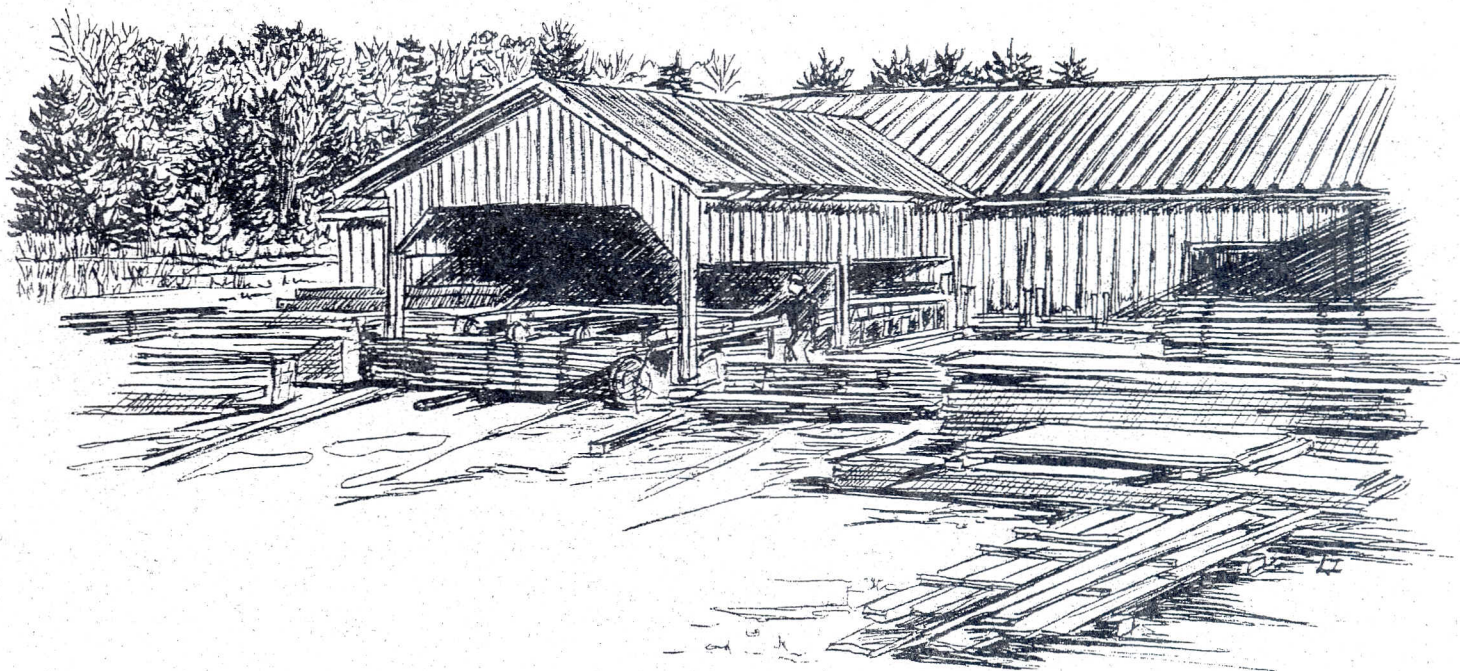
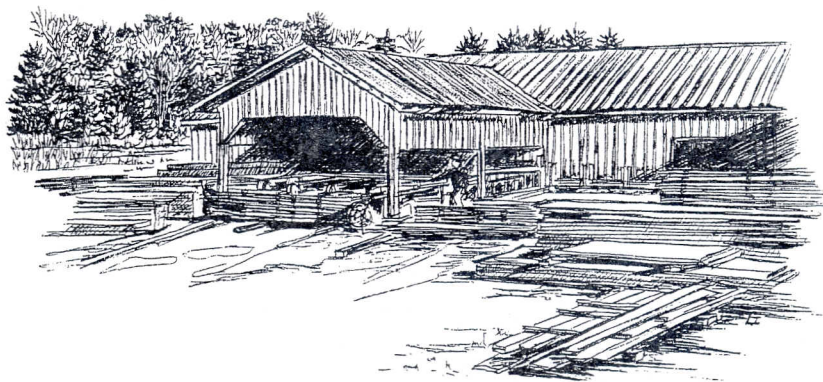


New Hampshire Forest Market Report 1998-1999





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"Helping You Put Knowledge and Research To Work"

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University of New Hampshire, U.S. Department of Agriculture and N.H. counties cooperating.

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UNH Cooperative Extension's Forestry Program in New Hampshire

The UNH Cooperative Extension Forestry Program is conducted by county Extension educators in forest resources and by Extension specialists based at the University of New Hampshire in Durham. These educators provide technical information to woodland owners, foresters, woods workers, community officials, and processors of primary and secondary forest products.

County Extension educators in forest resources and forestry specialists can provide recommendations about managing forest stands. This includes advice about regenerating forest land, pruning, pre-commercial weeding and thinning, wildlife habitat improvement, recreational uses, commercial harvesting of sawlogs, pulpwood, biomass or firewood, and marketing of a wide variety of forest products.

The Forest Industry specialist can provide business management and technical information to timber harvesters, sawmills and other wood industry businesses. This includes recommendations on production control and yield studies, taxes and insurances, personnel, safety, wood processing, lumber drying, and lumber grading.

This is a cooperative program between the University of New Hampshire Cooperative Extension, the NH Division of Forests and Lands of the Department of Resources and Economic Development, NH Fish and Game, the U.S. Department of Agriculture, and the U.S. Fish and Wildlife Service.

For additional information or assistance, call UNH Cooperative Extension in Durham or county Cooperative Extension offices listed on the next page.

Extension Educators, Forest Resources — County Offices

Belknap County

Sumner Dole
36 County Drive
Laconia, NH 03246-2900
(603) 524-1737

Coos County

Sam Stoddard
629A Main Street
Lancaster, NH 03584-9612
(603) 788-4961

Merrimack County

Timothy Fleury
315 Daniel Webster Highway
Boscawen, NH 03303
(603) 796-2151 or 225-5505

Sullivan County

Stephen Wood
24 Main Street
Newport, NH 03773
(603) 863-9200

Carroll County

Peter Pohl
75 Main Street
Center Ossipee 03814-0860
(603) 539-3331

Grafton County

Northam Parr
County Court House
RR1 Box 65F
N. Haverhill, NH 03774-9708
(603) 787-6944

Rockingham County

Phil Auger
113 North Road
Brentwood, NH 03833
(603) 679-5616 or
(800) 248-6672

Cheshire County

Marshall Patmos
800 Park Avenue
Keene, NH 03431-1513
(603) 352-4550

Hillsborough County

Jonathan Nute
468 Route 13 South
Milford, NH 03055
(603) 673-2510

Strafford County

Donald Black
259 County Farm Road
Unit 5
Dover, NH 03820-6015
(603) 749-4445



Extension Specialists, Forestry & Wildlife — UNH Campus Offices

Karen P. Bennett
Forest Resources
108 Pettee Hall
55 College Road
Durham, NH 03824-3599
(603) 862-4861

Sarah Smith
Forest Industry
108 Pettee Hall
55 College Road
Durham, NH 03824-3599
(603) 862-2647

Ellen J. Snyder
Wildlife
110 Pettee Hall
55 College Road
Durham, NH 03824-3599
(603) 862-3594

Robert Edmonds
Program Leader, Forestry & Wildlife
121 Taylor Hall
59 College Road
Durham, NH 03824-3587
(603) 862-2619

Timber Sale Guidelines

The term "timber sale" is used to refer to any significant harvest of wood products involving an exchange of money. Timber sales may involve the sale of trees used to make lumber (sawtimber), veneer, fuelwood, whole tree chips, pulp, or any combination of these products.

A decision to harvest timber is a critical one and should be handled as a business transaction. Timber sales often culminate 50 or more years of investment by a landowner in the form of taxes and management costs. A timber sale may have both immediate and long-lasting effects on a forest. It is important to have as much information prior to the harvest as possible. Proper harvesting can provide multiple benefits, income, improved wildlife habitat, recreational access, views, and healthy and vigorous forests. Uncontrolled, exploitive cutting can reduce such values, leading to environmental degradation, public resentment and legal entanglements. Your decision to sell timber should be based on good information with a foundation in good stewardship.

Why Do You Want To Harvest?

The first step in a well ordered timber sale project is to consider what your management goals are and to begin to develop priorities based on those objectives.

Consider what you hope to accomplish by having a timber sale. Keep in mind compromises are likely if objectives conflict. Your objectives might include any combination of or all of the following:

- forest improvement
- access and recreational improvement
- wildlife habitat improvement
- land conversion for other uses
- maximum income
- tax considerations
- increased earning power and future value growth

Before You Decide to Sell Timber

The following questions should be considered BEFORE selling timber. If you can't answer these questions or if you respond negatively to them, you will benefit a great deal by seeking professional assistance before initiating a timber sale.

- Have you identified your long-term management objectives such as income, wildlife habitat, recreation, and aesthetics?
- Have you developed a plan to achieve your objectives?
- Have you identified your objectives for this sale?
- What harvest method is best suited to meet your objectives?
- What affect will a harvest of this type have on your forest and its related resources?
- Do you know what your forest will look like following a harvest?
- Will the harvest leave an improved stand for increased value growth?

- Have you consulted with all parties having legal interest in your land (co-owners, mortgagees, banks, etc.)?
- What laws relate to timber harvesting on your land?
- What products are saleable from your land (whole tree chips, fuelwood, pulpwood, mortgagees, banks, etc.)?
- What is the anticipated volume to be harvested?
- What is your timber worth by species, product and quality?
- How will you be paid?
- Do you know how stumpage values are determined?
- Are your boundaries clearly identified?
- Have you identified sensitive areas on your land?
- Who is a reliable logging contractor?
- Are you familiar with timber harvesting insurance regulations and your liability?
- Are you familiar with preparation of a timber sale agreement?
- Who is responsible for payment of the NH Yield Tax?
- Will there be adequate supervision of the harvest?
- Do you have the information you need regarding federal tax treatment of timber income?

Who Can Help?

Assistance is available to landowners from both the public and private sector. UNH Cooperative Extension educators in each county are available at no cost to help with a preliminary assessment of the forest land and provide information and educational assistance to help guide landowners through the timber sale process. This may include helping to identify landowner harvest objectives and motives, and perhaps examining the property. This will help match individual harvest objectives with the resource needs and capabilities. Since their role is educational, Extension educators have limitations on the time and effort that can be expended. The Extension educators can also provide a directory of NH licensed professional foresters, and NH Professional Logger Program timber harvesters.

Selling Timber

Stumpage Sale

Most timber marketed in New Hampshire is sold through a stumpage sale in which the value of the trees is given as they exist in the woods or "on the stump." Stumpage value is the value associated with standing timber. Stumpage values offered for a specific timber sale at a given time depend upon market conditions, the total timber sale volume, the species and quality of the stumpage being sold, and accessibility.

Payment for stumpage is usually made in one of two methods. Each has advantages. The timber is usually paid for by unit of volume (per thousand board feet, per cord or per ton). Most sawtimber is sold per thousand board feet (MBF). Cordwood and pulpwood are sold per cord or ton. Timber sold in this way is paid for as it is removed and the scale (measurement of the product) delivered to the mill is accepted as the standard for payment. Records of delivery are kept on mill scale slips. Landowners conducting their own timber sale should request copies of mill scale slips, particularly if they don't have a preharvest estimate of the volume of timber being harvested. Scale slips are the only concrete evidence of the actual volume of timber removed.

Timber may also be sold by what is referred to as a "lump sum" sale. Payment in this method is based on an agreed upon estimate of the total stumpage value. This timber sale method is best applied when an accurate preharvest volume estimate is made. Lump sum payments may be made prior to the start of a harvest or by installment payments made at agreed upon intervals during the course of the harvest. Since the total amount of money is fixed in a lump sum sale, it's very important landowners know the value of their standing timber before entering into a lump sum sale agreement. There are also different federal tax laws that apply to lump-sum sales.

Roadside Sale

Roadside sale is a term used when a landowner either harvests the timber or contracts to have the logging done and sells the timber at a location accessible to a truck. Payment and measurement is most often made on the basis of mill scale though it can also be done where the timber is picked up.

Delivered

Landowners are paid a delivered price when, at their expense, they are responsible for the harvesting and transportation to the mill. Mill scale would be the basis for payment. This is commonly termed "contract logging." If you are selling high value timber, this method of sale often yields more income.

Note: Each method of sale has different implications concerning landowner liability, worker's compensation insurance, etc. It's important to understand them before proceeding.

Belknap County

1998-99 Price Range for Forest Products

Price Range Standing Timber (Stumpage) and Sawlogs Per Thousand Board Feet (MBF)

Species	Quality	Stumpage	Delivered
White Pine	high	\$170/MBF	\$ 350/MBF
	medium	110	220
	low	50	125
Hemlock		30-50	100-180
Spruce-fir		60-120	200-280
Red Pine		30-60	150-200
Red Oak	high	600	750
	medium	400	500
	low	200	325
Sugar Maple	high	500	700
	medium	300	500
	low	100	200
Red Maple		30-80	120-325
White Ash		100-200	150-550
Yellow Birch		110-220	200-500
White Birch		75-150	100-350
Beech		30-80	100-250
Aspen		-	-
Basswood		-	-
Pallet		20-40	80-120

Prices quoted are an average range for the county. Prices will vary depending on quantity, quality, diameter, length, access, and market conditions. More specific prices can be obtained by contacting Consulting Foresters or Sawmills. A listing of sawmills can be obtained from:

UNH Cooperative Extension Publications
120 Forest Park,
Durham, NH 03824
Tel. 603-862-2346

Sources for data include: Consulting Foresters, UNH Cooperative Extension, the NH Division of Forests & Lands, the NH Timberland Owners Association, "Quarterly Market Report" (Dec. '97) and *The Sawlog Bulletin*.

Carroll County

1998-99 Price Range for Forest Products

Price Range Standing Timber (Stumpage) and Sawlogs Per Thousand Board Feet (MBF)

Species	Quality	Stumpage	Delivered
White Pine	high	\$170/MBF	\$350/MBF
	medium	110	220
	low	50	125
Hemlock		30-50	100-180
Spruce-fir		60-120	200-280
Red Pine		30-60	150-200
Red Oak	high	600	750
	medium	400	500
	low	200	325
Sugar Maple	high	500	700
	medium	300	500
	low	100	200
Red Maple		30-80	120-325
White Ash		100-200	150-550
Yellow Birch		100-220	200-500
White Birch		75-150	100-350
Beech		30-80	100-250
Aspen		20-45	130-200
Basswood		25-60	100-145
Pallet		20-40	80-125

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Cheshire County

1998-99 Price Range for Forest Products

Price Range Standing Timber (Stumpage) and Sawlogs Per Thousand Board Feet (MBF)

Species	Quality	Stumpage	Delivered
White Pine	high	\$160/MBF	\$300/MBF
	medium	90	220
	low	50	125
Hemlock		35-55	100-180
Spruce-fir		60-100	230-280
Red Pine		40-60	150-210
Red Oak	high	500	800
	medium	250	600
	low	100	300
Sugar Maple	high	300	800
	medium	175	500
	low	100	175
Red Maple		40-70	125-350
White Ash		80-200	150-550
Yellow Birch		100-200	150-300
White Birch		75-150	100-350
Beech		40-60	130-250
Aspen		35-40	-
Basswood		35-40	100-175
Pallet		20-40	80-125

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Tel. 603-862-2346

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Coos County

1998-99 Price Range for Forest Products

Price Range Standing Timber (Stumpage) and Sawlogs Per Thousand Board Feet (MBF)

Species	Quality	Stumpage	Delivered
White Pine	high	\$140/MBF	\$350/MBF
	medium	110	250
	low	90	100
Hemlock		30-50	120-160
Spruce-fir		100-150	210-300
Red Pine		35-60	110-160
Red Oak	high	400	800
	medium	300	450
	low	150	200
Sugar Maple	high	420	800
	medium	230	600
	low	100	350
Red Maple		25-60	120-250
White Ash		80-200	200-500
Yellow Birch		100-150	150-450
White Birch		60-130	180-300
Beech		30-50	100-250
Aspen		20-65	100-200
Basswood		30-50	125-250
Pallet		25-50	80-120

Prices quoted are an average range for the county. Prices will vary depending on quantity, quality, diameter, length, access, and market conditions. More specific prices can be obtained by contacting Consulting Foresters or Sawmills.

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UNH Cooperative Extension Publications
120 Forest Park,
Durham, NH 03824
Tel. 603-862-2346

Sources for data include: Consulting Foresters, UNH Cooperative Extension, the NH Division of Forests & Lands, the NH Timberland Owners Association, "Quarterly Market Report" (Dec. '97) and *The Sawlog Bulletin*.

Grafton County

1998-99 Price Range for Forest Products

Price Range Standing Timber (Stumpage) and Sawlogs Per Thousand Board Feet (MBF)

Species	Quality	Stumpage	Delivered
White Pine	high	\$150/MBF	\$350/MBF
	medium	100	220
	low	50	170
Hemlock		30-50	100-180
Spruce-fir		90-150	200-300
Red Pine		30-55	150-200
Red Oak	high	600	800
	medium	325	450
	low	150	220
Sugar Maple	high	400	750
	medium	250	550
	low	150	200
Red Maple		20-40	120-325
White Ash		100-200	200-500
Yellow Birch		80-175	150-450
White Birch		80-110	180-300
Beech		30-50	100-250
Aspen		20-45	130-170
Basswood		-	100-250
Pallet		20-45	80-120

Prices quoted are an average range for the county. Prices will vary depending on quantity, quality, diameter, length, access, and market conditions. More specific prices can be obtained by contacting Consulting Foresters or Sawmills.

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Tel. 603-862-2346

Sources for data include: Consulting Foresters, UNH Cooperative Extension, the NH Division of Forests & Lands, the NH Timberland Owners Association, "Quarterly Market Report" (Dec. '97) and *The Sawlog Bulletin*.

Hillsborough County

1998-99 Price Range for Forest Products

Price Range Standing Timber (Stumpage) and Sawlogs Per Thousand Board Feet (MBF)

Species	Quality	Stumpage	Delivered
White Pine	high	\$160/MBF	\$300/MBF
	medium	90	220
	low	60	125
Hemlock		30-50	110-200
Spruce-fir		60-100	200-250
Red Pine		40-80	150-200
Red Oak	high	600	800
	medium	350	600
	low	100	300
Sugar Maple	high	300	700
	medium	180	500
	low	100	175
Red Maple		30-70	125-300
White Ash		110-200	150-450
Yellow Birch		40-70	150-450
White Birch		60-90	100-180
Beech		40-100	100-250
Aspen		30-50	95-150
Basswood		-	-
Pallet		20-50	80-120

Prices quoted are an average range for the county. Prices will vary depending on quantity, quality, diameter, length, access, and market conditions. More specific prices can be obtained by contacting Consulting Foresters or Sawmills.

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120 Forest Park,
Durham, NH 03824
Tel. 603-862-2346

Sources for data include: Consulting Foresters, UNH Cooperative Extension, the NH Division of Forests & Lands, the NH Timberland Owners Association, "Quarterly Market Report" (Dec. '97) and *The Sawlog Bulletin*.

Merrimack County

1998-99 Price Range for Forest Products

Price Range Standing Timber (Stumpage) and Sawlogs Per Thousand Board Feet (MBF)

Species	Quality	Stumpage	Delivered
White Pine	high	\$160/MBF	\$375/MBF
	medium	90	220
	low	60	125
Hemlock		35-55	100-180
Spruce-fir		60-100	180-220
Red Pine		40-60	150-200
Red Oak	high	500	800
	medium	250	600
	low	150	300
Sugar Maple	high	300	750
	medium	180	450
	low	100	175
Red Maple		20-70	125-300
White Ash		110-200	150-400
Yellow Birch		50-80	150-450
White Birch		40-80	100-180
Beech		40-100	100-250
Aspen		30-50	95-150
Basswood		-	-
Pallet		30-50	80-120

Prices quoted are an average range for the county. Prices will vary depending on quantity, quality, diameter, length, access, and market conditions. More specific prices can be obtained by contacting Consulting Foresters or Sawmills.

A listing of sawmills can be obtained from:

UNH Cooperative Extension Publications
 120 Forest Park,
 Durham, NH 03824
 Tel. 603-862-2346

Sources for data include: Consulting Foresters, UNH Cooperative Extension, the NH Division of Forests & Lands, the NH Timberland Owners Association, "Quarterly Market Report" (Dec. '97) and *The Sawlog Bulletin*.

Rockingham County

1998-99 Price Range for Forest Products

Price Range Standing Timber (Stumpage) and Sawlogs Per Thousand Board Feet (MBF)

Species	Quality	Stumpage	Delivered
White Pine	high	\$200/MBF	\$300/MBF
	medium	100	200
	low	40	125
Hemlock		30-50	110-200
Spruce-fir		-	-
Red Pine		30-50	120-240
Red Oak	high	500	750
	medium	350	500
	low	200	300
Sugar Maple	high	-	-
	medium	-	-
	low	-	-
Red Maple		30-50	125-300
White Ash		30-50	150-400
Yellow Birch		-	-
White Birch		-	-
Beech		-	-
Aspen		-	-
Basswood		-	-
Pallet		20-30	80-120

Prices quoted are an average range for the county. Prices will vary depending on quantity, quality, diameter, length, access, and market conditions. More specific prices can be obtained by contacting Consulting Foresters or Sawmills. A listing of sawmills can be obtained from:

UNH Cooperative Extension Publications
120 Forest Park,
Durham, NH 03824
Tel. 603-862-2346

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Strafford County

1998-99 Price Range for Forest Products

Price Range Standing Timber (Stumpage) and Sawlogs Per Thousand Board Feet (MBF)

Species	Quality	Stumpage	Delivered
White Pine	high	\$150	\$300/MBF
	medium	120	220
	low	30	120
Hemlock		30-60	110-180
Spruce-fir		50-100	120-240
Red Pine		30-80	120-180
Red Oak	high	400	800
	medium	250	450
	low	100	300
Sugar Maple	high	-	-
	medium	-	-
	low	-	-
Red Maple		25-70	125-300
White Ash		30-125	150-400
Yellow Birch		60-125	100-300
White Birch		60-90	100-300
Beech		30-50	130-240
Aspen		-	-
Basswood		-	-
Pallet		20-40	80-120

Prices quoted are an average range for the county. Prices will vary depending on quantity, quality, diameter, length, access, and market conditions. More specific prices can be obtained by contacting Consulting Foresters or Sawmills.

A listing of sawmills can be obtained from:

UNH Cooperative Extension Publications
120 Forest Park,
Durham, NH 03824
Tel. 603-862-2346

Sources for data include: Consulting Foresters, UNH Cooperative Extension, the NH Division of Forests & Lands, the NH Timberland Owners Association, "Quarterly Market Report" (Dec. '97) and *The Sawlog Bulletin*.

Sullivan County

1998-99 Price Range for Forest Products

Price Range Standing Timber (Stumpage) and Sawlogs Per Thousand Board Feet (MBF)

Species	Quality	Stumpage	Delivered
White Pine	high	\$200/MBF	\$350/MBF
	medium	125	250
	low	80	140
Hemlock		30-75	150-200
Spruce-fir		75-130	235-300
Red Pine		30-75	150
Red Oak	high	500	800
	medium	300	500
	low	150	300
Sugar Maple	high	600	800
	medium	300	650
	low	150	300
Red Maple		40-75	150-300
White Ash		100-225	150-400
Yellow Birch		75-200	180-400
White Birch		60-90	100-180
Beech		30-50	130-200
Aspen		20-40	125-180
Basswood		30-60	150-200
Pallet		20-35	80-140

Prices quoted are an average range for the county. Prices will vary depending on quantity, quality, diameter, length, access, and market conditions. More specific prices can be obtained by contacting Consulting Foresters or Sawmills. A listing of sawmills can be obtained from:

UNH Cooperative Extension Publications
120 Forest Park,
Durham, NH 03824
Tel. 603-862-2346

Sources for data include: Consulting Foresters, UNH Cooperative Extension, the NH Division of Forests & Lands, the NH Timberland Owners Association, "Quarterly Market Report" (Dec. '97) and *The Sawlog Bulletin*.

Price Range: White Birch Boltwood (per cord delivered)

Stumpage \$40-50/cord

Delivered: \$100-150/cd.

(Price per cord varies according to diameter and length of bolt. Some mills prefer to buy the MBF.)

Veneer Grade Logs (per thousand board feet, MBF)

High quality veneer has strict requirements for size (diameter and length), straightness, lack of defects, color & heart size (in some species). Curly and birdseye figuring can command even higher prices. It is important to understand specifications for the market before cutting the trees.

Red Oak	\$800 - 1300/MBF
Yellow Birch	600 - 1200/MB
White Ash	800 - 1200/MBF
Hard Maple	700 - 1400/MBF

Pulpwood Prices - Northern New Hampshire

Species	Stumpage	Delivered	
		Per Ton	Per Cord
Spruce and Fir	\$3.00 - 7.00 /ton	\$25.00-30.00	\$55.00-66.00
Hemlock	2.00 - 5.00 /ton	23.00-30.00	58.00-62.00
White Pine	1.00 - 5.00 /ton	20.00-25.00	44.00-55.00
Hardwood	2.00 - 5.00 /ton	20.00-25.00	52.00-65.00

*Pulpwood is weight scaled at the mills in green ton equivalents. Converting factors to cords vary according to species.

Pulpwood Prices - Central/Southern New Hampshire

Species	Stumpage	Delivered	
		Per Ton	Per Cord
Spruce and Fir	2.00 - 4.00 /ton	\$30.00-36.00	\$66.00-79.00
Hemlock	2.00 - 4.00 /ton	20.00-25.00	50.00-62.00
White Pine	1.00 - 3.00 /ton	10.00-18.00	22.00-40.00
Hardwood	1.00 - 4.00 /ton	16.00-20.00	42.00-52.00

Price of Debarked , Chipped & Screened Roundwood Per Green Ton

Species	Delivered
Softwood (mixed)	\$ 35 - 40 /ton
Hardwood (mixed)	35 - 40 /ton

Price of Pulp Chips

Delivered To Pulp Mill (Clean, Screened, Bark Free)

Species	Per Green Ton
Pine, Hemlock	\$ 24 - 27/ton
Spruce, Fir	30 - 40
Hardwood (mixed)	18 - 22

Average Price of Wood Fuel, Fuel Chips, and Biomass

Species	Stumpage	Delivered
Biomass Fuel: Mixed Species	\$ 50 - 2.00 /ton	\$12 - 17 /ton
Sawdust		8 - 13
Sawdust and Bark Combination		12 - 15
Bark Fuel		12 - 16

Price Range of Hardwood Fuelwood Per Cord

Species	Stumpage	Delivered to Buyer
Hardwood	\$ 5.00 - 15.00 /cd.	
12" - 24" unsplit		\$60.00 - 90.00 /cd
12" - 24" split		80.00 - 120.00
Slabs (Hardwood or Softwood)	15.00 - 40.00 (picked up)	25.00 - 55.00
Kiln Dried Fuelwood		175.00+
Tree length Fuelwood		
Southern N.H.	5.00 - 15.00	50.00 - 65.00
Northern N.H.	7.00 - 15.00	50.00 - 65.00

Cordwood as defined by NH State law (RSA 438:20):

A cord is 128 cubic feet "ranked and well stowed"- Pieces of wood are placed in a line or row, with individual pieces touching and parallel to each other, and stacked in a compact manner.

Except for small packages less than 4 cubic feet and logs, firewood shall be advertised, offered for sale, and sold only by measure, using the term "cord" and fractional parts of a cords, or the cubic meter.

Except as noted above, firewood shall be sold by the cord and a cord is 128 cubic feet.

Price Range of Sawdust, Shavings and Bark (Not Fuel)

Quantities are expressed by how product is most commonly sold.

Sawdust (retail, green)	\$2.00 - 3.00 / yd. unloaded	\$ 3.00 - 5.00 / yd. loaded
Shavings (retail, air dry)	3.00 - 5.00 / yd. unloaded	
Shavings (bagged dry, retail)	2.50 - 4.00 / bag	
Bark mulch (wholesale, loaded)	5.00 -12.00 / yd unprocessed	9.00 -15.00 / yd. processed*
Bark mulch (retail)	12.00 -14.00 / yd. unprocessed	20.00 -26.00 / yd. processed
Hemlock	25.00- 35.00 / ton unprocessed	38.00 -42.00 / ton processed

*mixed softwood

Representative Operating Costs (Contract Prices) N.H. per Thousand Board Feet (MBF)

Sawlogs: Felling, Yarding, and Bucking Softwood	Spruce/Fir	\$80-120 /MBF
	Pine/Hemlock	60-120 /MBF
	Hardwood	80-130/MBF
	Veneer	100-175 /MBF
Pulpwood and Cordwood: (with machine) stump to landing random length		10- 16 per ton
Biomass Chipping		8- 10 per ton
Contract Chipping-roadside		8 -12 per ton

Representative Trucking Costs*

Sawlogs:		
Local deliveries	\$30.00-60.00	per MBF
Distant deliveries	30.00-60.00	per MBF for the first 10 miles and \$0.30 to 0.60 for each additional mile per MBF or \$45.00 to 60.00 per hour
Cordwood and Pulpwood:	20.00-50.00	per cord
Chips:	6.00	per loaded mile

*For short hauls or partial loads, minimum charges may apply.

Representative Processing Costs (Contract Prices) Average for N.H.

Custom Sawing		
Softwood	\$130+	per MBF or 135 - 200 per hour
Hardwood	220+	per MBF or 155 - 200 per hour
Planing	50-75	per MBF, 2 sides; 75+ per MBF 4 sides; (patterns \$20 extra)
Resawing	40-60	per MBF

Representative Custom Kiln Drying Costs per MBF

4/4 Pine	12-14% MC	\$ 80.00 - 110.00/MBF
4/4 Pine	6 - 8% MC	95.00 - 130.00/MBF
4/4 Oak	6 - 8% MC	155.00 - 210.00/MBF
4/4 Maple	6 - 8% MC	110.00 - 160.00/MBF
8/4 Oak	6 - 8% MC	380.00 - 430.00/MBF

New Hampshire Christmas Tree Situation

New Hampshire's multi-million dollar Christmas tree industry remains healthy despite continued national and regional competition. Wholesale markets are improving as demand is slowly approaching supply. Prices have remained stable with little substantial change predicted despite increasing production costs.

Aggressive marketing and innovative promotion, including the Internet is paying dividends for those that participate. While many wholesale orders are being received earlier than in the recent past, some caution is observed in order size. Retail competition from major discount outlets remain a concern.

Select and cut-your-own operations remain very popular and draws more families to the experience of cutting their own fresh tree. Refreshments, hayrides and Christmas shops are all adding to the cut-your-own experience throughout the state.

About $\frac{3}{4}$ of New Hampshire's 200+ Christmas tree growers sell their trees on a cut-your-own basis accounting for about 50,000 trees ($\frac{1}{2}$ of state's estimated annual tree harvest).

With almost 2,200 acres of Christmas tree plantations in the state and continued annual planting of about 130 acres per year, prospects for future markets seem good although new entry into the business should be done only after careful long-term analysis.

Balsam fir and Fraser fir are projected to continue to be the staple of New Hampshire's industry with the spruces and to a lesser extent pines rounding the market.

UNH Cooperative Extension, the NH Christmas Tree Promotion Board and the NH-VT Christmas Tree Association continue to provide assistance to New Hampshire's Christmas tree industry.

Wholesale Price Range of Christmas Trees

Roadside 6' - 8' Trees

	Premium	Grade 1(a)	Grade 2
Balsam Fir	\$16-20.00	\$10.00-14.00	\$ 6.00-9.00
White Spruce		6.00-12.00	—
Scotch Pine		6.00-12.00	5.00
Blue Spruce		14.00-18.00	10.00
White Pine		10.00-12.00	5.00
Fraser Fir	\$16-20.00	14.00-16.00	12.00-16.00
Delivered Trees	mostly	\$12.00-25.00 ea. depending on species, quality and quantity	
Trucking		\$1.00-2.00/tree or \$2.50 per loaded mile	
Cut Your Own		\$10-40.00 per tree	

Wholesale Price Range of Christmas Boughs

Boughs (baled or tied)

Balsam Fir	50 lb. bundle	\$ 7.00-9.00	\$280.-400./ton
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Pine	50 lb. bundle	5.50-7.50	220.-300./ton
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Wreaths Size 129" to 149" (Ring Size)

Balsam Fir single faced	\$ 2.75-4.00 ea.
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double faced	4.50-7.00 ea.
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(a) No uniform grading system is in use statewide. Grades based on foliage density and symmetry.

Retail Price Range of Single Christmas Trees

(Select and cut your own)

White Pine

Scotch Pine	\$10.00-40.00 per tree or
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Balsam Fir	\$2.00-5.00 per lineal foot
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White Spruce

Douglas Fir

Norway Spruce

Blue Spruce

Fraser Fir

Maple Situation: 1998-99 Market Report

Poor weather conditions lead to a 12 per cent decrease in production, compared to 1997. The decline in maple syrup production continues: 1996 production was 89,000 gallons and 1997 production was 76,000 gallons.

Some areas were severely affected by January's '98 ice storm, causing some producers to tap fewer trees or not to tap at all. The season started earlier than usual, with some producers missing the first runs of sap. The sugar content was slightly higher than last year, yielding light and medium amber syrup of good flavor.

The value of the crop for 1998 is estimated to be \$2,747,000.

Average Maple Sap Prices at Sugar Houses in New Hampshire

% sugar	cent per gal.	% sugar	cent per gal.
1.5	8.6	3.6	37.4
1.6	11.3	3.7	38.7
1.7	13.0	3.8	40.0
1.8	14.5	3.9	41.2
1.9	15.9	4.0	42.5
2.0	17.3	4.1	43.7
2.1	18.5	4.2	45.0
2.2	19.8	4.3	46.3
2.3	21.1	4.4	47.5
2.4	22.3	4.5	48.8
2.5	23.6	4.6	50.0
2.6	24.8	4.7	51.3
2.7	26.1	4.8	52.6
2.8	27.4	4.9	53.8
2.9	28.6	5.0	55.1
3.0	29.9	5.1	56.3
3.1	31.1	5.2	57.6
3.2	32.4	5.3	58.9
3.3	33.7	5.4	60.1
3.4	34.9	5.5	61.4
3.5	36.2		

* Prices paid by some buyers for sap with sugar content of 1.1%, 1.2%, and 1.4% are \$0.01, \$0.04, \$0.06 and 7.8% per gallon, respectively.

Prices for Table Grade Maple Syrup and Products

Volume	Maple Syrup Retail	Wholesale
1 gallon	\$ 33.10	\$ 25.60
1/2 gallon	19.10	15.50
quart	10.90	8.55
pint	6.45	5.40
1/2 pint	3.70	2.90

Bulk Wholesale (per lb.)

Grade A	Light Amber	\$1.90
	Medium Amber	1.80
	Dark Amber	1.70

Grade B & C	1.40
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Maple Products

Retail	Sugar 1 lb.	\$8.40
	Cream 1 lb.	8.85

Wholesale	Sugar 1 lb.	\$6.95
	Cream 1 lb.	5.75

Rent Price Per Tap Hole

Tap hole rentals: 25 to 50 cents with the average being 30 cents. Sugar maples in the woods, which are not easy to get to, average 25 cents per tap, while easily accessible trees and roadside trees average 40 to 50 cents per tap, respectively.

1998-1999

Seedling Price List from State Nursery

Department of Resources and Economic Development
Division of Forests & Lands
P.O. Box 1856, Concord, NH 03302-1856
Tel. 603-271-3456

Species	Age	Avg. Size	Price Per 25	Price Per 100	Price Per 500	Price Per 1000
White Pine	2-0	3-5"	-	\$ 15	\$ 50	\$ 95
White Pine	3-0	6-12"	15	30	100	150
Red Pine	3-0	10-16"	-	15	50	95
Norway Spruce	2-0	8-12"		25	75	120
White Spruce	2-0	6-12"	-	25	75	120
Blue Spruce	2-0	6-12"		25	75	120
Norway Spruce	3-0	14-20"	15	30	100	150
White Spruce	3-0	14-20"	15	30	100	150
Blue Spruce	3-0	12-20"	15	30	100	150
Red Spruce	3-0	10-16"	-	25	75	-
Douglas Fir	2-0	8-14"	15	30	100	150
Scotch Pine	2-0	6-10"	-	30	100	150
Fraser Fir	3-0	6-8"		45	150	225
Fraser Fir	4-0	10-14"	20	45	150	225
Balsam Fir	3-0	6-9"		30	100	150
Balsam Fir	4-0	10-14"	20	45	100	225
Balsam Fir	2-3	14-20"	25	100	-	-
N. White Cedar	2-0	4-6"	15	30	-	-
Red Oak		4-6"	15	45	150	-
Black Walnut		12-20"	15	45	150	-
Buttonbush		8-12"	15	45	-	-
Autumn Olive		10-14"	15	45	150	-
Japanese Barberry		10-14"	15	-	-	-
European Barberry		10-14"	15	-	-	-
Silky Dogwood		16-20"	15	45	150	-
Rugose Rose		7-14"	15	-	-	-
Bittersweet		12-18"	15	45	-	-
Crabapple		10-20"	15			
Cranberry		10-20"	15	45	-	-
Euonymous		10-20"	15	45	-	-
Red Osier Dogwood		8-12"	15	-	-	-
Native Species Package (25 assorted seedlings) - \$15 per package						
Winter Survival Package (25 assorted seedlings) - \$15 per package						
Wetlands Package (25 assorted seedlings) - \$15 per package						
Songbird/Wildlife (25 assorted seedlings) - \$15 per package						

Age: The first number after species (white pine 2-0) is the number of years in the seed-bed. The second number is the number of years in the transplant bed. Total age is the sum of both. Flowering Shrubs and trees will flower best and produce fruit most abundantly when planted in full sunlight.

Metric Equivalents - Lumber and Pulpwood

(Source: Anthony Binek, 1973)

Lumber

1 MBF = 2.36 m³ = 83.33 cu. ft.

1 m³ = .424 MBF = 35.31 cu. ft.

Pulpwood

1 m³ = 35.31 cu. ft.

Solid wood content of a cord may vary between 75 and 90 cubic feet or 2.12 m³ and 2.55 m³.

(Example: 1 cord = 85 cu. ft. = 2.40 m³)

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 International Rule, 1/4 kerf, is the most commonly accepted log scale in N.H.

The volume of a standing tree or log is determined using tree and log scale. These rules simply give the predicted amount of board feet of sawed lumber that may be manufactured after allowed for milling losses in slabs, edging 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 4.5' ft. above ground)
 - 2) Estimate the number of 16 foot logs to 6 inch top diameter
 - 3) Apply the scale given in Table below.
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Tree Scale-International Rule (Bd. Ft.)

D.B.H. Inches	Number of 16 foot logs-to 6" top						
	1	1 1/2	2	2 1/2	3	3 1/2	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 Scale

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 (Board foot, BF)				1/4—inch Saw Kerf			
Diameter (Small end inside bark)		Length of Log in Feet					
Inches	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	300	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 of Pulpwood

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 (Pulpwood)

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)
4300-4700 pounds	=	1 cord (softwood)

Lumber

Lumber is most often sold by the **board foot**.

To determine board footage:

$$\frac{\text{Width''} \times \text{length'} \times \text{thickness''}}{12}$$

Lineal footage or "running foot" is a measurement of length with no regard for width or thickness.

Weights of Various Species (Pounds per Mbf)

Weight calculations based on published estimates of specific gravity for each species and the resulting density at the moisture contents indicated. The moisture content of "green" wood, however, varies from species to species.

Species	Green	Kiln Dry (12%mc)	Kiln Dry (8%mc)	Air Dry (20%mc)
Ash (White)	4,350	3,500	3,350	3,750
Aspen (Popple)	4,150	2,300	2,200	2,450
Basswood	4,000	2,150	2,100	2,350
Beech	5,325	3,700	3,600	4,000
Birch (White)	5,050	3,200	3,100	3,400
Birch (Yellow)	5,550	3,600	3,500	3,850
Cedar (White)	2,500	1,800	1,750	1,900
Cherry (Black)	4,300	2,900	2,800	3,100
Fir (Balsam)	4,300	2,100	2,050	2,250
Hemlock	4,350	2,350	2,250	2,500
Hickory	6,100	4,150	4,000	4,450
Maple (Hard)	5,600	3,650	3,550	3,900
Maple (Soft)	4,750	3,150	3,050	3,350
Maple (Silver)	4,400	2,750	2,650	2,900
Oak (Red)	5,750	3,650	3,550	3,950
Oak (White)	6,100	3,950	3,800	4,250
Pine (Red)	3,850	2,550	2,450	2,750
Pine (White)	3,050	2,050	1,950	2,200
Spruce (White)	5,550	2,350	2,250	2,500

Source: "Log Rules and Other Useful Information" Northeastern Loggers Association