



North Carolina'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 North Carolina, 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 North Carolina 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 North Carolina timberland was incorporated into North 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 1961, 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://srsfia2.fs.fed.us/>.

The SRS gratefully acknowledges the tremendous cooperation and assistance provided by the North Carolina Forest Service 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, North Carolina, 2011 and 2013

Product and species group	Year		Change	Change
	2011	2013		
---- thousand cubic feet ----				
Saw logs				
Softwood	191,733	202,829	11,096	5.8
Hardwood	86,946	85,670	-1,276	-1.5
Total	278,679	288,499	9,820	3.5
Veneer logs				
Softwood	31,308	25,450	-5,858	-18.7
Hardwood	10,349	9,436	-913	-8.8
Total	41,657	34,886	-6,771	-16.3
Pulpwood				
Softwood	180,030	197,400	17,370	9.6
Hardwood	70,288	52,105	-18,183	-25.9
Total	250,318	249,505	-813	-0.3
Posts, poles and pilings				
Softwood	2,579	2,579	0	0.0
Hardwood	0	0	0	0.0
Total	2,579	2,579	0	0.0
Other industrial				
Softwood	38,479	57,070	18,591	48.3
Hardwood	10,292	24,958	14,666	142.5
Total	48,771	82,028	33,257	68.2
All industrial				
Softwood	444,129	485,328	41,199	9.3
Hardwood	177,875	172,169	-5,706	-3.2
Total	622,004	657,497	35,493	5.7

All Products

Industrial timber product output from roundwood increased 35.5 million cubic feet, or 6 percent, to 657 million cubic feet.

Output of industrial softwood roundwood products was up 9 percent, to 485.3 million cubic feet, while output of industrial hardwood roundwood products decreased 3 percent to 172.2 million cubic feet (fig. 1).

Pulpwood and saw logs were the principal roundwood products in 2013. Combined output of these two products totaled 538 million cubic feet and accounted for 82 percent of the State’s total industrial roundwood output (fig. 2).

Total receipts at North Carolina mills, which included roundwood harvested and retained in the State and roundwood imported from other States, were up 6 percent from 616.8 million cubic feet to 654.7 million cubic feet.

At the same time, the number of primary roundwood-using plants in North Carolina increased from 135 in 2011 to 139 in 2013 (fig. 3). The number of sawmills decreased by one, while pulpmills, veneer, other miscellaneous and composite panel mills remain stable.

Across all products, 85 percent of roundwood harvested was retained for processing at North Carolina mills. Exports of roundwood to other States amounted to 100.5 million cubic feet, while imports of roundwood amounted to 97.7 million cubic feet making the State a net exporter of roundwood.

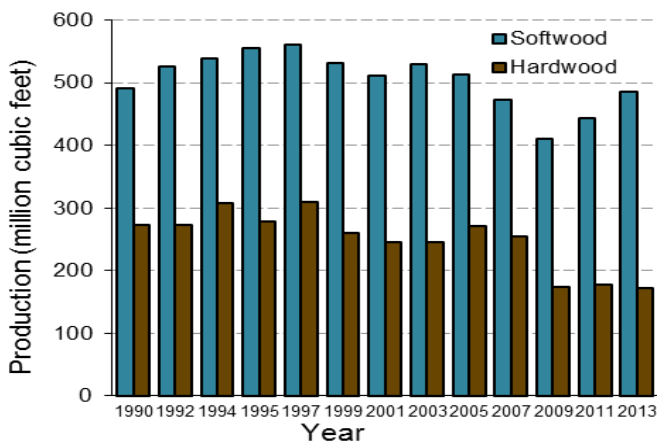


Figure 1—Roundwood production for all products by species group and year, North Carolina.

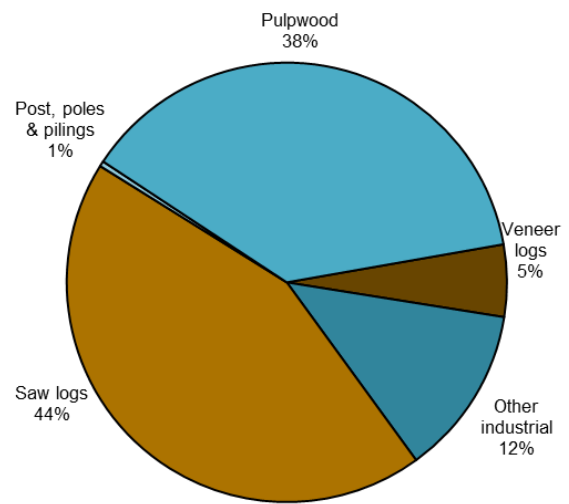


Figure 2—Roundwood production by type of product, North Carolina, 2013.

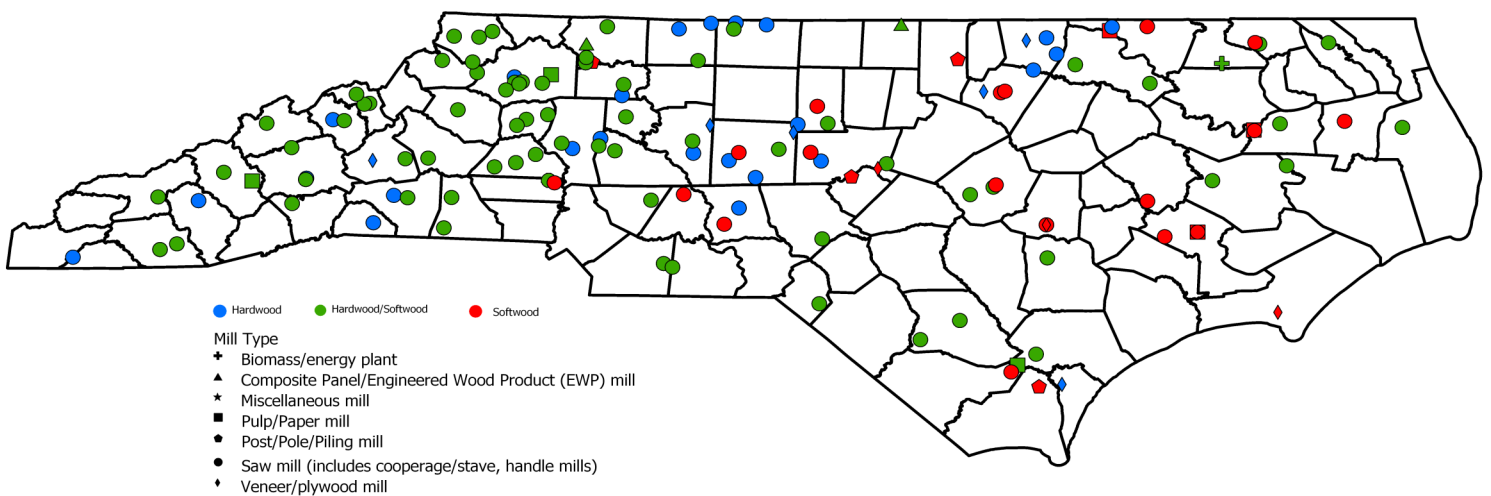


Figure 3—Primary wood-using mills, North Carolina, 2013.

Pulpwood

Total pulpwood production decreased < 1 percent to 249.5 million cubic feet but accounted for 38 percent of the State’s total roundwood TPO compared to 40 percent of total TPO in 2011. Softwood output was up 10 percent over 2011 to 197.4 million cubic feet; hardwood output decreased 26 percent from 2011 to 52.1 million cubic feet (fig. 4).

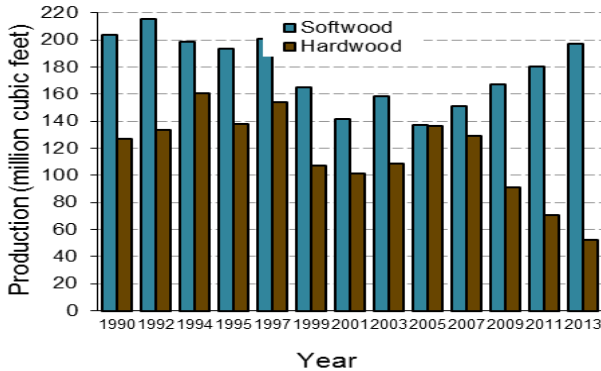


Figure 4—Roundwood pulpwood production by species group and year, North Carolina.

Six pulpmill facilities were operating and receiving roundwood in North Carolina in 2013, the same since 2003. Total pulpwood receipts for these mills decreased to 248.4 million cubic feet, accounting for 38 percent of total receipts for all mills.

Seventy-five percent of roundwood cut for pulpwood was retained for processing at North Carolina pulpmills, with exports exceeding imports by 1.1 million cubic feet in 2013. Roundwood pulpwood accounted for 62 percent of total known exports and 62 percent of total imports.

Saw Logs

Saw logs accounted for 44 percent of the State’s total roundwood products. Output of softwood saw logs increased 6 percent to 202.8 million cubic feet, while that of hardwood saw logs was down 2 percent to 85.7 million cubic feet (fig. 5).

In 2013, North Carolina had 112 sawmills, 1 fewer mill than in 2011. Total saw-log receipts were up 17.0 million cubic feet to 302.5 million cubic feet, accounting for 46 percent of total receipts for all mills. Softwood saw-log receipts increased 6 percent to 210.5 million cubic feet, while those of hardwoods were up 7 percent to 92.0 million cubic feet.

North Carolina retained 96 percent of its saw-log production for within State manufacture, with saw-log imports exceeding exports by 14.0 million cubic feet in 2013.

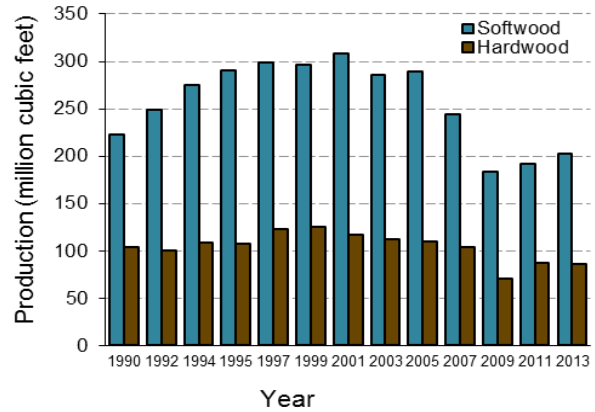


Figure 5—Roundwood saw-log production by species group and year, North Carolina.

Veneer Logs

Output of veneer logs in 2013 totaled 34.9 million cubic feet, a 16 percent decline since 2011, and accounted for 5 percent of the State’s total roundwood TPO volume (fig. 6).

The number of veneer mills operating in North Carolina remained stable at nine for 2013. Receipts of veneer logs decreased 5 percent to 31.5 million cubic feet.

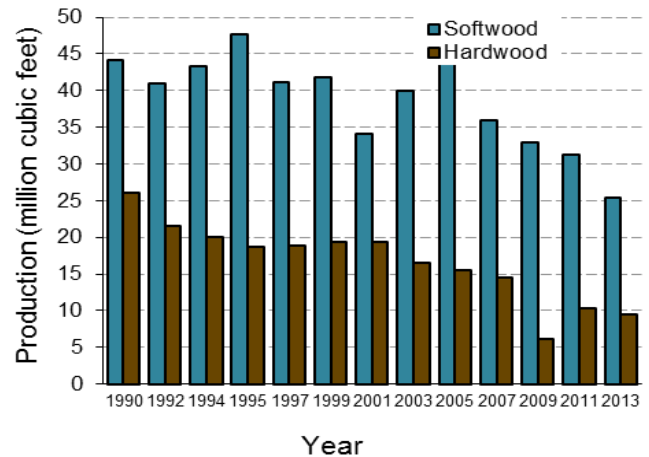


Figure 6—Roundwood veneer log production by species group and year, North Carolina.

Other Industrial Products

Roundwood harvested for other industrial uses such as poles, posts, mulch, residential firewood, industrial fuel, logs for log homes, composite panels and all other industrial products totaled 84.6 million cubic feet. Softwood made up 71 percent of the other industrial products volume.

The number of plants producing other industrial products totaled 12 in 2013. Combined receipts of other industrial products from softwood and hardwood totaled 72.3 million cubic feet. Industrial fuel accounted for 30.3 million cubic feet, or 42 percent, of receipt volume for this category. Industrial fuel includes products such as industrial and residential pellets and boiler/hog fuel used in creating heat, steam or for generating electricity.

Plant Byproducts

In 2013, processing of primary products in North Carolina mills generated 253.4 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 99.0 million cubic feet, while bark volume totaled 59.5 million cubic feet. Collectively, sawdust and shavings made up 38 percent of total residues, or 94.9 million cubic feet (fig. 7).

The processing of saw logs generated 188.5 million cubic feet of mill residues, accounting for 74 percent of the total residues produced (fig. 8).

Nearly 100 percent, or 253.4 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, 41 percent of the residues were used for industrial fuel and 40 percent were used for fiber products (fig. 9). Eighty-nine percent, or 87.9 million cubic feet, of the coarse residues were used for fiber products. Sixty-two percent of the bark, sawdust and shavings were used for industrial fuel. Ninety percent of the residue used for industrial fuel was used on site, while 10 percent was used at other plants.

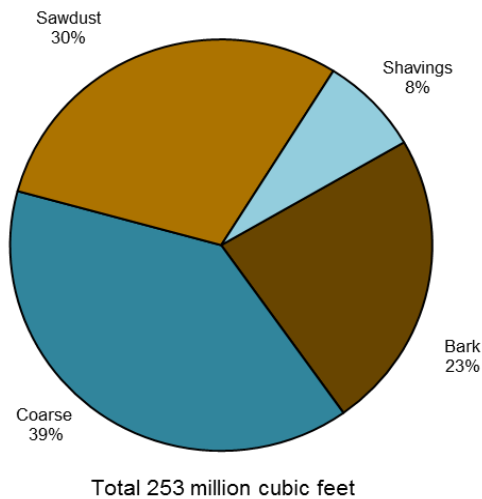


Figure 7—Primary mill residue by residue type, North Carolina, 2013.

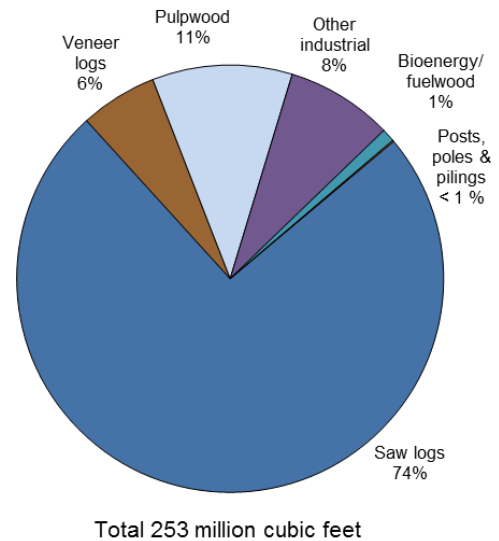


Figure 8—Primary mill residue produced by round-wood type, North Carolina, 2013.

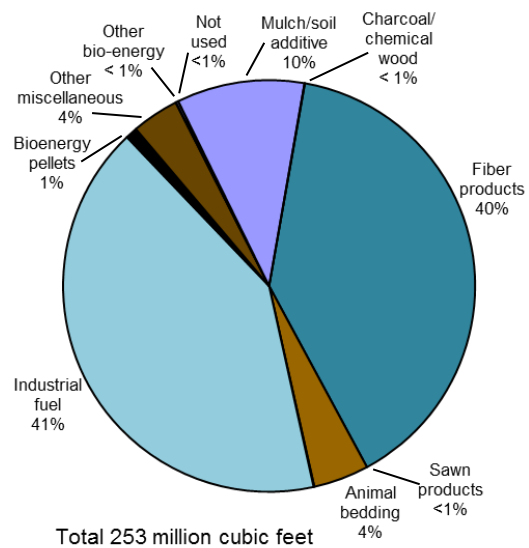


Figure 9—Disposal of residue by product, North Carolina, 2013.

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