

# Tennessee's Timber Industry—Timber Product Output and Use, 2015

## Introduction

This science update contains the findings of a 2015 canvass of all primary wood-using plants in Tennessee, and presents changes in product output and residue use since 2011. 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 2015 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 2016 to obtain information for 2015. 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 Forest Service, U.S. Department of Agriculture 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 Excel® core tables and figures that complement this science update are available on the TPO database. The system is available through the FIA Web site: <https://www.fs.usda.gov/srsfia/>.

The SRS 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.

**Table 1—Output of industrial products by product and species group, Tennessee, 2011 and 2015**

Product and species group	Year		Change	Change
	2011	2015		
	<i>---- thousand cubic feet ----</i>		<i>percent</i>	
<b>Saw logs</b>				
Softwood	2,782	5,595	2,813	101.1
Hardwood	115,975	116,487	512	0.4
<b>Total</b>	<b>118,757</b>	<b>122,082</b>	<b>3,325</b>	<b>2.8</b>
<b>Pulpwood</b>				
Softwood	45,682	52,153	6,471	14.2
Hardwood	82,131	50,200	-31,931	-38.9
<b>Total</b>	<b>127,813</b>	<b>102,353</b>	<b>-25,460</b>	<b>-19.9</b>
<b>Other industrial</b>				
Softwood	1,637	2,382	745	45.5
Hardwood	2,382	3,727	1,345	56.5
<b>Total</b>	<b>4,019</b>	<b>6,109</b>	<b>2,090</b>	<b>52.0</b>
<b>All industrial</b>				
Softwood	50,101	60,130	10,029	20.0
Hardwood	200,488	170,414	-30,074	-15.0
<b>Total</b>	<b>250,589</b>	<b>230,544</b>	<b>-20,045</b>	<b>-8.0</b>

## All Products

Industrial timber product output from roundwood decreased 20.0 million cubic feet, or 8 percent, to 230.5 billion cubic feet.

Output of industrial hardwood roundwood products was down 15 percent, to 170.4 million cubic feet, while output of industrial softwood roundwood products increased 20 percent to 60.1 million cubic feet (fig. 1).

Pulpwood and saw logs were the principal roundwood products in 2015. Combined output of these two products totaled 224.4 million cubic feet and accounted for 97 percent of the State’s total industrial roundwood output (fig. 2).

Total receipts at Tennessee mills, which included roundwood harvested and retained in the State and roundwood imported from other States, was up 2 percent from 289.4 million cubic feet to 294.0 million cubic feet.

At the same time, the number of primary roundwood-using plants in Tennessee declined from 255 in 2011 to 244 in 2015 (fig. 3, see next page). The number of sawmills decreased by 9, composite and miscellaneous mills decreased by one each, while pulpmills, veneer, post and pole and bioenergy mills remained unchanged.

Across all products, 79 percent of roundwood harvested was retained for processing at Tennessee mills. Exports of roundwood to other States amounted to 49.4 million cubic feet, while imports of roundwood amounted to 112.9 million cubic feet making the State a net importer of roundwood.

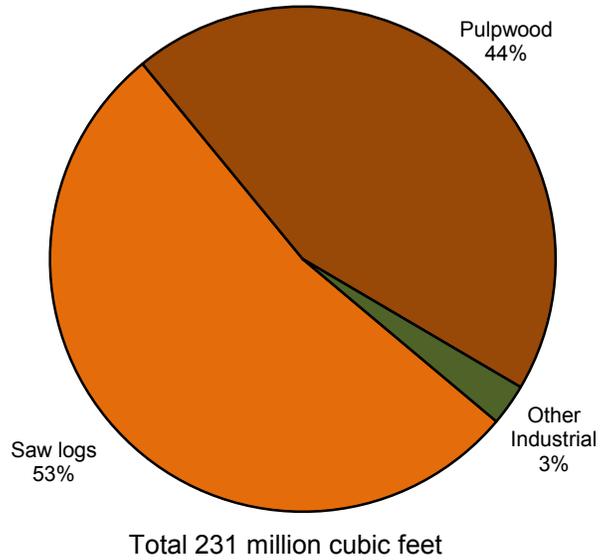


Figure 2—Roundwood production by type of product, Tennessee 2015.

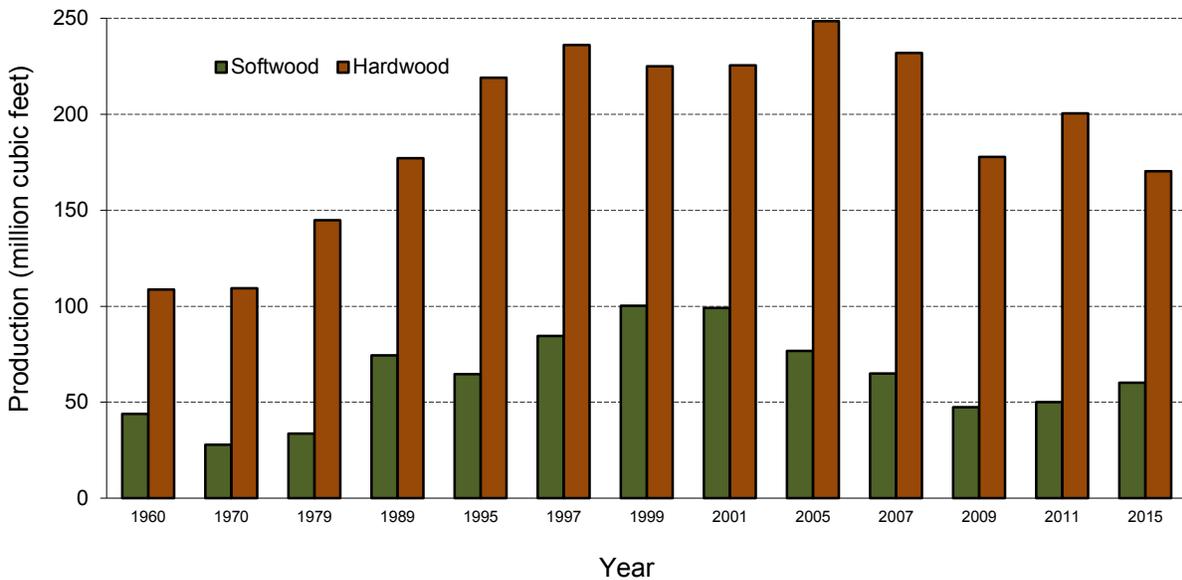


Figure 1—Roundwood production for all products by species group and year, Tennessee.

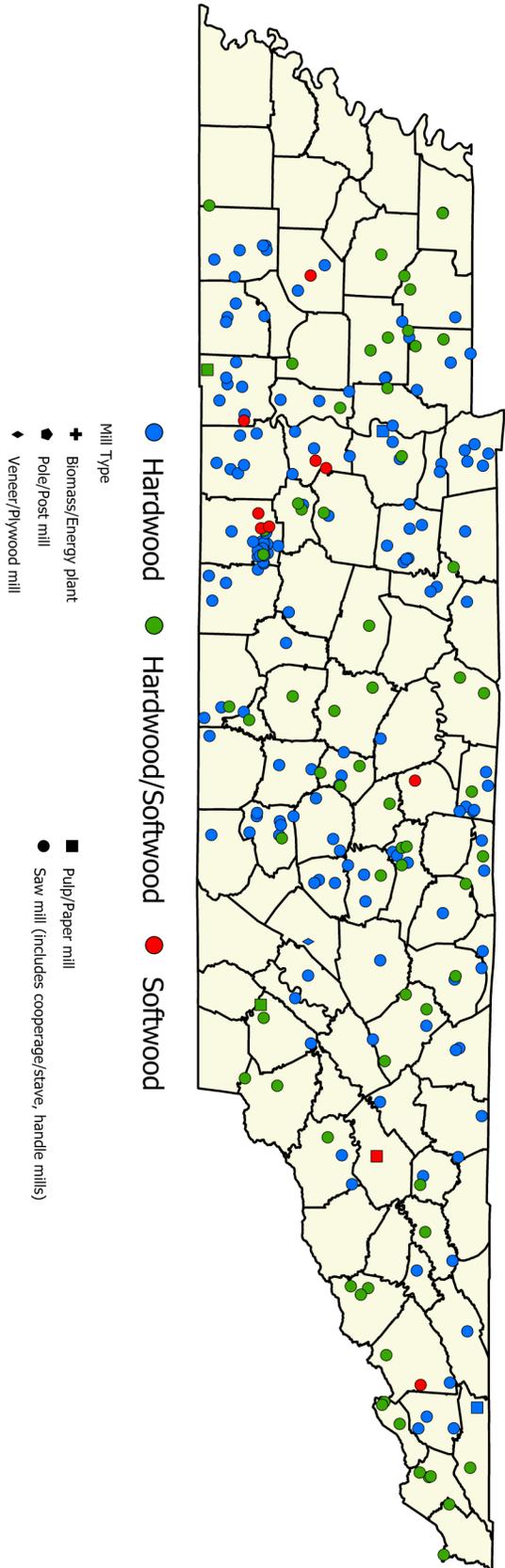


Figure 3—Primary wood-using mills, Tennessee 2015.

## Pulpwood

Total pulpwood production decreased 20 percent to 102.4 million cubic feet and accounted for 44 percent of the State’s total roundwood TPO compared to 51 percent of total TPO in 2011. Hardwood output was down to 50.2 million cubic feet, a decrease of 39 percent from 2011. Softwood output increased to 52.2 million cubic feet, an increase of 14 percent from 2011 (fig. 4).

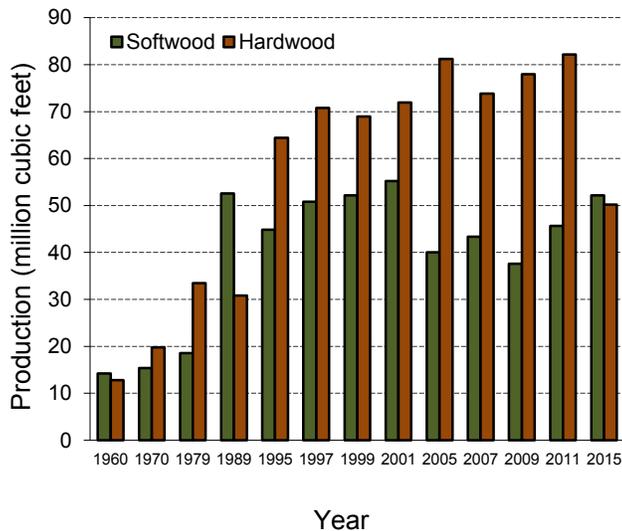


Figure 4—Roundwood pulpwood production by species group and year, Tennessee.

Sixty-seven percent of roundwood cut for pulpwood was retained for processing at Tennessee pulpmills. Roundwood pulpwood accounted for 67 percent of total known exports and 93 percent of total imports.

Five pulpmill facilities were operating and receiving roundwood in Tennessee in 2015, the same since 1995. Total pulpwood receipts for these mills increased to 174.5 million cubic feet, accounting for 59 percent of total receipts for all mills.

## Saw logs

Saw logs accounted for 53 percent of the State’s total roundwood products. Output of hardwood saw logs increased < 1 percent to 116.5 million cubic feet, while that of softwood saw logs increased 101 percent to 5.6 million cubic feet (fig. 5).

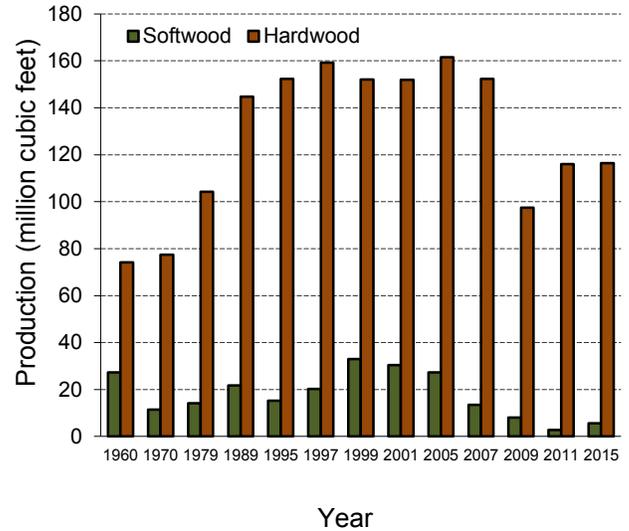


Figure 5—Roundwood saw-log production by species group and year, Tennessee.

In 2015, Tennessee had 235 sawmills, 9 fewer mills than in 2011. Total saw-log receipts were up 1 percent to 119.3 million cubic feet. Hardwood saw-log receipts increased 1 percent to 117.1 million cubic feet, while those of softwoods were up 1 percent to 2.2 million cubic feet.

Tennessee retained 92 percent of its saw-log production for within State manufacture, with saw-log exports exceeding imports by 2.8 million cubic feet in 2015.

## 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 6.1 million cubic feet. Hardwood made up 61 percent of the other industrial products volume.

The number of plants producing other industrial products totaled 4 in 2015. Combined receipts of other industrial products from softwood and hardwood totaled 240 thousand cubic feet.

## Plant Byproducts

In 2015, processing of primary products in Tennessee mills generated 98.5 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 41.8 million cubic feet, while bark volume totaled 31.9 million cubic feet. Collectively, sawdust and shavings made up 25 percent of total residues, or 24.8 million cubic feet (fig. 6).

The processing of saw logs generated 79.1 million cubic feet of mill residues, accounting for 80 percent of the total residues produced (fig. 7).

Ninety-five percent, or 94.0 million cubic feet, of the wood and bark residues were used for a product. While 5 percent of the residues were not used for a product, 50 percent of the residues were used for industrial fuel and 25 percent were used for fiber products (fig. 8). Fifty-seven percent, or 24.0 million cubic feet, of the coarse residues were used for fiber products. Seventy-one percent of the bark was used for industrial fuel, while 68 percent of the sawdust and shavings were used for industrial fuel.

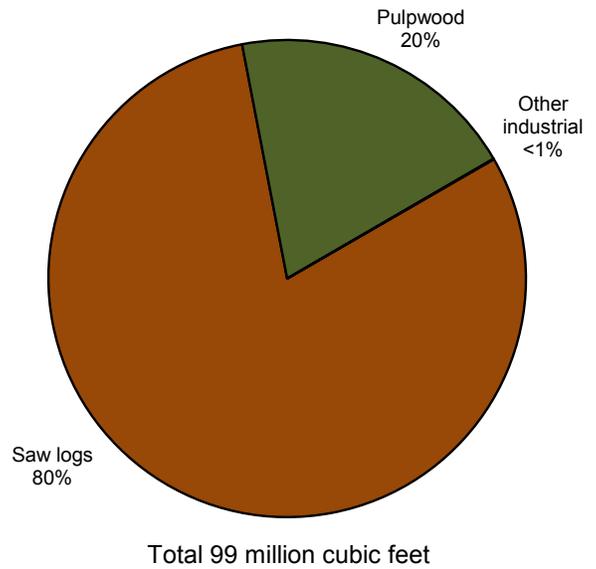


Figure 7—Primary mill residue produced by roundwood type, Tennessee, 2015.

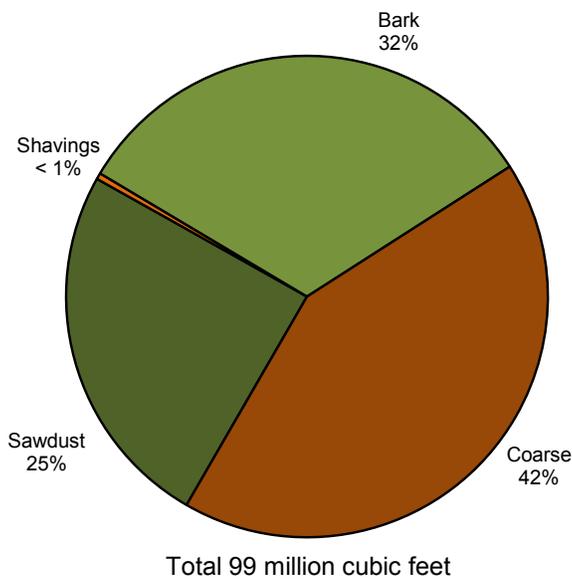


Figure 6—Primary mill residue by residue type, Tennessee, 2015.

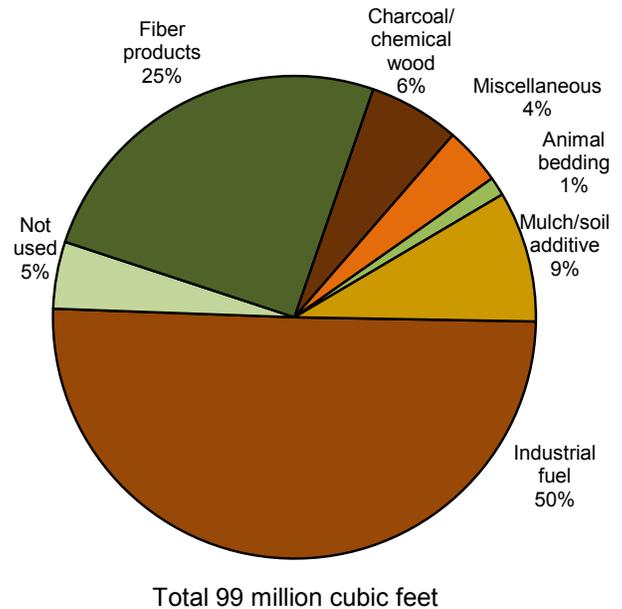


Figure 8—Disposal of residue by product, Tennessee, 2015.

### How to Cite This Publication

Gray, James A.; Bentley, James W.; Cooper, Jason A.; Wall, David J. 2017. Tennessee's timber industry—timber product output and use, 2015. e-Science Update-133. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 5 p.

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