



# Virginia's Timber Industry—Timber Product Output and Use, 2013

## Introduction

This science update contains the findings of a 2013 canvass of all primary wood-using plants in Virginia, 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 2013 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 Virginia was conducted in 2014 to obtain information for 2013. In addition, roundwood from out-of-State mills known to be using logs or bolts harvested from Virginia timberland was incorporated into Virginia 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 from previous surveys were used to update the current survey. Surveys for all timber products other than pulpwood began in 1965, 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 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://srsfia2.fs.fed.us/>.

The SRS gratefully acknowledges the tremendous cooperation and assistance provided by the Virginia Department 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, Virginia, 2011 and 2013**

Product and species group	Year		Change	Change
	2011	2013		
<i>--- thousand cubic feet --- percent</i>				
<b>Saw logs</b>				
Softwood	73,938	80,176	6,238	8.4
Hardwood	73,340	76,446	3,106	4.2
<b>Total</b>	<b>147,278</b>	<b>156,622</b>	<b>9,344</b>	<b>6.3</b>
<b>Posts, poles &amp; pilings</b>				
Softwood	663	1,068	405	61.1
Hardwood	62	11	-51	-82.3
<b>Total</b>	<b>725</b>	<b>1,079</b>	<b>354</b>	<b>48.8</b>
<b>Pulpwood</b>				
Softwood	122,189	126,292	4,103	3.4
Hardwood	89,649	85,367	-4,282	-4.8
<b>Total</b>	<b>211,838</b>	<b>211,659</b>	<b>-179</b>	<b>-0.1</b>
<b>Other industrial</b>				
Softwood	47,627	50,230	2,603	5.5
Hardwood	15,466	17,166	1,700	11.0
<b>Total</b>	<b>63,093</b>	<b>67,396</b>	<b>4,303</b>	<b>6.8</b>
<b>All industrial</b>				
Softwood	244,417	257,766	13,349	5.5
Hardwood	178,517	178,990	473	0.3
<b>Total</b>	<b>422,934</b>	<b>436,756</b>	<b>13,822</b>	<b>3.3</b>

## All Products

Industrial timber product output from roundwood increased 13.8 million cubic feet, or 3 percent, to 436.8 million cubic feet.

Output of industrial softwood roundwood products was up 6 percent, to 257.8 million cubic feet, while output of industrial hardwood roundwood products increased < 1 percent to 179.0 million cubic feet (fig. 1).

Pulpwood and saw logs were the principal roundwood products in 2013. Combined output of these two products totaled 368.3 million cubic feet and accounted for 84 percent of the State's total industrial roundwood output (fig. 2).

Total receipts at Virginia mills, which included roundwood harvested and retained in the State and roundwood imported from

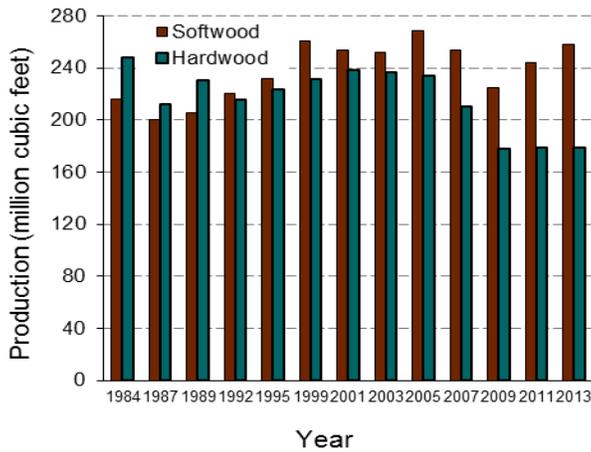


Figure 1—Roundwood production for all products by species group and year, Virginia.

other States, were up 7 percent from 410.8 million cubic feet to 440.0 million cubic feet.

At the same time, the number of primary roundwood-using plants in Virginia increased from 126 in 2011 to 130 in 2013 (fig. 3).

Across all products, 87 percent of roundwood harvested was retained for processing at Virginia mills. Exports of roundwood to other States amounted to 54.7 million cubic feet, while imports of roundwood amounted to 57.9 million cubic feet making the State a net importer of roundwood.

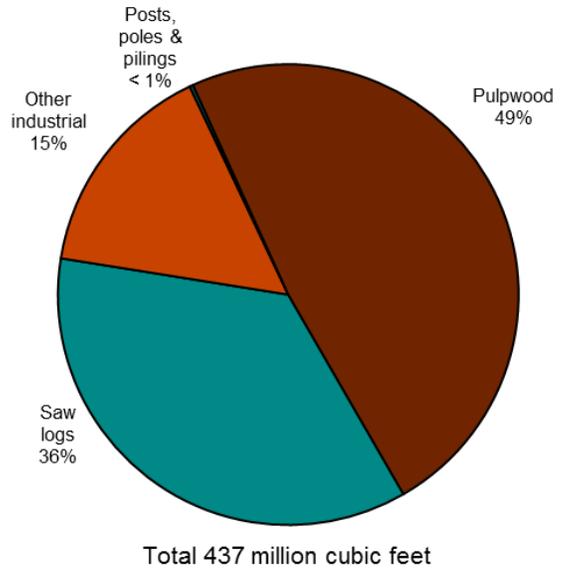


Figure 2—Roundwood production by type of product, Virginia, 2013.

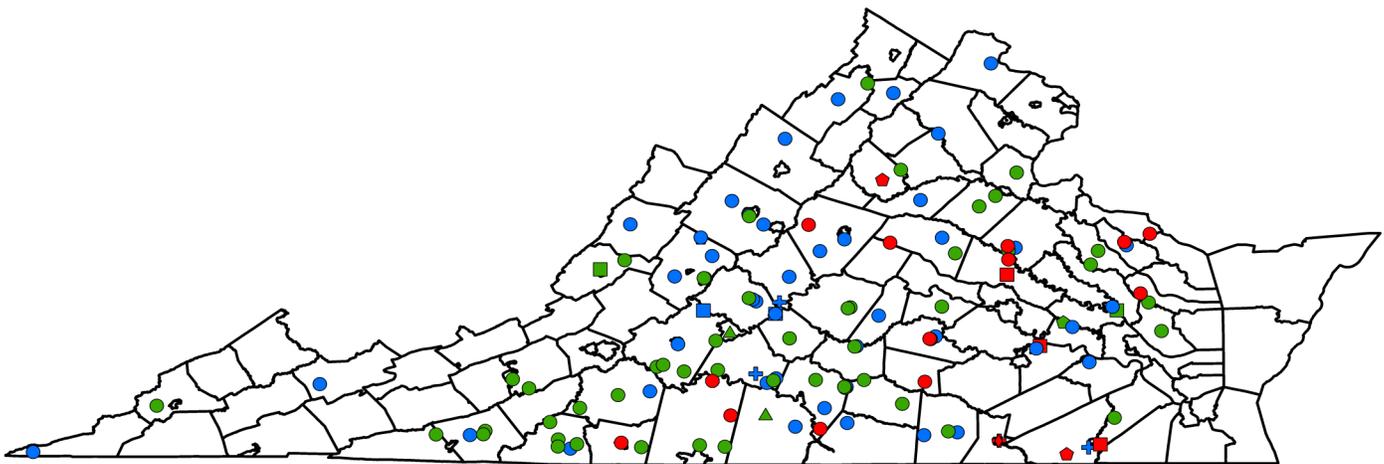


Figure 3— Primary wood-using mills, Virginia, 2013.

- Hardwood
  - Hardwood/Softwood
  - Softwood
- Mill Type
- ✦ Biomass/energy plant
  - ▲ Composite Panel/Engineered Wood Product (EWP) mill
  - ✦ Miscellaneous mill
  - Pulp/Paper mill
  - Post/Pole/Piling mill
  - Saw mill (includes cooperage/stave, handle mills)
  - ✦ Veneer/plywood mill

## Pulpwood

Total pulpwood production decreased < 1 percent to 211.7 million cubic feet but accounted for 48 percent of the State's total roundwood TPO compared to 50 percent of total TPO in 2011. Softwood output was up to 126.3 million cubic feet, while hardwood output decreased to 85.4 million cubic feet (fig. 4). Softwood output increased by 3 percent over 2011, while hardwood output decreased by 5 percent compared to 2011.

Eight pulpmill facilities were operating and receiving roundwood in Virginia in 2013. Total pulpwood receipts for these mills increased to 211.2 million cubic feet, accounting for 48 percent of total receipts for all mills.

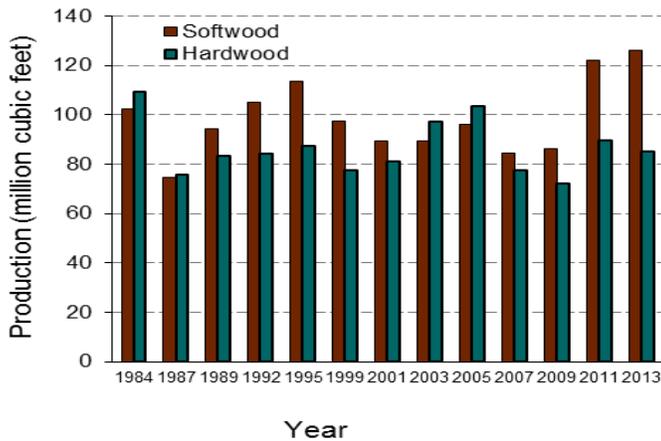


Figure 4—Roundwood pulpwood production by species group and year, Virginia.

Eighty-six percent of roundwood cut for pulpwood was retained for processing at Virginia pulpmills. Roundwood pulpwood accounted for 55 percent of total known exports and 51 percent of total imports.

## Saw Logs

Saw logs accounted for 36 percent of the State's total roundwood products. Output of softwood saw logs increased 8 percent to 80.2 million cubic feet, while that of hardwood saw logs was up 4 percent to 76.4 million cubic feet (fig. 5).

In 2013, Virginia had 107 sawmills, 2 more mills than in 2011. Total saw-log receipts were up 1.9 million cubic feet to 147.9 million cubic feet. Softwood saw-log receipts increased 4 percent to 71.2 million cubic feet, while those of hardwoods were down 1 percent to 76.7 million cubic feet.

Virginia retained 90 percent of its saw-log production for within State manufacture, with saw-log exports exceeding imports by 8.7 million cubic feet in 2013.

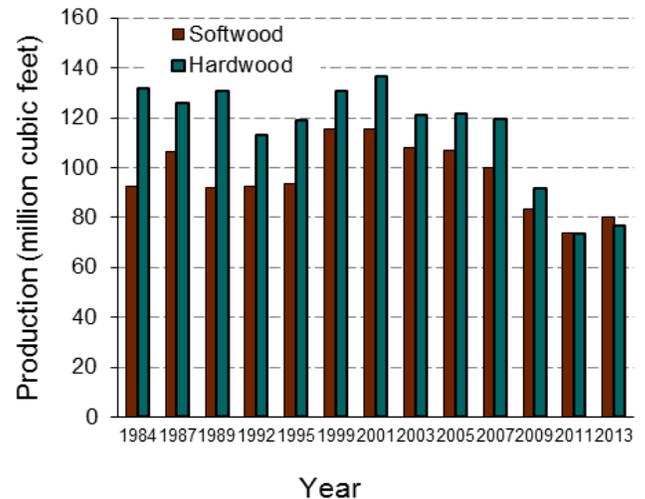


Figure 5—Roundwood saw-log production by species group and year, Virginia.

## Other Industrial Products

Roundwood harvested for other industrial uses such as poles, posts, composite panel, veneer logs, mulch, residential firewood, industrial fuel, logs for log homes, and all other industrial products totaled 68.5 million cubic feet. Softwood made up 75 percent of the other industrial products volume.

The number of plants producing other industrial products totaled 15 in 2013. Combined receipts of other industrial products from softwood and hardwood increased 3 percent to 80.9 million cubic feet. Industrial fuel accounted for 23.6 million cubic feet, or 29 percent, of receipt volume for this category.

## Plant Byproducts

In 2013, processing of primary products in Virginia mills generated 129.1 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 50.7 million cubic feet, while bark volume totaled 42.7 million cubic feet. Collectively, sawdust and shavings made up 28 percent of total residues, or 35.6 million cubic feet (fig. 6).

The processing of saw logs generated 91.6 million cubic feet of mill residues, accounting for 71 percent of the total residues produced (fig. 7).

Ninety-four percent, or 121.1 million cubic feet, of the wood and bark residues were used for a product. While 6 percent of the residues were not used for a product, 38 percent of the residues were used for industrial fuel and 32 percent were used for fiber products (fig. 8). Sixty-five percent of the residue used for industrial fuel was used on site, and 35 percent was used at other plants. Seventy-six percent, or 38.4 million cubic feet, of the coarse residues were used for fiber products. Fifty-one percent of the bark was used for industrial fuel, while 63 percent of the sawdust and shavings were used for industrial fuel.

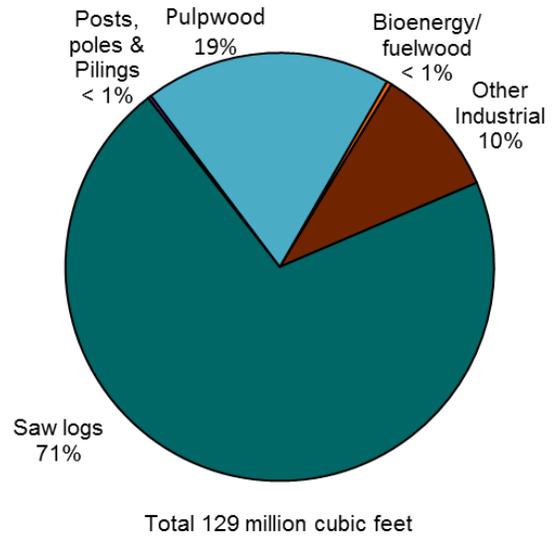


Figure 7—Primary mill residue produced by roundwood type, Virginia, 2013.

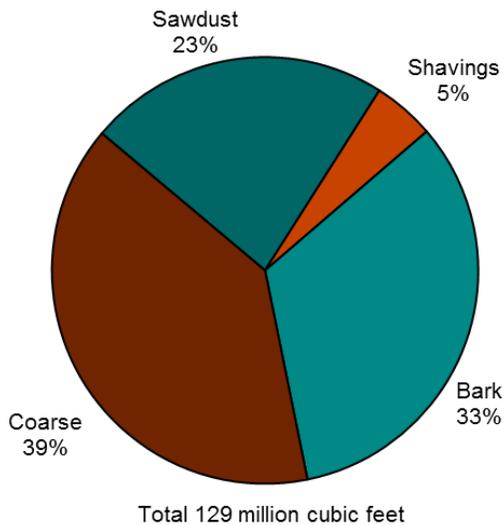


Figure 6—Primary mill residue by residue type, Virginia, 2013.

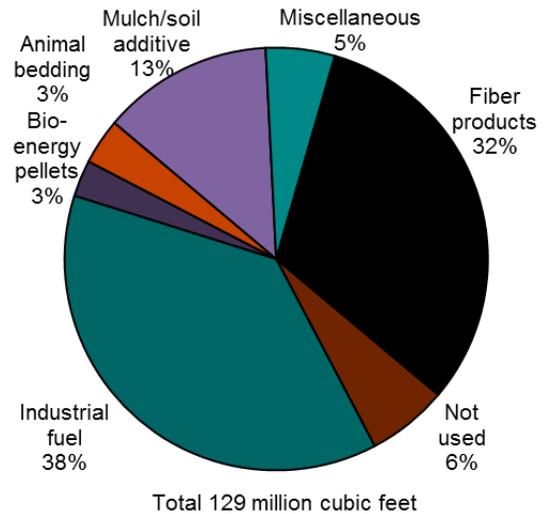


Figure 8—Disposal of residue by product, Virginia, 2013.

### How to Cite This Publication

Gray, James A.; Bentley, James W.; Cooper, Jason A.; Wall, David J. 2017. Virginia's timber industry—timber product output and use, 2013. e-Science Update SRS-114. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 4 p.

### Contact Information

James A. Gray, Forester  
 Forest Inventory and Analysis  
 Southern Research Station, USDA Forest Service  
 4700 Old Kingston Pike  
 Knoxville, Tennessee 37919  
 Phone: 865-862-2008 / Fax: 865-862-0248  
 Email: [jagray@fs.fed.us](mailto:jagray@fs.fed.us)  
 Southern FIA: <https://srsfia2.fs.fed.us>  
 National FIA: <https://fia.fs.fed.us>

James Bentley, Forester  
 Forest Inventory and Analysis  
 Southern Research Station, USDA Forest Service  
 4700 Old Kingston Pike  
 Knoxville, Tennessee 37919  
 Phone: 865-862-2056 / Fax: 865-862-0248  
 Email: [jamesbentley@fs.fed.us](mailto:jamesbentley@fs.fed.us)  
 Southern FIA: <https://srsfia2.fs.fed.us>  
 National FIA: <https://fia.fs.fed.us>

USDA is an equal opportunity provider and employer

The published report is available online at <https://treearch.fs.fed.us>