

# Tennessee's Timber Industry— Timber Product Output and Use, 2011

FOREST INVENTORY & ANALYSIS FACTSHEET

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## Introduction

This science update contains the findings of a 2011 canvass of all primary wood-using plants in Tennessee, and presents changes in product output and residue use since 2009. It complements the Forest Inventory and Analysis (FIA) annual inventory of volume and removals from the State's timberland. The canvass was conducted to determine the amount and source of wood receipts and annual timber product drain, by county, in 2011 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 Tennessee was conducted in 2012 to obtain information for 2011. In addition, roundwood from out-of-State mills known to be using logs or bolts harvested from Tennessee timberland was incorporated into Tennessee 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 1949, 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.

The FIA Research Work Unit of the U.S. Department of Agriculture 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. 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 is available through the FIA Web site: <http://srsfia2.fs.fed.us/>. The Excel® core tables and figures that complement this science update are available on the TPO database.

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



Whitson Lumber Company. (photo by Tim Phelps, Tennessee Department of Agriculture)





## All Products

- Industrial timber product output from roundwood increased 26.3 million cubic feet, or 12 percent, to 251.5 million cubic feet.
- Output of industrial hardwood roundwood products was up 13 percent, to 201.4 million cubic feet, while output of industrial softwood roundwood products increased 6 percent to 50.0 million cubic feet (fig. 1).
- Pulpwood and saw logs were the principal roundwood products in 2011. Combined output of these two products totaled 247.2 million cubic feet and accounted for 98 percent of the State's total industrial roundwood output (fig. 2).

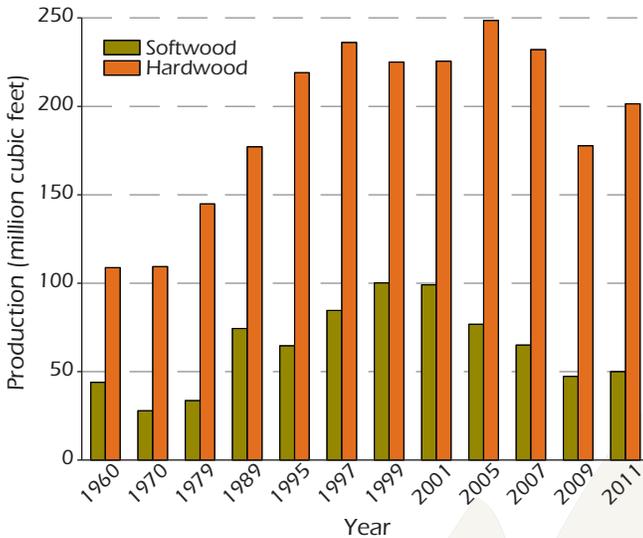


Figure 1—Roundwood production for all products by species group and year, Tennessee.

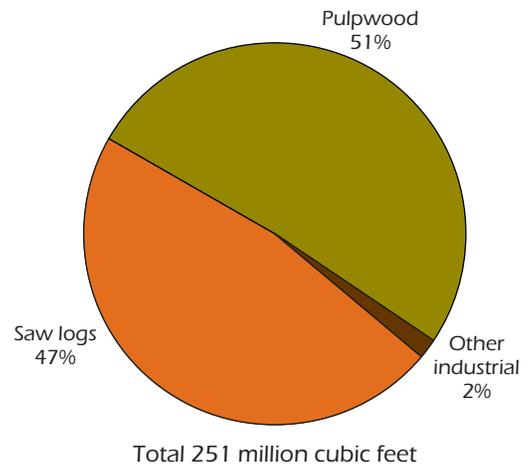


Figure 2—Roundwood production by type of product, Tennessee, 2011.

- Total receipts at Tennessee mills, which included roundwood harvested and retained in the State and roundwood imported from other States, was up 15 percent from 251.5 million cubic feet to 288.9 million cubic feet.
- At the same time, the number of primary roundwood-using plants in Tennessee declined from 267 in 2009 to 254 in 2011 (fig. 3). The number of sawmills decreased by 13, while pulpmills, veneer, composite panel, and other miscellaneous mills remained stable.
- Across all products, 70 percent of roundwood harvested was retained for processing at Tennessee mills. Exports of roundwood to other States amounted to 74.5 million cubic feet, while imports of roundwood amounted to 111.9 million cubic feet making the State a net importer of roundwood.

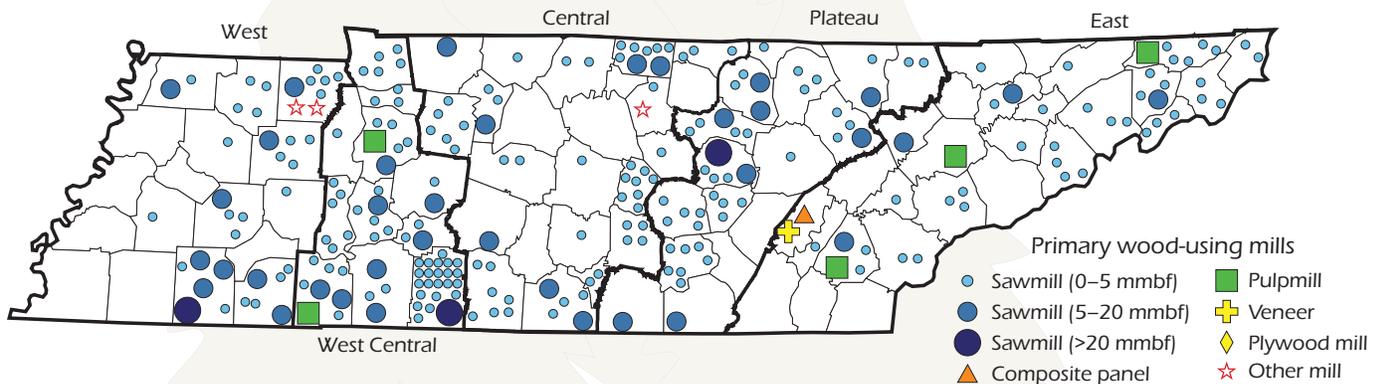


Figure 3—Primary wood-using mills by region, Tennessee, 2011.



### Pulpwood

- Total pulpwood production increased 11 percent to 128.6 million cubic feet and accounted for 51 percent of the State’s total roundwood TPO the same as in 2009. Hardwood output was up to 82.9 million cubic feet; softwood output increased as well to 45.6 million cubic feet (fig. 4). These were increases from 2009 numbers of 6 percent and 22 percent, respectively.
- Five pulpmill facilities were operating and receiving roundwood in Tennessee in 2011, the same since 1995. Total pulpwood receipts for these mills increased to 168.7 million cubic feet, accounting for 58 percent of total receipts for all mills.
- Fifty-one percent of roundwood cut for pulpwood was retained for processing at Tennessee pulpmills. Roundwood pulpwood accounted for 85 percent of total known exports and 92 percent of total imports.

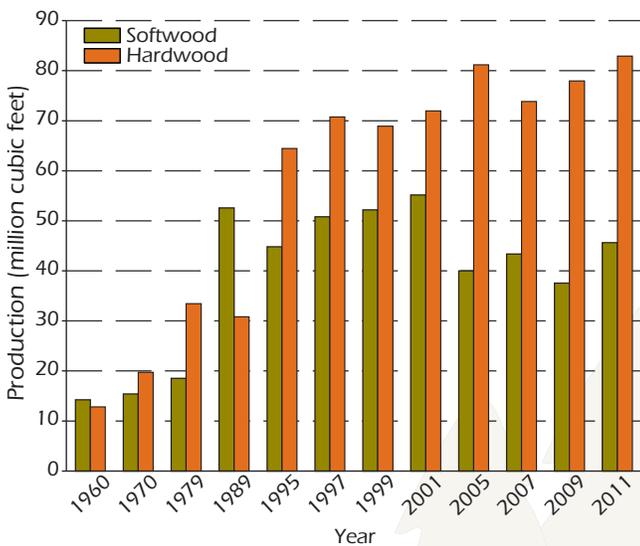


Figure 4—Roundwood pulpwood production by species group and year, Tennessee.

### Saw Logs

- Saw logs accounted for 47 percent of the State’s total roundwood products. Output of hardwood saw logs increased 19 percent to 115.9 million cubic feet, while that of softwood saw logs dropped 66 percent to 2.8 million cubic feet (fig. 5).
- In 2011, Tennessee had 244 sawmills, 13 fewer mills than in 2009. Total saw-log receipts were up 18.9 million cubic feet to 117.8 million cubic feet. Hardwood saw-log receipts increased 20 percent to 115.6 million cubic feet, while those of softwoods declined 22 percent to 2.1 million cubic feet.
- Tennessee retained 92 percent of its saw-log production for within State manufacture, with saw-log exports exceeding imports by 907,000 cubic feet in 2011.

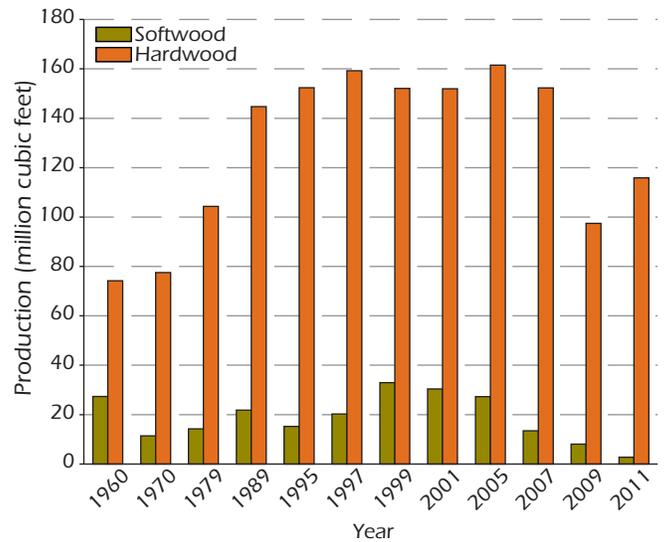


Figure 5—Roundwood saw-log production by species group and year, Tennessee.

### Other Industrial Products

- Roundwood harvested for other industrial uses such as poles, posts, mulch, residential firewood, industrial fuel, logs for log homes, composite panels, veneer, and all other industrial products totaled 4.2 million cubic feet. Hardwood made-up 62 percent of the other industrial products volume.
- The number of plants producing other industrial products totaled five in 2011. Combined receipts of other industrial products from softwood and hardwood totaled 2.5 million cubic feet. Industrial fuel accounted for 357,000 cubic feet, or 14 percent, of receipt volume for this category.

### Plant Byproducts

- In 2011, processing of primary products in Tennessee mills generated 96.9 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 41.2 million cubic feet, while bark volume totaled 31.3 million cubic feet. Collectively, sawdust and shavings made-up 25 percent of total residues, or 24.4 million cubic feet (fig. 6).

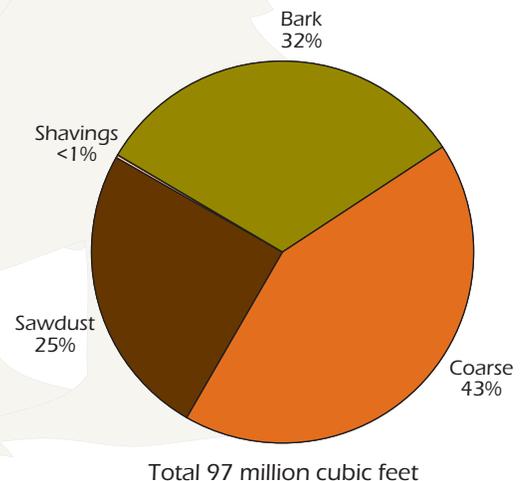


Figure 6—Primary mill residue by residue type, Tennessee, 2011.



- The processing of saw logs generated 78.0 million cubic feet of mill residues, accounting for 80 percent of the total residues produced (fig. 7).
- Ninety-six percent, or 93.2 million cubic feet, of the wood and bark residues were used for a product. While 4 percent of the residues were not used for a product, 50 percent of the residues were used

for industrial fuel and 23 percent were used for fiber products (fig. 8). Fifty-four percent, or 22.1 million cubic feet, of the coarse residues were used for fiber products. Seventy-three percent of the bark was used for industrial fuel, while 66 percent of the sawdust and shavings were used for industrial fuel.

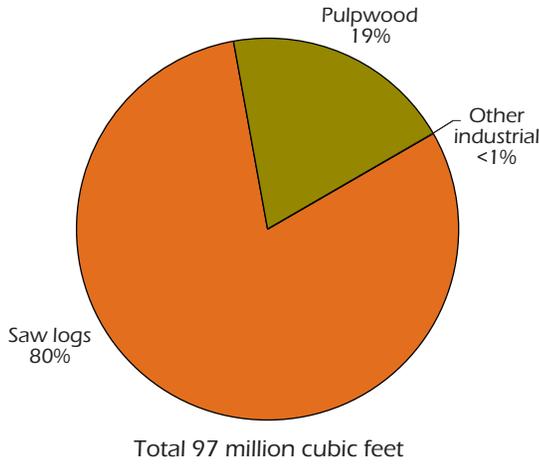


Figure 7—Primary mill residue produced by roundwood type, Tennessee, 2011.

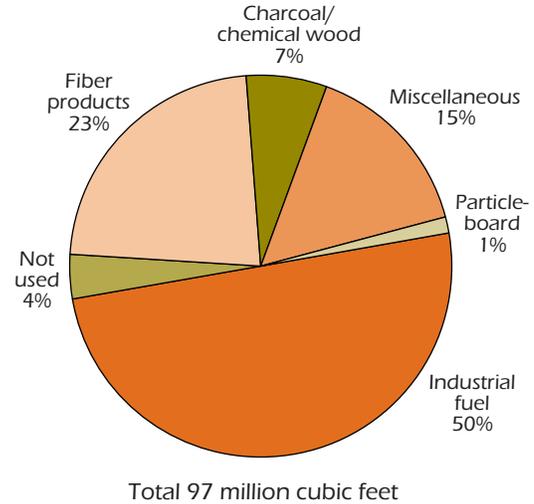


Figure 8—Disposal of residue by product, Tennessee, 2011.



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Load of pulp logs headed to pulpmill.  
(photo by James Bentley)

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