



United States
Department of
Agriculture

Forest Service

**Northeastern
Station**

Resource
Bulletin NE-76

1983

Pulpwood Production in the Northeast--1981

Richard H. Widmann



Pulpwood Production in the Northeast--1981

Richard H. Widmann

Abstract

This annual assessment of regional timber output is based on a canvass of the pulpmills in the Northeast that use roundwood or wood residue as a basic raw material for paper, insulation, and hardboard products. The report includes a discussion and tabular data on roundwood and manufacturing plant residues produced and received in 14 Northeastern states in 1981. This includes pulpwood production by state, county, and species group; pulpwood receipts from roundwood by state and species group; residue chip receipts by state and species group; and production of whole-tree chips by state. From 1980 to 1981, pulpwood production decreased 2 percent, roundwood production dropped less than 1 percent, and chipped residues dropped 6 percent. A list of woodpulp mills that receive northeastern pulpwood is included.

The Author

RICHARD H. WIDMANN, forester, received his B.S. degree in forest management from the University of Missouri in 1975. He joined the Northeastern Forest Experiment Station's Forest Inventory and Analysis work unit in 1978, and assisted in collecting field data for forest resource inventories of Ohio, New York, and Maine. In 1980 he was reassigned to the work unit's timber removals group, Broomall, PA.

Manuscript received for publication
7 February 1983

Cover Photos

New equipment demonstrated in West Virginia. Future supplies of pulpwood may be supplied by machines such as these, that are capable of thinning hardwood stands on slopes. (Top to bottom--feller buncher, grapple skidder, and whole-tree chipper.)

Companion Publication

A discussion of pulpwood harvest intensity and maps with production by county and cubic foot harvest per acre of forest land will be published later in 1983. This publication "Pulpwood Harvest Intensity--1981" will be prepared jointly with the Tennessee Valley Authority and will be available from the TVA, Norris, TN 37828 and the Northeastern Forest Experiment Station, 370 Reed Road, Broomall, PA 19008.

Contents

Introduction.....	1
Pulpwood Production Shows Small Decline.....	2
Roundwood Remains Stable.....	2
Residue Production Continues to Decline.....	2
Whole-Tree Chip Utilization.....	3
Four Pulpmills Close.....	3
Appendix.....	4
Definition of Terms.....	4
Metric Equivalents.....	4
Woodpulp Mills Using Northeastern Pulpwood.....	6
Index to Tables.....	9

Introduction

This annual report is based on a canvass of all pulpmills in the Northeast that use wood as a basic raw material to make pulp for the production of paper, insulation board, and hardboard products. Cross-boundary shipments are traced by exchanging information with neighboring experiment stations that conduct similar canvasses and by canvassing adjacent Canadian mills.

The statistics for production are based on mill receipts of roundwood and manufacturing plant residues.¹ These receipts are subject to year-to-year fluctuations in wood inventory. Mill receipts of pulpwood from roundwood are reported by county where harvested. However, pulpwood from plant residue can be traced only to the state where the residues were produced. Some of the logs from which the residues came were probably harvested in states other than the one in which they were processed.

Wood not reported in standard cords on pulpwood production questionnaires is converted. We use conversion factors for a specific mill if available. Otherwise, we use general conversion factors for the Northeast.

¹Definitions of roundwood, manufacturing plant residues, and other terms used in this report are in the appendix. Note that whole-tree chips are included as roundwood.

Pulpwood Production Shows Small Decline

The 8,296,800 cords of pulpwood produced in the 14 Northeastern states (Connecticut, Delaware, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and West Virginia) in 1981 was a decline of 2 percent from that reported in 1980. This was 184,700 cords less than the record high set in 1980 and still about 2 percent more than that produced in 1979 (Fig. 1).

Production in Maine rose less than 1 percent. But since Maine's production accounts for more than half of the Northeast's total, this slight increase moderated regional changes. New York was the only other major pulpwood producing state to show an increase (3 percent) over 1980.

Declines in production were recorded in seven major pulpwood producing states. New Hampshire had the largest decrease in volume (70,000 cords), dropping 15 percent in production since 1980. Other states with decreases in production were West Virginia (12 percent), Vermont (9 percent), Ohio (8 percent), Kentucky (6 percent), Pennsylvania (2 percent), and Maryland (less than 1 percent).

Delaware, Connecticut, Massachusetts, New Jersey, and Rhode Island continued their long decline in pulpwood production with a total of only 60,000

cords produced. Combined, these five states contribute less than 1 percent to the region's total production. New Jersey was the only one of these states with operating pulpmills in 1981. The other four states shipped their entire production out-of-state.

Roundwood Remains Stable

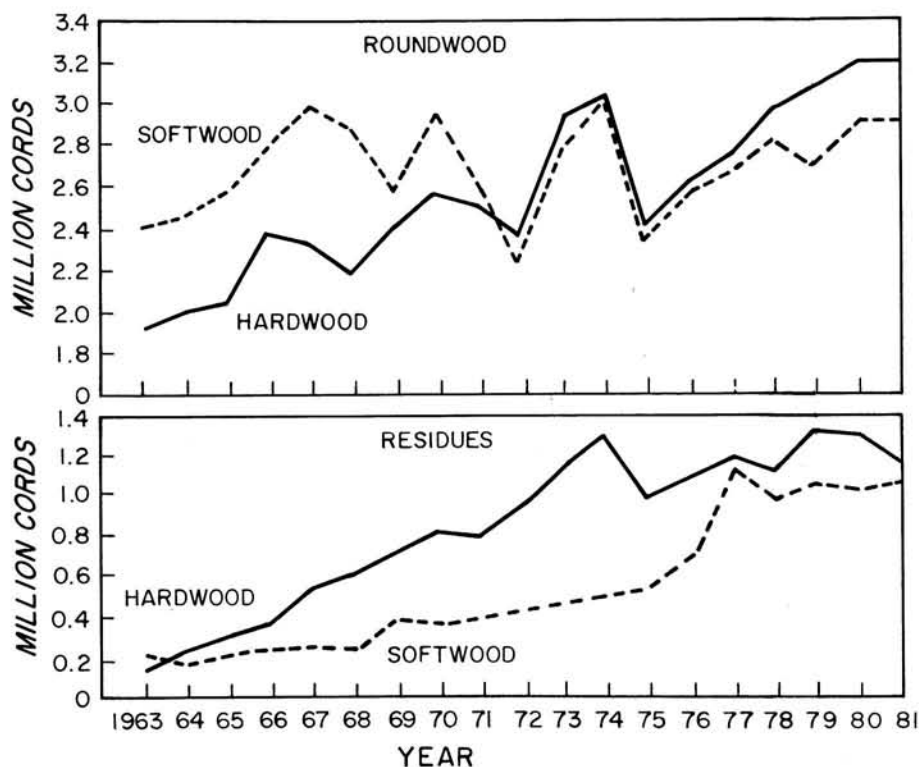
The production of pulpwood from roundwood decreased by 49,100 cords--less than a 1-percent decrease from 1980. The 6,091,200 cords of roundwood produced represent 73 percent of the total pulpwood production. Plant residues make up the remaining 27 percent. This is a small fluctuation from 1980 when roundwood made up 72 percent of the total production.

In 1981, roundwood production rose over the 1980 total in 4 of the 14 Northeastern states. New York and Pennsylvania were the only major pulpwood producing states with increases of 48,400 and 9,800 cords, respectively. Connecticut and New Jersey had minor increases with each producing 300 cords more than that produced in 1980.

Residue Production Continues to Decline

The production of wood chips from manufacturing residues continued to decline from the record high reached in 1979. The 3-percent drop in 1980 was

Figure 1.--Pulpwood production for the Northeastern States, by year and sources of wood.



followed by a 6-percent drop in 1981. Maine and Maryland were the only states with increases in chip production in 1981. The 64,500 cord equivalent increase in Maine and the 9,900 cord equivalent increase in Maryland helped offset a total decline of 210,100 cord equivalents in nine other states.

The drop in residue production in most states can be attributed to closings or reduced production at many sawmills in the Northeast. It is believed that the large increase in Maine's residue chip production was a result of sawmills cutting heavier than normal slabs and chipping much of the material that usually would be used for low-grade, small-dimension lumber. As the market for lumber tightened in 1981, sales of chipped residues were often critical to continued operations at many sawmills.

Whole-Tree Chip Utilization

The use of whole-tree chips has become a major source of raw material for some pulpmills in the Northeast. The advantages of this system are: increased production per man hour, increased fiber yield per acre, a cleaner site after logging, and a smaller procurement area. This system chips the entire aboveground portion of the tree and produces brown chips. These chips are dirtier than chips produced from bolewood alone because of increased amounts of grit, leaves, bark, and inferior juvenile wood. Whole-tree chips cause increased mechanical wear on pulpmill equipment and require increased chemical use to achieve the required standards for paper brightness. Most whole-tree chips produced in the region are used to produce kraft or semi-chemical pulp from hardwoods. As mills continue to solve the problems associated with the use of whole-tree chips, it can be expected that these chips will become more acceptable and production will increase.

Whole-tree chip production in the Northeast from 1977-81 was:

<u>State^a</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
----- (Thousand cords) -----					
Connecticut	--	--	0.1	--	--
Kentucky	3.2	2.4	--	5.8	3.9
Maine	--	--	--	3.2	--
Maryland	5.7	20.0	23.1	21.4	19.8
New Hampshire	75.1	49.5	30.9	32.3	37.4
New Jersey	--	--	--	1.4	1.3
New York	18.4	19.4	14.0	13.8	5.8
Ohio	132.4	195.9	233.4	262.3	249.3
Pennsylvania	6.6	71.7	63.6	62.1	98.4
Vermont	34.9	26.9	60.8	60.3	33.2
West Virginia	9.0	.4	3.4	64.1	36.1
<u>Total</u>	<u>285.3</u>	<u>386.2</u>	<u>429.3</u>	<u>526.7</u>	<u>485.2</u>

^a States with no whole-tree chip production are omitted.

After a record high of 526,700 cord equivalents of whole-tree chips was produced in 1980, production fell 8 percent in 1981 to 485,200. This reflects the overall drop in pulpwood production. Ohio was the largest producer of whole-tree chips accounting for 51 percent of the total production for the Northeast in 1981.

Ohio was also the largest consumer. Whole-tree chips made up 81 percent of the roundwood consumed at Ohio mills. Pennsylvania was the second largest producer with 98,398 cord equivalents produced in 1981. This was a 58-percent increase over 1980, the largest increase in whole-tree chip production in the Northeast.

Four Pulpmills Close

The recent housing slump and new product development were factors that contributed to the closing of four pulpmills in the Northeast. These were all comparatively small mills that produced pulp for adjacent roofing plants. In 1980, the John's Manville Corporation changed to a fiber glass base at their Manville, New Jersey, plant. In 1981, the Jim Walter Corporation shut down its Philadelphia mill and began buying the roofing felt for its Cincinnati, Ohio, plant instead of making it. Also in 1981, Bird and Son, Inc. in Franklin, Ohio, shut down its roofing plant for economic reasons.

The production of these low-capacity mills will probably be offset by recent additions and improvements to high-capacity pulpmills. One such expansion is a new 350-ton-per-day pulpmill addition to the Madison Paper Corporation's mill in Maine.

Appendix

Definition of Terms

Cord equivalent. A unit of measure that is 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.

Hardwoods. Dicotyledonous trees, usually broad-leaved and deciduous.

Harvest. The aggregate volume of timber produced for industrial or consumer uses.

Manufacturing plant 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 mostly converted into 4- or 5-foot lengths or chips and chipped plant residues that are used to make woodpulp.

Pulpwood production. Roundwood and manufacturing plant residues used to make woodpulp.

Pulpwood receipts. Pulpwood received at woodpulp mills.

Pulpwood imports. Pulpwood receipts originating from outside the Northeast.

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

Softwoods. Coniferous trees, usually evergreen with needles or scalelike leaves.

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.

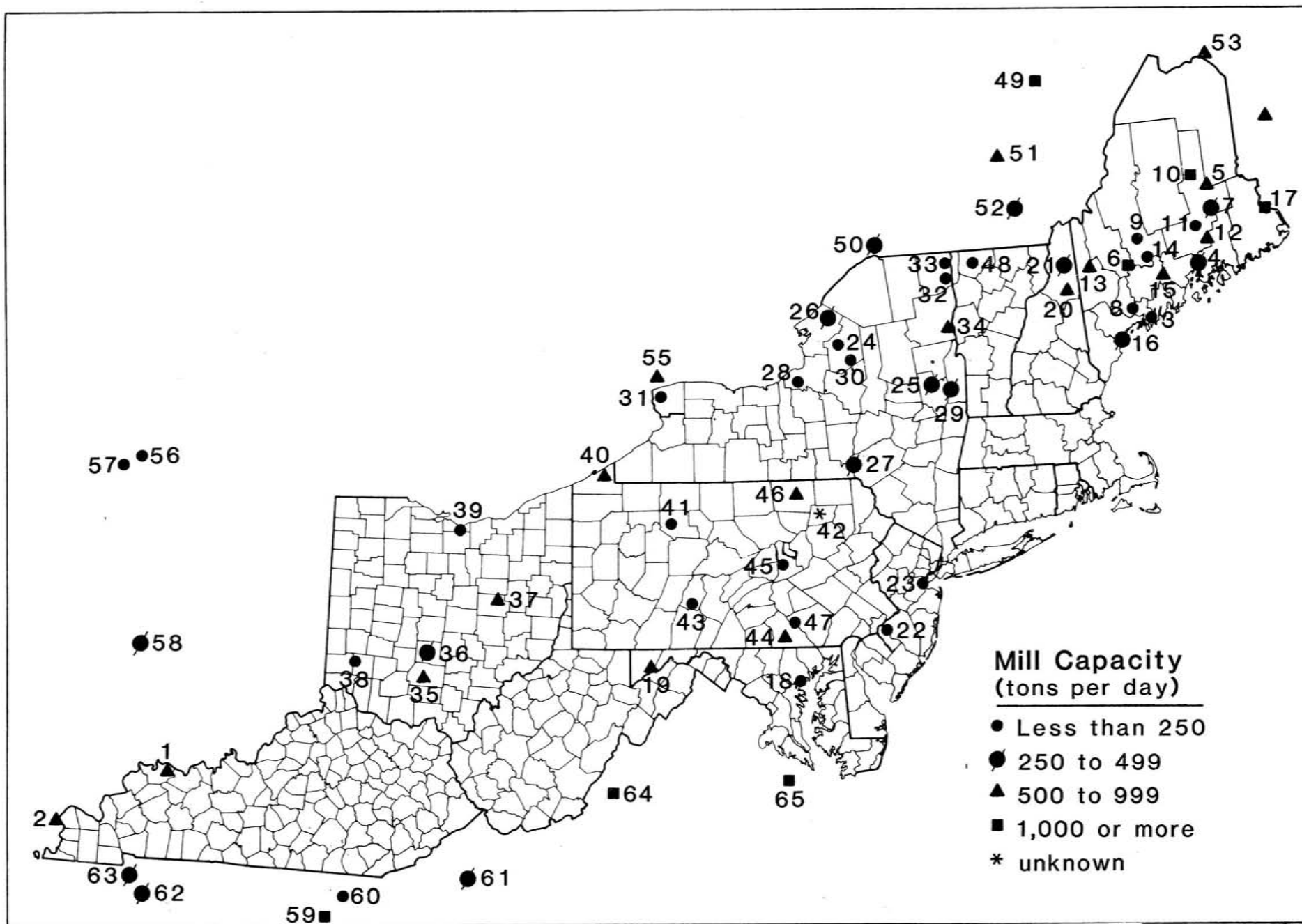
Timber products output. Production total from timber harvest and plant byproducts.

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

Metric Equivalents

One standard cord = 85 cubic feet (ft^3) = 2.41 cubic meters (m^3)

One cubic foot (ft^3) = 28,317 cubic centimeters (cm^3) = 0.028 cubic meters (m^3)



Operating pulp mills using wood from the Northeast

Woodpulp mills using northeastern pulpwood by location, type of pulp produced,
and oven-dry capacity, in tons per 24 hours, 1981

Location	Company name	Type of pulp produced					
		Total	Sulfate	Ground-wood	Semi-chemical	Sulfite	Miscellaneous ^a
WITHIN THE NORTHEAST							
Kentucky:							
1. Hawesville	Western Kraft Paper Group	800	400	-	400	-	-
	Willamette Industries, Inc. ^b						
2. Wickliffe	Westvaco Corp.	640	640	-	-	-	-
Total (3 mills)		1,440	1,040	-	400	-	-
Maine:							
3. Brunswick	Pejepscot Paper Co.	175	-	175	-	-	-
4. Bucksport	St. Regis Paper Co.	460	-	460	-	-	-
5. East Millinocket	Great Northern Nekoosa Corp.	800	-	800	-	-	-
6. Jay	International Paper Co. ^b	1,325	1,125	200	-	-	-
7. Lincoln	Preco Corp.	350	350	-	-	-	-
8. Lisbon Falls	United States Gypsum Co.	120	-	120	-	-	-
9. Madison	Madison Paper Corp.	120	-	120	-	-	-
10. Millinocket	Great Northern Nekoosa Corp. ^b	1,500	-	850	-	650	-
11. Old Town	Lily Tulip Corp.	50	-	50	-	-	-
12. Old Town	Diamond International Corp. ^b	600	600	-	-	-	-
13. Rumford	Boise Cascade Corp. ^b	960	690	270	-	-	-
14. Shawmut	Keyes Fibre Co.	120	-	120	-	-	-
15. Skowhegan	Scott Paper Co.	900	900	-	-	-	-
16. Westbrook	Scott Paper Co.	300	300	-	-	-	-
17. Woodland	Georgia-Pacific Corp. ^b	1,040	800	240	-	-	-
Total (21 mills)		8,820	4,765	3,405	-	650	-
Maryland:							
18. Finksburg	Congoleum Corp.	45	-	-	-	-	45
19. Luke	Westvaco Corp.	789	789	-	-	-	-
Total (2 mills)		834	789	-	-	-	45
New Hampshire:							
20. Berlin	Brown Co. ^b	950	740	-	210	-	-
21. Groveton	Diamond International Corp.	250	-	-	250	-	-
Total (3 mills)		1,200	740	-	460	-	-
New Jersey:							
22. Gloucester City	GAF Corp	192	-	-	-	-	192
23. Perth Amboy	Jim Walter Corp.	100	-	-	-	-	100
Total (2 mills)		292	-	-	-	-	292

Woodpulp mills - continued

Location	Company name	Type of pulp produced					
		Total	Sulfate	Ground-wood	Semi-chemical	Sulfite	Miscellaneous ^a
New York:							
24. Beaver Falls	Boise Cascade Corp.	70	-	70	-	-	-
25. Corinth	International Paper Co.	255	-	255	-	-	-
26. Deferiet	St. Regis Paper Co.	290	-	290	-	-	-
27. Deposit	Jim Walter Corp.	300	-	-	-	-	300
28. Fulton	Armstrong Cork Co.	130	-	-	-	-	130
29. Glens Falls	Finch, Pruyn & Co., Inc.	350	-	-	-	350	-
30. Lyons Falls	Georgia-Pacific Corp.	120	-	-	120	-	-
31. Niagara Falls	Nitec Paper Corp.	170	-	170	-	-	-
32. Platsburgh	Diamond International Corp.	50	-	50	-	-	-
33. Platsburgh	Georgia-Pacific Corp.	100	-	-	100	-	-
34. Ticonderoga	International Paper Co.	530	530	-	-	-	-
Total (11 mills)		2,365	530	835	220	350	430
Ohio:							
35. Chillicothe	The Mead Corp.	650	650	-	-	-	-
36. Circleville	Container Corp. of America	300	-	-	200	-	100
37. Coshocton	Stone Container Corp. ^b	650	-	-	650	-	-
38. Franklin	Georgia-Pacific Corp.	85	-	-	-	-	85
39. Milan	Certain-Teed Corp.	135	-	-	-	-	135
Total (6 mills)		1,820	650	-	850	-	320
Pennsylvania:							
40. Erie	Hammermill Paper Co.	700	-	-	700	-	-
41. Johnsonburg	Penntech Papers, Inc.	190	190	-	-	-	-
42. Mehoopany	Procter & Gamble Co.	^c	-	-	-	^c	-
43. Roaring Spring	Appleton Papers, Inc.	180	180	-	-	-	-
44. Spring Grove	The P.H. Glatfelter Co.	525	525	-	-	-	-
45. Sunbury	Jim Walter Corp.	240	-	-	240	-	-
46. Towanda	Masonite Corp.	500	-	-	-	-	500
47. York	Certain-Teed Corp.	85	-	-	-	-	85
Total (8 mills)		2,420	895	-	940	^c	585
Vermont:							
48. Sheldon Springs	Saxon Industries	80	-	80	-	-	-
Total (1 mill)		80	-	80	-	-	-
All Northeast states (57 mills)		19,271	9,409	4,320	2,870	1,000	1,672

continued

Errata for Resource Bulletin NE-76

8

Woodpulp mills - continued

Location	Company name	Type of pulp produced					
		Total	Sulfate	Ground-wood	Semi-chemical	Sulfite	Miscellaneous ^a
OUTSIDE THE NORTHEAST							
Canada:							
49. La Tuque	Canadian International Company	1,300	1,300	-	-	-	-
50. Cornwall	Domtar Woodlands, Ltd.	420	420	-	-	-	-
51. Donnacona	Domtar Forest Products, Ltd.	620	-	400	-	220	-
52. East Angus	Domtar Woodlands, Ltd. ^b	340	220	-	120	-	-
53. Edmundston	Fraser Inc.	952	-	360	-	592	-
54. Nackawic	St. Anne-Nackawic Pulp & Paper	650	-	-	650	-	-
55. Thorold	Ontario Paper Co., Ltd.	900	-	650	-	250	-
Total (8 mills)		5,182	1,940	1,410	770	1,062	-
Illinois:							
56. Chicago	Bird & Son, Inc.	40	-	40	-	-	-
57. Joliet	GAF Corp.	100	-	100	-	-	-
Total (2 mills)		140	-	140	-	-	-
Indiana:							
58. Terre Haute	The Weston Paper & Mfg. Co.	270	-	270	-	-	-
Total (1 mill)		270	-	270	-	-	-
Tennessee:							
59. Calhoun	Bowater Southern Paper Corp. ^b	2,230	720	1,300	-	-	210
60. Harriman	Harriman Paperboard Corp.	190	-	-	190	-	-
61. Kingsport	The Mead Corp.	270	-	-	-	270	-
62. New Johnsonville	Inland Container Corp.	450	-	-	450	-	-
63. Paris	Jim Walter Corp	300	-	-	-	-	300
Total (7 mills)		3,440	720	1,300	640	270	510
Virginia:							
64. Covington	Westvaco Corp. ^b	1,500	1,250	-	250	-	-
65. West Point	Chesapeake Corp. of Va.	1,450	1,150	-	300	-	-
Total (4 mills)		2,950	2,400	-	550	-	-
Total all other states (22 mills)		11,982	5,060	3,120	1,960	1,332	510
Total all states (79 mills)		31,253	14,469	7,440	4,830	2,332	2,182

^aRoofing, insulation board, and hardboard plants.

^bMore than one pulpmill operating.

^cCapacity unknown.

Index to Tables

1. Total production of pulpwood in the Northeast, by state and source, 1981.
2. Production and receipts of pulpwood in the Northeast, by state and softwood and hardwood 1981.
3. Pulpwood production from roundwood in the Northeast, by state, softwood and hardwood, and destination of shipment, 1981.
4. Pulpwood chip production from manufacturing residues in the Northeast, by state, softwood and hardwood, and destination of shipment, 1981.
5. Pulpwood receipts from roundwood in the Northeast, by state, softwood and hardwood, and origin of shipment, 1981.
6. Pulpwood chip receipts from manufacturing residues in the Northeast, by state, softwood and hardwood, and origin of shipment, 1981.
7. Pulpwood production from roundwood received from states outside the Northeast, by state (or province) of origin and softwood and hardwood, 1981.
8. Pulpwood chip receipts from wood-using manufacturing plants outside the Northeast, by state (or province) of origin and softwood and hardwood, 1981.
9. Pulpwood production from roundwood in the Northeast, by state and species group, 1981.
10. Pulpwood production from roundwood in Kentucky and Ohio, by county and species group, 1981.
11. Pulpwood production from roundwood in southern New England, by state, county, and species group, 1981.
12. Pulpwood production from roundwood in northern New England, by state, county, and species group, 1981.
13. Pulpwood production from roundwood in New York, by county and species group, 1981.
14. Pulpwood production from roundwood in Pennsylvania, by county and species group, 1981.
15. Pulpwood production from roundwood in Delaware, Maryland, and New Jersey, by county and species group, 1981.
16. Pulpwood production from roundwood in West Virginia, by county and species group, 1981.
17. Bark generated from roundwood pulpwood in the Northeast, by state and species group, 1981.

Table 1.-Total production of pulpwood in the Northeast, by state and source, 1981

(In thousands of standard cords)^a

State	From roundwood	From manufacturing residues	From all sources
Connecticut	1.0	4.9	5.9
Delaware	25.8	-	25.8
Kentucky	77.4	256.5	333.9
Maine	3,417.6	837.4	4,255.0
Maryland	136.1	143.0	279.1
Massachusetts	.8	17.6	18.4
New Hampshire	247.8	162.0	409.8
New Jersey	8.8	.6	9.4
New York	665.5	149.3	814.8
Ohio	293.8	109.1	402.9
Pennsylvania	699.0	308.8	1,007.8
Rhode Island	-	-	-
Vermont	283.4	59.1	342.5
West Virginia	235.2	156.3	391.5
Total	6,092.2	2,204.6	8,296.8

^aRough wood basis, equivalent to 85 ft³ solid wood.

Table 2.-Production and receipts of pulpwood in the Northeast, by state and softwood and hardwood, 1981

(In thousands of standard cords)

State	Produced in state		Received in state		Net export (+) import (-)
	Softwood	Hardwood	Softwood	Hardwood	
Connecticut	2.3	3.6	-	-	+ 5.9
Delaware	24.1	1.7	-	-	+ 25.8
Kentucky	14.1	319.8	173.8	646.5	-486.4
Maine	2,953.4	1,301.6	3,166.9	1,455.9	-367.8
Maryland	172.8	106.3	188.0	299.6	-208.5
Massachusetts	9.1	9.3	-	-	+ 18.4
New Hampshire	212.7	197.1	110.9	288.7	+ 10.2
New Jersey	6.7	2.7	(D)	(D)	(D)
New York	279.0	535.8	362.8	461.4	- 9.4
Ohio	.1	402.8	4.6	478.5	-80.2
Pennsylvania	54.6	953.2	199.0	1,018.0	-209.2
Rhode Island	-	-	-	-	-
Vermont	185.5	157.0	(D)	(D)	(D)
West Virginia	51.4	340.1	-	-	+391.5
Total	3,965.8	4,331.0	4,252.6	4,655.1	-610.8

(D) Data withheld to avoid disclosure for individual mills.

Table 3.-Pulpwood production from roundwood in the Northeast, by state, softwood and hardwood, and destination of shipment, 1981

(In thousands of standard cords)

State	Softwood				Hardwood				All species
	Retained in state	Shipped to other states			Retained in state	Shipped to other states			
		In Northeast	Outside Northeast	Total		In Northeast	Outside Northeast	Total	
Connecticut	-	1.0	-	1.0	-	-	-	-	1.0
Delaware	-	20.4	3.7	24.1	-	1.7	-	1.7	25.8
Kentucky	0.1	-	11.7	11.8	52.2	7.7	5.7	65.6	77.4
Maine	2,127.6	23.2	47.8	2,198.6	1,176.3	40.8	1.9	1,219.0	3,417.6
Maryland	19.2	34.3	20.9	74.4	54.9	6.8	*	61.7	136.1
Massachusetts	-	.8	-	.8	-	-	-	-	.8
New Hampshire	25.2	71.9	4.1	101.2	104.6	42.0	-	146.6	247.8
New Jersey	2.1	4.6	-	6.7	.6	1.5	-	2.1	8.8
New York	232.6	.5	1.0	234.1	352.0	30.8	48.6	431.4	665.5
Ohio	-	-	-	-	293.7	.1	-	293.8	293.8
Pennsylvania	21.9	21.4	-	43.3	617.7	38.0	-	655.7	699.0
Rhode Island	-	-	-	-	-	-	-	-	-
Vermont	20.4	118.5	20.1	159.0	-	124.4	-	124.4	283.4
West Virginia	-	43.8	4.6	48.4	-	88.6	98.2	186.8	235.2
Total	2,449.1	340.4	113.9	2,903.4	2,652.0	382.4	154.4	3,188.8	6,092.2

*Less than 50 cords.

Table 4.-Pulpwood chip production from manufacturing residues in the Northeast,
by state, softwood and hardwood, and destination of shipment, 1981^a

(In thousands of standard-cord equivalents)

State	Softwood				Hardwood				All species
	Produced and retained in state	Shipped to other states		Total	Produced and retained in state	Shipped to other states		Total	
		In Northeast	Outside Northeast			In Northeast	Outside Northeast		
Connecticut	-	1.3	-	1.3	-	3.6	-	3.6	4.9
Delaware	-	-	-	-	-	-	-	-	-
Kentucky	-	2.0	0.3	2.3	182.1	35.5	36.6	254.2	256.5
Maine	733.8	.5	20.5	754.8	73.1	3.1	6.4	82.6	837.4
Maryland	16.5	68.5	13.4	98.4	13.6	31.0	-	44.6	143.0
Massachusetts	-	8.3	-	8.3	-	9.3	-	9.3	17.6
New Hampshire	45.3	65.3	.9	111.5	40.9	9.6	-	50.5	162.0
New Jersey	-	-	-	-	-	.6	-	.6	.6
New York	34.7	10.2	-	44.9	35.5	64.7	4.2	104.4	149.3
Ohio	-	-	.1	.1	108.0	1.0	-	109.0	109.1
Pennsylvania	7.7	3.6	-	11.3	250.8	46.7	-	297.5	308.8
Rhode Island	-	-	-	-	-	-	-	-	-
Vermont	-	25.2	1.3	26.5	-	32.6	-	32.6	59.1
West Virginia	-	.6	2.4	3.0	-	69.0	84.3	153.3	156.3
Total	838.0	185.5	38.9	1,062.4	704.0	306.7	131.5	1,142.2	2,204.6

^aIncludes sawmill slabs and edgings, sawdust, veneer cores, and post and piling trimmings.

Table 5.-Pulpwood receipts from roundwood in the Northeast, by state, softwood and hardwood, and origin of shipment, 1981

(In thousands of standard cords)

State ^a	Softwood				Hardwood				All species
	Cut in state	Received from other states			Cut in state	Received from other states			
		In Northeast	Outside Northeast	Total		In Northeast	Outside Northeast	Total	
Kentucky	0.1	-	100.1	100.2	52.2	-	154.2	206.4	306.6
Maine	2,127.6	106.3	73.9	2,307.8	1,176.3	54.6	138.2	1,369.1	3,676.9
Maryland	19.2	60.4	57.0	136.6	54.9	114.0	13.5	182.4	319.0
New Hampshire	25.2	34.9	-	60.1	104.6	124.9	.6	230.1	290.2
New Jersey	2.1	(D)	-	(D)	.6	(D)	-	(D)	(D)
New York	232.6	74.2	-	306.8	352.0	29.4	6.0	387.4	694.2
Ohio	-	-	-	-	293.7	18.5	-	312.2	312.2
Pennsylvania	21.9	64.3	46.3	132.5	617.7	40.9	4.4	663.0	795.5
Vermont	20.4	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)
Total	2,449.1	340.4	277.3	3,066.8	2,652.0	382.4	316.9	3,351.3	6,418.7

^aStates with no pulp mills are omitted.

(D)Data withheld to avoid disclosure for individual mills.

Table 6.-Pulpwood chip receipts from manufacturing residues in the Northeast, by state, softwood and hardwood, and origin of shipment, 1981^a

(In thousands of standard cord equivalents)

State ^b	Softwood				Hardwood				All species
	Produced in state	Received from other states			Produced in state	Received from other states			
		In Northeast	Outside Northeast	Total		In Northeast	Outside Northeast	Total	
Kentucky	-	-	73.6	73.6	182.1	-	258.0	440.1	513.7
Maine	733.8	73.4	51.9	859.1	73.1	13.7	-	86.8	945.9
Maryland	16.5	1.3	33.6	51.4	13.6	94.9	8.7	117.2	168.6
New Hampshire	45.3	4.8	.7	50.8	40.9	16.2	1.5	58.6	109.4
New Jersey	-	(D)	(D)	(D)	-	(D)	-	(D)	(D)
New York	34.7	21.3	-	56.0	35.5	29.5	9.0	74.0	130.0
Ohio	-	4.3	.3	4.6	108.0	55.3	3.0	166.3	170.9
Pennsylvania	7.7	56.6	2.2	66.5	250.8	91.3	12.9	355.0	421.5
Vermont	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Total	838.0	185.5	162.3	1,185.8	704.0	306.7	293.1	1,303.8	2,489.6

^aIncludes sawmill slabs and edgings, sawdust, veneer cores, and post and pole trimmings.

^bStates with no pulp mills are omitted.

(D)Data withheld to avoid disclosure of data from individual mills.

Table 7.-Pulpwood production from roundwood received from states outside the Northeast, by state (or province) of origin and softwood and hardwood, 1981

(In thousands of standard cords)

Receiving state ^a	State or province of origin	Softwood	Hardwood	All species
Kentucky.....	Illinois	12.8	21.0	33.8
	Indiana	-	9.9	9.9
	Mississippi	73.3	71.6	144.9
	Missouri	.1	9.1	9.2
	Tennessee	13.9	42.6	56.5
Maine.....	New Brunswick	41.2	116.0	157.2
	Quebec	32.7	22.2	54.9
Maryland.....	Virginia	57.0	13.5	70.5
New Hampshire.....	Quebec	-	.6	.6
New York.....	Ontario	-	6.0	6.0
Pennsylvania.....	Virginia	46.3	4.4	50.7
All States		277.3	316.9	594.2

^aStates with no extraregional receipts are omitted.

Table 8.-Pulpwood chip receipts from wood-using manufacturing plants outside the Northeast, by state (or province) of origin and softwood and hardwood, 1981^a

(In thousands of standard cord equivalents)

Receiving state ^b	State or province of origin	Softwood	Hardwood	All species
Kentucky.....	Alabama	-	2.4	2.4
	Arkansas	-	.8	.8
	Illinois	0.2	21.8	22.0
	Indiana	-	87.2	87.2
	Mississippi	70.1	25.9	96.0
	Missouri	2.6	53.2	55.8
	Tennessee	.7	66.7	67.4
Maine.....	New Brunswick	9.7	-	9.7
	Quebec	42.2	-	42.2
Maryland.....	Virginia	33.6	8.7	42.3
New Hampshire.....	Quebec	.7	1.5	2.2
New York.....	Ontario	-	9.0	9.0
Ohio.....	Indiana	-	2.9	2.9
	Tennessee	*	.1	.1
	Virginia	.3	-	.3
Pennsylvania.....	Virginia	2.2	12.9	15.1
All states		162.3	293.1	455.4

^aIncludes sawmill slabs and edgings, sawdust, veneer cores, and post and piling trimmings.

^bStates with no extraregional receipts are omitted.

*Less than 50 cords.

Table 9.-Pulpwood production from roundwood in the Northeast, by state and species group, 1981

(In thousands of standard cords)

State	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
Connecticut	-	0.9	0.1	1.0	-	-	-	-	1.0
Delaware	-	-	24.1	24.1	-	1.0	0.7	1.7	25.8
Kentucky	-	-	11.8	11.8	9.5	42.8	13.3	65.6	77.4
Maine	1,799.4	203.3	195.9	2,198.6	160.2	23.0	1,035.8	1,219.0	3,417.6
Maryland	-	-	74.4	74.4	-	30.4	31.3	61.7	136.1
Massachusetts	.8	-	-	.8	-	-	-	-	.8
New Hampshire	59.7	13.1	28.4	101.2	16.5	.6	129.5	146.6	247.8
New Jersey	-	-	6.7	6.7	-	2.1	-	2.1	8.8
New York	83.1	81.1	69.9	234.1	32.6	7.8	391.0	431.4	665.5
Ohio	-	-	-	-	3.7	192.8	97.3	293.8	293.8
Pennsylvania	-	4.0	39.3	43.3	30.0	264.6	361.1	655.7	699.0
Rhode Island	-	-	-	-	-	-	-	-	-
Vermont	134.3	9.3	15.4	159.0	8.3	.8	115.3	124.4	283.4
West Virginia	-	-	48.4	48.4	*	93.0	93.8	186.8	235.2
Total	2,077.3	311.7	514.4	2,903.4	260.8	658.9	2,269.1	3,188.8	6,092.2

*Less than 50 cords.

Table 10.-Pulpwood production from roundwood in Kentucky and Ohio, by county and species group, 1981

(In thousands of standard cords)

County ^a	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
KENTUCKY									
Ballard	-	-	-	-	0.8	1.8	1.4	4.0	4.0
Boyd	-	-	-	-	-	.5	.6	1.1	1.1
Caldwell	-	-	0.1	0.1	.1	.2	.1	.4	.5
Calloway	-	-	-	-	-	.7	.5	1.2	1.2
Carlisle	-	-	*	*	6.8	1.4	1.4	9.6	9.6
Carter	-	-	-	-	-	.1	.1	.2	.2
Casey	-	-	-	-	-	4.1	.1	4.2	4.2
Crittenden	-	-	-	-	.2	.5	.4	1.1	1.1
Cumberland	-	-	-	-	-	*	*	*	*
Fulton	-	-	-	-	*	*	*	*	*
Graves	-	-	-	-	.3	1.0	1.2	2.5	2.5
Greenup	-	-	-	-	-	3.1	3.2	6.3	6.3
Knox	-	-	-	-	-	-	.6	.6	.6
Lewis	-	-	-	-	-	.1	*	.1	.1
Livingston	-	-	-	-	.6	1.4	1.1	3.1	3.1
Lyon	-	-	*	*	.6	1.5	1.1	3.2	3.2
McCracken	-	-	-	-	.1	.2	.2	.5	.5
McCreary	-	-	4.1	4.1	-	-	-	-	4.1
Ohio	-	-	-	-	-	24.7	-	24.7	24.7
Pulaski	-	-	-	-	-	.3	.2	.5	.5
Trigg	-	-	*	*	-	-	-	-	*
Wayne	-	-	-	-	-	*	*	*	*
Whitley	-	-	7.6	7.6	-	1.2	1.1	2.3	9.9
Total	-	-	11.8	11.8	9.5	42.8	13.3	65.6	77.4

continued

Table 10.-continued

County ^a	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
OHIO									
Adams	-	-	-	-	-	1.5	1.6	3.1	3.
Ashland	-	-	-	-	-	2.4	.1	2.5	2.5
Athens	-	-	-	-	0.6	10.2	4.0	14.8	14.8
Belmont	-	-	-	-	-	8.9	.5	9.4	9.4
Carroll	-	-	-	-	-	1.9.	.1	2.0	2.0
Columbiana	-	-	-	-	-	.6	*	.6	.6
Coshocton	-	-	-	-	-	9.7	.5	10.2	10.2
Cuyahoga	-	-	-	-	-	*	*	*	*
Fairfield	-	-	-	-	.1	.9	.4	1.4	1.4
Gallia	-	-	-	-	*	3.6	3.6	7.2	7.2
Guersney	-	-	-	-	-	8.3	.4	8.7	8.7
Harrison	-	-	-	-	-	2.0	.1	2.1	2.1
Highland	-	-	-	-	-	.7	.7	1.4	1.4
Hocking	-	-	-	-	1.1	9.5	4.4	15.0	15.0
Holmes	-	-	-	-	-	2.2	.1	2.3	2.3
Huron	-	-	-	-	-	1.0	.1	1.1	1.1
Jackson	-	-	-	-	.1	.9	.4	1.4	1.4
Jefferson	-	-	-	-	-	3.7	.2	3.9	3.9
Knox	-	-	-	-	-	4.5	.2	4.7	4.7
Lawrence	-	-	-	-	.2	2.5	2.1	4.8	4.8
Licking	-	-	-	-	-	3.4	.2	3.6	3.6
Mahoning	-	-	-	-	-	2.9	.2	3.1	3.1
Meigs	-	-	-	-	.1	.5	.3	.9	.9
Monroe	-	-	-	-	-	1.4	.1	1.5	1.5
Morgan	-	-	-	-	-	.2	*	.2	.2
Muskingum	-	-	-	-	-	10.7	.6	11.3	11.3
Noble	-	-	-	-	-	5.5	.3	5.8	5.8
Perry	-	-	-	-	.4	4.4	.9	5.7	5.7
Pickaway	-	-	-	-	*	1.3	1.2	2.5	2.5
Pike	-	-	-	-	*	19.0	14.9	33.9	33.9
Richland	-	-	-	-	-	.6	*	.6	.6
Ross	-	-	-	-	.1	14.6	14.3	29.0	29.0
Scioto	-	-	-	-	.1	20.6	20.7	41.4	41.4
Stark	-	-	-	-	-	.1	*	.1	.1
Trumbull	-	-	-	-	-	.3	*	.3	.3
Tuscarawas	-	-	-	-	-	3.0	.2	3.2	3.2
Vinton	-	-	-	-	.9	28.6	23.9	53.4	53.4
Wayne	-	-	-	-	-	.7	*	.7	.7
Total	-	-	-	-	3.7	192.8	97.3	293.8	293.8

^aCounties with no production are omitted.

*Less than 50 cords.

Table 11.-Pulpwood production from roundwood in southern New England, by state, county, and species group, 1981

(In thousands of standard cords)

County ^a	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
CONNECTICUT									
Hartford	-	*	0.1	0.1	-	-	-	-	0.1
Litchfield	-	0.9	*	.9	-	-	-	-	.9
Total	-	0.9	0.1	1.0	-	-	-	-	1.0
MASSACHUSETTS									
Berkshire	0.8	-	-	0.8	-	-	-	-	0.8
Total	0.8	-	-	0.8	-	-	-	-	0.8

^aCounties with no production are omitted.

*Less than 50 cords.

Table 12.-Pulpwood production from roundwood in northern New England, by state, county, and species group, 1981

(In thousands of standard cords)

County ^a	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
MAINE									
Androscoggin	5.3	4.1	18.3	27.7	2.2	0.5	8.4	11.1	38.8
Aroostook	478.0	19.5	.3	497.8	15.1	.1	87.8	103.0	600.8
Cumberland	2.8	4.7	15.1	22.6	1.6	2.0	10.5	14.1	36.7
Franklin	121.7	13.6	15.3	150.6	20.9	4.2	104.6	129.7	280.3
Hancock	39.1	1.9	—	41.0	3.7	—	34.7	38.4	79.4
Kennebec	53.4	18.2	22.2	93.8	6.7	.8	39.7	47.2	141.0
Knox	6.1	1.2	2.4	9.7	1.1	*	1.7	2.8	12.5
Lincoln	8.6	2.2	10.1	20.9	.8	.1	4.3	5.2	26.1
Oxford	60.2	26.3	40.2	126.7	19.8	6.3	119.3	145.4	272.1
Penobscot	176.9	45.2	6.2	228.3	24.6	.4	147.4	172.4	400.7
Piscataquis	364.1	31.5	14.6	410.2	12.0	1.3	164.5	177.8	588.0
Sagadahoc	1.4	.1	5.5	7.0	.1	*	.2	.3	7.3
Somerset	396.2	17.9	16.2	430.3	16.6	5.1	129.0	150.7	581.0
Waldo	24.3	2.0	2.6	28.9	4.1	.1	5.1	9.3	38.2
Washington	60.6	9.9	8.4	78.9	30.0	.4	172.3	202.7	281.6
York	.7	5.0	18.5	24.2	.9	1.7	6.3	8.9	33.1
Total	1,799.4	203.3	195.9	2,198.6	160.2	23.0	1,035.8	1,219.0	3,417.6
NEW HAMPSHIRE									
Belknap	—	0.2	0.6	0.8	0.2	—	2.0	2.2	3.0
Carroll	3.5	7.8	20.7	32.0	3.2	0.2	30.9	34.3	66.3
Cheshire	—	.6	.1	.7	*	—	.1	.1	.8
Coos	45.1	1.2	1.9	48.2	10.3	.2	75.2	85.7	133.9
Grafton	11.1	3.2	3.5	17.8	2.7	.2	20.1	23.0	40.8
Merrimack	—	—	.3	.3	*	—	*	*	.3
Rockingham	—	*	.4	.4	*	—	*	*	.4
Strafford	—	.1	.8	.9	.1	—	1.2	1.3	2.2
Sullivan	—	*	.1	.1	—	—	*	*	.1
Total	59.7	13.1	28.4	101.2	16.5	0.6	129.5	146.6	247.8
VERMONT									
Addison	0.5	0.1	0.3	0.9	0.2	—	0.7	0.9	1.8
Bennington	.7	.5	2.1	3.3	.3	—	6.1	6.4	9.7
Caledonia	29.7	2.0	3.3	35.0	1.4	0.6	15.0	17.0	52.0
Chittenden	1.2	—	.8	2.0	*	—	*	*	2.0
Essex	57.7	2.5	2.9	63.1	3.9	.2	61.6	65.7	128.8
Franklin	.6	.1	.5	1.2	.3	—	2.6	2.9	4.1
Lamoille	3.2	1.1	.4	4.7	*	—	1.8	1.8	6.5
Orange	2.5	.3	.5	3.3	.2	—	1.7	1.9	5.2
Orleans	29.6	1.4	1.2	32.2	1.2	—	10.5	11.7	43.9
Rutland	1.8	.7	2.7	5.2	.3	—	4.1	4.4	9.6
Washington	2.5	.1	.3	2.9	.1	—	.7	.8	3.7
Windham	2.1	.4	.2	2.7	.2	—	8.7	8.9	11.6
Windsor	2.2	.1	.2	2.5	.2	—	1.8	2.0	4.5
Total	134.3	9.3	15.4	159.0	8.3	0.8	115.3	124.4	283.4

^aCounties with no production are omitted.

*Less than 50 cords.

Table 13.-Pulpwood production from roundwood in New York, by county and species group, 1981

(In thousands of standard cords)

County ^a	Softwood				Hardwood			Total	All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood		
Albany	-	-	0.1	0.1	-	-	-	-	0.1
Allegany	0.1	-	1.0	1.1	-	-	-	-	1.1
Broome	.1	-	-	.1	0.8	1.7	3.7	6.2	6.3
Cattaraugus	-	-	-	-	-	1.9	3.1	5.0	5.0
Cayuga	.7	-	-	.7	*	-	-	*	.7
Chautauqua	-	-	-	-	-	-	.8	.8	.8
Chemung	-	-	.5	.5	1.3	.8	1.1	3.2	3.7
Chenango	5.7	-	.6	6.3	.8	.7	1.1	2.6	8.9
Clinton	4.3	1.4	3.2	8.9	4.6	-	26.6	31.2	40.1
Columbia	-	.5	.3	.8	.2	-	2.1	2.3	3.1
Cortland	1.9	-	-	1.9	.1	-	-	.1	2.0
Delaware	2.6	2.2	*	4.8	.1	.5	3.7	4.3	9.1
Dutchess	*	-	-	*	-	-	-	-	*
Essex	17.3	12.6	11.1	41.0	4.3	-	53.1	57.4	98.4
Franklin	9.8	4.1	4.9	18.8	2.9	-	59.7	62.6	81.4
Fulton	.2	3.9	7.0	11.1	.2	-	6.9	7.1	18.2
Hamilton	9.2	7.3	.3	16.8	1.2	-	44.3	45.5	62.3
Herkimer	8.4	1.1	.8	10.3	.2	-	17.7	17.9	28.2
Jefferson	.1	-	-	.1	1.4	-	-	1.4	1.5
Lewis	9.0	1.5	1.0	11.5	2.8	-	26.5	29.3	40.8
Madison	.3	-	.2	.5	.1	-	-	.1	.6
Montgomery	.1	.5	1.2	1.8	*	-	1.8	1.8	3.6
Oneida	3.1	5.3	5.7	14.1	.8	-	2.2	3.0	17.1
Onondaga	.1	-	-	.1	.1	-	-	.1	.2
Oswego	*	-	*	*	.1	-	.4	.5	.5
Otsego	1.9	1.0	2.4	5.3	.3	-	.2	.5	5.8
Rensselaer	-	.4	1.3	1.7	.1	-	2.9	3.0	4.7
St. Lawrence	5.1	4.8	3.0	12.9	4.1	-	61.4	65.5	78.4
Saratoga	1.0	14.3	6.4	21.7	1.5	-	20.6	22.1	43.8
Schenectady	-	*	.1	.1	*	-	.1	.1	.2
Schoharie	1.8	.5	3.2	5.5	*	-	.2	.2	5.7
Schuyler	-	-	-	-	-	.1	1.0	1.1	1.1
Stueben	-	-	*	*	-	-	-	-	*
Tioga	*	-	*	*	2.1	2.1	7.4	11.6	11.6
Tompkins	.1	-	-	.1	*	-	-	*	.1
Warren	.2	8.7	11.4	20.3	1.8	-	28.1	29.9	50.2
Washington	*	11.0	4.2	15.2	.7	-	14.3	15.0	30.2
Total	83.1	81.1	69.9	234.1	32.6	7.8	391.0	431.4	665.5

^aCounties with no production are omitted.

*Less than 50 cords.

Table 14.-Pulpwood production from roundwood in Pennsylvania, by county and species group, 1981

(In thousands of standard cords)

County ^a	Softwood				Hardwood			Total	All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood		
Adams	-	-	0.8	0.8	-	2.1	3.5	5.6	6.4
Armstrong	-	-	.4	.4	-	-	.6	.6	1.0
Bedford	-	-	4.8	4.8	-	14.2	13.7	27.9	32.7
Blair	-	-	.6	.6	-	8.8	3.6	12.4	13.0
Bradford	-	-	2.4	2.4	4.6	7.2	20.2	32.0	34.4
Butler	-	-	-	-	-	.4	-	.4	.4
Cambria	-	-	.3	.3	-	.5	1.5	2.0	2.3
Cameron	-	-	-	-	-	22.4	1.1	23.5	23.5
Centre	-	1.0	1.2	2.2	-	33.7	8.4	42.1	44.3
Clarion	-	-	.2	.2	-	1.0	1.3	2.3	2.5
Clearfield	-	2.5	10.4	12.9	-	21.8	8.3	30.1	43.0
Clinton	-	.2	1.3	1.5	1.5	22.8	3.8	28.1	29.6
Columbia	-	-	-	-	.7	2.2	3.1	6.0	6.0
Crawford	-	-	-	-	-	-	.8	.8	.8
Cumberland	-	-	1.2	1.2	-	3.5	.3	3.8	5.0
Dauphin	-	-	.2	.2	-	.2	.1	.3	.5
Elk	-	-	.3	.3	-	6.0	34.8	40.8	41.1
Erie	-	-	-	-	-	-	.6	.6	.6
Fayette	-	-	.1	.1	-	.4	.6	1.0	1.1
Forest	-	-	*	*	-	3.3	15.5	18.8	18.8
Franklin	-	-	1.6	1.6	-	7.0	3.8	10.8	12.4
Fulton	-	-	2.9	2.9	-	2.1	2.9	5.0	7.9
Huntington	-	-	3.3	3.3	-	11.0	6.3	17.3	20.6
Indiana	-	-	.4	.4	-	-	.6	.6	1.0
Jefferson	-	-	1.9	1.9	-	.9	5.5	6.4	8.3
Juniata	-	-	.9	.9	-	.9	.5	1.4	2.3
Lackawanna	-	-	-	-	.4	1.8	1.7	3.9	3.9
Lancaster	-	-	*	*	-	.5	.3	.8	.8
Lawrence	-	-	-	-	-	.4	-	.4	.4
Luzerne	-	-	.1	.1	.6	3.0	3.8	7.4	7.5
Lycoming	-	-	.1	.1	-	16.5	11.7	28.2	28.3
McKean	-	-	-	-	-	.6	35.5	36.1	36.1
Mifflin	-	-	.1	.1	-	.7	.5	1.2	1.3
Monroe	-	-	.4	.4	-	1.1	.3	1.4	1.8
Montour	-	-	-	-	-	*	-	*	*
Northumberland	-	-	.6	.6	-	2.5	1.7	4.2	4.8
Perry	-	-	.4	.4	-	1.0	.5	1.5	1.9
Pike	-	-	-	-	-	1.2	.8	2.0	2.0
Potter	-	-	-	-	4.2	.4	46.3	50.9	50.9
Schuylkill	-	-	.4	.4	-	21.2	4.4	25.6	26.0
Snyder	-	-	.2	.2	-	.1	*	.1	.3
Somerset	-	-	.5	.5	-	2.1	2.4	4.5	5.0
Sullivan	-	.3	.1	.4	6.1	10.1	21.2	37.4	37.8
Susquehanna	-	-	-	-	2.9	6.9	16.1	25.9	25.9
Tioga	-	-	-	-	5.3	7.2	23.8	36.3	36.3
Union	-	-	.3	.3	-	.5	.3	.8	1.1
Warren	-	-	-	-	-	2.9	30.3	33.2	33.2
Wayne	-	-	-	-	.6	2.0	4.1	6.7	6.7
Westmoreland	-	-	-	-	-	-	*	*	*
Wyoming	-	-	-	-	3.1	5.7	12.0	20.8	20.8
York	-	-	.9	.9	-	3.8	2.0	5.8	6.7
Total	-	4.0	39.3	43.3	30.0	264.6	361.1	655.7	699.0

^aCounties with no production are omitted.

*Less than 50 cords.

Table 15.-Pulpwood production from roundwood in Delaware, Maryland, and New Jersey,
by county and species group, 1981

(In thousands of standard cords)

County ^a	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
DELAWARE									
Kent	-	-	5.0	5.0	-	0.2	0.3	0.5	5.5
Sussex	-	-	19.1	19.1	-	.8	.4	1.2	20.3
Total	-	-	24.1	24.1	-	1.0	0.7	1.7	25.8
MARYLAND									
Allegany	-	-	2.9	2.9	-	15.4	19.0	34.4	37.3
Anne Arundel	-	-	*	*	-	-	-	-	*
Baltimore	-	-	.2	.2	-	.3	.2	.5	.7
Calvert	-	-	4.2	4.2	-	.5	-	.5	4.7
Caroline	-	-	.2	.2	-	-	-	-	.2
Carroll	-	-	2.5	2.5	-	.4	.3	.7	3.2
Charles	-	-	7.2	7.2	-	1.4	.5	1.9	9.1
Dorchester	-	-	1.2	1.2	-	-	-	-	1.2
Frederick	-	-	-	-	-	.1	.1	.2	.2
Garnett	-	-	1.9	1.9	-	8.6	10.8	19.4	21.3
Harford	-	-	*	*	-	-	-	-	*
Howard	-	-	*	*	-	*	-	*	*
Prince Georges	-	-	1.1	1.1	-	-	-	-	1.1
St. Marys	-	-	11.9	11.9	-	3.4	-	3.4	15.3
Somerset	-	-	10.8	10.8	-	*	*	*	10.8
Talbot	-	-	*	*	-	-	-	-	*
Washington	-	-	1.3	1.3	-	.3	.4	.7	2.0
Wicomico	-	-	23.3	23.3	-	-	-	-	23.3
Worcester	-	-	5.7	5.7	-	-	-	-	5.7
Total	-	-	74.4	74.4	-	30.4	31.3	61.7	136.1
NEW JERSEY									
Camden	-	-	2.1	2.1	-	0.3	-	0.3	2.4
Gloucester	-	-	2.1	2.1	-	.4	-	.4	2.5
Ocean	-	-	2.5	2.5	-	1.4	-	1.4	3.9
Total	-	-	6.7	6.7	-	2.1	-	2.1	8.8

^aCounties with no production are omitted.

*Less than 50 cords.

Table 16.-Pulpwood production from roundwood in West Virginia, by county and species group, 1981

(In thousands of standard cords)

County ^a	Softwood				Hardwood			Total	All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood		
Barbour	-	-	-	-	-	0.1	*	0.1	0.1
Berkeley	-	-	3.8	3.8	-	.2	0.1	.3	4.1
Cabell	-	-	.4	.4	-	-	-	-	.4
Calhoun	-	-	*	*	-	-	-	-	*
Fayette	-	-	*	*	-	.8	.9	1.7	1.7
Grant	-	-	2.6	2.6	-	6.5	8.0	14.5	17.1
Greenbrier	-	-	1.1	1.1	-	34.7	36.6	71.3	72.4
Hampshire	-	-	11.7	11.7	-	7.1	7.9	15.0	26.7
Hardy	-	-	4.7	4.7	-	7.9	8.7	16.6	21.3
Jackson	-	-	2.5	2.5	-	.2	.1	.3	2.8
Jefferson	-	-	-	-	-	*	-	*	*
Kanawha	-	-	.1	.1	-	-	-	-	.1
Mason	-	-	1.0	1.0	*	1.5	1.4	2.9	3.9
Mineral	-	-	1.9	1.9	-	4.2	2.6	6.8	8.7
Monroe	-	-	2.6	2.6	-	3.9	4.1	8.0	10.6
Morgan	-	-	6.3	6.3	-	.8	1.2	2.0	8.3
Nicholas	-	-	-	-	-	2.5	2.6	5.1	5.1
Pendleton	-	-	.8	.8	-	3.7	4.0	7.7	8.5
Pleasants	-	-	*	*	-	*	*	*	*
Pocahontas	-	-	1.4	1.4	-	4.4	5.6	10.0	11.4
Preston	-	-	.5	.5	-	2.1	2.8	4.9	5.4
Putnam	-	-	2.2	2.2	-	-	-	-	2.2
Raleigh	-	-	-	-	-	*	*	*	*
Randolph	-	-	.4	.4	-	1.1	1.8	2.9	3.3
Ritchie	-	-	1.2	1.2	-	6.5	.3	6.8	8.0
Roane	-	-	*	*	-	.1	*	.1	.1
Summers	-	-	*	*	-	.3	.3	.6	.6
Tucker	-	-	-	-	-	.3	.7	1.0	1.0
Wirt	-	-	.1	.1	-	.2	*	.2	.3
Wood	-	-	3.1	3.1	-	3.9	4.1	8.0	11.1
Wyoming	-	-	-	-	-	*	*	*	*
Total	-	-	48.4	48.4	*	93.0	93.8	186.8	235.2

^a Counties with no production are omitted.

*Less than 50 cords.

Table 17.-Bark generated from roundwood pulpwood in the Northeast, by state and species group, 1981

(In thousand cubic feet)

State ^a	Softwood			Hardwood			All species		
	Used	Unused	Total	Used	Unused	Total	Used	Unused	Total
Kentucky	930.7	-	930.7	2,568.5	-	2,568.5	3,499.2	-	3,499.2
Maine	20,286.3	1,142.0	21,428.3	12,189.4	396.0	12,585.4	32,475.7	1,538.0	34,013.7
Maryland	1,205.7	-	1,205.7	2,026.9	-	2,026.9	3,232.6	-	3,232.6
New Hampshire	558.2	-	558.2	2,106.2	-	2,106.2	2,664.4	-	2,664.4
New Jersey	61.4	-	61.4	16.1	-	16.1	77.5	-	77.5
New York	1,834.9	1,014.4	2,849.3	3,314.4	163.6	3,478.0	5,149.3	1,178.0	6,327.3
Ohio	-	-	-	2,662.3	658.3	3,320.6	2,662.3	658.3	3,320.6
Pennsylvania	1,230.4	-	1,230.4	5,372.9	1,899.7	7,272.6	6,603.3	1,899.7	8,503.0
Vermont	189.5	-	189.5	-	-	-	189.5	-	189.5
Total	26,297.1	2,156.4	28,453.5	30,256.7	3,117.6	33,374.3	56,553.8	5,274.0	61,827.8

^aStates with no pulp mills are omitted.

Widmann, Richard H. Pulpwood production in the
Northeast--1981. Resour. Bull. NE-76. Broomall, PA:
U.S. Department of Agriculture, Forest Service,
Northeastern Forest Experiment Station; 1983. 23 p.

This annual report contains information compiled from a
cavass of all pulpmills that use pulpwood produced in the
14 Northeastern states. From 1980 to 1981, pulpwood
production decreased 2 percent, roundwood production dropped
less than 1 percent, and chipped residues dropped 6 percent.
Current pulpwood production is 8.3 million cords, of which
6.1 million cords are roundwood and 2.2 million cords are
from chipped manufacturing residues.

861.0(74):721:792

Keywords: Pulpwood, residue, whole-tree chips, timber
output.

Headquarters of the Northeastern Forest Experiment Station are in Broomall, Pa. Field laboratories are maintained at:

- **Amherst, Massachusetts, in cooperation with the University of Massachusetts.**
 - **Berea, Kentucky, in cooperation with Berea College.**
 - **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, Morgantown.**
 - **Orono, Maine, in cooperation with the University of Maine, Orono.**
 - **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, Syracuse.**
 - **University Park, Pennsylvania, in cooperation with the Pennsylvania State University.**
 - **Warren, Pennsylvania.**
-