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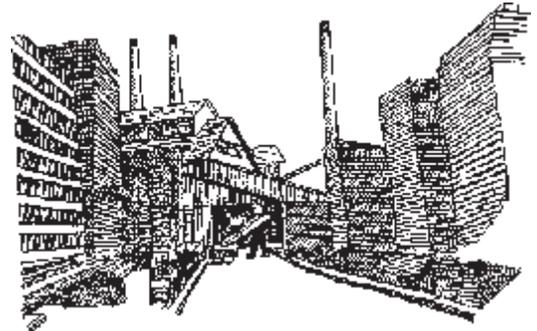


Southern  
Research Station

Resource Bulletin  
SRS-105

# Kentucky's Timber Industry— An Assessment of Timber Product Output and Use, 2003

James W. Bentley, and  
Larry Lowe

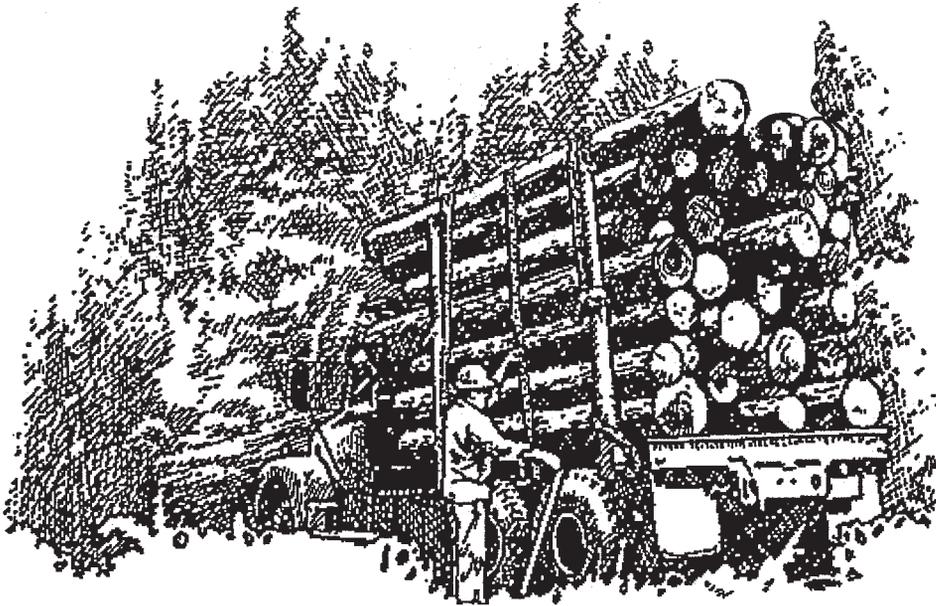


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## Foreword

This report contains the findings of a 2003 canvass of all primary wood-using plants in Kentucky, and presents changes in product output and residue use since 2001. 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 2003, 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 canvass of all wood processors in Kentucky was conducted in 2004 to obtain information for 2003. In addition, roundwood from out-of-State mills known to be using logs or bolts harvested from Kentucky timberland was incorporated into Kentucky 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 1948, and are currently conducted every 2 years.

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

## Acknowledgments

The authors thank Eric Gracey for review and comments; Lyn Thornhill and Sonja Oswalt for the maps; Anne Jenkins, Janet Griffin, Sharon Johnson, and Charlene Walker for tables, graphs, and statistical checking; and Louise Wilde for editorial review, styling, and publication of this report.

The Southern Research Station gratefully acknowledges the cooperation and assistance provided by the Kentucky Department of Forestry in collecting mill data. Appreciation is also extended to forest industry and mill managers for providing timber products information.



## Timber Product Output Database Retrieval System

The Forest Inventory and Analysis (FIA) Research Work Unit of the U.S. Department of Agriculture Forest Service (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, timber otherwise removed, 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 or areas. The system has been logically divided into two sections to assist the user in making specific data requests. In section 1, the user is 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 input that will serve to customize the database retrieval.

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

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

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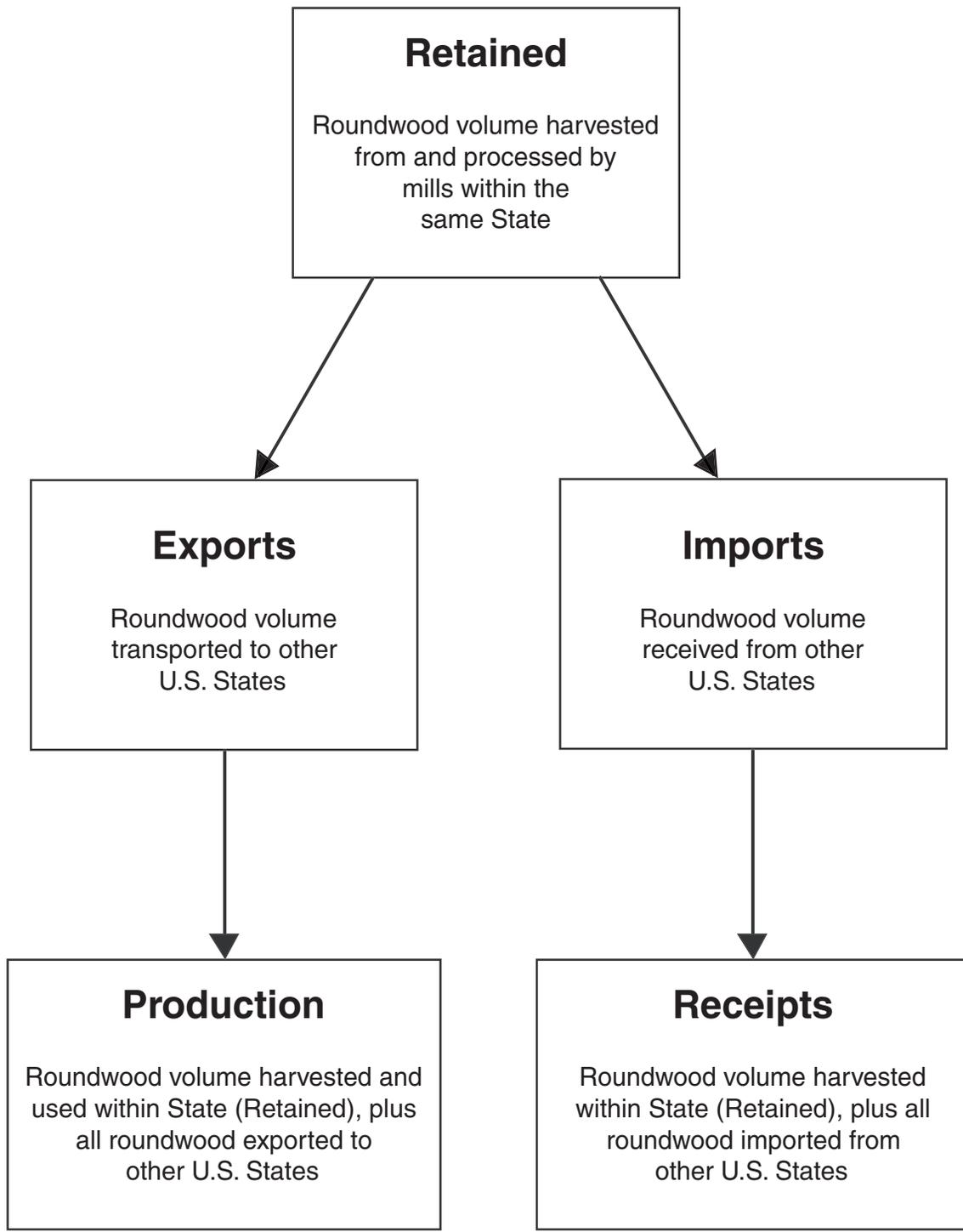
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<sup>a</sup> All tables in this report are available in Microsoft® Excel workbook files. Upon request, these files will be supplied on 3½-inch diskettes.

The use of trade or firm names in this publication is for reader information and does not imply endorsement by the U.S. Department of Agriculture of any product or service.



**Production** = Retained + Exports

**Receipts** = Retained + Imports

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

# Kentucky's Timber Industry— An Assessment of Timber Product Output and Use, 2003

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## Output of Industrial Timber Products

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

### All Products

- Between 2001 and 2003, the combined industrial TPO from roundwood and plant byproducts decreased by 3 percent, from 284 to 276 million cubic feet.
- TPO from roundwood was down 9 million cubic feet, or 5 percent, to 187 million cubic feet, while output of plant byproducts increased 835 thousand cubic feet to 90 million cubic feet.
- Output of hardwood roundwood products decreased 5 percent to 176 million cubic feet, while output of softwood roundwood products was up 8 percent to 10 million cubic feet (fig. 2).
- Figures 3 and 4 display softwood and hardwood county-level intensity of roundwood production for all industrial products across Kentucky. The data are depicted in cubic feet produced per acre of census land area. Counties with the highest production intensity are depicted in the darker shades. For softwoods the darkest shade represents more than 3.0 cubic feet of production per acre, while for hardwoods the darkest shade represents more than 21 cubic feet per acre.

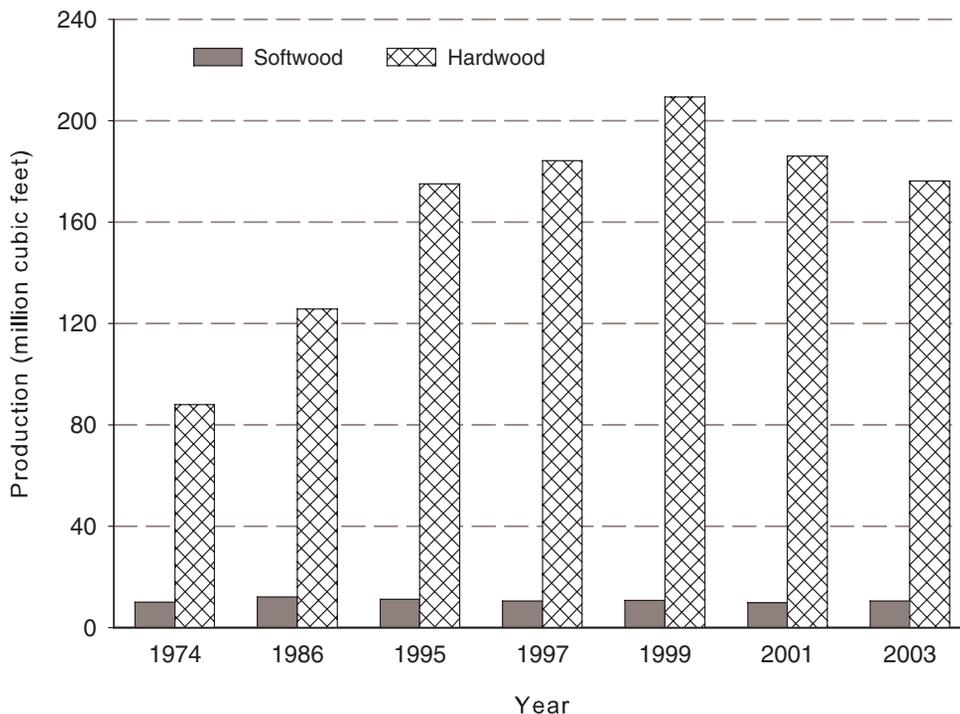


Figure 2—Roundwood production for all products by species group and year (see page 12 for references for individual years).

Cubic feet produced per  
acre of census land area

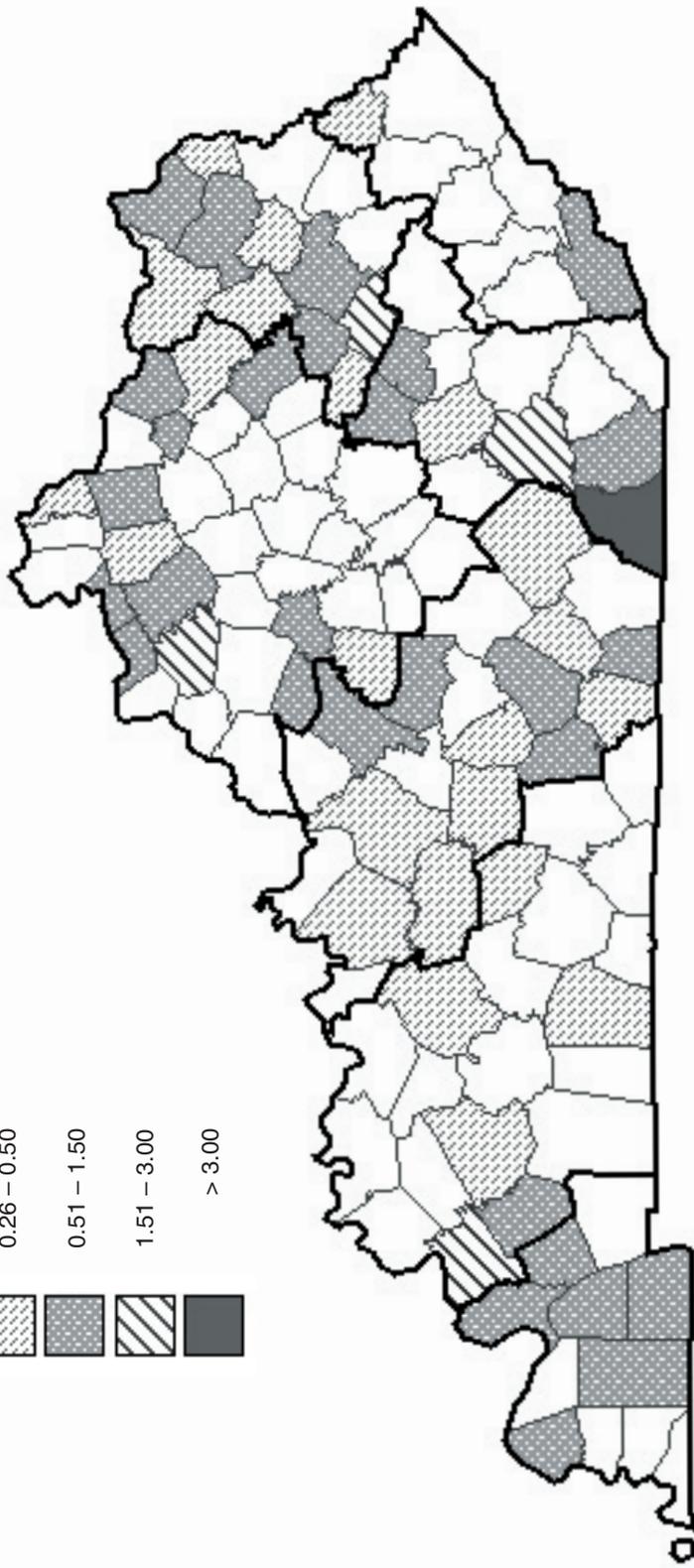
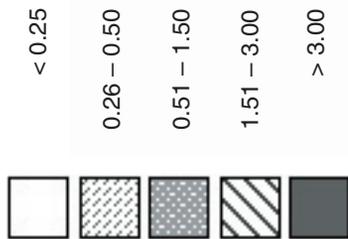


Figure 3—Intensity of roundwood softwood output for all industrial products in Kentucky by county, 2003.

Cubic feet produced per  
acre of census land area

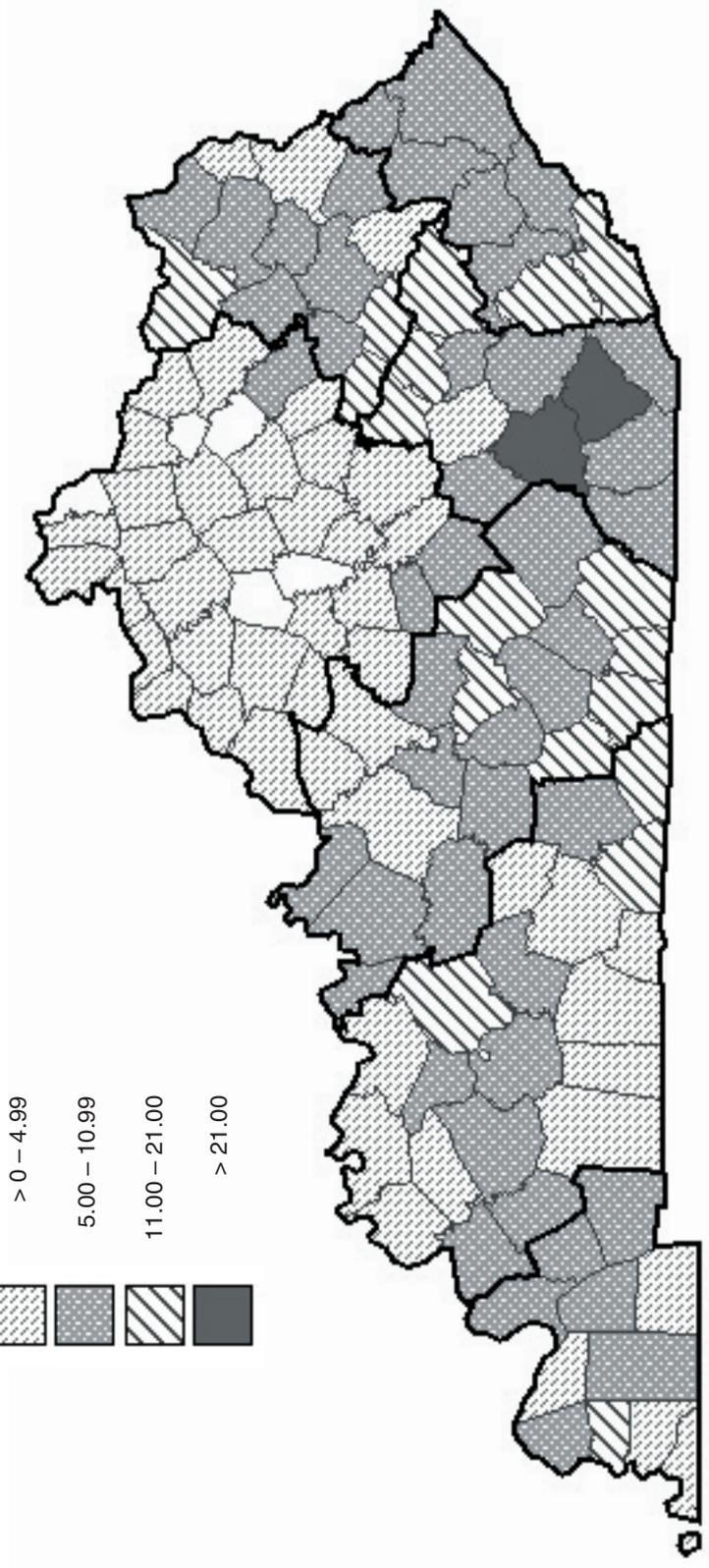
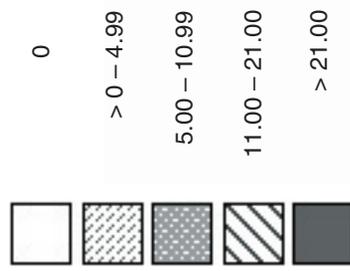


Figure 4—Intensity of roundwood hardwood output for all industrial products in Kentucky by county, 2003.

- Saw logs and pulpwood were the principal roundwood products in 2003. Combined output of these products totaled 167 million cubic feet and accounted for 89 percent of Kentucky's total roundwood output (fig. 5).
- Total receipts at Kentucky mills, which included roundwood harvested and retained in the State, as well as roundwood imported from other States, decreased 5 percent to 210 million cubic feet. At the same time, the number of primary roundwood-using plants in Kentucky declined from 337 in 2001 to 297 in 2003.

**Saw Logs**

- Saw logs accounted for 78 percent of the State's total roundwood products. Output of hardwood saw logs decreased 6 percent to 141 million cubic feet (860 million board feet, International ¼-inch rule), while that of softwood saw logs decreased 22 percent to 5 million cubic feet (25 million board feet, International ¼-inch rule) (fig. 6).

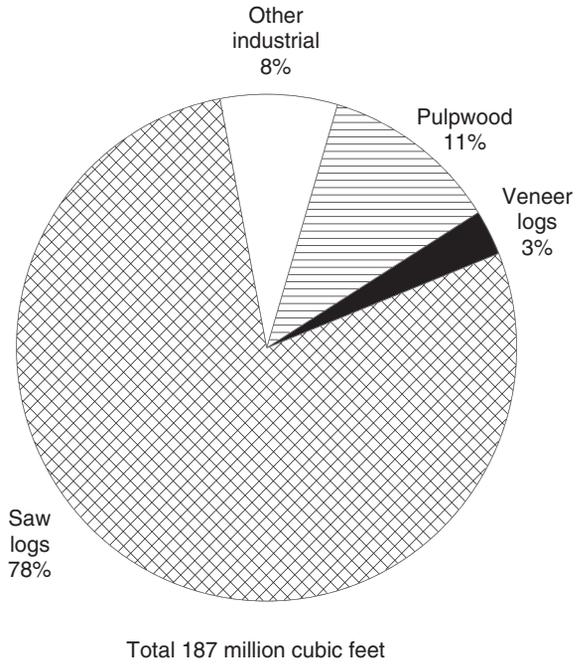


Figure 5—Roundwood production by type of product, 2003.

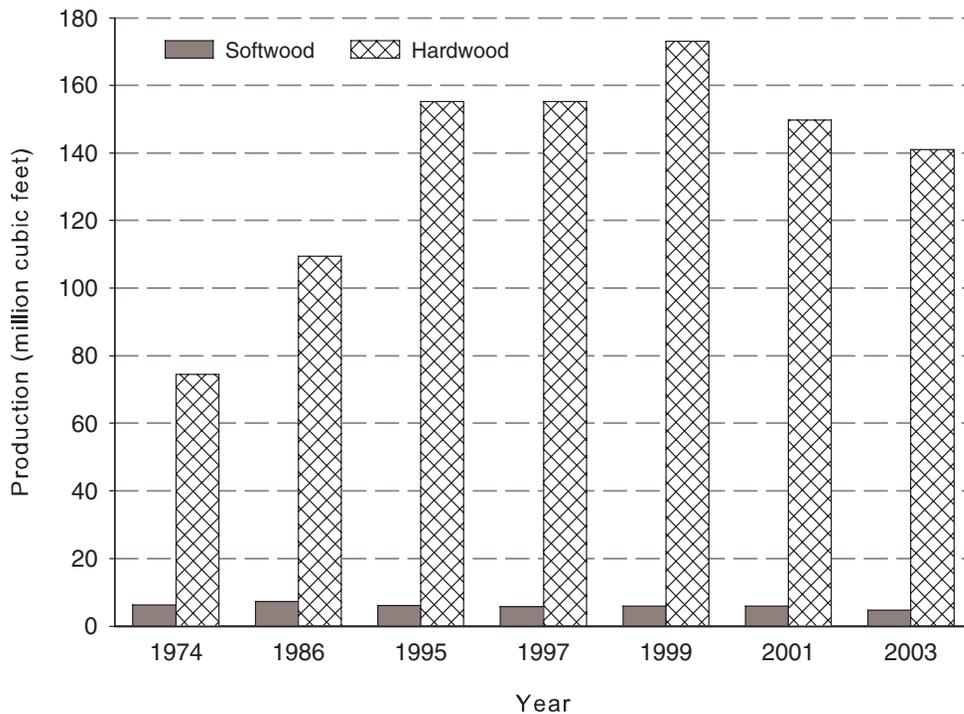


Figure 6—Roundwood saw-log production by species group and year (see page 12 for references for individual years).

- In 2003, Kentucky had 282 sawmills, a net loss of 35 mills since 2001. Total saw-log receipts were down 8 million cubic feet to 147 million cubic feet. Hardwood saw-log receipts decreased by 7 percent, to 143 million cubic feet, while those of softwoods decreased 28 percent to 4 million cubic feet. Of the operating mills, 42 percent had receipts of < 1 million board feet, 39 percent had receipts of between 1 and 4.99 million board feet, while 19 percent had receipts of 5 million board feet or greater. Those 53 mills accounted for 63 percent of total saw-log receipts.
- Kentucky retained 93 percent of its saw-log production for domestic manufacture; saw-log imports exceeded exports by 1 million cubic feet in 2003.
- Two pulpmill facilities were operating and receiving roundwood in Kentucky in 2003, the same as in 2001. Total pulpwood receipts for these mills increased 14 percent, or 5.8 million cubic feet, to 49 million cubic feet, accounting for 23 percent of total receipts for all mills.
- Seventy-six percent of roundwood cut for pulpwood was retained for processing at Kentucky pulpmills. Roundwood pulpwood accounted for 23 percent of total known exports and 73 percent of total imports. Roundwood pulpwood imports amounted to 32 million cubic feet, while exports amounted to 5 million cubic feet, making the State a net importer of pulpwood.

### Pulpwood

- Total pulpwood production, including chipped roundwood, increased 4 million cubic feet to 21 million cubic feet and accounted for 11 percent of the State's total roundwood TPO. Hardwood output was up 14 percent to 18 million cubic feet (240 thousand cords); softwood output was up 193 percent to 3 million cubic feet (43 thousand cords) (fig. 7).

### Veneer Logs

- Output of veneer logs was down 37 percent in 2003 and totaled 5.4 million cubic feet (34 million board feet, International 1/4-inch rule), 98 percent of which was hardwood (fig. 8). Veneer-log production accounted for 3 percent of the State's total roundwood TPO volume.

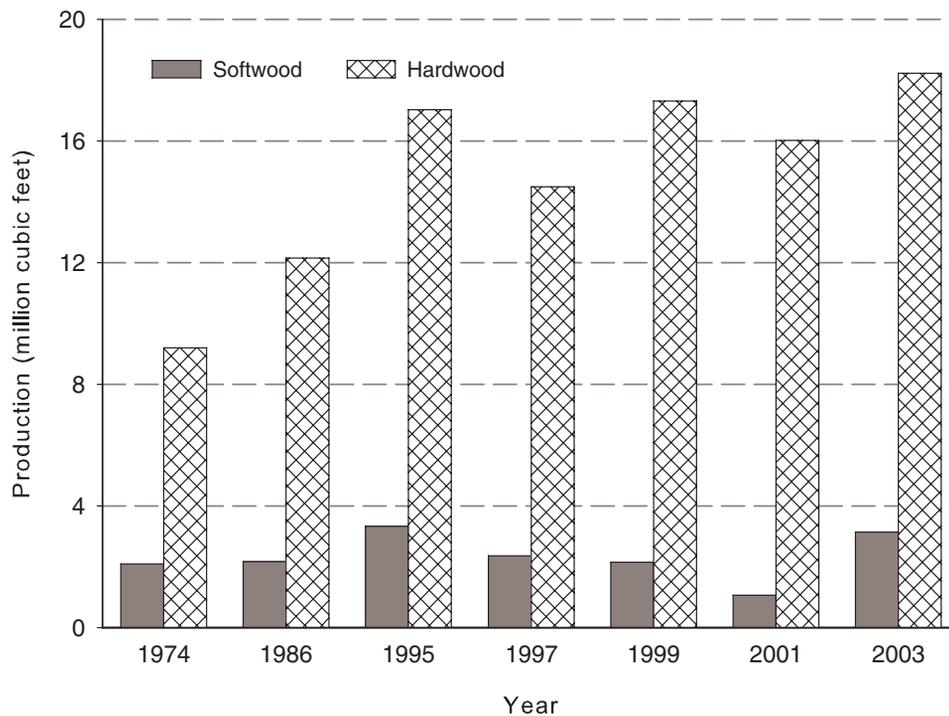


Figure 7—Roundwood pulpwood production by species group and year (see page 12 for references for individual years).

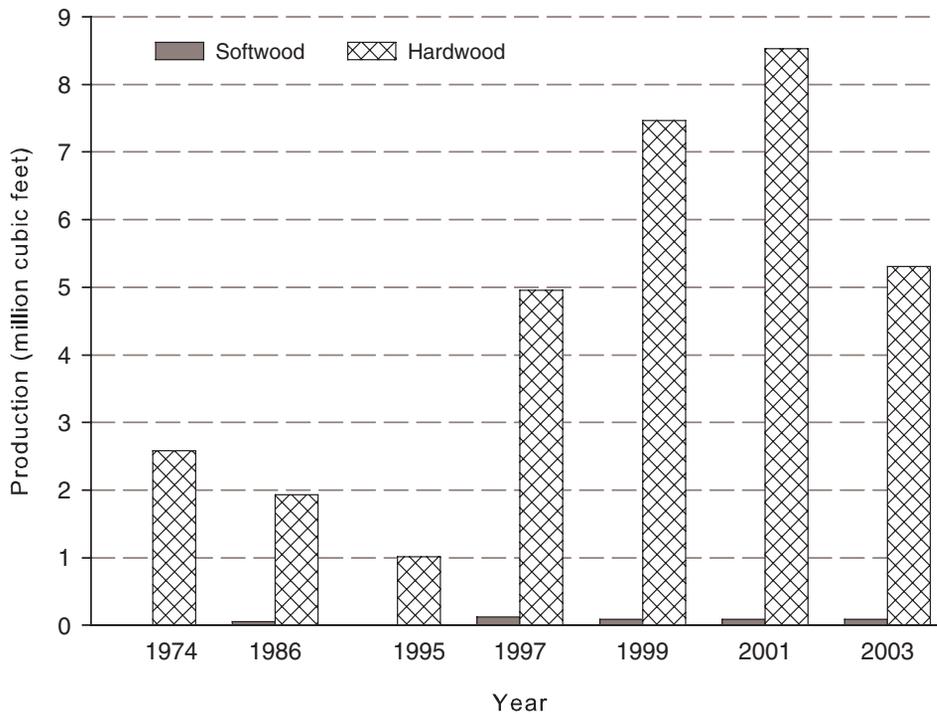


Figure 8—Roundwood veneer-log production by species group and year (see page 12 for references for individual years).

- Three veneer mills operated in Kentucky in 2003. Total receipts of veneer logs decreased 67 percent from 5.9 million cubic feet to 2 million cubic feet.
- Kentucky retained 16 percent of its veneer-log production for processing at domestic veneer mills. Imports amounted to 1 million cubic feet and exports totaled 4.5 million cubic feet, making the State a net exporter of roundwood veneer logs.

### Other Industrial Products

- Roundwood harvested for other industrial uses, such as composite panels, poles, posts, mulch, firewood, and all other industrial products, totaled 14 million cubic feet (fig. 9) and accounted for 8 percent of the State's total TPO. Hardwood made up 82 percent of the other industrial product volume.
- Between 2001 and 2003, the number of plants producing other industrial products decreased from 15 to 10. Combined receipts of other industrial products from softwood and hardwood totaled 12 million cubic feet.

- Kentucky was a net exporter of roundwood used for other industrial products, with exports totaling 2.4 million cubic feet, while imports amounted to 192 thousand cubic feet.

### Plant Byproducts

- In 2003, processing of primary products in Kentucky mills generated 93 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 38 million cubic feet, and bark volume totaled 24 million cubic feet. Sawdust and shavings made up 33 percent of total residues, or 31 million cubic feet (fig. 10).
- Ninety-six percent of the wood and bark residues were used for a product, with 30 percent of the residues used for fuel (fig. 11). Twenty-three million cubic feet, or 60 percent, of the coarse residues were used to manufacture fiber products. Most of the bark was used for other miscellaneous products or industrial fuel, and 42 percent of the sawdust and shavings was used for fuel.

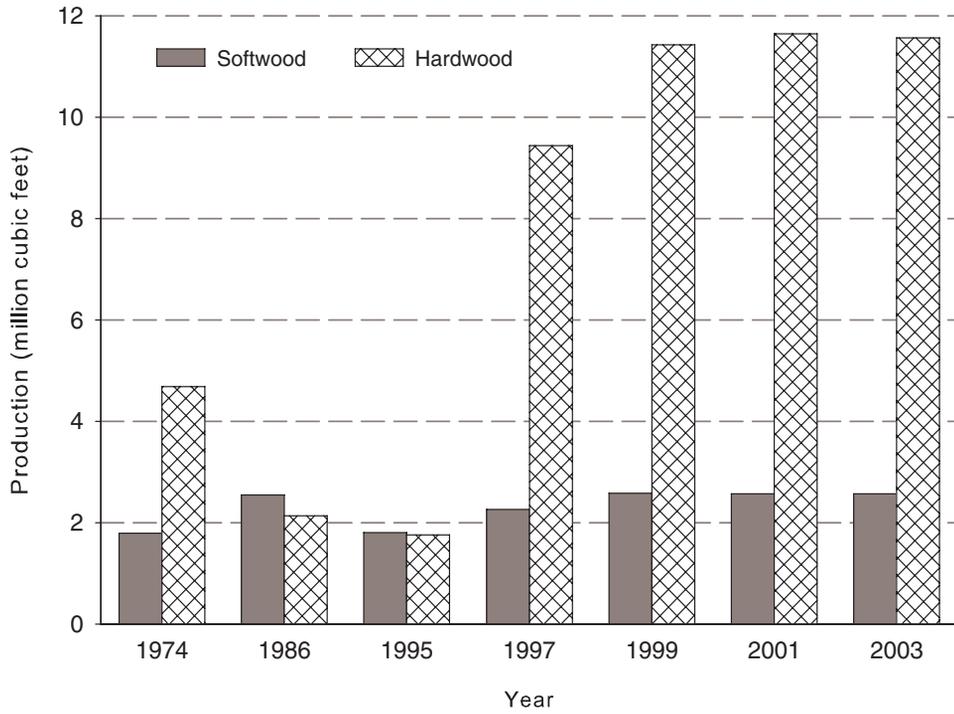


Figure 9—Roundwood production for other industrial products by species group and year (see page 12 for references for individual years).

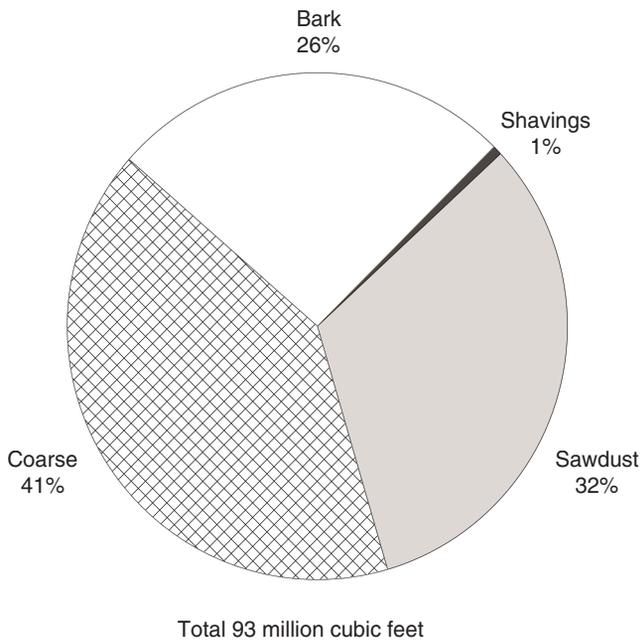


Figure 10—Primary mill residue by residue type, 2003.

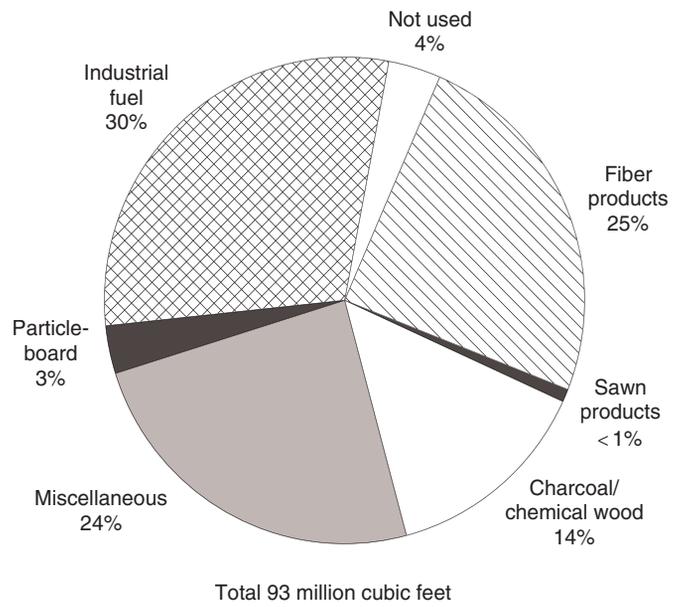


Figure 11—Disposal of residue by product, 2003.

- The processing of saw logs at sawmills generated 83 million cubic feet of mill residues, accounting for 89 percent of the total residues produced (fig. 12).

## Regional Trends

- Output of industrial roundwood products decreased across all regions of Kentucky except the Northern Cumberland and Western regions, which had a 5- and 35-percent increase, respectively. The largest output change occurred in the Western region (a 35-percent increase) and the Bluegrass region (a 22-percent decrease).

### Eastern Region

- Roundwood output from the Eastern region totaled 21 million cubic feet, a decrease of 1.4 million cubic feet since 2001.
- Saw logs accounted for 63 percent of the region's TPO and 9 percent of the State's roundwood saw-log output. Other industrial products accounted for 33 percent of the volume for the region.
- In the Eastern region, 14 primary wood-using plants were operating during 2003: 13 sawmills and 1

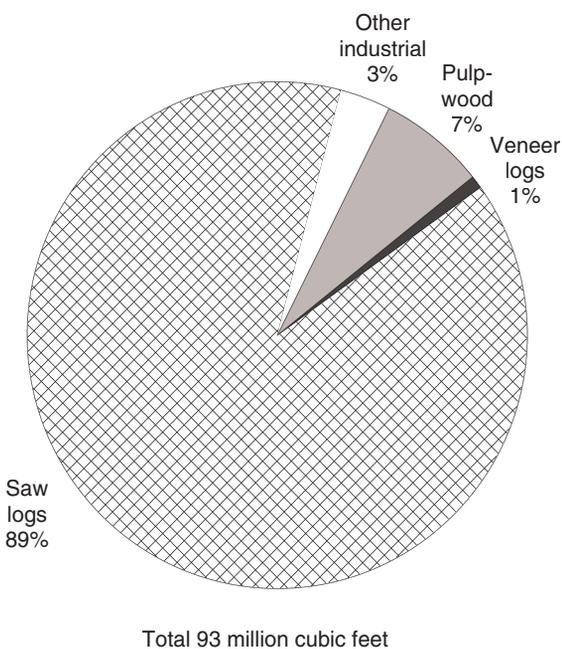


Figure 12—Primary mill residue produced by roundwood type, 2003.

composite panel mill (fig. 13). These mills processed 12 percent of the State's total roundwood output.

### Northern Cumberland Region

- Twenty-three million cubic feet of roundwood were produced in the Northern Cumberland region, a 5-percent increase since 2001.
- Saw-log production of 20 million cubic feet accounted for 89 percent of the region's total roundwood output. Production of pulpwood at 1.6 million cubic feet accounted for 7 percent of the region's total roundwood output.
- The 41 mills operating in the Northern Cumberland region in 2003 included 39 sawmills and 2 other miscellaneous mills. These mills accounted for 12 percent of the State's total roundwood output.

### Southern Cumberland Region

- Roundwood output from the Southern Cumberland region totaled 38 million cubic feet, down 6 percent from 2001. This region accounted for 20 percent of the State's total roundwood TPO.
- Saw-log production of 24 million cubic feet accounted for 63 percent of the region's total TPO; production of pulpwood accounted for 20 percent. Other industrial products production of 5 million cubic feet accounted for 13 percent of the region's total roundwood output.
- The 33 primary wood-using plants operating in the Southern Cumberland region included 30 sawmills, 1 plywood or veneer mill, and 2 other miscellaneous mills.

### Bluegrass Region

- Roundwood output from the Bluegrass region totaled 10 million cubic feet, down 22 percent. Roundwood production from this region accounted for 5 percent of the State's total roundwood TPO.
- Saw-log production of 8 million cubic feet accounted for 77 percent of the region's total roundwood output; veneer production accounted for 15 percent. At 827 thousand cubic feet, production of other industrial products accounted for 8 percent of the Region's total roundwood TPO.

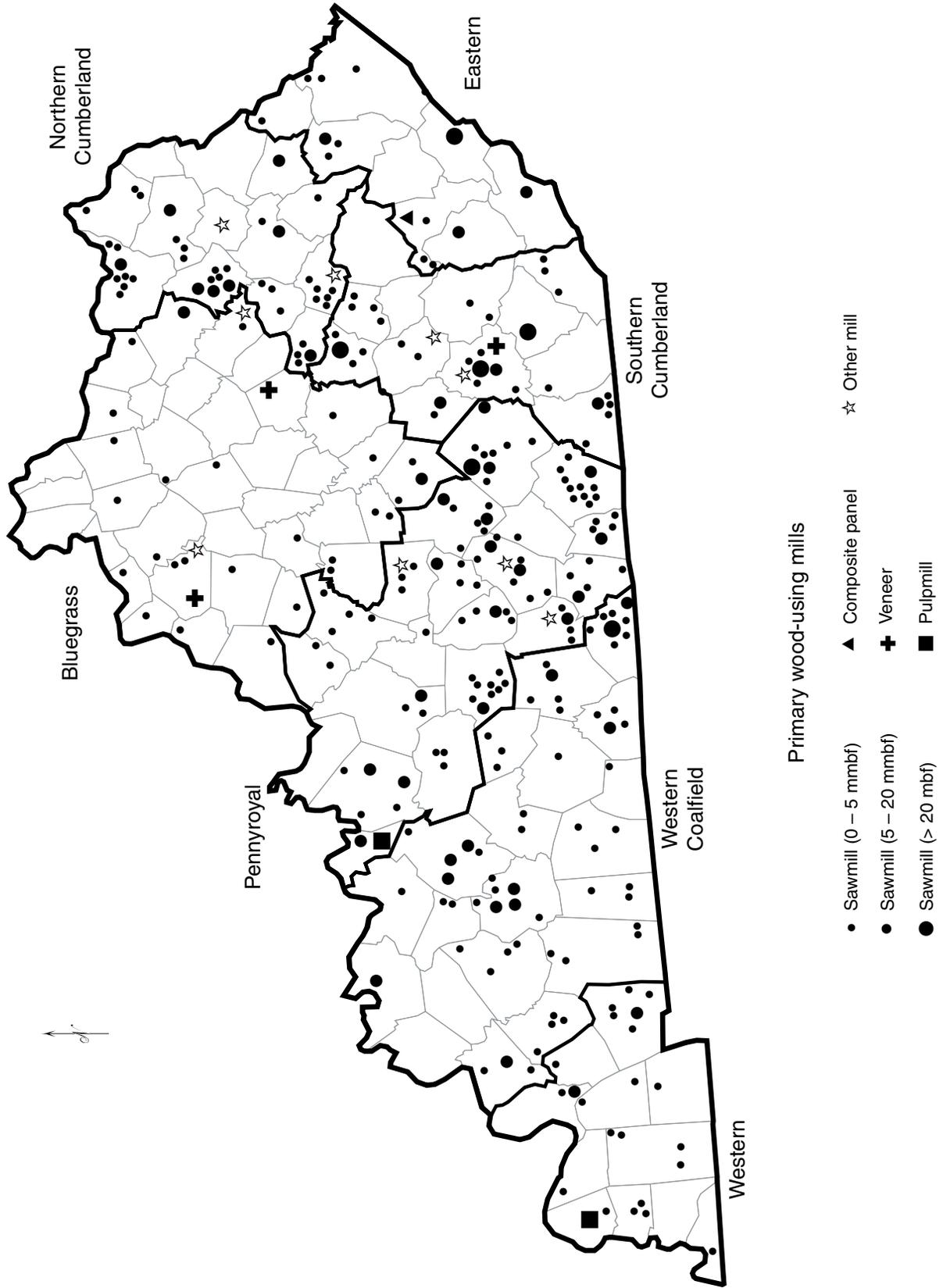


Figure 13—Primary wood-using mills, 2003.

- In the Bluegrass region, 30 primary wood-using plants were operating during 2003: 26 sawmills, 2 veneer mills, and 2 other miscellaneous mills.

### Pennyroyal Region

- Roundwood output from the Pennyroyal region declined 9 percent and totaled 45 million cubic feet. This region accounted for 24 percent of the State’s total roundwood output.
- Saw-log production of 41 million cubic feet accounted for 93 percent of the region’s total roundwood output and 28 percent of the State’s roundwood saw-log output. Pulpwood production of 1.4 million cubic feet accounted for 3 percent of the region’s total TPO.
- In the Pennyroyal region, 94 primary wood-using plants were operating during 2003: 90 sawmills, 1 pulpmill, and 3 other miscellaneous mills.

### Western Coalfield Region

- Roundwood output from the Western Coalfield region decreased 7 percent to 35 million cubic feet.
- Saw-log production of 29 million cubic feet accounted for 83 percent of the region’s total roundwood output, and 20 percent of the State’s total saw-log output. At 6 million cubic feet, production of pulpwood accounted for 17 percent of the region’s total roundwood output.
- In the Western Coalfield region, 61 primary wood-using plants were operating during 2003, all of which were sawmills. These mills processed 19 percent of the State’s total roundwood output.

### Western Region

- Roundwood output from the Western region totaled 15 million cubic feet and accounted for 8 percent of the State’s total roundwood output.
- Saw-log production of 10 million cubic feet accounted for 68 percent of the region’s total roundwood output. At 4.7 million cubic feet, pulpwood production accounted for 32 percent of the region’s total TPO.
- In the Western region, 24 primary wood-using plants were operating during 2003: 23 sawmills and 1 pulpmill.

## Total Roundwood Output

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

### Source

- In addition to the 187 million cubic feet of roundwood output for industrial roundwood, an estimated 20 million cubic feet were harvested for domestic fuelwood, bringing Kentucky’s total roundwood output to 206 million cubic feet.
- Eighty-eight 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 25 million cubic feet, or 12 percent of total roundwood output (fig. 14).

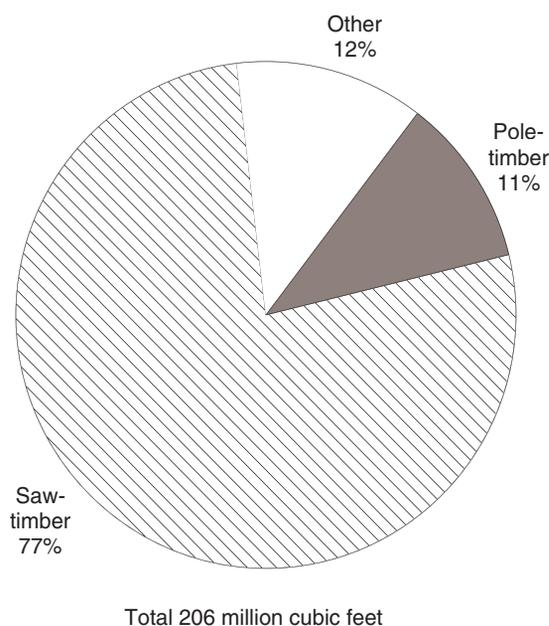


Figure 14—Roundwood output by source, 2003.

### Ownership

- An estimated 196 million cubic feet, or 95 percent, of the total roundwood output in 2003 came from nonindustrial private forest lands. Forest industry lands contributed 7 million cubic feet, or 3 percent of the output. Public lands made up the remaining 2 percent, or 3.7 million cubic feet (fig. 15).

### Species

- The red oak and white oak groups combined accounted for 94 million cubic feet, or 48 percent of total hardwood output (fig. 16). Yellow-poplar and hickory accounted for 13 and 11 percent, respectively, of the total hardwood output. Other yellow pines provided more volume than any other softwood species group, accounting for 82 percent of the total softwood output (fig. 17). The loblolly and shortleaf pine types accounted for 10 percent of the softwood output.

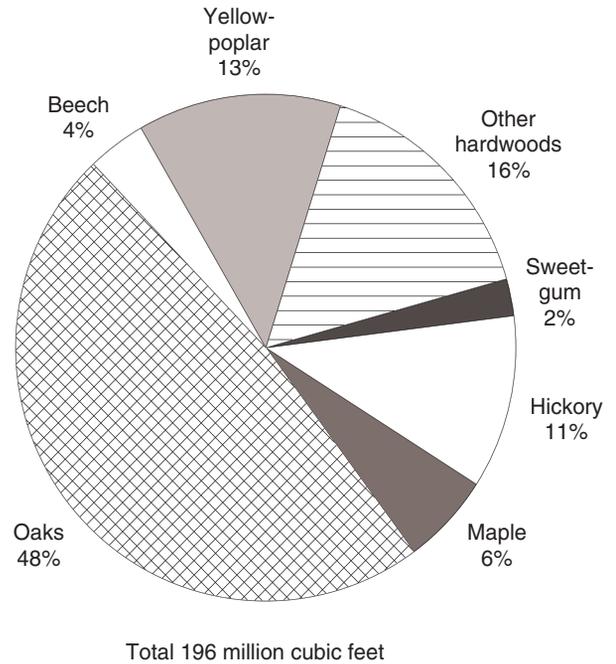


Figure 16—Roundwood output by hardwood species group, 2003.

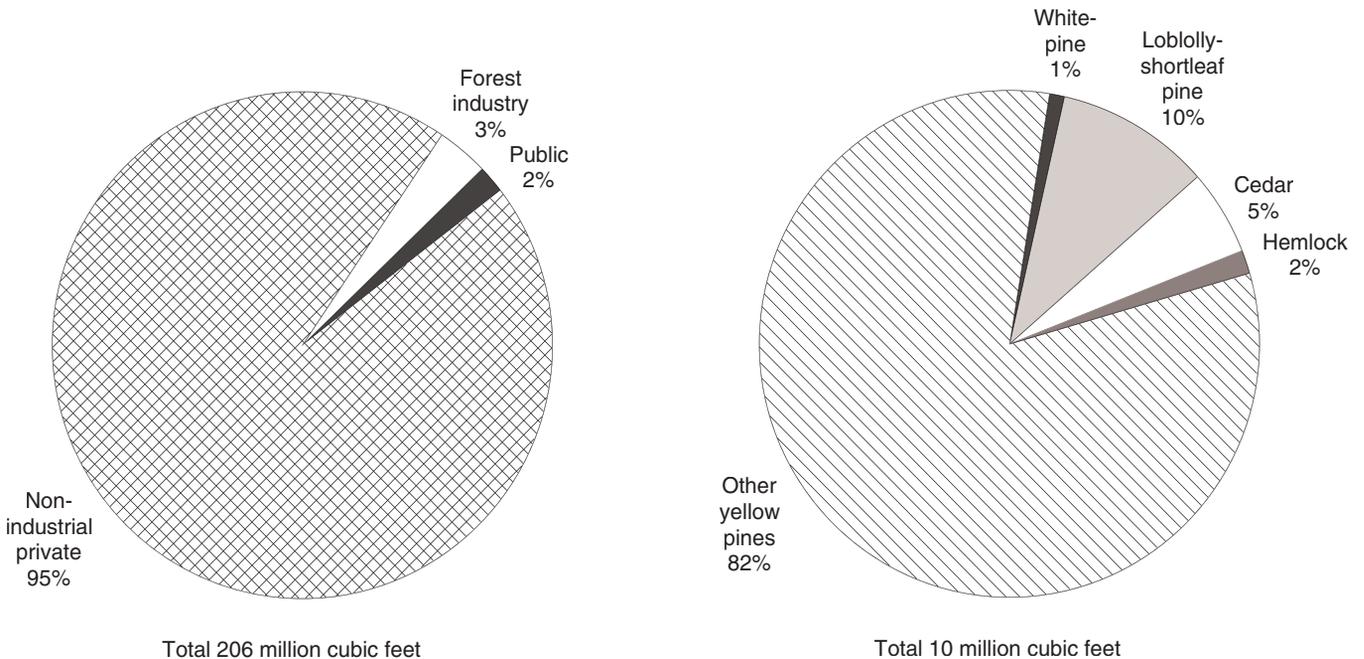


Figure 15—Roundwood output by ownership, 2003.

Figure 17—Roundwood output by softwood species group, 2003.

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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 1/4-inch rule.** A log rule or formula for estimating the board-foot volume of logs, allowing 1/2-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 1/4-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.

**Nonforestland.** 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 forestland.** Forestland other than timberland and productive reserved forestland. It includes available and reserved forestland 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 scalelike.

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

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

**Timberland.** Forestland 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

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1 acre = 4,046.86 m <sup>2</sup> or 0.404686 ha
1 cubic foot = 0.028317 m <sup>3</sup>
1 inch = 2.54 cm or 0.0254 m
Breast height = 1.4 m above the ground
1 square foot = 929.03 cm <sup>2</sup> or 0.0929 m <sup>2</sup>
1 square foot per basal area = 0.229568 m <sup>2</sup> /ha
1 pound = 0.454 kg
1 ton = 0.907 MT

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## Conversion Factors<sup>a</sup>

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Saw logs	
Softwood	0.18282 cubic foot = 1 board foot 5.47 board feet = 1 cubic foot
Hardwood	0.16393 cubic foot = 1 board foot 6.10 board feet = 1 cubic foot
Veneer logs	
Softwood	0.16129 cubic foot = 1 board foot 6.20 board feet = 1 cubic foot
Hardwood	0.16000 cubic foot = 1 board foot 6.25 board feet = 1 cubic foot
Pulpwood <sup>b</sup>	
Softwood	73.3 cubic feet per cord
Hardwood	76.1 cubic feet per cord

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<sup>a</sup> Conversion factors vary with stem size (d.b.h.) and species. The factors shown are for trees of average diameters removed in Kentucky during the most recent survey period.

<sup>b</sup> Cubic feet of solid wood per cord.

## Species List<sup>a</sup>

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

<sup>a</sup> Scientific and common names of tree species > 1.0 inch in d.b.h. occurring in the FIA sample.

<sup>b</sup> Nomenclature (Little 1979).



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**Table A.1—Output of industrial products by product and species group, Kentucky, 2001 and 2003**

Product and species group	Year		Change	Change
	2001	2003		
	----- thousand cubic feet -----			percent
Saw logs				
Softwood	5,942	4,642	-1,300	-21.9
Hardwood	149,754	141,027	-8,727	-5.8
Total	155,696	145,669	-10,027	-6.4
Veneer logs				
Softwood	88	88	0	—
Hardwood	8,529	5,310	-3,219	-37.7
Total	8,617	5,398	-3,219	-37.4
Pulpwood <sup>a</sup>				
Softwood	1,074	3,143	2,069	192.6
Hardwood	16,022	18,240	2,218	13.8
Total	17,096	21,383	4,287	25.1
Other industrial				
Softwood	2,571	2,571	0	—
Hardwood	11,645	11,563	-82	-0.7
Total	14,216	14,134	-82	-0.6
All industrial				
Softwood	9,675	10,444	769	7.9
Hardwood	185,950	176,140	-9,810	-5.3
Total	195,625	186,584	-9,041	-4.6
Byproduct output				
Softwood	3,311	2,698	-613	-18.5
Hardwood	85,496	86,944	1,448	1.7
Total	88,807	89,642	835	0.9
Total output				
Softwood	12,986	13,142	156	1.2
Hardwood	271,446	263,084	-8,362	-3.1
Total	284,432	276,226	-8,206	-2.9

— = negligible.

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (1,995,000 cubic feet in 2001 and 1,980,000 cubic feet in 2003).

**Table A.2—Roundwood receipts by product and species group, Kentucky, 2001 and 2003**

Product and species group	Year		Change	Change
	2001	2003		
	<i>----- thousand cubic feet -----</i>			<i>percent</i>
Saw logs				
Softwood	5,592	4,018	-1,574	-28.1
Hardwood	153,595	143,066	-10,529	-6.9
Total	159,187	147,084	-12,103	-7.6
Veneer logs				
Softwood	17	17	0	—
Hardwood	5,874	1,937	-3,937	-67.0
Total	5,891	1,954	-3,937	-66.8
Pulpwood <sup>a</sup>				
Softwood	866	2,055	1,189	137.3
Hardwood	42,009	46,606	4,597	10.9
Total	42,875	48,661	5,786	13.5
Other industrial				
Softwood	1,938	1,772	-166	-8.6
Hardwood	10,208	10,121	-87	-0.9
Total	12,146	11,893	-253	-2.1
Total output				
Softwood	8,413	7,862	-551	-6.5
Hardwood	211,686	201,730	-9,956	-4.7
Total	220,099	209,592	-10,507	-4.8

— = negligible.

<sup>a</sup> Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (2,284,000 cubic feet in 2001 and 2,264,000 cubic feet in 2003).

**Table A.3—Number of primary wood-using plants by industry, Kentucky, 1964 to 2003**

Industry	Year								
	1964	1969	1974	1986	1995	1997	1999	2001	2003
	<i>number</i>								
Sawmills	620	538	388	408	376	365	330	317	282
Veneer or plywood mills	3	4	4	3	3	4	3	3	3
Pulpmills	0	2	2	2	2	2	2	2	2
Composite panel mills	0	0	0	0	1	1	1	1	1
Other mills	30	45	26	22	19	19	12	14	9
All plants	653	589	420	435	401	391	348	337	297

**Table A.4—Roundwood receipts by sawmill size, Kentucky, 2001 and 2003**

Sawmill size class <sup>a</sup> <i>mmbf</i>	2001			2003		
	Mills	Volume		Mills	Volume	
	<i>number</i>	<i>mbf</i>	<i>percent</i>	<i>number</i>	<i>mbf</i>	<i>percent</i>
<1.0	130	39,995	4	118	38,350	4
1.0 – 4.99	129	363,329	38	111	298,299	33
5.0 – 9.99	38	264,165	27	32	218,073	25
>10	20	299,473	31	21	340,091	38
Total	317	966,962	100	282	894,813	100

<sup>a</sup> Based on volume received as opposed to actual capacity.

**Table A.5—Roundwood receipts by species and type of mill, Kentucky, 2003**

Species	Type of mill					
	All mills	Sawmills	Veneer mills		Pulpmills <sup>a</sup>	Other mills
			Pine plywood	Other veneer		
<i>thousand cubic feet</i>						
<b>Softwood</b>						
Yellow pine	2,089	1,760	0	0	NA	329
White pine	656	516	0	0	NA	140
Cedar	2,795	1,544	0	0	NA	1,251
Cypress	33	33	0	0	NA	0
Other softwood	234	165	0	17	NA	52
Unclassified	2,055	0	0	0	2,055	0
<b>Total softwoods</b>	<b>7,862</b>	<b>4,018</b>	<b>0</b>	<b>17</b>	<b>2,055</b>	<b>1,772</b>
<b>Hardwood</b>						
Blackgum and tupelo	558	558	0	0	NA	0
Soft maple	4,388	3,579	0	0	NA	809
Sweetgum	583	579	0	1	NA	3
Yellow-poplar	40,595	31,996	0	17	NA	8,582
Other soft hardwood	3,232	2,511	0	16	NA	705
Hickory	8,685	8,665	0	17	NA	3
Red oak	37,735	36,450	0	1,280	NA	5
White oak	31,738	31,622	0	107	NA	9
Other hard hardwood	27,610	27,106	0	499	NA	5
Unclassified	46,606	0	0	0	46,606	0
<b>Total hardwoods</b>	<b>201,730</b>	<b>143,066</b>	<b>0</b>	<b>1,937</b>	<b>46,606</b>	<b>10,121</b>
<b>All species</b>	<b>209,592</b>	<b>147,084</b>	<b>0</b>	<b>1,954</b>	<b>48,661</b>	<b>11,893</b>

NA = not applicable.

<sup>a</sup> Collected only by softwood and hardwood and includes roundwood chipped.

**Table A.6—Industrial roundwood movement by year and species group, Kentucky, 2001 and 2003**

Year	Production	Exported to other States	Retained	Imported from other States	Receipts
<i>thousand cubic feet</i>					
<b>Softwood</b>					
2001	9,675	2,309	7,366	1,047	8,413
2003	10,444	3,452	6,992	870	7,862
<b>Hardwood</b>					
2001	185,950	14,942	171,008	40,678	211,686
2003	176,140	18,154	157,986	43,744	201,730
<b>All species</b>					
2001	195,625	17,251	178,374	41,725	220,099
2003	186,584	21,606	164,978	44,614	209,592

**Table A.7—Industrial roundwood movement by product and species group, Kentucky, 2003**

Product and species group	Production	Exported to other States	Retained	Imported from other States	Receipts
<i>thousand cubic feet</i>					
Saw logs					
Softwood	4,642	985	3,657	361	4,018
Hardwood	141,027	8,573	132,454	10,612	143,066
Total	145,669	9,558	136,111	10,973	147,084
Veneer logs					
Softwood	88	88	0	17	17
Hardwood	5,310	4,453	857	1,080	1,937
Total	5,398	4,541	857	1,097	1,954
Pulpwood <sup>a</sup>					
Softwood	3,143	1,388	1,755	300	2,055
Hardwood	18,240	3,686	14,554	32,052	46,606
Total	21,383	5,074	16,309	32,352	48,661
Other industrial					
Softwood	2,571	991	1,580	192	1,772
Hardwood	11,563	1,442	10,121	0	10,121
Total	14,134	2,433	11,701	192	11,893
All products					
Softwood	10,444	3,452	6,992	870	7,862
Hardwood	176,140	18,154	157,986	43,744	201,730
Total	186,584	21,606	164,978	44,614	209,592

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulpmills.

**Table A.8—Saw-log volume by destination, source, and species group, Kentucky, 2003**

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Kentucky (retained)	136,111	3,657	132,454
Exports to			
Alabama	76	76	0
Indiana	2,179	58	2,121
Missouri	1,058	0	1,058
Ohio	1,276	17	1,259
Tennessee	2,949	395	2,554
Virginia	2,020	439	1,581
Total	9,558	985	8,573
Imports from			
Arkansas	1	0	1
Illinois	707	0	707
Indiana	666	0	666
Missouri	43	0	43
Ohio	114	2	112
Tennessee	8,291	357	7,934
Virginia	814	0	814
West Virginia	337	2	335
Total	10,973	361	10,612

**Table A.9—Veneer volume by destination, source, and species group, Kentucky, 2003**

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Kentucky (retained)	857	0	857
Exports to			
Georgia	2,065	88	1,977
Indiana	907	0	907
Michigan	145	0	145
Missouri	12	0	12
North Carolina	1,046	0	1,046
Ohio	115	0	115
Virginia	105	0	105
Wisconsin	146	0	146
Total	4,541	88	4,453
Imports from			
California	17	17	0
Indiana	141	0	141
Maryland	31	0	31
Michigan	25	0	25
New Hampshire	45	0	45
New York	3	0	3
Ohio	378	0	378
Pennsylvania	178	0	178
Virginia	9	0	9
West Virginia	270	0	270
Total	1,097	17	1,080

**Table A.10—Pulpwood volume by destination, source, and species group, Kentucky, 2003<sup>a</sup>**

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Kentucky (retained)	16,309	1,755	14,554
Exports to			
Louisiana	601	0	601
Ohio	1,923	886	1,037
Tennessee	2,550	502	2,048
Total	5,074	1,388	3,686
Imports from			
Georgia	1,139	0	1,139
Mississippi	7,116	0	7,116
North Carolina	1,890	0	1,890
Oklahoma	332	0	332
Tennessee	18,297	300	17,997
Virginia	3,578	0	3,578
Total	32,352	300	32,052

<sup>a</sup> Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills.

**Table A.11—Other industrial volume by destination, source, and species group, Kentucky, 2003<sup>a</sup>**

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Kentucky (retained)	11,701	1,580	10,121
Exports to			
Ohio	10	10	0
Tennessee	941	912	29
West Virginia	1,482	69	1,413
Total	2,433	991	1,442
Imports from			
Alabama	22	22	0
Missouri	37	37	0
Nebraska	22	22	0
Tennessee	81	81	0
Virginia	30	30	0
Total	192	192	0

<sup>a</sup> Includes poles, posts, mulch, firewood, log homes, charcoal, composite panel, and all other industrial mills.

**Table A.12—Primary mill residue volume by roundwood type, species group, and residue type, Kentucky, 2003**

Roundwood type and species group	Residue type				
	All types	Bark	Coarse	Sawdust	Shavings
<i>thousand cubic feet</i>					
Saw logs					
Softwood	2,068	265	1,083	701	19
Hardwood	80,673	14,857	36,255	29,027	534
Total	82,741	15,122	37,338	29,728	553
Veneer logs					
Softwood	9	1	6	2	0
Hardwood	742	216	348	178	0
Total	751	217	354	180	0
Pulpwood					
Softwood	232	232	0	0	0
Hardwood	6,191	6,191	0	0	0
Total	6,423	6,423	0	0	0
Other industrial <sup>a</sup>					
Softwood	760	189	408	163	0
Hardwood	2,276	2,268	4	4	0
Total	3,036	2,457	412	167	0
Total					
Softwood	3,069	687	1,497	866	19
Hardwood	89,882	23,532	36,607	29,209	534
Total	92,951	24,219	38,104	30,075	553

<sup>a</sup> Includes poles, pilings, posts, and all other industrial products.

**Table A.13—Disposal of residue at primary wood-using plants by product, species group, and type of residue, Kentucky, 2001 and 2003**

Product and species group	All types		Residue type							
			Bark		Coarse		Sawdust		Shavings	
	2001	2003	2001	2003	2001	2003	2001	2003	2001	2003
<i>thousand cubic feet</i>										
Fiber products										
Softwood	353	180	0	0	353	180	0	0	0	0
Hardwood	26,666	22,748	0	0	26,176	22,748	490	0	0	0
Total	27,019	22,928	0	0	26,529	22,928	490	0	0	0
Particleboard										
Softwood	38	67	5	0	20	63	13	4	0	0
Hardwood	832	2,919	50	8	685	2,820	97	79	0	12
Total	870	2,986	55	8	705	2,883	110	83	0	12
Charcoal/ chemical wood										
Softwood	158	96	0	1	40	11	112	80	6	4
Hardwood	9,929	13,029	364	992	1,672	2,966	7,811	8,982	82	89
Total	10,087	13,125	364	993	1,712	2,977	7,923	9,062	88	93
Sawn products										
Softwood	0	0	0	0	0	0	0	0	0	0
Hardwood	567	59	0	0	567	59	0	0	0	0
Total	567	59	0	0	567	59	0	0	0	0
Fuel										
Softwood	336	522	127	266	133	157	76	99	0	0
Hardwood	24,372	27,252	4,614	9,742	3,853	4,659	15,808	12,795	97	56
Total	24,708	27,774	4,741	10,008	3,986	4,816	15,884	12,894	97	56
Miscellaneous										
Softwood	2,426	1,833	448	369	1,144	941	828	509	6	14
Hardwood	23,130	20,937	14,261	12,313	2,835	2,218	5,846	6,030	188	376
Total	25,556	22,770	14,709	12,682	3,979	3,159	6,674	6,539	194	390
Not used										
Softwood	271	371	36	51	139	145	91	174	5	1
Hardwood	5,545	2,938	2,114	477	1,703	1,137	1,720	1,323	8	1
Total	5,816	3,309	2,150	528	1,842	1,282	1,811	1,497	13	2
All products										
Softwood	3,582	3,069	616	687	1,829	1,497	1,120	866	17	19
Hardwood	91,041	89,882	21,403	23,532	37,491	36,607	31,772	29,209	375	534
Total	94,623	92,951	22,019	24,219	39,320	38,104	32,892	30,075	392	553

**Table A.14—Roundwood timber product output by product and species group, Eastern region of Kentucky, 2001 and 2003**

Product and species group	Year		Change	Change
	2001	2003		
	- - - thousand cubic feet - - -			percent
Saw logs				
Softwood	500	483	-17	-3.4
Hardwood	14,125	12,991	-1,134	-8.0
Total	14,625	13,474	-1,151	-7.9
Veneer logs				
Softwood	0	0	0	—
Hardwood	1,452	621	-831	-57.2
Total	1,452	621	-831	-57.2
Pulpwood <sup>a</sup>				
Softwood	0	0	0	—
Hardwood	94	131	37	39.4
Total	94	131	37	39.4
Other industrial				
Softwood	332	68	-264	-79.5
Hardwood	6,300	7,083	783	12.4
Total	6,632	7,151	519	7.8
All industrial				
Softwood	832	551	-281	-33.8
Hardwood	21,971	20,826	-1,145	-5.2
Total	22,803	21,377	-1,426	-6.3

— = negligible.

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (94,000 cubic feet in 2001 and 94,000 cubic feet in 2003).

**Table A.15—Roundwood timber product output by county, product, and species group, Eastern region of Kentucky, 2003**

County	All products		Saw logs		Veneer logs		Pulpwood <sup>a</sup>		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>thousand cubic feet</i>										
Floyd	7	1,533	7	1,105	0	0	0	0	0	428
Harlan	439	5,722	439	3,074	0	516	0	116	0	2,016
Knott	0	1,161	0	758	0	0	0	0	0	403
Leslie	2	2,902	2	1,390	0	0	0	0	0	1,512
Letcher	0	1,545	0	1,545	0	0	0	0	0	0
Martin	42	1,147	34	539	0	0	0	0	8	608
Perry	1	2,220	1	1,212	0	0	0	0	0	1,008
Pike	60	4,596	0	3,368	0	105	0	15	60	1,108
All counties	551	20,826	483	12,991	0	621	0	131	68	7,083

<sup>a</sup> Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (94,000 cubic feet in 2003).

**Table A.16—Roundwood timber product output by product and species group, Northern Cumberland region of Kentucky, 2001 and 2003**

Product and species group	Year		Change	Change
	2001	2003		
	- - - - thousand cubic feet - - - -			percent
Saw logs				
Softwood	447	702	255	57.0
Hardwood	20,286	19,365	-921	-4.5
Total	20,733	20,067	-666	-3.2
Veneer logs				
Softwood	0	0	0	—
Hardwood	171	171	0	—
Total	171	171	0	—
Pulpwood <sup>a</sup>				
Softwood	0	298	298	—
Hardwood	51	1,252	1,201	2,354.9
Total	51	1,550	1,499	2,939.2
Other industrial				
Softwood	107	191	84	78.5
Hardwood	464	521	57	12.3
Total	571	712	141	24.7
All industrial				
Softwood	554	1,191	637	115.0
Hardwood	20,972	21,309	337	1.6
Total	21,526	22,500	974	4.5

— = negligible.

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (51,000 cubic feet in 2001 and 67,000 cubic feet in 2003).

**Table A.17—Roundwood timber product output by county, product, and species group, Northern Cumberland region of Kentucky, 2003**

County	All products		Saw logs		Veneer logs		Pulpwood <sup>a</sup>		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>thousand cubic feet</i>										
Boyd	36	454	2	432	0	0	34	22	0	0
Carter	195	2,302	94	1,786	0	0	86	516	15	0
Elliott	56	897	6	889	0	0	0	8	50	0
Greenup	158	1,752	2	1,571	0	0	146	181	10	0
Johnson	6	895	6	594	0	0	0	0	0	301
Lawrence	2	646	2	460	0	110	0	0	0	76
Lewis	91	5,680	62	5,178	0	0	29	502	0	0
Magoffin	9	636	9	636	0	0	0	0	0	0
Menifee	125	1,171	93	1,153	0	0	1	8	31	10
Morgan	134	2,130	92	2,114	0	0	0	0	42	16
Powell	57	1,515	57	1,450	0	61	0	4	0	0
Rowan	54	1,490	42	1,380	0	0	0	10	12	100
Wolfe	268	1,741	235	1,722	0	0	2	1	31	18
All counties	1,191	21,309	702	19,365	0	171	298	1,252	191	521

<sup>a</sup> Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (67,000 cubic feet in 2003).

**Table A.18—Roundwood timber product output by product and species group, Southern Cumberland region of Kentucky, 2001 and 2003**

Product and species group	Year		Change	Change
	2001	2003		
	- - - - thousand cubic feet - - - -			percent
Saw logs				
Softwood	1,388	1,078	-310	-22.3
Hardwood	25,054	22,874	-2,180	-8.7
Total	26,442	23,952	-2,490	-9.4
Veneer logs				
Softwood	0	0	0	—
Hardwood	3,938	1,702	-2,236	-56.8
Total	3,938	1,702	-2,236	-56.8
Pulpwood <sup>a</sup>				
Softwood	41	454	413	1,007.3
Hardwood	5,432	6,995	1,563	28.8
Total	5,473	7,449	1,976	36.1
Other industrial				
Softwood	1,199	994	-205	-17.1
Hardwood	3,451	3,959	508	14.7
Total	4,650	4,953	303	6.5
All industrial				
Softwood	2,628	2,526	-102	-3.9
Hardwood	37,875	35,530	-2,345	-6.2
Total	40,503	38,056	-2,447	-6.0

— = negligible

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (1,513,000 cubic feet in 2001 and 1,514,000 cubic feet in 2003).

**Table A.19—Roundwood timber product output by county, product, and species group, Southern Cumberland region of Kentucky, 2003**

County	All products		Saw logs		Veneer logs		Pulpwood <sup>a</sup>		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>thousand cubic feet</i>										
Bell	0	1,525	0	896	0	535	0	94	0	0
Breathitt	35	3,877	34	2,352	0	0	1	13	0	1,512
Clay	16	3,194	4	2,721	0	0	0	473	12	0
Estill	169	1,870	169	1,794	0	76	0	0	0	0
Jackson	104	817	77	817	0	0	0	0	27	0
Knox	35	5,663	20	3,055	0	240	8	2,368	7	0
Laurel	498	8,194	62	2,288	0	524	408	3,266	28	2,116
Lee	98	2,511	98	2,209	0	0	0	0	0	302
McCreary	1,344	2,605	426	2,150	0	142	5	284	913	29
Owsley	9	1,038	9	1,038	0	0	0	0	0	0
Rockcastle	32	1,757	25	1,757	0	0	0	0	7	0
Whitley	186	2,479	154	1,797	0	185	32	497	0	0
All counties	2,526	35,530	1,078	22,874	0	1,702	454	6,995	994	3,959

<sup>a</sup> Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (1,514,000 cubic feet in 2003).

**Table A.20—Roundwood timber product output by product and species group, Bluegrass region of Kentucky, 2001 and 2003**

Product and species group	Year		Change	Change
	2001	2003		
	<i>----- thousand cubic feet -----</i>			<i>percent</i>
Saw logs				
Softwood	1,670	861	-809	-48.4
Hardwood	8,059	6,683	-1,376	-17.1
Total	9,729	7,544	-2,185	-22.5
Veneer logs				
Softwood	0	0	0	—
Hardwood	1,339	1,459	120	9.0
Total	1,339	1,459	120	9.0
Pulpwood <sup>a</sup>				
Softwood	0	0	0	—
Hardwood	588	0	-588	-100.0
Total	588	0	-588	-100.0
Other industrial				
Softwood	565	827	262	46.4
Hardwood	324	0	-324	-100.0
Total	889	827	-62	-7.0
All industrial				
Softwood	2,235	1,688	-547	-24.5
Hardwood	10,310	8,142	-2,168	-21.0
Total	12,545	9,830	-2,715	-21.6

— = negligible.

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (0 cubic feet in 2001 and 0 cubic feet in 2003).

**Table A.21—Roundwood timber product output by county, product, and species group, Bluegrass region of Kentucky, 2003**

County	All products		Saw logs		Veneer logs		Pulpwood <sup>a</sup>		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>thousand cubic feet</i>										
Anderson	132	41	132	41	0	0	0	0	0	0
Bath	141	1,092	36	1,092	0	0	0	0	105	0
Boone	0	110	0	110	0	0	0	0	0	0
Bourbon	0	145	0	0	0	145	0	0	0	0
Boyle	0	684	0	684	0	0	0	0	0	0
Bracken	3	241	3	241	0	0	0	0	0	0
Campbell	30	0	30	0	0	0	0	0	0	0
Carroll	46	154	10	145	0	9	0	0	36	0
Clark	11	148	11	0	0	148	0	0	0	0
Fayette	1	76	1	0	0	76	0	0	0	0
Fleming	72	921	72	921	0	0	0	0	0	0
Franklin	27	0	9	0	0	0	0	0	18	0
Gallatin	36	29	0	20	0	9	0	0	36	0
Garrard	0	137	0	137	0	0	0	0	0	0
Grant	83	235	11	111	0	124	0	0	72	0
Harrison	6	91	6	0	0	91	0	0	0	0
Henry	379	107	56	17	0	90	0	0	323	0
Jefferson	26	210	26	185	0	25	0	0	0	0
Jessamine	0	77	0	0	0	77	0	0	0	0
Kenton	0	56	0	56	0	0	0	0	0	0
Lincoln	0	1,222	0	1,222	0	0	0	0	0	0
Madison	13	237	13	94	0	143	0	0	0	0
Mason	129	477	18	473	0	4	0	0	111	0
Mercer	2	106	2	106	0	0	0	0	0	0
Montgomery	11	152	11	104	0	48	0	0	0	0
Nicholas	27	0	27	0	0	0	0	0	0	0
Oldham	2	124	2	75	0	49	0	0	0	0
Owen	145	185	73	25	0	160	0	0	72	0
Pendleton	123	3	87	3	0	0	0	0	36	0
Robertson	40	0	40	0	0	0	0	0	0	0
Scott	0	132	0	57	0	75	0	0	0	0
Shelby	33	200	33	91	0	109	0	0	0	0
Spencer	81	14	81	14	0	0	0	0	0	0
Trimble	18	166	0	89	0	77	0	0	18	0
Washington	71	570	71	570	0	0	0	0	0	0
All counties	1,688	8,142	861	6,683	0	1,459	0	0	827	0

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulpmills (0 cubic feet in 2003).

**Table A.22—Roundwood timber product output by product and species group, Pennyroyal region of Kentucky, 2001 and 2003**

Product and species group	Year		Change	Change
	2001	2003		
	- - - thousand cubic feet - - -			percent
Saw logs				
Softwood	1,750	1,178	-572	-32.7
Hardwood	43,077	40,211	-2,866	-6.7
Total	44,827	41,389	-3,438	-7.7
Veneer logs				
Softwood	88	88	0	—
Hardwood	1,415	1,303	-112	-7.9
Total	1,503	1,391	-112	-7.5
Pulpwood <sup>a</sup>				
Softwood	22	51	29	131.8
Hardwood	1,534	1,374	-160	-10.4
Total	1,556	1,425	-131	-8.4
Other industrial				
Softwood	368	491	123	33.4
Hardwood	972	0	-972	-100.0
Total	1,340	491	-849	-63.4
All industrial				
Softwood	2,228	1,808	-420	-18.9
Hardwood	46,998	42,888	-4,110	-8.7
Total	49,226	44,696	-4,530	-9.2

— = negligible.

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (74,000 cubic feet in 2001 and 141,000 cubic feet in 2003).

**Table A.23—Roundwood timber product output by county, product, and species group, Pennyroyal region of Kentucky, 2003**

County	All products		Saw logs		Veneer logs		Pulpwood <sup>a</sup>		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>thousand cubic feet</i>										
Adair	172	2,172	104	2,165	0	0	0	7	68	0
Breckinridge	121	3,181	121	2,043	0	96	0	1,042	0	0
Bullitt	47	570	47	547	0	23	0	0	0	0
Casey	26	4,015	26	4,004	0	0	0	11	0	0
Clinton	116	2,483	28	1,595	88	888	0	0	0	0
Cumberland	55	2,522	55	2,522	0	0	0	0	0	0
Grayson	116	1,620	15	1,395	0	0	51	225	50	0
Green	47	1,225	47	1,224	0	0	0	1	0	0
Hancock	7	935	7	923	0	12	0	0	0	0
Hardin	159	1,921	159	1,787	0	134	0	0	0	0
Hart	115	2,434	115	2,427	0	0	0	7	0	0
Larue	4	1,307	4	1,291	0	16	0	0	0	0
Marion	284	1,828	49	1,828	0	0	0	0	235	0
Meade	13	1,113	13	983	0	130	0	0	0	0
Metcalfe	96	2,753	36	2,679	0	0	0	74	60	0
Nelson	180	581	180	581	0	0	0	0	0	0
Pulaski	123	4,507	113	4,503	0	4	0	0	10	0
Russell	61	1,507	15	1,501	0	0	0	6	46	0
Taylor	30	2,563	8	2,562	0	0	0	1	22	0
Wayne	36	3,651	36	3,651	0	0	0	0	0	0
All counties	1,808	42,888	1,178	40,211	88	1,303	51	1,374	491	0

<sup>a</sup> Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (141,000 cubic feet in 2003).

**Table A.24—Roundwood timber product output by product and species group, Western Coalfield region of Kentucky, 2001 and 2003**

Product and species group	Year		Change	Change
	2001	2003		
	<i>--- thousand cubic feet ---</i>			<i>percent</i>
Saw logs				
Softwood	126	315	189	150.0
Hardwood	31,634	28,852	-2,782	-8.8
Total	31,760	29,167	-2,593	-8.2
Veneer logs				
Softwood	0	0	0	—
Hardwood	70	42	-28	-40.0
Total	70	42	-28	-40.0
Pulpwood <sup>a</sup>				
Softwood	525	1,173	648	123.4
Hardwood	5,619	4,970	-649	-11.6
Total	6,144	6,143	-1	0.0
Other industrial				
Softwood	0	0	0	—
Hardwood	134	0	-134	-100.0
Total	134	0	-134	-100.0
All industrial				
Softwood	651	1,488	837	128.6
Hardwood	37,457	33,864	-3,593	-9.6
Total	38,108	35,352	-2,756	-7.2

— = negligible; 0.0 = a value of >0.0 but <0.05 for the cell.

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (211,000 cubic feet in 2001 and 134,000 cubic feet in 2003).

**Table A.25—Roundwood timber product output by county, product, and species group, Western Coalfield region of Kentucky, 2003**

County	All products		Saw logs		Veneer logs		Pulpwood <sup>a</sup>		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>thousand cubic feet</i>										
Allen	6	2,903	6	2,876	0	0	0	27	0	0
Barren	72	2,609	72	2,609	0	0	0	0	0	0
Butler	10	1,872	0	912	0	0	10	960	0	0
Caldwell	277	1,568	0	1,239	0	0	277	329	0	0
Christian	103	2,274	1	2,272	0	0	102	2	0	0
Crittenden	568	2,296	0	2,001	0	0	568	295	0	0
Daviess	6	811	0	801	0	0	6	10	0	0
Edmonson	95	554	67	421	0	0	28	133	0	0
Henderson	0	504	0	489	0	15	0	0	0	0
Hopkins	98	2,123	26	2,046	0	0	72	77	0	0
Logan	106	1,254	106	1,236	0	0	0	18	0	0
McLean	0	1,283	0	1,238	0	0	0	45	0	0
Monroe	2	2,561	2	2,561	0	0	0	0	0	0
Muhlenberg	0	1,773	0	1,579	0	0	0	194	0	0
Ohio	97	6,026	12	3,174	0	0	85	2,852	0	0
Simpson	0	269	0	256	0	0	0	13	0	0
Todd	0	1,030	0	1,017	0	0	0	13	0	0
Union	25	271	0	256	0	15	25	0	0	0
Warren	23	873	23	873	0	0	0	0	0	0
Webster	0	1,010	0	996	0	12	0	2	0	0
All counties	1,488	33,864	315	28,852	0	42	1,173	4,970	0	0

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulpmills (134,000 cubic feet in 2003).

**Table A.26—Roundwood timber product output by product and species group, Western region of Kentucky, 2001 and 2003**

Product and species group	Year		Change	Change
	2001	2003		
	- - - - thousand cubic feet - - - -			percent
Saw logs				
Softwood	61	25	-36	-59.0
Hardwood	7,519	10,051	2,532	33.7
Total	7,580	10,076	2,496	32.9
Veneer logs				
Softwood	0	0	0	—
Hardwood	144	12	-132	-91.7
Total	144	12	-132	-91.7
Pulpwood <sup>a</sup>				
Softwood	486	1,167	681	140.1
Hardwood	2,704	3,518	814	30.1
Total	3,190	4,685	1,495	46.9
Other industrial				
Softwood	0	0	0	—
Hardwood	0	0	0	—
Total	0	0	0	—
All industrial				
Softwood	547	1,192	645	117.9
Hardwood	10,367	13,581	3,214	31.0
Total	10,914	14,773	3,859	35.4

— = negligible.

<sup>a</sup> Includes roundwood delivered to nonpulp mills, then chipped and sold to pulpmills (52,000 cubic feet in 2001 and 30,000 cubic feet in 2003).

**Table A.27—Roundwood timber product output by county, product, and species group, Western region of Kentucky, 2003**

County	All products		Saw logs		Veneer logs		Pulpwood <sup>a</sup>		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>thousand cubic feet</i>										
Ballard	87	1,166	1	811	0	0	86	355	0	0
Calloway	228	1,186	0	1,085	0	0	228	101	0	0
Carlisle	12	1,541	1	568	0	12	11	961	0	0
Fulton	19	509	19	324	0	0	0	185	0	0
Graves	278	1,790	0	1,308	0	0	278	482	0	0
Hickman	0	374	0	184	0	0	0	190	0	0
Livingston	276	1,860	0	1,299	0	0	276	561	0	0
Lyon	90	1,370	0	983	0	0	90	387	0	0
Marshall	198	1,038	0	937	0	0	198	101	0	0
McCracken	0	214	0	135	0	0	0	79	0	0
Trigg	4	2,533	4	2,417	0	0	0	116	0	0
All counties	1,192	13,581	25	10,051	0	12	1,167	3,518	0	0

<sup>a</sup> Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (30,000 cubic feet in 2003).

**Table A.28—Total roundwood output by product, species group, and source of material, Kentucky, 2003**

Product and species group	All sources	Total	Growing-stock trees		Other sources
			Sawtimber	Poletimber	
<i>thousand cubic feet</i>					
Saw logs					
Softwood	4,642	4,472	4,400	72	170
Hardwood	141,027	119,591	115,414	4,177	21,436
Total	145,669	124,062	119,814	4,248	21,607
Veneer logs and bolts					
Softwood	88	82	78	4	6
Hardwood	5,310	5,126	4,985	141	184
Total	5,398	5,208	5,063	145	190
Pulpwood					
Softwood	3,143	2,891	1,952	939	252
Hardwood	18,240	17,240	6,181	11,060	1,000
Total	21,383	20,132	8,132	11,999	1,251
Poles and posts					
Softwood	387	357	284	73	30
Hardwood	44	42	42	1	2
Total	431	399	325	74	32
Other miscellaneous					
Softwood	2,184	2,009	1,357	653	175
Hardwood	11,519	11,006	6,057	4,949	513
Total	13,703	13,015	7,413	5,602	688
Total industrial products					
Softwood	10,444	9,811	8,070	1,741	633
Hardwood	176,140	153,005	132,678	20,327	23,135
Total	186,584	162,816	140,748	22,068	23,768
Fuelwood					
Softwood	67	51	51	0	16
Hardwood	19,455	18,043	17,819	224	1,412
Total	19,522	18,094	17,870	224	1,428
All products					
Softwood	10,511	9,862	8,121	1,741	649
Hardwood	195,595	171,048	150,497	20,551	24,547
Total	206,106	180,909	158,618	22,291	25,197

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

**Table A.29—Total roundwood output by species group, survey region, and ownership class, Kentucky, 2003**

Species group and survey region	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
<i>thousand cubic feet</i>				
Softwoods				
Eastern	554	0	9	545
Northern Cumberland	1,198	9	0	1,189
Southern Cumberland	2,542	27	0	2,515
Bluegrass	1,698	6	0	1,692
Pennyroyal	1,819	12	0	1,807
Western Coalfield	1,499	0	0	1,499
Western	1,201	0	0	1,201
Total softwoods	10,511	54	9	10,448
Hardwoods				
Eastern	23,127	14	1,769	21,343
Northern Cumberland	23,660	265	0	23,395
Southern Cumberland	39,454	575	0	38,879
Bluegrass	9,043	242	0	8,801
Pennyroyal	47,623	1,280	3,306	43,037
Western Coalfield	37,607	371	0	37,236
Western	15,081	866	1,808	12,407
Total hardwoods	195,595	3,613	6,883	185,098
All species	206,106	3,668	6,892	195,546

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

**Table A.30—Total roundwood output by species group, detailed species group, and product, Kentucky, 2003**

Species group and detailed species group	Total	Product					
		Saw logs	Veneer logs	Pulpwood	Poles and posts	Other miscellaneous	Fuel- wood
<i>thousand cubic feet</i>							
<b>Softwood</b>							
Cedar	575	454	0	0	6	111	4
White pine	101	91	0	1	9	0	1
Loblolly-shortleaf pine	1,053	307	0	584	30	127	6
Other yellow pines	8,626	3,741	88	2,558	342	1,841	55
Hemlock	156	49	0	1	0	105	1
Total softwoods	10,511	4,642	88	3,143	387	2,184	67
<b>Hardwood</b>							
Soft maple	5,803	4,433	38	709	1	45	577
Hard maple	5,652	3,891	105	725	0	369	562
Other birch	1,280	662	40	311	0	140	127
Hickory	21,627	15,899	356	2,024	4	1,193	2,151
Beech	7,438	5,577	48	514	0	558	740
Ash	4,416	3,273	161	483	3	57	439
Black walnut	2,454	1,925	82	139	0	63	245
Sweetgum	4,613	3,035	48	1,071	0	0	459
Yellow-poplar	25,732	17,211	611	2,220	5	3,126	2,559
Blackgum-tupelo	1,710	1,277	24	142	0	97	170
Sycamore	1,197	935	22	77	0	45	119
Cottonwood	751	441	19	217	0	0	75
Black cherry	1,291	974	45	143	0	1	128
Select white oaks	26,904	21,132	277	1,801	5	1,012	2,676
Other white oaks	14,785	10,930	285	1,079	11	1,010	1,471
Select red oaks	13,703	9,557	544	1,584	1	653	1,363
Other red oaks	38,433	27,198	1,091	3,807	14	2,500	3,823
Basswood	2,088	1,130	137	262	0	351	208
Elm	4,049	2,898	126	623	0	0	403
Other Eastern hardwoods	11,669	8,650	1,251	309	0	298	1,161
Total hardwoods	195,595	141,027	5,310	18,240	44	11,519	19,455
All species	206,106	145,669	5,398	21,383	431	13,703	19,522

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

**Table A.31—Total roundwood output by species group, detailed species group, and ownership class, Kentucky, 2003**

Species group and detailed species group	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
<i>thousand cubic feet</i>				
<b>Softwood</b>				
Cedar	575	18	0	557
White pine	101	3	0	99
Loblolly-shortleaf pine	1,053	11	0	1,042
Other yellow pines	8,626	21	8	8,596
Hemlock	156	2	0	154
<b>Total softwoods</b>	<b>10,511</b>	<b>54</b>	<b>9</b>	<b>10,448</b>
<b>Hardwood</b>				
Soft maple	5,803	36	230	5,537
Hard maple	5,652	86	710	4,856
Other birch	1,280	19	0	1,261
Hickory	21,627	623	452	20,552
Beech	7,438	83	369	6,986
Ash	4,416	82	0	4,334
Black walnut	2,454	34	4	2,416
Sweetgum	4,613	138	0	4,475
Yellow-poplar	25,732	185	680	24,867
Blackgum-tupelo	1,710	46	79	1,585
Sycamore	1,197	18	0	1,179
Cottonwood	751	0	0	751
Black cherry	1,291	28	59	1,204
Select white oaks	26,904	637	1,351	24,916
Other white oaks	14,785	207	796	13,783
Select red oaks	13,703	320	345	13,038
Other red oaks	38,433	718	1,387	36,328
Basswood	2,088	4	228	1,857
Elm	4,049	104	22	3,924
Other Eastern hardwoods	11,669	247	171	11,251
<b>Total hardwoods</b>	<b>195,595</b>	<b>3,613</b>	<b>6,883</b>	<b>185,098</b>
<b>All species</b>	<b>206,106</b>	<b>3,668</b>	<b>6,892</b>	<b>195,546</b>

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



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In 2003, roundwood output from Kentucky's forests totaled 187 million cubic feet, 5 percent less than in 2001. Mill byproducts generated from primary manufacturers increased less than 1 percent to 90 million cubic feet. Ninety-six percent of plant residues were used primarily for fuel, miscellaneous, and fiber products. Saw logs were the leading roundwood product at 146 million cubic feet; pulpwood ranked a distant second at 21 million cubic feet; other industrial products were third at 14 million cubic feet. The number of primary processing plants declined from 337 in 2001 to 297 in 2003. Total receipts decreased 5 percent to 210 million cubic feet.

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

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