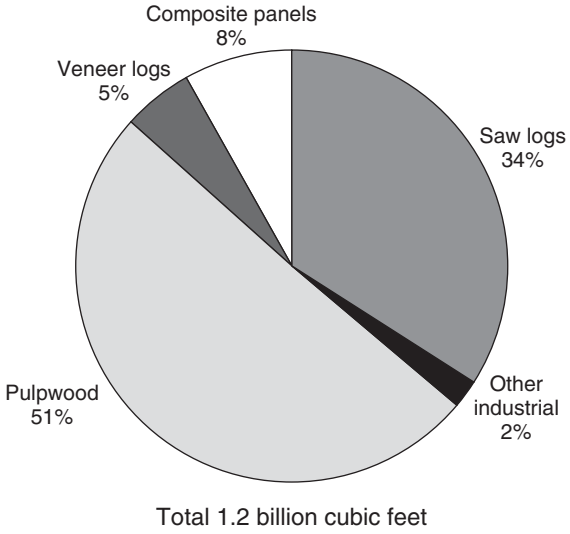


Figure 3—Roundwood production by type of product, Georgia, 2007.

cubic feet, while imports of roundwood amounted to 186 million cubic feet making the State a net importer of roundwood. Tables A.8 to A.12 show exports to and imports from other States by individual product type.

Pulpwood

- Total pulpwood production, including chipped roundwood, increased almost 13 percent to 611 million cubic feet and accounted for almost 51 percent of the State's total roundwood TPO compared to 47 percent of total TPO in 2005. Softwood output increased to 508 million cubic feet (7.0 million cords); hardwood output increased as well to 103 million cubic feet (1.4 million cords) (fig. 5). These were increases from 2005 numbers of 12 percent and 18 percent, respectively.

- Twelve pulpmill facilities were operating and receiving roundwood in Georgia in 2007, the same as in 2005. Total pulpwood receipts for these mills increased to 606 million cubic feet, accounting for 50 percent of total receipts for all mills.

- Eighty percent of roundwood cut for pulpwood was retained for processing at Georgia pulpmills. Roundwood pulpwood accounted for 68 percent of total known

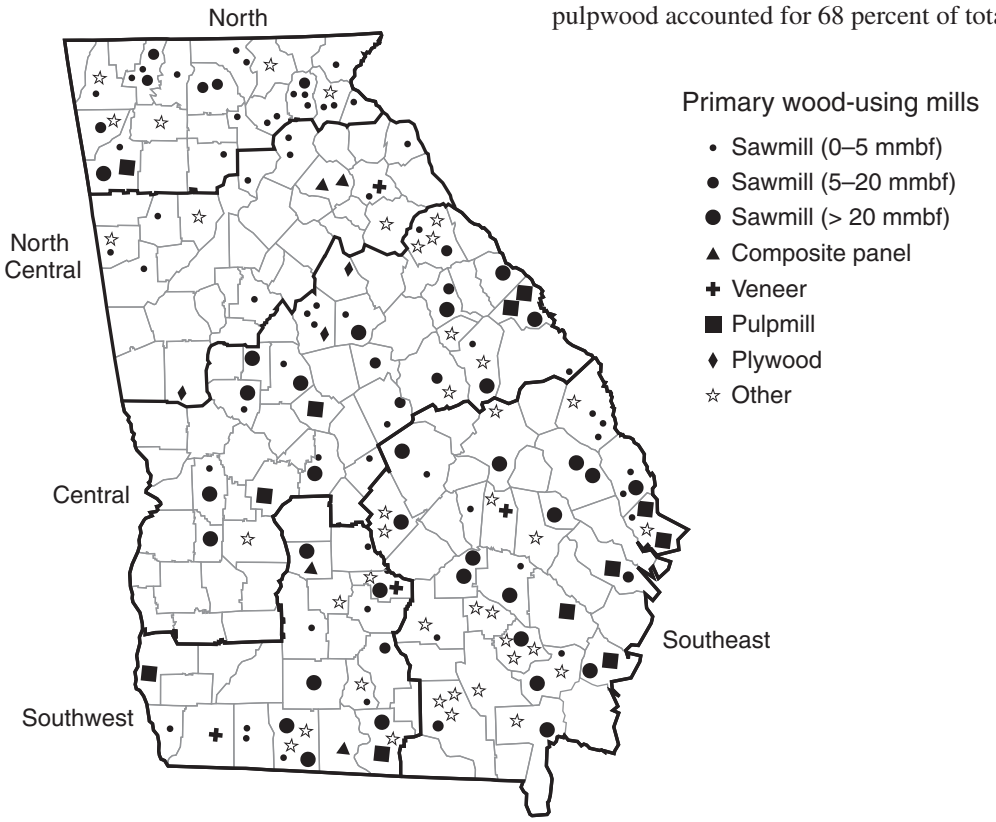


Figure 4—Primary wood-using mills by region, Georgia, 2007.

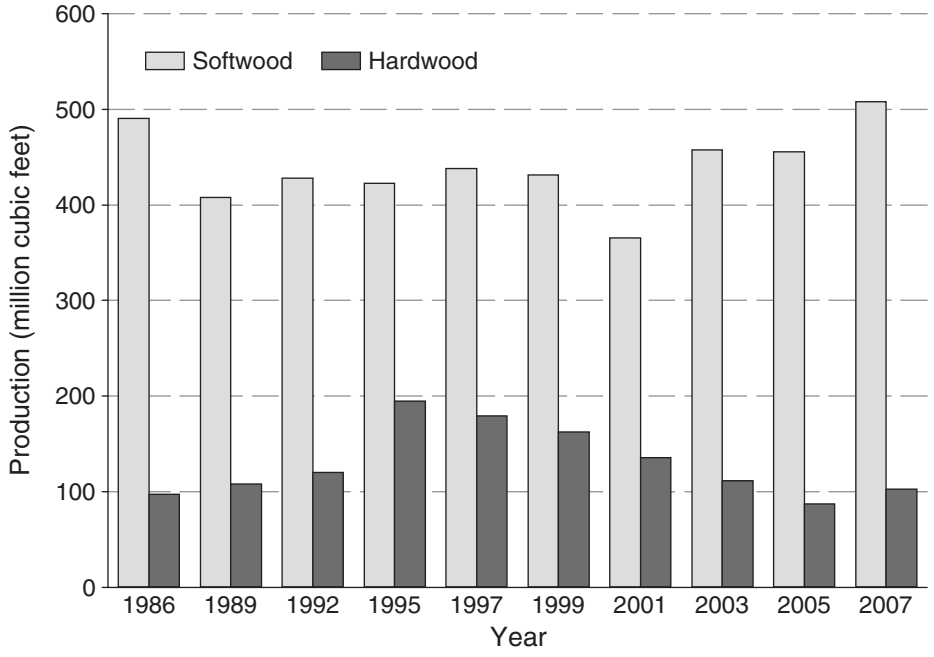


Figure 5—Roundwood pulpwood production by species group and year (see page 8 for references for individual years), Georgia.

exports and 63 percent of total imports. Roundwood pulpwood exports exceeded imports by 5 million cubic feet, making the State a net exporter of pulpwood for processing.

Saw Logs

- Saw logs accounted for 34 percent of the State's total roundwood products. Output of softwood saw logs decreased 11 percent to 352 million cubic feet (1.9 billion board feet, International ¼-inch rule), while that of hardwood saw logs was down 6 percent to 60 million cubic feet (355 million board feet, International ¼-inch rule) (fig. 6).

- In 2007, Georgia had 105 sawmills, 10 fewer mills than in 2005. The total number of sawmills does not include the several single operator sawmills in the State. Total saw-log receipts were down more than 47 million cubic feet to 430 million cubic feet. Softwood saw-log receipts decreased 11 percent to 368 million cubic feet, while those of hardwoods declined 6 percent to 62 million cubic feet. Of the operating mills in 2007, 31 percent had receipts of < 1 million board feet, while 38 percent had receipts > 10 million board feet. Those 40 mills, however, accounted for 95 percent of total saw-log receipts.

- Georgia retained 93 percent of its saw-log production for within State manufacture, with saw-log imports exceeding exports by 18 million cubic feet in 2007.

Veneer Logs

- Output of veneer logs in 2007 totaled 63 million cubic feet and accounted for 5 percent of the State's total roundwood TPO volume. Softwood veneer production was down 14 percent to 58 million cubic feet (338 million board feet, International ¼-inch rule); output of hardwood veneer logs declined 24 percent to 6 million cubic feet (36 million board feet, International ¼-inch rule) (fig. 7).

- The number of veneer mills operating in Georgia declined from 8 to 7 for 2007. Receipts of veneer logs decreased 17 percent to 65 million cubic feet. Softwood veneer receipts were down 9 million cubic feet to 52 million cubic feet, while hardwood veneer receipts declined 26 percent to 12 million cubic feet.

- Georgia retained 81 percent of its veneer-log production for processing at veneer mills within the State. Imports amounted to 13 million cubic feet, and exports totaled 12 million cubic feet, making the State a net importer of roundwood veneer logs.

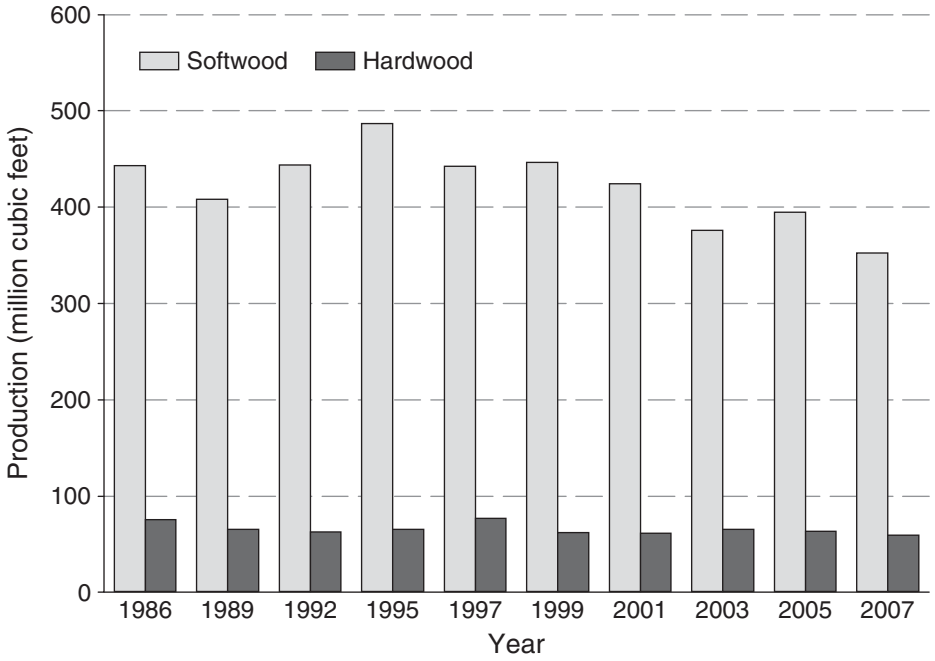


Figure 6—Roundwood saw-log production by species group and year (see page 8 for references for individual years), Georgia.

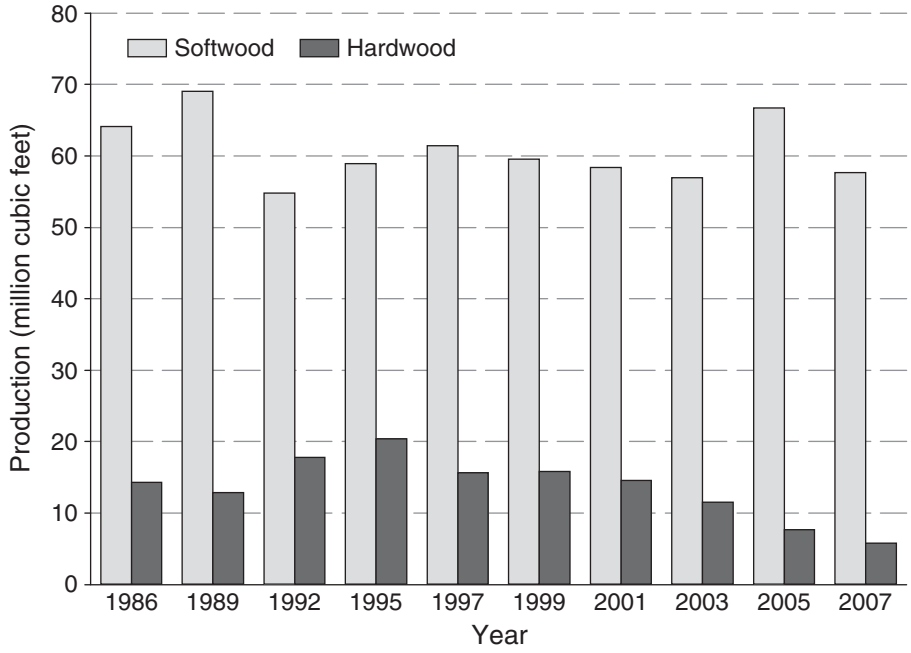


Figure 7—Roundwood veneer-log production by species group and year (see page 8 for references for individual years), Georgia.

Composite Panels

- Roundwood harvested from Georgia's forests for composite panels increased 56 percent and totaled 98 million cubic feet. Softwood output was up 69 percent to 95 million cubic feet (1,315,000 cords); hardwood production decreased 58 percent to 3 million cubic feet (37,000 cords) (fig. 8).
- Four composite panel, or oriented strand board, mills were operating in Georgia in 2007. Total receipts for these mills increased 39 percent to 90 million cubic feet, and accounted for 7 percent of the State's total receipts.
- Eighty-five percent of the roundwood production harvested for composite panels was retained for processing at Georgia's mills. Imports amounted to 7 million cubic feet, and exports totaled 14 million cubic feet, making the State a net exporter of roundwood used for composite panels.

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 26 million cubic feet, a 4 percent decrease from 2005. Softwood made up 98 percent of the other industrial products volume.
- The number of plants producing other industrial products totaled 40 in 2007. Combined receipts of other industrial products from softwood and hardwood declined to 26 million cubic feet.
- Georgia was a net importer of roundwood used for other industrial products, but only by a small margin; nearly all of the 1.8 million cubic feet exported and 1.8 million cubic feet imported were softwood.

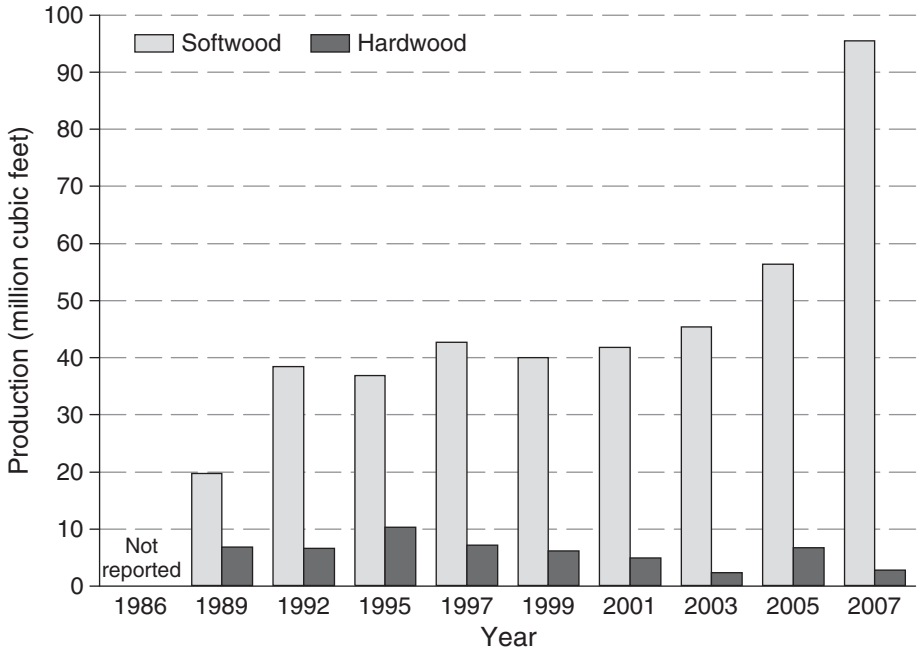


Figure 8—Roundwood production for composite panels by species group and year (see page 8 for references for individual years), Georgia.

Plant Byproducts

- In 2007, processing of primary products in Georgia mills generated 413 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 148 million cubic feet, while bark volume totaled 147 million cubic feet. Collectively, sawdust and shavings made up 29 percent of total residues, or 118 million cubic feet (fig. 9).

- The processing of saw logs generated 261 million cubic feet of mill residues, accounting for 63 percent of the total residues produced (fig. 10).

- Nearly 413 million cubic feet, or 100 percent, of the wood and bark residues were used for a product. While <1 percent of the residues were not used for a product, 49 percent of the residues were used for industrial fuel and 28 percent were used for fiber products (fig. 11). More than 114 million cubic feet, or 77 percent, of the coarse residues were used for fiber products. Most of the bark was used for industrial fuel or other miscellaneous products, while 63 percent of the sawdust and shavings were used for industrial fuel.

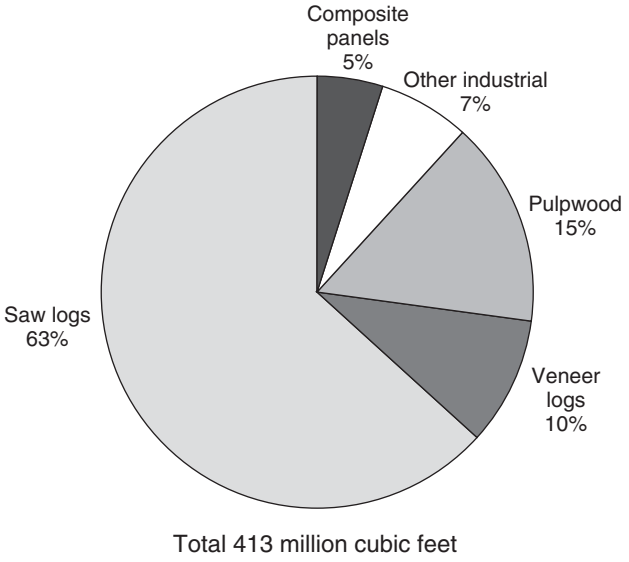


Figure 10—Primary mill residue produced by roundwood type, Georgia, 2007.

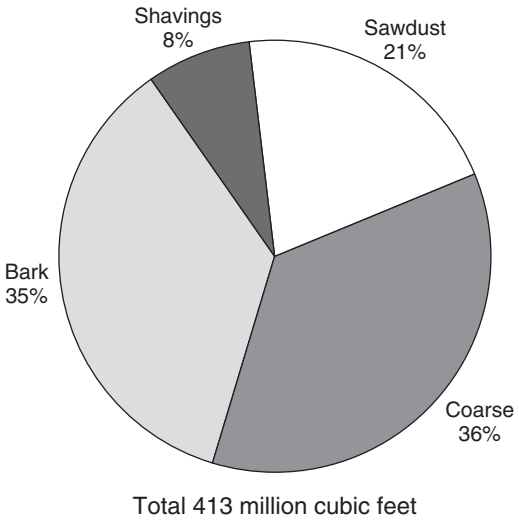


Figure 9—Primary mill residue by residue type, Georgia, 2007.

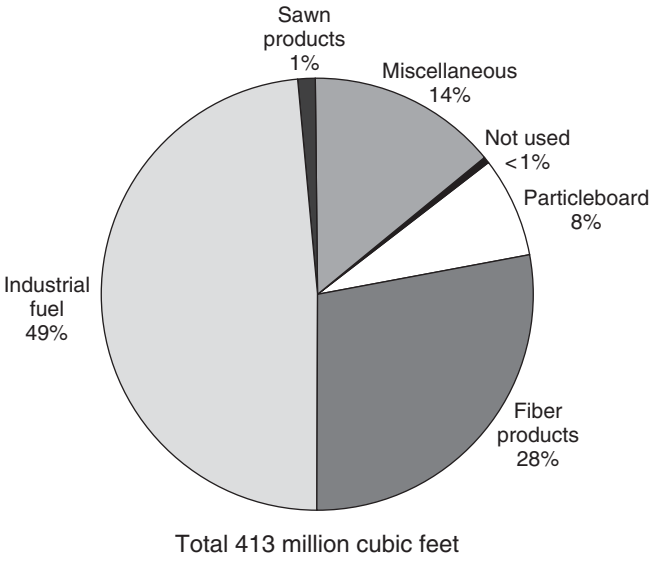


Figure 11—Disposal of residue by product, Georgia, 2007.

County Data

- Table A.15 shows softwood and hardwood product output by county and individual product type. All 159 counties in Georgia had softwood and hardwood output. Twenty-two counties (Appling, Brantley, Burke, Camden, Charlton, Clinch, Dodge, Effingham, Emanuel, Hancock, Laurens, Long, McIntosh, Screven, Telfair, Toombs, Ware, Washington, Wayne, Wilcox, Wilkes, and Wilkinson) had combined softwood and hardwood product output of >15 million cubic feet each. The total product output of these 22 counties amounted to 436 million cubic feet and accounted for 36 percent of the State's total product output.

Total Roundwood Output

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

Source

- In addition to the 1.21 billion cubic feet of roundwood output for industrial roundwood, an estimated 42 million cubic feet were harvested for domestic fuelwood, bringing Georgia's total roundwood output to 1.25 billion cubic feet.

- Ninety-five 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 65 million cubic feet, or 5 percent of total roundwood output (fig. 12).

Ownership

- An estimated 844 million cubic feet, or 68 percent, of the total roundwood output came from nonindustrial private forest lands. Forest industry lands contributed 378 million cubic feet, or 30 percent of the output. Public lands made up the remaining 2 percent, or 29 million cubic feet (fig. 13).

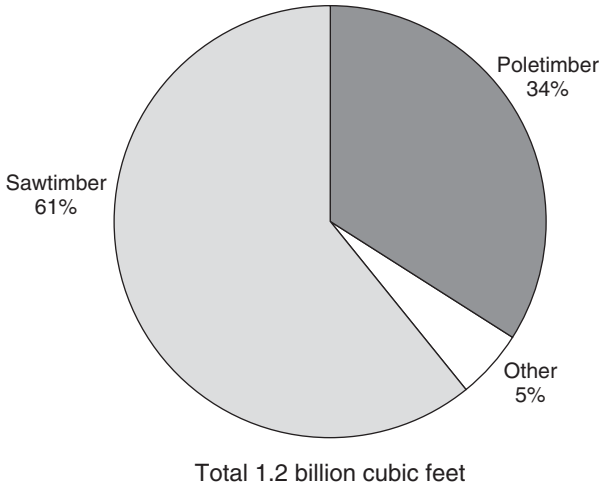


Figure 12—Roundwood output by source, Georgia, 2007.

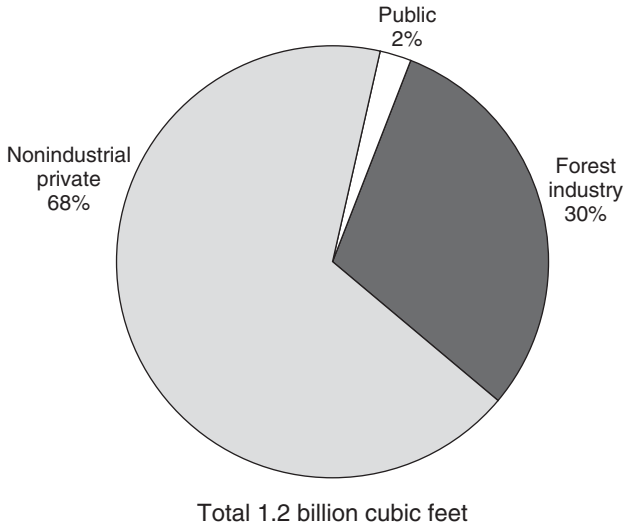


Figure 13—Roundwood output by ownership, Georgia, 2007.

Species

- The loblolly and shortleaf pine group provided the most volume of any softwood species group, accounting for 62 percent of the total softwood output (fig. 14). The longleaf-slash pine type accounted for 33 percent of the softwood output. In hardwoods, the red oak and white oak groups combined accounted for 85 million cubic feet, or 40 percent of total hardwood output (fig. 15).

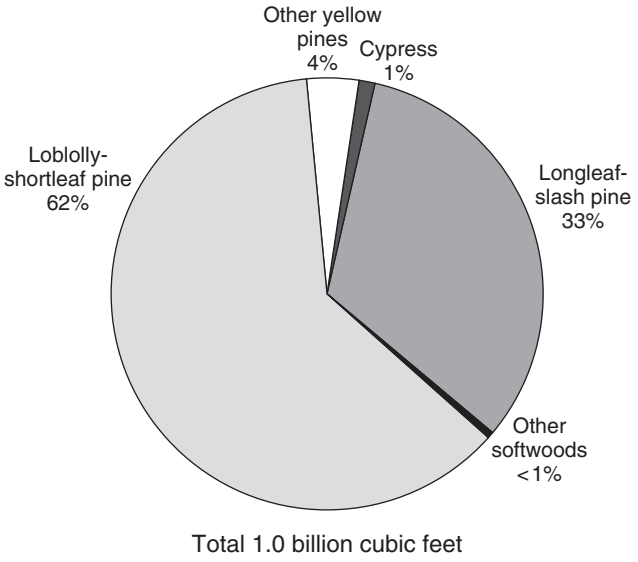


Figure 14—Roundwood output by softwood species group, Georgia, 2007.

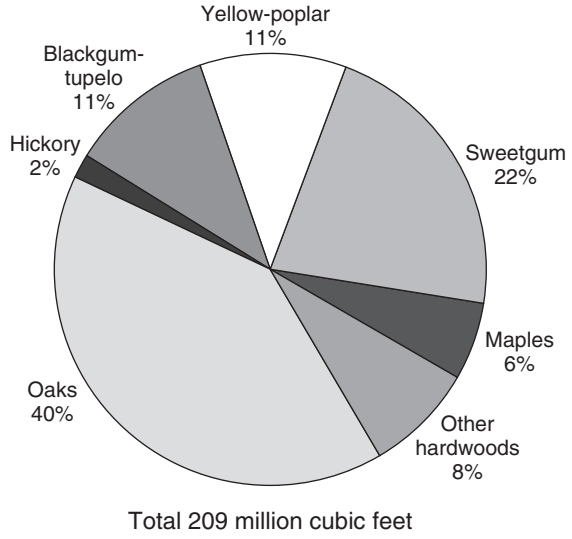


Figure 15—Roundwood output by hardwood species group, Georgia, 2007.

References

Johnson, T.G. 1994. Georgia's timber industry—an assessment of timber product output and use, 1992. Resour. Bull. SE–144. Asheville, NC: U.S. Department of Agriculture Forest Service, Southeastern Forest Experiment Station. 32 p. [1992].

Johnson, T.G.; Jenkins, A.W.; Wells, J.L. 1997. Georgia's timber industry—an assessment of timber product output and use, 1995. Resour. Bull. SRS–14. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 37 p. [1995].

Johnson, T.G.; McClure, N.; Wells, J.L. 2007. Georgia's timber industry—an assessment of timber product output and use, 2005. Resour. Bull. SRS–123. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 36 p. [2005].

Johnson, T.G.; Wells, J.L. 1999. Georgia's timber industry—an assessment of timber product output and use, 1997. Resour. Bull. SRS–38. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 36 p. [1997].

Johnson, T.G.; Wells, J.L. 2002. Georgia's timber industry—an assessment of timber product output and use, 1999. Resour. Bull. SRS–68. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 40 p. [1999].

Johnson, T.G.; Wells, J.L. 2004. Georgia's timber industry—an assessment of timber product output and use, 2001. Resour. Bull. SRS–92. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 40 p. [2001].

Johnson, T.G.; Wells, J.L. 2005. Georgia's timber industry—an assessment of timber product output and use, 2003. Resour. Bull. SRS–104. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 46 p. [2003].

Little, E.L., Jr. 1979. Checklist of United States trees (native and naturalized). Agric. Handb. 541. Washington, DC: U.S. Department of Agriculture. 375 p.

Tansey, J.B.; Steppleton, C.D. 1991. Georgia's timber industry—an assessment of timber product output and use, 1989. Resour. Bull. SE–126. Asheville, NC: U.S. Department of Agriculture Forest Service, Southeastern Forest Experiment Station. 23 p. [1986, 1989].

Glossary

Board foot. A unit of measure applied to lumber that is 1-foot long, 1-foot wide, and 1-inch thick (or its equivalent) and also associated with roundwood as to its potential yield of such products.

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

Composite panels. Roundwood products manufactured into chips, wafers, strands, flakes, shavings, or sawdust and then reconstituted into a variety of panel and engineered lumber products.

Consumption. The quantity of a commodity, such as pulpwood, utilized by a particular mill or group of mills.

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

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

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

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

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

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

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

Hardwoods. Dicotyledonous trees, usually broadleaf and deciduous.

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

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

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

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

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

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

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

Logging residues. The unused merchantable portion of growing-stock trees cut or destroyed during logging operations.

Merchantable portion. That portion of live trees 5.0 inches d.b.h. and larger between a 1-foot stump and a minimum 4.0-inch top d.o.b. on the central stem. That portion of primary forks from the point of occurrence to a minimum 4.0-inch top d.o.b. is included.

Merchantable volume. Solid-wood volume in the merchantable portion of live trees.

Noncommercial species. Tree species of typically small size, poor form, or inferior quality that normally do not develop into trees suitable for industrial wood products.

Nonforest land. Land that has never supported forests and land formerly forested where timber production is precluded by development for other uses.

Nongrowing-stock sources. The net volume removed from the nongrowing-stock portions of poletimber and sawtimber trees (stumps, tops, limbs, cull sections of central stem) and from any portion of a rough, rotten, sapling, dead, or nonforest tree.

Other forest land. Forest land other than timberland and productive reserved forest land. It includes available and reserved forest land that is incapable of producing annually 20 cubic feet per acre of industrial wood under natural conditions because of adverse site conditions such as sterile soils, dry climate, poor drainage, high elevation, steepness, or rockiness.

Other products. A miscellaneous category of roundwood products, e.g., cooperage, excelsior, shingles, and mill residue byproducts (charcoal, bedding, mulch, etc.).

Other removals. The growing-stock volume of trees removed from the inventory by cultural operations such as timber stand improvement, land clearing, and other changes in land use, resulting in the removal of the trees from timberland.

Other sources. (See: Nongrowing-stock sources.)

Ownership. The property owned by one ownership unit, including all parcels of land in the United States.

National forest land. Federal land that has been legally designated as national forests or purchase units, and other land under the administration of the Forest Service, including experimental areas and Bankhead-Jones Title III land.

Forest industry land. Land owned by companies or individuals operating primary wood-using plants.

Nonindustrial private forest (NIPF) land. Privately owned land excluding forest industry land.

Corporate. Owned by corporations, including incorporated farm ownerships.

Individual. All lands owned by individuals, including farm operators.

Other public. An ownership class that includes all public lands except national forests.

Miscellaneous Federal land. Federal land other than national forests.

State, county, and municipal land. Land owned by States, counties, and local public agencies or municipalities, or land leased to these governmental units for 50 years or more.

Plant residues. Wood material generated in the production of timber products at primary manufacturing plants.

Coarse residues. Material, such as slabs, edgings, trim, veneer cores and ends, which is suitable for chipping.

Fine residues. Material, such as sawdust, shavings, and veneer residue, which is not suitable for chipping.

Plant byproducts. Residues (coarse or fine) used in the further manufacture of industrial products for consumer use, or as fuel.

Unused plant residues. Residues (coarse or fine) that are not used for any product, including fuel.

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

Posts, poles, and pilings. Roundwood products milled (cut or peeled) into standard sizes (lengths and circumferences) to be put in the ground to provide vertical and lateral support in buildings, foundations, utility lines, and fences. May also include nonindustrial (unmilled) products.

Primary wood-using plants. Industries that convert roundwood products (saw logs, veneer logs, pulpwood, etc.) into primary wood products, such as lumber, veneer or sheathing, wood pulp.

Production. The total volume of known roundwood harvested from land within a State, regardless of where it is consumed. Production is the sum of timber harvested and used within a State, and all roundwood exported to other States.

Pulpwood. A roundwood product that will be reduced to individual wood fibers by chemical or mechanical means.

The fibers are used to make a broad generic group of pulp products that includes paper products, as well as fiberboard, insulating board, and paperboard.

Receipts. The quantity or volume of industrial roundwood received at a mill or by a group of mills in a State, regardless of the geographic source. Volume of roundwood receipts is equal to the volume of roundwood retained in a State plus roundwood imported from other States.

Retained. Roundwood volume harvested from and processed by mills within the same State.

Rotten trees. Live trees of commercial species not containing at least one 12-foot saw log, or two noncontiguous saw logs, each 8 feet or longer, now or prospectively, primarily because of rot or missing sections, and with less than one-third of the gross board-foot tree volume in sound material.

Rough trees. Live trees of commercial species not containing at least one 12-foot saw log, or two noncontiguous saw logs, each 8 feet or longer, now or prospectively, primarily because of roughness, poor form, splits, and cracks, and with less than one-third of the gross board-foot tree volume in sound material; and live trees of noncommercial species.

Roundwood (roundwood logs). Logs, bolts, or other round sections cut from trees for industrial manufacture or consumer uses.

Roundwood chipped. Any timber cut primarily for industrial manufacture, delivered to 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 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	0.18349 cubic foot = 1 board foot
	5.45 board feet = 1 cubic foot
Hardwood	0.16807 cubic foot = 1 board foot
	5.95 board feet = 1 cubic foot
Veneer logs	
Softwood	0.17094 cubic foot = 1 board foot
	5.85 board feet = 1 cubic foot
Hardwood	0.16260 cubic foot = 1 board foot
	6.15 board feet = 1 cubic foot
Pulpwood[b]	
Softwood	72.6 cubic feet per cord
Hardwood	75.0 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 Georgia 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.
Loblolly pine	*P. taeda* L.
Virginia pine	*P. virginiana* Mill.
Baldcypress	*Taxodium distichum* (L.) Rich.
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.
Ailanthus	*Ailanthus altissima* (Mill.) Swingle
Tung-oil tree	*Aleurites fordii* Hemsl.
Serviceberry	*Amelanchier* spp. Medic.
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. myristiciformis* (Michx. f.) Nutt.
Shagbark hickory	*C. ovata* (Mill.) K. Koch
Black hickory	*C. texana* Buckl.
Mockernut hickory	*C. tomentosa* (Poir.) 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.
Loblolly-bay	*Gordonia lasianthus* (L.) Ellis
American holly	*Ilex opaca* Ait.
Black walnut	*Juglans nigra* L.
Hardwoods (continued)	
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.
Southern red oak	*Q. falcata* Michx.
Cherrybark oak	*Q. falcata* var. *pagodifolia* 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
Oglethorpe oak	*Q. oglethorpensis* Duncan
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.
Slippery elm	*U. rubra* Muhl.
September elm	*U. serotina* Sarg.

[a] Common and scientific names of tree species ≥ 1.0 inch d.b.h. occurring in the FIA sample.
[b] Little (1979).

Appendix

Index of Tables

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

Product and species group	Year		Change	Change
	2005	2007		
	- - - - - - thousand cubic feet - - - - - -			*percent*
Saw logs				
Softwood	394,723	352,142	-42,581	-10.8
Hardwood	63,480	59,543	-3,937	-6.2
Total	458,203	411,685	-46,518	-10.2
Veneer logs				
Softwood	66,742	57,684	-9,058	-13.6
Hardwood	7,660	5,804	-1,856	-24.2
Total	74,402	63,488	-10,914	-14.7
Pulpwood[a]				
Softwood	455,654	507,960	52,306	11.5
Hardwood	87,174	102,767	15,593	17.9
Total	542,828	610,727	67,899	12.5
Composite panels				
Softwood	56,350	95,415	39,065	69.3
Hardwood	6,658	2,786	-3,872	-58.2
Total	63,008	98,201	35,193	55.9
Other industrial				
Softwood	25,926	25,106	-820	-3.2
Hardwood	904	609	-295	-32.6
Total	26,830	25,715	-1,115	-4.2
All industrial				
Softwood	999,395	1,038,307	38,912	3.9
Hardwood	165,876	171,509	5,633	3.4
Total	1,165,271	1,209,816	44,545	3.8

[a] Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (14,673,000 cubic feet in 2005 and 10,131,000 cubic feet in 2007).

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

Product and species group	Year		Change	Change
	2005	2007		
	- - - - - - thousand cubic feet - - - - - -			*percent*
Saw logs				
Softwood	410,456	367,556	-42,900	-10.5
Hardwood	66,253	62,066	-4,187	-6.3
Total	476,709	429,622	-47,087	-9.9
Veneer logs				
Softwood	61,420	52,242	-9,178	-14.9
Hardwood	16,484	12,272	-4,212	-25.6
Total	77,904	64,514	-13,390	-17.2
Pulpwood[a]				
Softwood	471,513	506,337	34,824	7.4
Hardwood	90,679	99,702	9,023	10.0
Total	562,192	606,039	43,847	7.8
Composite panels				
Softwood	57,815	87,360	29,545	51.1
Hardwood	7,090	3,122	-3,968	-56.0
Total	64,905	90,482	25,577	39.4
Other industrial				
Softwood	25,881	25,062	-819	-3.2
Hardwood	912	664	-248	-27.2
Total	26,793	25,726	-1,067	-4.0
Total output				
Softwood	1,027,085	1,038,557	11,472	1.1
Hardwood	181,418	177,826	-3,592	-2.0
Total	1,208,503	1,216,383	7,880	0.7

[a] Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (16,583,000 cubic feet in 2005 and 11,274,000 cubic feet in 2007).

Table A.3—Number of primary wood-using plants by type of mill, Georgia, 1986 to 2007

Type of mill	Year									
	1986	1989	1992	1995	1997	1999	2001	2003	2005	2007
	number									
Sawmills	239	172	178	144	129	129	118	122	115	105
Veneer mills	18	16	14	12	11	12	10	8	8	7
Pulpmills	15	14	13	14	13	12	13	12	12	12
Composite panel mills	0	3	4	5	5	4	4	4	4	4
Other mills	29	26	41	32	28	31	25	41	42	40
All plants	301	231	250	207	186	188	170	187	181	168

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

Sawmill size class[a]	2005			2007		
	Mills	Volume		Mills	Volume	
mmbf	*number*	*mbf*	*percent*	*number*	*mbf*	*percent*
< 1.0	37	11,917	0	33	9,763	0
1.0–4.99	24	62,798	2	26	74,696	3
5.0–9.99	10	70,266	3	6	49,160	2
10.0–49.99	18	363,519	14	21	653,666	28
> 50	26	2,129,425	81	19	1,591,266	67
Total	115	2,637,925	100	105	2,378,551	100

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

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

Species	All mills	Type of mill					
			Veneer mills				
		Sawmills	Pine plywood	Other veneer	OSB and panels	Pulpmills[a]	Other mills
	thousand cubic feet						
Softwood							
Yellow pine	521,526	358,520	39,376	12,866	87,360	NA	23,404
Eastern white pine	1,764	1,764	0	0	0	NA	0
Cedar	6	6	0	0	0	NA	0
Cypress	8,924	7,266	0	0	0	NA	1,658
Other softwood	0	0	0	0	0	NA	0
Unclassified	506,337	0	0	0	0	506,337	0
Total softwoods	1,038,557	367,556	39,376	12,866	87,360	506,337	25,062
Hardwood							
Blackgum-tupelo	2,867	2,433	0	434	0	NA	0
Soft maple	1,830	1,708	0	118	0	NA	4
Sweetgum	9,858	8,072	1,137	649	0	NA	0
Yellow-poplar	17,861	8,052	9,075	729	0	NA	5
Other soft hardwood	3,720	468	0	130	3,122	NA	0
Hickory	2,517	2,404	0	0	0	NA	113
Red oak	26,084	25,649	0	0	0	NA	435
White oak	10,297	10,193	0	0	0	NA	104
Other hard hardwood	3,090	3,087	0	0	0	NA	3
Unclassified	99,702	0	0	0	0	99,702	0
Total hardwoods	177,826	62,066	10,212	2,060	3,122	99,702	664
All species	1,216,383	429,622	49,588	14,926	90,482	606,039	25,726

NA = not applicable; OSB = oriented strand board.

[a] Collected only by softwood and hardwood and includes roundwood chipped.

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

Year	Production	Exported to other States	Retained	Imported from other States	Receipts
	thousand cubic feet				
			Softwood		
2005	999,395	124,248	875,147	151,938	1,027,085
2007	1,038,307	155,374	882,933	155,624	1,038,557
			Hardwood		
2005	165,876	26,526	139,350	42,068	181,418
2007	171,509	24,207	147,302	30,524	177,826
			All species		
2005	1,165,271	150,774	1,014,497	194,006	1,208,503
2007	1,209,816	179,581	1,030,235	186,148	1,216,383

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

Product and species group	Production	Exported to other States	Retained	Imported from other States	Receipts
			thousand cubic feet		
Saw logs					
Softwood	352,142	27,005	325,137	42,419	367,556
Hardwood	59,543	1,988	57,555	4,511	62,066
Total	411,685	28,993	382,692	46,930	429,622
Veneer logs					
Softwood	57,684	11,681	46,003	6,239	52,242
Hardwood	5,804	642	5,162	7,110	12,272
Total	63,488	12,323	51,165	13,349	64,514
Pulpwood[a]					
Softwood	507,960	101,540	406,420	99,917	506,337
Hardwood	102,767	20,694	82,073	17,629	99,702
Total	610,727	122,234	488,493	117,546	606,039
Composite panels					
Softwood	95,415	13,388	82,027	5,333	87,360
Hardwood	2,786	883	1,903	1,219	3,122
Total	98,201	14,271	83,930	6,552	90,482
Other industrial					
Softwood	25,106	1,760	23,346	1,716	25,062
Hardwood	609	0	609	55	664
Total	25,715	1,760	23,955	1,771	25,726
All products					
Softwood	1,038,307	155,374	882,933	155,624	1,038,557
Hardwood	171,509	24,207	147,302	30,524	177,826
Total	1,209,816	179,581	1,030,235	186,148	1,216,383

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

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

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
Georgia (retained)	382,692	325,137	57,555
Exports to			
Alabama	16,057	15,816	241
Florida	5,210	5,103	107
North Carolina	1,152	39	1,113
South Carolina	6,402	6,000	402
Tennessee	172	47	125
Total	28,993	27,005	1,988
Imports from			
Alabama	14,239	13,341	898
Florida	16,820	16,508	312
North Carolina	142	129	13
South Carolina	14,632	11,879	2,753
Tennessee	1,097	562	535
Total	46,930	42,419	4,511

Table A.9—Veneer volume by destination, source, and species group, Georgia, 2007

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
Georgia (retained)	51,165	46,003	5,162
Exports to			
Alabama	3,626	3,544	82
Florida	8,123	8,123	0
North Carolina	189	14	175
South Carolina	385	0	385
Total	12,323	11,681	642
Imports from			
Alabama	1,447	666	781
Florida	4,642	4,185	457
Kentucky	3,428	0	3,428
North Carolina	512	327	185
Ohio	91	0	91
South Carolina	1,176	1,061	115
Tennessee	886	0	886
Virginia	1,167	0	1,167
Total	13,349	6,239	7,110

Table A.10—Pulpwood volume by destination, source, and species group, Georgia, 2007[a]

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
Georgia (retained)	488,493	406,420	82,073
Exports to			
Alabama	46,312	33,559	12,753
Florida	42,404	42,404	0
Kentucky	712	502	210
North Carolina	461	142	319
Oklahoma	2,178	2,178	0
South Carolina	3,081	2,429	652
Tennessee	26,712	20,326	6,386
Virginia	374	0	374
Total	122,234	101,540	20,694
Imports from			
Alabama	38,591	34,841	3,750
Florida	40,361	35,952	4,409
North Carolina	36	0	36
South Carolina	38,447	29,124	9,323
Virginia	111	0	111
Total	117,546	99,917	17,629

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

Table A.11—Composite panel volume by destination, source, and species group, Georgia, 2007

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
Georgia (retained)	83,930	82,027	1,903
Exports to			
Alabama	6,399	6,399	0
Florida	506	506	0
South Carolina	4,284	4,284	0
Tennessee	3,082	2,199	883
Total	14,271	13,388	883
Imports from			
Florida	5,408	4,189	1,219
South Carolina	1,144	1,144	0
Total	6,552	5,333	1,219

Table A.12—Other industrial volume by destination, source, and species group, Georgia, 2007[a]

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
Georgia (retained)	23,955	23,346	609
Exports to			
Alabama	132	132	0
Florida	923	923	0
Ohio	431	431	0
South Carolina	274	274	0
Total	1,760	1,760	0
Imports from			
Alabama	55	0	55
Florida	1,710	1,710	0
Tennessee	6	6	0
Total	1,771	1,716	55

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

Table A.13—Primary mill residue volume by roundwood type, species group, and residue type, Georgia, 2007

Roundwood type and species group	All types	Residue type			
		Bark	Coarse	Sawdust	Shavings
		thousand cubic feet			
Saw logs					
Softwood	222,885	32,572	104,032	54,205	32,076
Hardwood	38,556	7,093	18,200	13,027	236
Total	261,441	39,665	122,232	67,232	32,312
Veneer logs					
Softwood	31,632	4,956	13,167	13,509	0
Hardwood	8,076	1,447	2,889	3,740	0
Total	39,708	6,403	16,056	17,249	0
Pulpwood					
Softwood	51,528	51,528	0	0	0
Hardwood	12,088	12,088	0	0	0
Total	63,616	63,616	0	0	0
Composite panels					
Softwood	19,516	19,516	0	0	0
Hardwood	800	800	0	0	0
Total	20,316	20,316	0	0	0
Other industrial[a]					
Softwood	27,886	17,159	9,783	944	0
Hardwood	369	82	206	81	0
Total	28,255	17,241	9,989	1,025	0
Total					
Softwood	353,447	125,731	126,982	68,658	32,076
Hardwood	59,889	21,510	21,295	16,848	236
Total	413,336	147,241	148,277	85,506	32,312

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

Table A.14—Disposal of residue at primary wood-using plants by product, species group, and type of residue, Georgia, 2005 and 2007

Product and species group	All types		Bark		Coarse		Sawdust		Shavings	
	2005	2007	2005	2007	2005	2007	2005	2007	2005	2007
	thousand cubic feet									
Fiber products										
Softwood	125,522	104,363	0	0	117,749	102,556	2,502	0	5,271	1,807
Hardwood	16,455	11,489	0	0	16,455	11,489	0	0	0	0
Total	141,977	115,852	0	0	134,204	114,045	2,502	0	5,271	1,807
Particleboard										
Softwood	36,175	31,131	143	0	7,584	1,957	6,452	7,003	21,996	22,171
Hardwood	110	0	91	0	0	0	0	0	19	0
Total	36,285	31,131	234	0	7,584	1,957	6,452	7,003	22,015	22,171
Sawn products										
Softwood	7,406	5,404	0	14	7,406	5,390	0	0	0	0
Hardwood	146	33	0	0	146	33	0	0	0	0
Total	7,552	5,437	0	14	7,552	5,423	0	0	0	0
Industrial fuel										
Softwood	150,970	165,710	88,953	96,328	2,420	9,845	55,313	53,453	4,284	6,084
Hardwood	40,414	35,613	19,677	18,690	3,982	2,195	16,684	14,507	71	221
Total	191,384	201,323	108,630	115,018	6,402	12,040	71,997	67,960	4,355	6,305
Miscellaneous										
Softwood	49,820	46,729	28,092	29,373	7,371	7,190	11,247	8,152	3,110	2,014
Hardwood	5,751	12,279	2,747	2,800	814	7,528	2,180	1,936	10	15
Total	55,571	59,008	30,839	32,173	8,185	14,718	13,427	10,088	3,120	2,029
Not used										
Softwood	4,929	110	1,371	16	40	44	2,200	50	1,318	0
Hardwood	224	475	14	20	38	50	172	405	0	0
Total	5,153	585	1,385	36	78	94	2,372	455	1,318	0
All products										
Softwood	374,822	353,447	118,559	125,731	142,570	126,982	77,714	68,658	35,979	32,076
Hardwood	63,100	59,889	22,529	21,510	21,435	21,295	19,036	16,848	100	236
Total	437,922	413,336	141,088	147,241	164,005	148,277	96,750	85,506	36,079	32,312

Table A.15—Roundwood timber product output by county, product, and species group, Georgia, 2007

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
	thousand cubic feet											
Appling	14,187	1,676	4,024	522	0	0	9,925	1,154	0	0	238	0
Atkinson	3,861	1,256	1,376	456	0	0	2,220	769	107	31	158	0
Bacon	9,033	1,027	2,639	522	0	0	6,050	505	0	0	344	0
Baker	2,101	114	0	0	231	0	1,678	114	0	0	192	0
Baldwin	3,504	744	1,163	146	942	3	1,399	595	0	0	0	0
Banks	1,224	2,117	287	1,538	395	6	220	573	322	0	0	0
Barrow	1,197	97	131	0	498	3	84	94	484	0	0	0
Bartow	6,939	759	1,541	175	801	0	4,597	584	0	0	0	0
Ben Hill	10,274	394	2,412	360	837	0	261	34	6,453	0	311	0
Berrien	7,472	1,123	4,849	353	163	0	1,056	583	644	187	760	0
Bibb	1,600	1,508	351	464	157	0	1,092	1,044	0	0	0	0
Bleckley	4,589	1,134	1,775	802	0	0	2,794	332	0	0	20	0
Brantley	18,620	557	5,852	313	163	0	11,810	244	0	0	795	0
Brooks	7,102	187	3,613	0	0	0	2,055	0	644	187	790	0
Bryan	7,217	1,041	3,842	313	0	0	3,309	728	0	0	66	0
Bulloch	11,643	1,955	6,376	525	0	190	5,058	1,240	0	0	209	0
Burke	18,022	4,422	5,173	129	0	50	11,402	4,243	1,341	0	106	0
Butts	2,171	979	1,097	886	471	3	603	90	0	0	0	0
Calhoun	1,792	259	0	0	0	130	1,792	129	0	0	0	0
Camden	22,234	921	6,866	313	628	21	14,662	587	0	0	78	0
Candler	5,109	354	1,247	0	0	0	3,801	354	0	0	61	0
Carroll	4,765	721	1,185	361	636	187	2,944	173	0	0	0	0
Catoosa	704	386	243	34	0	0	449	352	0	0	12	0
Charlton	25,384	241	5,279	0	163	0	19,419	241	0	0	523	0
Chatham	3,712	1,083	1,903	51	0	0	1,806	1,032	0	0	3	0
Chattahoochee	3,012	778	2,114	346	0	0	898	432	0	0	0	0
Chattooga	2,944	578	872	395	0	0	2,015	183	0	0	57	0
Cherokee	3,609	901	423	133	684	97	2,502	671	0	0	0	0
Clarke	208	1,376	22	1,190	177	0	9	186	0	0	0	0
Clay	3,843	216	264	0	0	0	3,579	216	0	0	0	0
Clayton	279	880	97	730	157	0	25	150	0	0	0	0
Clinch	19,912	3,134	8,092	313	0	0	7,947	2,415	1,396	406	2,477	0
Cobb	504	54	97	25	237	11	170	8	0	0	0	10
Coffee	11,143	882	5,941	561	837	0	3,782	321	0	0	583	0
Colquitt	8,736	599	5,074	69	139	196	2,693	178	537	156	293	0
Columbia	6,002	578	4,833	89	341	0	792	489	0	0	36	0
Cook	3,971	260	2,895	0	0	0	438	167	322	93	316	0
Coweta	5,856	539	1,464	0	998	289	2,498	250	896	0	0	0
Crawford	7,279	782	2,344	350	314	3	4,621	429	0	0	0	0
Crisp	4,274	380	2,239	108	0	0	1,218	272	430	0	387	0
Dade	34	83	28	4	0	0	0	79	0	0	6	0
Dawson	850	251	349	217	0	6	501	28	0	0	0	0
Decatur	7,664	806	2,030	177	1,043	163	4,102	466	253	0	236	0
De Kalb	760	78	97	42	170	12	332	24	161	0	0	0

continued

Table A.15—Roundwood timber product output by county, product, and species group, Georgia, 2007 (continued)

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
	thousand cubic feet											
Dodge	14,704	2,131	5,948	981	0	0	7,279	1,150	1,290	0	187	0
Dooly	5,229	854	1,156	343	0	0	3,213	511	860	0	0	0
Dougherty	1,310	531	250	69	0	0	1,060	411	0	0	0	51
Douglas	580	336	8	207	66	11	506	118	0	0	0	0
Early	4,191	754	739	0	233	259	3,099	495	0	0	120	0
Echols	6,193	547	2,063	0	0	0	2,810	266	966	281	354	0
Effingham	13,646	3,790	5,908	321	0	42	7,615	3,427	0	0	123	0
Elbert	6,189	1,478	1,003	557	565	3	156	918	4,465	0	0	0
Emanuel	19,601	1,403	7,195	57	0	21	12,074	1,325	0	0	332	0
Evans	4,471	935	1,919	587	0	21	2,468	327	0	0	84	0
Fannin	964	418	564	216	0	6	400	168	0	0	0	28
Fayette	1,072	1,300	0	730	133	22	38	186	901	362	0	0
Floyd	6,351	3,074	1,668	325	985	87	3,687	2,662	0	0	11	0
Forsyth	986	484	120	104	498	100	207	270	161	0	0	10
Franklin	1,285	1,081	171	197	224	72	13	812	877	0	0	0
Fulton	1,619	925	945	428	370	110	304	380	0	0	0	7
Gilmer	1,272	681	704	479	0	0	568	202	0	0	0	0
Glascock	2,120	775	728	326	327	0	907	449	0	0	158	0
Glynn	12,280	159	5,738	0	302	0	6,240	159	0	0	0	0
Gordon	3,783	692	834	307	0	0	2,939	385	0	0	10	0
Grady	6,314	2,054	2,046	0	1,901	196	1,880	1,858	253	0	234	0
Greene	9,646	714	2,962	153	3,069	0	1,213	561	2,367	0	35	0
Gwinnett	2,570	1,230	4	653	1,578	106	666	471	322	0	0	0
Habersham	3,239	1,488	906	489	385	3	1,304	740	637	256	7	0
Hall	1,504	404	426	131	239	0	342	273	497	0	0	0
Hancock	14,171	1,394	5,863	646	2,552	0	4,817	748	806	0	133	0
Haralson	4,025	659	1,006	118	407	87	2,612	445	0	0	0	9
Harris	5,945	1,244	1,506	279	466	156	3,973	809	0	0	0	0
Hart	1,246	394	3	188	224	0	361	206	658	0	0	0
Heard	6,014	192	1,381	0	332	133	3,405	59	896	0	0	0
Henry	1,827	2,248	778	1,513	447	0	441	735	161	0	0	0
Houston	3,665	1,411	1,304	820	0	0	2,361	591	0	0	0	0
Irwin	10,460	530	4,007	70	837	0	401	335	4,731	125	484	0
Jackson	3,080	976	64	11	565	18	219	947	2,232	0	0	0
Jasper	6,856	2,585	2,174	679	1,269	1,011	2,929	895	484	0	0	0
Jeff Davis	8,771	1,061	2,181	313	837	0	5,643	748	0	0	110	0
Jefferson	9,451	1,054	2,756	372	327	0	5,916	682	0	0	452	0
Jenkins	11,532	1,449	3,110	314	0	0	7,706	1,135	691	0	25	0
Johnson	6,251	1,841	2,190	685	0	0	3,902	1,156	0	0	159	0
Jones	10,170	1,557	2,900	410	2,198	6	5,072	1,141	0	0	0	0
Lamar	1,393	1,612	965	347	0	0	428	1,265	0	0	0	0
Lanier	2,004	1,815	506	1,410	0	0	730	280	429	125	339	0
Laurens	17,113	4,292	7,378	1,902	0	0	9,612	2,390	0	0	123	0
Lee	2,315	558	1,023	0	0	11	1,292	446	0	0	0	101

continued

Table A.15—Roundwood timber product output by county, product, and species group, Georgia, 2007 (continued)

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
	thousand cubic feet											
Liberty	9,720	1,837	4,573	530	0	0	4,800	1,307	0	0	347	0
Lincoln	5,604	521	2,484	32	430	0	1,622	489	968	0	100	0
Long	14,927	1,730	5,463	922	0	42	9,019	766	0	0	445	0
Lowndes	8,060	586	2,955	0	302	0	3,607	367	751	219	445	0
Lumpkin	1,076	292	471	257	0	0	605	35	0	0	0	0
Macon	5,079	846	0	277	0	11	3,789	558	1,290	0	0	0
Madison	1,936	2,969	218	42	530	3	469	2,924	645	0	74	0
Marion	9,806	1,190	4,894	542	0	11	4,912	586	0	0	0	51
McDuffie	4,819	621	1,743	354	1,520	0	826	267	645	0	85	0
McIntosh	19,323	776	5,505	0	0	0	13,336	776	0	0	482	0
Meriwether	9,317	911	2,578	0	665	179	2,363	732	3,711	0	0	0
Miller	1,466	257	0	0	394	0	908	257	0	0	164	0
Mitchell	7,214	223	2,264	69	579	0	1,691	61	2,473	93	207	0
Monroe	7,861	1,375	3,451	467	628	6	3,782	902	0	0	0	0
Montgomery	6,976	2,440	2,139	1,549	0	42	4,631	849	0	0	206	0
Morgan	3,357	1,384	866	336	1,722	263	447	785	322	0	0	0
Murray	2,530	1,717	519	297	0	0	2,001	1,420	0	0	10	0
Muscogee	2,641	172	2,396	0	66	11	179	161	0	0	0	0
Newton	2,328	393	423	95	798	0	785	298	322	0	0	0
Oconee	1,415	1,266	142	991	601	0	27	275	645	0	0	0
Oglethorpe	9,561	1,218	2,885	902	1,562	0	246	316	4,626	0	242	0
Paulding	6,775	1,647	1,000	110	1,459	187	3,657	1,059	659	265	0	26
Peach	1,106	46	97	0	0	0	1,009	46	0	0	0	0
Pickens	2,633	350	227	141	157	0	2,249	209	0	0	0	0
Pierce	9,871	1,572	4,934	522	0	0	3,897	1,050	0	0	1,040	0
Pike	1,417	619	737	480	66	0	614	139	0	0	0	0
Polk	4,477	506	1,455	64	170	0	2,841	442	0	0	11	0
Pulaski	3,326	1,721	896	1,293	0	0	2,000	428	430	0	0	0
Putnam	7,087	725	2,803	76	1,767	3	1,872	646	645	0	0	0
Quitman	2,434	130	264	0	0	0	2,170	130	0	0	0	0
Rabun	268	628	181	548	0	0	87	80	0	0	0	0
Randolph	13,481	902	5,130	0	0	130	8,351	772	0	0	0	0
Richmond	5,294	847	2,562	34	0	0	2,696	813	0	0	36	0
Rockdale	498	36	97	30	314	6	87	0	0	0	0	0
Schley	6,471	202	2,939	177	0	0	3,532	25	0	0	0	0
Screven	19,958	2,595	6,681	27	0	208	11,067	2,360	2,032	0	178	0
Seminole	1,942	151	1,182	72	0	0	532	79	0	0	228	0
Spalding	738	41	97	3	513	14	128	24	0	0	0	0
Stephens	772	615	386	261	89	72	116	282	174	0	7	0
Stewart	12,780	1,694	5,051	438	0	19	7,729	1,237	0	0	0	0
Sumter	9,399	823	1,347	276	0	11	7,622	334	430	0	0	202
Talbot	8,581	1,600	2,731	351	199	45	5,651	1,204	0	0	0	0
Taliaferro	6,488	565	1,598	329	691	0	1,281	236	2,905	0	13	0
Tattnall	9,747	2,239	3,483	1,462	0	21	6,098	756	0	0	166	0

continued

Table A.15—Roundwood timber product output by county, product, and species group, Georgia, 2007 (continued)

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
	thousand cubic feet											
Taylor	6,366	1,711	870	1,035	0	11	5,496	665	0	0	0	0
Telfair	24,807	2,355	4,641	1,596	837	0	3,862	759	15,057	0	410	0
Terrell	3,072	164	4	0	0	0	3,068	113	0	0	0	51
Thomas	12,553	217	4,766	69	1,878	0	4,219	148	0	0	1,690	0
Tift	4,729	767	3,216	383	0	0	148	384	1,290	0	75	0
Toombs	13,300	2,104	3,388	922	0	106	9,669	1,076	0	0	243	0
Towns	70	311	0	257	0	0	70	54	0	0	0	0
Treutlen	6,081	599	1,645	0	0	21	4,063	578	0	0	373	0
Troup	4,956	2,804	1,368	0	998	301	1,694	2,503	896	0	0	0
Turner	2,304	195	1,233	30	0	0	849	165	0	0	222	0
Twiggs	6,131	2,109	2,118	1,013	157	0	3,843	1,096	0	0	13	0
Union	961	364	330	181	0	30	631	141	0	0	0	12
Upson	5,269	1,028	1,739	333	0	11	3,530	684	0	0	0	0
Walker	1,463	802	174	324	170	0	990	478	0	0	129	0
Walton	2,354	210	492	102	1,494	6	46	102	322	0	0	0
Ware	27,707	1,276	7,691	313	0	0	16,649	963	0	0	3,367	0
Warren	6,614	1,051	2,005	294	668	0	2,778	757	968	0	195	0
Washington	12,724	3,572	5,705	1,411	628	3	6,126	2,158	0	0	265	0
Wayne	15,396	1,288	3,959	0	0	0	11,104	1,288	0	0	333	0
Webster	7,511	1,232	2,754	279	0	11	4,327	891	430	0	0	51
Wheeler	5,601	2,730	2,825	2,067	0	0	2,667	663	0	0	109	0
White	986	164	894	155	45	6	47	3	0	0	0	0
Whitfield	3,420	1,036	646	438	0	0	2,774	598	0	0	0	0
Wilcox	14,696	1,345	3,731	969	0	0	2,105	376	8,604	0	256	0
Wilkes	17,639	1,544	6,720	549	2,912	0	2,414	995	5,501	0	92	0
Wilkinson	11,834	3,611	5,911	1,320	157	0	5,766	2,291	0	0	0	0
Worth	6,460	622	3,871	398	0	163	2,278	61	0	0	311	0
All counties	1,038,307	171,509	352,142	59,543	57,684	5,804	507,960	102,767	95,415	2,786	25,106	609

[a] Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (10,131,000 cubic feet in 2007).

Table A.16—Total roundwood output by product, species group, and source of material, Georgia, 2007

Product and species group	All sources	Growing-stock trees		Other sources
		Total	Sawtimber	Poletimber	
	thousand cubic feet			
Saw logs				
Softwood	352,142	344,744	324,818	19,926	7,398
Hardwood	59,543	58,233	54,848	3,385	1,310
Total	411,685	402,978	379,666	23,312	8,707
Veneer logs and bolts					
Softwood	57,684	56,531	55,909	622	1,153
Hardwood	5,804	5,729	5,672	56	75
Total	63,488	62,260	61,581	678	1,228
Pulpwood					
Softwood	507,960	480,873	204,617	276,255	27,087
Hardwood	102,767	93,491	34,531	58,960	9,276
Total	610,727	574,364	239,149	335,215	36,363
Composite panels					
Softwood	95,415	88,388	36,238	52,150	7,027
Hardwood	2,786	2,551	1,020	1,530	235
Total	98,201	90,938	37,258	53,680	7,263
Poles and posts					
Softwood	16,001	15,632	14,751	881	369
Hardwood	0	0	0	0	0
Total	16,001	15,632	14,751	881	369
Other miscellaneous					
Softwood	9,105	8,895	5,193	3,701	210
Hardwood	609	518	302	216	91
Total	9,714	9,412	5,495	3,917	302
Total industrial products					
Softwood	1,038,307	995,062	641,527	353,535	43,245
Hardwood	171,509	160,521	96,373	64,148	10,988
Total	1,209,816	1,155,583	737,900	417,683	54,233
Domestic fuelwood					
Softwood	4,389	3,160	2,214	946	1,229
Hardwood	37,632	28,236	21,667	6,569	9,396
Total	42,021	31,396	23,882	7,514	10,625
All products					
Softwood	1,042,696	998,222	643,741	354,481	44,474
Hardwood	209,141	188,757	118,041	70,716	20,384
Total	1,251,837	1,186,979	761,782	425,197	64,858

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

Table A.17—Total roundwood output by species group, survey region, and ownership class, Georgia, 2007

Species group and survey region	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
	thousand cubic feet			
Softwoods				
Southeast	451,935	10,438	214,516	226,981
Southwest	139,805	1,342	14,544	123,919
Central	314,372	9,147	94,175	211,050
North Central	91,528	43	18,863	72,623
North	45,056	605	12,835	31,616
Total softwoods	1,042,696	21,575	354,933	666,188
Hardwoods				
Southeast	67,406	5,203	9,122	53,081
Southwest	17,353	1,016	337	16,001
Central	69,316	1,202	11,497	56,617
North Central	36,055	75	1,250	34,730
North	19,011	418	921	17,673
Total hardwoods	209,141	7,913	23,126	178,102
All species	1,251,837	29,488	378,059	844,290

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 product, Georgia, 2007

Species group and detailed species group	Total	Product						
		Saw logs	Veneer logs	Pulpwood	Composite panels	Poles and posts	Other miscellaneous	Domestic fuelwood
		thousand cubic feet						
Softwood								
Cedar	563	167	60	281	48	4	2	2
Longleaf-slash pine	339,367	118,811	5,957	175,486	23,976	8,758	4,950	1,428
Eastern white pine	4,441	1,648	340	1,867	561	6	0	19
Loblolly-shortleaf pine	645,351	215,920	48,771	299,203	68,508	6,692	3,542	2,717
Other yellow pines	40,530	11,516	2,472	23,633	1,939	295	505	171
Cypress	12,433	4,076	84	7,487	382	246	107	52
Hemlock	11	4	1	5	2	0	0	0
Total softwoods	1,042,696	352,142	57,684	507,960	95,415	16,001	9,105	4,389
Hardwood								
Soft maple	11,499	2,969	153	6,031	225	0	51	2,069
Hard maple	649	191	4	337	0	0	0	117
Hickory	3,757	1,032	101	1,910	28	0	10	676
Beech	84	7	3	56	3	0	0	15
Ash	2,066	653	66	975	0	0	0	372
Black walnut	237	27	6	161	0	0	0	43
Sweetgum	45,655	13,228	1,928	21,836	356	0	91	8,216
Yellow-poplar	22,934	7,508	831	9,967	429	0	72	4,126
Blackgum-tupelo	22,787	6,516	258	11,417	448	0	47	4,101
Sycamore	64	9	2	42	0	0	0	11
Black cherry	2,880	829	67	1,432	30	0	3	518
Select white oaks	11,712	3,269	312	5,874	138	0	11	2,108
Other white oaks	10,218	4,145	206	3,731	282	0	15	1,838
Select red oaks	1,717	505	86	816	0	0	0	309
Other red oaks	61,050	15,680	1,526	32,014	657	0	190	10,983
Basswood	685	169	29	363	0	0	0	123
Elm	3,363	917	12	1,807	22	0	0	605
Other eastern hardwoods	7,783	1,888	213	3,997	167	0	117	1,401
Total hardwoods	209,141	59,543	5,804	102,767	2,786	0	609	37,632
All species	1,251,837	411,685	63,488	610,727	98,201	16,001	9,714	42,021

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

Table A.19—Total roundwood output by species group, detailed species group, and ownership class, Georgia, 2007

Species group and detailed species group	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
	thousand cubic feet			
Softwood				
Cedar	563	1	56	506
Longleaf-slash pine	339,367	5,250	133,464	200,653
Eastern white pine	4,441	117	16	4,308
Loblolly-shortleaf pine	645,351	15,311	203,216	426,824
Other yellow pines	40,530	743	12,033	27,754
Cypress	12,433	152	6,148	6,133
Hemlock	11	0	0	11
Total softwoods	1,042,696	21,575	354,933	666,188
Hardwood				
Soft maple	11,499	847	674	9,978
Hard maple	649	0	60	589
Hickory	3,757	99	216	3,442
Beech	84	1	0	82
Ash	2,066	1	501	1,565
Black walnut	237	0	26	212
Sweetgum	45,655	1,264	5,327	39,065
Yellow-poplar	22,934	281	2,185	20,468
Blackgum-tupelo	22,787	1,695	3,499	17,594
Sycamore	64	0	37	27
Black cherry	2,880	69	450	2,361
Select white oaks	11,712	136	1,670	9,906
Other white oaks	10,218	148	890	9,181
Select red oaks	1,717	1	10	1,706
Other red oaks	61,050	2,854	5,721	52,475
Basswood	685	0	169	516
Elm	3,363	136	599	2,629
Other eastern hardwoods	7,783	382	1,093	6,308
Total hardwoods	209,141	7,913	23,126	178,102
All species	1,251,837	29,488	378,059	844,290

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

Schiller, James R.; McClure, Nathan; Willard, Risher A. 2009. Georgia's timber industry—an assessment of timber product output and use, 2007. Resour. Bull. SRS–161. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 35 p.

In 2007, industrial roundwood output from Georgia's forests totaled 1.21 billion cubic feet, 4 percent more than in 2005. Mill byproducts generated from primary manufacturers decreased 5.6 percent to 413 million cubic feet. Almost all plant residues were used primarily for fuel and fiber products. Pulpwood was the leading roundwood product at 611 million cubic feet; saw logs ranked second at 412 million cubic feet; composite panel third at 98 million cubic feet. The number of primary processing plants was down from 181 in 2005 to 168 in 2007. Total receipts increased slightly from 1.21 billion cubic feet in 2005 to 1.22 billion cubic feet in 2007.

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

The Forest Service, U.S. Department of Agriculture (USDA), is dedicated to the principle of multiple use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the States and private forest owners, and management of the National Forests and National Grasslands, it strives—as directed by Congress—to provide increasingly greater service to a growing Nation.