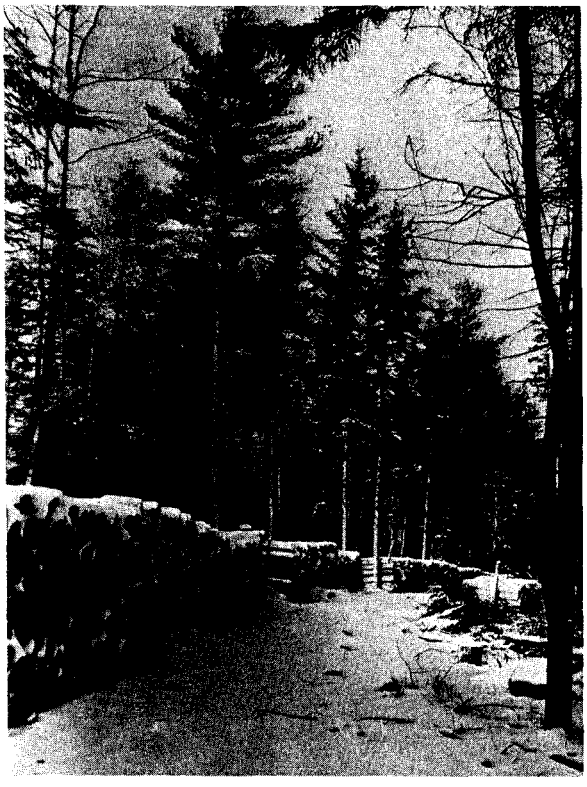
Extension Circular March 1966

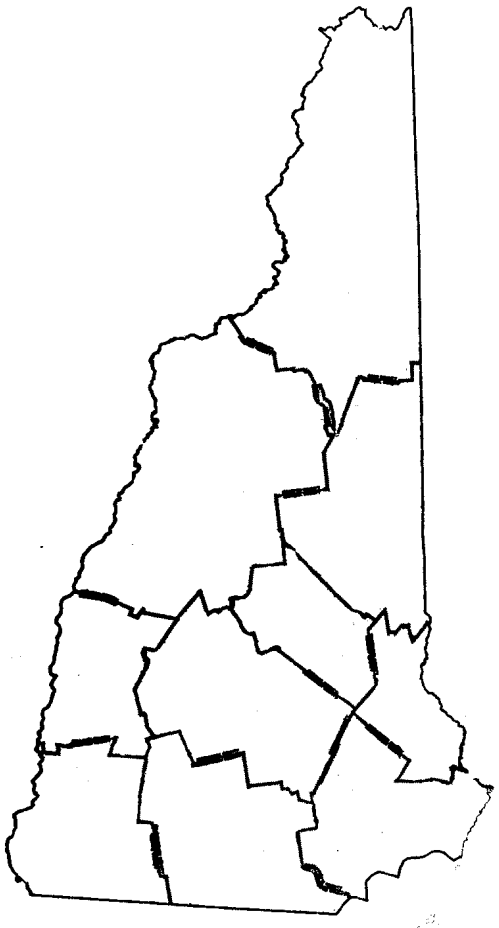
NEW HAMPSHIRE FOREST MARKET REPORT 1966



COOPERATIVE EXTENSION SERVICE
UNIVERSITY OF NEW HAMPSHIRE
with the
NEW HAMPSHIRE DEPARTMENT OF RESOURCES
AND ECONOMIC DEVELOPMENT COOPERATING

MAP OF NEW HAMPSHIRE

(Showing Counties)



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Index

The information in this bulletin covering prices, specifications, names and addresses was gathered by the New Hampshire County Foresters and the bulletin was prepared by Roger P. Sloan, Extension Forester, and Nicholas Engalichev, Forest Products Utilization and Marketing Specialist.

County Foresters

County	Name	Address
Belknap	Monahan, Daniel H.	County Extension Office Laconia 524-7011 Ext. 731
Carroll	Dodge, Arthur G.	County Extension Office Conway 447-5922
Cheshire	Ferguson, John	County Extension Office Keene 352-4550
Coos	Sargent, John E.	County Extension Office Lancaster 788-4961
Grafton	Sargent, Leslie B. *Kinder, Richard	County Extension Office Woodsville 747-2061
Hillsboro	Breck, Robert W.	County Extension Office Milford 673-2510
Merrimack	Thompson, Wilbur E.	County Extension Office Concord 225-5505
Rockingham	Knowles, Stanley W.	County Extension Office Exeter 772-2741
Strafford	Leighton, Roger S.	County Extension Office Rochester 332-5808
Sullivan	Szymujko, Joseph A.	County Extension Office Claremont 543-3181

* Assistant County Foresters

FOREST MARKET REPORT FOR 1966

THE NATIONAL DEMAND AND PRICE SITUATION FOR FOREST PRODUCTS

Consumption

Consumption of all timber products in 1965 is estimated at 12.8 billion cubic feet, and production from domestic forests at 11.7 billion cubic feet. These levels are about 3 percent above those of 1964. Stumpage prices for most species of timber have moved upward since 1963.

Lumber consumption in 1965 is estimated at 40.4 billion board feet, slightly higher than that used in 1964. Softwood lumber consumption is expected to total 33.5 billion board feet — .1 percent below 1964 — while hardwood lumber consumption remains near the 1964 level of 7 billion board feet.

Domestic Production

Domestic Lumber production in 1965 is expected to reach 36.2 billion board feet, an increase of .6 percent over 1964. Softwood lumber production is estimated at 29.5 billion board feet. Hardwood lumber production is expected to total 6.7 billion board feet, about 3% above 1964.

Lumber Imports

Lumber imports in 1965 are estimated at 5.0 billion board feet (all softwoods except for 0.3 billion board feet of hardwoods) and exports at .9 billion board feet. Net imports will thus amount to 4.0 billion board feet and compose about 9 percent of total lumber consumption (12 percent of softwood consumption).

Pulpwood Consumption

Trends during the first part of 1965 indicate that about 49.8 million cords of pulpwood — including 38.8 million cords of roundwood and 11. million cords of chipped plant byproducts — will be consumed in U. S. pulpmills in 1965. This represents a new peak in consumption — 7 percent above that in 1963 and 66 percent above that of 10 years ago.

Pulpwood prices at local points of delivery have been relatively stable in recent years. In the Midsouth for example, the price of southern pine roundwood has been around $15.75 per cord since 1956. Prices of hardwood roundwood and chipped plant byproducts have respectively been near $13.10 and $14.40 per cord during the same period.

Pulpwood Chips

Production of pulpwood chips from sawmill and veneer mill residues is expected to reach the equivalent of 11.0 million cords in 1965 — .2 million cords below 1964.

Plywood and Veneer Consumption

Plywood and veneer consumption is expected to reach 12.1 billion square feet in 1965, about 6 percent above 1964.

This is a new high in consumption that has been rising at an average annual rate of 9 percent since 1954. Consumption of hardwood plywood and veneer is also expected to reach a new peak of 4.5 billion square feet in 1965. This is 11 percent above 1964 and double the production 10 years ago.

Softwood Veneer Log Production

Softwood veneer log production in 1965 is estimated at 5.3 billion board feet, a half billion board feet more than in 1964. Softwood veneer log production has been concentrated in the West; however, in the past two years, fourteen new plants using southern pines have been built in the South. Conditions appear to be favorable for future growth in the southern softwood plywood industry.

Hardwood Veneer Log Production

Domestic hardwood veneer log production increased 6 percent in 1965 to 875 million board feet a year — a level that is expected to be maintained in 1966. Imports of hardwood plywood and veneer are expected to rise in 1965.

THE FOREST MARKET SITUATION IN NEW HAMPSHIRE

Again this past year has been a good year for practically all those engaged in lumber and wood products processing.

Native softwood lumber production has kept pace with a good demand for all grades with some evidence of shortages in dry stock. Hardwood lumber production surpassed last year's but has not met the increasingly strong demand for hardwood lumber of all species and qualities. The strength of the lumber market in the northeast has improved the price structure but not to the extent that some producers had hoped.

The increased demand for all hardwood products and the development of expanding markets associated with the general increase in the industrial activity in the northeast and the nation, have resulted in strong competition for hardwood stumpage and an increase in prices. Sawlogs, Veneer bolts and Boltwood for special uses have all seen an increase in demand and a price improvement.

Sizeable commitments for expansion of production capacity and for chip receiving and handling facilities made by the pulp and paper industry in New Hampshire and New England are showing beneficial effects on the demand and prices of hardwood and softwood pulpwood and chips.

As adjustments are made to offset labor shortages and rising production costs, 1966 promises to be as good as or better than last year for the lumber and wood products industry.

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 the 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 fac-

tor 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 THE 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, 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. Under the provisions of the Agricultural Conservation Program, the Federal Government shares the cost of woodland improvement and tree planting with woodland owners. Your County Forester can provide you with the information about the cost-sharing programs.

1966 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 prices can be obtained by contacting the County Forester, Consulting Foresters, or industry representatives. Read Carefully the Recommendations for Selling on page 5 before disposing of stumpage, logs, and other forest products.

Belknap County

Species	Quality	Stumpage	Roadside	Delivered
White Pine	Low	$ 8–10	$30–32	$36–38
	Medium	10–15	32–38	38–40
	High	15–20	38–41	40–47
Hemlock and[1]	Low	10	28	38
Spruce	Medium	14	33	40
	High	16	38	42
Beech	Low	6–8	30–32	30–35
Red Maple	Medium	8–10	32–33	35–38
White Oak	High	10–12	33–34	38–40
White Ash[1]				
Basswood[1]	Low	10–12	33–34	38–40
Paper Birch[1]	Medium	12–15	34–35	40–42
Yellow Birch[1]	High	15–18	35–36	42–45
Sugar Maple[1]				
Red Oak[1]				

[1] Higher prices are paid for these species when the grades are suitable for speciality items such as boltwood and veneer logs.

Carroll County

Species	Quality	Stumpage	Roadside	Delivered
White Pine	Low	$ 8–15		$25–30
	Medium	15–20	$35–38	40–48
	High	20–25	40	50 plus
Hemlock	Medium	15–18	30–35	40
	High	20–22		45
Spruce	Low	15		
	Medium	20	35	45
	High	22		50
Ash	Medium	15		50
	High	25		80
Beech	Low	7		
	Medium	10		43
	High	12		
Beech-Boltwood				20–30/cord
Red Maple	Low to High	7–9		50
Sugar Maple	Low	12		
	Medium	17		40
	High	25		70
Sugar Maple Boltwood				20–30/cord
Paper Birch	Medium to High	20–22		55
Paper Birch Boltwood		10–12/cord		25–34/cord

Carroll County *(Continued)*

Species	Quality	Stumpage	Roadside	Delivered
Yellow Birch	Low	12		
	Medium	38		50
	High	44		80
Up to one half veneer		55		
Oak Veneer	Low	26		80
	Medium	33		100
	High	40		120

Cheshire County [1]

Species[2]	Quality	Stumpage	Roadside	Delivered
White Pine	Low to Medium	$10–15	$24–35	$32–45
	Medium to High	15–20	35–42	45–50
Hemlock	Low to Medium	8–15	26–35	36–45
	Medium to High	15–18	35–40	45–50
Spruce	Low to Medium	8–15	32–35	40–45
	Medium to High	15–18	35–40	45
Red Oak [3, 4]	Low to Medium	8–14	28–40	35–45
	Medium to High	14–25	40–55	45–70
Yellow (Silver) [4]	Low to Medium	10–15	30–35	45–50
Birch	Medium to High	15–25	35–40	50–60
Paper (White) [4, 5]	Low to Medium	10–15	30–35	40–50
Birch	Medium to High	15–25	35–45	50–70
Sugar (Rock) [4]	Low to Medium	10–15	30–35	45–50
Maple	Medium to High	15–25	35–40	50–60
Red (Soft)	Low to Medium	8–15	28–35	35–45
Maple	Medium to High	15–20	35–40	45–50
Beech[6]	Medium to High	8–15		35–45
White Ash[3]	Low to Medium	(Not purchased		40–45
	Medium to High	separately except as logs)		45–100

[1] Prices for Brattleboro-Vernon Vermont areas are also included.

[2] Since timber being sold usually includes several species, prices in any one sale are often the same for all species, especially in the case of standing timber.

[3] Special markets in Southeastern Vermont.

[4] Much higher prices paid for veneer logs in Northern New Hampshire and Vermont.

[5] Special markets in Cheshire County.

[6] No actual prices were obtained as prices fluctuate with demand.

Coos County
(Does not include pulpwood prices)

Species	Quality	Stumpage	Roadside	Delivered
SAWLOGS				
White Pine	Low	$12	$32–37	$ 40–45
	Medium	17	42–47	50–55
	High	20	52	60
White Spruce	Low	12	35	45
	Medium	17	40	50
	High	20	45	55
Red Spruce	Low	12	35–37	45–47
	Medium	17	40–45	50–55
	High	20	45–50	55–60
Hemlock	Low	10		40
	Medium	12		40
	High	15		40
Hard Maple	Low	No Market		No Market
	Medium	15		65
	High	20		75
Soft Maple	Low	No Market		No Market
	Medium	10		50
	High	15		60
White Birch		15–30		50–80
Yellow Birch		10–30		90–130
Beech		5–15		45
Ash (White)		10–18	50–85	85–125
VENEER				
Yellow Birch	Veneer	15–50		120–300
White Birch	Veneer	15–35		130
Hard Maple	Veneer	10–25		110–140
Red Oak	Veneer	15–30		120

Grafton County

Species	Quality	Stumpage	Roadside*	Delivered
White Pine	Low	No Market		
	Medium	$12–16	$34–38	$ 40–45
	High	15–25	38–45	43–55
Hemlock		8–16	28–35	38–43
Spruce		10–20	30–38	40–50
Yellow Birch	Sawlog	12–25	35–45	50–90
	Veneer	25+	45+	100–300
Sugar or Hard Maple	Sawlog	12–25	35–43	50–90
	Veneer	18+	45+	90–135
White Birch	Sawlog	12–22	35–42	50–100
	Veneer	18+	45+	90–185
Soft (Red) Maple	Sawlog	(limited market)	35	32–60
Red Oak	Sawlog	10–15	30–40	40–55
	Veneer	20+		60–120
Beech	Sawlog	8–15	30–40	35–50
	Veneer	15+		50–85
White Ash		10+		65–90
Basswood	Sawlog	10–15	30–40	40–45
	Veneer	20+		60–120

* Note — Limited number of firms buying roadside — prefer to buy delivered to mill.

Hillsboro County

Species	Quality	Stumpage	Roadside	Delivered
White Pine	Low	$ 9	$28	$30
	Medium	15	33	38
	High	25	38	45
Hemlock	Low	8	25	30
	Medium	14	30	35
	High	17	34	40
Red Oak and White Birch	Low	6	25	30
	Medium	15	35	40
	High	18	40	45
Other Hardwoods	Low	5	25	31
	Medium	12	30	37
	High	17	35	42

Merrimack County

Species	Quality	Stumpage	Roadside	Delivered
White Pine	Low	$12	$30	$30–35
	Medium	13–15	35	38–40
	High	16 plus	37–40	40 plus
Hemlock	Low	12	30	30–35
	Medium	13–15	35	38–40
White Birch	Bolt (cord)	5–10	20–25	32
	Log Medium	10–20		50
	High	20–25	40–50	68
Red Oak	Average	20	40	50
Mixed Hardwood (Pallet Stock) cord		2–5	10–15	15–20

Rockingham County

Species	Quality	Stumpage	Roadside	Delivered
White Pine	Low	$ 8–11	$24–27	$31–34
	Medium	12–15	28–31	35–38
	High	16–22	32–38	39–45
Hemlock	Low	8	24	31
	Medium	12	28	35
	High	15	31	38
Oak	Low	8–12	24–28	31–35
	Medium	13–17	29–33	36–40
	High	18–25	34–41	41–48
Other Hardwoods	Low	8–10	24–26	31–33
	Medium	11–12	27–28	34–35
	High	13–15	29–31	36–38

Strafford County

Species	Quality	Stumpage	Roadside	Delivered
White Pine[2]	Low	$10–12	$28–32	$32–36
	Medium	12–16	32–38	38–40
	High	18–25	38–42	40–45
Hemlock and Spruce	Low	10	28	35
	Medium	12	32	38
	High	18	35	40
Yellow Birch[1]				
White Birch[1]				
Sugar Maple[1]				
Soft Maple	Low	8	32	38
Red Oak[1]	Medium	12	34	40
White Oak	High	18	36	42
Beech				
White Ash[1]				
Basswood[1]				

[1] Higher prices are paid for these species when the grades are suitable for speciality items such as boltwood and veneer logs.

[2] Occasionally higher prices paid for select logs.

Sullivan County

Species	Quality	Stumpage	Roadside	Delivered
White Pine	Low	$ 8–10	$28–30	$35
	Medium	10–12	30–32	40–42
	High	12–18	32–38	45–50
Hemlock	Medium	6–10	26–30	38–40
	High	10–14	30–35	40–45
Spruce	Medium	10–12	30–34	40–45
	High	15–16	35–36	45–50
Yellow Birch	Medium	10–15	35–38	45–80
	High	15–25	35–45	60–100
White Birch	Medium	10–15	30–36	45–50
	High	16–20	36–40	55–60
Sugar Maple	Medium	10–15	35–40	45–70
	High	15–25	40–42	60–80
Red Oak	Medium	10–12	30–32	40–45
	High	14–15	32–35	50–60
White Ash	Medium	10–12	30–32	40–45
	High	15–16	32–36	50–60

Table II. Prices of Pulpwood Per Cord[1] — Northern New Hampshire

Species	Stumpage	Roadside	Mill Yard		C.W.T.
Spruce and Fir					
Peeled		$18.00–20.00		$26.00–30.00	
Rough	$4.00–6.50	14.50–16.50	Zone– 0–20 mi.	20.00–21.50	
			Zone–21–40 mi.	21.00–22.50	
			Zone–41 and up[2]	22.00–25.00	
Pines					
Peeled		15.00–16.00		21.00–23.00	
Rough	1.50–2.00	10.00–11.00		16.00–18.00	
Hemlock					
Peeled		16.00–18.50		21.00–23.50	
Rough	2.00–4.00	11.00–13.00	Zone– 0–20 mi.	16.00–18.50	
			Zone–21–40 mi.	17.00–19.00	
			Zone–41 and up	18.00–21.00	
Tamarack					
Peeled		16.00–18.00		21.00–23.00	
Rough	2.00–4.00	11.00–13.00	Zone– 0–20 mi.	16.00–18.00	
			Zone–21–40 mi.	17.00–18.00	
			Zone–41 and up	18.00	
Hardwoods					
Peeled				21.00–24.00	
Rough			Zone– 0–20 mi.	16.94	$.3025
			Zone–21 and up[2]	18.06	.3225
			One mill all zones	17.00	
Poplar					
Peeled		12.00–15.00		17.00–20.00	
Rough	0.50–1.50	7.00–10.00		12.00–15.00	

[1] One mill is buying hardwood by weight, 5600 pounds equals one cord.

[2] Contact individual buyers for exact mileage allowances.

Prices of Pulpwood Per Cord — Southern New Hampshire

Species	Stumpage	Roadside	Delivered at Mill
Hardwood			
Rough	$1.00–2.00	$10.00–12.00	
Peeled		15.00–18.00	$23.25–26.75[1]

[1] Price varies depending on distance from mill.

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

	Picked up at Mill	Delivered to Chipping Plant
Softwood[1] (mixed)	$1.00–2.00	$4.25–5.50
Hardwood (mixed)	1.00–2.00	4.75–5.50

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

Price of Pulp Chips Per Cord[1]

	Delivered to Pulp Mill
Softwood and Hardwood	$20.00–26.00

[1] The solid wood content of one cord of pulp chips equals 85 cubic feet.

Table IV. Price Range of Excelsior Wood, Boltwood, Poles, Piling, and Posts[1] and Railroad Cross Ties

Species	Stumpage	Roadside	Delivered at Mill
	Excelsior Wood Per Cord		
Poplar (Peeled)	$1.00–3.00	$17.00	$22.00–28.00
	Boltwood Per Cord[2]		
White Birch	$8.00–14.00	$19.00–27.00	$25.00–36.00 per cord 50.00–90.00 per Mbf.
Beech	3.00– 6.00		20.00–30.00 per cord 45.00–50.00 per Mbf.
Sugar Maple			20.00–32.00 per cord 40.00–80.00 per Mbf.
Yellow Birch	8.00–12.00		28.00–35.00 per cord 50.00–95.00 per Mbf.
Mixed Harwood (pallet)	2.00– 5.00	10.00–15.00	15.00–20.00 per cord

[1] Before cutting any posts and poles or piling, woodland owners should inquire of buyers concerning current specifications and purchasing program.

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

Poles[1]

Species	Stumpage		Roadside Per Mbf.
Red (Norway) Pine	$15.00–25.00	25′ and 30′	$40.00
	.10– .55	35′ 40′ 45′	
	(per linear foot)	and 50′	50.00

Specifications:

Lengths	Top Size Diameter	Butt Size Diameter
25′ and 30′	6″ to 9″	10″ to 14″
35′ and 40′	7″ to 9″	12″ to 15″
45′ and 50′	7″ to 9″	12″ to 15″

Poles must be cut from sound live trees free from short crooks, rot and excessive sweep. All limbs to be trimmed close to the body of the stick. Tops and butts to be cut square. All sticks to be cut 6″ over their specified lengths. All diameters are under bark.

[1] Before cutting any posts and poles or piling, woodland owners should inquire of buyers concerning current specifications and purchasing program.

Piling[1]

Species		Stumpage	Roadside
Red (Norway) Pine	(Per Linear Foot)	$0.08–0.20	$0.20–0.25

Specifications:

Length	Top Diameter	Butt Diameter
25′ to 50′	8″ to 10″	16″ to 20″
55′ and up	6″ to 10″	16″ to 20″

[1] Before cutting any posts and poles or piling, woodland owners should inquire of buyers concerning current specifications and purchasing program.

Posts[1]

Species		Roadside Price	Delivered at Mill (Price Per Post)
Red (Norway) Pine and Pitch Pine			
Specifications:			
Length	7′		
Top Diameter	6½″–8½″	$.45	$ .70
	8½″–10½″	.90	1.35

[1] Before cutting any posts and poles or piling, woodland owners should inquire of buyers concerning current specifications and purchasing program.

Railroad Cross Ties

	Prices Paid for Mixed Oak and Hardwood[1] Ties at Rail Siding (MAINE CENTRAL)		Delivered at Mill
		MBF	
No. 1 (6"x6"x8'6")	$1.45	$48.86	$1.55
No. 2 (6"x7"x8'6")	2.00	67.40	2.10
No. 3 (6"x8"x8'6")	2.05	60.27	2.15
No. 4 (7"x8"x8'6")	2.50	63.00	2.60
No. 5 (7"x9"x8'6")	2.70	60.48	2.80

[1] Beech, Birch, Maple, Cherry.

Table V. Price Range of Fuelwood Per Cord

Species	Stumpage	Roadside	Delivered Buyers Premises
Hardwood[1]			
4' wood	$ .50–3.00	$10.00–15.00	$18.00–25.00
12", 14", 16" lengths		15.00–20.00	20.00–30.00
Slabs		5.00–10.00	16.00–20.00
Fireplace white birch will be slightly higher than above when bought in bundles. Prices range up to $60.00 + per cord.			
Softwood Slabwood[2]		1.00– 2.00	4.00–11.00
4' lengths		1.00– 6.00	8.00–18.00
16" and shorter dry		5.00– 8.00	10.00
Hardwood Slabwood at Mill[2]			
12", 14", 16" lengths		5.00–10.00	16.00–18.00

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%).

[1] $3.00–8.00 asked for sawing 4' wood into stove length.

[2] Sometimes given away if taken green at sawmill pit.

Table VI. Price Range of Sawdust and Shavings

	Sawdust at Sawmill Dry	Per Cord Green	Per Bale
Sawdust	$2.00–5.00	$2.00–4.00	
	or $.03 to .04 per cubic foot		
Shavings	2.00–5.00		.75–1.00
	or $.03 to .04 per cubic foot		

Table VII. Operating Costs (Contract Prices)

	Felling and Bucking per Mbf	Yarding per Mbf	Trucking [3] + [4] per Mbf
Logs			
Softwood[1]	$6.00–13.00	$6.00–15.00	$5.00–15.00
Softwood[2]	7.00–10.00	7.00–10.00	6.00–15.00
Hardwood[1]	7.00–13.00	7.00–18.00	6.00–25.00
Hardwood[2]	8.00–12.00	8.00–12.00	6.00–24.00
	per cord	per cord	per cord
Pulpwood			
Softwood[1]	$7.00– 9.00	$2.00– 4.50	$3.00– 7.00
Hardwood[1]	6.50– 8.50	2.50– 6.00	4.00– 8.00
Hardwood[2]	5.00–12.00	4.00– 6.00	5.00–11.00
Fuelwood	6.00– 9.00	3.00– 6.00	
Horse Rental	$1.00 per cord if the jobber feeds the animal.		
	$1.50– 2.00 per cord if the chopper feeds the animal.		
Twitching stump to roadside	$8.00–9.00 per cord, horse furnished.		
Chain Saw Rental	$0.50– 2.00 per hour		
Man with Chain Saw	$2.50– 5.00 per hour		
Stump to Stick	$35.00–65.00 square edge softwood lumber per Mbf.		
	30.00–40.00 round edge softwood lumber per Mbf.		
	51.00–82.00 square edge hardwood lumber per Mbf.		
Stickings	4.00– 5.00 square edge hardwood lumber per Mbf.		
	3.00– 4.00 round edge softwood lumber per Mbf.		
Custom Sawing	15.00–30.00 per Mbf for softwoods or $15 per hour.		
	2.00– 5.00 more per Mbf for hardwoods.		
Planing	8.00–15.00 per Mbf. $6.00–16.00 per hour.		
Portable Planer	10.00 per Mbf one face.		
	15.00 per Mbf two faces.		

[1] For Northern New Hampshire

[2] For Southern New Hampshire

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

[4] There 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:

Logs	0– 30 miles	$10.00 per Mbf
	30– 50 miles	15.00 per Mbf
	50– 85 miles	20.00 per Mbf
	85–100 miles	25.00 per Mbf
Pulpwood	0– 15 miles	$ 3.00 per cord
	15– 30 miles	4.00 per cord
	30– 40 miles	5.00 per cord
	40– 60 miles	6.00 per cord

Table VIII. Wholesale Rough Air Dried Price for Graded Eastern White Pine[1]

D. Select and Btr.		No. 1 and No. 2 Common		No. 3 Common		No. 4 Common	
1x3	$160	1x3	$130	1x3	$ 80	1x3	$ 50
1x4	160	1x4	140	1x4	95	1x4	53
1x5	160	1x5	140	1x5	95	1x5	55

Table VIII. Wholesale Rough Air Dried Price for Graded Eastern White Pine[1] *(Continued)*

D. Select and Btr.		No. 1 and No. 2 Common		No. 3 Common		No. 4 Common	
1x6	200	1x6	145	1x6	100	1x6	55
1x7	200	1x7	145	1x7	100	1x7	65
1x8	210	1x8	145	1x8	100	1x8	65
1x9	210	1x9	145	1x9	100	1x9	65
1x10	240	1x10	145	1x10	100	1x10	65
1x11	240	1x11	145	1x11	100	1x11	65
1x12	280	1x12	170	1x12	110	1x12	65
1x13	280	1x13	155	1x13	110	1x13	65

5/4 to 8/4 — No. 2 & No. 3 & D Select — Add $5 per M

Rough Air Dried Native Hemlock

Boards			Dimensions 6′	8′	10′	12′	14′	16′
1x4 & 1x5	$60	2x3 & 2x4	$35	70	70	70	70	70
1x6 & 1x7	68	2x6 & 2x8	35	70	70	70	70	70
1x8 & up	70	2x10	35	70	70	70	70	70

Spruce — add $5 per Mbf.

[1] Prices may vary somewhat from those quoted depending on market and quantities.

Table IX. Wholesale Price List for White Pine Lumber per MBF at a New Hampshire Lumber Yard
Dressed 1, 2, or 4 sides, Matched or Novelty Siding

Grades	D Select and Better (Clear)	No. 1 and No. 2 Common	No. 3 Common	No. 4 Common
1x4	$180	$160	$115	$73 (Retail Prices
1x6	220	165	120	75 $35–50
1x10	260	165	120	85 more than
1x12	300	190	130	85 wholesale)

2x4, No. 4 white pine — $65.00–80.00 depending on quantity.
Single Clapboard siding — 1x5 only — add $4 per M
Double Clapboard siding — 1x8 — No. 3c — add $4 per M — No. 4c — add $7 per M
V Joint, Knotty Pine, No. 2 and No. 3 — add $4 per M
Pickwick Pattern — A grade $160.
No. 3 Knotty Pine — $135.

Eastern Hemlock

Boards			Dimensions 6′	8′	10′	12′	14′	16′
1x2 & 1x3	$80	2x3	$50	85	85	85	85	85
1x4	73	2x4	50	85	85	85	85	85
1x5	75	2x6	50	85	85	85	85	85
1x6 & 1x7	82	2x8	50	85	85	85	85	85
1x8 & up	85	2x10	50	85	85	85	85	85

Spruce – add $5 M

Table X. Price Range of Christmas Trees and Boughs[1]

	Stumpage		Roadside	
	Single	Bundle (2 or more)	Single	Bundle
Pasture Run				
Balsam Fir	$ .35– .65	$ .75–1.25	$ .75–1.50	$2.50–4.00
Spruce	.25– .50	.50–1.00	.50–1.25	1.25–3.00
Improved Trees				
Balsam Fir	.75–1.25	2.50–4.00	1.25–2.75	3.00–4.50
Spruce	.50– .75	2.00	.75–1.50	2.75–3.00
Plantation Grown				
Trees[2]	1.00–3.50 or .50c per linear foot.			
Boughs	Per Bundle Roadside		Per Ton Roadside	
Balsam Fir	.50–1.75		$40.00–75.00	
Spruce	.50–1.00		40.00–64.00	

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

[2] Applies to Southern New Hampshire for buyers selected trees.

Companies and Individuals Buying Standing Timber and Logs and Doing Custom Sawing

Listed by County and Town

Names of buyers listed in this bulletin are those who have indicated to the County Foresters that they are in the market now or at a later date to purchase one or more of the following: stumpage, logs, pulpwood, bolts, excelsior wood, piling, posts, and other forest products. Many buyers and operators will give a preference to owners in the purchase of forest products who are interested in harvesting forest products from their holdings in accordance with cutting practices recommended by a County Forester or a private forester. Owners can well consider giving options for further cuts to operators who will make partial cuttings in stands operated according to good forest management.

The following abbreviations are used:

SW — Softwood	HW — Hardwood	Stump. — Stumpage
Road — Roadside	Cus. — Custom Sawing	Del. — Delivered at mill
P — Portable	S — Stationary	B — Buyer only
		L — Logger

Names of forest products, buyers, and other persons listed are offered without recommendations or preference. Omission is not a reflection on the integrity of any person. A list of registered sawmills and of secondary processors is available from the Department of Resources and Economic Development of Resource Development, Concord, New Hampshire.

Belknap County

Town & Operator	Type of Sawmill	Kind of Logs	Stump.	Road	Del.	Cus.
Belmont						
Contigiani Lumber Co. LaPlante, Albert L. Tilton, N. H.	B & L & S	SW & HW	X	X	X	X
N. H. Lbr. Prod., Inc. Dickenson, Gene RFD 1, Laconia	B & S	SW & HW	X	X	X	X
White, R. C. RFD 1, Laconia	L	SW & HW	X			
Gilmanton						
Clairmont, Jos. Gilmanton Corner	S & L	SW & HW	X	X	X	X
Dawson, Robert RFD, Gilmanton	S & L	SW & HW	X	X	X	X
Potter, Robert	S & L	SW & HW	X	X	X	X
Partridge, George RFD Gilmanton Iron Works	L	SW & HW	X			

Belknap County (*Continued*)

Town & Operator	Type of Sawmill	Kind of Logs	Stump.	Road.	Del.	Cus.
Gilford						
Gardner, Walter Governors Island RFD, Laconia	B & L	SW & HW Veneer	X			
Laconia						
Allen – Rogers Corp. Water St., Laconia	B	HW – Boltwood	X		X	
Banfill, Ernest 500 Union Avenue Laconia	B & L	SW & HW	X			
Page, Otto 260 Court Street Laconia	B & L	SW & HW	X			
Philbrook, Walter 17A Clinton Street Lakeport	B	SW & HW	X			
Meredith						
Sharon, Edward Plymouth Rd., Meredith	B & L	SW & HW	X	X		
Dow, Harold Parade Road	S & L	SW & HW	X			
Tilton						
Daniels, Thomas RFD, Tilton	S & L	SW	X	X	X	X

Carroll County

Bartlett						
Hayes, Carroll Albany Ave.	B & L	SW & HW	X			
Kearsarge Peg Co.	S	Birch Bolts			X	
Morton, Al Glen	B & L	SW & HW	X			
Conway						
Conway Supply Co., Inc.	S	SW & HW	X	X	X	X
Cummings, C. B. & Sons c/o Howard Young, Sr.	S	Birch Bolts	X	X	X	
DeWitt, Albert	B & L	SW & HW	X			
Heath Brothers Center Conway	B &L	SW & HW	X			

Town & Operator	Type of Sawmill	Kind of Logs	Stump.	Road.	Del.	Cus.
Morrill, Brewster Oak St., N. Conway	B & L	SW & HW	X			
North Conway Lumber Co. North Conway	S	SW & HW	X		X	
Rodrigue, Roland	B & L	SW & HW	X			
Smith, N. Hood Box 684	B & L	SW & HW	X			X
Smith, Wilmer Fryeburg, Me.	B & L	SW & HW	X			
Valladares & Leavitt	B & L	SW & HW	X			
Intervale						
Drew, Daniel	B & L	SW & HW	X			
Jackson						
Dundee Mgmt. Corp. Box 101	B & L	SW & HW	X			
Kelley, Harold W.	B & L	SW & HW	X			
Madison						
Shackford, Jesse, Jr. Silver Lake	B & L	SW & HW	X			
Ossipee						
Libby, Albion RFD, Ctr. Ossipee	B & L	SW & HW	X			
Portland Dowel Co., Inc. Center Ossipee	S	HW Bolts	X		X	
New England Lumber Co., Inc. West Ossipee	S	SW & HW			X	
Welch, Austin E. West Ossipee	B & L	SW & HW	X	X		
Plymouth						
Thomas, Bruce	S	SW & HW	X		X	
Sanbornville						
Hill, Wallace F. Phone 522-3308	B & L	SW & HW	X			
Sandwich						
Bellingham Lumber Co. c/o Elmer Norcross Box 83, Tamworth	S	SW & HW	X	X	X	X

Carroll County *(Continued)*

Town & Operator	Type of Sawmill	Kind of Logs	Stump.	Road.	Del.	Cus.
Bickford, Fred RFD, Ctr. Harbor	B & L	SW & HW				
Bourroughs, Lester, Jr. & Plummer, James Center Sandwich	B & L	SW & HW	X			
Elliot, Sidney Bennett St. North Sandwich	B & L	SW & HW	X			
Tamworth						
Ames, Ronald South Tamworth	B & L	SW & HW	X			
Floyd, Robert South Tamworth	B & L	SW & HW	X			
Hammond, Roy	B & L	SW & HW	X			
Moulton, Richard S. Wonalancet	B & L	SW & HW	X			
Rider, Perley South Tamworth	B & L	SW & HW	X			
Saunders Brothers c/o Elton Perkins South Tamworth	B & L	Birch Bolts & HW	X	X	X	
Tuftonboro						
Tupek, Henry S. Center Tuftonboro	B & L	SW & HW	X			
		Cheshire County				
Alstead						
LaFrank, Charles J.	S	SW & HW	X		X	
Chesterfield						
Stone, D. S. Lumber Co. Route 1, Keene	S	SW & HW	X	X	X	X
Welcome, Paul E.	S	SW & HW	X		X	X
Fitzwilliam						
Tommila Bros.	S	SW & HW	X			
Gilsum						
Lackey, Frank RFD, Keene	B & L	SW & HW	X			
Duffy, Arthur Gilsum	B & L	SW & HW	X			

Cheshire County *(Continued)*

Town & Operator	Type of Sawmill	Kind of Logs	Stump.	Road	Del.	Cus.
Keene						
Rivers, Paul E. 334 Elm St., Keene	B & L	SW & HW	X			
Bardwell, Walter L. Lower Winchester Road Keene	P	SW & HW	X			
Marlboro						
Beauregard, Chas. & Sons, Inc. P.O. Box 395	S	SW & HW	X	X	X	X
Cummings, F. T., Inc. Box 185, Troy	S	SW & HW	X		X	X
Swanzey						
Lane, C. L. Company East Swanzey	S	SW	X		X	
Stoddard						
Batchelder, Earl Peru, Vermont	P	HW	X		X	
Troy						
Jonas Damon Estate State Line	S	SW & HW	X	X	X	X
Starkey, Eugene	P	SW & HW	X			
Walpole						
Kingsbury, Albert	S	SW & HW	X			X
Swanzey						
Frazier Furniture Co. West Swanzey	S	HW			X	X
Savard, Winfred	B & L	SW & HW	X			
Winchester						
New England Lbr. Co. Box 124	S	SW & HW	X		X	
Prouty, Leonard Old Chesterfield Rd.	B & L	SW & HW	X			

Coos County

Berlin						
White Mt. Lbr. Co., Inc. Arthur Napert, Buyer Box 392	S	SW			X	

Town & Operator	Type of Sawmill	Kind of Logs	Stump.	Road	Del.	Cus.
Boucher, George E. Milan Rd.	S	HW			X	
Colebrook						
Weir, Harlie	B	HW			X	
Columbia						
Parkhurst, Lynn & Sons RFD No. 1, Colebrook	S	SW & HW			X	X
Dalton						
Saunders Bros. Clifford Wentwork, Buyer RFD, Whitefield	S	HW	X	X	X	
Errol						
Lemire, George	S	HW			X	
Groveton						
Crawford, Wilson	S	HW	X		X	
C. B. Cummings & Son Co.	S	HW			X	
Lancaster						
Alden, Clayton M. RFD No. 1	S	SW & HW	X	X	X	
Alden, Harold B. RFD No. 1	S	SW	X	X	X	X
Placey, George RFD No. 1	S	SW			X	X
North Stratford						
Plywood Products, Div. of Brown Company	S	HW	X	X	X	
Washburn Lumber Co. Harold Rich, Supt. Reuben Washburn, Buyer	S	SW & HW	X	X	X	
Pittsburg						
Leo Brooks & Son Indian Stream Sawmill	S	SW				X
Shelburne						
Main Spruce Mfg.	S	SW			X	
Whitefield						
Savage, Roswell	S	SW			X	X

Grafton County

Town & Operator	Type of Sawmill	Kind of Logs	Stump.	Road	Del.	Cus.
Alexandria						
Robie, Ernest S. RFD	P	SW & HW	X		X	X
Ashland						
Gallup Lumber Co. c/o B. Avery, Mgr. Ashland	S	SW	X	X	X	X
Simpson, Delma G.	B	SW & HW	X			
Benton						
Page Hill Farms Pike, N. H.	S	SW			X	X
Bristol						
Williams, R. P. & Son	S	SW & HW	X	X	X	
Campton						
Draper Corp. Beebe River	S	SW & HW	X	X	X	
Mardin, Robert RFD, Plymouth	S	SW & HW	X	X	X	X
Canaan						
Morris Lumber Co.	S	SW & HW	X	X	X	X
Enfield						
Cobb, Willis P. O. Box 128	B	SW & HW	X			
Grafton						
Braley, Maurice F.	S	SW & HW	X	X	X	
Hanover						
Lacoss, Niles P. O. Etna	S	SW	X	X	X	X
Haverhill						
Heberbrand, Arthur D. (N. Haverhill)	S	SW & HW		X	X	X
Moosilauke Lbr. & Bobbin Co. (Pike)	S	HW			X	
Newman Lbr. Co. & Transit Milling Co. Woodsville	S	SW	X	X	X	
Northeast Hardwoods, Inc. N. Haverhill	S	HW	X	X	X	

Grafton County *(Continued)*

Town & Operator	Type of Sawmill	Kind of Logs	Stump.	Road.	Del.	Cus.
Landaff						
Davis, Jack RFD, Lisbon	S	SW & HW	X	X	X	X
Lebanon						
Laro, Leonard	S	SW & HW	X	X	X	X
Goodwin, Edmond RFD, W. Lebanon	B	SW & HW	X			
Lisbon						
Varney, Robert RFD 2, Littleton	S	SW & HW	X	X	X	X
Littleton						
Poulsen Lumber Co.	S	SW & HW	X	X	X	
Schoff, Arthur	S	SW & HW	X	X	X	
Timber Products Laurence Bean	S	HW			X	
Lyme						
Wagner Woodlands	B	SW & HW	X			
Monroe						
Knights Lumber Co. Barnet, Vermont	S	SW	X	X	X	X
Orange						
Hammond, F. C. & Sons	S	SW & HW	X	X	X	
Plymouth						
Ireland Lbr., Co.	S	SW & HW	X	X	X	X
United Shank & Finding Division	S	HW	X	X	X	
Rumney						
Forest Lands, Inc. c/o Roger A. Sanborn, Buyer RFD, Rumney	B	SW & HW	X			
Keniston, Raymond	S	SW & HW	X	X	X	
Sanborn, Richard	S	SW	X	X	X	
Tarr, Bert	S	HW	X	X	X	X
Thornton						
Benton, Bert RFD, Campton	S	SW				X

Town & Operator	Type of Sawmill	Kind of Logs	Stump.	Road.	Del.	Cus.
Warren						
Whitcher, Kenneth	S	SW & HW	X	X	X	X
Wentworth						
Forest Products, Inc. Herm Ball, Mgr.	S	HW	X	X	X	

Hillsboro County

Amherst						
Converse & Peaslee RFD, Milford	S	SW & HW				X
Phinney, Ernest	S	SW & HW	X	X	X	
Thomas, Horace	S	SW & HW	X	X	X	
Bennington						
Durgin, John D. RFD 1, Newport	P	SW & HW	X	X	X	
Low, Forest	S	SW				X
Brookline						
Tapply, Wm. Lunenburg, Mass.	S	SW & HW	X	X	X	
Goffstown						
Upton, Gerald	S	SW & HW	X	X	X	
Hebert, Lucien 29 College Road Manchester	S	SW & HW	X			
Hancock						
Pierce, W. H. & Son	B	SW				X
Upton, Karl G.	B	SW & HW	X			
Hollis						
Glover, Milton RFD 2, Milford	S	SW				X
Stateline Lbr. Co.	S	SW & HW	X	X	X	
Hudson						
Esty, Ralph Uptack Road R.F.D. 4 Georgetown, Mass.	P	SW	X			

Hillsboro County *(Continued)*

Town & Operator	Type of Sawmill	Kind of Logs	Stump.	Road.	Del.	Cus.
Litchfield						
Venne, Leo C. Pelham	P	SW	X			
Yanis, Stanley Hudson	P	SW	X			
Lyndeboro						
Ballou, C. Co. Douglas Street Uxbridge, Mass.	S	SW	X	X	X	
Manchester						
Bailey, Arthur D. 48 N. Adams Street	B	SW	X			
Plant, Marshall 248 Villa Street	P	SW	X			
Merrimack						
Heath, A. C. So. Merrimack	B	SW & HW	X			
Milford						
Lorden Lbr. Co.	S	SW & HW	X		X	
Matson, Theodore	P	SW & HW	X	X	X	
Whitten, Chester	S	SW	X	X	X	
Wilkins, Harold, Jr. Amherst, N. H.	S	SW	X	X	X	X
White Mt. Freezer Brown Package Winchendon, Mass.	S	SW	X	X	X	
New Ipswich						
Dudar, John Box 56	S	SW				X
Kurth, Walter	S	SW	X			X
Saari, George	S	SW				X
Pelham						
Guinesso Bros. Auburn, N. H.	P	SW	X			
Pelham Lbr. Co. (Fred S. Tinkham)	S	SW	X	X	X	
Weare						
Colburn, Robert	S	SW	X			

Merrimack County

Town & Operator	Type of Sawmill	Kind of Logs	Stump.	Road.	Del.	Cus.
Andover						
Dalphond Bros., Inc. RFD No. 1	S	SW & HW	X		X	X
Boscawen						
Colby Lumber Co. River Rd., Penacook	S	SW & HW	X	X	X	
Durant, Herbert B. 164 N. Main St. Penacook	S	SW & HW		X	X	X
Merrimack Mf. Co.	B	SW	X	X	X	
Steenbeke & Sons, Inc.	S	SW	X		X	
Bradford						
Westerberg, Edwin E. Company, Inc.	S	SW	X			
Canterbury						
Greenwood, George RFD No. 6, Concord	S					X
Chichester						
Reed, Edgar	P	SW	X			
Concord						
Concord Lumber Co. Commercial Street	S	SW	X	X		
N. H. Forest Development Associates, Inc. 40 Merrimack Street	B	SW & HW	X			
Franklin						
Buswell, Guy A. West Franklin	S	SW & HW	X	X	X	X
Henniker						
Goss Lumber Co.	S	SW	X			
Henniker Lumber Co., Inc.	S	SW & HW	X			
Patenaude, Barry Rush Road	S	SW & HW	X	X	X	
Hopkinton						
Astles Lumber Co. Contoocook	S	SW	X		X	X

Merrimack County *(Continued)*

Town & Operator	Type of Sawmill	Kind of Logs	Stump.	Road.	Del.	Cus.
Loudon						
Maxfield, Ralph, Sr. P. O. Box 30, Loudon	S	SW	X		X	X
Moore & Page Lumber Co. RFD No. 8, Concord	S	SW & HW	X	X	X	X
Sanborn, Albin J. RFD No. 2, Pittsfield	S	SW	X			X
New London						
S. Y. Meding Enterprises	L	SW & HW	X			
Pittsfield						
Catamount Lumber Co.	S	SW	X			X
Pittsfield Box & Lumber Co.	P	SW	X			
Barton Bros.	P	SW	X			
Warner						
Hill Box Co., Inc.	B	SW	X			
Nichols, L. Earl	S	SW	X		X	
Sawyer, Clifford A.	B	SW & HW	X			
Webster						
Jones, Paul S. RFD, Contoocook	S	SW & HW	X	X	X	X
Wilmot						
Patten, Henry L.	S	SW & HW	X	X		
	Rockingham County					
Atkinson						
Feuer, Martin M. Main St.	S	SW	X			X
Auburn						
Royer, Arthur J. & Son Box 68	S	SW & HW	X	X		
Brentwood						
Lyford, Lawrence E. Deer Hill Rd.	L & B	SW	X	X		
Candia						
Brown, Alfred E. RFD 1, Manchester	S	None				X

Rockingham County *(Continued)*

Town & Operator	Type of Sawmill	Kind of Logs	Stump.	Road.	Del.	Cus.
Perkins, Arthur E.	P	SW	X			
Deerfield						
Plant Bros. South Deerfield	P	SW	X			
Derry						
Hayford Kimball Lumber Co. Inc. P.O. Box 24	S & P	SW & HW	X			
True & Noyes East Derry	P	SW & HW	X			
East Kingston						
Sargent Lumber Co. RFD 2, Plaistow, N. H.	S	SW & HW	X		X	
Epping						
Johnson Lumber Co. 875 Elm St., Manchester, N. H.	P & S	SW	X	X	X	
Fremont						
Spaulding & Frost Co. Division of Johnson Lbr. Co. Richard Wiggin, Mgr.	S	SW	X	X	X	
Hampstead						
Collette, Alfred	S	SW	X	X	X	X
Kensington						
Brown, Everett W. RFD, East Kingston	L & B	SW & HW	X	X		
Cole, George RFD, East Kingston	S	SW	X			X
Kingston						
Cheney, R. W. & Son RFD, East Kingston	S	SW & HW	X	X	X	
Londonderry						
Mathes, Roger V. RFD 1, Hudson, N. H.	B	SW	X			
Nottingham						
Fernald, Frederick	P	SW & HW	X			
Rye						
Rand Lumber Co., Inc. 511 Wallis Rd.	S	SW & HW	X	X	X	

Town & Operator	Type of Sawmill	Kind of Logs	Stump.	Road.	Del.	Cus.
South Hampton						
Brown, Harold 71 Market St. Amesbury, Mass.	S	SW	X	X	X	
Strafford County						
Barrington						
Clark, Melvin East Barrington	B	SW	X			
Green, George East Barrington	P	SW	X			X
Durham						
Johnson, Phillip Durham Pt. Road	S	SW				X
Woodward, William	S	SW	X	X	X	X
Farmington						
Mooney, G. F. & Sons, Inc. Littlefield Box Shop	B S Bolts	HW (Birch) SW & HW	X	X	X	
Russell, Lee	B	HW SW Bolts	X			
Lee						
Kennard, Oliver	S					X
Middleton						
Diprizio, Charles & Sons Inc. (Middleton) RFD No. 1, Union	S	SW & HW	X	X	X	X
Milton						
Tibbetts Lbr. Co. Farmington	S	SW	X	X	X	X
Rochester						
Collins, Raymond 16 First Street	P	SW & HW	X	X	X	X
Leroy E. Allen Co. 153 Wakefield Street	P	SW	X			
Sullivan County						
Claremont						
Davis & Symonds Lbr. Co. Box 56	S	SW & HW	X			

Sullivan County *(Continued)*

Town & Operator	Type of Sawmill	Kind of Logs	Stump.	Road.	Del.	Cus.
Rock Lumber Company Box 37, Cornish Flat	S	SW & HW	X	X	X	X
Grantham						
Cote & Reney Lbr. Co.	S	SW & HW	X		X	X
Langdon						
Porter, George RFD, Alstead	S	SW & HW			X	
Newport						
Hackwell Lbr. Co., Inc.	S	SW & HW	X	X	X	
Rowe Lumber Co. Box 383	S	SW & HW	X		X	
Plainfield						
Demers, Warren	P					X
Sunapee						
Trow, W. W. & Sons	S	SW & HW			X	X
Unity						
Newton, P. A. & Sons RFD No. 2, Newport	S	SW	X			

Out-of-State Stumpage, Log, and Specialty Buyers Who Buy in New Hampshire

	Kind of Logs	Stump.	Road.	Del.	Cus.
Maine					
Andover Wood Products, Inc., Andover, Tel. 34	Y. Birch H. Maple			X	
Cummings, C. B. & Sons, c/o Norman H. Gray, Fryeburg	HW (Birch)	X	X	X	
Currier, Owen G., East Fryeburg	SW & HW	X			
Diamond Nat'l Corp., Fryeburg McGowan, Neil W., Forester	SW	X		X	
Gerry, E. C., Lovell	SW	X	X	X	
Hall & Smith, Fryeburg	HW	X	X	X	
Hammond, Thomas & Son, E. Hiram	SW	X		X	
Hanover Dowel Mill, Bethel					
Hurd, Irl & George, E. Lebanon	SW & HW	X	X	X	X
Kendall Dowel Mill, W. Bethel					
LaValley, Albert, Sanford	SW	X (White pine roundwood for chipping)	X	X	
Mann, Lewis & Son, Bryant Pond	SW	X	X	X	X
Maine Woods Corporation, Steep Falls	HW			X	
Newton Tebetts, Inc., W. Bethel					
Paris Mfg. Co., South Paris	HW			X	
Parsons Lumber Co., York	SW	X (over ½ Million bd. ft. lots)			
Saunders Bros., Westbrook	HW	X		X	
Sewell Lumber Co., Lebanon	SW	X			
Spang, Phillip, RFD, Kennebunk	SW & HW	X (pulpwood)			
Stowel Silk Spool Co., Bryant Pond					
Massachusetts					
Bartlett, Edmund, 240 Main St., Salisbury	Oak & Birch		X		
Brown Package Co., Inc. Winchendon	W. Pine	X		X	
Esty, Ralph A. & Sons, Inc. Main St., Groveland	SW & HW	X	X	X	X
Estys, Ralph, Upstack Road, Georgetown	SW & HW	X	X	X	X

Out-of-State Stumpage, Log, and Specialty Buyers Who Buy in New Hampshire *(Continued)*

	Kind of Logs	Stump.	Road.	Del.	Cus.
Freys Lumber Co., Cross St., Bernardston	SW & HW	X			
Gates, Lester H., 380 Liberty St., Haverhill	SW & HW	X	X	X	X
Haskell, C. M. & Sons, 400 Canal St., Bernardston	SW	X	X	X	
Johnson Lumber Co., 304 Main St., Salisbury	SW & HW	X	X	X	X
Kelleher, John C. Jr.	HW (cordwood)			X	
Vermont					
Adams, Geo. F. Co., Inc. Moscow (Lester Adams, Buyer)	Birch			X	
Audett Mill, Walden	Spruce			X	
Bradford Veneer & Panel Co., Bradford (B. E. Faar, Buyer)	HW (Veneer)	X	X	X	
Britton Lumber Co., Hartland	SW & HW			X	
Brown, P. K. & Sons, Corp., Claremont, N. H. (Mill in Proctorville, Vt.)	HW	X	X	X	
Carroll Snelling, E. Thetford	SW		X	X	
Cersosimo Lbr. Co., Inc., RFD No. 3, Brattleboro	SW & HW	X			
Clark, C. E. & Sons, c/o Francis Clark, 29 Western Ave., Brattleboro	SW & HW	X	X	X	
Emerson & Hahn, Hardline Loggers, Bradford	SW & HW	X	X		
Green Mt. Box & Lbr. Co., White River Junction	SW & HW	X	X	X	
Indian Head Plywood, Newport	HW (Veneer)			X	
Malmquist-Wood Products Co., Post Mills	SW & HW			X	
Miles Pond Wood Products, Inc. Miles Pond	SW			X	
Morse, V. L. & Co., Inc., 16 Prospect Court, Brattleboro	HW	X			
River Basket Corp., Putney	Pine, ash, oak logs 8′,10′,12′,14′			X	

Out-of-State Stumpage and Log and Specialty Buyers Who Buy in New Hampshire *(Continued)*

	Kind of Logs	Stump.	Road.	Del.	Cus.
Sevigny Lbr. Co., North Thetford (Box 389, Lebanon, N. H.)	SW & HW	X	X	X	X
Smead Lumber Co., Vernon	SW & HW	X	X	X	X
True Temper Corp., Wallingford and St. Johnsbury	HW		X	X	
Weyerhaeuser Co., No. Troy & Hancock	HW (Veneer)		X	X	
Wood Brothers, Newbury	SW	X	X	X	
Quebec – Canada					
LaBranch & Son, St. Isadore					
LaLiberte, Coaticook					
Vallee, Paul, St. Isadore					

Portable Pulpwood Debarkers

Benjamin, Mariner	40 East Main St., Merrimack, Mass.
Bullis, Russell	Wolfeboro, N. H.
Flagg, Ira	Barre, Massachusetts
Johnson, Thomas	Chestnut Hill Rd., Farmington, N. H.
Lapierre, Victor	Chestnut Hill Rd., Farmington, N. H.
Lary, A. C., Lumber Co.	Canaan, N. H.
Lee, John E.	49 Logging Hill Rd., Concord, N. H.
Randall, Ralph T.	RFD No. 1, Newmarket, N. H.
Russell, Lee C.	Farmington, N. H.
Tardy, Donald	73 Brown's Lane, Haverhill, Mass.
Tirell, Walter	RFD No. 1, Goffstown, N. H.

Planing Mills (Custom)

Astles Lumber Co.	Contoocook, N. H.
Chase, Benjamin Co.	Derry, N. H.
Cheney, Roland & Son	Kingston, N. H.
Colby Bros.	Danville, N. H.
Cole, George	RFD, East Kingston, N. H.
Concord Lumber Co.	Commercial St., Concord, N. H.
Contigiani Lumber Co.	Belmont, N. H.
Currier, P. L. Lumber Co.	RFD, Milford, N. H.
Demers, Warren (Portable)	Plainfield, N. H.
Green Lumber Co.	1253 Hooksett Rd., Manchester, N. H.
Kimball Lumber Co.	P. O. Box 24, Derry, N. H.
Littlefield Box Co.	Farmington, N. H.
N. H. Lumber Products, Inc.	Belmont, N. H.
Rand Lumber Co.	511 Wallis Rd., Rye, N. H.
State Line Lumber Co.	Box 35, Nashua, N. H.
Transit Milling Co.	Woodsville, N. H.
Trow, W. W. & Sons	Sunapee, N. H.
William Woodward	Durham, N. H.

Shingle Mill Operators

Bailey, Howard D.	RFD 1, Bradford Rd., Newport, N. H.
Dodge, James	Sanbornton, N. H.
Johnson, Phillip	Durham Point, Durham, N. H.
Littlefield Box Shop	Farmington, N. H.

Wood Chipping Plants

Connecticut Valley Chipping Co., Inc. (Littleton Division)	Woodsville, N. H.
Connecticut Valley Chipping Co., Inc.	Woodsville, N. H.
Fremont Lumber Sales	Fremont, N. H.
Lakes Region Chipping Corp.	Ashland, N. H.
Lorden Lumber Co.	Milford, N. H.
Ossipee Lumber Corp.	Center Ossipee, N. H.

Pulpwood Buyers

Company and Individual Buyers	Kinds of Wood Purchased
Blair, Reginald E., RFD, West Street Winchendon, Mass.	Hardwood (Peeled)
Brown Company, Berlin, N. H. Hamlin, Mark, Berlin, N. H. Mitchell, R. W., Berlin, N. H. Mountain, Claude, 15 — 2nd St., Cascade, N. H. Ellis, George, Gorham, N. H. Pitman, Harold, Conway, N. H. Monahan, Thomas, N. Stratford, N. H.	Spruce, fir, hemlock, tamarack, pine, beech, birch, maple, oak, elm, ash, veneer, yellow birch, basswood, poplar, and green hardwood.
Bullis, Russell H., Wolfeboro, N. H.	
Connecticut Valley Chipping Co., Inc., Woodsville, N. H.	Hardwood, 7 ft. to 9 ft., write for specifications, loading instructions, and prices.
Franconia Paper Corp., Lincoln, N. H. Henry C. Waldo, Lincoln, N. H. Elwin Macomber, Mirror Lake Rd., W. Thornton, N. H. Glenn Stevens, Lincoln, N. H. Philip Comeau, Rumney, N. H.	Spruce and fir; limited amount of hemlock, pine and peeled hardwood.
Groveton Paper Co., Groveton, N. H. Mountain, Harold, Groveton, N. H.	Spruce, fir, dry hemlock, and dry hardwood.
International Paper Co. Ruch, Willard A., N. Stratford, N. H. Jarosky, Chester, Windham N. H, Sawyer, Rhodes, N. Stratford, N. H.	Spruce, fir (inquire direct) wood
Lary, A. C., Lumber Co., Canaan, N. H.	Hardwood
Oxford Paper Co., Rumford, Me.; and Lawrence, Mass. Lincoln, A. F., Rumford, Me. Ashton, Richard, 158 School St., Concord, N. H.	Spruce, fir, hemlock and northern hardwood.
Warren, S. D., Co., Westbrook, Me. and Cumberland Mills, Me. Robert True, Woodlands Manager Steve Orack, Assistant Woodlands Manager Kenneth Woodsum David Clement	Softwood, all species Hardwood, all species except poplar and basswood (greenwood by weight)

Pulpwood Buyers *(Continued)*

Company and Individual Buyers	Kinds of Wood Purchased
St. Regis Paper Co. Cowan, Frederick, W. Stewartstown, N. H.	Spruce and fir (inquire direct).
Farwell, Thomas, Wells River, Vt.	Spruce, fir, hemlock, pine, hardwood and poplar.
Flagg, Ira, Barre, Mass.	Hardwood
Lapierre, Victor, Farmington, N. H.	Softwood & hardwood
Lapierre, Ulderic, Middleton, N. H.	Softwood & hardwood
Lee, John E., 49 Logging Hill Rd., Concord, N. H.	Hardwood
Benjamin, Mariner, 40 East Main St. Merrimack, Mass.	Hardwood
Moore, George, Lebanon, N. H.	Spruce, fir, hemlock, pine, peeled hardwood and poplar.
Poulin, Marc, 12 Sunset Drive, St. Johnsbury, Vt.	Hardwood
Randall, Ralph T., RFD 1, Newmarket, N. H.	Hardwood
Rausch, R., Fremont Lumber Sales, Fremont, N. H.	Pine
Rich, Harry J., Townsend, Mass.	Hardwood
Roberts, John D., Canaan, N. H.	Hardwood
Russell, Lee C., Farmington	Hardwood
Ryegate Paper Co., Ryegate, Vt.	Softwood
Tardy, Donald, 73 Brown's Lane, Haverhill, Mass.	Hardwood
Thelvicki Co., P. K. Boyd, Mgr. Box 2, Contoocook, N. H.	Hardwood

Excelsior Buyers*

American Excelsior Corp., Lebanon, N. H., Ingar Hugsrud, Manager	Peeled poplar and basswood
Berry, O. P. Co., Wolfeboro, N. H. Berry, F., Manager	Peeled poplar and basswood

Poles, Piling, and Post Buyers

Koppers Co., Inc., Wood Preserving Div., Nashua, N. H.	Norway (Red) and pitch pine
New England Pole and Wood Treating Corp., Box 36, Merrimack, N. H. c/o William Footer	Norway and pitch pine, spruce, hardwood, oak, maple, hickory
Merrill, Brewster Oak Street, North Conway, N. H.	

Railroad Tie Buyers

Koppers Co., Inc., Wood Preserving Division, Nashua, N. H. Mr. Roland Hoar, Agent	Oak, Birch, Beech, Maple, Cherry

* Excelsior companies prefer peeled wood. The sticks must be 48 inches long and 4 inches minimum diameter at the small end.

Town & Operator	Species and Specifications

Adams, Geo. F. & Co., Moscow, Vt. — white and yellow birch bolts del. to mill. Write for prices and specifications.

Allen-Rogers Corp., Laconia, N. H., Andover Division, E. Andover, N. H. — buying white birch, hard maple and beech bolts and logs. For prices and specifications contact mill or call Maurice Call, East Andover, N. H. or Richard Burt, Allen-Rogers Corp., Laconia.

Ames, Fred, Warren — Bobin, wood, maple, 10 min. diam.

Bartlett, Edmund, Salisbury, Mass. — oak boat keel stock.

Bixby, Ivan, Rumney — red oak, 10" min., diam.

Bradford Veneer & Panel Co., Bradford, Vt. — B. E. Farr, Buyer — Y. birch & other veneer logs. Write for specifications.

Brock, Zack & Son, Inc., Bridgewater — white ash for ladder rounds. Write for prices and specifications.

Concord Woodworking Co., Inc., Lyndonville, Vt. — white cedar posts, poles and logs. Write for specifications.

Cummings, C. B. & Sons, Conway and Groveton — white and yellow birch, stumpage, bolts, roadside and delivered.

Crawford, Wilson, Groveton — white and yellow birch bolts and logs.

Damaziak, Felix, Walpole — 49" hardwood bolts all species, 6" – 24" in diameter.

Draper Corp., Beebe River — yellow birch, sugar maple, hemlock, pine and spruce logs.

Forest Products, Inc., Wentworth — white and yellow birch, sugar maple, beech and white ash logs and boltwood. Inquire Herm Ball, Wentworth.

Frye, E. B. & Son, Wilton — birch, beech & pine logs 12', min. diameter 6" veneer quality preferable.

Heberbrand, Arthur D., North Haverhill, N. H. — yellow birch, hard maple, basswood, white ash, cherry, oak, beech, soft maple on grade. Write for specifications and prices.

Henniker Hardwood Pallet Co., Henniker, N. H. — 42" and 52" mixed hardwood bolts.

Hopkins, John, Jr., Milford — pine bolts — boxes.

Kearsage Peg Co., Bartlett — straight grained white and yellow birch in 4' lengths, 6" top diam. Red heart not over ⅓ diam. of stick. Comparatively free from knots and burls.

Klondike Box Co., Weare — white pine bolts 40" and 48" min. 5" diam.

Labree, Clifton, Wilson Hill Rd., New Boston, N. H. — 50" hardwood bolts, all species, 6" to 20" diam.

LeBlanc, Gerard, 150 River St., Franklin — softwood bolts. Contact for specs. (Mail RFD No. L, Hill).

Mooney, G. F., & Son, Farmington, N. H. — write for specifications.

Moosilaukee Lumber and Bobbin Co., Pike — white and yellow birch, sugar maple, beech, white ash and red oak.

Morse, V. L., 16 Prospect Court, Brattleboro, Vt. — white ash logs.

Northeast Hardwoods, Inc., N. Haverhill — buys hardwoods in log and bolt form. Write for specifications.

Parker, Winfield, Littleton (Bethlehem) — white and yellow birch, maple, beech, square stock, also buys pulpwood.

Portland, Dowell Co., Center Ossipee, Gorge Pearson — hardwood stumpage, birch, beech, maple within 25 miles radius of mill and boltwood delivered to mill.

Saunders Bros. Westbrook, Me. — Concentration Yards at S. Tamworth, N. H., Dalton, N. H., Warren, N. H.; contact Mr. Elton Perkins, Box 34, S. Tamworth, N. H., or Mr. Hugh Hastings, Fryeburg, Me. — birch logs 39", 48", 51", lengths min., 3" whitewood around red heart, also beech, maple and elm.

United Shank and Findings Div., Plymouth — white birch, length 10' to 24' min. top diam. 8". No more than 2 small knots per 4' section. Sound, no cracks or crooks.

Thelvicki Co., R. K. Boyd, Mgr., Box 2, Contoocook, N. H. — mixed hardwood bolts.

West River Basket Corp., Putney, Vt. — ash, oak and pine logs 8', 10', 12', 14' custom sawing.

White Mountain Lumber Co., Arthur Napert, Buyer, Berlin — No. 3 common hardwood lumber for pallets and skids.

Winham, Harold, Alstead — white birch logs.

White Pine Woodenware Corp., Leo Barlow; Milford, N. H. — 5' white pine bolts 5" minimum diameter.

Partial List of Consulting Foresters Practicing in New Hampshire

The services rendered by the Consulting Foresters are indicated by the numbers following their name. The service rendered is keyed to the numbers as follows:

1. Forest Management plan
2. Timber & timber land appraisal
3. Income tax assistance (timber depletion)
4. Timber sales & supervision
5. Timber marking
6. Timber stand improvement work (weeding, thinning, pruning)
7. Tree planting
8. Approved vendor for ACP Forestry practices
9. Forest Land survey
10. Tile and boundary search
11. Recreational development
12. Laying out and supervision of woods road construction
13. Owners or operators representative in trespass cases
14. Licensed real estate brokers

Attridge, J. Milton, Antrim — 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13.

Berti, Robert J., 20 Avery St., Plymouth — 1, 2, 3, 4, 5, 6, 7, 8, 9, 12.

Boomer, Stephen J., Wt. Mountain Highway, Center Ossipee — 2, 9, 10.

Breckenridge, Walter F., Bible Hill, Claremont — 2, 9, 10, 13.

Brown, J. Wilcox, R.F.D. No. 2, Concord — 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14.

Calhoun, John C., Jr., Gilsum — 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14.

Catheron, Allison G. II, Box 197, Franconia — 1, 2, 4, 5, 6, 7, 9, 10.

Coville, Stanley, Tamworth — 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 13.

Dearborn, Richard, Plymouth (contact directly for services rendered)

Dundee Management Corp., P. O. Box 101, Jackson — 1, 2, 4, 5, 6, 7, 8, 9, 10, 12.

Dwyer, Walter W., Jr., Briar Hill Road, Hopkinton Village — 4, 9, 14.

Feuer, Martin M., Main Street, Atkinson — 2, 5, 12, 13.

Hambrook, Francis G., R.F.D., Center Harbor — 1, 2, 4, 5, 6, 8, 9, 10, 12, 13.

House, William P., R.F.D., Marlboro — 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14.

Hyde, Gerald R., 73 South River Road, Bedford — 2, 9, 10, 11, 12, 13.

Johnston, Richard B., R.F.D., Center Harbor (Sandwich) — 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14.

Keller, John, Bethlehem — 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13.

Knickerbocker, Gerald C., Lake Spofford Realty, Spofford Lake, N. H. — 1, 2, 3 ,4, 5, 6, 7, 8, 9 ,10, 11, 12, 13, 14.

LaBree, Clifton, New Boston, N. H. — 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14.

Lane, William, Crown Point Road, Rochester — 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14.

Marshall, Raymond H., Mann's Hill Road, Littleton — 2, 4, 5, 6, 7, 8, 9, 10, 13.

Morse, John H., P. O. Box 65, Wilmot, N. H. — 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.

Plumb, Allan W., P. O. Box 206, Newport, N. H. — 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14.

Poppema Donald, R.F.D. No. 1, Center Barnstead, N. H. — 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.

Rich, Harry J., 5 Brookline Street, Townsend, Mass. — 1, 2, 3, 4, 5, 14.

Thorne, Thaddeus, Center Conway, N. H. — 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14.

Woodward, Howard, 234 Main Street, Berlin, N. H. — 1, 2, 3, 4, 9, 10, 12, 13, 14.

Wight, Laurence L., 268 Mulberry Street, Claremont, N. H. — 1, 2, 4, 5, 6, 7, 8, 9, 12.

Partial List of Industrial and Municipal Forester Employed in New Hampshire

Andora Forest, Stoddard
William Dussault

Brown Company, Berlin
C. S. Kerr
K. S. Scott
M. E. Hamlin
J. D. Bates
K. S. Norcott
G. L. MacIntosh
C. W. Rand

Dartmouth College, Hanover
Robert S. Monahan

Draper Corp., Beebe River
John French
Richard Dearborn

Franconia Paper Corp., Lincoln
Henry C. Waldo
Elwin Macomber

Groveton Paper Company, Groveton
Harold S. Mountain — Louis Ruch — Kenneth Johnson
Laverne Ingersoll — James Bryan

International Paper Co., N. Stratford
Rhodes F. Sawyer

Manchester Water Works, Manchester
Aldis J. Christie

Davis & Symonds Lumber Co., Claremont
Blynn Merrill

Oxford Paper Co., School Street, Concord
Richard Ashton

St. Regis Paper Co., West Stewartstown
George D. Gates — Frederick W. Cowan
David B. Strathdee — David K. Patrick

Wagner Woodlands, Lyme
Robert Berti

Partial List of Timber Stand Improvement Contractors

These men offer the following forestry services; weeding, thinning, pruning, tree planting.

Bennett, Harry J., RFD No. 3, Winchester, N. H.

Carlson, Walter Jr., Timberland Improvement Co., Wolfeboro, N. H.

Day, Lewis C., High Street, West Stewartstown, N. H.

Page, Otto, 260 Court Street, Laconia, N. H.

Philbrick, Walter, 17a Clinton St., Lakeport, N. H.

Russell, Lee, Farmington, N. H.

Wagner Woodlands, Lyme, N. H.

The United States Situation
Christmas Tree Consumption

Consumption of Christmas trees in 1966 is expected to be about 46 million trees. Annual imports from Canada in recent years have been between 10 and 12 million trees. This indicates that the demand for Christmas trees from domestic forests and plantations will be from 34 to 36 million trees.

Prices paid for Christmas trees on the stump vary widely but generally range from about $0.25 for wild trees to $2.50 or more for plantation-grown trees.

Growers of plantation trees have been faced with increasing competition and lower prices in recent years. This mainly reflects the effects of the harvest from large-scale plantings of the 1950's.

It is estimated that about half of the trees reaching the market in 1966 will be plantation-grown trees.

Christmas Tree Production in New Hampshire

Although fewer Christmas trees were cut in 1965, better prices were received because of higher quality trees. An early snowstorm caused cutting to cease in early November, resulting in a scarcity of trees and higher prices, which compiled with higher quality trees made a good season for New Hampshire growers.

Growers should always demand a down-payment on their tree orders to assure themselves that the buyer will return in the fall to pick up the trees. The usual down-payment is one-third to one-half of the total sale value. Occasionally a smaller down-payment is taken.

Producers should not cut low-quality trees for sale. A low-quality tree not only hurts the reputation of the grower, but the overall reputation of the area that the trees were grown in. Much is known about Christmas tree improvement work; any grower who wishes to start on an improvement program should contact his local County Forester. He has a fund of information on Christmas tree improvement techniques.

Christmas Tree Dealers and Producers

(c) Christmas Trees (b) Boughs

Adair, Milton, RFD 2, N. Stratford (c)
Anderson, Henry A., State Line (c)
Bacon, Claude, Beecher Falls, Vt. (c & b)
Bacon, Sam, RFD 1, Dalton, P. O. RFD 1, Littleton (c)
Ball, Harold, N. Stratford (c)
Ball, D. T., RFD, Colebrook (c & b)
Barbin, Romeo, 175 Park Street, Berlin (c)
Barris, Ralph, RFD, Lancaster (c)
Batchelder, Stewart, Clarksville (P. O. Pittsburgh) (c & b)
Beloin, Alcide, Hall Street, Pittsburgh (P. O. Beecher Falls, Vt.) (c)
Beloin, Germain, RFD, Colebrook (c)
Benoit, Hector, West Stewartstown (c)
Bradley, Walter (Mrs.), Whitefield, RFD (c)
Brissett, Alex, RFD, Colebrook (c & b)
Brockleman, Curtis, Franconia (c)
Brooks, Darwin, Stewartstown (P. O. RFD No. 1, Colebrook) (c)
Brooks, Douglas, N. Haverhill (c)
Brown, Peter, RFD 1, Bristol (c)
Bryant, Walter, South Hill Road, Colebrook (c)
Bunnell, Holman, RFD 3, Colebrook (c)
Chappell, Fay, Pittsburg (c & b)
Chappell, Fonroe, Pittsburg (c)
Cook, Roland, West Stewartstown (c)
Couture, Wilfred, P. O. RFD No. 1, Jefferson (c & b)
Crawford, Edgar, Clarksville (P. O. Pittsburgh) (c)
Cree, Leighton, Colebrook (c)
Day, M. Eva, West Stewartstown (c & b)
Day, Louis, West Stewartstown (b)
Dearborn, Richard, Buckland Avenue, Plymouth (c & b)
Dubois, Paul, RFD No. 1, Colebrook (c & b)
Dunn, Red, Laconia (c)
Emerson, Stephen, RFD No. 1, Lancaster (c & b)
Ferguson, W. W., Colebrook (c)
Gagnon, Conrad, Beecher Falls, Vt. (c)
Geller, Frederick F., 26 Hanover Street, Keene (c)
Goodwin, Clyde, RFD 1, Colebrook (c)
Goodrum, Hazen, Colebrook (c & b)
Gorman, Redmon, RFD, Colebrook (c)

Gray, Robert, Pittsburg (P. O. Beecher Falls, Vt.) (c)
Gray, Tabor, Pittsburg (P. O. Beecher Falls, Vt.) (c)
Grondin, Claude, Stewartstown (P. O. RFD No. 3, Colebrook) (c)
Guay, Alex, West Stewartstown (c)
Haynes, Moody, Bishop Brook (P. O. Beecher Falls, Vt.) (c)
Haynes, Orville, RFD No. 1, Colebrook (c)
Hayward, Robert, Sugar Hill (c & b)
Henson, Everett, N. Haverhill, N. H. (c)
Hibbard, Ellis, Stewartstown (P. O. RFD, Colebrook) (c)
Hollingsworth, Schuyler, RFD 2, Peterborough (c)
Hughes, Wendell, RFD No. 1, Colbrook (c & b)
Hyde, John L., 6 Columbus Avenue, Concord (c)
Jackson, Charles, Colebrook (c)
Jackson, Frank, 59 Prospect Street, Lebanon (c & b)
Jacques, Nelson, Plymouth (c)
Johnson, Arthur, Hampton (c)
Keach, Douglas, RFD, Colebrook (c)
Keller, John, Bethlehem (c)
Kelsea, Lawrence M., Colebrook (c & b)
Lakin, Calvin, Colebrook (c)
Lamoureau, Peter F., Colebrook (c)
Lang, Harry, RFD No. 1, Colebrook (c)
Locke, Shelton, Champlain Street, Berlin (c)
Lord, Henry, Pittsburg (c)
Lynch, Robert, Stewartstown (c)
Lyons, Albion J., RFD 1, Colebrook (c)
MacLean, Joseph, Colebrook (c)
Mallery, Bayard, c/o John Keller, Bethlehem (c)
Marchessault, Lorrainey, RFD, Colebrook (c)
Marquis, Leon, Pittsburg (P. O. Beecher Falls, Vt.) (c)
Maurais, Adrien, RFD, Colebrook (c)
McAllaster, Roger & Shirley, Stewartstown (P. O. RFD No. 3, Colebrook) (c)
McKinnon, Frank C., South Hill Road, Colebrook (c)
McMann, Harlan, RFD No. 1, Stratford (c)
Merrill, Lee, RFD No. 1, Whitefield (c & b)
Morrison, Scott, RFD, Colebrook (c & b)
Noyes, Chester, RFD No. 1, Colebrook (c & b)
Oleson, Morris, Woodsville (c)
Oleson, Norman, RFD No. 1, Jefferson (c)
Parker, B. W., Colebrook (c & b)
Parker, George, Clarksville (c)
Paquette, Aldege, RFD, Colebrook (c)
Paquette, Antonio, Pittsburg (P.O. Beecher Falls, Vt.) (c)
Paquette, Emile, Beecher Falls, Vt. (c)
Paquette, Marcel, Twin Mountain (c)
Philbrick, Walter, 17a Clinton Street, Lakeport (c)
Placey, Burleigh R., RFD, Colebrook (c & b)
Placey, Claude, RFD No. 1, Lancaster (c & b)
Putnam, Cortland, Winchester (c)
Rainville, Robert, Colebrook (c)
Rancloes, Frank, RFD No. 3, Colebrook (c)
Reed, Kenneth, RFD No. 1, Jefferson (c)
Reynolds, William N., Stratford (c)
Ricard, James, Canaan (c)
Riendeau, George, Hall Stream (P.O. Beecher Falls, Vt.) (c)
Robertson, Phil, Prime Tree Co., Franconia (c)
Robinson, Claude, Colebrook (c)
Robitaille, Gerald, RFD, Colebrook (c & b)
Rogers, Lawrence R., Whitefield (c)
Russell, Lee, Farmington (c)
Savage, Chester, RFD No. 1, Lancaster (c & b)
Sawyer, Alfred, Jaffrey (c)
Schander, John, Newmarket (c)
Schwarz, George, Orford (c & b)

Stiles, Ernest, Milan (c)
Struhsacker, Philip, Flintlock Lodge, Franconia (c)
Tatham, Donald A., Orford (c & b)
Thibeault, Joseph, Hall Stream (P.O. Beecher Falls, Vt.) (c)
Underhill, Oliver R., (see John C. Keller, Bethlehem, N. H.) c/o Standard Vacuum Oil Co., 6 Church Lane, Calcutta, India (c)
Wagner, Woodlands, Lyme (c & b)
Warren, Richard, Barrington (c)
Watson, Gail, Laconia (c)
Watson, Lyle, Belmont (c)
Webber, Carl, Dublin (c)
Weir, Harlie, Colebrook (c)
Wheeler, Claude, Hall Stream (P. O. Beecher Falls, Vt.) (c)
Wheeler, Leonard, Beecher Falls, Vt. (Bishop Brook Road, N. H.) (c)
Wheeler, Raymond, Pittsburg (P. O. Beecher Falls, Vt.) (c)
Yale, William, Sandown, RFD 2, Chester (c)
Yost, Carl, Gilmanton (c)
Young, Merle & Son, Colebrook (c & b)
Zalbielski, Joseph, Winchester (c)

White Pine Trial Log Grades and Relationship to Lumber Grade Yields

The steady rise in production costs and increased market competition over the years has brought about the need for evaluating the quality of logs coming into the sawmill. Since log quality is directly related to the quality of the lumber that may be produced, bucking logs according to prescribed techniques has become highly desirable.

The practices which were established in the past, in disregarding certain qualitative considerations of raw material, have no place in present day operations. Knowing the profit potential of a log, before it enters the mill, should be a very important consideration to sawmill operators. Good bucking practices, coupled with good supervision of the woods operation, will go a long way toward providing for a profitable operation.

The information presented hereafter is an interpretation of research conducted by the Northeastern Forest Experiment Station, U. S. Forest Service, at numerous sawmills throughout the northeast including New Hampshire and Maine.

Definition of Terms and Instructions for Using the Trial Eastern White Pine Log Grade Specifications

READ CAREFULLY BEFORE USING SPECIFICATIONS IN LOG GRADING

1. These trial white pine log grade specifications are the result of a series of research based log quality studies conducted by the Northern Softwood Log and Tree Grade Project of the U. S. Forest Service for the purpose of developing cut log grade specifications for Eastern white pine. Testing of these specifications has been completed throughout the range of the species and, although minor modifications may be found necessary before final approval, the specifications appear to perform adequately for the species throughout its range. Grade yields (Performance Table) based on a total of 1366 logs processed at nine sawmills in the Northeast are presented.

2. Weevil Injury: Evidence of weevil injury can be recognized by moderate to severe crook at point of injury. Limbs at point of injury are usually large and acute angled. Crook is more severe in small logs and less evident in large logs. Logs showing none of these characteristics will be considered free of weevil injury.

3. Sweep: Is the greatest deviation of the longitudinal log axis from a straight line connecting centers of each end of log. It should be measured to the nearest whole inch, and is analogous to the middle ordinate of an arc. Expressed as percent it is: =

$$\frac{\text{Total sweep in inches} - 2}{D} \text{ for 16' logs and}$$

$$\frac{\text{Total sweep in inches} - 1}{D} \text{ for 8' logs.}$$

Crook: Differs from sweep in that it is a sudden curve or bend (deviation) from a straight line. (axis of log). The percent loss due to crook is determined by the formula:

$$\text{Crook percent} = \frac{\text{deviation in inches}}{\text{Log diameter inches}} \times \frac{\text{Length of log affected (feet)}}{\text{Total length of log (feet)}}$$

4. All deductions: This item includes sweep and crook deduction and that for scalable defect (rot, shake, etc.). Deductions for the latter are made according to Standard Forest Service practice.

5. Face: A face is quarter-cylindrical, running full length of the log. A *good* face is one that is free of log knots of any type over ½" DOB, overgrowths indicating larger knots, and conks or punk knots. A half face is one that runs for one half the length of the log. *Good* half faces can be in either half of a full face. Half faces in 10 foot logs must be at least 6 feet long.

6. Log knots: a. *Definition* — Log knots are defined as branches, branch stubs, flush branch cross sections and branch sockets. They are visible and identifiable as such. Outside of weevil damage signs, these features are the only ones used in evaluating log surface character. They may be live (or recently alive) or dead. Sometimes, in either state, they have rotten centers surrounded by sound wood.

Sound red knots — Are any visible branches, stubs or sockets which result from living branches or branches that have been dead but a short time.

Dead or black knots — Are visible branches, stubs or sockets not conforming to definition of sound red (live) knots.

b. Size — Average diameter of knots should be measured at point where limb would normally be trimmed. Size to be considered is that portion of a knot that would drop out if it were loose; e.g., in live red knots only the red heart wood portion would be considered in determining knot size. In dead (black) knots the entire limb is considered. Disregard all knots less than ½" in diameter in all grades.

c. *Position effect* — Dead log knots are often interspersed with live ones. In this case, (generally, where they are found above the first whorl of live log knots) *they are classed as live.*

7. Overgrown log knots: (Overgrowths). This is a disturbance in the bark that has a definite and distinctive pattern. Size of underlying branch stub can be estimated by observing adjacent visible log knots. Are considered the same as black knots in grading.

8. Conks and punk log knots: A conk is the fruiting body of a wood rotting fungus (generally *Trametes pini*). A punk log knot is one that is completely rotten and in which the brown mycelial mass of the rot fungus is visible.

9. Log end defects: *Red rot* — (Incipient and advanced stages of *Fomes pini*) are commonly associated with over-mature or badly weeviled white pine trees. It can usually be recognized by its reddish brown to pink color. Do not confuse with brown cubical rot usually confined to butt of trees.

Ring shake — A separation of wood fibers along an annual ring. This condition is also usually associated with older trees.

The heart center — of a log will be defined as the central core of a log having a radius equal to ⅙ the diameter of the log.

10. Bark distortion: When a limbstub or other bark surface characteristic becomes deeply buried, the definition pattern of bark disturbance is lost. This type of noticeable bark break is called a bark distortion.

White Pine Log Grades
TRIAL SPECIFICATIONS (Revised)

Grading Factor		Log Grade No. 1	Log Grade No. 2	Log Grade No. 3	Log Grade No. 4
Minimum log scaling diameter (inches)		12″ or 14″	6″	6″	Includes all logs not qualifying for Grades 1, 2, and 3 that are at least 6″ in diameter, 8 feet long and judged to have at least one-third of their gross scale volume in sound wood suitable for manufacture into standard lumber.
Minimum log length* (feet)		With 4 good faces 8′ + all others – 10′+	8	8	
Maximum weevil injury[2]		None permissible	None permissible	One (1) only in 8′ logs; Two (2) only in 10′ + logs	
Maximum sweep or crook allowance[3]		20%	30%	40%	
Maximum total scaling deduction[4]		50%	50%	50%	
Minimum face requirements[5]	12″ & 13″ diameter logs	Four (4) full length good faces	6″ to 11″ diameter logs meeting face requirements of Grade 1 logs	Not applicable	
	14″ plus diameter logs	Two (2) full length or four (4) 50% length good faces			
Maximum diameter of sound red log knots on 3 best faces[6]		Or: If sum of the diameters of sound red log knots plus 2 times the sum of the diameters of dead black knots is equal to or less than the diameter of the log in inches	Or: Not to exceed 1/6 scaling diameter and no greater than 3 inches	Not to exceed 1/3 scaling diameter and no greater than 5 inches	
Maximum diameter of dead or black log knots and overgrown limbs over 1/2″ diameter on 3 best faces[6] [8]			*Butt logs* — not to exceed 1/12 scaling diameter and 1 1/2″ *Upper logs* — not to exceed 1/10 scaling diameter and 1 1/2″	Not to exceed 1/6 scaling diameter and no greater than 2 1/2 inches	

Conks and punk knots of any size[8]	Degrade one grade if present on one face. Degrade two grades if present on two faces. Degrade three grades if present on three or more faces. (In no case degrade below No. 4 unless log is judged to be less than ⅓ sound).		
Log end defects (red rot and ring shake) outside heart center of log[9]	Degrade one grade if present in 2 quarters of log ends. Degrade two grades if present in 3 or 4 quarters of log ends, and degrade three grades if present in 5 or more quarters. (In no clase degrade below No. 4 unless log is judged to be less than ⅓ sound).		
Bark distortion[10]	Ignore	Ignore	Ignore

* Plus Trim

References are made to definitions and instructions that follow:

GENERAL GRADING PROCEDURES

Scaling

Scaling logs is the first step in grading. This not only gives estimate of contents, but gives some of the data needed for applying grade specifications. Scaling should be carefully done, according to standard practice, which practice should conform to that used in developing the rules. This is:

Diameter measurement: Average small end, inside bark.
Length measurement: Longest included full foot.
Deduction for sweep calculated as follows (Rule 3):

(a) Determine actual sweep in inches and subtract 2.

(b) Divide by log diameter; answer is percent deduction for 16′ log.
For 8′ logs subtract 1 from actual sweep determination and divide by diameter.
For intermediate log lengths subtract proportionate amount.

Deductions for cull:

(a) Interior cull.

1. Deduction may be made by using the squaring system as follows:

$$\frac{(\text{Width }'' + 1'') \quad X \quad (\text{height }'' + 1'') \quad X \quad \text{length }'}{15}$$

This gives deduction for Scribner Rule; for other rules modify deduction as follows:

	International	*Doyle*
Logs 8″ – 14″ multiply by	1.2	0.7
15″ – 20″ multiply by	1.1	0.9
21+ multiply by	1.0	1.0

2. It may be made by using the revised scaling practice developed by Grosenbaugh of the Southern Forest Experiment Station. This system works as follows (Rule 5):
   (1) Enclosed defect in circle or ellipse (say, 7″ x 9″ on a 20″ log).
   (2) Measure short and long axis of this in inches and add 1″ each measurement (8″ x 10″).
   (3) Determine for each augmented length, the percent this is of log diameter in inches — minus 1, rounding off to nearest 10% (8/19 = 50%; 10/19 = 50%).
   (4) Determine length of defect as % of log length (say, ¼ or 25%).
   (5) Multiply long axis %, short axis %, and length % together; resulting answer is percent cull (50 x 50 x 25 = 6%).

(b) Other cull.
Procedures given in the National Forest Scaling Manual should be used for making these deductions. Grosenbaugh's rules 1, 2, and 4 cover these.

Relation of Cull to Log Defects

In general, it should be understood that making a cull deduction from the scale of a log up to the limits indicated in the grading rules does not up-grade the log, even though in some cases it may appear that eliminating a rotten heart center (culling) would raise the average grade of usable lumber produced. The culled portion itself, may or may not affect the average value of the merchantable lumber in the log. When it does it is a grade defect.

PREDICTED LUMBER GRADE YIELDS

Northeastern Conditions

Assuming that the Log Grading System is applied properly, logs in each log grade have a distinct and predictable lumber grade yield.

Any one particular log, within the grades described above, will not necessarily yield the predicted percentages of lumber grades but *the average yield of a number of logs*, in any one grade, will approximate the predicted values within a 5 percent accuracy.

Predicted Lumber Grade Yields (in percent)
For White Pine Log Grades

Log Grade	Log Diameter Class	Lumber Grade Yield D & Btr.	1 & 2C	3C	4C	5C	Basis No. Logs	Lumber Volume	Overrun[1]
	Inches			*Percent*				*Bd. Ft.*	*Percent*
No. 1	12–13	39	30	29	2	0	7	718	+2.6
	14–15	45	26	21	8	0	12	1,653	−2.2
	16+	51	13	22	13	1	19	4,221	+1.0
	Aver.	48	18	22	11	1	38	6,592	+0.4
No. 2	6–11	13	33	41	13	[2]	98	4,621	+1.4
	12–13	17	26	41	15	1	32	2,898	+0.4
	14–15	16	11	42	29	1	15	2,111	−1.4
	16+	18	9	36	36	2	28	5,323	−2.7
	Aver.	16	20	39	24	1	173	14,953	−0.8
No. 3	6–11	1	9	51	38	1	488	14,999	+4.1
	12–13	3	3	40	52	2	120	9,203	−1.4
	14–15	4	3	37	55	1	70	7,969	+0.4
	16+	6	2	26	64	2	73	12,844	−1.7
	Aver.	3	4	39	53	1	751	45,015	+0.5
No. 4	6–11	1	1	20	74	4	245	6,898	+5.3
	12–13	1	[2]	14	78	7	52	3,214	+3.3
	14–15	2	1	11	75	11	48	4,799	−1.1
	16+	4	[2]	7	74	18	59	9,707	−2.0
	Aver.	2	[2]	12	74	12	404	24,612	−0.3

[1] Based on International ¼" Log Rule.

Overrun by Diameter		
+4.1%	Logs	6"–11"
−1.4%		12"–13"
−0.5%		14"–15"
−1.5%		16+

[2] Less than one percent.

A WHITE PINE YIELD TABLE FOR NATURAL STANDS AND STANDS UNDER MODERATELY INTENSIVE MANAGEMENT*

by

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and
PETER H. ALLEN†

January 1966

Summary

Analyses for estimating yield of white pine were made based on data from 85 plots in extensively managed, New Hampshire forests. Site index curves and a yield table are described for predicting future forest stand height; stand diameter; and number of trees, basal area, cubic volume, and board foot volume per acre.

Introduction

Many New Hampshire landowners are being encouraged to grow eastern white pine while our best estimates of yields have continued to be Frothingham's[1] 1914 data for fully stocked stands. Recognizing the need for better yield data, the Northeastern Forest Experiment Station of the U. S. Forest Service and the agricultural experiment stations in Maine, Massachusetts, and New Hampshire have recently initiated a comprehensive growth and yield study of extensively managed stands of white pine. But it will be five to ten years before remeasured growth plots provide adequate data for final consolidated analyses and presentation of results from all three states. In the meantime, analyses of data collected in establishing the New Hampshire plots provide useful yield information. The use of a new yield table is described in this paper; the methodology in deriving the yield table is described in detail in Agricultural Experiment Station Technical Bulletin 208.

Site Index* and Stocking

To use the yield table effectively, the reader must become familiar with the site index curves and the concept of stocking used in this study.

Site index curves based on 50 years at diameter breast height (4½ feet) are given in figure 1. As an example of the use of these curves, suppose we had a stand in which the height of the dominant and codomin-

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* A light thinning took place on 14 stands about 6 years ago, 10 plots were in plantations, 61 plots were in natural stands.

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[1] Frothingham, E. H. 1914. White pine under forest management. *U.S.D.A. Bull. No. 13.*

* The ability of this particular soil to grow this species of tree.

ant trees (stand height) was 42 feet at an age of 30 years. Then the estimated site index would be 60 — that is, the stand height would be 60 feet at 50 years.

Given below are the number of trees per acre by stand height for stands that are considered 100 percent stocked.

Stand ht. (ft.)	Trees/acre
30	1102
40	829
50	623
60	469
70	353
80	265
90	200

A 100 percent stocked stand simply indicates the average number of trees per acre for various stand heights found in this study; it may not represent an ideal stocking.

As an example, a stand with 551 trees per acre at a height of 30 feet is (551/1102) 100 = 50 percent stocked. That is, at 30 feet in height, this stand has 50 percent as many trees as an average stand at 30 feet.

Predicting Yield

Table 1 gives yield in number of trees per acre, average stand diameter, basal area per acre, gross cubic foot volume per acre, and gross board foot volume per acre for various stand heights. Peeled cubic and board feet (Int. ¼-inch) volumes to a 6-inch top diameter are based on Young's[2] tables. The yields are for well-spaced white pine stands from 40 to 160 percent stocking when the initial stand height is 30 feet. The site index curves can be used to estimate stand heights.

Suppose, for example, we wish to estimate the yield at 50 years age (dbh) in a stand which is about 50 percent stocked at a stand height of 30 feet. Future yields for this stand are given in Table 1 under "50 percent stocking." If the site index is 60, then we would expect the stand height to increase to 60 feet at 50 years (figure 1). From Table 1, stocking would have increased to about 71 percent and the estimated yield is 332 trees per acre, 10.7 inches in average stand diameter, 208 square feet of basal area per acre, 4,585 cubic feet per acre, and 27,000 board feet per acre.

The yield table is for stands that, for all practical purposes, are pure pine. A technique for approximating white pine yield in mixed stands is given in Technical Bulletin 108.

Accuracy of Predictions

The following quotation from a yield analysis by Ralston and Korstian[3] is equally applicable for this yield table.

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[2] Young, Harold E. 1955. Volume tables for Maine. *Maine Agr. Exp. Sta.* Misc. Pub. 624. 36 pp.

[3] Ralston, C. W. and C. F. Korstian. 1962. Prediction of pulpwood yield of loblolly and shortleaf pine plantations. *For. Sci.* 8:149-162.

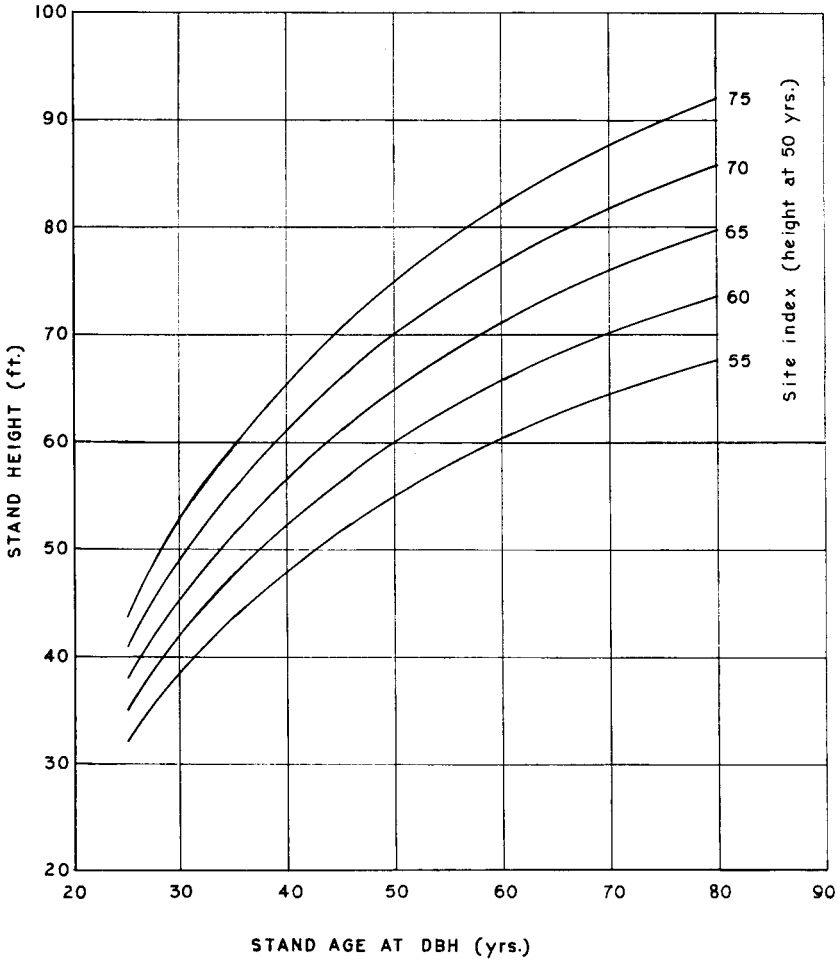

Figure 1. Site Index Curves for White Pine in New Hampshire.

"Even after we have accumulated considerable experience from periodic remeasurement of permanent plots, our predictive ability in the case of unregulated forests will be comparable to that of the insurance actuary who may state with reasonable certainty the number of persons that will die in any given year, but who is not much better than anyone else at designating specific individuals. As suggested earlier, the real key to growth prediction in forestry lies in the fact that a forest manager — unlike his counterpart in the insurance business — can regulate mortality, and thus should be in a favorable position to bypass mortality corrections in problems of growth projection as the forest growing stock is brought under regulation."

Estimating yields for individual stands will be somewhat less accurate than estimating average yields from a group of stands. When growth data become available, more accurate predictions will be pos-

sible. Nevertheless, complex growth interrelationships for natural stands will probably always preclude extreme accuracy in individual stand predictions. Undoubtedly more accurate estimates of yield can be derived from designed experiments which test various management alternatives. After all, the need for very accurate yield information will grow with increased interest in forest management.

Table 1. Yields for well-spaced white pine stands. Stocking percents range from 40 to 160 at an initial stand height of 30 feet.

Stand Ht. (ft.)	Stocking (percent)	No. Trees per acre	Av. Stand dia. (in.)	Basal Area per acre (sq. ft.)	Cubic ft. vol. per acre	M. bd. ft. vol. per acre (Int. ¼-in. rule)
			40 Percent Stocking			
30	40	441	7.4	133	.....	.....
40	50	417	8.4	160	2182	11.4
50	58	360	9.7	184	3309	18.4
60	63	297	11.1	201	4512	26.6
70	68	238	12.7	210	5661	35.2
80	71	188	14.3	211	6653	43.6
90	74	147	16.0	205	7423	51.1
			50 Percent Stocking			
30	50	551	6.6	131	.....	.....
40	59	493	7.8	162	2123	11.1
50	66	411	9.2	189	3312	18.4
60	71	332	10.7	208	4585	27.0
70	74	262	12.4	218	5798	36.1
80	77	205	14.0	219	6843	44.9
90	79	158	15.7	213	7650	52.7
			60 Percent Stocking			
30	60	661	5.9	127	.....	.....
40	68	565	7.3	163	.....	.....
50	74	459	8.8	193	3289	18.3
60	77	363	10.4	214	4625	27.2
70	80	283	12.1	225	5898	36.7
80	83	219	13.8	226	6991	45.8
90	84	168	15.5	220	7833	54.0
			70 Percent Stocking			
30	70	771	5.4	121	.....	.....
40	77	634	6.8	162	.....	.....
50	81	503	8.4	196	3248	18.1
60	84	392	10.1	219	4644	27.4
70	86	303	11.8	231	5972	37.2
80	87	232	13.5	232	7110	46.6
90	89	177	15.3	226	7984	55.0
			80 Percent Stocking			
30	80	882	4.9	114	.....	.....
40	85	701	6.5	160	.....	.....
50	88	545	8.1	197	3196	17.8
60	89	419	9.9	223	4648	27.4
70	91	321	11.6	236	6028	37.5
80	92	244	13.4	238	7208	47.3
90	93	185	15.1	231	8114	55.9

Gross Cubic and board foot yields given only for stands with av. dia. larger than 7.5 inches.

Cubic and board foot volumes are to a 6" top.

Table 1. Yields for well-spaced white pine stands. Stocking percents range from 40 to 160 at an initial stand height of 30 feet *(Continued)*

Stand Ht. (ft.)	Stocking (percent)	No. Trees per acre	Av. Stand dia. (in.)	Basal Area per acre (sq. ft.)	Cubic ft. vol. per acre	M. bd. ft. vol. per acre (Int. ¼-in. rule)
			90 Percent Stocking			
30	90	992	4.4	107	.....	.....
40	92	766	6.1	158	.....	.....
50	94	585	7.9	198	3137	17.4
60	95	445	9.6	226	4641	27.3
70	96	337	11.4	240	6070	37.8
80	96	255	13.2	242	7290	47.8
90	97	193	15.0	236	8224	56.6
			100 Percent Stocking			
30	100	1102	4.0	99	.....	.....
40	100	829	5.9	155	.....	.....
50	100	623	7.7	199	3074	17.1
60	100	469	9.5	229	4626	27.3
70	100	353	11.3	244	6101	38.0
80	100	265	13.1	247	7359	48.2
90	100	200	14.9	240	8321	57.3
			110 Percent Stocking			
30	110	1212	3.7	90	.....	.....
40	107	890	5.6	152	.....	.....
50	106	660	7.4	199	.....	.....
60	105	492	9.3	231	4604	27.1
70	104	367	11.1	247	6124	38.1
80	104	275	12.9	250	7419	48.6
90	103	206	14.7	244	8407	57.9
			120 Percent Stocking			
30	120	1322	3.4	82	.....	.....
40	115	950	5.3	148	.....	.....
50	112	695	7.2	199	.....	.....
60	110	514	9.1	233	4579	27.0
70	108	381	11.0	250	6140	38.2
80	107	284	12.8	254	7470	49.0
90	106	212	14.6	248	8484	58.4
			130 Percent Stocking			
30	130	1433	3.1	74	.....	.....
40	122	1009	5.1	145	.....	.....
50	117	730	7.1	199	.....	.....
60	114	535	9.0	235	4549	26.8
70	112	395	10.8	253	6151	38.3
80	110	293	12.7	257	7514	49.3
90	109	218	14.5	251	8553	58.9
			140 Percent Stocking			
30	140	1543	2.8	66	.....	.....
40	129	1067	4.9	141	.....	.....
50	122	763	6.9	198	.....	.....
60	118	555	8.8	236	4516	26.6
70	116	407	10.7	255	6157	38.3
80	113	301	*12.6	260	7553	49.5
90	112	223	14.4	254	8615	59.3

Table 1. Yields for well-spaced white pine stands. Stocking percents range from 40 to 160 at an initial stand height of 30 feet *(Continued)*

Stand Ht. (ft.)	Stocking (percent)	No. Trees per acre	Av. Stand dia. (in.)	Basal Area per acre (sq. ft.)	Cubic ft. vol. per acre	M. bd. ft. vol. per acre (Int. ¼-in. rule)
			150 Percent Stocking			
30	150	1653	2.6	59	.....	.....
40	136	1123	4.7	137	.....	.....
50	128	795	6.8	198	.....	.....
60	122	574	8.7	237	4481	26.4
70	119	420	10.6	258	6159	38.3
80	116	309	12.5	263	7586	49.7
90	114	228	14.4	257	8672	59.7
			160 Percent Stocking			
30	160	1763	2.3	52	.....	.....
40	142	1179	4.5	133	.....	.....
50	133	826	6.6	197	.....	.....
60	127	593	8.6	238	4445	26.2
70	122	431	10.5	260	6158	38.3
80	119	316	12.4	266	7615	49.9
90	117	233	14.3	259	8724	60.1