

NEW HAMPSHIRE FOREST MARKET REPORT

1977

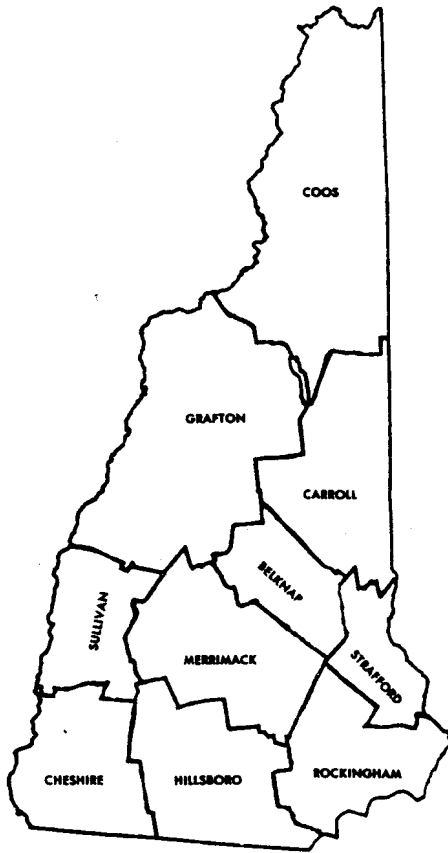


COOPERATIVE EXTENSION SERVICE
UNIVERSITY OF NEW HAMPSHIRE

with the

NEW HAMPSHIRE DEPARTMENT OF RESOURCES
AND ECONOMIC DEVELOPMENT COOPERATING

MAP OF NEW HAMPSHIRE
(Showing Counties)



by
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The information in this bulletin covering prices and specifications was gathered by the New Hampshire County Foresters and the Assistant Utilization and Marketing Specialists. The bulletin was prepared by:

Roger P. Sloan
State Extension Forester

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Forest Products Utilization and Marketing Specialist

COUNTY FORESTERS

County	Name	Address
Belknap	Scott, Donald H.	County Extension Office Laconia 524-1737
Carroll	Pohl, Peter W. Conway 447-5922	County Extension Office
Cheshire	Ferguson, John R., Jr.	County Extension Office Keene 352-4550
Coos	Patmos, Marshall	County Extension Office Lancaster 788-4961
Grafton	Sargent, Leslie B., Jr. (Assoc.)	County Extension Office Woodsville 787-6944
Hillsboro	Breck, Robert W. Buxton, David (Watershed)	County Extension Office Milford 673-2510
Merrimack	Conde, John A. Dole, Sumner	County Extension Office Concord 225-5505
Rockingham	Knowles, Stanley W. Auger, Philip Asst. County Forester Rogers, Thomas Forester	County Extension Office Extension Service Center Epping 679-5616
Strafford	Black, Donald C.	County Extension Office Rochester 749-4445
Sullivan	Szymujko, Joseph A. Wood, Stephen A. (Watershed)	County Extension Office Claremont 543-3181
Supervisor:	Leighton, Roger S.	Pettée Hall, UNH Durham 862-1029 or Division of Forests and Lands State House Annex, Concord 271-2214

Assistant Utilization and Marketing Specialists
Harvesting: Richard G. Kinder 862-1028
Sawmilling: Harold W. Cook 862-1028

North Country RC&D Forester
Arthur G. Dodge

NATIONAL OUTLOOK FOR 1977

All indications point to a better year for business in general and for housing construction in particular, provided that the drastic cold weather does not persist. According to the experts of the Federal Home Loan Bank Board, housing starts are expected to reach the 1,800,000 level in 1977, against an estimated 1,530,000 in 1976.

The predicted upturn in single family and multi-family housing spells a good market for all building materials including lumber, plywood, particleboard, insulation board, shingles, flooring, and furniture. The implementation of the Rail Reorganization Act of 1973, with specific provisions for roadbed upgrading, is creating a very strong market for cross-ties. The pallet industry, a major user of hardwood lumber, always benefits from any pick-up in economic activity. The pulp and paper industry is looking at a solid year, however, with some concern over the level of pulp inventories accumulated in the world markets.

Forest industries in New Hampshire have experienced a healthy level of well paced business in 1976 and are starting 1977 with improved order files.

RECOMMENDATIONS TO PERSONS SELLING TIMBER

• New Hampshire woodland owners who plan to sell stumpage, logs, pulpwood, and other forest products are urged to consider the following recommendations before selling:

1. If you are in doubt as to whether you have enough of the right sort of timber to attract a buyer and are interested in the sort of selective cutting operation that would benefit the remaining stand, contact the County Forester or a Consulting Forester.

2. Consider the possibility of retaining the services of a qualified forester to act as your agent in handling a timber sale in your behalf when you are not in the position to look after the details of a sale, such as marking the trees for cutting, negotiating a fair price for the marked trees, looking after the cutting operations, and making sure the terms of the contract or agreement are being followed. The names and addresses of Consulting Foresters that practice in New Hampshire are listed in this report.

3. Assuming you have enough timber to have selectively cut, find out what sort of operation would be involved — whether a thinning, or an improvement, or re-production, or harvest cut, or a combination of two or more of these.

4. Arrange to have the trees that are to be cut to be marked with paint or a blaze. If not in a position to do this yourself with help from the County Forester, hire a Consulting Forester for this purpose.

5. Find out from buyers of stumpage, logs, pulpwood, and other forest products the prices they offer in order that you may take advantage of the best market. Compare the local prices with those quoted from other sections of the state.

6. Thoroughly investigate all timber markets and prices since in many cases outside markets pay better prices than local markets because of special demands.
7. Before selling, consult your neighbors who have recently sold timber and use their experience as a guide. Ask your County Forester. In many instances, failure to do this has resulted in the woodland owner not getting full value of the product.
8. Advertise and secure competition among outside purchasers. The expense will be small and outside buyers will thus learn of chances to bid on timber in competition with local buyers.
9. Secure bids whenever possible, both by the lump sum sale based on closely estimated volume and by log scale measure. A choice is thus offered and a more profitable form of bid can be accepted.
10. Consider the responsibility of the prospective purchaser before making the sale in order to avoid slow payment, costly collections and losses.
11. When there is quality timber to market, these trees are worth more than average or poor quality trees. Be sure the buyer takes the factor of tree quality into consideration when offering you a price for stumpage.
12. Remember that standing timber usually increases in values and generally can be sold at any time. The owner, therefore, is not obliged to place his produce on the market, if the price offered is not satisfactory. Sell only trees that should be cut. These trees should be marked by the owner or his agent with the help and advice of a qualified forester. Reliable operators will make partial cuttings by taking only the market trees, if the owner insists..
13. A written timber sale agreement between buyer and seller is more important before cutting starts on a lot. Sample sale agreement forms to fit different kinds of operations can be obtained from your County Forester.

ASSISTANCE RENDERED BY COUNTY FORESTER

The County Forester helps woodland owners to help themselves. Your County Forester will assist you in the examination of your woodlands and make recommendations for managing them. He will help you or your agent in marking trees for cutting in limited amounts, as an educational demonstration and advise you in the marketing of forest products.

There are thousands of acres of young growing trees, such as pine, spruce, fir, and desirable hardwood that can be converted into desirable stands of trees if the overtopping weed and cull trees are cut or killed. It is profitable to prune young, fast-growing, well-formed trees, especially white pine, with the purpose of growing quality logs that will yield clear lumber. Your County Forester can assist you in getting a forest improvement program started in your woodlands. Your County Forester can provide you with the information about the cost-sharing programs.

FOREST PRODUCTS LABORATORY PUBLICATION LISTS

LISTS OF PUBLICATIONS dealing with investigative projects of the U.S. Forest Products Laboratory or relating to special interest groups are available from the Director, Forest Products Laboratory, Madison, Wis. 53705. Separate lists have been compiled for each of the following subjects: Box, Crate, and Packaging Data; Drying of Wood; Fire Protection; Glue and Plywood; Growth, Structure and Identification of Wood; Furniture Manufacture; Logging, Milling and Utilization of Timber Products; Mechanical Properties of Timber; Structural Sandwich; Plastic Laminates and Wood-Base Components; Thermal Properties of Wood; Wood Finishing Subjects; Wood Preservation; Architects, Builders and Engineers.

CHRISTMAS TREE SITUATION

The N.H. Christmas Tree Industry enjoyed another excellent season during 1976 and for the 5th year in a row demand exceeded supply for the high quality sheared trees that are the mainstay of the business.

Early ordering is a MUST to guarantee a quality product in sufficient quantities to meet the demand on the retail stand.

Favorable weather during the start of the harvesting season soon ended with snow cover and cold temperatures making harvest operations less than desirable.

Spruce budworm damage had little impact on the 1976 Christmas Tree crop but had somewhat more impact on the brush and boughs available for harvesting. As a result, brush supplies were low and couldn't meet demand.

Balsam Fir remains the number one seller, with sheared spruce and pine also maintaining their popularity.

The "NH-Vt. Christmas Vendor" a seasonal list of Christmas producers and their products continues to provide a tremendous marketing boost for the industry. The "Vendor" is a joint marketing effort between the NH-Vt. Christmas Tree Association and the Cooperative Extension Services of New Hampshire and Vermont.

Although Northeastern U.S. is considered the major marketing area for our Christmas Tree industry, N.H. grown Christmas Trees continue to find their way into homes in as far away places as Puerto Rico and Hawaii.

For the approximately 200 growers in the State, the prospects for our multi-million dollar industry appear excellent for 1977 and beyond.

1976 PRICE RANGE FOR FOREST PRODUCTS

Table I. Price Range Standing Timber (Stumpage) and Sawlogs Per MBF

Prices quoted are an average range for the county. Prices will vary from those quoted depending on market conditions. More specific process can be obtained by contacting the County Forester, Consulting Foresters, or industry representatives. Read carefully the recommendations for selling on page 4 before disposing of stumpage, logs, and other forest products.

Belknap County

Species	Quality	Stumpage	Roadside	Delivered
White Pine	Low	\$20-25	\$30-35	\$55-60
	Medium	25-35	35-45	60-65
	High	35-55	45-55	65-70
Hemlock	All grades	15-25	25-30	35-40
Red Oak	Low	35	40-45	45-50
	Medium	35-40	45-50	50-55
	High	40+	50+	90-130
White Birch and	Low	20-25	31-36	42-48
Yellow Birch	Medium	25-30	37-45	50-70
	High	30+	45+	80-130
Rock Maple	Low	20-25	31-37	45-50
	Medium	25-30	37-42	55-75
	High	30+	40+	75-100
Beech	Medium to High	15-20	26-32	40-60
White Ash	Low	15-20	31-37	45-50
	Medium	20-25	40-45	50-60
	High	25+	45+	70-80
Mixed Hardwoods		15-25	30-35	45-55

Carroll County

Species	Quality	Stumpage	Roadside	Delivered
White Pine	Low	\$30	\$55	\$75
	Medium	45-60	85	90
	High	60-75	100	115
Hemlock	Medium	15-25	40-50	60-70
	High	30-40	60-65	70-80
Spruce	Medium	20-40	60-70	80
	High	40-50	85	120
Ash	Medium	40-60	80-90	135
	High	60-90	120	150
Basswood		25-50	50-80	85-120
Beech	Low	15	45	60
	Medium	20	50	65
	High	40	70	115-135
Beech-Boltwood	High	20	30-35	50-70
Red Maple	Low to High	30	70	65-80
Sugar Maple	Low	25	60	90
	Medium	40	90	130
	High	70	110	145

Carroll County (Continued)

Species	Quality	Stumpage	Roadside	Delivered
Sugar Maple Boltwood				60/cord
Paper Birch	Low	30	60	75
	Medium	50	70	80-90
	High	60	90	100-140
Paper Birch Boltwood	Low	30/cord	40-50/cord	70-85/cord
Yellow Birch	Medium	40	60	80-90
	High	50	90	100-130
Oak	Medium	25-35	50-60	80-130
	High	40-60	65-80	110-200

Cheshire County

Species	Quality	Stumpage	Roadside	Delivered
White Pine	Low	\$25-30	\$50-55	\$70-75
Medium	Medium	35-40	55-65	75-85
	High	40-50	65-75	85-95
Hemlock	Low	20-25	40-45	55-60
	Medium	25-30	45-50	60-65
	High	30-35	50-55	65-70
Spruce	Low	20-25	40-45	55-60
	Medium	25-30	45-50	60-65
	High	30-35	50-55	65-75
Red Oak	Low	30-40	50-60	70-75
	Medium	40-55	65-75	75-90
	High	55-70	75-90	95-125
White Birch	Low	30-40	50-60	70-75
	Medium	45-55	65-75	80-85
	High	55-65	75-85	90-120
Sugar Maple	Low	30-40	50-60	70-80
	Medium	45-55	65-75	85-90
	High	55-70	75-90	90-125
Soft Maple	Medium	25-30	45-50	60-70
	High	30-35	50-55	70-80
Beech	Medium	25-30	45-50	60-70
	High	30-35	50-55	70-80
White Ash	Low	(not purchased separately)		80-90
	Medium	(except as logs)		100-150
	High			150-200

Coos County

Species	Quality	Stumpage	Roadside	Delivered
White Pine	Sawlog	\$30-45	\$70-90	\$90-120
Spruce-Fir	Sawlog	25-40	65-85	90-115
Hemlock	Sawlog	17-20	35-45	55-80

Coos County (Continued)

Species	Quality	Stumpage	Roadside	Delivered
Hard Maple	Sawlog	40-60	80-100	120-160
	Veneer	50-90		150-250
Soft (Red) Maple	Sawlog	15-25	50-65	70-90
Poplar	Sawlog	10-25	35-45	60-80
White Birch	Sawlog	45-70	90-110	110-190
	Veneer	70-120		150-250
Beech	Sawlog	15-25	45-50	70-95
Yellow Birch	Sawlog	40-80	110-150	150-200
	Veneer	80-120		125-375
White Ash	Sawlog	45-85	85-160	100-225
Red Oak	Sawlog	20-30		100-105
	Veneer	55-85		250-325
Basswood	Veneer	35-50		140-180
Mixed Hardwood (Pallet & Tie Stock)	Sawlogs	15-25	45-60	80-90
White Cedar (over 6" DBH)	6' logs/cord*	10-20	40	35-45
	8' logs/cord	15-25	55	60

*6' cord = 700-75-bd. ft.

8' cord = 1000 bd. ft. (approx.)

Grafton County

Species	Quality	Stumpage	Roadside	Delivered
White Pine	Average	\$25-60	\$50-90	\$80-120
Hemlock	Average	15-30	30-85	60-100
Spruce & Fir	Average	15-45	35-90	60-110
Yellow Birch	Sawlog	40-95	65-170	95-190
	Veneer	100-150		125-325
Sugar or Rock Maple	Sawlog	40-75	65-190	80-220
	Veneer	60-75		150-250
White Birch	Sawlogs	25-80	55-170	70-190
	Veneer	80+		175-250
Soft (Red) Maple	Sawlogs	15-25	50-70	80
White Ash	Sawlogs	20-80	50-150	75-190
Beech	Sawlogs	10-25	30-70	70-85
Red Oak	Sawlog	20-75	45-160	60-190
	Veneer	65+		140-225
Pallet Logs	Mixed Hardwood	10-15	30-40	60
Tie Logs	Mixed Hardwood	15-25	40-60	60-80
Basswood	Sawlogs	10-20	30-45	60-75
	Veneer			140-200
Poplar	Sawlogs	10		75
Cherry	Sawlogs	35-50	65-95	110-150
	Veneer			170-285

Hillsboro County

Species	Quality	Stumpage	Roadside	Delivered
White Pine	Low	30	70	70
	Medium	38	75	75
	High	48	80	90
Hemlock	Low	20	60	65
	High	30	80	80
Red Oak	Low	35	70	65
	Medium	45	75	80
	High	70	80	90+
Other Hardwoods				
Birch, Maple, Ash	Low	20	60	55
Mixed Hardwood (Pallet Stock)	High Logs	40	80	80 45-60

Merrimack

Species	Quality	Stumpage	Roadside	Delivered
White Pine	Low	\$30-35	\$55-60	\$65-70
	Medium	35-40	60-65	70-75
	High	45-55	65-75	85-95
Hemlock	Low	15-20	35-40	45-50
	Medium	20-25	40-45	50-55
	High	25+	45-50	55-60
White Birch	Medium	20-30	40-50	65-80
	High	40-50	60-75	100-115
Hard Maple	Medium	25-35	45-55	70+
	High	35-45	55-65	90+
Red Oak	Medium	25-35	45-55	65-75
	High	40-70	70-100	85-125
Pallet Stock	Logs	20-25	45-50	55
Mixed Hardwood Pulp Logs				\$9.00/ton

Rockingham County

Species	Quality	Stumpage	Roadside	Delivered
White Pine	Low	\$17-27	\$46-56	\$59-69
	Medium	28-38	57-67	70-80
	High	39-49	68-78	81-91
Hemlock	Low	16-22	44-50	57-63
	Medium	23-29	51-57	64-70
	High	30-36	58-64	71-77
Red Oak	Low	16-26	44-54	57-67
	Medium	27-37	56-66	68-78
	High	38-55	67-84	79-96
*Other Hardwoods	Low	16-21	44-49	57-62
	Medium	22-27	50-55	63-68
	High	28-38	56-66	69-79

*Check the prices in other counties for white birch, yellow birch, sugar maple, and white ash, when grades are suitable for specialty items such as boltwood and veneer.

Strafford County

Species	Quality	Stumpage	Roadside	Delivered
White Pine	Low	\$20	\$40	\$55
	Medium	25	45	60
	High	40	60	75
Hemlock and Spruce	Low	15	35	50
	Medium	20	40	55
	High	25	45	60
Red Oak		30	50	
Other Hardwoods	Low	15-20	40	55
	Medium	20-25	45	60
	High	25-30	45-50	60-65

Sullivan County

Species	Quality	Stumpage	Roadside	Delivered
White Pine	Low	\$15-25	\$45-55	\$75-80
	Medium	25-40	55-70	80-85
	High	40-60	70-90	85-95
Hemlock	Medium	15-25	45-55	65-70
	High	25-35	55-65	70-85
Spruce	Medium	15-30	45-60	70-85
	High	30-40	60-70	80-90
Yellow Birch	Medium	25-40	65-80	85-110
	High	40-80	80-120	90-140
White Birch	Medium	20-40	60-80	85-90
	High	30-50	70-90	90-100
Sugar Maple	Medium	25-40	65-80	70-100
	High	30-45	70-85	75-115
Red Oak	Medium	25-50	65-100	100-130
	High	40-100	80-130	105-150
White Ash	Medium	25-50	65-90	100-130
	High	40-70	80-115	105-150
Red Maple	Medium	15-25	40-55	70-75
	High	25-40	55-65	75-90
Pallet		5-10		60

Table II. Prices Pulpwood Per Cord – Northern New Hampshire¹

Species	Stumpage	Roadside	Mill Yard
Spruce and Fir	\$5.00-8.00	\$22.00-28.00	\$35.00-38.00
White Pine	2.00-2.50	16.00-20.00	30.00-31.00
Hemlock			
Tamarack	2.00-4.00	18.00-24.00	33.00-36.00 High
Red Pine			
All Hardwood	2.50-4.50	18.00-22.00	31.00-35.00

Prices of Pulpwood Per Cord – Southern New Hampshire¹

Species	Stumpage	Roadside	Delivered at Mill
Softwood			
Rough			\$11.00/Ton
Hardwood			
Rough	\$2.00-3.00		9.00-10.00/Ton
Random Length			
Mixed Hardwood			9.00-9.50/Ton
Random Length Softwood			11.00±/Ton

Table III. Price of Debarked Slabs and Edgings Per Green Ton Strapped

	Delivered to Chipping Plant
Softwood ¹ (mixed)	\$5.25-7.00
Hardwood (mixed)	5.00-6.50 ²

¹Special prices are paid for slabs and edgings sorted by species (spruce and fir).

²Contact buyers for exact prices and mileage allowances.

Price of Pulp Chips Per Cord¹

	Scheduled Deliveries of Chips Produced from Roundwood ²	Produced from Slabs and Edgings Delivered to Pulp Mill ²
Pine and Hemlock		\$27.00-30.00
Spruce and Fir	\$25.00-28.00	30.00-36.00
Hardwood (mixed)	27.00-31.00	30.00-34.00

¹Chips are bought by weight or by volume.

²Contact buyers for exact prices and mileage allowances.

Table IV. Price Range of Excelsior Wood, Boltwood, Posts and Railroad Cross Ties

Species	Stumpage	Roadside	Delivered at Mill
Excelsior Wood Per Cord			
Poplar Peeled Rough			\$22.00- 28.00 18.00
Boltwood Per Cord ¹			
White Birch	\$20.00-30.00	\$30.00-40.00	50.00- 90.00 per cord 100.00-135.00 per Mbf.
Beech	10.00-15.00		37.00- 50.00 per cord 75.00-105.00 per Mbf.
Sugar Maple and Ash	15.00-20.00		45.00- 75.00 per cord 95.00-130.00 per Mbf.
Yellow Birch	15.00-25.00		48.00- 65.00 per cord 75.00-120.00 per Mbf.
Mixed Hardwood (pallet & tie)	15.00-25.00	15.00-25.00	37.00- 53.00 per cord 80.00- 90.00 per Mbf.

¹Price per bolt varies according to diameter and length of bolt. Some mills prefer to buy by the Mbf.

Posts

Species	Length	Top Diameter	Stumpage	Roadside Price
Red (Norway Pine) and Pitch Pine	7'	8"	\$.50	\$1.10
		6"	.20	.60
Cedar	8'	3-6"	.02	.35
		6"		.46
		5"		.41
		4"		.21

Railroad Cross ties

Grade	Size	Rail-bearing Face	Prices paid for Green Mixed Hardwood ¹ Ties			
			Loaded on R.R. Cars		Delivered by Truck to Nashua	
			each	per MBF	each	per MBF
3	(6" x 8" x 8'6")	8"	\$5.10	\$150	\$5.60	\$165
4	(7" x 8" x 8'6")	9"	5.95	150	6.40	161
5	(7" x 9" x 8'6")	10"	6.75	150	7.20	161

¹Oak, Beech, Birch, Maple, Cherry, Ash, Hickory

Table V. Price Range of Fuelwood Per Cord

Species	Stumpage	Roadside	Delivered Buyers Premises
Hardwood ¹			
4' Wood	\$1.00-10.00	\$12.00-40.00	\$30.00-55.00
12", 14", 16" Lengths		18.00-45.00	45.00-70.00
Slabs (Hardwood or Softwood)		2.00-25.00	16.00-30.00

Fireplace white birch will be slightly higher than above when bought in bundles.

Prices range up to \$60.00+ per cord.

Formula for determining cords of fuelwood, pulpwood and boltwood in 4' lengths.

Average height in inches times length of pile in feet divided by 384 equals the number of cords:

$$\text{EXAMPLE: } \frac{48'' \times 8'}{384} = 1 \text{ Cord}$$

If wood is longer or shorter than standard length, which is 48", divide by standard bolt length to get current percentage. (EXAMPLE: 39" divided by 48" equals 81%).

¹3.00-8.00 asked for sawing 4' wood into stove length.

Table VI. Price Range of Sawdust and Shavings and Bark

	Per-Cord Green at Sawmill	Per Bale Air Dry
Sawdust	\$3.00-7.50	
	or \$.02 to .06 per cubic foot	
Shavings	\$2.00-5.00	\$1.50
	or \$.02 to .045 per cubic foot	
Bagged Dry Shavings		\$.90 to \$1.35
Bark	\$.02 to \$.08 per cubic foot (loaded) \$1.50-6.00 per yard (loaded) (\$3.00) \$.50-6.00 per cord	per 3 cu. ft. bag

Table VII. Operating Costs (Contract Prices)

	Felling and Bucking per Mbf	Yarding per Mbf	Trucking ^{3/4} per Mbf in State
Logs			
Softwood ¹	\$8.00-16.00	\$10.00-25.00	\$12.00-20.00
Softwood ²	8.00-13.00	8.00-20.00	10.00-18.00
Hardwood ¹	8.00-20.00	12.00-38.00	14.00-30.00
Hardwood ²	8.00-16.00	10.00-25.00	10.00-20.00
Pulpwood	per cord	per cord	per cord
Softwood ¹	\$8.00-9.50	\$ 4.00-8.00	\$ 7.00-12.00
Hardwood ¹	7.00-9.00	5.00-10.00	7.00-12.00
Hardwood ²	6.50-9.00	5.00-10.00	7.00-12.00
Fuelwood	6.00-9.00	5.00-10.00	
Lopping Tops (for aesthetics)		2.00-5.00	

Yarding Stump to Roadside --

\$10.00-14.00/cord or \$14.00-20.00/Mbf.

Average Stump to Roadside --

14 Softwood \$28.00-30.00/Mbf
Hardwood \$32.00-35.00/Mbf

Table VII. Operating Costs (Contract Prices) (Continued)

Chain Saw Rental	\$ 2.00 per hour
Man with Chain Saw	4.00-6.00 per hour
Stickings	4.00-5.00 square edge hardwood lumber per Mbf. 3.00-4.00 round edge softwood lumber per Mbf.
Custom Sawing	55.00-75.00 per Mbf. for softwoods or \$25.00-50.00 per hour. 10.00-15.00 more per Mbf. for hardwoods or \$25.00-50.00 per hour.
Planing	15.00-25.00 per Mbf. two faces or \$6.00-25.00 per hour.
Resawing	8.00-10.00 per Mbf. per cut.
Stump to stick	140.00-150.00 per Mbf. for softwoods. 150.00-175.00 per Mbf. for hardwoods.

¹Northern N.H.

²Southern N.H.

³Intra-state and inter-state rates are sometimes used.

⁴There are no established I.C.C. rates for trucking sawlogs and pulpwood. Rates are determined between the trucker and the party wanting the logs hauled on the basis of mileage involved. Average hauling prices are as follows:

⁵\$25.00 for the first 10 miles and \$.20 to \$.25 per mile after.

Trucking Costs

		Truck	Truck with Loader
Logs	0- 30 miles	\$ 9.00-15.00 per Mbf.	\$18.00
	30- 50 miles	13.00-25.00 per Mbf.	20.00
	50- 85 miles	18.00-35.00 per Mbf.	25.00
	85-100 miles	35.00+ per Mbf.	30.00
Pulpwood	0- 15 miles	5.50 per cord	\$ 2.50
	15- 30 miles	5.50- 6.50 per cord	per cord
	30- 40 miles	6.50- 7.50 per cord	additional
	40- 60 miles	7.50- 8.50+ per cord or \$0.11 per loaded mile per cord plus \$1.01 for standby, delay and unload.	
Chips	5.00-10.00 per cord.		

Table VIII. Wholesale Price Range¹ of Christmas Trees and Boughs²

	Stumpage		Roadside	
	Single	Bundle	Single	Bundle
Pasture Run (unimproved)				
Balsam Fir	\$1.25-2.00		\$2.50-3.50	\$4.00-7.00
Spruce	1.00-1.50		1.50-2.50	3.00-5.50
Improved (but not sheared)				
Balsam Fir	1.50-2.50	\$2.50-4.50	2.75-5.00	5.50-8.25
Spruce	1.25-1.75	1.75-3.25	2.25-4.00	4.00-6.00
Sheared				
Balsam Fir	2.25-3.75		4.00-6.25	
Spruce	2.00-3.25		3.50-5.75	
Pine	2.00-3.00		4.00-5.75	
Boughs				
		Per Bundle ³	Roadside	Per Ton
Balsam Fir (tied)		\$2.25-3.50		\$90.00-140.00
Balsam Fir (baled)		2.50-4.00		100.00-160.00
Spruce (tied)		2.00-2.50		80.00-100.00
Spruce (baled)		2.25-2.75		90.00-110.00
Pine		2.25-2.75		90.00-110.00
Wreaths				
Balsam Fir — double face size 12"-14"				\$1.50-1.75 each

¹Prices vary according to size of order, quality, grade and tree size.

²Producers should contact buyers well in advance of cutting and arrange for deposits and specific prices, and use a written contract.

³Price based on 50 lb. bundle. Prices vary with quality and quantity.

Table IX. Retail Price Range of Single Christmas Trees

(Select and cut your own)	
Scotch Pine	
Balsam Fir	
White Spruce	\$3.50-8.00 or \$.75-1.50 per lineal foot
Douglas Fir	
Norway Spruce	
Blue Spruce	

Table X. Average Maple Sap Prices at Sugar House in New Hampshire

% Sugar	Price/Gal.	% Sugar	Price/Gal.
		3.2	.185
0.9	0	3.3	.193
1.0	.013	3.4	.200
1.1	.021	3.5	.208
1.2	.029	3.6	.215
1.3	.037	3.7	.223
1.4	.045	3.8	.230
1.5	.053	3.9	.238
1.6	.061	4.0	.245
1.7	.069	4.1	.253
1.8	.077	4.2	.260
1.9	.085	4.3	.268
2.0	.093	4.4	.275
2.1	.101	4.5	.283
2.2	.109	4.6	.290
2.3	.117	4.7	.298
2.4	.125	4.8	.305
2.5	.133	4.9	.313
2.6	.140	5.0	.320
2.7	.148	5.1	.328
2.8	.155	5.2	.335
2.9	.163	5.3	.343
3.0	.170	5.4	.350
3.1	.178	5.5	.358

Payment will be made according to above prices or if desired, syrup can be exchanged in lieu of cash at current wholesale prices in jugs or drums. The above prices are based upon saleable table grade syrup. We reserve the right to reject, or pay one-half the above prices — at our option — for any sap producing a buddy, sour, badly off-flavored syrup or dark Grade C.

**Maple Syrup Price Ranges for 1977
in Metal Containers for Grades: Fancy, and A**

1 Gallon	\$12.00-\$14.00	Mostly \$12.00-\$13.00
½ Gallon	6.75- 8.00	Mostly 7.00
1 Quart	4.00- 4.80	Mostly 4.00- 4.25
1 Pint	2.75- 3.50	Mostly 3.00- 3.25
½ Pint	1.75- 2.25	
1 Pound Maple Sugar	2.50- 3.50	

Rent Price Per Tap Hole

12-15 cents for sugar maples in the woods and not too easy to get to;
up to 30 cents for easily accessible trees and trees along roadsides.

CONVERSION FACTORS AND UNITS OF MEASUREMENT FOR FOREST PRODUCTS

A knowledge of the common units of measure for the various forest products is of importance to persons involved in the marketing process. These units of measure form a basis for common understanding between buyer and seller. Familiarity with these units can mean a greater financial return and a reduction of the chances of misunderstanding of the terms of forest products sale agreements.

The Blodgett rule is the official standard in New Hampshire. Several other rules are also in use by mutual agreement between buyer and seller. However, the International Rule, $\frac{1}{4}$ " kerf, is most commonly accepted.

The volume of a standing tree or log is determined using tree and log rules. These rules simply give the approximate number of board feet of sawed lumber that may be manufactured after allowing for milling losses in slabs, edgings and sawdust.

Tree Scale (Tree Volume Measurement)

To determine the board foot content of standing trees, tally the trees by:

- 1) D.B.H. (Diameter Breast Height=measurement of diameter of tree $4\frac{1}{2}$ ft. above ground)
- 2) Estimate the number of 16 foot logs to 6 inch top diameter
- 3) Apply the scale given in Table below

Tree Scale — International Rule

D.B.H. Inches	Number of 16 foot logs — to 6" top						
	1	1½	2	2½	3	3½	4
6	10	15					
8	20	35	50				
10	40	55	70	85	95		
12	60	75	95	110	125	145	165
14	85	110	135	150	165	190	215
16	110	150	190	215	240	260	285
18	140	195	245	285	320	345	370
20	180	245	310	355	400	435	465
22	220	300	380	445	505	545	585
24	270	365	460	540	615	670	730
26	320	435	550	645	735	805	875
28	370	515	655	760	870	950	1035
30	430	595	760	885	1010	1110	1205

Log Rule

To determine the board foot content of sawlogs, tally the logs by:

- 1) Average Diameters at the small end and inside the bark and by lengths
- 2) Apply volumes from the table given in Table below and total

The International Log Rule

¼-inch Saw Kerf

Diameter (Small end inside bark) Inches	Length of Log in Feet						
	8	10	12	14	16	18	20
4		5	5	5	5	5	10
5	5	5	10	10	10	15	15
6	10	10	15	15	20	25	25
7	10	15	20	25	30	35	40
8	15	20	25	35	40	45	50
9	20	30	35	45	50	60	70
10	30	35	45	55	65	75	85
11	35	45	55	70	80	95	105
12	45	55	70	85	95	110	125
13	55	70	85	100	115	135	150
14	65	80	100	115	135	155	175
15	75	95	115	135	160	180	205
16	85	110	130	155	180	205	235
17	95	125	150	180	205	235	265
18	110	140	170	200	230	265	300
19	125	155	190	225	260	300	335
20	135	175	210	250	290	330	370
21	155	195	235	285	320	365	410
22	170	215	260	305	355	405	455
23	185	235	285	335	390	445	495
24	205	255	310	370	425	485	545
25	220	280	340	400	460	525	590
26	240	305	370	435	500	570	640
27	260	330	400	470	540	615	690
28	280	355	430	510	585	665	745
29	305	385	465	545	630	715	800
30	325	410	495	585	675	765	860

Pulpwood

Pulpwood is generally sold by the cord or on the weight basis.

The Cord: A standard cord is generally accepted as equivalent to a pile of closely stacked wood 4 feet high, 4 feet deep and 8 feet long containing a gross volume of 128 cu. ft.

Solid Wood Content of a Cord

The solid wood content of a cord of pulpwood is dependent on many factors such as:

- 1) The average diameter of the bolts
- 2) Tightness of piling
- 3) Limbing practice and knottiness
- 4) Taper and straightness of individual bolts
- 5) Amount of bark rubbed off prior to scaling
- 6) Period of time between piling and scaling (shrinkage and compaction during transportation)

The volume given in the Table below are *averages* and are commonly used as conversion factors.

Solid Wood Content of a Standard Cord

1 Standard cord (4'x4'x8')	= 128 cubic feet of wood, bark and air spaces
1 Standard cord of pulpwood, rough	= 85 cubic feet of solid wood (softwood)
1 Standard cord of pulpwood, peeled	= 95 cubic feet of solid wood (softwood)
1 Standard cord of pulpwood, rough	= 85 cubic feet of solid wood (hardwood)
1 Standard cord of pulpwood, peeled	= 95 cubic feet of solid wood (hardwood)
1.7 to 2.0 cord	= 1000 board feet

When green rough pulpwood is purchased by weight, the following weight-volume equivalents are generally accepted:

5600 – 5700 pounds = 1 cord (hardwood)

4600 – 4700 pounds = 1 cord (softwood)

Cordwood

Wood fuel is generally sold by the standard cord or by the “short cord” also called “face cord” which is a pile of wood 8 feet long, 4 feet high and the length of the stick is less than 4 feet and is generally 12, 16, or 24 inches for stove and fireplace use.

Lumber (Square Edge)

The standard unit of measure for lumber is the board foot. It is equivalent to 1/12 of a cubic foot such as a board 12 inches by 12 inches and 1 inch thick.

Board foot measurements refer to rough lumber. Surfaced lumber is tallied on the basis of width and thickness before surfacing.

To calculate the board footage of lumber, for each piece multiply the width in inches by the thickness by the length in feet and divide by 12.

Example:

$$\frac{6'' \text{ wide} \times 2'' \text{ thick} \times 16' \text{ long}}{12} = 16 \text{ board feet}$$

Board Foot Measure Contained in Lumber

Thickness and Width Inches	Board foot content Board length in feet					
	6	8	10	12	14	16
1 x 2	1	1-1/3	1-2/3	2	2-1/3	2-2/3
1 x 3	1-1/2	2	2-1/2	3	3-1/2	4
1 x 4	2	2-2/3	3-1/2	4	4-2/3	5-1/3
1 x 5	2-1/2	3-1/3	4-1/6	5	5-5/6	5-2/3
1 x 6	3	4	5	6	7	8
1 x 7	3-1/2	4-2/3	5-5/6	7	8-1/6	9-1/3
1 x 8	4	5-1/3	6-2/3	8	9-1/3	10-2/3
1 x 10	5	6-2/3	8-1/3	10	11-2/3	13-1/3
1 x 12	6	8	10	12	14	16
1 1/4 x 4	2-1/2	3-1/3	4-1/6	5	5-5/6	6-2/3
1 1/4 x 6	3-3/4	5	6-1/4	7-1/2	8-3/4	10
1 1/4 x 8	5	6-2/3	8-1/3	10	11-2/3	13-1/3
1 1/2 x 4	3	4	5	6	7	8
1 1/2 x 6	4-1/2	6	7-1/2	9	10-1/2	12
1 1/2 x 8	6	8	10	12	14	16
2 x 4	4	5-1/3	6-2/3	8	9-1/3	10-2/3
2 x 6	6	8	10	12	14	16
2 x 8	8	10-2/3	11-1/3	16	18-2/3	21-1/3
2 x 10	10	13-1/3	16-2/3	20	23-1/3	26-2/3
2 x 12	12	16	20	24	28	32
2 1/2 x 12	15	20	25	30	35	40
3 x 6	9	12	15	18	21	24
3 x 8	12	16	20	24	28	32
3 x 10	15	20	25	30	35	40
3 x 12	18	24	30	36	42	48
4 x 4	8	10-2/3	13-1/3	16	18-2/3	21-1/2
6 x 6	18	24	30	36	42	48

LUMBER SIZE TABLE
Nominal and Minimum-dressed Sizes of Boards, Dimensions and Timbers
 (All Figures In Inches)

ITEM	THICKNESS			FACE WIDTHS				
	Nominal	Minimum Dressed		Nominal	Minimum Dressed			
		Dry	Green		Dry	Green		
Boards*				2	1-1/2	1-9/16		
				3	2-1/2	1-9/16		
				4	3-1/2	3-9/16		
				5	4-1/2	4-5/8		
		1	3/4	25/32	6	5-1/2	5-5/8	
					7	6-1/2	6-5/8	
		1-1/4	1	1-1/32	8	7-1/4	7-1/2	
					9	8-1/4	8-1/2	
		1-1/2	1-1/4	1-9/32	10	9-1/4	9-1/2	
					11	10-1/4	10-1/2	
					12	11-1/4	11-1/2	
					14	12-1/4	13-1/2	
					16	15-1/4	15-1/2	
	Dimension				2	1-1/2	1-9/16	
					3	2-1/2	2-9/16	
					4	3-1/2	3-9/16	
		2	1-1/2	1-9/16	5	4-1/2	4-5/8	
		2-1/2	2	2-1/16	6	5-1/2	5-5/8	
		3	2-1/2	2-9/16	8	7-1/4	7-1/2	
		3-1/2	3	3-1/16	10	9-1/4	9-1/2	
					12	11-1/4	11-1/2	
					14	13-1/4	13-1/2	
					16	15-1/4	15-1/2	
Dimension					2	1-1/2	1-9/16	
					3	2-1/2	2-9/16	
					4	3-1/2	3-9/16	
					5	4-1/2	4-5/8	
			4	3-1/2	3-9/16	6	5-1/2	5-5/8
			4-1/2	4	4-1/16	8	7-1/4	7-1/2
					10	9-1/4	9-1/2	
					12	11-1/4	11-1/2	
					14	13-1/4	13-1/2	
					16	15-1/4	15-1/2	
	Timbers	5 & Thicker		1/2 Off	5 & Wider		1/2 Off	

*Boards less than the minimum thickness for 1 inch nominal but 5/8 inch or greater thickness dry (11/16 inch green) may be regarded as American Standard Lumber, but such boards shall be marked to show the size and condition of seasoning at the time of dressing. They shall also be distinguished from 1-inch boards on invoices and certificates.

Dry Sizes apply to lumber which has been seasoned or dried to a moisture content of 19 percent or less.

Green Sizes apply to lumber having a moisture content in excess of 19 percent.

Railroad Tie Volume Table

Grade	Dimensions	Bd. ft. volume per tie	No. of Pcs. per MBF
1	6"x7"x8'6"	29.7	33.7
2	6"x7"x8'6"	29.7	33.7
3	6"x8"x8'6"	34.0	29.4
4	7"x8"x8'6"	39.6	25.2
5	7"x9"x8'6"	44.6	22.4

**Approximate Weight and Heating Value Per Cord (80 cu. ft.) of
Different Woods, Green and Air Dry (20% Moisture Content)**

Woods	Weight, lb.	Available Heat, Million BTU ¹	Equivalent in Gallons of Fuel Oil ²
	Air Dry	Air Dry	
Ash	3,440	20.0	204
Aspen	2,160	12.5	128
Beech, American	3,760	21.8	222
Birch, yellow	3,680	21.3	217
Elm, American	2,900	17.2	176
Hickory, shagbark	4,240	24.6	251
Maple, red	3,200	18.6	190
Maple, sugar	3,680	21.3	217
Oak, red	3,680	21.3	217
Oak, white	3,920	22.7	232
Pine, eastern white	2,080	12.0	123

¹50 to 60% efficiency of burning unit.

²70% efficiency of furnace.

Variation of Heating Values of Wood Due to Moisture

— Per Cent of Moisture—	— Per Cent of Usable Heat —
0 (oven dry)	103.4%
4	102.7
10	101.6.
20 Air-dried Hardwood	100.0 7,250 BTU*
40	96.5
80	89.7
100 (Green hardwood)	85.0

*BTU is the quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit.

Approximate Number of Trees per Cord for Peeled Pulpwood and Cordwood

Tree Diameter at 4½ Feet	Number of Trees
6"	25
7"	16
8"	12
9"	10
10"	8
11"	6
12"	5
14"	3
16"	2.5
18"	2
22"	1

Proposed Metric Sizes for Softwood Lumber

The U.S. metric sizes for softwood lumber were developed during 1975 by the American National Metric Council (ANMC) Subsector Committee on Softwood Lumber. A broad national cross section of the lumber industry was represented, including rules writing agencies, distributors, millwork manufacturers and other related organizations. These recommendations have been approved by the ANMC Sector Committee on Lumber and Wood Products.

Table 1. Dry Sizes at 19 Percent Maximum – Moisture Content

Item	Thicknesses			Face Widths		
	Nominal	Net	Metric, mm	Nominal	Net	Metric, mm
Finish	3/8"	5/16"	8	2"	1-1/2"	38
	1/2"	7/16"	11	3"	2-1/2"	64
	5/8"	9/16"	14	4"	3-1/2"	89
	3/4"	5/8"	16	5"	4-1/2"	114
	1"	3/4"	19	6"	5-1/2"	139
	1-1/4"	1"	25	7"	6-1/2"	165
	1-1/2"	1-1/4"	32	8"	7-1/4"	185
	1-3/4"	1-3/8"	35	9"	8-1/4"	210
	2	1-1/2"	38	10"	9-1/4"	235
	2-1/2"	2"	51	11"	10-1/4"	260
	3"	2-1/2"	64	12"	11-1/4"	285
	3-1/2"	3"	76	14"	13-1/4"	335
	4"	3-1/2"	89	16"	15-1/4"	385

Table 2. Sizes of Boards, Dimension and Timbers

Item	Thicknesses					Face Widths				
	Nominal	Net		Metric, mm		Nominal	Net		Metric, mm	
Dry		Green	Dry	Green	Dry		Green	Dry	Green	
Boards	3/4"	5/8"	11/16"	16	17	2"	1-1/2"	1-9/16"	38	39
	1"	3/4"	25/32"	19	20	3"	2-1/2"	2-9/16"	64	66
	1-1/4"	1"	1-1/32"	25	26	4"	3-1/2"	3-9/16"	89	91
	1-1/2"	1-1/4"	1-9/32"	32	33	5"	4-1/2"	4-5/8"	114	117
						6"	5-1/2"	5-5/8"	139	143
						7"	6-1/2"	6-5/8"	165	170
						8"	7-1/4"	7-1/2"	185	190
						9"	8-1/4"	8-1/2"	210	216
						10"	9-1/4"	9-1/2"	235	242
						11"	10-1/4"	10-1/2"	260	267
Dimension 2"						12"	11-1/4"	11-1/2"	285	293
						14"	13-1/4"	13-1/2"	335	345
						16"	15-1/4"	15-1/2"	385	395
	1-1/2"	1-9/16"	38	39	2"	1-1/2"	1-9/16"	38	39	
	2-1/2"	2"	2-1/16"	51	52	3"	2-1/2"	2-9/16"	64	66
	3"	2-1/2"	2-9/16"	64	66	4"	3-1/2"	3-9/16"	89	91
	3-1/2"	3"	3-1/16"	76	78	5"	4-1/2"	4-5/8"	114	117
	4"	3-1/2"	3-9/16"	89	91	6"	5-1/2"	5-5/8"	139	143
	4-1/2"	4"	4-1/16"	102	104	8"	7-1/4"	7-1/2"	185	190
						10"	9-1/4"	9-1/2"	235	242
					12"	11-1/4"	11-1/2"	285	293	
					14"	13-1/4"	13-1/2"	335	345	
					16"	15-1/4"	15-1/2"	385	395	