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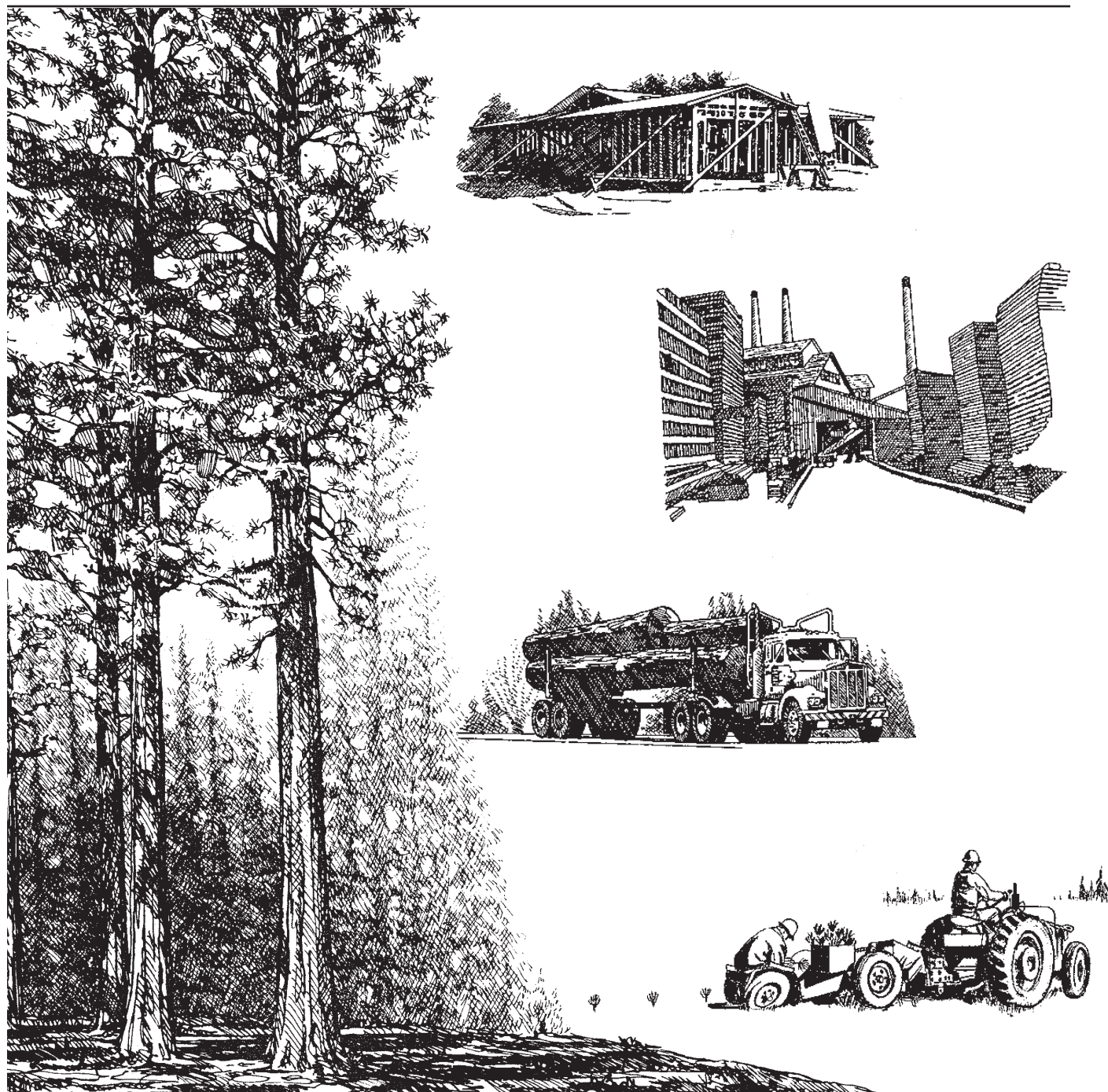


Southern
Research Station

Resource Bulletin
SRS-18

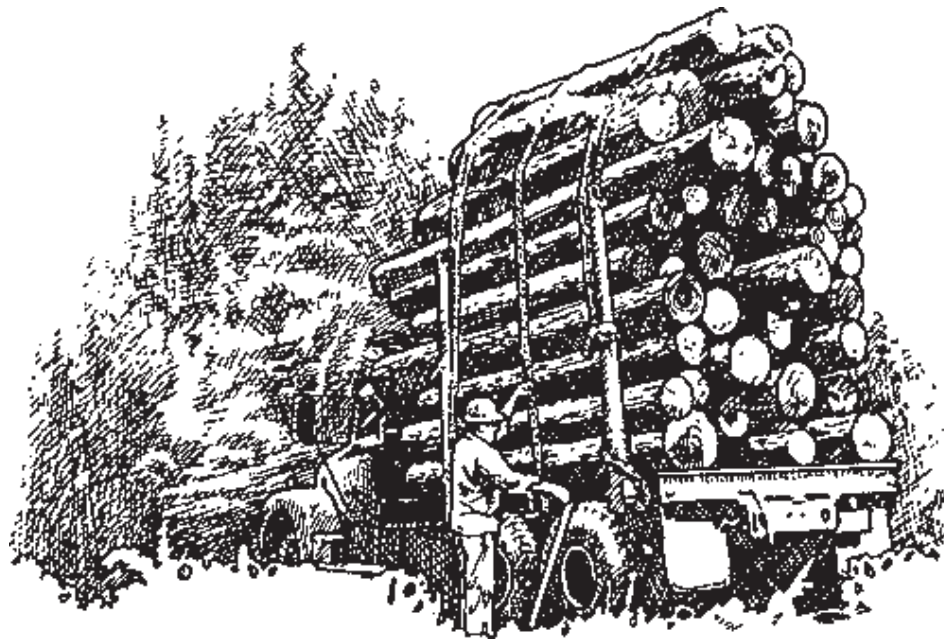
North Carolina's Timber Industry— An Assessment of Timber Product Output and Use, 1995

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June 1997

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Foreword

This report contains the findings of a 1995 canvass of all primary wood-using plants in North Carolina and presents changes in product output and residue use since 1994. It complements the Forest Inventory and Analysis (FIA) periodic 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 1995 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 sampled canvass of wood processors in North Carolina was conducted in 1996 to obtain information for 1995. 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 response was necessary. Data collected in the previous survey of 1994 were updated by current data collected for mills of similar size, product type, and location. Surveys for all timber products other than pulpwood began in 1964, and are currently conducted every 2 years.

Pulpwood production data were taken from an annual canvass of all southeastern pulpmills, conducted in cooperation with the American Pulpwood Association. Medium density fiberboard, insulating board, and hardboard plants were included in this survey.

The Southern Research Station gratefully acknowledges the cooperation and assistance provided by the North Carolina Department of Environment, Health, and Natural Resources, Division of Forest Resources, in collecting mill data. Appreciation is also extended to forest industry and mill managers for providing timber products information. The information in this report is based on responses from 19 percent of mills operating in 1995: 8 pulpmills, 7 of the 27 veneer mills, 3 of the 4 composite panel mills, 2 of the 8 mills manufacturing other industrial products, and 40 of the 273 sawmills. These mills accounted for 71 percent of the 1995 mill receipts.

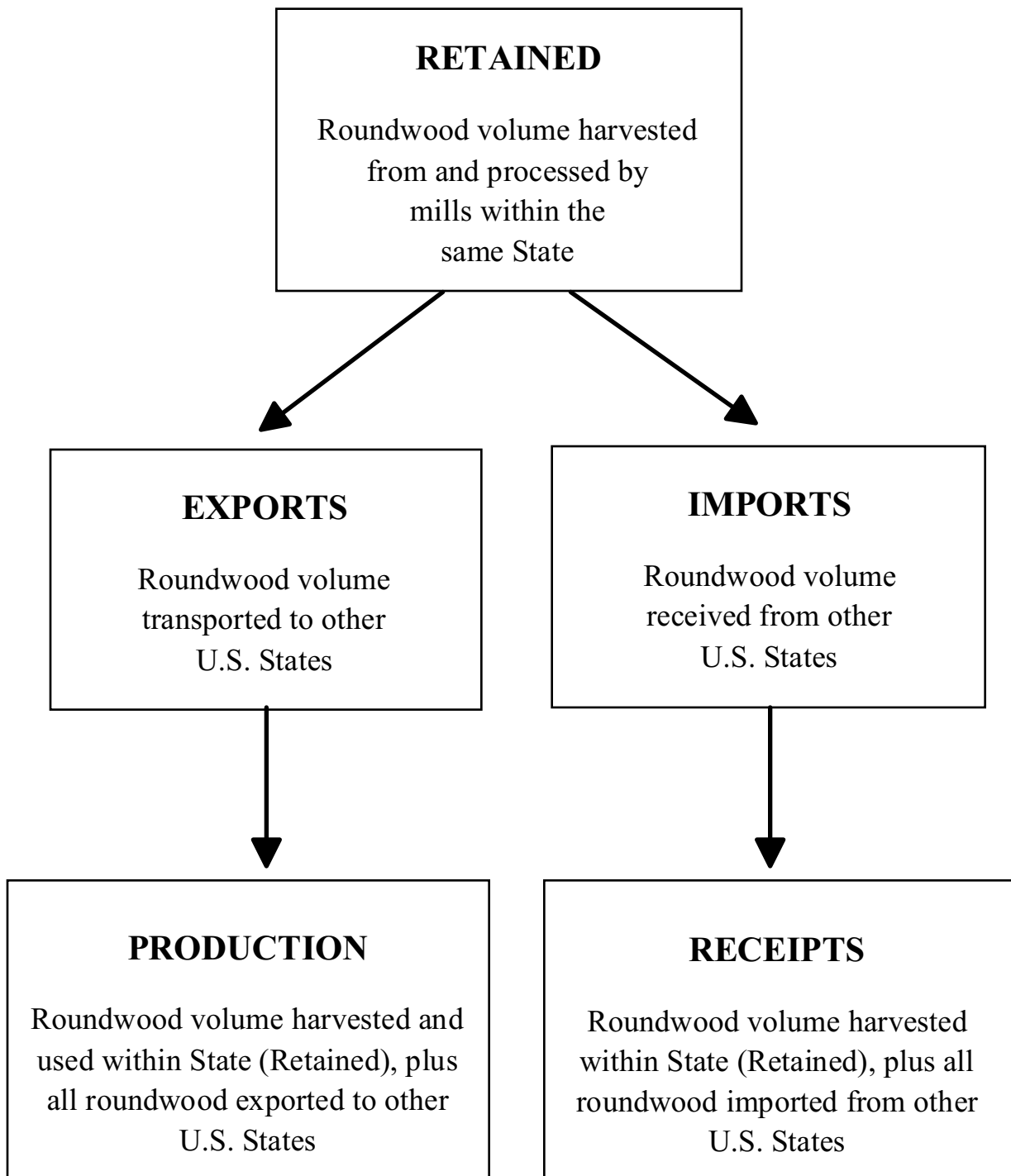


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^a All tables in this report are available in Microsoft® Excel workbook files. Upon request, these files will be supplied on 3½-inch diskettes.

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Production = Retained + Exports

Receipts = Retained + Imports

Figure 1—Movement of roundwood exports and imports within the United States.

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Output of Industrial Timber Products

Note: The reader must understand that certain terms, namely—retained, export, import, production, and receipts—have specialized meanings and relationships unique to the Forest Inventory and Analysis Units across the country that deal with timber products output (fig. 1).

- Between 1994 and 1995, the combined industrial timber products output (TPO) from roundwood and plant byproducts decreased almost 1 percent from 1.14 to 1.13 billion cubic feet.
- Timber products output from roundwood was down 13 million cubic feet, or 2 percent, to 833 million cubic feet, while output of plant byproducts was up almost 3 million cubic feet to 299 million cubic feet.
- Output of softwood roundwood products increased 3 percent to 555 million cubic feet, while output of hardwood roundwood products declined almost 10 percent to 278 million cubic feet (fig. 2).

- Saw logs and pulpwood were the principal roundwood products in 1995. Combined output of these two products totaled 730 million cubic feet and accounted for 88 percent of the State's total roundwood output (fig. 3).
- Total receipts at North Carolina mills, which included roundwood harvested and retained in the State and roundwood imported from other States, declined by 4 percent to 743 million cubic feet. At the same time, the number of primary roundwood-using plants in North Carolina was down slightly from 322 in 1994 to 320 in 1995.

Saw Logs

- Saw logs accounted for 48 percent of the State's total roundwood products. Output of softwood saw logs increased almost 6 percent to 291 million cubic feet (1.6 billion board feet), while that of hardwood saw logs was down 1 percent to 108 million cubic feet (651 million board feet) (fig. 4).

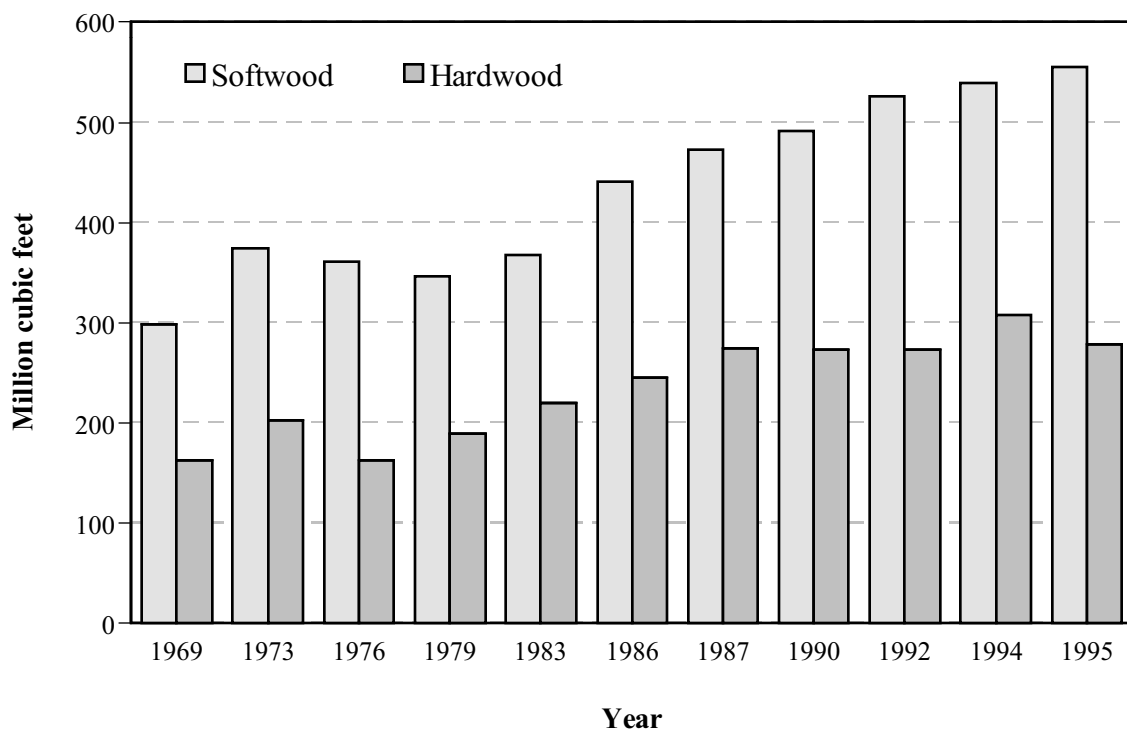


Figure 2—Roundwood production for all products by species group and year.

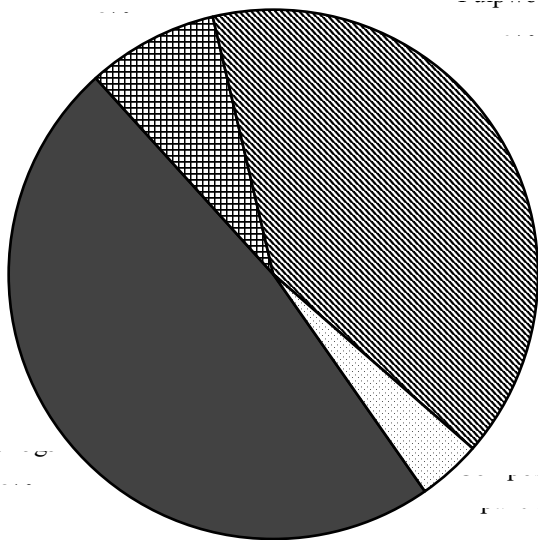


Figure 3—Roundwood production by type of product, 1995.

- North Carolina currently has 273 sawmills, a net loss of 2 mills since 1994. Total saw-log receipts was up 7 million cubic feet to 395 million cubic feet. Softwood saw-log receipts was up 3 percent to 279 million cubic feet, while those of hardwoods declined 1 percent to 116 million cubic feet. Of the currently operating mills, 31 percent had receipts less than 1 million board feet, while 21 percent had receipts greater than 10 million board feet.
- North Carolina retained 93 percent of its saw-log production for domestic manufacture, with saw-log exports exceeding imports by 4 million cubic feet in 1995.

Pulpwood

- Pulpwood production, including chipped roundwood, declined almost 27 million cubic feet to 332 million cubic feet (4.5 million cords) and accounted for 40 percent of the State's total roundwood TPO. Softwood output was down 2 percent to 194 million cubic feet, while hardwood output declined 14 percent to 138 million cubic feet (fig. 5).
- Eight pulpmill facilities were operating and receiving roundwood in North Carolina in 1995. Total pulpwood receipts for these mills was down 35 million cubic feet to 249 million cubic feet, accounting for 34 percent of total receipts for all mills.

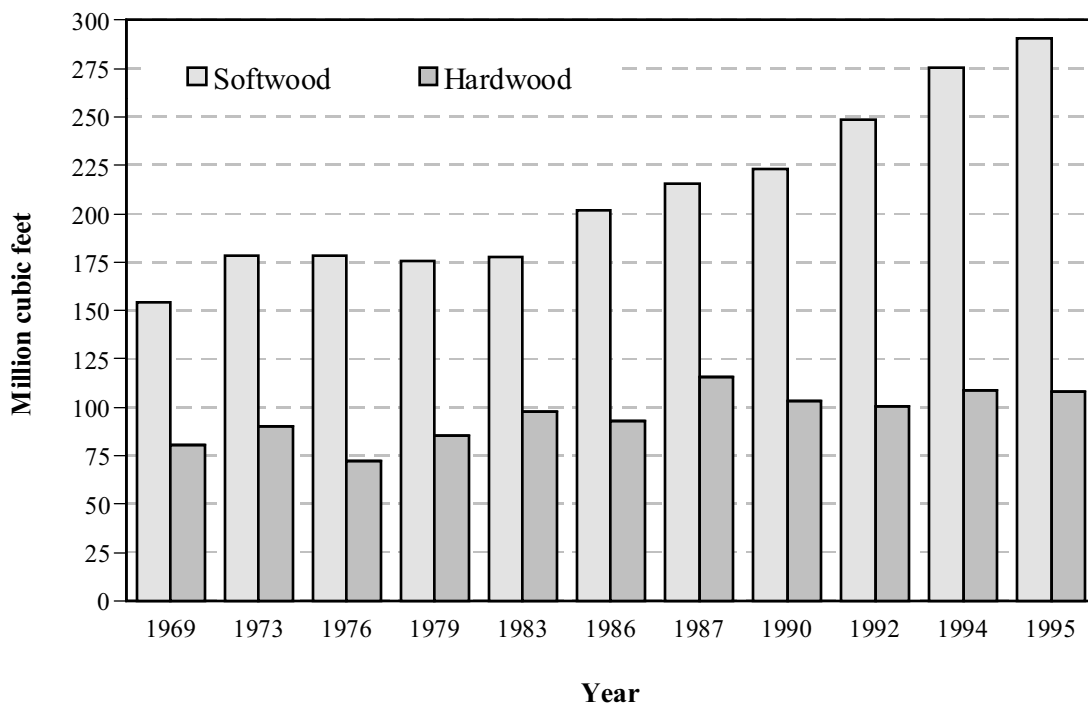


Figure 4—Roundwood saw-log production by species group and year.

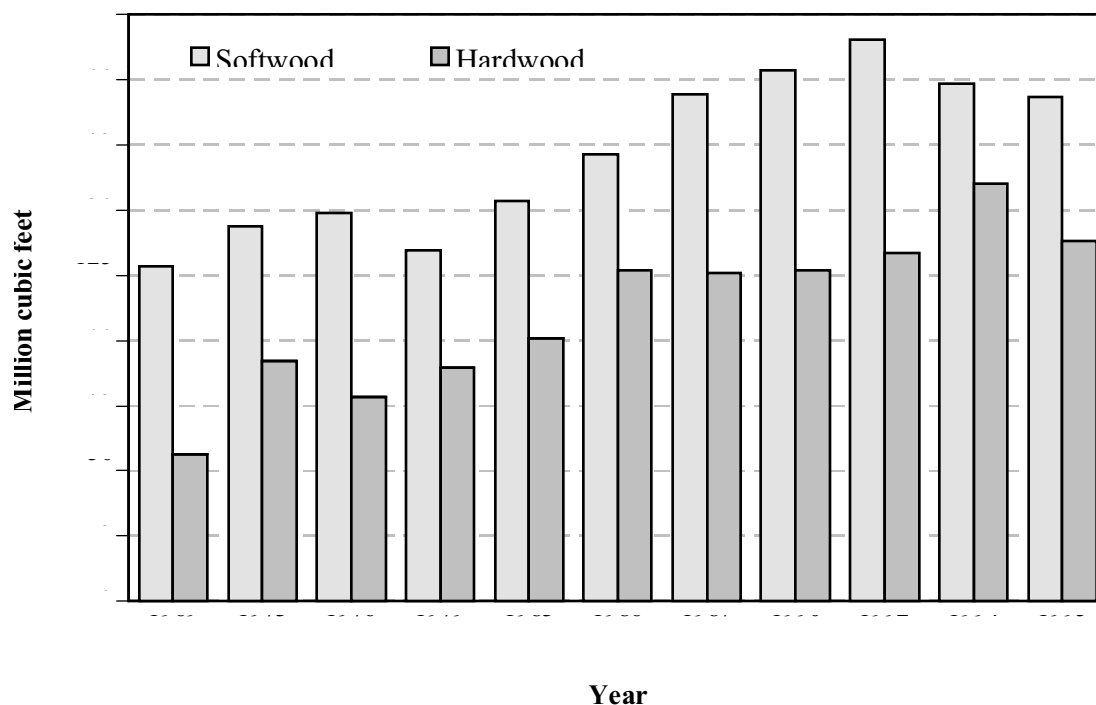


Figure 5—Roundwood pulpwood production by species group and year.

- Almost 60 percent of roundwood cut for pulpwood was retained for processing at North Carolina pulpmills. Roundwood pulpwood accounted for 75 percent of total known exports and 58 percent of total imports. Roundwood pulpwood exports amounted to 134 million cubic feet, or about 83 million cubic feet more than was imported.

Veneer Logs

- Output of veneer logs in 1995 totaled 66 million cubic feet and accounted for 8 percent of the State's total roundwood TPO volume. Softwood veneer production increased 10 percent to 48 million cubic feet (274 million board feet), while output of hardwood veneer logs declined 7 percent to 19 million cubic feet (118 million board feet) (fig. 6).
- The number of veneer mills operating in North Carolina remained at 27. Receipts of veneer logs declined 2 percent to 67 million cubic feet. Softwood veneer receipts were up 1 million cubic feet, to more than 45 million cubic feet. Hardwood veneer receipts declined 9 percent to 22 million cubic feet.
- North Carolina retained 90 percent of its veneer-log production for processing at domestic veneer mills. Imports amounted to 8 million cubic feet, while exports totaled 7 million cubic feet, making the State a net importer of roundwood veneer logs.

Composite Panels

- Roundwood harvested from North Carolina's forests for composite panels declined 10 percent and totaled 34 million cubic feet. Softwood output was up 9 percent to 21 thousand cubic feet, while hardwood output dropped 30 percent to 13 million cubic feet (fig. 7).
- Four composite panel mills were operating in North Carolina in 1995. Total receipts for these mills were down 3 percent to 30 million cubic feet.
- Almost 73 percent of the composite panel production was retained for processing at North Carolina mills. Exports amounted to more than 9 million cubic feet, while imports totaled 5 million cubic feet, making the State a net exporter of roundwood used for composite panels.

Other Industrial Products

- Roundwood harvested for other industrial uses such as poles, posts, mulch, firewood, logs for log homes, and all other industrial products totaled 2 million cubic feet. Softwood made up most of the other industrial product volume.
- The number of plants producing other industrial products remained at eight. Receipts of other industrial products totaled 2 million cubic feet.

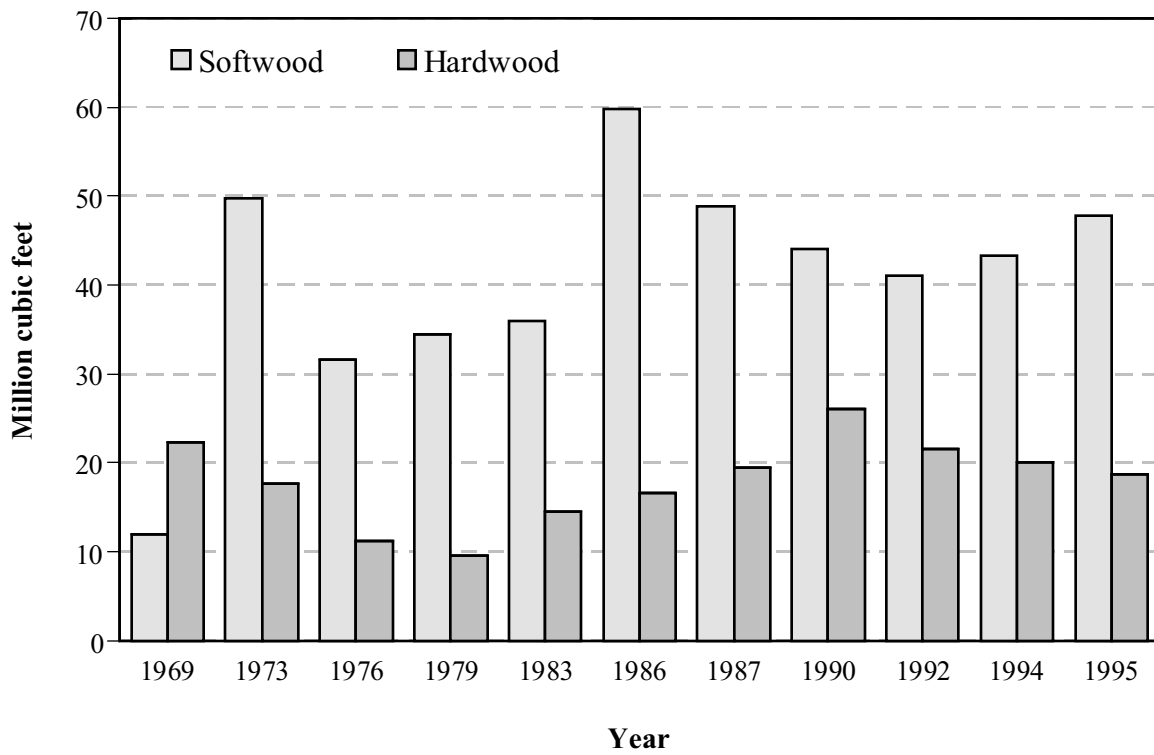


Figure 6—Roundwood veneer-log production by species group and year.

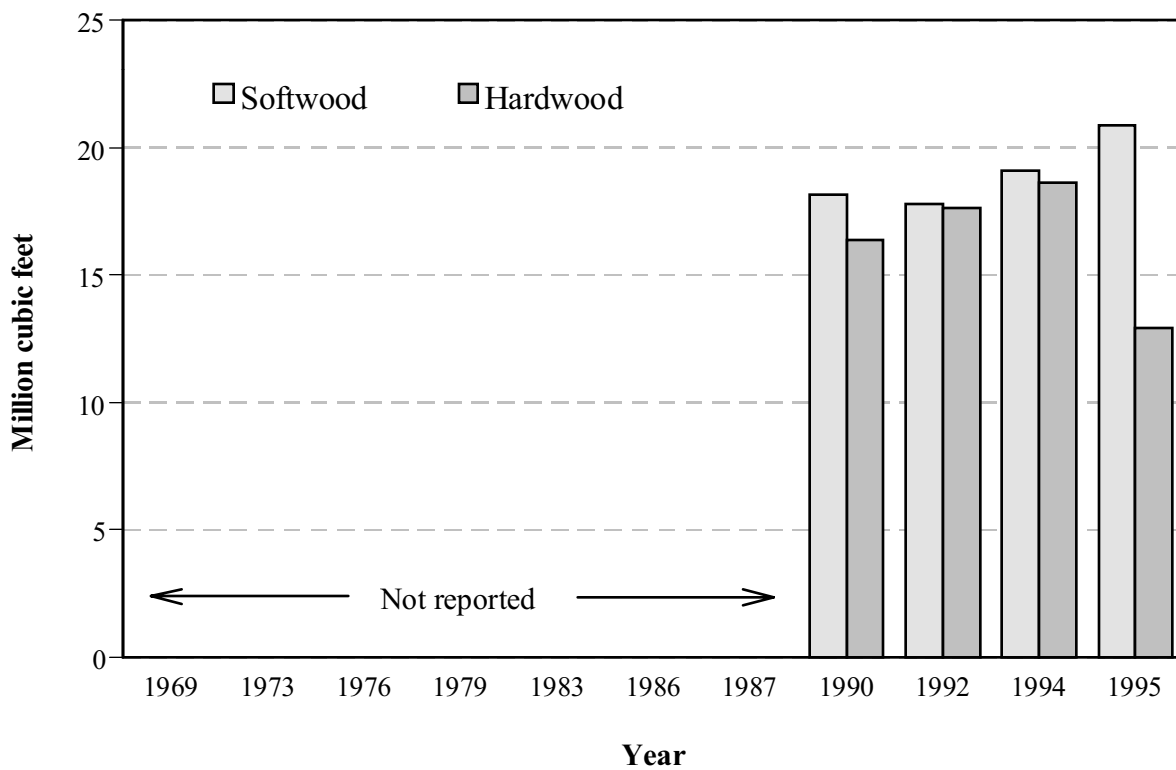


Figure 7—Roundwood production for composite panels by species group and year.

- North Carolina was a net exporter of roundwood used for other industrial products; all of the 435 thousand cubic feet exported and the 167 thousand cubic feet imported were softwood.

Plant Byproducts

- In 1995, processing of primary products in North Carolina mills generated more than 301 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 129 million cubic feet, while bark volume totaled 70 million cubic feet. Collectively, sawdust and shavings made up 34 percent of total residues, or 102 million cubic feet (fig. 8).

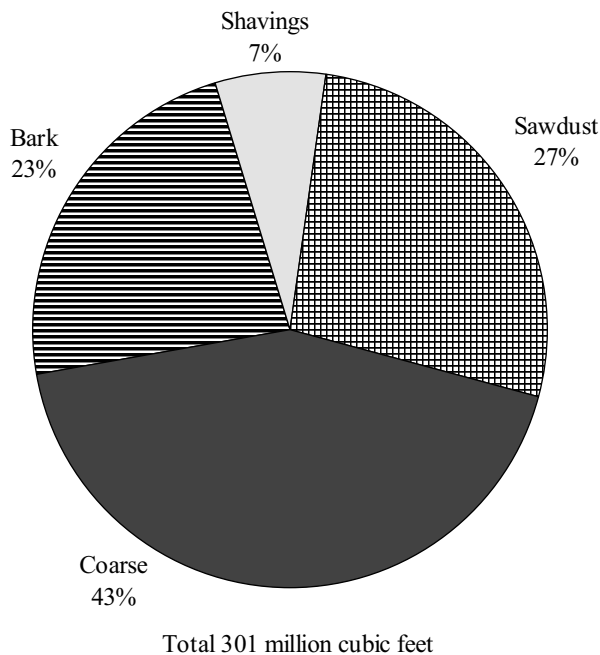


Figure 8—Primary mill residue by residue type, 1995.

- Only about 1 percent of the wood and bark residues were not used for a product, while 41 percent of the residues were used for industrial fuel (fig. 9). More than 105 million cubic feet, or 82 percent, of the coarse residues were used for fiber products. Most of the bark was used for industrial fuel or other miscellaneous products, while 59 percent of the sawdust and shavings were used for industrial fuel.
- Sawmills generated 234 million cubic feet of mill residues, accounting for 77 percent of the total residues produced (fig. 10).

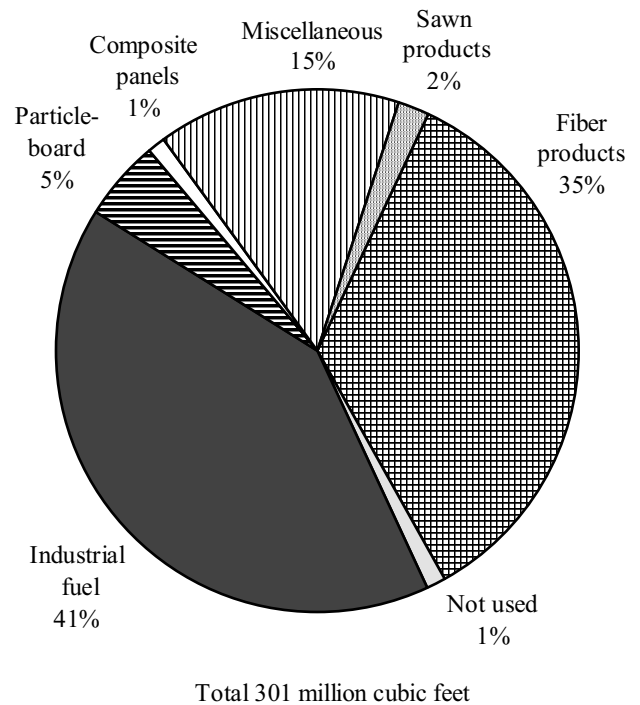


Figure 9—Disposal of residue by product, 1995.

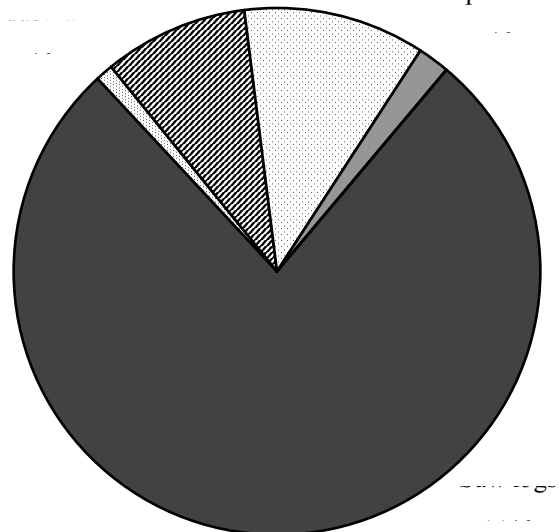


Figure 10—Primary mill residue produced by mill type, 1995.

Regional Trends

- Output of industrial roundwood products declined across all regions of North Carolina, except the Northern Coastal Plain which had an increase of 3 percent.

Southern Coastal Plain Region

- Roundwood output from the Southern Coastal Plain region totaled 272 million cubic feet, down about 2 percent. A 2-percent increase in softwood output was totally offset by a 10-percent decline in hardwood production.
- Pulpwood production of 123 million cubic feet accounted for 45 percent of the region's TPO and 37 percent of the State's roundwood pulpwood output. Saw-log production of 108 million cubic feet accounted for 39 percent of the total roundwood output for the region.
- In the Southern Coastal Plain region, 43 primary wood-using plants were operating during 1995: 31 sawmills, 7 veneer or plywood mills, 2 pulpmills, 1 composite panel mill, and 2 other miscellaneous mills (fig. 11). These mills processed 33 percent of the State's total roundwood output.

Northern Coastal Plain Region

- More than 269 million cubic feet of roundwood were produced in the Northern Coastal Plain region, an increase of 3 percent.
- Production of pulpwood was up 1 percent and accounted for 43 percent of the region's total roundwood output and 35 percent of the State's total roundwood pulpwood output. Saw-log production of almost 125 million cubic feet accounted for 46 percent of the region's total roundwood output and 31 percent of the State's total saw-log output.
- The 48 mills operating in the Northern Coastal Plain region in 1995 included: 38 sawmills, 5 veneer or plywood mills, 4 pulpmills, and 1 composite panel.

Piedmont Region

- Roundwood output from the Piedmont region of North Carolina totaled 219 million cubic feet, a decline of almost 1 percent. Roundwood production from this region accounted for 26 percent of the total roundwood TPO for the State.

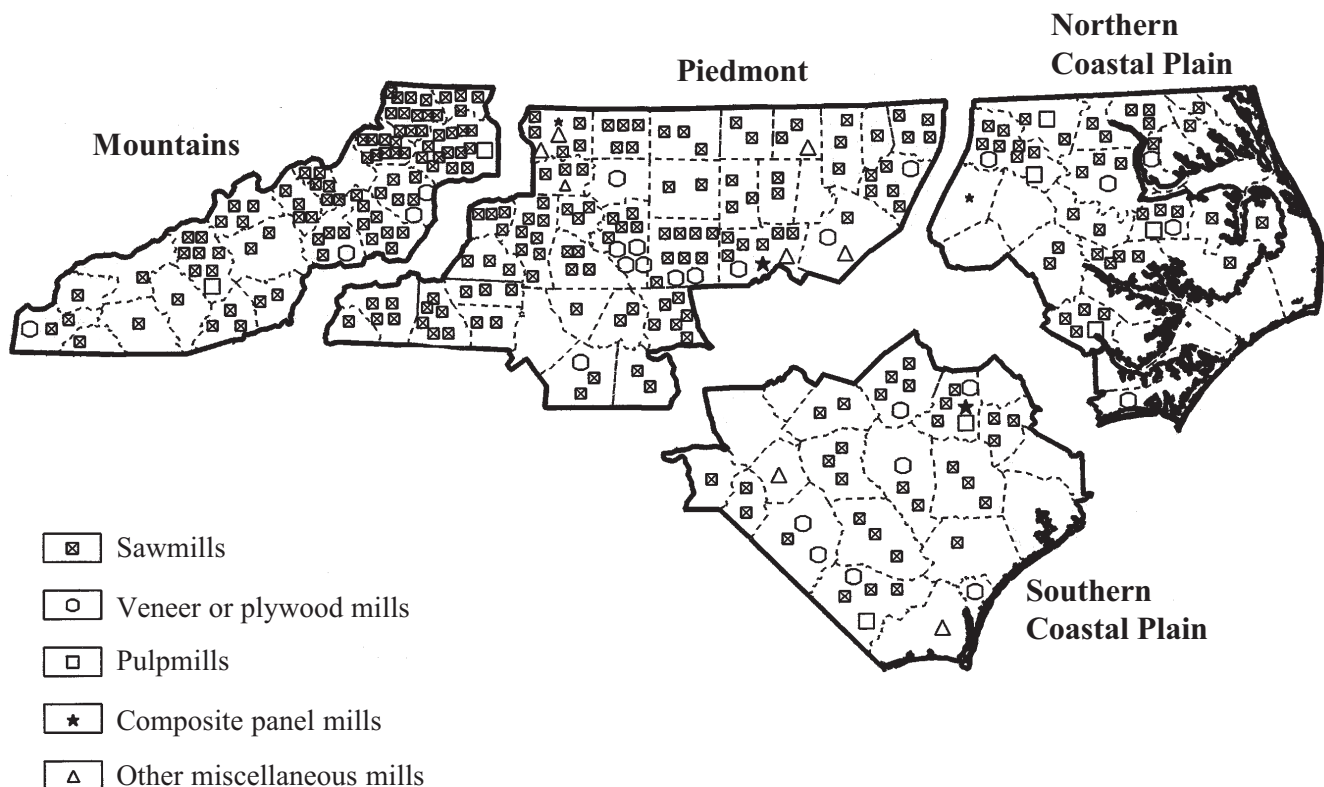


Figure 11—Primary wood-using mills by region, 1995.

- Saw-log production of 120 million cubic feet accounted for 55 percent of the region's total roundwood output. Pulpwood production was down by 5 percent to 72 million cubic feet, accounting for 33 percent of the region's total TPO.
- The 133 primary wood-using plants operating in the Piedmont region included: 114 sawmills, 11 veneer or plywood mills, 2 composite panel mills, and 6 other miscellaneous mills.

Mountain Region

- Roundwood output from the Mountain region totaled 72 million cubic feet, a decline of 17 percent.
- Saw-log production increased 7 percent to 46 million cubic feet and accounted for 63 percent of the region's total roundwood output. Pulpwood production was down 22 million cubic feet and accounted for 30 percent of the region's total TPO.
- In the Mountain region, 96 primary wood-using plants were operating during 1995: 90 sawmills, 4 veneer or plywood mills, and 2 pulpmills.

Total Roundwood Output

- Using the most recent inventory data for North Carolina, product output by source, ownership, and detailed species group was estimated.

Source

- In addition to the 833 million cubic feet of roundwood output for industrial roundwood, an estimated 121 million cubic feet was harvested for domestic fuelwood bringing North Carolina's total roundwood output to 954 million cubic feet.
- Almost 91 percent of total roundwood output was considered growing-stock volume from timberland sources. Other sources contributed an estimated 91 million cubic feet, or 9 percent of total roundwood output (fig. 12).

Ownership

- An estimated 746 million cubic feet, or 78 percent, of the total roundwood output came from nonindustrial private forest lands (NIPF). Forest industry lands contributed 160 million cubic feet, or 17 percent of the output. Public lands made up the remaining 5 percent, or 48 million cubic feet (fig. 13).

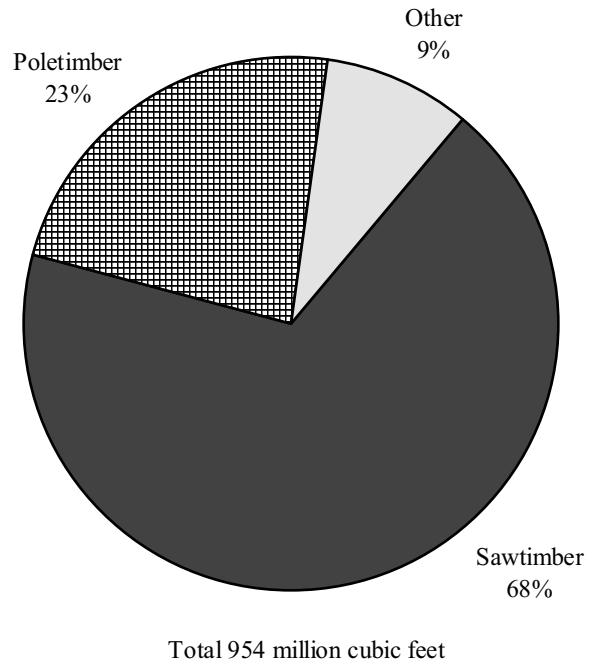


Figure 12—Roundwood output by source, 1995.

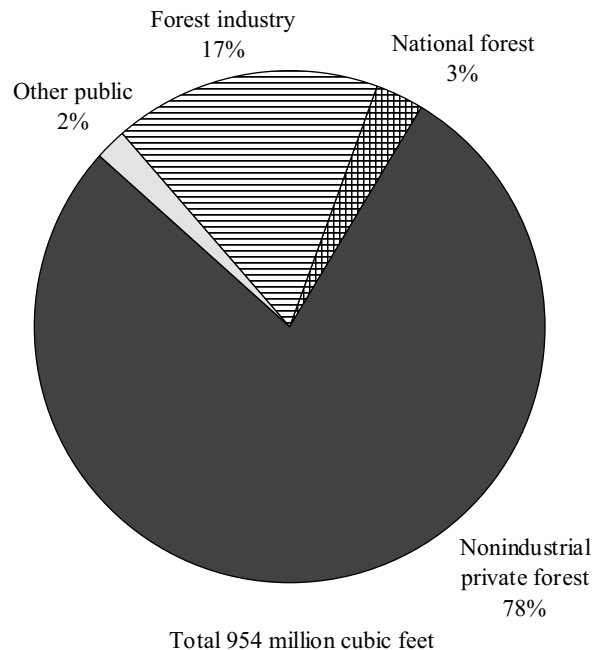


Figure 13—Roundwood output by ownership, 1995.

Species

- The loblolly and shortleaf pine group provided the most volume of any softwood species group, accounting for 77 percent of the total softwood output. Other yellow pine types accounted for another 12 percent of the softwood output (fig. 14). In hardwoods, the red oak and white oak groups combined accounted for 132 million cubic feet, or 34 percent of total hardwood output (fig. 15).

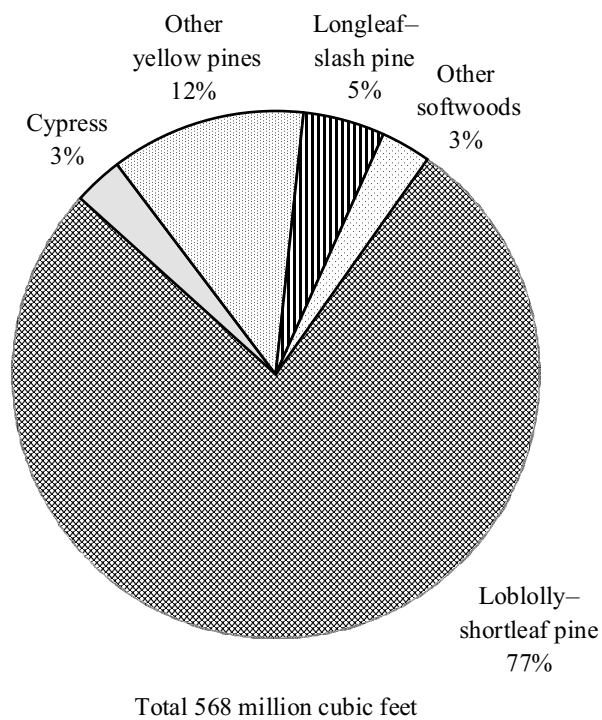


Figure 14—Roundwood output by softwood species group, 1995.

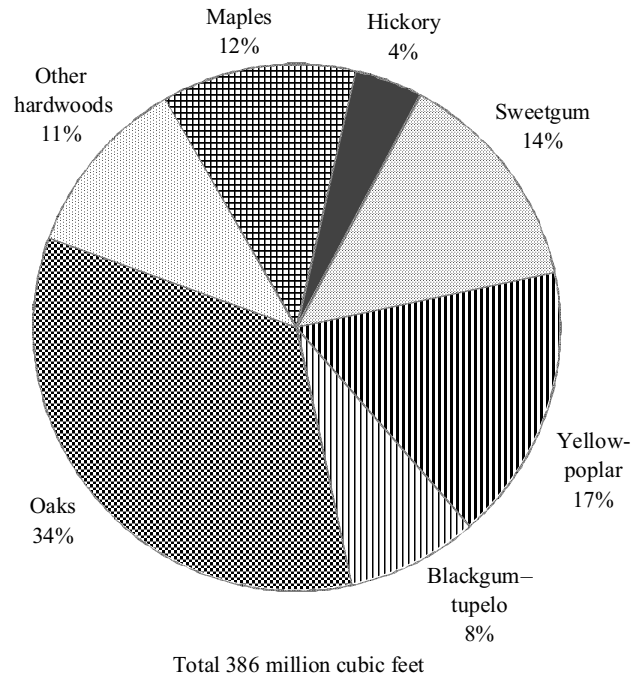


Figure 15—Roundwood output by hardwood species group, 1995.

Definitions

Board feet. Unit of measure applied to roundwood. It relates to lumber that is 1-foot long, 1-foot wide, and 1-inch thick (or its equivalent).

Composite panels. Consists of structural panels (oriented strand board or waferboard) or particleboard (industrial underlayment, thin panelboard).

Consumption. The quantity of a commodity, such as pulpwood, utilized.

Drain. The volume of roundwood removed from any geographic area where timber is grown.

Exports. The volume of roundwood utilized by mills outside the State where timber was cut.

Imports. The volume of roundwood delivered to a mill or group of mills in a specific State but harvested outside that State.

Industrial fuelwood. A roundwood product, with or without bark, used to generate energy at a manufacturing facility such as a wood-using mill.

Industrial roundwood products. Any primary use of the main stem of a tree, such as saw logs, poles, pilings, veneer logs, pulpwood, posts, or cooperage logs.

Log. A primary forest product harvested in long, primarily 8-foot, lengths.

Plant residues. Wood material generated in the production of timber products at primary manufacturing plants.

Coarse residues. Suitable for chipping such as slabs, edgings, trim, veneer cores, and ends.

Fine residues. Not suitable for chipping such as sawdust, shavings, and veneer clippings.

Primary wood-using plants. Industries that receive roundwood or chips from roundwood for the manufacture of products such as veneer, pulp, and lumber.

Production. The total volume of roundwood harvested from land within the specified State, regardless of where consumed. Production is the sum of timber harvested and used within the State, plus all roundwood exported to other U.S. States.

Pulpwood. A roundwood product that will be reduced to individual wood fibers by chemical or mechanical means. The fibers are used to make a broad generic group of pulp products that includes paper products as well as chipboard, fiberboard, insulating board, and paperboard.

Receipts. The quantity or volume of industrial roundwood received at a mill or by a group of mills in a State, regardless of the geographic source. Volume of roundwood receipts is equal to the volume of roundwood retained in a State plus roundwood imported from other States in the United States.

Retained. Roundwood volume harvested from and processed by mills within the same State.

Roundwood. Logs, bolts, or other round sections cut from trees for industrial manufacture or consumer use.

Roundwood chipped. Any timber cut primarily for industrial manufacture, delivered to nonpulpmills, chipped, and then sold to pulpmills for use as fiber. Includes tops, jump sections, and whole trees.

Roundwood product drain. That portion of total drain used for a product.

Saw log. A log meeting minimum standards of diameter, length, and defect, including logs at least 8 feet long, sound and straight, and with minimum diameter inside bark of 6 inches for softwoods and 8 inches for hardwoods.

Standard cord. A unit measure applied to roundwood, usually bolts or split wood. It relates to a stack of wood 4 feet high, 4 feet wide, and 8 feet long encompassing 128 cubic feet of wood, bark, and air space. In the South, this usually translates to approximately 75.0 cubic feet of solid wood for pulpwood, because pulpwood is more uniform.

Timber products output. Roundwood production in an area's forests (equals roundwood product drain).

Timber removals. The merchantable volume of trees removed from the timberland inventory by harvesting, cultural operations such as stand improvement, land clearing, or changes in land use.

Veneer log. A log used in the production of plywood, finished panels, or veneer sheets, both rotary cut and sliced.

Conversion Factors^a

Saw logs

Softwood	0.18018 cubic foot = 1 board foot 5.55 board feet = 1 cubic foot
Hardwood	0.16556 cubic foot = 1 board foot 6.04 board feet = 1 cubic foot

Veneer logs

Softwood	0.17391 cubic foot = 1 board foot 5.75 board feet = 1 cubic foot
Hardwood	0.15873 cubic foot = 1 board foot 6.30 board feet = 1 cubic foot

Pulpwood^b

Softwood	72.5 cubic feet per cord
Hardwood	76.6 cubic feet per cord

^a Conversion factors vary with stem size (d.b.h.) and species.

The factors shown are for trees of average diameters removed in North Carolina during the most recent survey period.

^b Cubic feet of solid wood per cord.

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**Table 1—Output of industrial products by product and species group,
North Carolina, 1994 and 1995**

Product and species group	Year		Change	Percent change
	1994	1995		
Thousand cubic feet				
Saw logs				
Softwood	275,321	290,523	15,202	5.5
Hardwood	108,520	107,960	-560	-0.5
Total	383,841	398,483	14,642	3.8
Veneer logs				
Softwood	43,280	47,740	4,460	10.3
Hardwood	20,058	18,682	-1,376	-6.9
Total	63,338	66,422	3,084	4.9
Pulpwood ^a				
Softwood	198,479	193,572	-4,907	-2.5
Hardwood	160,274	138,299	-21,975	-13.7
Total	358,753	331,871	-26,882	-7.5
Composite panels				
Softwood	19,081	20,869	1,788	9.4
Hardwood	18,640	12,959	-5,681	-30.5
Total	37,721	33,828	-3,893	-10.3
Other industrial				
Softwood	2,670	2,205	-465	-17.4
Hardwood	32	32	0	--
Total	2,702	2,237	-465	-17.2
All industrial				
Softwood	538,831	554,909	16,078	3.0
Hardwood	307,524	277,932	-29,592	-9.6
Total	846,355	832,841	-13,514	-1.6
Byproduct output				
Softwood	203,222	206,974	3,752	1.8
Hardwood	93,517	92,405	-1,112	-1.2
Total	296,739	299,379	2,640	0.9
Total output				
Softwood	742,053	761,883	19,830	2.7
Hardwood	401,041	370,337	-30,704	-7.7
Total	1,143,094	1,132,220	-10,874	-1.0

-- = negligible.

^a Includes roundwood that was delivered to nonpulp mills and then chipped and sold to pulp mills (15,912,000 cubic feet in 1994 and 11,599,000 cubic feet in 1995).

**Table 2—Roundwood receipts by product and species group,
North Carolina, 1994 and 1995**

Product and species group	Year		Change	Percent change
	1994	1995		
Thousand cubic feet				
Saw logs				
Softwood	270,346	278,621	8,275	3.1
Hardwood	117,122	116,186	-936	-0.8
Total	387,468	394,807	7,339	1.9
Veneer logs				
Softwood	44,076	45,111	1,035	2.3
Hardwood	24,515	22,265	-2,250	-9.2
Total	68,591	67,376	-1,215	-1.8
Pulpwood ^a				
Softwood	165,381	153,258	-12,123	-7.3
Hardwood	118,956	95,829	-23,127	-19.4
Total	284,337	249,087	-35,250	-12.4
Composite panels				
Softwood	17,628	18,836	1,208	6.9
Hardwood	13,016	10,752	-2,264	-17.4
Total	30,644	29,588	-1,056	-3.4
Other industrial				
Softwood	1,814	1,937	123	6.8
Hardwood	32	32	0	--
Total	1,846	1,969	123	6.7
Total output				
Softwood	499,245	497,763	-1,482	-0.3
Hardwood	273,641	245,064	-28,577	-10.4
Total	772,886	742,827	-30,059	-3.9

-- = negligible.

^a Includes roundwood that was delivered to nonpulp mills and then chipped and sold to pulp mills (17,163,000 cubic feet in 1994 and 12,674,000 cubic feet in 1995).

Table 3—Number of primary wood-using plants by industry, North Carolina, 1976-1995

Industry	Year								
	1976	1979	1983	1986	1987	1990	1992	1994	1995
Sawmills	403	478	429	336	362	308	306	275	273
Veneer mills	32	31	33	32	31	32	29	27	27
Pulpmills	8	8	8	8	8	8	8	8	8
Composite panel mills	0	0	0	4	4	5	4	4	4
Other mills	9	13	14	15	17	13	10	8	8
All plants	452	530	484	395	422	366	357	322	320

Table 4—Roundwood receipts by sawmill size, North Carolina, 1994 and 1995

Sawmill size class ^a	1994			1995		
	Number of mills	Thousand board feet	Percent of volume	Number of mills	Thousand board feet	Percent of volume
<i>Million board feet</i>						
< 1.0	84	29,578	1	84	29,757	1
1.0 - 4.99	89	230,911	11	91	243,298	11
5.0 - 9.99	44	305,020	14	40	280,993	13
10.0 - 49.99	49	909,867	41	49	918,808	41
> 50	9	732,160	33	9	774,950	34
Total	275	2,207,536	100	273	2,247,806	100

^a Based on volume received as opposed to actual capacity.

Table 5—Roundwood receipts by species and type of mill, North Carolina, 1995

Species	Type of mill						
	All	Sawmills	Veneer mills		OSB ^a and	Pulpmills ^b	Other mills
	mills		Pine plywood	Other veneer	panels		
Thousand cubic feet							
Softwood							
Yellow pine	323,363	257,836	44,657	133	18,836	NA	1,901
White pine	16,825	16,743	0	82	0	NA	0
Cedar	992	947	0	9	0	NA	36
Cypress	2,725	2,725	0	0	0	NA	0
Other softwood	600	370	0	230	0	NA	0
Unclassified	153,258	0	0	0	0	153,258	0
Total softwoods	497,763	278,621	44,657	454	18,836	153,258	1,937
Hardwood							
Blackgum and tupelo	4,607	3,956	0	268	383	NA	0
Soft maple	10,353	6,790	2,862	147	554	NA	0
Sweetgum	15,310	10,960	1,391	1,164	1,795	NA	0
Yellow-poplar	47,222	31,743	9,363	4,836	1,280	NA	0
Other soft hardwood	8,020	2,522	0	443	5,055	NA	0
Hickory	3,017	2,667	0	8	342	NA	0
Red oak	30,535	28,888	0	818	829	NA	0
White oak	23,744	22,375	0	855	514	NA	0
Other hard hardwood	6,427	6,285	0	110	0	NA	32
Unclassified	95,829	0	0	0	0	95,829	0
Total hardwoods	245,064	116,186	13,616	8,649	10,752	95,829	32
All species	742,827	394,807	58,273	9,103	29,588	249,087	1,969

NA = not applicable.

^a OSB = oriented strand board.^b Only collected by softwood and hardwood and includes roundwood chipped.**Table 6—Industrial roundwood movement by year and species group, North Carolina, 1994 and 1995**

Year	Production	Exported to other States	Retained	Imported from other States	Receipts
<i>Thousand cubic feet</i>					
Softwood					
1994	538,831	99,424	439,407	59,838	499,245
1995	554,909	110,196	444,713	53,050	497,763
Hardwood					
1994	307,524	68,518	239,006	34,635	273,641
1995	277,932	68,367	209,565	35,499	245,064
All species					
1994	846,355	167,942	678,413	94,473	772,886
1995	832,841	178,563	654,278	88,549	742,827

Table 7—Industrial roundwood movement by product and species group, North Carolina, 1995

Product and species group	Production	Exported to other States	Retained	Imported from other States	Receipts
<i>Thousand cubic feet</i>					
Saw logs					
Softwood	290,523	21,862	268,661	9,960	278,621
Hardwood	107,960	6,084	101,876	14,310	116,186
Total	398,483	27,946	370,537	24,270	394,807
Veneer logs					
Softwood	47,740	5,614	42,126	2,985	45,111
Hardwood	18,682	1,252	17,430	4,835	22,265
Total	66,422	6,866	59,556	7,820	67,376
Pulpwood^a					
Softwood	193,572	77,488	116,084	37,174	153,258
Hardwood	138,299	56,688	81,611	14,218	95,829
Total	331,871	134,176	197,695	51,392	249,087
Composite panels					
Softwood	20,869	4,797	16,072	2,764	18,836
Hardwood	12,959	4,343	8,616	2,136	10,752
Total	33,828	9,140	24,688	4,900	29,588
Other industrial					
Softwood	2,205	435	1,770	167	1,937
Hardwood	32	0	32	0	32
Total	2,237	435	1,802	167	1,969
All products					
Softwood	554,909	110,196	444,713	53,050	497,763
Hardwood	277,932	68,367	209,565	35,499	245,064
Total	832,841	178,563	654,278	88,549	742,827

^a Includes roundwood chipped.

Table 8—Saw-log volume by destination, source, and species group, North Carolina, 1995

Destination and source	All species	Species group	
		Softwood	Hardwood
Thousand cubic feet			
North Carolina (retained)	370,537	268,661	101,876
Exports to:			
Florida	66	56	10
Georgia	183	183	0
South Carolina	10,155	9,671	484
Tennessee	2,059	798	1,261
Virginia	15,483	11,154	4,329
Total	27,946	21,862	6,084
Imports from:			
Arkansas	4	0	4
Georgia	1,419	143	1,276
Kentucky	225	0	225
Maryland	28	0	28
Pennsylvania	28	0	28
South Carolina	11,528	4,413	7,115
Tennessee	804	139	665
Virginia	10,218	5,264	4,954
West Virginia	16	1	15
Total	24,270	9,960	14,310

Table 9—Veneer volume by destination, source, and species group, North Carolina, 1995

Destination and source	All species	Species group	
		Softwood	Hardwood
Thousand cubic feet			
North Carolina (retained)	59,556	42,126	17,430
Exports to:			
Georgia	201	0	201
South Carolina	2,896	1,873	1,023
Virginia	3,769	3,741	28
Total	6,866	5,614	1,252
Imports from:			
Georgia	49	0	49
Idaho	57	57	0
Kentucky	878	0	878
Maine	21	0	21
Maryland	295	0	295
New Jersey	28	0	28
New York	21	0	21
Ohio	112	0	112
Oregon	58	58	0
Pennsylvania	139	0	139
South Carolina	2,932	2,691	241
Tennessee	899	9	890
Vermont	21	0	21
Virginia	1,945	55	1,890
Washington	58	58	0
West Virginia	250	0	250
Foreign	57	57	0
Total	7,820	2,985	4,835

Table 10—Pulpwood volume by destination, source, and species group, North Carolina, 1995^a

Destination and source	All species	Species group	
		Softwood	Hardwood
Thousand cubic feet			
North Carolina (retained)	197,695	116,084	81,611
Exports to:			
Alabama	3	0	3
Florida	565	565	0
Georgia	539	376	163
Louisiana	8	8	0
South Carolina	98,873	64,613	34,260
Tennessee	1,201	1,037	164
Virginia	32,987	10,889	22,098
Total	134,176	77,488	56,688
Imports from:			
Georgia	3,083	1,677	1,406
Kentucky	196	0	196
South Carolina	27,694	22,289	5,405
Tennessee	2,474	280	2,194
Virginia	17,945	12,928	5,017
Total	51,392	37,174	14,218

^a Includes roundwood chipped that was delivered to nonpulpmills and then chipped and sold to pulpmills.

Table 11—Composite panel volume by destination, source, and species group, North Carolina, 1995

Destination and source	All species	Species group	
		Softwood	Hardwood
Thousand cubic feet			
North Carolina (retained)	24,688	16,072	8,616
Exports to:			
Virginia	9,140	4,797	4,343
Total	9,140	4,797	4,343
Imports from:			
Virginia	4,900	2,764	2,136
Total	4,900	2,764	2,136

Table 12—Other industrial volume by destination, source, and species group, North Carolina, 1995^a

Destination and source	All species	Species group	
		Softwood	Hardwood
Thousand cubic feet			
North Carolina (retained)	1,802	1,770	32
Exports to:			
Florida	19	19	0
South Carolina	130	130	0
Virginia	286	286	0
Total	435	435	0
Imports from:			
South Carolina	167	167	0
Total	167	167	0

^a Includes poles, posts, mulch, firewood, log homes, charcoal, and all other industrial mills.

Table 13—Primary mill residue volume by roundwood type, species group, and residue type, North Carolina, 1995

Roundwood type and species group	All types	Residue type			
		Bark	Coarse	Sawdust	Shavings
Thousand cubic feet					
Saw logs					
Softwood	163,362	18,702	74,327	49,407	20,926
Hardwood	70,668	12,043	34,464	23,385	776
Total	234,030	30,745	108,791	72,792	21,702
Veneer logs					
Softwood	23,634	3,133	15,311	5,190	0
Hardwood	9,050	2,409	4,650	1,991	0
Total	32,684	5,542	19,961	7,181	0
Pulpwood					
Softwood	14,938	14,938	0	0	0
Hardwood	11,613	11,613	0	0	0
Total	26,551	26,551	0	0	0
Composite panels					
Softwood	3,135	3,135	0	0	0
Hardwood	2,416	2,416	0	0	0
Total	5,551	5,551	0	0	0
Other industrial ^a					
Softwood	2,516	2,076	435	5	0
Hardwood	18	4	10	4	0
Total	2,534	2,080	445	9	0
Total					
Softwood	207,585	41,984	90,073	54,602	20,926
Hardwood	93,765	28,485	39,124	25,380	776
Total	301,350	70,469	129,197	79,982	21,702

^a Includes poles, pilings, posts, and other industrial products.

**Table 14—Disposal of residue at primary wood-using plants by product, species group, and type of residue,
North Carolina, 1994 and 1995**

Product and species group	All types		Bark		Coarse		Sawdust		Shavings	
	1994	1995	1994	1995	1994	1995	1994	1995	1994	1995
<i>Thousand cubic feet</i>										
Fiber products										
Softwood	77,898	77,545	50	0	77,363	76,975	270	292	215	278
Hardwood	25,965	28,748	175	0	25,540	28,508	250	240	0	0
Total	103,863	106,293	225	0	102,903	105,483	520	532	215	278
Particleboard										
Softwood	11,375	12,352	0	0	2,166	2,079	4,267	6,281	4,942	3,992
Hardwood	3,628	3,192	103	96	2,231	2,135	1,103	734	191	227
Total	15,003	15,544	103	96	4,397	4,214	5,370	7,015	5,133	4,219
Composite panels										
Softwood	390	3,156	0	0	104	98	225	2,995	61	63
Hardwood	760	786	0	0	605	615	155	171	0	0
Total	1,150	3,942	0	0	709	713	380	3,166	61	63
Sawn products										
Softwood	3,668	5,617	1	0	3,667	5,617	0	0	0	0
Hardwood	379	627	0	0	379	627	0	0	0	0
Total	4,047	6,244	1	0	4,046	6,244	0	0	0	0
Fuel										
Softwood	76,462	72,604	30,540	30,023	4,533	4,307	37,440	35,634	3,949	2,640
Hardwood	53,397	48,910	24,626	20,448	6,705	6,474	21,918	21,846	148	142
Total	129,859	121,514	55,166	50,471	11,238	10,781	59,358	57,480	4,097	2,782
Miscellaneous										
Softwood	33,429	35,700	10,974	11,853	559	658	10,674	9,236	11,222	13,953
Hardwood	9,388	10,142	6,926	7,683	76	96	1,959	1,957	427	406
Total	42,817	45,842	17,900	19,536	635	754	12,633	11,193	11,649	14,359
Not used										
Softwood	775	611	198	108	441	339	136	164	0	0
Hardwood	1,627	1,360	543	258	695	669	387	432	2	1
Total	2,402	1,971	741	366	1,136	1,008	523	596	2	1
All products										
Softwood	203,997	207,585	41,763	41,984	88,833	90,073	53,012	54,602	20,389	20,926
Hardwood	95,144	93,765	32,373	28,485	36,231	39,124	25,772	25,380	768	776
Total	299,141	301,350	74,136	70,469	125,064	129,197	78,784	79,982	21,157	21,702

Table 15—Roundwood timber products output by product and species group, Southern Coastal Plain of North Carolina, 1994 and 1995

Product and species group	Year		Change	Percent change
	1994	1995		
Thousand cubic feet				
Saw logs				
Softwood	85,620	90,764	5,144	6.0
Hardwood	17,660	16,869	-791	-4.5
Total	103,280	107,633	4,353	4.2
Veneer logs				
Softwood	27,202	26,865	-337	-1.2
Hardwood	7,780	6,475	-1,305	-16.8
Total	34,982	33,340	-1,642	-4.7
Pulpwood ^a				
Softwood	81,834	80,792	-1,042	-1.3
Hardwood	47,288	41,928	-5,360	-11.3
Total	129,122	122,720	-6,402	-5.0
Composite panels				
Softwood	5,255	5,203	-52	-1.0
Hardwood	1,883	1,818	-65	-3.5
Total	7,138	7,021	-117	-1.6
Other industrial				
Softwood	1,990	1,493	-497	-25.0
Hardwood	0	0	0	--
Total	1,990	1,493	-497	-25.0
All industrial				
Softwood	201,901	205,117	3,216	1.6
Hardwood	74,611	67,090	-7,521	-10.1
Total	276,512	272,207	-4,305	-1.6

-- = negligible.

^a Includes roundwood that was delivered to nonpulp mills and then chipped and sold to pulp mills (5,371,000 cubic feet in 1994 and 4,023,000 cubic feet in 1995).

Table 16—Roundwood timber products output by county, product, and species group, Southern Coastal Plain of North Carolina, 1995

County	All products		Saw logs		Veneer logs		Pulpwood ^a		Composite panels		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>Thousand cubic feet</i>												
Bladen	16,341	5,599	6,093	1,235	3,352	263	6,542	3,987	254	114	100	0
Brunswick	15,365	2,606	5,309	30	1,573	14	8,383	2,562	0	0	100	0
Columbus	19,197	4,066	9,419	325	2,359	202	7,224	3,539	0	0	195	0
Cumberland	10,145	2,162	4,182	499	1,258	46	4,624	1,617	0	0	81	0
Duplin	10,869	7,269	4,728	2,265	1,323	634	4,310	4,140	508	230	0	0
Greene	2,698	2,510	903	828	998	286	353	1,187	444	209	0	0
Harnett	6,881	1,815	3,077	603	1,350	942	1,974	270	480	0	0	0
Hoke	3,844	875	1,307	497	944	0	1,365	378	0	0	228	0
Johnston	8,514	5,023	4,425	1,340	2,075	1,127	1,378	2,326	606	230	30	0
Jones	11,622	1,961	4,677	232	1,080	167	5,611	1,448	254	114	0	0
Lee	5,058	1,394	1,753	597	179	182	2,339	615	588	0	199	0
Lenoir	5,409	4,019	2,429	1,818	1,158	198	1,415	1,819	407	184	0	0
Moore	14,981	4,246	7,750	1,325	1,123	85	5,772	2,788	137	48	199	0
New Hanover	1,198	341	350	0	0	93	848	248	0	0	0	0
Onslow	8,921	2,988	2,914	122	1,080	167	4,673	2,585	254	114	0	0
Pender	16,997	4,487	8,597	644	944	295	7,356	3,548	0	0	100	0
Richmond	9,098	1,084	5,173	539	0	49	3,925	496	0	0	0	0
Robeson	12,368	3,934	6,389	1,037	1,887	798	4,014	2,099	0	0	78	0
Sampson	12,716	4,779	6,677	924	1,654	401	3,796	3,224	508	230	81	0
Scotland	5,119	1,588	2,170	630	786	217	2,061	741	0	0	102	0
Wayne	7,776	4,344	2,442	1,379	1,742	309	2,829	2,311	763	345	0	0
All counties	205,117	67,090	90,764	16,869	26,865	6,475	80,792	41,928	5,203	1,818	1,493	0

^a Includes roundwood that was delivered to nonpulpmills and then chipped and sold to pulpmills (4,023,000 cubic feet in 1995).

Table 17—Roundwood timber products output by product and species group, Northern Coastal Plain of North Carolina, 1994 and 1995

Product and species group	Year		Change	Percent change
	1994	1995		
Thousand cubic feet				
Saw logs				
Softwood	97,248	103,261	6,013	6.2
Hardwood	20,433	21,554	1,121	5.5
Total	117,681	124,815	7,134	6.1
Veneer logs				
Softwood	14,255	15,861	1,606	11.3
Hardwood	6,709	5,192	-1,517	-22.6
Total	20,964	21,053	89	0.4
Pulpwood ^a				
Softwood	59,927	66,401	6,474	10.8
Hardwood	54,074	48,773	-5,301	-9.8
Total	114,001	115,174	1,173	1.0
Composite panels				
Softwood	3,870	3,923	53	1.4
Hardwood	5,175	4,218	-957	-18.5
Total	9,045	8,141	-904	-10.0
Other industrial				
Softwood	196	206	10	5.1
Hardwood	0	0	0	--
Total	196	206	10	5.1
All industrial				
Softwood	175,496	189,652	14,156	8.1
Hardwood	86,391	79,737	-6,654	-7.7
Total	261,887	269,389	7,502	2.9

-- = negligible.

^a Includes roundwood that was delivered to nonpulpmills and then chipped and sold to pulpmills (3,541,000 cubic feet in 1994 and 1,117,000 cubic feet in 1995).

Table 18—Roundwood timber products output by county, product, and species group, Northern Coastal Plain of North Carolina, 1995

County	All products		Saw logs		Veneer logs		Pulpwood ^a		Composite panels		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>Thousand cubic feet</i>												
Beaufort	19,063	5,637	9,415	1,773	880	132	8,768	3,732	0	0	0	0
Bertie	21,318	7,447	10,916	1,540	2,111	385	7,819	5,085	449	437	23	0
Camden	3,076	1,350	1,739	52	88	202	1,249	1,096	0	0	0	0
Carteret	5,806	114	2,534	82	88	7	3,184	25	0	0	0	0
Chowan	3,862	2,589	1,346	187	176	279	2,340	2,123	0	0	0	0
Craven	15,354	2,931	7,456	699	921	255	6,723	1,863	254	114	0	0
Currituck	1,144	768	593	52	88	211	463	505	0	0	0	0
Dare	137	5	93	0	0	0	44	5	0	0	0	0
Edgecombe	7,725	3,567	4,813	1,173	1,432	248	1,480	2,078	0	68	0	0
Gates	11,143	5,701	6,898	859	477	212	3,291	4,193	449	437	28	0
Halifax	17,081	9,017	9,618	3,038	1,004	300	5,783	4,597	653	1,082	23	0
Hertford	9,833	5,324	6,315	1,622	490	134	2,551	3,131	449	437	28	0
Hyde	4,319	1,138	2,880	686	440	35	999	417	0	0	0	0
Martin	11,594	5,032	6,323	1,608	1,326	400	3,945	3,024	0	0	0	0
Nash	8,717	5,790	5,176	2,241	1,438	998	1,849	2,025	254	526	0	0
Northampton	9,919	8,739	6,239	1,954	1,205	65	1,794	6,015	653	705	28	0
Pamlico	6,040	1,375	3,017	291	88	7	2,935	1,077	0	0	0	0
Pasquotank	2,951	1,914	1,896	298	176	111	879	1,505	0	0	0	0
Perquimans	5,552	1,412	3,821	414	0	113	1,731	885	0	0	0	0
Pitt	8,291	2,889	3,843	842	1,091	250	3,078	1,683	254	114	25	0
Tyrrell	3,174	1,905	1,922	138	440	71	812	1,696	0	0	0	0
Washington	8,728	2,312	3,752	678	880	132	4,068	1,502	0	0	28	0
Wilson	4,825	2,781	2,656	1,327	1,022	645	616	511	508	298	23	0
All counties	189,652	79,737	103,261	21,554	15,861	5,192	66,401	48,773	3,923	4,218	206	0

^a Includes roundwood that was delivered to nonpulp mills and then chipped and sold to pulpmills (1,117,000 cubic feet in 1995).

Table 19—Roundwood timber products output by product and species group, Piedmont of North Carolina, 1994 and 1995

Product and species group	Year		Change	Percent change
	1994	1995		
Thousand cubic feet				
Saw logs				
Softwood	75,676	77,387	1,711	2.3
Hardwood	44,308	42,677	-1,631	-3.7
Total	119,984	120,064	80	0.1
Veneer logs				
Softwood	1,701	4,927	3,226	189.7
Hardwood	2,907	4,439	1,532	52.7
Total	4,608	9,366	4,758	103.3
Pulpwood ^a				
Softwood	40,524	38,364	-2,160	-5.3
Hardwood	34,984	33,736	-1,248	-3.6
Total	75,508	72,100	-3,408	-4.5
Composite panels				
Softwood	8,925	10,482	1,557	17.4
Hardwood	11,169	6,207	-4,962	-44.4
Total	20,094	16,689	-3,405	-16.9
Other industrial				
Softwood	460	404	-56	-12.2
Hardwood	32	32	0	--
Total	492	436	-56	-11.4
All industrial				
Softwood	127,286	131,564	4,278	3.4
Hardwood	93,400	87,091	-6,309	-6.8
Total	220,686	218,655	-2,031	-0.9

-- = negligible.

^a Includes roundwood that was delivered to nonpulp mills and then chipped and sold to pulp mills (6,456,000 cubic feet in 1994 and 5,875,000 cubic feet in 1995).

Table 20—Roundwood timber products output by county, product, and species group, Piedmont of North Carolina, 1995

County	All products		Saw logs		Veneer logs		Pulpwood ^a		Composite panels		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>Thousand cubic feet</i>												
Alamance	2,696	1,553	1,962	979	107	287	352	190	275	97	0	0
Alexander	1,529	1,520	951	1,071	0	95	578	354	0	0	0	0
Anson	14,081	3,980	9,072	670	0	0	4,932	3,310	0	0	77	0
Cabarrus	1,719	1,397	776	987	0	0	943	410	0	0	0	0
Caswell	1,648	2,247	1,270	1,294	0	0	67	905	295	48	16	0
Catawba	1,186	675	784	452	0	0	314	175	88	48	0	0
Chatham	13,236	2,707	7,584	1,707	572	404	3,139	596	1,814	0	127	0
Cleveland	3,457	2,531	569	636	0	49	2,888	1,798	0	48	0	0
Davidson	1,648	2,433	763	1,969	0	283	797	133	88	48	0	0
Davie	842	1,719	593	1,305	0	119	155	247	88	48	6	0
Durham	3,083	251	799	78	107	173	2,079	0	98	0	0	0
Forsyth	543	1,073	353	901	0	61	14	12	176	99	0	0
Franklin	9,966	5,273	5,452	1,230	744	513	2,929	2,373	841	1,157	0	0
Gaston	1,449	483	393	161	819	247	237	27	0	48	0	0
Granville	5,754	1,624	4,419	697	0	103	1,123	550	196	274	16	0
Guilford	2,175	2,404	880	1,590	0	66	411	454	884	294	0	0
Iredell	3,412	2,392	2,082	1,868	0	76	1,240	398	88	50	2	0
Lincoln	1,745	1,860	384	632	0	49	1,273	1,131	88	48	0	0
Mecklenburg	971	824	574	740	0	0	309	36	88	48	0	0
Montgomery	9,245	4,358	7,290	1,534	0	9	1,779	2,765	176	50	0	0
Orange	2,242	963	1,648	530	179	261	366	172	49	0	0	0
Person	2,673	2,054	1,864	964	0	11	470	1,031	323	48	16	0
Polk	1,497	891	151	538	0	49	1,258	256	88	48	0	0
Randolph	1,732	4,613	1,340	4,260	0	131	381	222	0	0	11	0
Rockingham	1,151	3,632	517	2,481	0	0	6	896	628	255	0	0
Rowan	2,005	3,934	1,103	1,856	0	81	814	1,949	88	48	0	0
Rutherford	3,134	988	997	753	0	49	2,049	138	88	48	0	0
Stanly	1,778	754	1,019	537	0	0	671	169	88	48	0	0
Stokes	1,655	3,345	1,054	2,107	0	1	59	1,036	512	201	30	0
Surry	3,159	3,119	1,501	1,904	13	49	522	520	1,061	646	62	0
Union	3,476	4,381	1,748	532	1,109	187	619	3,662	0	0	0	0
Vance	4,016	1,986	1,900	557	350	103	1,317	633	449	677	0	16
Wake	9,473	7,548	6,151	665	286	848	1,918	5,766	1,118	269	0	0
Warren	12,164	5,827	8,790	3,401	641	135	2,177	867	531	1,408	25	16
Yadkin	1,024	1,752	654	1,091	0	0	178	555	176	106	16	0
All counties	131,564	87,091	77,387	42,677	4,927	4,439	38,364	33,736	10,482	6,207	404	32

^a Includes roundwood that was delivered to nonpulpmills and then chipped and sold to pulpmills (5,875,000 cubic feet in 1995).

Table 21—Roundwood timber products output by product and species group, Mountains of North Carolina, 1994 and 1995

Product and species group	Year		Change	Percent change
	1994	1995		
Thousand cubic feet				
Saw logs				
Softwood	16,777	19,111	2,334	13.9
Hardwood	26,119	26,860	741	2.8
Total	42,896	45,971	3,075	7.2
Veneer logs				
Softwood	122	87	-35	-28.7
Hardwood	2,662	2,576	-86	-3.2
Total	2,784	2,663	-121	-4.3
Pulpwood ^a				
Softwood	16,194	8,015	-8,179	-50.5
Hardwood	23,928	13,862	-10,066	-42.1
Total	40,122	21,877	-18,245	-45.5
Composite panels				
Softwood	1,031	1,261	230	22.3
Hardwood	413	716	303	73.4
Total	1,444	1,977	533	36.9
Other industrial				
Softwood	24	102	78	325.0
Hardwood	0	0	0	--
Total	24	102	78	325.0
All industrial				
Softwood	34,148	28,576	-5,572	-16.3
Hardwood	53,122	44,014	-9,108	-17.1
Total	87,270	72,590	-14,680	-16.8

-- = negligible.

^a Includes roundwood that was delivered to nonpulpmills and then chipped and sold to pulpmills (544,000 cubic feet in 1994 and 584,000 cubic feet in 1995).

Table 22—Roundwood timber products output by county, product, and species group, Mountains of North Carolina, 1995

County	All products		Saw logs		Veneer logs		Pulpwood ^a		Composite panels		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>Thousand cubic feet</i>												
Alleghany	1,977	934	1,775	762	0	0	60	122	88	50	54	0
Ashe	2,913	2,646	2,746	2,351	0	72	79	222	88	1	0	0
Avery	327	926	222	453	5	216	100	257	0	0	0	0
Buncombe	1,588	4,131	428	1,247	0	54	1,160	2,830	0	0	0	0
Burke	3,876	1,746	2,585	1,193	0	155	938	350	353	48	0	0
Caldwell	2,660	2,741	1,963	1,660	0	155	432	878	265	48	0	0
Cherokee	1,378	1,038	213	665	0	65	1,165	308	0	0	0	0
Clay	126	571	13	287	0	39	113	245	0	0	0	0
Graham	350	1,289	247	610	0	378	103	301	0	0	0	0
Haywood	1,565	4,442	405	1,563	0	49	1,160	2,830	0	0	0	0
Henderson	747	1,036	487	631	27	138	233	267	0	0	0	0
Jackson	435	1,760	133	925	0	89	302	746	0	0	0	0
McDowell	1,179	1,106	1,039	704	28	135	112	267	0	0	0	0
Macon	418	2,120	99	1,153	0	221	319	746	0	0	0	0
Madison	913	3,242	611	2,266	0	196	302	780	0	0	0	0
Mitchell	770	1,657	670	1,212	0	77	100	368	0	0	0	0
Swain	420	1,819	118	1,084	0	0	302	735	0	0	0	0
Transylvania	241	892	114	547	27	89	100	256	0	0	0	0
Watauga	1,112	1,581	1,023	1,331	0	199	1	51	88	0	0	0
Wilkes	5,024	6,827	3,763	5,137	0	96	834	1,025	379	569	48	0
Yancey	557	1,510	457	1,079	0	153	100	278	0	0	0	0
All counties	28,576	44,014	19,111	26,860	87	2,576	8,015	13,862	1,261	716	102	0

^a Includes roundwood that was delivered to nonpulp mills and then chipped and sold to pulp mills (584,000 cubic feet in 1995).

Table 23—Total roundwood output by product, species group, and source of material, North Carolina, 1995

Product and species group	All sources	Total	Growing-stock trees		Other sources
			Sawtimber	Poletimber	
Thousand cubic feet					
Saw logs					
Softwood	290,523	285,564	280,035	5,529	4,959
Hardwood	107,960	101,601	98,553	3,048	6,359
Total	398,483	387,166	378,588	8,578	11,317
Veneer logs and bolts					
Softwood	47,740	46,829	45,419	1,410	911
Hardwood	18,682	18,479	18,479	0	203
Total	66,422	65,308	63,898	1,410	1,114
Pulpwood					
Softwood	193,572	174,800	78,660	96,140	18,772
Hardwood	138,299	123,193	49,277	73,916	15,106
Total	331,871	297,993	127,937	170,056	33,878
Composite panels					
Softwood	20,869	18,845	8,480	10,365	2,024
Hardwood	12,959	11,544	4,618	6,926	1,415
Total	33,828	30,389	13,098	17,291	3,439
Poles and posts					
Softwood	2,138	1,589	853	736	549
Hardwood	0	0	0	0	0
Total	2,138	1,589	853	736	549
Other miscellaneous					
Softwood	67	67	52	15	0
Hardwood	32	30	23	7	2
Total	99	97	75	22	2
Total industrial products					
Softwood	554,909	527,694	413,499	114,195	27,215
Hardwood	277,932	254,847	170,950	83,897	23,085
Total	832,841	782,541	584,449	198,092	50,300
Fuelwood					
Softwood	13,283	9,330	7,589	1,741	3,953
Hardwood	107,665	71,181	56,165	15,016	36,484
Total	120,948	80,511	63,754	16,757	40,437
All products					
Softwood	568,192	537,024	421,088	115,936	31,168
Hardwood	385,597	326,028	227,115	98,913	59,569
Total	953,789	863,052	648,203	214,849	90,737

**Table 24—Total roundwood output by species group, survey unit, and ownership,
North Carolina, 1995**

Species group and survey unit	Total	National forest	Other public	Forest industry	Nonindustrial private
<i>Thousand cubic feet</i>					
Softwoods					
Southern Coastal Plain	210,181	181	6,324	48,816	154,859
Northern Coastal Plain	194,333	3,005	817	66,087	124,424
Piedmont	134,520	325	6,404	9,769	118,022
Mountains	29,158	1,000	446	1,966	25,746
Total softwoods	568,192	4,511	13,991	126,638	423,051
Hardwoods					
Southern Coastal Plain	93,079	0	1,039	9,128	82,912
Northern Coastal Plain	110,625	213	2,942	16,765	90,705
Piedmont	120,829	371	2,355	3,353	114,750
Mountains	61,064	20,481	1,729	3,927	34,927
Total hardwoods	385,597	21,065	8,065	33,173	323,294
All species	953,789	25,577	22,057	159,811	746,345

**Table 25—Total roundwood output by species group, detailed species group, and product,
North Carolina, 1995**

Species group and detailed species group	Product							
	Total	Saw log	Veneer	Pulpwood	Composite panel	Fuelwood	Poles and posts	Other miscellaneous
<i>Thousand cubic feet</i>								
Softwood								
Cedar	3,360	1,783	221	1,144	129	71	12	0
Longleaf-slash pine	28,716	12,504	3,100	11,846	436	692	137	0
White pine	11,997	9,066	14	1,688	934	199	96	0
Loblolly-shortleaf pine	436,564	222,968	38,206	148,565	14,809	10,372	1,588	57
Other yellow pines	69,994	34,860	4,519	24,769	4,037	1,526	273	10
Cypress	16,621	8,759	1,662	5,242	524	401	33	0
Hemlock	941	583	17	318	0	23	0	0
Total softwoods	568,192	290,523	47,740	193,572	20,869	13,283	2,138	67
Hardwood								
Soft maple	47,078	12,203	2,155	18,215	1,358	13,145	0	2
Hard maple	295	115	32	59	6	82	0	0
Other birch	5,410	2,181	232	1,393	93	1,511	0	0
Yellow birch	64	24	2	20	0	18	0	0
Hickory	14,762	4,552	819	4,862	407	4,122	0	1
Beech	3,798	1,189	166	1,325	58	1,060	0	0
Ash	8,230	2,055	344	3,299	235	2,298	0	0
Black walnut	1,157	457	61	301	15	323	0	0
Sweetgum	54,080	11,478	2,820	22,780	1,899	15,100	0	4
Yellow-poplar	66,373	23,444	3,045	18,733	2,610	18,533	0	8
Blackgum-tupelo	28,162	5,557	1,516	12,408	818	7,863	0	0
Sycamore	1,029	483	72	165	23	287	0	0
Cottonwood	121	18	5	60	5	34	0	0
Black cherry	2,348	607	96	915	74	656	0	0
Select white oaks	43,036	12,325	1,932	14,824	1,928	12,016	0	10
Other white oaks	15,499	4,825	741	5,291	315	4,328	0	0
Select red oaks	17,804	5,811	687	5,941	393	4,971	0	1
Other red oaks	55,861	14,724	2,948	20,503	2,084	15,597	0	6
Basswood	85	44	6	11	0	24	0	0
Elm	3,761	973	237	1,350	151	1,050	0	0
Other Eastern hardwoods	16,643	4,896	767	5,845	488	4,647	0	0
Total hardwoods	385,597	107,960	18,682	138,299	12,959	107,665	0	32
All species	953,789	398,483	66,422	331,871	33,828	120,948	2,138	99

Table 26—Total roundwood output by species group, detailed species group, and source of material, North Carolina, 1995

Species group and detailed species group	Total	Ownership			
		National forest	Other public	Forest industry	Nonindustrial private
Thousand cubic feet					
Softwood					
Cedar	3,360	8	62	385	2,905
Longleaf-slash pine	28,716	85	1,087	8,540	19,004
White pine	11,997	157	186	1,611	10,043
Loblolly-shortleaf pine	436,564	3,110	11,027	101,804	320,623
Other yellow pines	69,994	1,122	1,482	11,222	56,167
Cypress	16,621	15	148	3,076	13,382
Hemlock	941	14	0	0	927
Total softwoods	568,192	4,511	13,991	126,638	423,051
Hardwood					
Soft maple	47,078	2,461	1,083	4,647	38,886
Hard maple	295	0	0	0	294
Other birch	5,410	1,142	95	57	4,116
Yellow birch	64	25	31	0	7
Hickory	14,762	603	207	433	13,519
Beech	3,798	791	131	340	2,536
Ash	8,230	243	126	957	6,903
Black walnut	1,157	271	6	31	849
Sweetgum	54,080	107	913	6,101	46,959
Yellow-poplar	66,373	2,482	1,051	5,520	57,321
Blackgum-tupelo	28,162	132	583	3,589	23,858
Sycamore	1,029	0	1	1	1,027
Cottonwood	121	0	30	24	68
Black cherry	2,348	326	159	195	1,667
Select white oaks	43,036	1,435	1,093	2,888	37,621
Other white oaks	15,499	2,499	305	1,290	11,405
Select red oaks	17,804	4,265	336	1,023	12,181
Other red oaks	55,861	2,829	1,150	4,561	47,321
Basswood	85	16	0	0	69
Elm	3,761	0	48	365	3,348
Other Eastern hardwoods	16,643	1,439	718	1,149	13,336
Total hardwoods	385,597	21,065	8,065	33,173	323,294
All species	953,789	25,577	22,057	159,811	746,345



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Johnson, Tony G.; Jenkins, Anne; Brown, David R. 1997. North Carolina's timber industry—an assessment of timber product output and use, 1995. Resour. Bull. SRS-18. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 35 p.

In 1995, roundwood output from North Carolina's forests totaled 833 million cubic feet, 2 percent less than in 1994. Mill byproducts generated from primary manufacturers increased 1 percent to 301 million cubic feet. Almost all plant residues were used primarily for fuel and fiber products. Saw logs were the leading roundwood product at 398 million cubic feet; pulpwood ranked second at 332 million cubic feet; veneer logs were third at 66 million cubic feet. The number of primary processing plants declined from 322 in 1994 to 320 in 1995. Total receipts declined 4 percent to under 743 million cubic feet.

Keywords: Pulpwood, residues, roundwood, saw logs, veneer logs, wood movement.

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