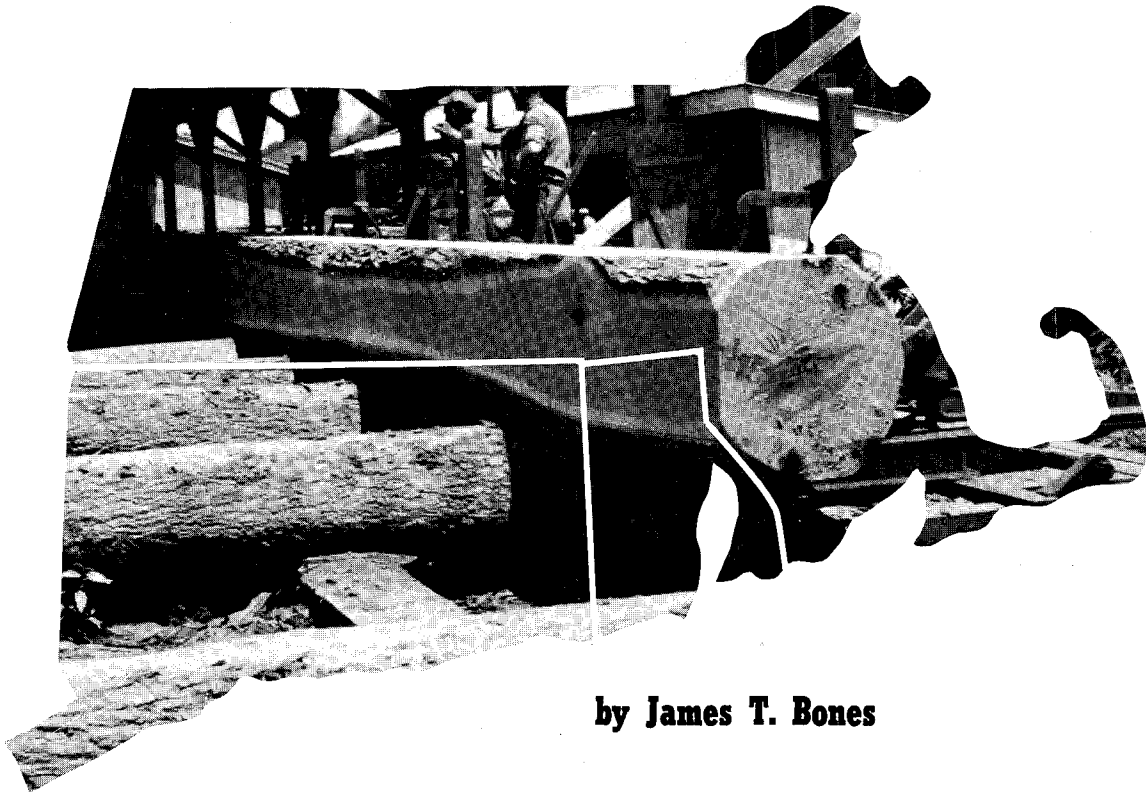


Primary Wood-Product Industries of **SOUTHERN NEW ENGLAND -- 1971**



by James T. Bones

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ABSTRACT

The results of a complete canvass of the primary wood manufacturers in southern New England. The report contains data about wood production and receipts for the states of the region. Comparisons are made with a similar 1952 survey and trends in industrial wood output are noted.

INTRODUCTION

THE FOREST SERVICE of the U.S. Department of Agriculture conducts continuing forest surveys of all states to provide up-to-date information about the timber resources of the Nation. In the Northeastern Forest Experiment Station's territory, all states have been surveyed at least once, and most have been resurveyed. Completion of resurveys of the southern New England states will complete the first cycle of resurveys.

During the resurvey of southern New England, statistics about timber removals were gathered. This report is the result of a survey of all primary wood manufacturers, conducted by the Station's Forest Survey project in cooperation with the Connecticut Commission of Parks and Forests, the Massachusetts Department of Natural Resources, and the Rhode Island Department of Natural Resources. Pulpwood production data were gathered as part of the Station's annual survey of pulpwood production in the Northeast.

PRODUCTION TRENDS

Forest industries used 21 million cubic feet of roundwood from southern New England timberlands during 1971. Hardwoods, mainly oaks, made up slightly more than 50 percent of the total.

Sawlogs were the leading forest product, and pulpwood ranked second in volume of wood processed. Other products that made up a minor portion of the harvest were posts and pilings; boltwood for shingles, handles, and dimension products; veneer and cooperage logs; and charcoal wood.

These are some of the major findings of our 1971 survey of all of the forest products industries in southern New England. A similar survey was made in 1952. When the results

of these two surveys are compared, they show that the following changes in production levels have occurred between surveys:

- Sawlogs — decreased 25 percent
- Pulpwood — increased 49 percent
- Piling — increased 186 percent
- Posts — decreased 79 percent
- Other products — increased 88 percent

A 35-percent drop in Massachusetts sawlog production during the period more than offset production gains of 18 percent in Connecticut and 44 percent in Rhode Island. Production of posts dropped between 1952 and 1971 in each of the southern New England states. Most of the demand for posts is now being met by shipments from Canada and Maine.

Sawlogs

In volume, sawlogs represented more than half of the timber products from southern New England timberlands in 1971. Hardwoods made up 53 percent of the sawlog volume total of 105 million board feet. Oaks accounted for 63 percent of the 56 million board-foot hardwood output. White pine was the most important softwood species.

The number of sawmills has declined since the record high year of 1909, when over 1,100 mills were reported to be operating in southern New England. Over a half billion board

feet of lumber was manufactured in that year (fig. 1).

Our survey found that 205 sawmills operated during 1971 — a decrease of 310 from the 515 sawmills that operated in 1952. Most of the decline can be traced to closing of low-volume sawmills. The number of sawmills that received less than a million board feet of sawlogs annually dropped from 478 in 1952 to 173 in 1971, while those receiving more than a million board feet dropped from 37 to 32.

Sawlog production trends since 1952 have followed the drop in number of sawmills, although a change has occurred in the species makeup of the sawlog harvest. In 1952 two-thirds of the sawlog output was from softwoods, mostly white pine. By 1971 hardwoods accounted for over half of the volume harvested. During the period, demand for pine box lumber dropped in southern New England, while demand for hardwood pallet lumber grew at a rapid rate.

Statewide, sawlog production rose 18 percent in Connecticut and 44 percent in Rhode Island between 1952 and 1971, but it declined 35 percent in Massachusetts. Hardwood sawlog production rose in each of the southern New England states during the period. Softwood sawlog production dropped in Connecticut and Massachusetts, but rose in Rhode Island.

Pulpwood

Forty-four thousand standard cords of pulpwood were produced in southern New England in 1971. This production level was 20 percent below the 55 thousand cords produced in 1963, but 58 percent above the 1966 low of 28 thousand cords (fig. 2). Hardwoods have accounted for more than half of the production total in 8 of the past 9 years.

Between 1963 and 1967, pulp chips from manufacturing residues accounted for approximately 14 percent of the production total. Since 1967, chipped residues have accounted for an increasing percentage of the output in southern New England. In 1971, 32 percent of the pulpwood output was from this source.

On balance, southern New England was an importer of pulpwood in 1971, when receipts exceeded production by 300 cords. At the

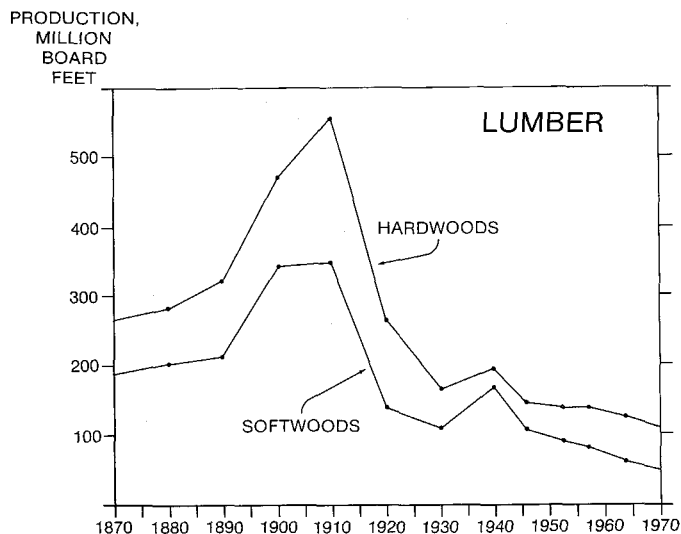


Figure 1. — Lumber production trends in southern New England, 1870 to 1970.

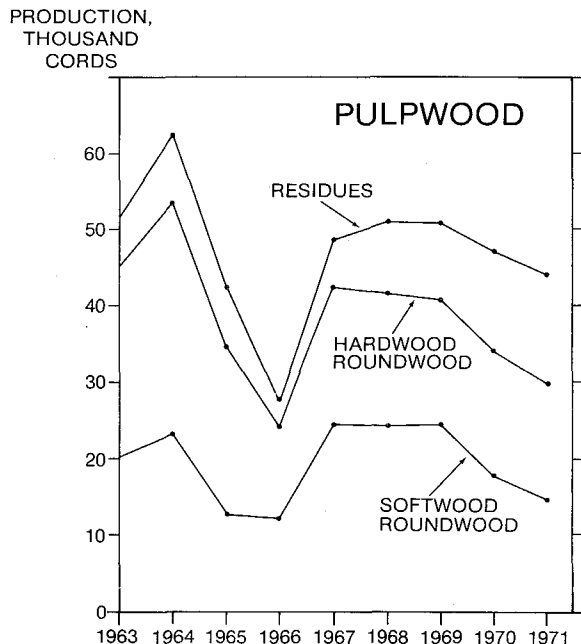


Figure 2. — Pulpwood production trends in southern New England, 1963-1971.

beginning of 1971, three pulpmills with a combined daily capacity of 330 tons were operating. However, in April 1971, Oxford Paper Company's soda pulpmill was closed. The two remaining pulpmills produce roofing pulp and insulating board. Because of the mill closure, we expect southern New England to become an exporter of pulpwood in the future.

Other Products

The small family-owned wood-product industries that once abounded in southern New England have slowly disappeared. Pre-World War II timber manufacturing reports describe the local manufacture of lath, shingles, charcoal, butter tubs, fish pails, excelsior, and wood turnings. Today, demand for many of these items have slackened, either because new technologies have been developed, or substitute materials have been found that fill current needs better or are less expensive to produce.

Still those wood-product manufacturers that operated in 1971 in southern New England required enough raw material to more than offset the loss of the many small manufacturers since 1952. Output for these minor products in 1971 was 88 percent higher than in 1952. Connecticut, Massachusetts, and Rhode Island recorded individual increases of 66 percent, 118 percent, and 400 percent, respectively. A large part of the wood used for such products as charcoal now comes from manufacturing residues rather than roundwood.

Small quantities of cooperage and veneer logs were harvested in southern New England in 1971, but these logs were shipped to other states for manufacture. Small quantities of posts, poles, and pilings were harvested in southern New England, but most of the local demands for these products were satisfied by manufacturers outside the region.

Use of Sawmill Residues

Over 8 million cubic feet of residue were generated during 1971 by southern New England's sawmills. About 57 percent of the total were coarse residues that are suitable for conversion into pulp chips.

Over 6.5 million cubic feet, or 80 percent of the total, were recovered and used. While only slightly more than two-thirds of the coarse residues were used, 95 percent of the fine residues were used. Overall, more coarse residues from the manufacture of hardwood logs were recovered and used than from softwood logs. A greater percentage of the sawmill residues were recovered in Connecticut (86 percent) and Rhode Island (86 percent) than in Massachusetts (77 percent).

The greatest single use of recovered sawmill residues in 1971 was for pulp and other fiber products. Fuel, both domestic and industrial, ranked second, based on volume recovered. Other uses included charcoal wood, horticultural mulch, livestock bedding, chicken litter, and novelty items.

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Table 1.—Production of industrial roundwood in southern New England, by states, species groups, and major products, 1971

State and species group	Sawlogs	Pulpwood	Piling	Posts	Other products ¹
	<i>Thousand bd. ft.²</i>	<i>Standard cords</i>	<i>Thousand linear ft.</i>	<i>Thousand pieces</i>	<i>Thousand cu. ft.</i>
Connecticut:					
Softwood	6,009	4,181	2	15	128
Hardwood	21,649	6,668	233	—	139
Total	27,658	10,849	235	15	267
Massachusetts:					
Softwood	42,003	8,912	—	45	21
Hardwood	31,562	3,351	2	—	237
Total	73,565	12,263	2	45	258
Rhode Island:					
Softwood	964	1,783	—	1	4
Hardwood	2,655	4,955	6	—	11
Total	3,619	6,738	6	1	15
Southern New England:					
Softwood	48,976	14,876	2	61	153
Hardwood	55,866	14,974	241	—	387
Total	104,842	29,850	243	61	540

¹ Includes veneer and cooperage logs and bolts; poles; handle, roller, and dimension bolts; and charcoal wood.

² International ¼-inch rule.

Table 2.—Change in the output of timber products in southern New England between 1952 and 1971

State and year	Product				
	Sawlogs	Pulpwood	Piling	Posts	Other products ¹
	<i>Million bd. ft.²</i>	<i>Thousand standard cords</i>	<i>Thousand linear ft.</i>	<i>Thousand pieces</i>	<i>Thousand cu. ft.</i>
Connecticut:					
1952	23.4	6.0	40	133	481
1971	27.6	10.8	235	15	799
Change (%)	+18	+80	+487	-89	+66
Massachusetts:					
1952	113.0	18.6	25	147	327
1971	73.6	24.7	2	45	713
Change (%)	-35	+33	-92	-69	+118
Rhode Island:					
1952	2.5	5.0	20	19	3
1971	3.6	8.4	6	1	15
Change (%)	+44	+70	-70	-89	+400
Southern New England:					
1952	138.9	29.6	85	299	811
1971	104.8	43.9	243	61	1,527
Change (%)	-25	+49	+186	-79	+88

¹ Includes veneer and cooperage logs and bolts; poles; boltwood for handles, shingles, and dimension products; charcoal wood; and chips for horticultural mulch.

² International ¼-inch rule.

Table 3.—Number of operating sawmills in southern New England by states and production classes, 1952 and 1971

State and production class ¹	1952	1971
<i>Connecticut:</i>		
More than 1 million board feet	3	8
500 thousand-1 million board feet	15	4
Less than 500 thousand board feet	102	51
Total	120	63
<i>Massachusetts:</i>		
More than 1 million board feet	34	23
500 thousand-1 million board feet	49	24
50 thousand-500 thousand board feet	153	51
Less than 50 thousand board feet	129	25
Total	365	123
<i>Rhode Island:</i>		
More than 1 million board feet	—	1
Less than 1 million board feet	30	18
Total	30	19
<i>Southern New England:</i>		
More than 1 million board feet	37	32
Less than 1 million board feet	478	173
Total	515	205

¹Based upon sawlog receipts reported in 1952 and 1971.

Table 4.—Volume of sawmill residues used in southern New England, by types of use, states, and kinds of material, 1971

State and kind of material	Relation of used residues to total residues	Type of use				
		Total	Fiber ¹	Charcoal	Fuel ²	Other ³
	<i>Percent</i>	<i>Thousand cubic feet</i>				
<i>Connecticut:</i>						
Coarse	75	817.2	259.8	194.1	313.3	50.0
Fine	99	972.0	—	—	—	972.0
Total	86	1,789.2	259.8	194.1	313.3	1,022.0
<i>Massachusetts:</i>						
Coarse	65	2,195.4	1,371.3	39.1	649.7	135.3
Fine	93	2,283.4	—	1.4	21.9	2,260.1
Total	77	4,478.8	1,371.3	40.5	671.6	2,395.4
<i>Rhode Island:</i>						
Coarse	86	210.0	116.3	19.3	61.5	12.9
Fine	87	54.2	—	—	—	54.2
Total	86	264.2	116.3	19.3	61.5	67.1
<i>Southern New England:</i>						
Coarse	69	3,222.6	1,747.4	252.5	1,024.5	198.2
Fine	95	3,309.6	—	1.4	21.9	3,286.3
Total	80	6,532.2	1,747.4	253.9	1,046.4	3,484.5

¹Volume used for pulp and other fiber products.

²Includes both industrial and domestic use.

³Includes such uses as horticultural mulch, livestock bedding, chicken litter, fencing, and wood novelty items.

Table 5.—*Industrial roundwood harvest for Connecticut, by counties, species groups, and major products, 1971*

[In thousands of cubic feet]

County and species group	Timber products			Total
	Sawlogs	Pulpwood	Other ¹	
Fairfield:				
Softwood	35	6	—	41
Hardwood	227	—	1	228
Total	262	6	1	269
Hartford:				
Softwood	133	76	—	209
Hardwood	563	—	2	565
Total	696	76	2	774
Litchfield:				
Softwood	484	11	—	495
Hardwood	612	—	14	626
Total	1,096	11	14	1,121
Middlesex:				
Softwood	71	44	(*)	115
Hardwood	490	—	—	490
Total	561	44	(*)	605
New Haven:				
Softwood	49	34	13	96
Hardwood	455	—	7	462
Total	504	34	20	558
New London:				
Softwood	52	38	3	93
Hardwood	546	75	125	746
Total	598	113	128	839
Tolland:				
Softwood	15	18	—	33
Hardwood	165	45	20	230
Total	180	63	20	263
Windham:				
Softwood	168	128	2	298
Hardwood	574	447	55	1,076
Total	742	575	57	1,374
All counties:				
Softwood	1,007	355	18	1,380
Hardwood	3,632	567	224	4,423
Total	4,639	922	242	5,803

¹ Includes veneer and cooperage logs and bolts, piling, posts, shingle and dimension bolts, and charcoal wood.

* Less than 500 cubic feet.

Table 6.—Sawlog production and receipts in Connecticut, by counties and species groups, 1971

[In thousands of board feet, International ¼-inch rule]

County	Production		Receipts	
	Softwoods	Hardwoods	Softwoods	Hardwoods
Fairfield	210	1,351	210	890
Hartford	796	3,354	602	1,870
Litchfield	2,885	3,647	2,163	2,797
Middlesex	424	2,924	968	4,084
New Haven	295	2,711	630	2,300
New London	309	3,258	406	5,074
Tolland	90	983	80	1,145
Windham	1,000	3,421	153	341
All counties	6,009	21,649	5,212	18,501
All species	27,658		23,713	

Table 7.—Species composition of sawlogs produced in Connecticut, 1952 and 1971

Species	Sawlog production				Change Percent
	1952		1971		
	Thousand bd. ft. ¹	Percent	Thousand bd. ft. ¹	Percent	
White and red pine	5,131	22	4,022	15	-22
Other softwoods ²	2,993	13	1,987	7	-34
Total softwoods	8,124	35	6,009	22	-26
Oaks	11,584	50	15,598	56	+35
Birch-beech-maple	1,624	7	1,852	7	+14
Other hard hardwoods ³	684	3	1,670	6	+144
Yellow-poplar	1,040	4	517	2	-50
Other soft hardwoods ⁴	317	1	2,012	7	+535
Total hardwoods	15,249	65	21,649	78	+42
All species	23,373	100	27,658	100	+18

¹ International ¼-inch rule.

² Includes hemlock, spruce-fir, and cedar.

³ Includes ash, cherry, and hickory.

⁴ Includes white birch, red maple, elm, aspen, and basswood.

Table 8.—Sawlog production in Connecticut, by counties, species groups and where received, 1971

[In thousands of board feet, International ¼-inch rule]

County and species group	Where received			Total
	In county	In state	In other states	
Fairfield:				
Softwood	210	—	—	210
Hardwood	690	285	376	1,351
Total	900	285	376	1,561
Hartford:				
Softwood	320	136	340	796
Hardwood	1,356	785	1,213	3,354
Total	1,676	921	1,553	4,150
Litchfield:				
Softwood	1,927	403	555	2,885
Hardwood	1,793	419	1,435	3,647
Total	3,720	822	1,990	6,532
Middlesex:				
Softwood	354	70	—	424
Hardwood	1,878	1,046	—	2,924
Total	2,232	1,116	—	3,348
New Haven:				
Softwood	155	140	—	295
Hardwood	2,190	521	—	2,711
Total	2,345	661	—	3,006
New London:				
Softwood	131	178	—	309
Hardwood	2,742	416	100	3,258
Total	2,873	594	100	3,567
Tolland:				
Softwood	30	60	—	90
Hardwood	393	590	—	983
Total	423	650	—	1,073
Windham:				
Softwood	153	269	578	1,000
Hardwood	283	2,015	1,123	3,421
Total	436	2,284	1,701	4,421
All counties:				
Softwood	3,280	1,256	1,473	6,009
Hardwood	11,325	6,007	4,247	21,649
Total	14,605	7,333	5,720	27,658

Table 9.—Sawlog receipts in Connecticut, by counties, species groups and where produced, 1971

[In thousands of board feet, International ¼-inch rule]

County and species group	Where produced			Total
	In county	In state	In other states	
Fairfield:				
Softwood	210	—	—	210
Hardwood	690	—	200	890
Total	900	—	200	1,100
Hartford:				
Softwood	320	244	38	602
Hardwood	1,356	425	89	1,870
Total	1,676	669	127	2,472
Litchfield:				
Softwood	1,927	236	—	2,163
Hardwood	1,793	980	24	2,797
Total	3,720	1,216	24	4,960
Middlesex:				
Softwood	354	121	493	968
Hardwood	1,878	1,466	740	4,084
Total	2,232	1,587	1,233	5,052
New Haven:				
Softwood	155	375	100	630
Hardwood	2,190	110	—	2,300
Total	2,345	485	100	2,930
New London:				
Softwood	131	230	45	406
Hardwood	2,742	2,290	42	5,074
Total	2,873	2,520	87	5,480
Tolland:				
Softwood	30	50	—	80
Hardwood	393	752	—	1,145
Total	423	802	—	1,225
Windham:				
Softwood	153	—	—	153
Hardwood	283	54	4	341
Total	436	54	4	494
All counties:				
Softwood	3,280	1,256	676	5,212
Hardwood	11,325	6,077	1,099	18,501
Total	14,605	7,333	1,775	23,713

Table 10.—Production and disposition of sawmill residues, by types of residues and species groups, Connecticut, 1971

[In thousands of cubic feet]

Type and disposition of residues	All species	Softwoods	Hardwoods
Coarse:¹			
Fiber	259.8	39.0	220.8
Charcoal	194.1	—	194.1
Fuel	313.3	49.6	263.7
Miscellaneous	50.0	18.2	31.8
All uses	817.2	106.8	710.4
Unused	270.7	89.5	181.2
Fine:²			
Agricultural	543.6	124.5	419.1
Miscellaneous	428.4	104.9	323.5
All uses	972.0	229.4	742.6
Unused	11.2	1.0	10.2
All types:			
Fiber ³	259.8	39.0	220.8
Charcoal	194.1	—	194.1
Fuel ⁴	313.3	49.6	263.7
Agricultural ⁵	543.6	124.5	419.1
Miscellaneous ⁶	478.4	123.1	355.3
All uses	1,789.2	336.2	1,453.0
Unused	281.9	90.5	191.4

¹ Coarse residues include slabs, edgings, trimmings, and other material suitable for chipping.

² Fine residues include sawdust, shavings, and other material considered unsuitable for chipping.

³ Includes 1,028 cubic feet shipped to woodpulp mills.

⁴ Includes both industrial and domestic fuel.

⁵ Includes such uses as livestock bedding and chicken litter.

⁶ Includes horticultural mulch, fencing, and wood novelty items.

Table 11.—Industrial roundwood harvest for Massachusetts, by counties, species groups, and major products, 1971

[In thousands of cubic feet]

County and species group	Timber products			Total	County and species group	Timber products			Total
	Sawlogs	Pulpwood	Other ¹			Sawlogs	Pulpwood	Other ¹	
Barnstable:					Middlesex:				
Softwood	—	15	—	15	Softwood	491	—	—	491
Hardwood	—	—	—	—	Hardwood	95	—	—	95
Total	—	15	—	15	Total	586	—	—	586
Berkshire:					Norfolk:				
Softwood	1,134	—	13	1,147	Softwood	34	—	1	35
Hardwood	1,092	2	43	1,137	Hardwood	84	—	—	84
Total	2,226	2	56	2,284	Total	118	—	1	119
Bristol:					Plymouth:				
Softwood	222	174	9	405	Softwood	929	553	23	1,505
Hardwood	56	77	—	133	Hardwood	184	206	1	391
Total	278	251	9	538	Total	1,113	759	24	1,896
Essex:					Suffolk:				
Softwood	399	—	—	399	Softwood	2	—	—	2
Hardwood	140	—	1	141	Hardwood	9	—	—	9
Total	539	—	1	540	Total	11	—	—	11
Franklin:					Worcester:				
Softwood	1,424	—	—	1,424	Softwood	1,135	15	—	1,150
Hardwood	774	—	2	776	Hardwood	1,314	—	191	1,505
Total	2,198	—	2	2,200	Total	2,449	15	191	2,655
Hampden:					All counties:				
Softwood	493	—	—	493	Softwood	7,038	757	50	7,845
Hardwood	596	—	—	596	Hardwood	5,295	285	238	5,818
Total	1,089	—	—	1,089	Total	12,333	1,042	288	13,663
Hampshire:									
Softwood	775	—	4	779					
Hardwood	951	—	—	951					
Total	1,726	—	4	1,730					

CONTINUED

¹ Includes veneer logs and bolts; piling; poles; roller, handle, and dimension bolts; and fencing.

Table 12.—Sawlog production and receipts in Massachusetts, by counties and species groups, 1971

[In thousands of board feet, International ¼-inch rule]

County	Production		Receipts	
	Softwoods	Hardwoods	Softwoods	Hardwoods
Barnstable	—	—	—	—
Berkshire	6,770	6,508	7,500	11,513
Bristol	1,323	334	818	281
Essex	2,382	836	4,182	886
Franklin	8,498	4,612	6,412	2,658
Hampden	2,943	3,550	3,539	5,218
Hampshire	4,623	5,669	6,539	4,915
Middlesex	2,930	569	2,193	185
Norfolk	205	504	150	480
Plymouth	5,546	1,095	6,241	1,336
Suffolk	10	55	—	—
Worcester	6,773	7,830	5,935	8,357
All counties	42,003	31,562	43,509	35,829
All species	73,565		79,338	

Table 13.—Species composition of sawlogs produced in Massachusetts, 1952 and 1971

Species	Sawlog production				Change Percent
	1952		1971		
	Thousand bd. ft. ¹	Percent	Thousand bd. ft. ¹	Percent	Percent
White and red pine	59,722	53	33,189	45	-44
Hemlock	17,082	15	8,406	11	-51
Other softwoods ²	6,941	6	408	1	-94
Total softwoods	83,745	74	42,003	57	-50
Oaks	11,231	10	17,053	24	+52
Birch-beech-maple	10,059	9	5,850	8	-42
Other hard hardwoods ³	2,153	2	3,133	5	+46
Paper birch	3,210	3	332	(⁴)	-90
Other soft hardwoods ⁵	2,638	2	5,194	7	+97
Total hardwoods	29,291	26	31,562	43	+8
All species	113,036	100	73,565	100	-35

¹ International ¼-inch rule.

² Includes spruce, fir, and cedar.

³ Includes ash, cherry, and hickory.

⁴ Less than 0.5 percent.

⁵ Includes red maple, elm, aspen, basswood, and yellow-poplar.

Table 14.—Sawlog production in Massachusetts, by counties, species groups and where received, 1971

[In thousands of board feet, International 1/4-inch rule]

County and species group	Where received			Total	County and species group	Where received			Total
	In county	In state	In other states			In county	In state	In other states	
Barnstable:					Middlesex:				
Softwood	—	—	—	—	Softwood	2,193	737	—	2,930
Hardwood	—	—	—	—	Hardwood	185	344	40	569
Total	—	—	—	—	Total	2,378	1,081	40	3,499
Berkshire:					Norfolk:				
Softwood	5,686	929	155	6,770	Softwood	90	115	—	205
Hardwood	4,802	760	946	6,508	Hardwood	250	254	—	504
Total	10,488	1,689	1,101	13,278	Total	340	369	—	709
Bristol:					Plymouth:				
Softwood	648	675	—	1,323	Softwood	5,346	200	—	5,546
Hardwood	188	146	—	334	Hardwood	890	205	—	1,095
Total	836	821	—	1,657	Total	6,236	405	—	6,641
Essex:					Suffolk:				
Softwood	2,382	—	—	2,382	Softwood	—	10	—	10
Hardwood	836	—	—	836	Hardwood	—	55	—	55
Total	3,218	—	—	3,218	Total	—	65	—	65
Franklin:					Worcester:				
Softwood	5,212	2,436	850	8,498	Softwood	5,371	980	422	6,773
Hardwood	2,143	2,469	—	4,612	Hardwood	7,604	187	39	7,830
Total	7,355	4,905	850	13,110	Total	12,975	1,167	461	14,603
Hampden:					All counties:				
Softwood	1,422	1,137	384	2,943	Softwood	31,283	8,662	2,058	42,003
Hardwood	2,091	999	460	3,550	Hardwood	21,632	7,946	1,984	31,562
Total	3,513	2,136	844	6,493	Total	52,915	16,608	4,042	73,565
Hampshire:									
Softwood	2,933	1,443	247	4,623					
Hardwood	2,643	2,527	499	5,669					
Total	5,576	3,970	746	10,292					

CONTINUED

Table 15.—Sawlog receipts in Massachusetts, by counties, species groups, and where produced, 1971

[In thousands of board feet, International 1/4-inch rule]

County and species group	Where produced			Total
	In county	In state	In other states	
Barnstable:				
Softwood	—	—	—	—
Hardwood	—	—	—	—
Total	—	—	—	—
Berkshire:				
Softwood	5,686	537	1,277	7,500
Hardwood	4,802	1,677	5,034	11,513
Total	10,488	2,214	6,311	19,013
Bristol:				
Softwood	648	170	—	818
Hardwood	188	70	23	281
Total	836	240	23	1,099
Essex:				
Softwood	2,382	525	1,275	4,182
Hardwood	836	—	50	886
Total	3,218	525	1,325	5,068
Franklin:				
Softwood	5,212	605	595	6,412
Hardwood	2,143	325	190	2,658
Total	7,355	930	785	9,070
Hampden:				
Softwood	1,422	1,777	340	3,539
Hardwood	2,091	2,308	819	5,218
Total	3,513	4,085	1,159	8,757
Hampshire:				
Softwood	2,933	3,606	—	6,539
Hardwood	2,643	2,272	—	4,915
Total	5,576	5,878	—	11,454
Middlesex:				
Softwood	2,193	—	—	2,193
Hardwood	185	—	—	185
Total	2,378	—	—	2,378
Norfolk:				
Softwood	90	60	—	150
Hardwood	250	230	—	480
Total	340	290	—	630
Plymouth:				
Softwood	5,346	895	—	6,241
Hardwood	890	446	—	1,336
Total	6,236	1,341	—	7,577
Worcester:				
Softwood	5,371	487	77	5,935
Hardwood	7,604	618	135	8,357
Total	12,975	1,105	212	14,292
All counties:				
Softwood	31,283	8,662	3,564	43,509
Hardwood	21,632	7,946	6,251	35,829
Total	52,915	16,608	9,815	79,338

Table 16.—Production and disposition of sawmill residues, by types of residues and species groups, Massachusetts, 1971

[In thousands of cubic feet]

Type and disposition of residues	All species	Softwoods	Hardwoods
Coarse: ¹			
Fiber	1,371.3	570.6	800.7
Charcoal	39.1	—	39.1
Fuel	649.7	223.7	426.0
Agricultural	—	—	—
Miscellaneous	135.3	62.9	72.4
All uses	2,195.4	857.2	1,338.2
Unused	1,172.7	820.7	352.0
Fine: ²			
Fiber	—	—	—
Charcoal	1.4	—	1.4
Fuel	21.9	16.4	5.5
Agricultural	1,980.7	1,068.8	911.9
Miscellaneous	279.4	232.6	46.8
All uses	2,283.4	1,317.8	965.6
Unused	160.7	93.5	67.2
All types:			
Fiber ²	1,371.3	570.6	800.7
Charcoal	40.5	—	40.5
Fuel ⁴	671.6	240.1	431.5
Agricultural ⁵	1,980.7	1,068.8	911.9
Miscellaneous ⁶	414.7	295.5	119.2
All uses	4,478.8	2,175.0	2,303.8
Unused	1,333.4	914.2	419.2

¹ Coarse residues include slabs, edgings, trimmings, and other material suitable for chipping.

² Fine residues include sawdust, shavings, and other material considered unsuitable for chipping.

³ Includes 1,051 thousand cubic feet shipped to wood-pulp mills.

⁴ Includes both industrial and domestic fuel.

⁵ Includes such uses as livestock bedding and chicken litter.

⁶ Includes horticultural mulch, fencing, and wood novelty items.

Table 17.—*Industrial roundwood harvest for Rhode Island, by counties, species groups, and major products, 1971*

[In thousands of cubic feet]

County and species group	Timber products			Total
	Sawlogs	Pulpwood	Other ¹	
Bristol:				
Softwood	—	—	—	—
Hardwood	—	—	—	—
Total	—	—	—	—
Kent:				
Softwood	34.4	48.5	0.4	83.3
Hardwood	56.2	256.0	—	312.2
Total	90.6	304.5	.4	395.5
Newport:				
Softwood	—	—	—	—
Hardwood	—	—	—	—
Total	—	—	—	—
Providence:				
Softwood	44.7	83.3	3.6	131.6
Hardwood	248.8	93.2	—	342.0
Total	293.5	176.5	3.6	473.6
Washington:				
Softwood	82.4	19.7	1.5	103.6
Hardwood	140.4	72.0	13.1	225.5
Total	222.8	91.7	14.6	329.1
All counties:				
Softwood	161.5	151.5	5.5	318.5
Hardwood	445.4	421.2	13.1	879.7
Total	606.9	572.7	18.6	1,198.2

¹ Includes piling, posts, and dimension bolts.

Table 18.—*Sawlog production and receipts in Rhode Island, by counties and species groups, 1971*

[In thousands of board feet, International 1/4-inch rule]

County	Production		Receipts	
	Softwoods	Hardwoods	Softwoods	Hardwoods
Bristol	—	—	—	—
Kent	205	335	370	320
Newport	—	—	—	—
Providence	267	1,483	937	2,723
Washington	492	837	387	770
All counties	964	2,655	1,694	3,813
All species		3,619		5,507

Table 19.—Species composition of sawlogs produced in Rhode Island, 1952 and 1971

Species	Sawlog production				Change Percent
	1952		1971		
	Thousand bd. ft. ¹	Percent	Thousand bd. ft. ¹	Percent	Percent
White pine	154	6	914	25	+494
Other softwoods ²	3	(⁴)	50	2	+1,567
Total softwoods	157	6	964	27	+514
Oaks	2,323	93	2,356	65	+1
Birch-beech-maple	20	1	77	2	+285
Other hardwoods ³	5	(⁴)	222	6	+4,340
Total hardwoods	2,348	94	2,655	73	+13
All species	2,505	100	3,619	100	+44

¹ International 1/4-inch rule.

² Includes hemlock and other pines.

³ Includes ash, hickory, soft maple, and elm.

⁴ Less than 0.5 percent.

Table 20.—Sawlog production in Rhode Island, by counties, species groups and where received, 1971

[In thousands of board feet, International 1/4-inch rule]

County and species group	Where received			Total
	In county	In state	In other states	
Bristol:				
Softwood	—	—	—	—
Hardwood	—	—	—	—
Total	—	—	—	—
Kent:				
Softwood	205	—	—	205
Hardwood	320	15	—	335
Total	525	15	—	540
Newport:				
Softwood	—	—	—	—
Hardwood	—	—	—	—
Total	—	—	—	—
Providence:				
Softwood	192	75	—	267
Hardwood	1,483	—	—	1,483
Total	1,675	75	—	1,750
Washington:				
Softwood	387	60	45	492
Hardwood	670	125	42	837
Total	1,057	185	87	1,329
All counties:				
Softwood	784	135	45	964
Hardwood	2,473	140	42	2,655
Total	3,257	275	87	3,619

Table 21.—Sawlog receipts in Rhode Island, by counties, species groups, and where produced, 1971

[In thousands of board feet, International 1/4-inch rule]

County and species group	Where produced			Total
	In county	In state	In other states	
Bristol:				
Softwood	—	—	—	—
Hardwood	—	—	—	—
Total	—	—	—	—
Kent:				
Softwood	205	135	30	379
Hardwood	320	—	—	320
Total	525	135	30	690
Newport:				
Softwood	—	—	—	—
Hardwood	—	—	—	—
Total	—	—	—	—
Providence:				
Softwood	192	—	745	937
Hardwood	1,483	140	1,100	2,723
Total	1,675	140	1,845	3,660
Washington:				
Softwood	387	—	—	387
Hardwood	670	—	100	770
Total	1,057	—	100	1,157
All counties:				
Softwood	784	135	775	1,694
Hardwood	2,473	140	1,200	3,813
Total	3,257	275	1,975	5,507

Table 22.—Production and disposition of sawmill residues, by types of residues and species groups, Rhode Island, 1971

[In thousands of cubic feet]

Type and disposition of residues	All species	Softwoods	Hardwoods
Coarse:¹			
Fiber	116.3	20.0	96.3
Charcoal	19.3	—	19.3
Fuel	61.5	26.6	34.9
Miscellaneous	12.9	10.0	2.9
All uses	210.0	56.6	153.4
Unused	33.8	10.3	23.5
Fine:²			
Agricultural	49.0	40.2	8.8
Miscellaneous	5.2	4.8	.4
All uses	54.2	45.0	9.2
Unused	7.9	6.8	1.1
All types:			
Fiber ³	116.3	20.0	96.3
Charcoal	19.3	—	19.3
Fuel ⁴	61.5	26.6	34.9
Agricultural ⁵	49.0	40.2	8.8
Miscellaneous ⁶	18.1	14.8	3.3
All uses	264.2	101.6	162.6
Unused	41.7	17.1	24.6

¹ Coarse residues include slabs, edgings, trimmings, and other material suitable for chipping.

² Fine residues include sawdust, shavings, and other material considered unsuitable for chipping.

³ Includes chips shipped to two pulpmills in neighboring states.

⁴ Mostly domestic fuel.

⁵ Includes such uses as livestock bedding and chicken litter.

⁶ Includes horticultural mulch, fencing, and wood novelty items.



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