United States
Department of
Agriculture

Forest Service

**Southern
Research Station**

Resource Bulletin
SRS–128

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

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Walter E. Cartwright,
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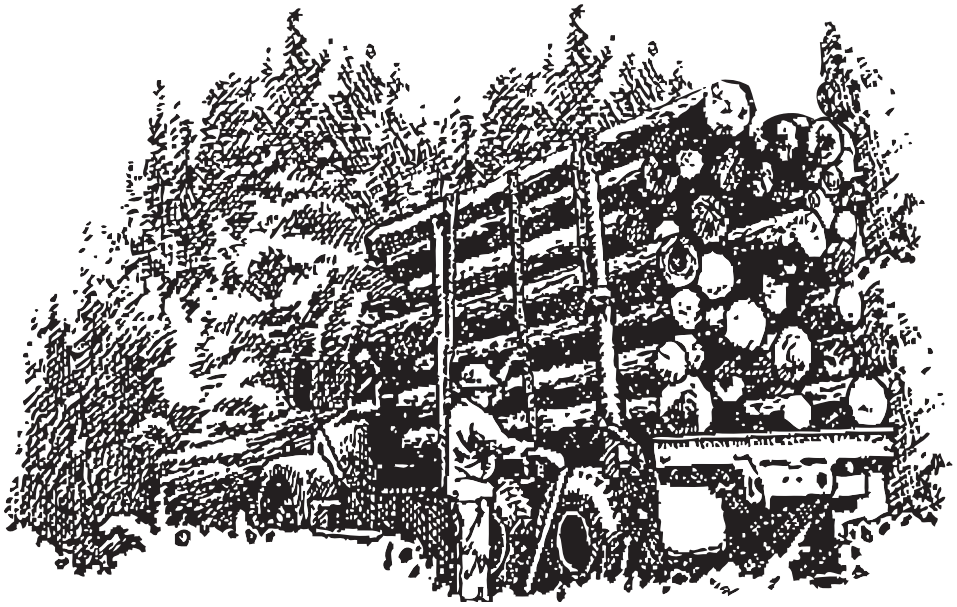

January 2008

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Foreword

This report contains the findings of a 2005 canvass of all primary wood-using plants in Alabama, and presents changes in product output and residue use since 2003. It complements the Forest Inventory and Analysis periodic inventory of volume and removals from the State's timberland. The canvass was conducted to determine the amount and source of wood receipts and annual timber product drain, by county, in 2005 and to determine interstate and cross-regional movement of industrial roundwood. Only primary wood-using mills were canvassed. Primary mills are those that process roundwood in log or bolt form or as chipped roundwood. Examples of industrial roundwood products are saw logs, pulpwood, veneer logs, poles, and logs used for composite board products. Mills producing products from residues generated at primary and secondary processors were not canvassed. Trees chipped in the woods were included in the estimate of timber drain only if they were delivered to a primary domestic manufacturer.

A 100-percent canvass of all wood processors in Alabama was conducted in 2006 to obtain information for 2005. In addition, roundwood from out-of-State mills known to be using logs or bolts harvested from Alabama timberland was incorporated into Alabama 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 Jim Gober and Andy Hartsell for review and comments; Carolyn Steppleton for her tireless efforts in processing and accuracy of the data; Sonja Oswalt for the mill map; Helen Beresford for timber product output database maintenance and support; Anne Jenkins, Janet Griffin, Sharon Johnson, and Charlene Walker for tables, graphs, and statistical checking; and the Southern Research Station (SRS) Technical Publications Team for editorial review, styling, and publication of this report.

The SRS gratefully acknowledges the cooperation and assistance provided by the Forest-Based Economic Development Services, Inc. and the Alabama 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/php/tpo2/tpo.php.

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

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

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

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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.

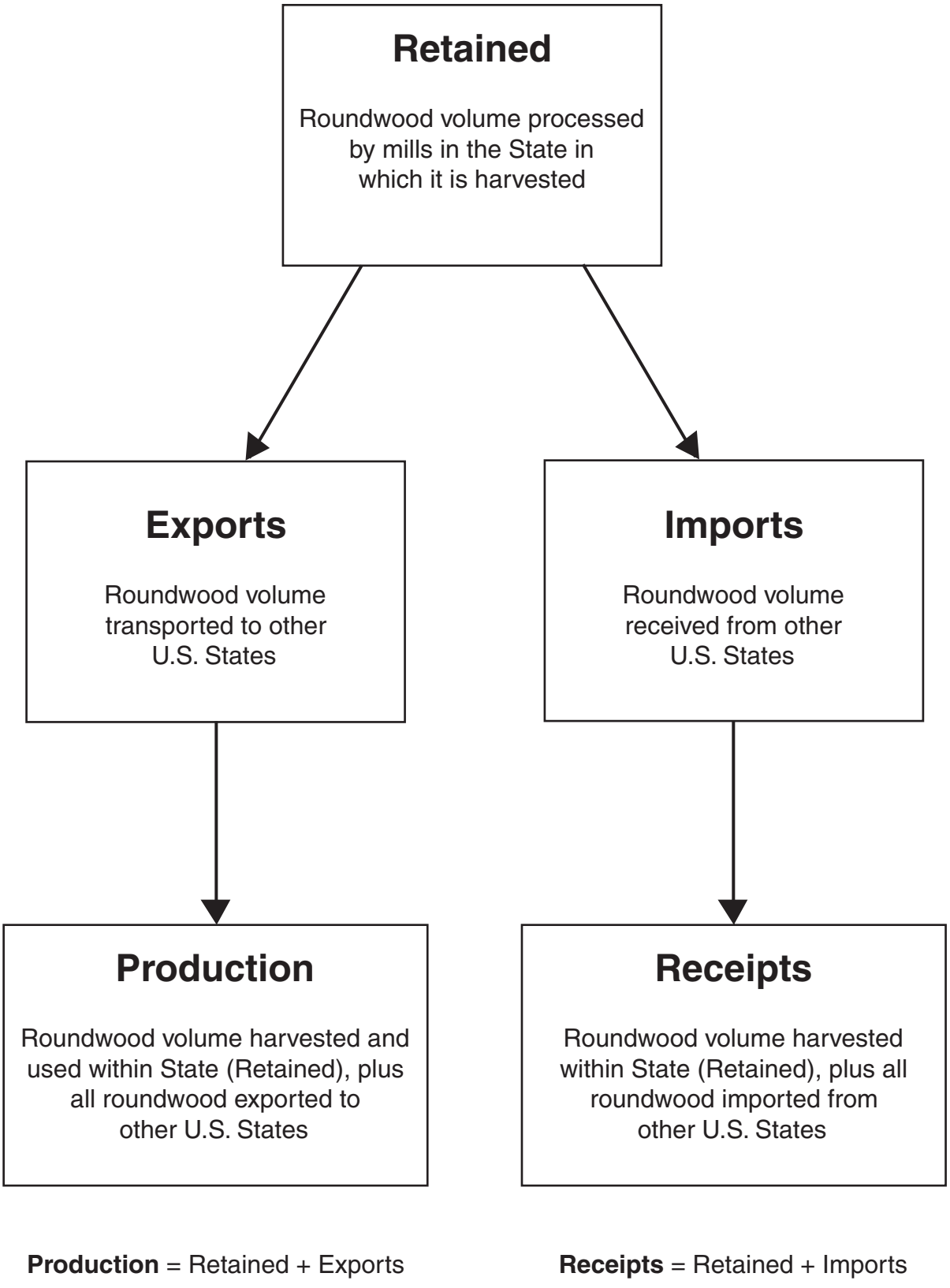

Figure 1—Movement of roundwood exports and imports within the United States.

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Output of Industrial Timber Products

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

All Products

- Between 2003 and 2005, the combined industrial TPO from roundwood and plant byproducts increased from 1.49 billion cubic feet to 1.57 billion cubic feet.
- TPO from roundwood was up 65 million cubic feet, or 6 percent, to 1.14 billion cubic feet, while output of plant byproducts was up 22 million cubic feet to 432 million cubic feet.
- Output of softwood roundwood products increased 9 percent to 879 million cubic feet, while output of hardwood roundwood products declined 3 percent to 264 million cubic feet (fig. 2).
- Pulpwood and saw logs were the principal roundwood products in 2005. Combined output of these products totaled 988 million cubic feet and accounted for 86 percent of Alabama's total roundwood output (fig. 3).
- Total receipts at Alabama mills, which included roundwood harvested and retained in the State as well as roundwood imported from other States, increased 4 percent to 1.18 billion cubic feet. The number of primary roundwood-using plants in Alabama totaled 145 in 2005, a loss of 33 mills since 2003 (fig. 4).
- Across all products, 85 percent of roundwood harvested was retained for processing at Alabama mills. Exports of roundwood to other States amounted to 172 million cubic feet, while imports of roundwood amounted to 212 million cubic feet making the State a net importer of roundwood. Tables A.8 to A.11 show exports to and imports from other States by individual product type.

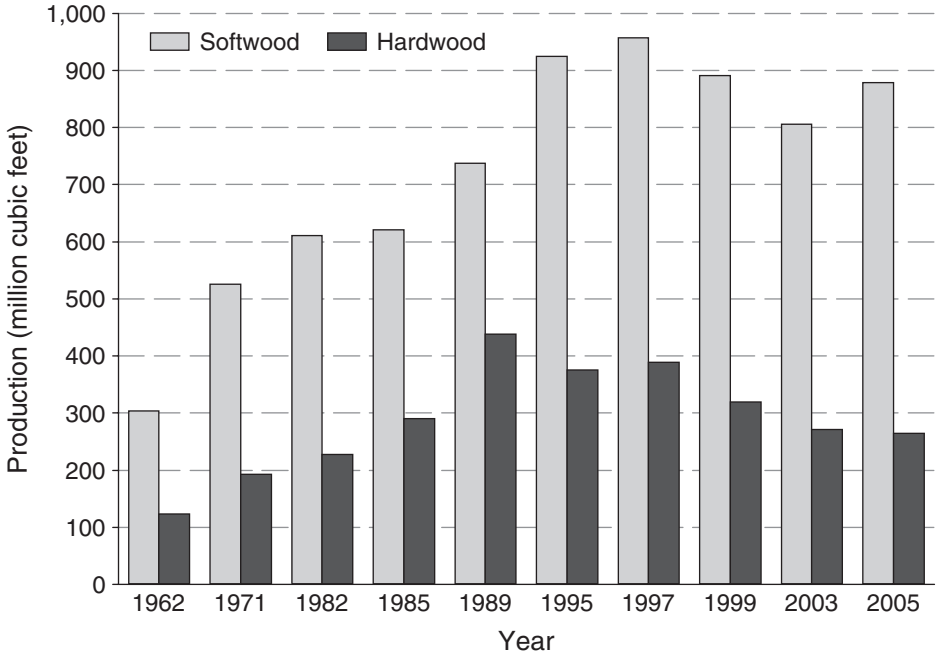

Figure 2—Roundwood production for all products by species group and year (see page 8 for references for individual years).

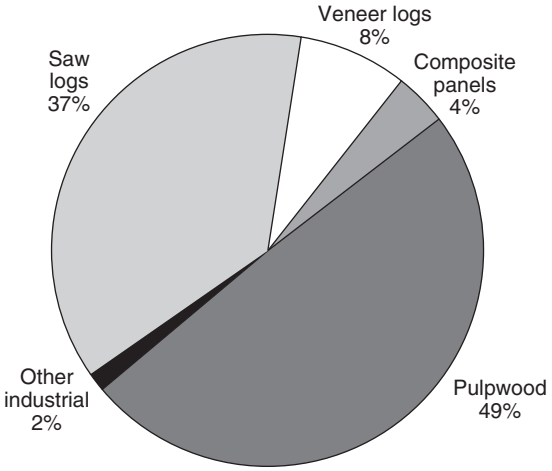

Figure 3—Roundwood production by type of product, 2005.

Pulpwood

- Total pulpwood production, including chipped roundwood, increased 42 million cubic feet to 563 million cubic feet (7.78 million cords) and accounted for 49 percent of the State's total roundwood TPO. Softwood output increased 9 percent to 373 million cubic feet; hardwood output increased 6 percent to 190 million cubic feet (fig. 5).

- Fourteen pulpmill facilities were operating and receiving roundwood in Alabama in 2005, the same as in 2003. Total pulpwood receipts for these mills increased 24 million cubic feet to 592 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 Alabama pulpmills. Roundwood pulpwood accounted for 66 percent of total known exports and 67 percent of total imports. Roundwood pulpwood imports amounted to 142 million cubic feet, 29 million cubic feet more than was exported.

Saw Logs

- Saw logs accounted for 37 percent of the State's total roundwood products. Output of softwood saw logs increased 11 percent to 372 million cubic feet (2.06 billion board feet, International ¼-inch rule), while that of hardwood saw logs fell 22 percent to 54 million cubic feet (319 million board feet, International ¼-inch rule) (fig. 6).

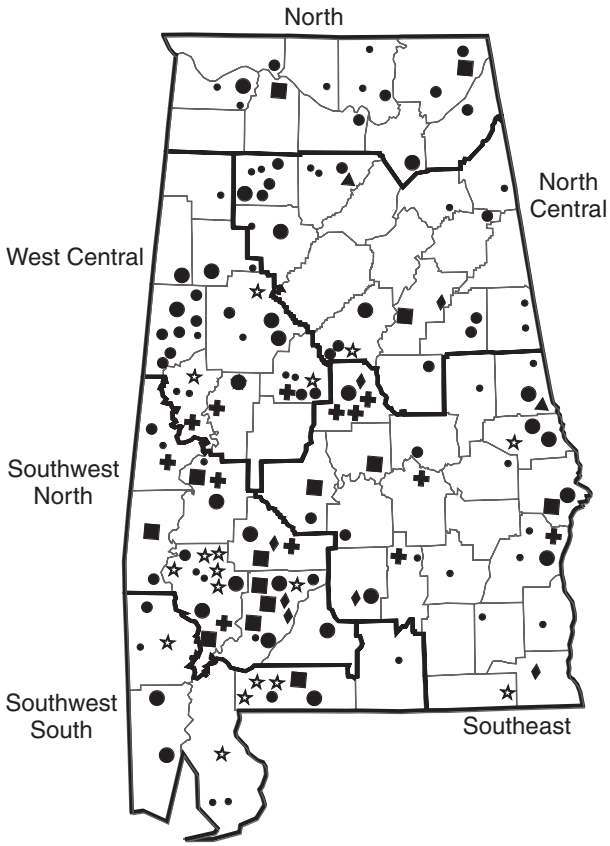

Figure 4—Primary wood-using mills by region, 2005.

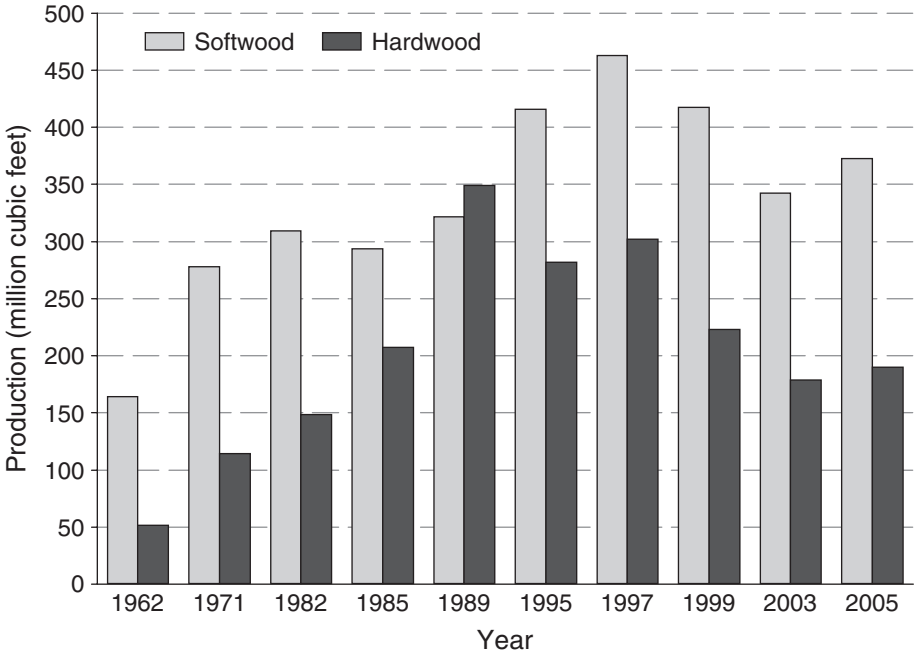

Figure 5—Roundwood pulpwood production by species group and year (see page 8 for references for individual years).

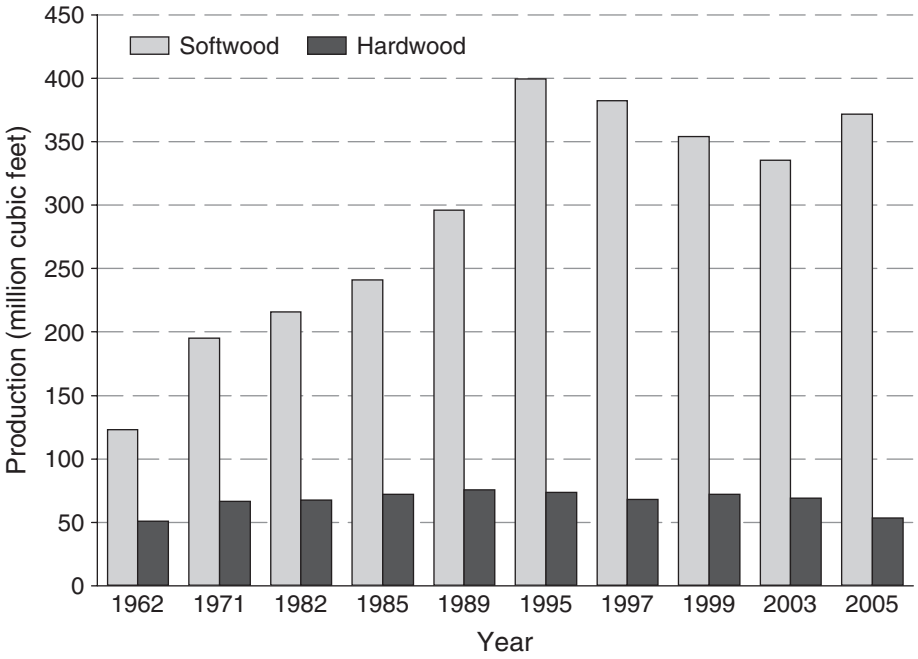

Figure 6—Roundwood saw-log production by species group and year (see page 8 for references for individual years).

- In 2005, Alabama had 93 sawmills, a net loss of 25 mills since 2003. Total saw-log receipts increased 26 million cubic feet to 444 million cubic feet. Softwood saw-log receipts were up 12 percent to 389 million cubic feet, while those of hardwoods decreased 23 percent to 54 million cubic feet. Of the operating mills in 2005, 16 percent had receipts of < 1 million board feet, while 44 percent had receipts > 10 million board feet. These 41 mills, however, accounted for 93 percent of total saw-log receipts.

- Alabama retained 90 percent of its saw-log production for in-State manufacture; saw-log imports exceeded exports by 18 million cubic feet in 2005.

Veneer Logs

- Output of veneer logs in 2005 totaled 93 million cubic feet and accounted for 8 percent of the State's total roundwood TPO volume. Softwood veneer production decreased 12 percent to 74 million cubic feet (435 million board feet, International ¼-inch rule); output of hardwood veneer logs declined 17 percent to 19 million cubic feet (116 million board feet, International ¼-inch rule) (fig. 7).

- Nineteen veneer mills were operating in Alabama in 2005. Total receipts of veneer logs decreased 19 percent to 86 million cubic feet. Softwood veneer receipts decreased 15 million cubic feet to 68 million cubic feet.

- Alabama retained 86 percent of its veneer-log production for processing at in-State veneer mills. Imports amounted to 6 million cubic feet, and exports totaled 13 million cubic feet, making the State a net exporter of roundwood veneer logs.

Composite Panels

- Roundwood harvested from Alabama's forests for composite panels increased 89 percent to 45 million cubic feet (637,000 cords). Softwood output accounted for nearly all of composite panel production in Alabama (fig. 8).

Other Industrial Products

- Roundwood harvested for other industrial uses, such as poles, posts, mulch, firewood, and all other industrial products, decreased 21 percent to 16 million cubic feet. Other industrial product volume accounted for 2 percent of the State's total TPO volume. Softwood output accounted for nearly all of the other industrial product volume.

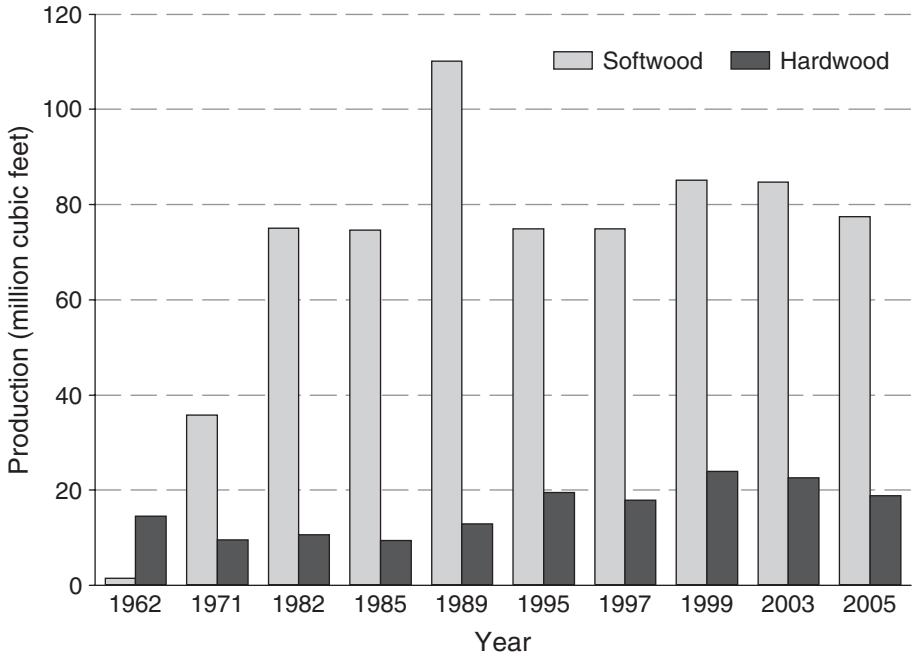

Figure 7—Roundwood veneer-log production by species group and year (see page 8 for references for individual years).

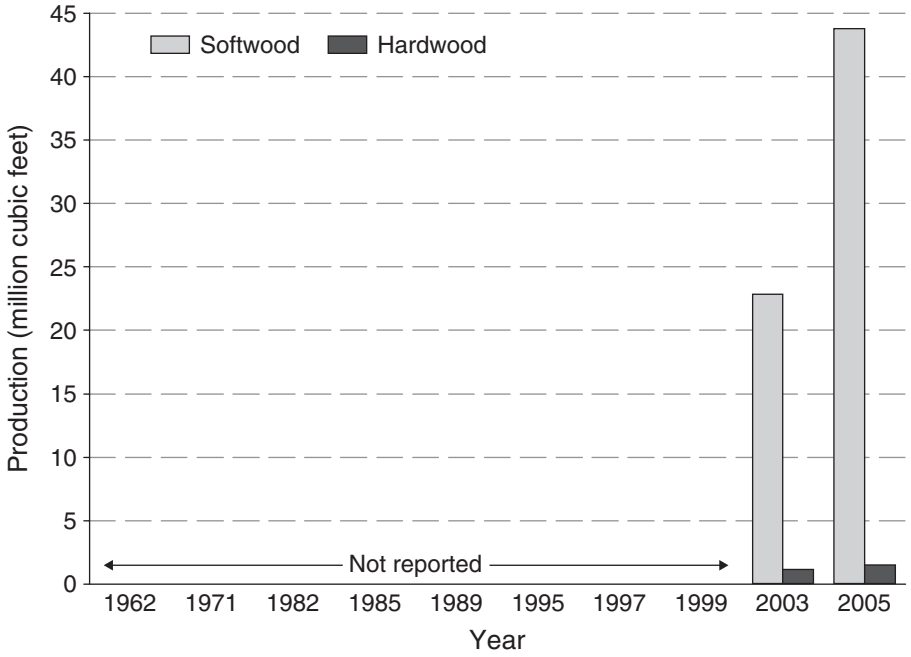

Figure 8—Roundwood production for composite panels by species group and year (see page 8 for references for individual years).

Plant Byproducts

- In 2005, processing of primary products in Alabama mills generated 432 million cubic feet of wood and bark residues. Bark residues from all primary products were 144 million cubic feet, while coarse volume totaled 161 million cubic feet. Sawdust and shavings made up 30 percent of total residues, or 127 million cubic feet (fig. 9).

- The processing of saw logs generated 269 million cubic feet of mill residues, accounting for 62 percent of the total residues produced (fig. 10).

- Virtually all of the wood and bark residues were used for a product; < 1 percent were not used, while 53 percent of the residues were used for industrial fuel (fig. 11). More than 143 million cubic feet, or 89 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 69 percent of the sawdust and shavings were used for industrial fuel.

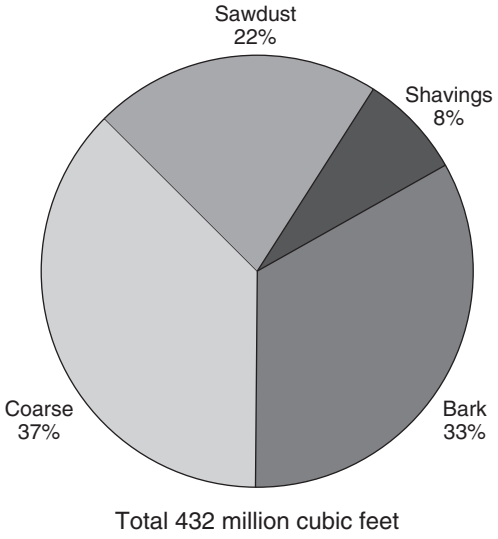

Figure 9—Primary mill residue by residue type, 2005.

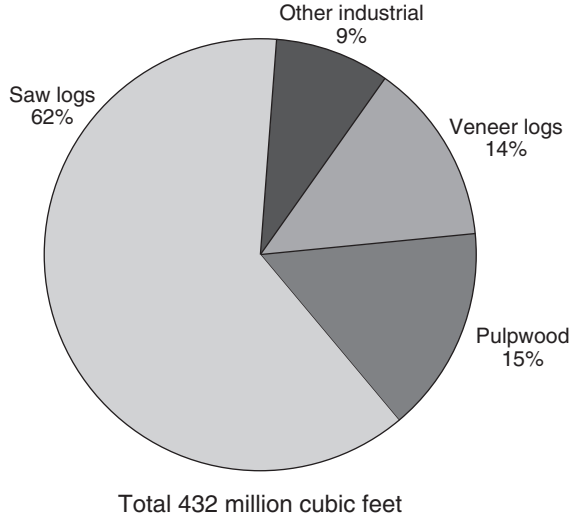

Figure 10—Primary mill residue produced by roundwood type, 2005.

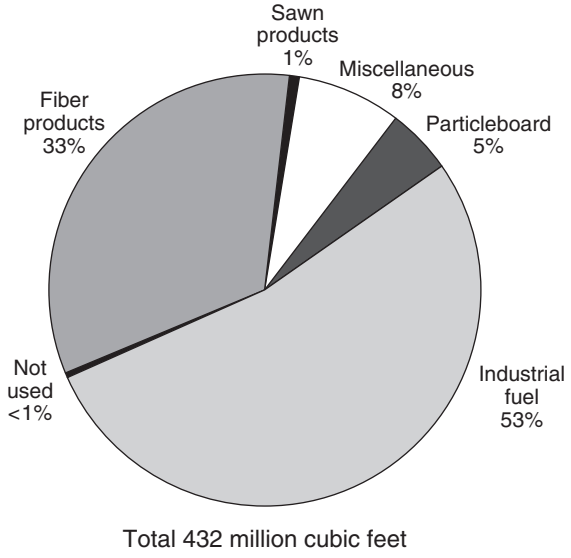

Figure 11—Disposal of residue by product, 2005.

County Data

- Table A.14 shows softwood and hardwood product output by county and individual product type. All 67 counties in Alabama had softwood and hardwood output. Eleven counties (Butler, Choctaw, Clarke, Conecuh, Escambia, Marengo, Monroe, Pickens, Sumter, Washington, and Wilcox) had combined softwood and hardwood product output of more than 30 million cubic feet each. These 11 counties' total product output amounted to nearly 472 million cubic feet and accounted for 41 percent of the State's total product output.

Total Roundwood Output

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

Source

- In addition to the 1.14 billion cubic feet of roundwood output for industrial roundwood products, an estimated 22 million cubic feet was harvested for domestic fuelwood, bringing Alabama's total roundwood output to 1.16 billion 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 107 million cubic feet, or 9 percent of total roundwood output (fig. 12).

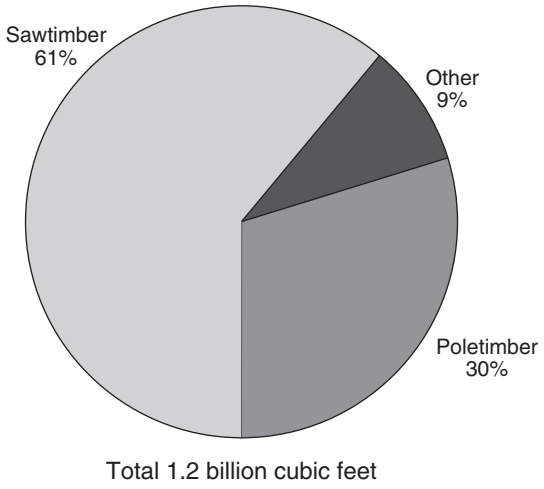

Figure 12—Roundwood output by source, 2005.

Ownership

- An estimated 836 million cubic feet, or 72 percent, of the total roundwood output came from nonindustrial private forest lands. Forest industry lands contributed 290 million cubic feet, or 25 percent of the output. Public lands made up the remaining 3 percent, or 39 million cubic feet (fig. 13).

Species

- The loblolly and shortleaf pine group provided more volume than any other softwood species group, accounting for 86 percent of the total softwood output (fig. 14). The longleaf and slash pine type accounted for 11 percent of the softwood output. The red oak and white oak groups combined accounted for 123 million cubic feet, or 44 percent of total hardwood output (fig. 15).

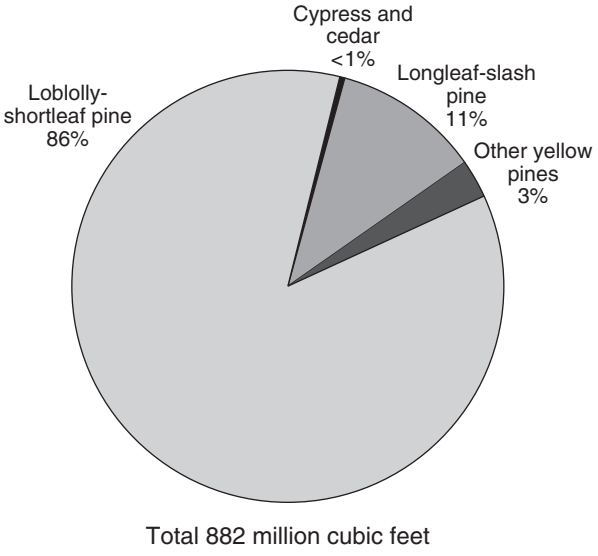

Figure 14—Roundwood output by softwood species group, 2005.

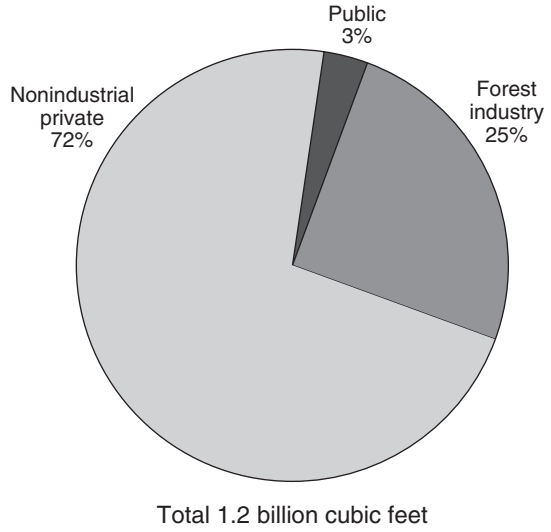

Figure 13—Roundwood output by ownership, 2005.

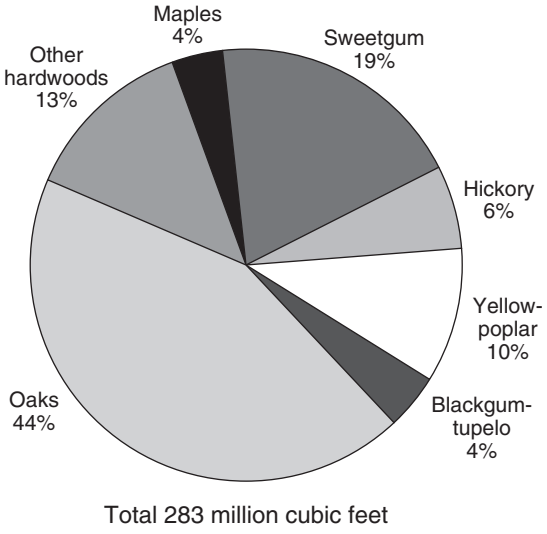

Figure 15—Roundwood output by hardwood species group, 2005.

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Glossary

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

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

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

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

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

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

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

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

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

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

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

Hardwoods. Dicotyledonous trees, usually broadleaf and deciduous.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Corporate. Owned by corporations, including incorporated farm ownerships.

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

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

Miscellaneous Federal land. Federal land other than national forests.

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

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

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

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

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

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

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

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

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

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

Pulpwood. A roundwood product that will be reduced to individual wood fibers by chemical or mechanical means. The fibers are used to make a broad generic group of pulp products that includes paper products, as well as fiberboard, insulating board, and paperboard.

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

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

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

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

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

Roundwood chipped. Any timber cut primarily for industrial manufacture, delivered to nonpulpmills, chipped, and then sold to pulpmills for use as fiber. Includes tops, jump sections, whole trees, and pulpwood sticks.

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

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

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

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

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

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

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

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

Sawtimber volume. Growing-stock volume in the saw-log portion of sawtimber-sized trees in board feet (International ¼-inch rule).

Seedlings. Trees < 1.0 inch d.b.h. and > 1 foot tall for hardwoods, > 6 inches tall for softwoods, and > 0.5 inch in diameter at ground level for longleaf pine.

Select red oaks. A group of several red oak species composed of cherrybark, Shumard, and northern red oaks. Other red oak species are included in the "other red oaks" group.

Select white oaks. A group of several white oak species composed of white, swamp chestnut, swamp white, chinkapin, Durand, and bur oaks. Other white oak species are included in the "other white oaks" group.

Softwoods. Coniferous trees, usually evergreen, having leaves that are needles or scale like.

Standard cord. A unit of measure applied to roundwood, usually bolts or split wood. It is a stack of wood 4 feet high, 4 feet wide, and 8 feet long encompassing 128 cubic feet of wood, bark, and air space. This usually translates to approximately 75.0 to 81.0 cubic feet of solid wood for pulpwood, because pulpwood is more uniform.

Standard unit. A unit measure applied to roundwood timber products. Board feet (International ¼-inch rule) is the standard unit used for saw logs and veneer; cords are used for pulpwood, composite panel, and fuelwood; hundred pieces for poles; thousand pieces for posts; and thousand cubic feet for all other miscellaneous forest products.

Timberland. Forest land capable of producing 20 cubic feet of industrial wood per acre per year and not withdrawn from timber utilization.

Timber product output. The total volume of roundwood products from all sources plus the volume of byproducts recovered from mill residues (equals roundwood product drain).

Timber products. Roundwood products and byproducts.

Timber removals. The total volume of trees removed from the timberland inventory by harvesting, cultural operations such as stand improvement, land clearing, or changes in land use. (Note: Includes roundwood products, logging residues, and other removals.)

Tree. Woody plants having one erect perennial stem or trunk at least 3 inches d.b.h., a more or less definitely formed crown of foliage, and a height of at least 13 feet (at maturity).

Upper-stem portion. The part of the main stem of saw-timber trees above the saw-log top and the minimum top diameter of 4.0 inches outside bark, or to the point where the main stem breaks into limbs.

Utilization studies. Studies conducted on active logging operations to develop factors for merchantable portions of trees left in the woods (logging residues), logging damage, and utilization of the unmerchantable portion of growing-stock trees and nongrowing-stock trees.

Veneer log. A roundwood product either rotary cut, sliced, stamped, or sawn into a variety of veneer products such as plywood, finished panels, veneer sheets, or sheathing.

Weight. A unit of measure for mill residues, expressed as oven-dry tons (2,000 oven-dry pounds).

Metric Equivalents

1 acre = 4046.86 m^2 or 0.404686 ha
1 cubic foot = 0.028317 m^3
1 inch = 2.54 cm or 0.0254 m
Breast height = 1.4 m above the ground
1 square foot = 929.03 cm^2 or 0.0929 m^2
1 square foot per acre basal area = 0.229568 m^2/ha
1 pound = 0.454 kg
1 ton = 0.907 MT

Conversion Factors[a]

Saw logs	
Softwood	0.18018 cubic foot = 1 board foot
	5.55 board feet = 1 cubic foot
Hardwood	0.16807 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	71 cubic feet per cord
Hardwood	75 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 Alabama 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.
Pond pine	*P. serotina* Michx.
Eastern white pine	*P. strobus* L.
Loblolly pine	*P. taeda* L.
Virginia pine	*P. virginiana* Mill.
Baldcypress	*Taxodium distichum* (L.) Rich.
Pondcypress	*T. distichum* var. *nutans* (Aiton) Sweet
Eastern hemlock	*Tsuga canadensis* (L.) Carr.
Hardwoods	
Florida maple	*Acer barbatum* Michx.
Boxelder	*A. negundo* L.
Red maple	*A. rubrum* L.
Silver maple	*A. saccharinum* L.
Sugar maple	*A. saccharum* Marsh.
Buckeye	*Aesculus* spp. L.
Ohio buckeye	*A. glabra* Willd.
Ailanthus	*Ailanthus altissima* (Mill.) Swingle
Tung-oil tree	*Aleurites fordii* Hemsl.
Serviceberry	*Amelanchier* spp. Med.
River birch	*Betula nigra* L.
American hornbeam	*Carpinus caroliniana* Walt.
Hickory	*Carya* spp. Nutt.
Water hickory	*C. aquatica* (Michx. f.) Nutt.
Bitternut hickory	*C. cordiformis* (Wangenh.) K. Koch
Pignut hickory	*C. glabra* (Mill.) Sweet
Pecan	*C. illinoensis* (Wangenh.) K. Koch
Shellbark hickory	*C. laciniosa* (Michx. f.) Loud.
Nutmeg hickory	*C. 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.
Kentucky coffeetree	*Gymnocladus dioicus* (L.) K. Koch

Common name	Scientific name[b]
Hardwoods (continued)	
American holly	*Ilex opaca* Ait.
Black walnut	*Juglans nigra* L.
Sweetgum	*Liquidambar styraciflua* L.
Yellow-poplar	*Liriodendron tulipifera* L.
Osage-orange	*Maclura pomifera* (Raf.) Schneid.
Cucumbertree	*Magnolia acuminata* L.
Southern magnolia	*M. grandiflora* L.
Bigleaf magnolia	*M. macrophylla* Michx.
Sweetbay	*M. virginiana* L.
Apple	*Malus* spp. Mill.
Chinaberry	*Melia azedarach* L.
White mulberry	*Morus alba* L.
Red mulberry	*M. rubra* L.
Water tupelo	*Nyssa aquatica* L.
Blackgum	*N. sylvatica* Marsh.
Swamp tupelo	*N. sylvatica* var. *biflora* (Walt.) Sarg.
Eastern hophornbeam	*Ostrya virginiana* (Mill.) K. Koch
Sourwood	*Oxydendrum arboreum* (L.) DC.
Redbay	*Persea borbonia* (L.) Spreng.
American sycamore	*Platanus occidentalis* L.
Cottonwood	*Populus* spp. L.
Black cherry	*Prunus serotina* Ehrh.
White oak	*Quercus alba* L.
Scarlet oak	*Q. coccinea* Muenchh.
Durand oak	*Q. durandii* Buckl.
Southern red oak	*Q. falcata* Michx.
Cherrybark oak	*Q. falcata* var. *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
Pin oak	*Q. palustris* Muenchh.
Willow oak	*Q. phellos* L.
Chestnut oak	*Q. prinus* L.
Northern red oak	*Q. rubra* L.
Shumard oak	*Q. shumardii* Buckl.
Post oak	*Q. stellata* Wangenh.
Black oak	*Q. velutina* Lam.
Live oak	*Q. virginiana* Mill.
Black locust	*Robinia pseudoacacia* L.
Willow	*Salix* spp. L.
Sassafras	*Sassafras albidum* (Nutt.) Nees
American basswood	*Tilia americana* L.
White basswood	*T. heterophylla* Vent.
Winged elm	*Ulmus alata* Michx.
American elm	*U. americana* L.
Cedar elm	*U. crassifolia* Nutt.
Slippery elm	*U. rubra* Muhl.
September elm	*U. serotina* Sarg.
Rock elm	*U. thomasii* Sarg.

[a] Scientific and common names of tree species > 1.0 inch in 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, Alabama, 2003 and 2005

Product and species group	Year 2003	2005	Change	Change
	- - - - - - thousand cubic feet - - - - - -			*percent*
Saw logs				
Softwood	335,571	371,660	36,089	10.8
Hardwood	69,046	53,636	-15,410	-22.3
Total	404,617	425,296	20,679	5.1
Veneer logs				
Softwood	84,767	74,444	-10,323	-12.2
Hardwood	22,595	18,824	-3,771	-16.7
Total	107,362	93,268	-14,094	-13.1
Pulpwood[a]				
Softwood	342,360	372,736	30,376	8.9
Hardwood	178,737	190,046	11,309	6.3
Total	521,097	562,782	41,685	8.0
Composite panels				
Softwood	22,863	43,760	20,897	91.4
Hardwood	1,138	1,509	371	32.6
Total	24,001	45,269	21,268	88.6
Other industrial				
Softwood	20,523	16,108	-4,415	-21.5
Hardwood	0	60	60	0.0
Total	20,523	16,168	-4,355	-21.2
All industrial				
Softwood	806,084	878,708	72,624	9.0
Hardwood	271,516	264,075	-7,441	-2.7
Total	1,077,600	1,142,783	65,183	6.0
Byproduct output				
Softwood	330,945	356,583	25,638	7.7
Hardwood	78,598	75,016	-3,582	-4.6
Total	409,543	431,599	22,056	5.4
Total output				
Softwood	1,137,029	1,235,291	98,262	8.6
Hardwood	350,114	339,091	-11,023	-3.1
Total	1,487,143	1,574,382	87,239	5.9

[a] Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (12,395,000 cubic feet in 2003 and 9,401,000 cubic feet in 2005).

Table A.2—Roundwood receipts by product and species group, Alabama, 2003 and 2005

Product and species group	Year 2003	2005	Change	Change
	thousand cubic feet			*percent*
Saw logs				
Softwood	347,571	389,422	41,851	12.0
Hardwood	70,442	54,176	-16,266	-23.1
Total	418,013	443,598	25,585	6.1
Veneer logs				
Softwood	83,533	68,084	-15,449	-18.5
Hardwood	22,493	18,231	-4,262	-18.9
Total	106,026	86,315	-19,711	-18.6
Pulpwood[a]				
Softwood	346,664	331,407	-15,257	-4.4
Hardwood	221,800	260,607	38,807	17.5
Total	568,464	592,014	23,550	4.1
Other industrial				
Softwood	43,471	59,816	16,345	37.6
Hardwood	971	1,338	367	37.8
Total	44,442	61,154	16,712	37.6
Total output				
Softwood	821,239	848,729	27,490	3.3
Hardwood	315,706	334,352	18,646	5.9
Total	1,136,945	1,183,081	46,136	4.1

[a] Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (14,584,000 cubic feet in 2003 and 10,659,000 cubic feet in 2005).

Table A.3—Number of primary wood-using plants by industry, Alabama, 1962 to 2005

Industry	Year 1962	1971	1982	1985	1995	1997	1999	2003	2005
					number				
Sawmills	555	323	239	250	148	145	121	118	93
Veneer mills	34	32	28	28	23	26	23	23	19
Pulpmills	9	15	16	16	16	16	15	14	14
Composite panel mills	0	0	0	0	1	1	1	2	2
Other mills	47	36	35	47	23	24	21	21	17
All plants	645	406	318	341	211	212	181	178	145

Table A.4—Roundwood receipts by sawmill size, Alabama, 2003 and 2005

Sawmill size class[a]	2003			2005		
	Mills	Volume		Mills	Volume	
mmbf	*number*	*mbf*	*percent*	*number*	*mbf*	*percent*
<1.0	22	4,363	0	15	4,557	0
1.0–4.99	33	86,123	4	19	43,422	2
5.0–9.99	21	152,584	6	18	136,244	5
10.0–49.99	21	418,840	18	21	472,251	19
>50	21	1,688,756	72	20	1,829,705	74
Total	118	2,350,666	100	93	2,486,179	100

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

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

Species	All mills	Type of mill				
			Veneer mills			
		Sawmills	Pine plywood	Other veneer	Pulpmills[a]	Other mills
	thousand cubic feet					
Softwood						
Yellow pine	514,452	387,836	68,050	0	NA	58,566
White pine	0	0	0	0	NA	0
Cedar	2,570	1,320	0	0	NA	1,250
Cypress	239	205	34	0	NA	0
Other softwood	61	61	0	0	NA	0
Unclassified	331,407	0	0	0	331,407	0
Total softwoods	848,729	389,422	68,084	0	331,407	59,816
Hardwood						
Blackgum and tupelo	985	277	146	562	NA	0
Soft maple	314	266	0	48	NA	0
Sweetgum	8,060	3,241	2,142	2,251	NA	426
Yellow-poplar	13,640	6,486	2,712	3,803	NA	639
Other soft hardwood	787	581	0	206	NA	0
Hickory	1,988	1,355	32	577	NA	24
Red oak	29,104	24,637	407	4,033	NA	27
White oak	13,004	11,841	81	1,073	NA	9
Other hard hardwood	5,863	5,492	32	126	NA	213
Unclassified	260,607	0	0	0	260,607	0
Total hardwoods	334,352	54,176	5,552	12,679	260,607	1,338
All species	1,183,081	443,598	73,636	12,679	592,014	61,154

NA = not applicable.

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

Table A.6—Industrial roundwood movement by year and species group, Alabama, 2003 and 2005

Year	Production	Exported to other States	Retained	Imported from other States	Receipts
			thousand cubic feet		
			Softwood		
2003	806,084	128,250	677,834	143,405	821,239
2005	878,708	151,691	727,017	121,712	848,729
			Hardwood		
2003	271,516	28,314	243,202	72,504	315,706
2005	264,075	20,114	243,961	90,391	334,352
			All species		
2003	1,077,600	156,564	921,036	215,909	1,136,945
2005	1,142,783	171,805	970,978	212,103	1,183,081

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

Product and species group	Production	Exported to other States	Retained	Imported from other States	Receipts
			thousand cubic feet		
Saw logs					
Softwood	371,660	34,888	336,772	52,650	389,422
Hardwood	53,636	9,106	44,530	9,646	54,176
Total	425,296	43,994	381,302	62,296	443,598
Veneer logs					
Softwood	74,444	10,940	63,504	4,580	68,084
Hardwood	18,824	2,372	16,452	1,779	18,231
Total	93,268	13,312	79,956	6,359	86,315
Pulpwood[a]					
Softwood	372,736	104,369	268,367	63,040	331,407
Hardwood	190,046	8,405	181,641	78,966	260,607
Total	562,782	112,774	450,008	142,006	592,014
Other industrial					
Softwood	59,868	1,494	58,374	1,442	59,816
Hardwood	1,569	231	1,338	0	1,338
Total	61,437	1,725	59,712	1,442	61,154
All products					
Softwood	878,708	151,691	727,017	121,712	848,729
Hardwood	264,075	20,114	243,961	90,391	334,352
Total	1,142,783	171,805	970,978	212,103	1,183,081

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

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

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
Alabama (retained)	381,302	336,772	44,530
Exports to			
Florida	3,372	3,332	40
Georgia	4,975	4,595	380
Mississippi	31,977	26,881	5,096
Tennessee	3,670	80	3,590
Total	43,994	34,888	9,106
Imports from			
Florida	4,846	4,846	0
Georgia	16,779	15,865	914
Kentucky	26	26	0
Louisiana	6	6	0
Mississippi	27,484	20,339	7,145
Missouri	513	513	0
Tennessee	12,642	11,055	1,587
Total	62,296	52,650	9,646

Table A.9—Veneer volume by destination, source, and species group, Alabama, 2005

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
Alabama (retained)	79,956	63,504	16,452
Exports to			
Florida	394	394	0
Georgia	3,178	1,269	1,909
Mississippi	9,740	9,277	463
Total	13,312	10,940	2,372
Imports from			
Florida	1,325	1,163	162
Georgia	2,383	2,257	126
Mississippi	2,651	1,160	1,491
Total	6,359	4,580	1,779

Table A.10—Pulpwood volume by destination, source, and species group, Alabama, 2005[a]

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
Alabama (retained)	450,008	268,367	181,641
Exports to			
Arkansas	448	0	448
Florida	18,302	18,023	279
Georgia	37,106	31,682	5,424
Louisiana	86	79	7
Mississippi	41,229	41,229	0
North Carolina	790	0	790
Tennessee	14,794	13,337	1,457
Texas	19	19	0
Total	112,774	104,369	8,405
Imports from			
Florida	11,478	10,183	1,295
Foreign	18	0	18
Georgia	10,687	492	10,195
Illinois	35,574	35,574	0
Indiana	17	0	17
Mississippi	44,824	6,563	38,261
Missouri	17	0	17
Ohio	17	0	17
South Carolina	117	117	0
South Dakota	39	39	0
Tennessee	39,201	10,072	29,129
Virginia	17	0	17
Total	142,006	63,040	78,966

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

Table A.11—Other industrial volume by destination, source, and species group, Alabama, 2005[a]

Destination and source	All species	Species group	
		Softwood	Hardwood
	thousand cubic feet		
Alabama (retained)	59,712	58,374	1,338
Exports to			
Florida	309	309	0
Kentucky	22	22	0
Mississippi	473	473	0
Tennessee	793	562	231
Virginia	128	128	0
Total	1,725	1,494	231
Imports from			
Florida	1,206	1,206	0
Georgia	105	105	0
Mississippi	131	131	0
Total	1,442	1,442	0

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

Table A.12—Primary mill residue volume by roundwood type, species group, and residue type, Alabama, 2005

Roundwood type and species group	All types	Residue type			
		Bark	Coarse	Sawdust	Shavings
		thousand cubic feet			
Saw logs					
Softwood	239,478	35,081	112,767	58,382	33,248
Hardwood	29,677	6,189	11,755	11,365	368
Total	269,155	41,270	124,522	69,747	33,616
Veneer logs					
Softwood	46,512	6,458	22,455	17,599	0
Hardwood	12,348	2,147	4,652	5,549	0
Total	58,860	8,605	27,107	23,148	0
Pulpwood					
Softwood	34,011	34,011	0	0	0
Hardwood	32,693	32,693	0	0	0
Total	66,704	66,704	0	0	0
Other industrial[a]					
Softwood	36,704	26,829	9,730	145	0
Hardwood	363	337	19	7	0
Total	37,067	27,166	9,749	152	0
Total					
Softwood	356,705	102,379	144,952	76,126	33,248
Hardwood	75,081	41,366	16,426	16,921	368
Total	431,786	143,745	161,378	93,047	33,616

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

Table A.13—Disposal of residue at primary wood-using plants by product, species group, and type of residue, Alabama, 2003 and 2005

Product and species group	All types		Bark		Coarse		Sawdust		Shavings	
	2003	2005	2003	2005	2003	2005	2003	2005	2003	2005
	thousand cubic feet									
Fiber products										
Softwood	106,956	129,251	0	0	106,909	129,005	0	227	47	19
Hardwood	16,254	14,169	0	0	16,254	14,169	0	0	0	0
Total	123,210	143,420	0	0	123,163	143,174	0	227	47	19
Particleboard										
Softwood	17,031	21,271	0	0	151	0	4,580	6,073	12,300	15,198
Hardwood	197	24	0	0	197	0	0	0	0	24
Total	17,228	21,295	0	0	348	0	4,580	6,073	12,300	15,222
Sawn products										
Softwood	0	2,975	0	0	0	2,975	0	0	0	0
Hardwood	25	266	0	0	25	266	0	0	0	0
Total	25	3,241	0	0	25	3,241	0	0	0	0
Fuel										
Softwood	181,687	171,067	92,866	89,063	16,632	11,446	62,772	60,646	9,417	9,912
Hardwood	59,986	58,834	37,411	40,184	1,174	1,931	20,855	16,400	546	319
Total	241,673	229,901	130,277	129,247	17,806	13,377	83,627	77,046	9,963	10,231
Miscellaneous										
Softwood	25,271	32,019	13,401	13,289	658	1,451	6,343	9,160	4,869	8,119
Hardwood	2,136	1,723	1,291	1,141	10	40	661	517	174	25
Total	27,407	33,742	14,692	14,430	668	1,491	7,004	9,677	5,043	8,144
Not used										
Softwood	267	122	143	27	53	75	6	20	65	0
Hardwood	164	65	15	41	36	20	113	4	0	0
Total	431	187	158	68	89	95	119	24	65	0
All products										
Softwood	331,212	356,705	106,410	102,379	124,403	144,952	73,701	76,126	26,698	33,248
Hardwood	78,762	75,081	38,717	41,366	17,696	16,426	21,629	16,921	720	368
Total	409,974	431,786	145,127	143,745	142,099	161,378	95,330	93,047	27,418	33,616

Table A.14—Roundwood timber product output by county, product, and species group, Alabama, 2005

County	All products		Saw logs		Veneer logs		Pulpwood[a]		Composite panel		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
	thousand cubic feet											
Autauga	19,033	8,427	1,370	419	545	29	17,113	7,979	0	0	5	0
Baldwin	21,707	821	11,249	6	969	3	8,315	812	0	0	1,174	0
Barbour	17,123	3,473	7,450	117	0	621	9,668	2,735	0	0	5	0
Bibb	14,997	3,434	4,868	1,189	1,091	441	4,798	1,804	0	0	4,240	0
Blount	5,841	2,507	1,686	452	0	0	529	1,811	3,626	244	0	0
Bullock	12,764	1,409	4,315	280	0	221	7,269	908	1,180	0	0	0
Butler	26,677	8,213	10,163	395	3,494	1,863	12,952	5,955	0	0	68	0
Calhoun	5,485	3,822	652	588	1,331	0	2,930	3,196	572	38	0	0
Chambers	12,401	3,926	3,395	486	2,752	312	1,531	3,128	4,723	0	0	0
Cherokee	10,058	1,236	1,864	378	0	0	8,004	846	190	12	0	0
Chilton	7,521	4,531	2,968	504	1,091	172	3,417	3,855	0	0	45	0
Choctaw	28,726	10,336	10,535	2,262	3,747	716	14,153	7,358	0	0	291	0
Clarke	54,214	25,477	23,801	2,850	5,274	2,045	24,221	20,582	0	0	918	0
Clay	14,390	6,177	1,355	785	1,712	0	10,851	5,392	472	0	0	0
Cleburne	12,996	754	3,656	119	2,282	100	5,878	535	1,180	0	0	0
Coffee	6,412	1,396	1,778	0	165	106	4,454	1,290	0	0	15	0
Colbert	3,895	1,728	2,699	591	0	0	1,196	1,137	0	0	0	0
Conecuh	28,039	10,199	7,221	1,960	4,453	359	15,983	7,880	0	0	382	0
Coosa	14,740	2,378	5,819	776	2,241	40	4,774	1,562	1,889	0	17	0
Covington	15,312	2,385	9,322	658	2,292	719	3,426	1,008	0	0	272	0
Crenshaw	6,864	2,202	4,005	565	1,407	1,427	1,355	210	0	0	97	0
Cullman	6,576	1,259	3,482	632	0	0	40	421	3,054	206	0	0
Dale	5,015	2,156	2,417	0	0	198	2,595	1,958	0	0	3	0
Dallas	14,948	3,545	5,749	1,006	1,341	100	7,782	2,439	0	0	76	0
DeKalb	4,588	2,621	1,634	804	0	0	2,101	1,663	853	154	0	0
Elmore	4,391	238	731	141	727	29	1,753	68	1,180	0	0	0
Escambia	36,216	3,586	13,513	658	1,657	0	19,398	2,928	0	0	1,648	0
Etowah	5,907	1,608	1,676	301	1,521	0	993	1,192	1,717	115	0	0
Fayette	10,362	1,182	4,202	953	0	0	5,229	191	931	38	0	0
Franklin	8,542	2,454	3,742	153	0	0	4,800	2,301	0	0	0	0
Geneva	1,916	553	226	0	0	118	1,582	435	0	0	108	0
Greene	14,369	5,974	10,076	2,536	0	563	4,077	2,875	0	0	216	0
Hale	11,879	5,967	7,224	1,258	544	649	3,879	4,060	0	0	232	0
Henry	4,896	1,121	2,781	129	0	352	2,030	640	0	0	85	0
Houston	2,060	1,977	672	168	32	980	1,191	829	150	0	15	0
Jackson	2,715	7,761	870	3,382	151	0	1,263	4,264	281	115	150	0
Jefferson	8,648	3,236	4,148	858	0	198	1,903	2,052	1,908	128	689	0
Lamar	7,044	1,530	3,995	1,459	162	15	2,887	56	0	0	0	0
Lauderdale	4,459	5,940	2,587	1,659	0	0	1,872	4,281	0	0	0	0
Lawrence	3,734	2,359	585	934	0	0	2,959	1,413	190	12	0	0
Lee	14,229	1,864	7,781	279	369	100	4,426	1,431	1,653	0	0	54
Limestone	494	1,255	455	949	0	0	39	306	0	0	0	0
Lowndes	4,546	2,988	2,311	0	780	184	1,431	2,804	0	0	24	0
Macon	10,241	484	5,683	172	0	8	1,961	304	2,597	0	0	0

continued

Table A.14—Roundwood timber product output by county, product, and species group, Alabama, 2005 (continued)

County	All products		Saw logs		Veneer logs		Pulpwood[a]		Composite panel		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
	thousand cubic feet											
Madison	2,161	1,873	1,913	1,107	0	0	58	754	190	12	0	0
Marengo	24,708	8,875	9,698	1,201	2,536	1,117	12,028	6,557	0	0	446	0
Marion	10,043	2,853	1,977	988	89	0	7,977	1,865	0	0	0	0
Marshall	1,253	3,007	794	780	0	0	78	2,202	381	25	0	0
Mobile	20,025	1,960	11,123	195	1,213	141	7,079	1,624	0	0	610	0
Monroe	54,480	13,675	21,703	1,376	6,199	30	25,871	12,269	0	0	707	0
Montgomery	3,625	1,266	997	57	545	379	2,077	830	0	0	6	0
Morgan	1,182	3,255	602	972	0	0	580	2,283	0	0	0	0
Perry	10,347	3,196	5,798	722	998	261	2,879	2,213	0	0	672	0
Pickens	20,862	10,041	17,023	1,327	162	660	3,540	8,054	0	0	137	0
Pike	5,672	3,583	2,790	168	0	422	2,870	2,993	0	0	12	0
Randolph	7,427	2,244	1,084	740	1,712	212	2,506	1,292	2,125	0	0	0
Russell	13,831	1,851	7,647	1	0	0	4,767	1,850	1,417	0	0	0
Shelby	9,095	3,174	2,947	313	1,141	0	1,572	2,630	3,435	231	0	0
St. Clair	9,495	1,551	5,165	911	727	227	2,725	413	0	0	878	0
Sumter	25,523	7,493	14,955	2,094	2,358	1,174	7,426	4,225	0	0	784	0
Talladega	8,931	1,497	2,778	509	2,628	551	2,345	437	1,180	0	0	0
Tallapoosa	20,237	4,815	7,308	381	2,539	33	6,375	4,395	4,015	0	0	6
Tuscaloosa	16,167	2,660	12,197	1,848	0	0	3,840	812	0	0	130	0
Walker	17,669	3,536	5,589	808	0	0	9,790	2,574	2,290	154	0	0
Washington	24,371	6,398	13,576	1,626	4,182	145	6,313	4,627	0	0	300	0
Wilcox	36,897	7,015	15,141	651	5,285	804	15,820	5,560	0	0	651	0
Winston	7,737	1,768	2,144	1,050	0	0	5,212	693	381	25	0	0
All counties	878,708	264,075	371,660	53,636	74,444	18,824	372,736	190,046	43,760	1,509	16,108	60

[a] Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (9,401,000 cubic feet in 2005).

Table A.15—Total roundwood output by product, species group, and source of material, Alabama, 2005

Product and species group	All sources	Growing-stock trees			Other sources
		Total	Sawtimber	Poletimber	
	thousand cubic feet				
Saw logs					
Softwood	371,660	359,145	331,132	28,013	12,515
Hardwood	53,636	52,379	49,761	2,618	1,257
Total	425,296	411,524	380,893	30,632	13,772
Veneer logs and bolts					
Softwood	74,444	72,188	68,541	3,647	2,256
Hardwood	18,824	18,499	18,499	0	325
Total	93,268	90,687	87,040	3,647	2,581
Pulpwood					
Softwood	372,736	308,983	115,263	193,720	63,753
Hardwood	190,046	178,843	88,766	90,077	11,203
Total	562,782	487,826	204,029	283,797	74,956
Composite panels					
Softwood	43,760	34,751	10,158	24,593	9,009
Hardwood	1,509	1,381	606	776	128
Total	45,269	36,133	10,764	25,369	9,136
Poles and posts					
Softwood	14,835	14,232	13,673	559	603
Hardwood	0	0	0	0	0
Total	14,835	14,232	13,673	559	603
Other miscellaneous					
Softwood	1,273	1,028	600	427	245
Hardwood	60	53	31	22	7
Total	1,333	1,081	632	449	252
Total industrial products					
Softwood	878,708	790,327	539,367	250,960	88,381
Hardwood	264,075	251,156	157,663	93,493	12,919
Total	1,142,783	1,041,483	697,031	344,452	101,300
Fuelwood					
Softwood	2,973	1,352	922	430	1,621
Hardwood	19,062	15,059	13,121	1,938	4,003
Total	22,035	16,411	14,043	2,368	5,624
All products					
Softwood	881,681	791,679	540,289	251,390	90,002
Hardwood	283,137	266,215	170,785	95,430	16,922
Total	1,164,818	1,057,894	711,074	346,820	106,924

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

Table A.16—Total roundwood output by species group, survey region, and ownership class, Alabama, 2005

Species group and survey region	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
		thousand cubic feet		
Softwood				
Southwest South	118,029	4,643	34,613	78,773
Southwest North	253,441	10,326	83,657	159,458
Southeast	215,126	3,880	60,296	150,951
West Central	116,464	298	33,327	82,839
North Central	145,486	2,218	28,797	114,471
North	33,135	990	0	32,145
Total softwoods	881,681	22,354	240,689	618,638
Hardwood				
Southwest South	16,243	503	3,448	12,293
Southwest North	89,065	11,057	23,010	54,998
Southeast	64,352	42	4,147	60,163
West Central	39,496	119	5,991	33,387
North Central	39,400	3,236	7,403	28,761
North	34,581	1,242	5,309	28,030
Total hardwoods	283,137	16,198	49,308	217,632
All species	1,164,818	38,552	289,997	836,269

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

Table A.17—Total roundwood output by species group, detailed species group, and product, Alabama, 2005

Species group and detailed species group	Total	Product						
		Saw logs	Veneer logs	Pulpwood	Composite panels	Poles and posts	Other miscellaneous	Fuelwood
		thousand cubic feet						
Softwood								
Cedar	2,554	1,399	208	822	33	77	6	9
Longleaf-slash pine	97,094	45,113	9,138	39,227	643	2,646	0	327
Loblolly-shortleaf pine	755,973	313,318	63,867	322,186	41,239	11,559	1,254	2,549
Other yellow pines	25,290	11,403	1,136	10,273	1,845	534	13	85
Cypress	638	353	73	193	0	17	0	2
Hemlock	132	73	23	34	0	2	0	0
Total softwoods	881,681	371,660	74,444	372,736	43,760	14,835	1,273	2,973
Hardwood								
Soft maple	9,771	1,933	638	6,494	40	0	8	658
Hard maple	1,031	238	30	690	3	0	0	69
Other birch	860	105	81	617	0	0	0	58
Hickory	17,663	3,547	899	11,926	99	0	2	1,189
Beech	2,145	351	174	1,475	0	0	0	144
Ash	2,474	615	129	1,559	4	0	0	167
Black walnut	94	19	6	63	0	0	0	6
Sweetgum	54,554	9,561	4,519	36,618	161	0	23	3,673
Yellow-poplar	28,602	6,060	1,642	18,715	258	0	1	1,926
Blackgum-tupelo	11,720	1,791	918	8,159	59	0	4	789
Sycamore	697	132	10	487	21	0	0	47
Cottonwood	585	290	3	248	3	0	0	39
Black cherry	5,776	819	430	4,099	38	0	1	389
Select white oaks	23,536	5,416	1,179	15,153	199	0	4	1,584
Other white oaks	15,757	3,360	1,030	10,213	92	0	2	1,061
Select red oaks	5,034	870	319	3,503	3	0	0	339
Other red oaks	78,697	14,132	5,514	53,318	421	0	14	5,298
Basswood	16	5	0	10	0	0	0	1
Elm	4,517	1,040	244	2,912	16	0	1	304
Other eastern hardwoods	19,609	3,350	1,060	13,787	91	0	0	1,320
Total hardwoods	283,137	53,636	18,824	190,046	1,509	0	60	19,062
All species	1,164,818	425,296	93,268	562,782	45,269	14,835	1,333	22,035

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

Table A.18—Total roundwood output by species group, detailed species group, and ownership class, Alabama, 2005

Species group and detailed species group	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
		thousand cubic feet		
Softwood				
Cedar	2,554	12	555	1,987
Longleaf-slash pine	97,094	4,872	28,383	63,838
Loblolly-shortleaf pine	755,973	16,706	207,771	531,496
Other yellow pines	25,290	714	3,919	20,656
Cypress	638	49	60	528
Hemlock	132	0	0	132
Total softwoods	881,681	22,354	240,689	618,638
Hardwood				
Soft maple	9,771	335	1,453	7,984
Hard maple	1,031	79	275	678
Other birch	860	16	132	712
Hickory	17,663	527	2,863	14,273
Beech	2,145	68	171	1,905
Ash	2,474	151	132	2,190
Black walnut	94	0	1	93
Sweetgum	54,554	2,708	9,325	42,520
Yellow-poplar	28,602	876	6,709	21,016
Blackgum-tupelo	11,720	1,749	1,976	7,994
Sycamore	697	206	35	456
Cottonwood	585	0	0	585
Black cherry	5,776	580	1,107	4,089
Select white oaks	23,536	341	4,350	18,845
Other white oaks	15,757	898	2,959	11,900
Select red oaks	5,034	141	999	3,893
Other red oaks	78,697	5,872	12,844	59,981
Basswood	16	0	0	16
Elm	4,517	259	716	3,542
Other eastern hardwoods	19,609	1,390	3,260	14,959
Total hardwoods	283,137	16,198	49,308	217,632
All species	1,164,818	38,552	289,997	836,269

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

Bentley, James W.; Cartwright, Walter E.; Hendricks, Brian. 2008. Alabama's timber industry—an assessment of timber product output and use, 2005. Resour. Bull. SRS–128. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 32 p.

In 2005, roundwood output from Alabama's forests totaled 1.14 billion cubic feet. Mill byproducts generated from primary manufacturers amounted to 432 million cubic feet. Almost all plant residues were used primarily for fuel and fiber products. Pulpwood was the leading roundwood product at 563 million cubic feet; saw logs ranked second at 425 million cubic feet; veneer logs were third at 93 million cubic feet. The number of primary processing plants was 145. Total receipts amounted to 1.18 billion cubic feet.

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

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