



United States  
Department of  
Agriculture

Forest Service

**Northeastern  
Research Station**

Resource Bulletin NE-144



# Pulpwood Production in the Northeast—1997

Richard H. Widmann  
Douglas M. Griffith

---

---

## Abstract

This annual assessment of pulpwood production and consumption for the 13 states in the Northeast shows that pulpwood production increased by 4.9 percent from 1996 to 1997. Production comprised 6.8 million cords of roundwood and the equivalent of 2.5 million cords of wood residues that were produced and used for pulp. Over the last decade, in the Northeastern States, pulpwood production has risen slowly, with 1997 production only 5.3 percent above the 1987 level. Consumption of pulpwood at mills in the Northeast remained at a high level (9.5 million cords). The harvesting of trees (roundwood) for pulp was most intense in Maine, where an average 17.5 cubic feet of wood was harvested per acre of timberland in 1997.

---

---

---

---

## The Authors

RICHARD H. WIDMANN and DOUGLAS M. GRIFFITH are foresters with the Forest Inventory and Analysis Unit, Northeastern Research Station, U.S. Department of Agriculture, Forest Service, Radnor, Pennsylvania.

---

---

Manuscript received for publication 12 March 1999

---

---

Published by:  
USDA FOREST SERVICE  
5 RADNOR CORP CTR SUITE 200  
RADNOR PA 19087-4585

July 1999

For additional copies:  
USDA Forest Service  
Publications Distribution  
359 Main Road  
Delaware, OH 43015  
Fax: (740)368-0152

---

---

Visit our homepage at: <http://www.fs.fed.us/ne>  
Download pubs from [http://www.fs.fed.us/ne/newtown\\_square/publications/](http://www.fs.fed.us/ne/newtown_square/publications/)

## Highlights

- ➔ Pulpwood production in the Northeast increased by 4.9 percent from 1996 to 1997.
- ➔ After declining in 1996 pulpwood production in the New England States recovered in 1997 to nearly the record level reached in 1995.
- ➔ The harvest of both hardwoods and softwoods used in pulpwood production increased. Increases in hardwood production were a continuation of past trends, while the increase in softwoods did not follow the past trend of decreasing production.
- ➔ Roundwood production in Maine is composed of 21 percent spruce and fir, 11 percent hemlock and tamarack, 14 percent pine, and 54 percent hardwoods.
- ➔ The Northeastern region is a net importer. Imports account for 3.1 percent of total pulpwood consumption.
- ➔ Maine pulpmills consumed 1 million more cords than were harvested in the state.
- ➔ Harvesting was most intensive in Maine, where the pulpwood harvest averaged 17.5 cubic feet per acre of timberland in 1997.

## Introduction

This report presents annual pulpwood production and consumption data for the 13 Northeastern States<sup>1</sup> during 1997. Data were obtained by a 100-percent canvass of pulpmills in the Northeast (Fig. 1) that use wood as a basic raw material to make pulp for the production of paper, insulation board, and hardboard products. Shipments outside of the Northeast are traced by exchanging information with neighboring Forest Service Experiment Stations that conduct similar canvasses, and by canvassing pulpmills in adjacent Canadian provinces.

These statistics are based on mill receipts of roundwood and manufacturing plant residues.<sup>2</sup> These receipts are subject to year-to-year fluctuations in wood inventory. Mill receipts of pulpwood from roundwood are reported by the county in which the harvest occurred. However, mills often do not have complete records of the origin of the wood they receive. In such cases, they are asked to provide a best estimate of where the wood was harvested. Because of these difficulties in tracing the harvest to the county of origin, reported state-level data are assumed to be more accurate than those for individual counties. Pulpwood from residues is reported for the state in which the residues were produced. Some of the logs from which the residues were generated probably were harvested in states other than the one in which they were processed. Therefore, the volume of pulpwood produced from residues in a state should not be linked directly to the sawlog harvest for the state.

## Total Production

In 1997, pulpwood production for the 13 Northeastern States totaled 9.3 million cords (Table 1). This represented a 4.9-percent increase over 1996 production and was only 1 percent less than the record level reached in 1995. Over the last decade in the Northeast, pulpwood production has risen slowly, with 1997 production only 5.3 percent above the 1987 level (Fig. 2). During this period, pulpwood production levels generally have remained high despite weak prices for paper products. The rise in production during 1997 coincides with a rise in prices for paper products. In New England, production recovered in 1997, increasing by 9.7 percent over 1996 levels (Fig. 3).

---

<sup>1</sup>In previous reports, Kentucky was included in Northeastern region. Beginning in 1994, Kentucky was moved to the Southern region. For this report, trend data for the Northeast have been modified to reflect this change.

<sup>2</sup>Whole-tree chips and logs chipped at satellite chipping facilities are included as roundwood.

During 1997, roundwood comprised 73 percent of total production and manufacturing residues 27 percent. Roundwood includes logs, bolts, and whole-tree-chips generated from harvesting trees. Typically in the Northeast, roundwood used for pulp is produced from poor-quality trees or from the tops and branches of trees harvested for sawlogs. The Northeast differs from the Southern States in that little pulpwood is grown in plantations.

Manufacturing residues are byproducts generated in the conversion of logs into lumber and other products. These include chips made from sawmill slabs and edgings and veneer cores. The manufacturing residue category also includes a small amount of sawdust and chipped pallets that were used to make pulp.

Historically, there have been few alternative markets for the low-quality wood used to make pulp. Uses that compete with pulpmills for wood include particle-board plants and others that make reconstituted wood products; the pallet industry for low-quality hardwood logs; stud mills in Maine for small-diameter softwood logs; and wood-fueled industrial boilers, particularly during times when energy cost are high. Except for boiler fuel, these uses generally have increased in the Northeastern States. In some areas, the local market for firewood also competes with pulpwood.

## Roundwood

Roundwood production for use as pulpwood reached 6.8 million cords in 1997, an increase of 391,300 cords over 1996 and a record high. After declining in 1996 from its previous high set in 1995, roundwood production in 1997 rose by 6.1 percent. Roundwood from softwood species accounted for 37 percent of all roundwood and increased by 58,900 cords (2.4 percent) to 2.5 million cords. Hardwood roundwood increased by 332,400 cords (8.5 percent) to 4.2 million cords. The increase in hardwood production was a continuation of the trend toward increasing production from hardwoods. The increase in softwoods did not follow the trend toward decreasing softwood production. Pulpwood production from softwoods has been trending downward since 1984. Most of the decrease in 1996 production and increase in 1997 occurred in New England.

In 1997, production of round wood in New England increased by 11 percent due to increases in both softwoods and hardwoods. The 2.5 million cords of hardwood pulpwood harvested set records for in both quantity and share (56 percent). This was a continuation of the trend toward increased utilization of hardwood species. Red maple, an abundant species with limited markets, has increasingly been used for pulp. Many pulpmills in New England have adapted to limited supplies of softwoods by increasing hardwoods utilization. The production of softwood

roundwood increased to 2.0 million cords. Production of softwood roundwood in New England peaked in 1984 at 2.6 million cords. In Maine, spruce and fir accounted for only 21 percent of the pulpwood roundwood produced (Table 6). Other species and their portion of the total roundwood were hemlock and tamarack (11 percent), pine (14 percent), and hardwood (54 percent). Until 1983, spruce and fir annually accounted for more than half of the pulpwood harvested in Maine.

## **Pulpwood from Manufacturing Residues**

High levels of hardwood lumber production in the Northeast have resulted in a greater amount of manufacturing residues available for use as pulpwood. During 1997, pulpwood from sawmills and other primary processors of logs in the Northeastern States was equivalent to 2.5 million cords (Table 3); 53 percent of these residues were produced from hardwood species. As hardwood lumber production has increased, pulpmills have relied more heavily on residues as a source of wood. In West Virginia, manufacturing residues accounted for 61 percent of the pulpwood produced in the state. The record level of residue production in West Virginia (414,200 cord equivalents) is an indication of the robust lumber industry in that state. Residues also account for a large portion of the pulpwood produced in Ohio, Maryland, and Pennsylvania—45, 40, and 34 percent respectively. In New England, residues increased by 5.3 percent. An increase of nearly 10 percent in softwood residue production offset a drop in hardwood residues. In Maine, sawmills compete with pulpmills for small-diameter softwood logs. These sawmills sell most of their residues to pulpmills in the state.

## **Consumption**

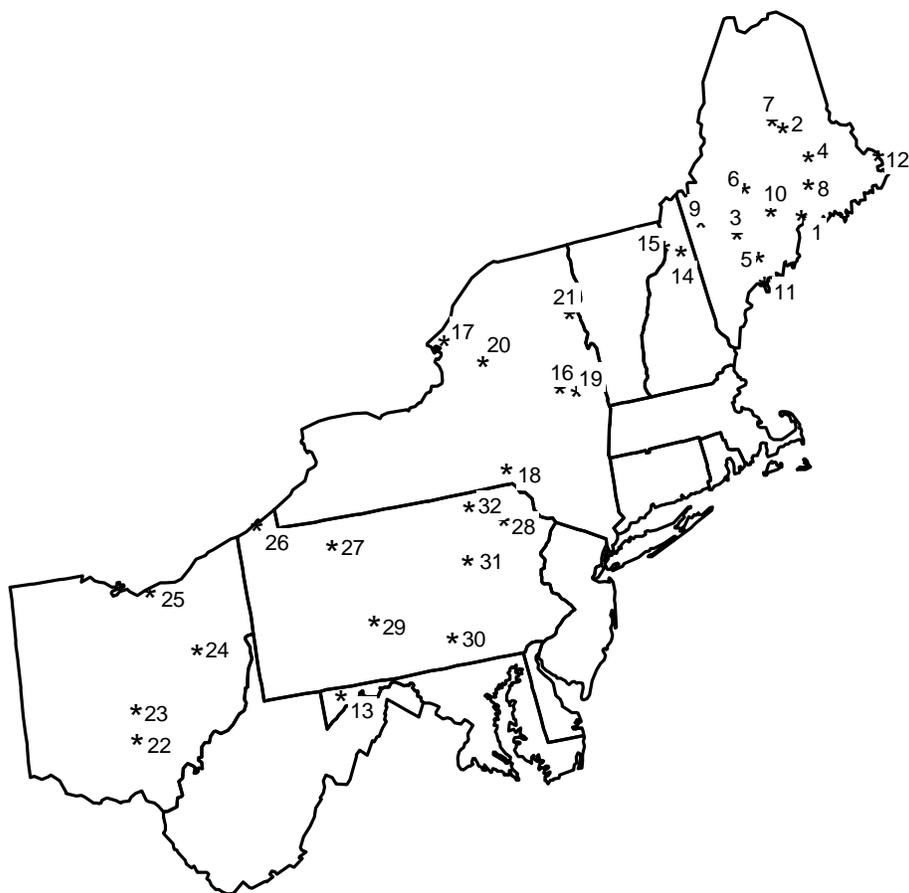
Northeast mills continued high levels of pulpwood consumption (Tables 4, 5, 14). From 1988 to 1997 receipts rose from 8.9 to 9.5 million cords (4 percent). In 1997, Northeast pulpmills received 2.7 million cords of softwood roundwood, 4.4 million cords of hardwood roundwood, and

the equivalent of 2.4 million cords of chips produced from manufacturing residues. Imports into the region accounted for 10.2 percent of the receipts. These imports outpaced exports by 187,100 cords (Table 15). Mills in Maine and Maryland received most of the shipments into the region. Maine pulpmills consumed 1 million cords more than were produced in the state. In addition to receiving wood from other states, Maine imported 464,400 cords of roundwood and the equivalent of 166,400 cords of residues from Canada (Tables 16-17). In recent years, Maine has imported increasing amounts of wood. A large portion of the imported residues was produced from Maine logs processed at Canadian sawmills just across the border. Imports helped mitigate tight wood supplies in Maine.

## **Harvesting Intensity**

The average annual pulpwood harvest per acre of timberland reflects of the intensity of pulpwood harvesting (Table 18). The highest harvesting rate was in Maine, which averaged 17.5 cubic feet of roundwood harvested per acre of timberland. New Hampshire, Vermont, and Maryland averaged of 9.8, 7.4, and 7.0 cubic feet harvested per acre, respectively. Rates were low in West Virginia (1.9 cubic feet), Ohio (3.1), Pennsylvania (4.3) and New York (4.1).

The average annual net growth on timberland in the Northeast is roughly 38 cubic feet of growing-stock volume per acre. The percentage of this average growth used for pulpwood roundwood ranges from 46 in Maine to zero in Rhode Island, where no pulpwood harvesting was reported in 1997. Pulpwood harvesting averaged 17.5 percent of the growth across the Northeast. Actual data for a specific area within a state may vary considerably because pulpwood represents only part of the total harvest. For example, it does not include the harvesting of sawlogs that varies across the region. Pulpmills also use wood from other than the growing-stock portion of the trees, e.g., branches, treetops less than 4 inches in diameter, and saplings. This material is not included in growing-stock growth data.



- |  |  |
|--|--|
| 1. Bucksport, ME Champion International Corp.    | 17. Deferiet, NY Champion International Corp.        |
| 2. E. Millinocket, ME Great Northern Paper, Inc. | 18. Deposit, NY Norbord Industries                   |
| 3. Jay, ME International Paper Co.               | 19. Glens Falls, NY Finch-Pruyn and Company          |
| 4. Lincoln, ME Lincoln Pulp and Paper Co.        | 20. Lyons Falls, NY Lyons Falls Pulp and Paper, Inc. |
| 5. Lisbon Falls, ME Masonite Corp.               | 21. Ticonderoga, NY International Paper Co.          |
| 6. Madison, ME Madison Paper Industries          | 22. Chillicothe, OH The Mead Corp.                   |
| 7. Millinocket, ME Great Northern Paper, Inc.    | 23. Circleville, OH Jefferson Smurfit Corp.          |
| 8. Old Town, ME Fort James Corp.                 | 24. Coshocton, OH Stone Container Corp.              |
| 9. Rumford, ME The Mead Corp.                    | 25. Milan, OH Certainteed Corp.                      |
| 10. Hinckley, ME S.D Warren Company              | 26. Erie, PA International Paper Co.                 |
| 11. Westbrook, ME S.D. Warren Company            | 27. Johnsonburg, PA Willamette Industries, Inc.      |
| 12. Woodland, ME Georgia-Pacific Corp.           | 28. Mehoopany, PA Proctor and Gamble Co.             |
| 13. Luke, MD Westvaco Corp.                      | 29. Roaring Spring, PA Appleton Papers, Inc.         |
| 14. Berlin, NH Crown Vantage Corp.               | 30. Spring Grove, PA The P. H. Glatfelter Co.        |
| 15. Groveton, NH Groveton Paper Board, Inc.      | 31. Sunbury, PA Jim Walter Corp.                     |
| 16. Corinth, NY International Paper Co.          | 32. Towanda, PA Masonite Corp.                       |

Figure 1.—Locations and names of mills receiving pulpwood in the Northeastern States.

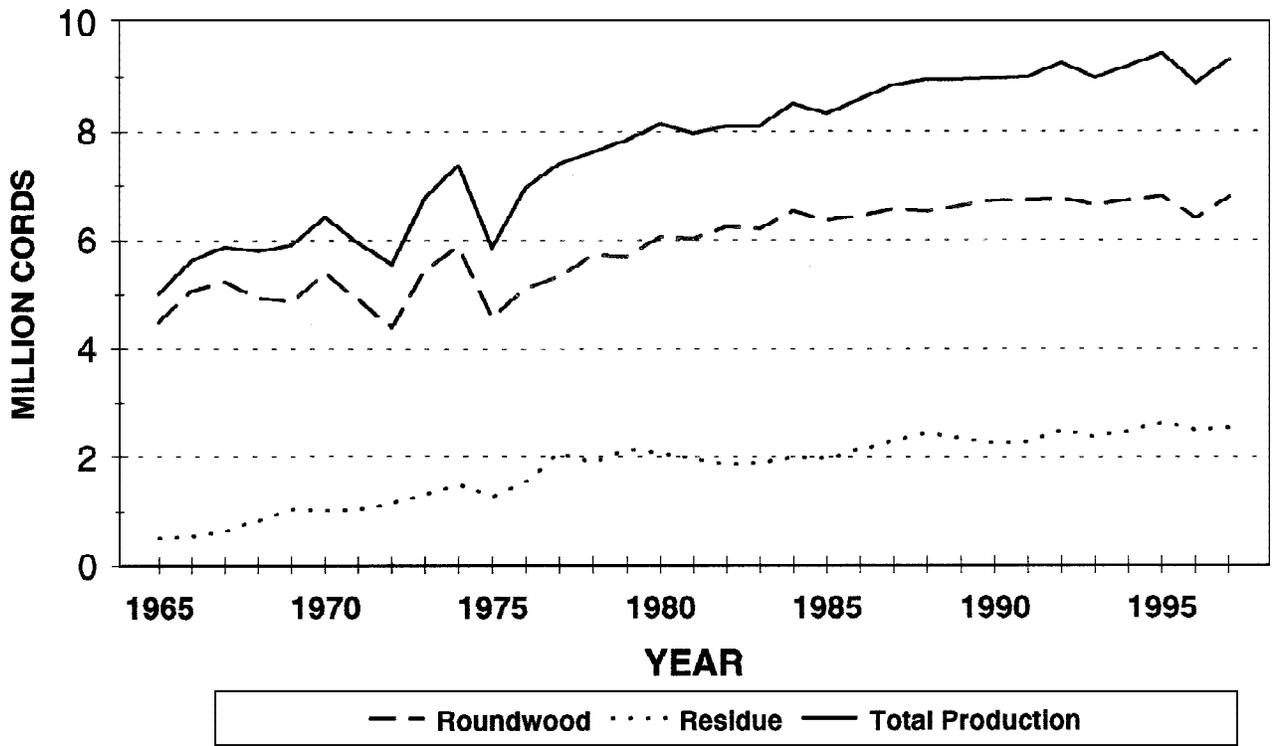


Figure 2.—Total pulpwood, roundwood, and manufacturing residue production in the Northeast, 1965-97.

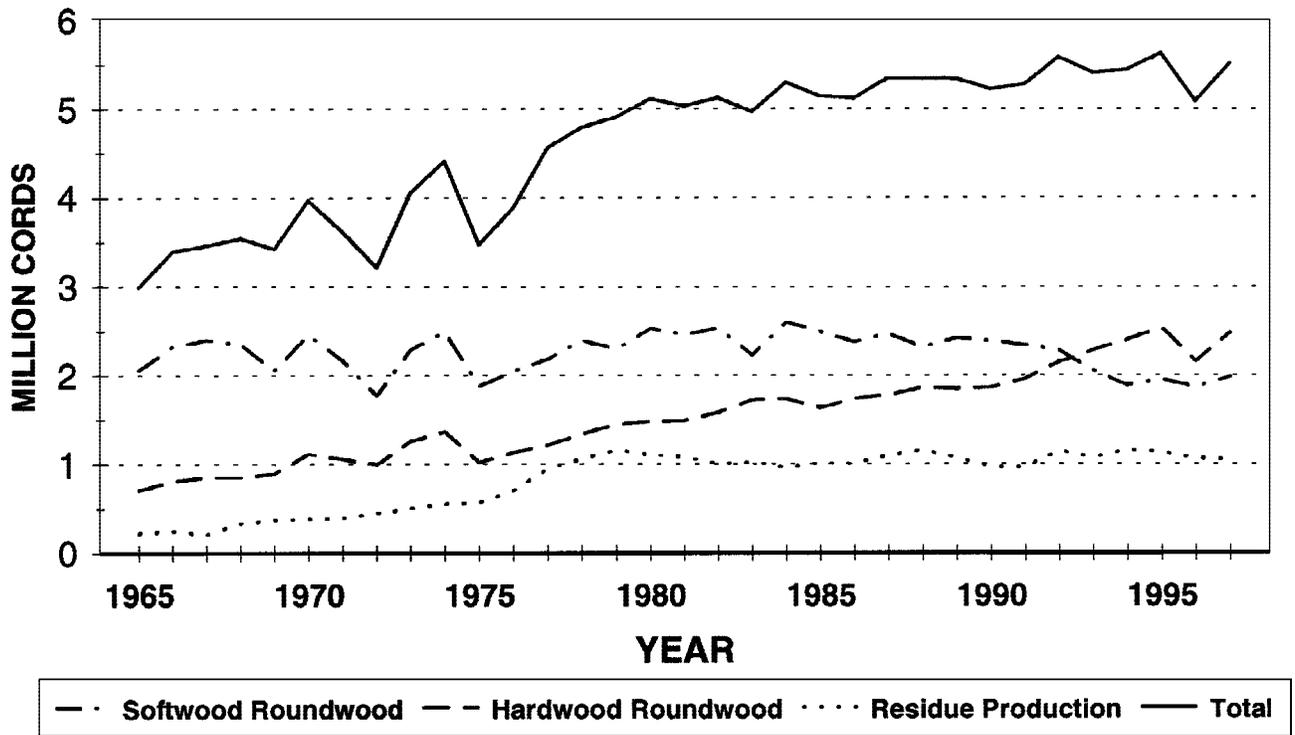


Figure 3.—Pulpwood production in New England, 1965-97.

## Appendix

### Definition of Terms

*Cord.* See Standard cord.

*Cord equivalent.* A unit of measure applied to forms of wood other than roundwood, such as chips, slabs, edgings, and other manufacturing residues, and equal to 85 cubic feet of solid wood, or 1 cord.

*Manufacturing residues.* Wood materials, such as sawmill slabs and edgings, sawdust, veneer clippings and cores, post and pole trimming, and pulp screening generated from the manufacture of roundwood products.

*Pulpwood.* Roundwood, whole-tree chips, or manufacturing residues that are used for the production of wood pulp.

*Pulpwood production.* Roundwood and manufacturing plant residues that are used for the production of wood pulp.

*Pulpwood receipts.* Pulpwood received at wood-pulp mills. These can originate from outside the state or region.

*Pulpwood imports.* Pulpwood receipts originating from outside the Northeast (14-state region).

*Roundwood products.* Logs, bolts, total-tree chips, mine timbers, fenceposts, poles, and similar timber products generated by harvesting trees for industrial or consumer use.

*Standard cord.* A unit of measure for stacked bolts of wood, encompassing 128 cubic feet of wood, bark, and air space. In the Northeast, the measure refers to a stack of wood containing 85 cubic feet or 2.41 cubic meters, of solid wood. A standard cord commonly is referred to as a cord, as in this report. This is not the same as a face cord, commonly used in firewood marketing.

*Whole-tree chip.* Unbarked wood chips generated from the aboveground portion of a tree, including bolewood, limbs, and leaves.

### Metric Equivalentents

One standard cord = 85 cubic feet (solid wood) = 2.41 cubic meters (solid wood)

One cubic foot = 28,317 cubic centimeters = 0.028 cubic meter

### Conversion Factors Used for Green Roundwood

1 ton spruce-fir = 0.5556 cord

1 ton hemlock-tamarack = 0.5000 cord

1 ton pine (New England, New York, and Canada) = 0.5263 cord

1 ton aspen—yellow-poplar = 0.5263 cord

1 ton oak-hickory = 0.3571 cord

1 ton other hardwoods = 0.3846 cord

## Index to Tables

Table No. ....	Page
1. Total production of pulpwood in the Northeast, by state and source, 1997, and totals for 1996 and 1995 .....	7
2. Pulpwood production from roundwood in the Northeast, by state and softwood and hardwood, 1995, 1996, and 1997 .....	7
3. Pulpwood chip production from manufacturing residues in the Northeast, by state and softwood and hardwood, 1995, 1996, and 1997 .....	8
4. Pulpwood receipts from roundwood in the Northeast, by state and softwood and hardwood, 1995, 1996, and 1997 .....	8
5. Pulpwood receipts from manufacturing residues in the Northeast, by state and softwood and hardwood, 1995, 1996, and 1997 .....	9
6. Pulpwood production from roundwood in the Northeast, by state and species group, 1997 and totals by species for 1996 and 1995 .....	9
7. Pulpwood production from roundwood in northern New England by state, county, and softwood and hardwood, 1997 .....	10
8. Pulpwood production from roundwood in southern New England, by state, county, and softwood and hardwood, 1997 .....	11
9. Pulpwood production from roundwood in New York, by county and softwood and hardwood, 1997 .....	12
10. Pulpwood production from roundwood in Delaware, Maryland, and New Jersey, by county and softwood and hardwood, 1997 .....	13
11. Pulpwood production from roundwood in Pennsylvania, by county and softwood and hardwood, 1997 .....	14
12. Pulpwood production from roundwood in West Virginia, by county and softwood and hardwood, 1997 .....	16
13. Pulpwood production from roundwood in Ohio, by county and softwood and hardwood, 1997 .....	17
14. Production and receipts of pulpwood in the Northeast, by state and softwood hardwood, 1997, and totals for 1996 and 1995 .....	18
15. Balance of pulpwood shipments into and out of states, 1995, 1996, and 1997 .....	19
16. Imports of roundwood into the Northeast, by state (or province) of origin, state of consumption, and softwood and hardwood, 1995, 1996, and 1997 .....	19
17. Imports of manufacturing residues used for pulp into the Northeast, by state (or province) of origin, state of consumption, and softwood and hardwood, 1995, 1996, and 1997 .....	20
18. Harvest intensity: average annual pulpwood roundwood removals per acre of timberland in the Northeast, 1997 .....	20

**Table 1.—Total production of pulpwood in the Northeast, by state and source, 1997, and totals for 1996 and 1995**

(In thousands of standard cords) <sup>a</sup>			
State	From round wood	From manufacturing	All sources
Connecticut	12.5	0.6	13.1
Delaware	29.7	3.1	32.8
Maine	3,487.8	883.8	4,371.6
Maryland	199.3	132.3	331.6
Massachusetts	17.6	8.0	25.6
New Hampshire	555.6	143.4	699.0
New Jersey	13.4	7.8	21.2
New York	736.7	208.7	945.4
Ohio	272.1	223.8	495.9
Pennsylvania	809.5	420.5	1,230.0
Rhode Island	*	—	*
Vermont	382.9	83.4	466.3
West Virginia	265.5	414.2	679.7
Total 1997	6,782.6	2,529.6	9,312.2
Total 1996	6,391.3	2,484.4	8,875.7
Total 1995	6,784.6	2,628.4	9,413.0

<sup>a</sup>Cords are on a rough-wood basis, equivalent to 85 cubic feet of solid wood.

\*Less than 50 cords.

**Table 2.—Pulpwood production from roundwood in the Northeast, by state and softwood and hardwood, 1995, 1996, and 1997**

(In thousands of standard cords)									
State	Softwood			Hardwood			Total		
	1995	1996	1997	1995	1996	1997	1995	1996	1997
Connecticut	3.3	3.0	9.7	*	*	2.8	3.3	3.0	12.5
Delaware	29.9	50.7	22.4	5.0	9.9	7.3	34.9	60.6	29.7
Maine	1,443.9	1,389.2	1,589.4	1,940.5	1,587.4	1,898.4	3,384.4	2,976.6	3,487.8
Maryland	96.7	104.4	108.8	87.5	87.9	90.5	184.2	192.3	199.3
Massachusetts	13.6	11.8	16.3	.3	1.2	1.3	13.9	13.0	17.6
New Hampshire	201.3	249.5	211.1	366.9	356.5	344.5	568.2	606.0	555.6
New Jersey	.3	5.9	9.3	.1	.6	4.1	.4	6.5	13.4
New York	321.2	297.4	243.7	366.6	365.5	493.0	687.8	662.9	736.7
Ohio	32.8	35.3	31.4	276.4	287.7	240.7	309.2	323.0	272.1
Pennsylvania	40.7	74.0	92.1	666.9	704.4	717.4	707.6	778.4	809.5
Rhode Island	*	4.3	*	—	—	—	*	4.3	*
Vermont	221.9	203.2	152.5	224.5	211.6	230.4	446.4	414.8	382.9
West Virginia	65.4	54.1	55.0	301.2	295.8	210.5	366.6	349.9	265.5
Total	2,471.0	2,482.8	2,541.7	4,235.9	3,908.5	4,240.9	6,706.9	6,391.3	6,782.6

\*Less than 50 cords.

**Table 3.—Pulpwood chip production from manufacturing residues in the Northeast, by state and softwood and hardwood, 1995, 1996, and 1997**

(In thousands of standard cords)

State	Softwood			Hardwood			Total		
	1995	1996	1997	1995	1996	1997	1994	1995	1997
Connecticut	—	—	—	4.4	4.2	.6	4.4	4.2	.6
Delaware	.9	.6	—	2.8	2.9	3.1	3.7	3.5	3.1
Maine	732.3	755.4	827.1	91.9	56.8	56.7	824.2	812.2	883.8
Maryland	82.6	83.8	96.1	42.7	43.5	36.2	125.3	127.3	132.3
Massachusetts	8.4	3.5	4.6	5.9	4.7	3.4	14.3	8.2	8.0
New Hampshire	198.7	132.9	138.2	40.5	37.2	5.2	239.2	170.1	143.4
New Jersey	—	—	—	8.9	6.3	7.8	*	6.3	7.8
New York	55.5	23.5	34.5	180.2	159.4	174.2	235.7	182.9	208.7
Ohio	3.5	3.3	2.7	285.4	285.7	221.1	288.9	289.0	223.8
Pennsylvania	11.2	9.0	11.6	427.1	417.6	408.9	438.3	426.6	420.5
Rhode Island	—	.1	—	1.9	1.0	—	1.9	1.1	—
Vermont	39.0	41.4	53.9	11.6	25.5	29.5	50.6	66.9	83.4
West Virginia	5.6	6.8	8.8	387.4	379.3	405.4	393.0	386.1	414.2
<b>Total</b>	<b>1,137.7</b>	<b>1,060.3</b>	<b>1,177.5</b>	<b>1,490.7</b>	<b>1,424.1</b>	<b>1,352.1</b>	<b>2,619.5</b>	<b>2,484.4</b>	<b>2,529.6</b>

\*Less than 50 cords.

**Table 4.—Pulpwood receipts from roundwood in the Northeast, by state and softwood and hardwood, 1995, 1996 and 1997**

(In thousands of standard cords)

State	Softwood			Hardwood			Total		
	1995	1996	1997	1995	1996	1997	1995	1996	1997
Maine	1,773.8	1,785.0	1,918.1	2,307.8	1,981.4	2,341.4	4,081.6	3,766.4	4,259.5
Maryland	D	D	D	D	D	D	D	D	D
New Hampshire	D	D	D	D	D	D	D	D	D
New York	527.3	471.0	375.7	296.3	295.8	318.3	823.6	766.8	694.0
Ohio	72.7	78.5	47.7	312.6	360.2	283.7	385.3	438.7	331.4
Pennsylvania	126.5	159.7	162.1	782.3	817.6	821.6	908.8	977.3	983.7
<b>Total</b>	<b>2,723.0</b>	<b>2,705.5</b>	<b>2,708.1</b>	<b>4,272.0</b>	<b>4,004.3</b>	<b>4,386.8</b>	<b>6,995.0</b>	<b>6,709.8</b>	<b>7,094.9</b>

D = Data withheld to avoid disclosure for individual mills.

**Table 5.—Pulpwood chip receipts from manufacturing residues in the Northeast, by state and softwood and hardwood, 1995, 1996 and 1997**

(In thousands of standard cords)

State	Softwood			Hardwood			Total		
	1995	1996	1997	1995	1996	1997	1995	1996	1997
Maine	946.8	902.3	1,052.3	145.0	85.7	59.2	1,091.8	988.0	1,111.5
Maryland	D	D	D	D	D	D	D	D	D
New Hampshire	D	D	D	D	D	D	D	D	D
New York	79.2	58.8	73.7	125.3	105.4	112.9	204.5	164.2	186.6
Ohio	7.0	10.2	4.8	363.2	383.4	284.1	370.2	393.6	288.9
Pennsylvania	64.0	64.0	62.9	558.5	538.9	554.3	622.5	602.9	617.2
Total	1,275.7	1,192.5	1,238.3	1,321.8	1,262.4	1,134.3	2,597.5	2,454.9	2,372.6

D = Data withheld to avoid disclosure for individual mills.

**Table 6.—Pulpwood production from roundwood in the Northeast, by state and species group, 1997 and totals by species for 1996 and 1995**

(In thousands of standard cords)

State	Softwood				Total hardwood <sup>a</sup>	All species
	Spruce and fir	Hemlock and tamarack	Pine	Total		
Connecticut	—	9.3	.4	9.7	2.8	12.5
Delaware	—	—	22.4	22.4	7.3	29.7
Maine	723.0	394.3	472.1	1,589.4	1,898.4	3,487.8
Maryland	—	—	108.8	108.8	90.5	199.3
Massachusetts	.2	5.9	10.2	16.3	1.3	17.6
New Hampshire	57.8	58.2	95.1	211.1	344.5	555.6
New Jersey	—	—	9.3	9.3	4.1	13.4
New York	39.4	113.8	90.5	243.7	493.0	736.7
Ohio	—	—	31.4	31.4	240.7	272.1
Pennsylvania	1.6	2.8	87.7	92.1	717.4	809.5
Rhode Island	*	—	—	*	—	*
Vermont	67.4	37.0	48.1	152.5	230.4	382.9
West Virginia	—	—	55.0	55.0	210.5	265.5
Total 1997	889.4	621.3	1,031.0	2,541.7	4,240.9	6,782.6
Total 1996	988.8	689.7	804.3	2,482.8	3,908.5	6,391.3
Total 1995	1,020.2	749.2	779.3	2,548.7	4,235.9	6,784.6

\*Less than 50 cords.

<sup>a</sup>Previous reports divided hardwoods into three species groups. The authors believe that this breakout is inaccurate because many mills do not keep records with this amount of detail. This and future reports will report total hardwood volumes only.

**Table 7.—Pulpwood production from roundwood in northern New England by state, county, and softwood and hardwood, 1997**

(In thousands of standard cords)

County	Softwood			Total	Total hardwood	All species
	Spruce and fir	Hemlock and tamarack	Pine			
MAINE						
Androscoggin	4.7	7.5	24.9	37.1	18.6	55.7
Aroostook	89.1	47.9	2.4	139.4	148.0	287.4
Cumberland	2.0	16.1	34.6	52.7	19.8	72.5
Franklin	61.6	50.3	17.3	129.2	173.5	302.7
Hancock	60.9	10.2	7.5	78.6	60.2	138.8
Kennebec	12.8	15.7	25.1	53.6	38.9	92.5
Knox	24.9	2.0	6.5	33.4	12.4	45.8
Lincoln	12.8	2.6	13.9	29.3	7.1	36.4
Oxford	50.5	73.6	44.2	168.3	179.9	348.2
Penobscot	115.7	51.9	21.1	188.7	191.6	380.3
Piscataquis	112.8	23.2	8.0	144.0	317.1	461.1
Sagadahoc	2.2	2.6	6.9	11.7	3.7	15.4
Somerset	98.6	65.2	14.3	178.1	303.3	481.4
Waldo	42.1	7.8	11.8	61.7	48.5	110.2
Washington	31.7	4.2	7.2	43.1	358.5	401.6
York	0.6	13.5	226.4	240.5	17.3	257.8
<b>Total</b>	<b>723.0</b>	<b>394.3</b>	<b>472.1</b>	<b>1,589.4</b>	<b>1,898.4</b>	<b>3,487.8</b>
NEW HAMPSHIRE						
Belknap	.1	2.1	11.8	14.0	5.7	19.7
Carroll	1.4	11.5	28.1	41.0	38.7	79.7
Cheshire	.0	1.7	3.6	5.3	4.2	9.5
Coos	48.4	6.6	8.4	63.4	164.5	227.9
Grafton	7.3	12.0	20.4	39.7	89.5	129.2
Hillsborough	*	.3	3.4	3.7	11.5	15.2
Merrimack	.1	.6	0.5	1.2	14.6	15.8
Rockingham	*	1.1	8.9	10.0	2.0	12.0
Strafford	.2	1.1	5.2	6.5	4.7	11.2
Sullivan	.3	21.2	4.8	26.3	9.1	35.4
<b>Total</b>	<b>57.8</b>	<b>58.2</b>	<b>95.1</b>	<b>211.1</b>	<b>344.5</b>	<b>555.6</b>
VERMONT						
Addison	.1	1.1	0.9	2.1	.3	2.4
Bennington	.1	.2	1.9	2.2	3.8	6.0
Caledonia	23.1	3.0	9.0	35.1	43.3	78.4
Chittenden	.1	.2	2.3	2.6	1.0	3.6
Essex	17.5	.7	2.7	20.9	87.8	108.7
Franklin	.1	4.4	2.0	6.5	16.5	23.0
Grand Isle	*	.1	—	0.1	*	0.1
Lamoille	2.1	1.6	1.3	5.0	5.1	10.1
Orange	3.6	6.9	5.8	16.3	14.5	30.8
Orleans	12.9	7.6	5.4	25.9	33.8	59.7
Rutland	.3	2.4	5.4	8.1	3.6	11.7
Washington	6.0	2.8	2.3	11.1	8.3	19.4
Windham	.6	4.5	4.3	9.4	2.1	11.5
Windsor	.9	1.5	4.8	7.2	10.3	17.5
<b>Total</b>	<b>67.4</b>	<b>37.0</b>	<b>48.1</b>	<b>152.5</b>	<b>230.4</b>	<b>382.9</b>

\*Less than 50 cords. Counties with no reported production are not listed.

**Table 8.—Pulpwood production from roundwood in southern New England, by state, county, and softwood and hardwood, 1997**

(In thousands of standard cords)

County	Softwood				Total	All species
	Spruce and fir	Hemlock and tamarack	Pine	Total hardwood		
CONNECTICUT						
Hartford	—	*	.3	.3	.1	.4
Litchfield	—	*	—	.0	—	.0
Middlesex	—	.1	—	.1	—	.1
New London	—	*	*	.0	—	.0
Tolland	—	—	—	.0	—	.0
Windham	*	9.2	.1	9.3	2.7	12.0
<b>Total</b>	<b>.0</b>	<b>9.3</b>	<b>.4</b>	<b>9.7</b>	<b>*</b>	<b>12.5</b>
MASSACHUSETTS						
Berkshire	.2	.2	*	.2		
Essex	1.2	1.2	.2	1.4		
Franklin	.4	*	.4	*	.4	
Hampden	5.1	*	5.1	.1	5.2	
Hampshire	.0	.1	.1	—	.1	
Middlesex	*	.6	.6	.3	.9	
Plymouth	.0	*	*			
Worcester	.2	.3	8.2	8.7	.7	9.4
<b>Total</b>	<b>.2</b>	<b>6.0</b>	<b>10.1</b>	<b>16.3</b>	<b>1.3</b>	<b>17.6</b>
RHODE ISLAND						
Newport	*	—	—	—	—	*
<b>Total</b>	<b>*</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>*</b>

\* Less than 50 cords. Counties with no reported production are not listed.

**Table 9.—Pulpwood production from roundwood in New York, by county and softwood and hardwood,1997**

(In thousands of standard cords)

County	Softwood			Total	Total hardwood	All species
	Spruce and fir	Hemlock and tamarack	Pine			
Albany	—	.4	1.0	1.4	1.2	2.6
Alleghany	—	.1	—	.1	3.7	3.8
Bronx	*	—	.1	.1	.3	.4
Broome	.3	.6	.6	1.5	8.9	10.4
Cattaraugua	—	—	1.2	1.2	5.7	6.9
Chautauqua	.3	—	—	.3	8.3	8.3
Chemung	—	—	.7	.7	2.6	3.3
Chenango	1.2	2.6	.1	3.9	2.1	6.0
Clinton	6.3	2.0	11.6	19.9	50.4	70.3
Columbia	*	.5	.3	.8	2.1	2.9
Cortland	2.1	.2	—	2.3	2.4	4.7
Delaware	.3	1.6	.4	2.3	3.2	5.5
Dutchess	.1	*	.1	*	.1	
Essex	.9	13.9	12.9	27.7	31.8	59.5
Franklin	11.2	5.6	3.8	20.6	60.5	81.1
Fulton	.7	9.4	7.1	17.2	12.2	29.4
Greene	—	1.2	.2	1.4	.4	1.8
Hamilton	2.8	6.0	1.6	10.4	38.6	49.0
Herkimer	1.2	3.0	.1	4.3	6.9	11.2
Jefferson	.3	1.3	.2	1.8	3.3	5.1
Lewis	2.8	3.6	.1	6.5	29.8	36.3
Madison	.4	.4	*	.8	.2	1.0
Monroe	.1	*	1.2	1.3	.3	1.6
Montgomery	.6	.6	—	1.2	.9	2.1
New York	—	—	—	—	1.7	1.7
Oneida	1.3	2.3	.1	3.7	6.8	10.5
Onondaga	.9	.5	*	1.4	.3	1.7
Oswego	—	4.0	—	4.0	3.3	7.3
Otsego	1.5	2.4	1.0	4.9	1.0	5.9
Rensselaer	*	3.4	1.2	4.6	8.3	12.9
Rockland	—	*	—	*	—	*
St. Lawrence	1.9	15.1	5.9	22.9	137.5	160.4
Saratoga	.3	10.4	19.0	29.7	23.0	52.7
Schenectady	*	.1	.2	.3	.2	.5
Schoharie	1.3	1.6	2.1	5.0	1.1	6.1
Schuyler	.3	—	.3	.6	—	.6
Stueben	—	—	—	—	.4	.4
Sullivan	—	.4	—	.4	1.0	1.4
Tioga	*	.3	.3	1.7	2.0	
Tompkins	—	—	—	—	1.3	1.3
Ulster	—	.4	*	.4	*	.4
Warren	.4	13.2	13.1	26.7	23.0	49.7
Washington	—	6.9	4.1	11.0	6.6	17.6
<b>Total</b>	<b>39.4</b>	<b>113.8</b>	<b>90.5</b>	<b>243.7</b>	<b>493.0</b>	<b>736.4</b>

\*Less than 50 cords. Counties with no reported production are not listed.

**Table 10.—Pulpwood production from roundwood in Delaware, Maryland, and New Jersey, by county and softwood and hardwood, 1997**

(In thousands of standard cords)

County	Softwood			Total	Total hardwood	All species
	Spruce and fir	Hemlock and tamarack	Pine			
DELAWARE						
Sussex	—	—	22.4	22.4	7.3	29.7
Total	—	—	22.4	22.4	7.3	29.7
MARYLAND						
Allegany	—	—	4.7	4.7	21.1	25.8
Anne Arundel	—	—	5.5	5.5	2.5	8.0
Baltimore	—	—	0.5	.5	5.7	6.2
Calvert	—	—	1.4	1.4	0.1	1.5
Caroline	—	—	3.8	3.8	0.5	4.3
Carroll	—	—	0.8	.8	1.2	2.0
Charles	—	—	14.7	14.7	3.1	17.8
Dorchester	—	—	4.5	4.5	0.6	5.1
Frederick	—	—	2.3	2.3	2.5	4.8
Garrett	—	—	5.3	5.3	28.6	33.9
Harford	—	—	*	*	0.6	.6
Howard	—	—	0.1	.1	0.7	.8
Kent	—	—	.1	.1	.1	
Montgomery	—	—	0.2	.2	0.8	1.0
Prince George	—	—	1.0	1.0	2.3	3.3
Queen Anne	—	—	—	—	*	.0
St. Marys	—	—	3.9	3.9	0.4	4.3
Somerset	—	—	16.9	16.9	4.0	20.9
Talbot	—	—	—	—	0.1	.1
Washington	—	—	—	—	0.8	.8
Wicomico	—	—	20.9	20.9	6.0	26.9
Worcester	—	—	22.2	22.2	8.9	31.1
Total	—	—	108.8	108.8	90.5	199.3
NEW JERSEY						
Atlantic	—	—	0.6	.6	0.3	0.9
Burlington	—	—	4.0	4.0	0.1	4.1
Cape May	—	—	0.2	.2	—	0.2
Cumberland	—	—	—	—	*	*
Gloucester	—	—	4.0	4.0	1.6	5.6
Hunterdon	—	—	—	—	0.1	0.1
Monmouth	—	—	—	—	0.1	0.1
Morris	—	—	—	—	0.2	0.2
Ocean	—	—	—	.5	*	0.5
Sussex	—	—	—	—	1.7	1.7
Total	—	—	8.8	9.3	4.1	13.4

\*Less than 50 cords. Counties with no reported production are not listed.

**Table 11.—Pulpwood production from roundwood in Pennsylvania, by county and softwood and hardwood, 1997**

(In thousands of standard cords)

County	Softwood			Total	Total hardwood	All species
	Spruce and fir	Hemlock and tamarack	Pine			
Adams	—	—	2.6	2.6	4.4	7.0
Allegheny	—	—	—	—	1.4	1.4
Armstrong	—	—	—	—	12.5	12.5
Bedford	—	—	5.0	5.0	18.6	23.6
Berks	—	—	.1	.1	1.5	1.6
Blair	—	—	.5	.5	8.7	9.2
Bradford	—	—	5.0	5.0	15.9	20.9
Bucks	—	—	.1	.1	.1	.2
Butler	—	—	—	—	3.6	3.6
Cambria	—	—	.2	.2	17.0	17.2
Cameron	—	—	—	—	8.0	8.0
Carbon	—	—	.6	.6	3.9	4.5
Centre	.1	.2	3.0	3.3	15.3	18.6
Chester	—	—	*	—	.2	.2
Clarion	—	—	—	—	2.7	2.7
Clearfield	—	—	9.7	9.7	56.0	65.7
Clinton	—	—	2.2	2.2	18.6	20.8
Columbia	—	—	.2	.2	4.5	4.7
Crawford	—	—	—	—	2.8	2.8
Cumberland	—	—	.6	.6	2.4	3.0
Dauphin	—	—	1.7	1.7	6.7	8.4
Delaware	—	—	.2	.2	—	.2
Elk	—	—	.2	.2	40.2	40.4
Erie	—	—	—	—	1.8	1.8
Fayette	—	—	—	—	1.0	1.0
Forest	—	—	—	—	48.7	48.7
Franklin	—	—	.4	.4	11.0	11.4
Fulton	—	—	7.2	7.2	5.5	12.7
Greene	—	—	—	.8	.8	
Huntingdon	.1	.1	7.0	7.2	16.7	23.9
Indiana	—	—	.3	.3	8.9	9.2
Jefferson	—	—	.8	.8	20.1	20.9
Juniata	—	—	4.4	4.4	3.4	7.8
Lackawanna	—	—	—	4.7	4.7	
Lancaster	—	—	*	*	6.0	6.0
Lawrence	—	—	—	—	5.6	5.6
Lebanon	—	—	.3	.3	2.0	2.3
Luzerne	—	.1	1.2	1.3	8.5	9.8
Lycoming	—	—	3.4	3.4	8.8	12.2
Mckean	—	—	—	—	58.0	58.0
Mercer	—	—	—	—	5.7	5.7
Mifflin	.3	.3	2.1	2.7	11.9	14.6
Monroe	*	.1	.2	.3	4.4	4.7
Montgomery	—	—	.1	.1	—	.1
Montour	—	—	.7	.7	*	.7

Continued

**Table 11.—Continued**

(In thousands of standard cords)

County	Softwood				Total hardwood	All species
	Spruce and fir	Hemlock and tamarack	Pine	Total		
Northumberland	—	—	2.0	2.0	1.2	3.2
Perry	—	—	7.3	7.3	1.0	8.3
Pike	—	—	.1	.1	6.2	6.3
Potter	—	—	—	—	51.6	51.6
Schuylkill	.9	1.3	3.6	5.8	34.3	40.1
Snyder	—	—	.9	.9	.7	1.6
Somerset	—	—	1.3	1.3	20.3	21.6
Sullivan	.2	.2	3.6	4.0	30.8	34.8
Susquehanna	—	.3	2.8	3.1	14.4	17.5
Tioga	—	—	1.7	1.7	13.8	15.5
Union	—	—	.5	.5	*	.5
Venango	—	—	—	—	5.0	5.0
Warren	—	—	—	—	29.8	29.8
Washington	—	—	—	—	.2	.2
Wayne	—	.2	.5	.7	8.8	9.5
Westmoreland	—	—	—	—	2.4	2.4
Wyoming	—	—	.8	.8	11.6	12.4
York	—	—	2.6	2.6	6.8	9.4
<b>Total</b>	<b>1.9</b>	<b>3.2</b>	<b>90.1</b>	<b>95.2</b>	<b>797.4</b>	<b>892.6</b>

\*Less than 50 cords. Counties with no reported production are not listed.

**Table 12.—Pulpwood production from roundwood in West Virginia, by county and softwood and hardwood, 1997**

(In thousands of standard cords)

County	Softwood				Total hardwood	All species
	Spruce and fir	Hemlock and tamarack	Pine	Total		
Barbour	—	—	—	—	1.1	1.1
Berkeley	—	—	2.6	2.6	6.7	9.3
Boone	—	—	.1	.1	1.7	1.8
Braxton	—	—	—	—	*	*
Doddridge	—	—	*	*	.6	.6
Grant	—	—	.1	.1	4.7	4.8
Greenbrier	—	—	1.8	1.8	6.6	8.4
Hampshire	—	—	7.8	7.8	10.8	18.6
Hardy	—	—	4.0	4.0	8.2	12.2
Harrison	—	—	—	—	.1	.1
Jackson	—	—	4.6	4.6	.5	5.1
Lewis	—	—	—	—	.1	.1
Marion	—	—	—	—	1.5	1.5
Marshall	—	—	—	—	.2	.2
Mason	—	—	3.0	3.0	.1	3.1
Mercer	—	—	.5	.5	.9	1.4
Mineral	—	—	1.9	1.9	11.7	13.6
Monongalia	—	—	—	—	1.9	1.9
Monroe	—	—	2.8	2.8	8.7	11.5
Morgan	—	—	3.6	3.6	3.8	7.4
Nicholas	—	—	.6	.6	40.5	41.1
Pendleton	—	—	4.2	4.2	14.7	18.9
Pleasants	—	—	.5	.5	.2	.7
Pocahontas	—	—	.5	.5	7.2	7.7
Preston	—	—	.7	.7	13.5	14.2
Putnam	—	—	8.7	8.7	10.0	18.7
Raleigh	—	—	*	*	8.6	8.6
Randolph	—	—	.1	.1	23.8	23.9
Ritchie	—	—	1.6	1.6	10.0	11.6
Roane	—	—	.3	.3	.5	.8
Summers	—	—	.1	.1	2.1	2.2
Tucker	—	—	.1	.1	3.5	3.6
Tyler	—	—	—	—	1.3	1.3
Webster	—	—	—	—	.0	
Wirt	—	—	4.8	4.8	4.6	9.4
Wyoming	—	—	—	—	.1	.1
<b>Total</b>	—	—	55.0	55.0	210.5	265.5

\*Less than 50 cords. Counties with no reported production are not listed.

**Table 13.—Pulpwood production from roundwood in Ohio, by county and softwood and hardwood, 1997**

(In thousands of standard cords)

County	Softwood			Total	Total hardwood	All species
	Spruce and fir	Hemlock and tamarack	Pine			
Adams	—	—	0.1	.1	2.7	2.8
Ashland	—	—	—	—	.5	.5
Ashtabula	—	—	—	—	.8	.8
Athens	—	—	.9	.9	2.2	3.1
Belmont	—	—	.6	.6	2.0	2.6
Carroll	—	—	—	—	2.5	2.5
Columbiana	—	—	—	—	10.5	10.5
Coshocton	—	—	—	—	23.1	23.1
Crawford	—	—	—	—	.9	.9
Cuyahoga	—	—	—	—	4.0	4.0
Delaware	—	—	—	—	.8	.8
Fairfield	—	—	.4	.4	.2	.6
Franklin	—	—	—	—	.4	.4
Fulton	—	—	—	—	4.9	4.9
Gallia	—	—	.9	.9	4.3	5.2
Geauga	—	—	—	—	*	*
Greene	—	—	—	—	8.2	8.2
Guernsey	—	—	—	—	5.3	5.3
Hamilton	—	—	—	—	.1	.1
Harrison	—	—	1.1	1.1	6.2	7.3
Highland	—	—	.0	3.2	3.2	
Hocking	—	—	.7	.7	5.4	6.1
Holmes	—	—	—	—	2.6	2.6
Huron	—	—	—	—	*	*
Jackson	—	—	3.2	3.2	31.3	34.5
Jefferson	—	—	—	—	3.7	3.7
Knox	—	—	—	—	.1	.1
Lake	—	—	—	—	4.3	4.3
Lawrence	—	—	.5	.5	3.3	3.8
Licking	—	—	—	—	3.8	3.8
Lorain	—	—	—	—	1.5	1.5
Lucas	—	—	—	—	.3	.3
Mahoning	—	—	—	—	1.0	1.0
Medina	—	—	—	—	2.5	2.5
Meigs	—	—	5.5	5.5	1.7	7.2
Mercer	—	—	4.5	4.5	9.5	14.0
Morgan	—	—	2.4	2.4	5.1	7.5
Morrow	—	—	—	—	.4	.4
Muskingum	—	—	3.2	3.2	6.5	9.7
Noble	—	—	—	—	1.1	1.1
Ottawa	—	—	—	—	*	*
Perry	—	—	—	—	1.3	1.3
Pike	—	—	2.1	2.1	13.4	15.5
Portage	—	—	—	—	.8	.8
Richland	—	—	—	—	.6	.6

Continued

**Table 13.—Continued**

(In thousands of standard cords)

County	Softwood				Total hardwood	All species
	Spruce and fir	Hemlock and tamarack	Pine	Total		
Ross	—	—	.1	.1	8.8	8.9
Sandusky	—	—	—	—	*	*
Scioto	—	—	1.6	1.6	21.0	22.6
Summit	—	—	—	—	6.5	6.5
Trumbull	—	—	—	—	6.4	6.4
Union	—	—	—	—	.3	.3
Vinton	—	—	.4	.4	10.3	10.7
Washington	—	—	3.0	3.0	2.2	5.2
Wayne	—	—	.2	.2	2.2	2.4
<b>Total</b>	—	—	31.4	31.4	240.7	272.1

\*Less than 50 cords. Counties with no reported production are not listed.

**Table 14.—Production and receipts of pulpwood in the Northeast, by state and softwood and hardwood, 1997, and totals for 1996 and 1995**

(In thousands of standard cords)

State	Produced in state		Received in state	
	Softwood	Hardwood	Softwood	Hardwood
Connecticut	9.7	3.4	0	0
Delaware	22.4	10.4	0	0
Maine	2,416.5	1,955.1	2,970.4	2,400.6
Maryland	204.9	126.7	183.9	332.0
Massachusetts	20.9	4.7	0	0
New Hampshire	349.3	349.7	65.2	413.6
New Jersey	9.3	11.9	0	0
New York	278.2	667.2	449.4	431.2
Ohio	34.1	461.8	52.5	567.8
Pennsylvania	103.7	1,126.3	225.0	1,375.9
Rhode Island	—	—	0	0
Vermont	206.4	259.9	0	0
West Virginia	63.8	615.9	0	0
<b>Total 1997</b>	<b>3,719.2</b>	<b>5,593.0</b>	<b>3,946.4</b>	<b>5,521.1</b>
<b>Total 1996</b>	<b>3,543.1</b>	<b>5,332.6</b>	<b>3,898.0</b>	<b>5,266.7</b>
<b>Total 1995</b>	<b>3,686.4</b>	<b>5,726.6</b>	<b>3,998.7</b>	<b>5,593.8</b>

**Table 15.—Balance of pulpwood shipments into and out of states, 1995, 1996, and 1997**

State	1995 Net export (+) import (-)	1996 Net export (+) import (-)	1997 Net export (+) import (-)
Connecticut	+7.4	+7.2	+13.1
Delaware	+23.8	+64.1	+32.8
Maine	-883.8	-965.6	-999.4
Maryland	-212.0	-214.7	-184.3
Massachusetts	+26.6	+21.2	+25.6
New Hampshire	+250.0	+243.6	+220.2
New Jersey	+9.2	+12.8	+21.2
New York	-116.1	-85.2	+64.8
Ohio	-152.7	-220.3	-124.4
Pennsylvania	-360.8	-375.2	-370.9
Rhode Island	+2.3	+5.4	+0.0
Vermont	+461.1	+481.7	+466.3
West Virginia	+765.5	+736.0	+679.7
Northeast	-179.5	-289.0	-187.1

**Table 16.—Imports of roundwood into the Northeast, by state (or province) of origin, state of consumption, and softwood and hardwood, 1995, 1996, and 1997**

(In thousands of standard cords)

Receiving state	State or province of origin	1995			1996			1997		
		Softwood	Hardwood	Total	Softwood	Hardwood	Total	Softwood	Hardwood	Total
Maine	Mississippi	—	—	—	—	—	—	*	—	*
	New Brunswick	34.1	195.3	229.4	35.2	231.2	266.4	8.9	351.4	360.3
	Nova Scotia	—	—	—	—	—	—	5.8	—	5.8
	Ontario	—	—	—	—	1.1	1.1	.4	—	.4
	Quebec	33.5	35.6	69.1	71.1	15.5	86.6	73.2	24.7	97.9
Maryland	Virginia	77.4	24.7	102.1	86.8	16.3	103.1	70.3	24.3	94.6
New Hampshire	Quebec	*	.5	.5	1.0	1.2	2.2	.1	4.7	4.8
New York	Nova Scotia	—	—	—	.5	—	.5	—	—	.5
	Ontario	.3	—	.3	11.8	—	11.8	.5	—	23.4
	Quebec	32.6	.3	32.9	24.4	*	24.4	23.4	.4	23.8
Ohio	Georgia	4.0	*	4.0	13.9	*	13.9	—	—	—
	Indiana	—	—	—	—	—	—	—	.2	.2
	Iowa	5.3	.1	5.4	—	—	—	—	—	—
	Kentucky	9.9	47.5	57.4	11.2	63.7	74.9	7.9	35.1	43.0
	South Carolina	—	—	—	—	—	—	—	—	.0
	Tennessee	—	—	—	1.4	.2	1.6	.5	—	.5
	Virginia	—	—	—	2.2	—	2.2	*	—	*
Pennsylvania	Virginia	49.0	4.3	53.3	43.5	6.7	50.2	49.2	10.6	59.8
Total		240.8	308.2	549.0	303.0	335.9	638.9	245.5	451.5	720.4

**Table 17.—Imports of manufacturing residues used for pulp into the Northeast, by state (or province) of origin, state of consumption, and softwood and hardwood, 1995, 1996, and 1997**

(In thousands of standard cords)

Receiving state	State or province of origin	1995			1996			1997		
		Softwood	Hardwood	Total	Softwood	Hardwood	Total	Softwood	Hardwood	Total
Maine	New Brunswick	46.4	3.8	50.2	201.0	1.2	202.2	93.7	1.8	95.5
	Quebec	157.1	5.7	162.8	171.9	2.6	174.5	71.1	—	71.1
Maryland	Virginia	9.2	.7	9.9	9.5	4.8	14.3	9.4	3.2	12.6
New Hampshire	Quebec	5.9	.8	6.7	—	—	—	—	—	—
New York	Quebec	10.1	3.9	14.0	—	—	—	—	—	—
Ohio	Indiana	—	2.3	2.3	—	—	—	—	1.4	—
	Kentucky	3.0	39.0	42.0	5.1	64.5	69.6	2.1	48.9	51.0
Pennsylvania	Virginia	3.7	14.8	18.5	3.9	14.1	18.0	2.8	15.9	18.7
<b>Total</b>		<b>235.4</b>	<b>71.0</b>	<b>306.4</b>	<b>391.4</b>	<b>87.2</b>	<b>478.6</b>	<b>179.1</b>	<b>71.2</b>	<b>248.9</b>

**Table 18.—Harvest intensity: average annual pulpwood roundwood removals per acre of timberland in the Northeast, 1997**

State	Timberland <sup>a</sup>	Average pulpwood harvest	Average harvest per acre <sup>b</sup>
		<i>Cords</i>	<i>Cubic feet</i>
	<i>Acres</i>		
Connecticut	1,777,300	12,500	0.60
Delaware	376,400	29,700	6.71
Maine	16,937,700	3,487,800	17.50
Maryland	2,424,000	199,300	6.99
Massachusetts	2,952,000	17,600	0.51
New Hampshire	4,812,100	555,600	9.81
New Jersey	1,857,000	13,400	0.61
New York	15,405,500	736,700	4.06
Ohio	7,567,400	272,100	3.06
Pennsylvania	15,872,800	809,500	4.33
Rhode Island	371,700	*	NA
Vermont	4,422,100	382,900	7.36
West Virginia	11,917,700	265,500	1.89
<b>Total</b>	<b>86,693,700</b>	<b>6,782,600</b>	<b>6.65</b>

<sup>a</sup>Most recent estimates of timberland by USDA Forest Service.

<sup>b</sup>Conversion factor is 85 cubic feet per cord.

Widmann, Richard H.; Griffith, Douglas M. 1999. **Pulpwood production in the Northeast—1997**. Resour. Bull. NE-144. Radnor, PA: U.S. Department of Agriculture, Forest Service, Northeastern Research Station. 20 p.

This report presents data on pulpwood production and consumption for the 13 Northeastern States for 1997. Tables contain data on pulpwood production and consumption from roundwood by county, and pulpwood chip production from manufacturing residues by state. Trends in pulpwood production are shown graphically.

**Keywords:** Residue, timber output, harvest

**Online at:** [http://www.fs.fed.us/ne/newtown\\_square/publications/resource\\_bulletins/](http://www.fs.fed.us/ne/newtown_square/publications/resource_bulletins/)





---

---

**Headquarters of the Northeastern Research Station is in Radnor, Pennsylvania. Field laboratories are maintained at:**

**Amherst, Massachusetts, in cooperation with the University of Massachusetts**

**Burlington, Vermont, in cooperation with the University of Vermont**

**Delaware, Ohio**

**Durham, New Hampshire, in cooperation with the University of New Hampshire**

**Hamden, Connecticut, in cooperation with Yale University**

**Morgantown, West Virginia, in cooperation with West Virginia University**

**Parsons, West Virginia**

**Princeton, West Virginia**

**Syracuse, New York, in cooperation with the State University of New York, College of Environmental Sciences and Forestry at Syracuse University**

**Warren, Pennsylvania**

---

---

The U. S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at (202)720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue SW, Washington, DC 20250-9410, or call (202)720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

***“Caring for the Land and Serving People Through Research”***