



# South Carolina'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 South Carolina, and presents changes in product output and residue use since 2013. 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 South Carolina 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 South Carolina timberland was incorporated into South Carolina 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 used to update the current survey. Surveys for all timber products other than pulpwood began in 1936, 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 South Carolina Forestry Commission 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, South Carolina, 2013 and 2015**

Product and species group	Year		Change	Change
	2013	2015		
	--- thousand cubic feet ---		percent	
<b>Saw logs</b>				
Softwood	188,715	214,456	25,741	13.6
Hardwood	20,572	23,412	2,840	13.8
<b>Total</b>	<b>209,287</b>	<b>237,868</b>	<b>28,581</b>	<b>13.7</b>
<b>Veneer logs</b>				
Softwood	30,598	27,551	-3,047	-10.0
Hardwood	2,818	2,374	-444	-15.8
<b>Total</b>	<b>33,416</b>	<b>29,925</b>	<b>-3,491</b>	<b>-10.4</b>
<b>Pulpwood</b>				
Softwood	279,860	316,033	36,173	12.9
Hardwood	63,397	65,288	1,891	3.0
<b>Total</b>	<b>343,257</b>	<b>381,321</b>	<b>38,064</b>	<b>11.1</b>
<b>Composite panels</b>				
Softwood	60,850	58,908	-1,942	-3.2
Hardwood	200	269	69	34.5
<b>Total</b>	<b>61,050</b>	<b>59,177</b>	<b>-1,873</b>	<b>-3.1</b>
<b>Posts, poles &amp; pilings</b>				
Softwood	10,305	9,773	-532	-5.2
Hardwood	0	0	0	0.0
<b>Total</b>	<b>10,305</b>	<b>9,773</b>	<b>-532</b>	<b>-5.2</b>
<b>Bioenergy</b>				
Softwood	13,290	28,941	15,651	117.8
Hardwood	2,507	11,150	8,643	344.8
<b>Total</b>	<b>15,797</b>	<b>40,091</b>	<b>24,294</b>	<b>153.8</b>
<b>Other industrial</b>				
Softwood	4,149	5,266	1,117	26.9
Hardwood	1,058	673	-385	-36.4
<b>Total</b>	<b>5,207</b>	<b>5,939</b>	<b>732</b>	<b>14.1</b>
<b>All industrial</b>				
Softwood	587,767	660,928	73,161	12.4
Hardwood	90,552	103,166	12,614	13.9
<b>Total</b>	<b>678,319</b>	<b>764,094</b>	<b>85,775</b>	<b>12.6</b>

## All Products

Industrial timber product output from roundwood increased 85.8 million cubic feet, or 13 percent, to 764.1 million cubic feet.

Output of industrial softwood roundwood products was up 12 percent, to 660.9 million cubic feet, while output of industrial hardwood roundwood products increased 14 percent to 103.2 million cubic feet (fig. 1).

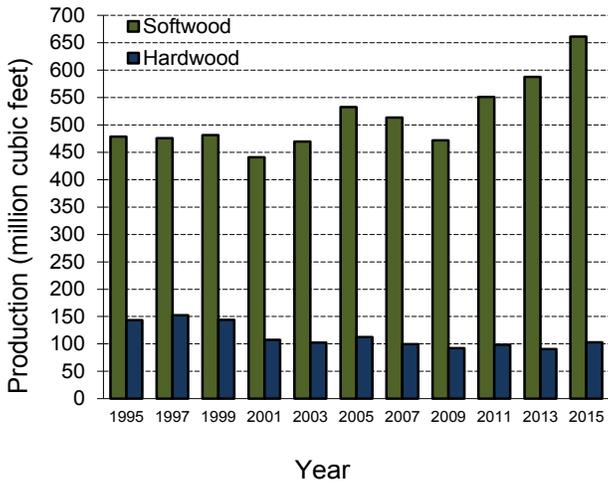


Figure 1—Roundwood production for all products by species group and year, South Carolina.

Pulpwood and saw logs were the principal roundwood products in 2015. Combined output of these two products totaled 619.2 million cubic feet and accounted for 81 percent of the State’s total industrial roundwood output (fig. 2).

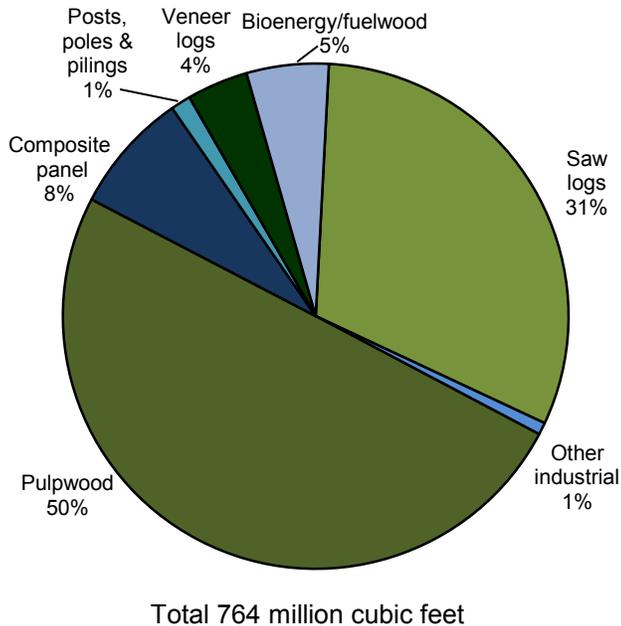


Figure 2—Roundwood production by type of product, South Carolina, 2015.

Total receipts at South Carolina mills, which included roundwood harvested and retained in the State and roundwood imported from other States, were up 10 percent from 661.7 million cubic feet to 727.2 million cubic feet.

At the same time, the number of primary roundwood-using plants in South Carolina increased from 85 in 2013 to 98 in 2015 (fig. 3, see next page).

The number of veneer mills increased by 1, bioenergy mills increased by 7, miscellaneous mills increased by 5 and sawmills, pulpmills, composite panel mills and post, pole and piling mills remained stable.

Across all products, 87 percent of roundwood harvested was retained for processing at South Carolina mills. Exports of roundwood to other States amounted to 101.6 million cubic feet, while imports of roundwood amounted to 64.7 million cubic feet making the State a net exporter of roundwood.

## Pulpwood

Total pulpwood production increased 11 percent to 381.3 million cubic feet but accounted for 50 percent of the State’s total roundwood TPO compared to 51 percent of total TPO in 2013. Softwood output was up to 316.0 million cubic feet, an increase of 13 percent from 2013; hardwood output increased to 65.3 million cubic feet, 3 percent more than in 2013 (fig. 4).

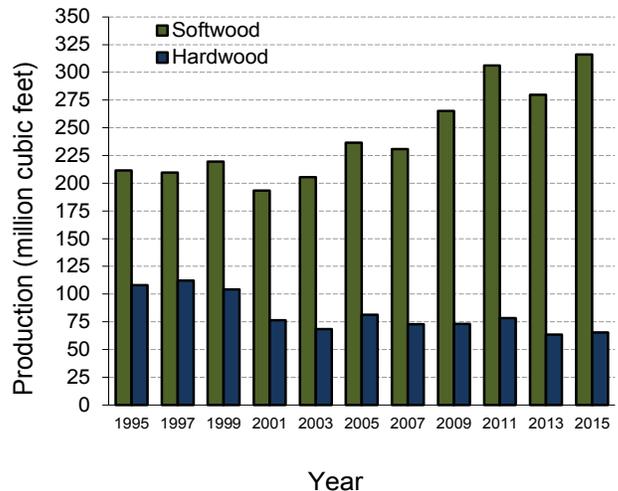
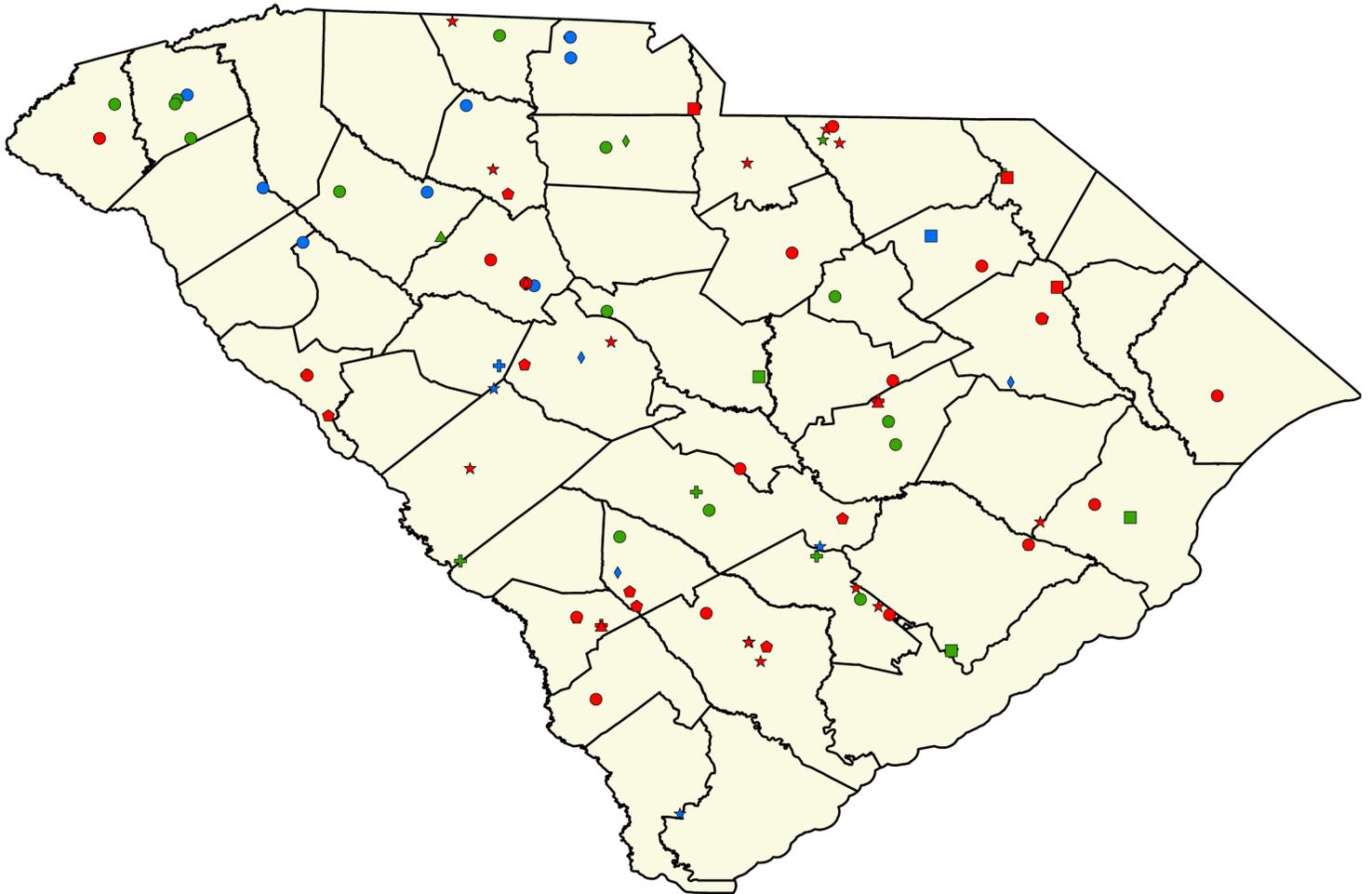


Figure 4—Roundwood pulpwood production by species group and year, South Carolina.

Seven pulpmill facilities were operating and receiving roundwood in South Carolina in 2015, the same since 1999. Total pulpwood receipts for these mills increased to 357.4 million cubic feet, accounting for 49 percent of total receipts for all mills.

Eighty-two percent of roundwood cut for pulpwood was retained for processing at South Carolina pulpmills. Roundwood pulpwood accounted for 67 percent of total known exports and 68 percent of total imports.



- Hardwood    ● Hardwood/Softwood    ● Softwood
- Mill Type
- ✚ Biomass/Energy plant    ◆ Veneer/Plywood mill
- ▲ Composite Panel/Engineered Wood Product (EWP) mill    ■ Pulp/Paper mill
- ★ Miscellaneous mill    ● Saw mill (includes cooperage/stave, handle mills)
- ◆ Pole/Post mill

Figure 3—Primary wood-using mills, South Carolina, 2015.

## Saw Logs

Saw logs accounted for 31 percent of the State’s total roundwood products. Output of softwood saw logs was up 14 percent to 214.5 million cubic feet, and that of hardwood saw logs increased 14 percent to 23.4 million cubic feet (fig. 5).

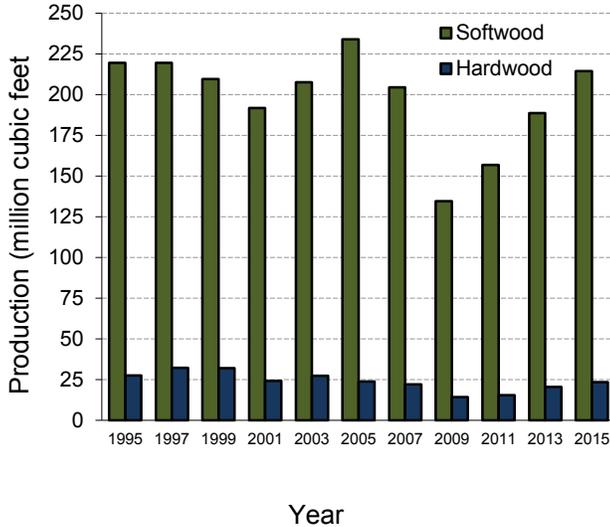


Figure 5—Roundwood saw-log production by species group and year, South Carolina.

In 2015, South Carolina had 39 sawmills, the same as in 2013. Total saw-log receipts were up 23.2 million cubic feet to 222.9 million cubic feet. Softwood saw-log receipts increased 11 percent to 210.2 million cubic feet, while those of hardwoods were up 18 percent to 12.6 million cubic feet.

South Carolina retained 87 percent of its saw-log production for within State manufacture, with saw-log exports exceeding imports by 15.0 million cubic feet in 2015.

## Veneer Logs

Output of veneer logs in 2015 totaled 29.9 million cubic feet, a 10 percent decrease since 2013, and accounted for 4 percent of the State’s total roundwood TPO volume (fig. 6).

The number of veneer mills operating in South Carolina increased to 5 for 2015. Receipts of veneer logs decreased 11 percent to 30.0 million cubic feet.

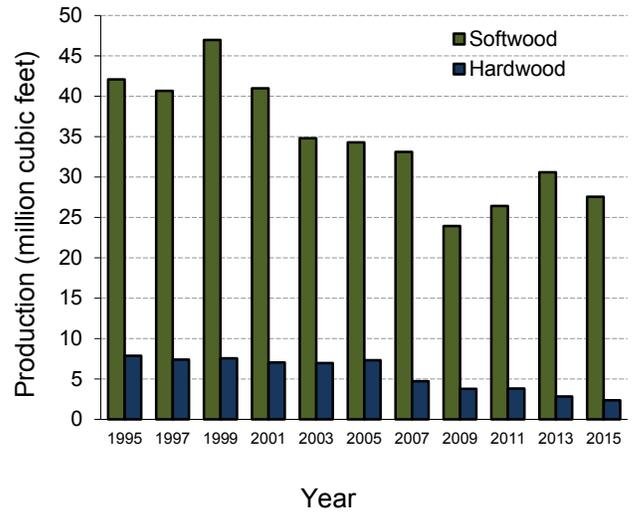


Figure 6—Roundwood veneer-log production by species group and year, South Carolina.

## Composite Panel

Output of composite panels in 2015 totaled 59.2 million cubic feet, a 3 percent decrease since 2013, and accounted for 8 percent of the State’s total roundwood TPO volume (fig. 7).

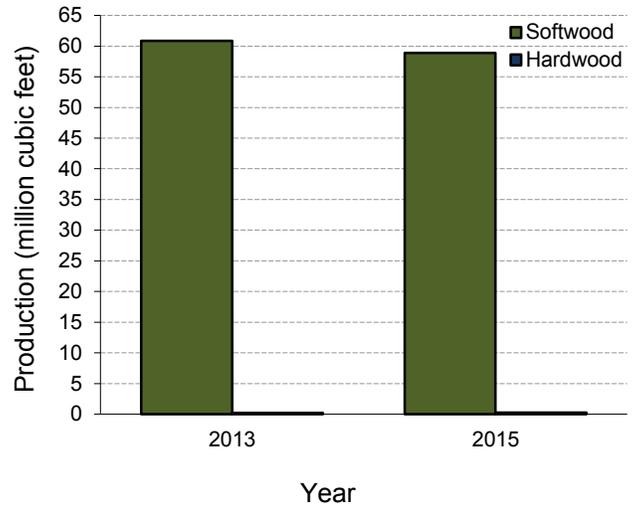


Figure 7—Roundwood composite panel production by species group and year, South Carolina.

The number of composite panel mills operating in South Carolina was 3 for 2015, the same as in 2013. Receipts of composite panel mills were 59.7 million cubic feet for 2015, a 5 percent decrease since 2013.

## Bioenergy

Output of bioenergy in 2015 totaled 40.1 million cubic feet, a 154 percent increase since 2013, and accounted for 5 percent of the State’s total roundwood TPO volume (fig. 8).

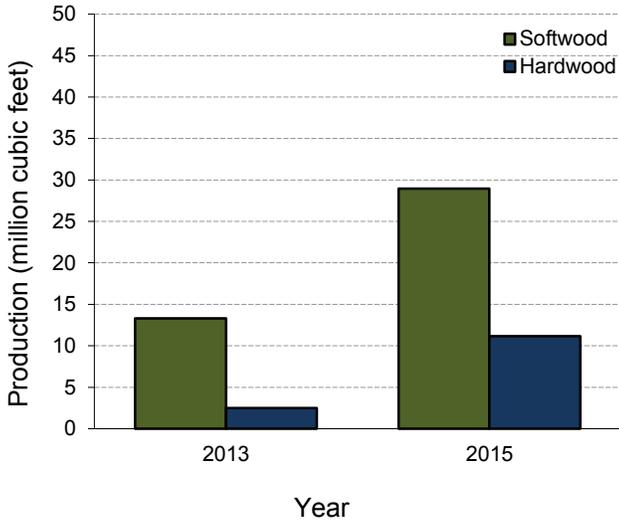


Figure 8—Roundwood bioenergy production by species group and year, South Carolina.

The number of bioenergy mills operating in South Carolina was 15 for 2015, an increase of 7 since 2013. Receipts of bioenergy logs were 41.1 million cubic feet for 2015, a 94 percent increase since 2013.

South Carolina retained 95 percent of its bioenergy production for in State use, with bioenergy imports exceeding exports by 1.0 million cubic feet in 2015.

Bioenergy includes products such as industrial and residential pellets and boiler/hog fuel used in creating heat, steam or for generating electricity.

## Posts, poles and pilings

Output of posts, poles and pilings totaled 9.8 million cubic feet, all from softwood. This is a 5 percent decrease from 2013 to 2015, and accounted for 1 percent of the State’s total roundwood TPO volume (fig. 9).

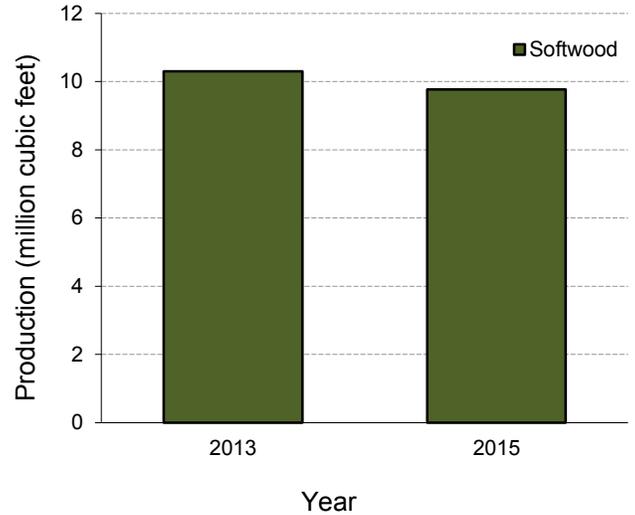


Figure 9—Roundwood post, pole and piling volume by species group and year, South Carolina.

The number of post, pole and piling mills operating in South Carolina was 9 for 2015, the same as in 2013. Receipts of posts, poles and pilings decreased 14 percent to 10.2 million cubic feet.

## Other Industrial Products

Roundwood harvested for other industrial uses such as mulch, residential firewood, logs for log homes, and all other industrial products totaled 5.9 million cubic feet. Softwood made up 89 percent of the other industrial products volume.

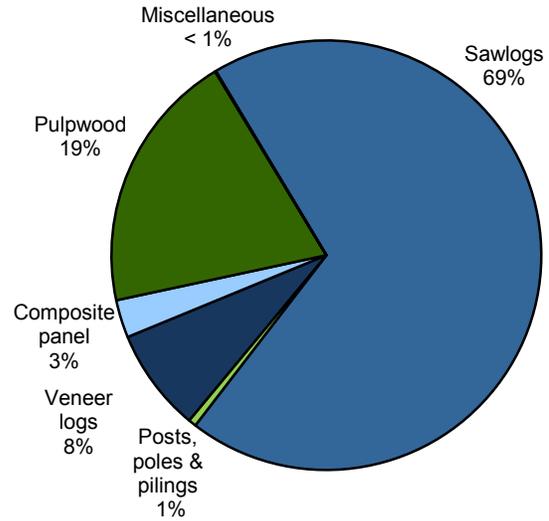
The number of plants producing other industrial products totaled 20 in 2015. Total receipts of other industrial products was 5.9 million cubic feet for 2015.

## Plant Byproducts

In 2015, processing of primary products in South Carolina mills generated 180.8 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 61.1 million cubic feet, while bark volume totaled 64.4 million cubic feet. Collectively, sawdust and shavings made up 31 percent of total residues, or 55.3 million cubic feet (fig. 10).

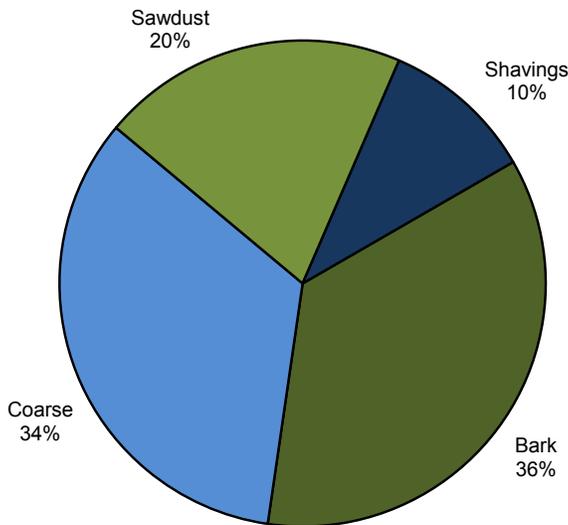
The processing of saw logs generated 124.9 million cubic feet of mill residues, accounting for 69 percent of the total residues produced (fig. 11).

Nearly 100 percent, or 180.8 million cubic feet, of the wood and bark residues were used for a product. While <1 percent of the residues were not used for a product, 48 percent of the residues were used for industrial fuel, and 37 percent were used for fiber products (fig. 12). Seventy-eight percent of residue used for industrial fuel was used onsite, and 22 percent was used at other plants. Nearly 53.4 million cubic feet, or 87 percent, of the coarse residues were used for fiber products. Eighty-one percent of the bark was used for industrial fuel, while 59 percent of the sawdust and shavings were used for industrial fuel.



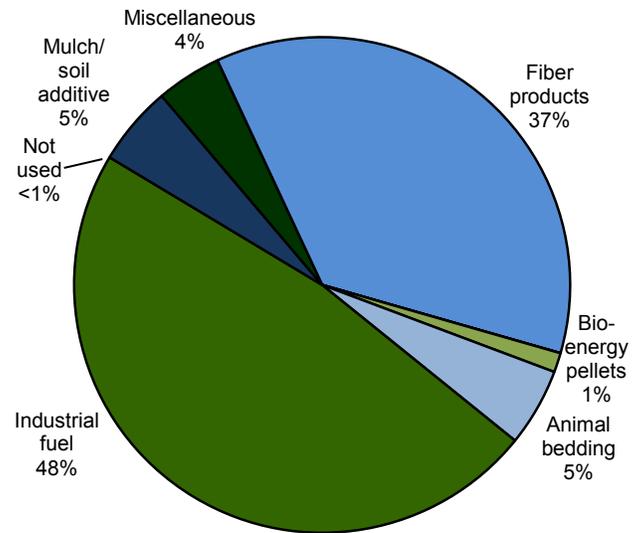
Total 181 million cubic feet

Figure 11—Primary mill residue produced by roundwood type, South Carolina, 2015.



Total 181 million cubic feet

Figure 10—Primary mill residue by residue type, South Carolina, 2015.



Total 181 million cubic feet

Figure 12—Disposal of residue by product, South Carolina, 2015.

### How to Cite This Publication

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