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Forest Statistics for New Hampshire 1973 and 1983

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Abstract

This is a statistical report on the fourth forest survey of New Hampshire conducted in 1982-83 by the Forest Inventory and Analysis Unit, Northeastern Forest Experiment Station. Statistics for forest area, numbers of trees, timber volume, tree biomass, and timber products output are displayed at the state, unit, and county levels. The current inventory indicates that the state has approximately 8.0 billion cubic feet of growing-stock volume or 275.2 million tons of net green weight on 4.8121 million acres of timberland. The report includes reprocessed data from the 1973 survey for trend analysis.

Foreword

The fourth inventory of New Hampshire was under the overall direction of Joseph E. Barnard, Project Leader of the Forest Inventory and Analysis Unit. John R. Peters assisted in the development and administration of the operating plan and had supervisory responsibility for the inventory process. Charles T. Scott was responsible for the design of the inventory and sample selection. David J. Alerich supervised the aerial-photo interpretation and data collection. He was assisted by Thomas B. Hartman, Joseph G. Reddan, and Karen J. Sykes. Members of the field crews were:

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David R. Dickson and Thomas S. Frieswyk applied FINSYS (Forest INventory SYStem), a generalized data processing system, to the specific needs of the New Hampshire inventory and produced summary tables for the state, geographic sampling units, and counties. Thomas W. Birch and Thomas S. Frieswyk were instrumental in assuring that the area estimates were consistent with the three previous inventories. Anne M. Malley assisted in various data processing capacities and prepared and balanced the tables in this report. Margaret Little, Carol McAfee, J. Roger Trettel, and Karen Sykes performed a variety of data editing and compilation tasks.

Robert L. Nevel, Jr., Richard H. Widmann, and Eric H. Wharton, with the assistance of Nicolas Engalichev, Cooperative Extension Service, University of New Hampshire, collected and compiled the data on timber products output and timber removals.

Carmela M. Hyland was responsible for administrative and secretarial services. Marie Pennestri typed the text for this report.

FOREST STATISTICS FOR NEW HAMPSHIRE 1973 AND 1983

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Highlights

- * The report contains both 1983 tables and updated 1973 tables.

AREA

- * New Hampshire, with 4,987.2 thousand acres of forest land, is 87 percent forested. Forest land has increased 1.9 percent since 1960.
- * Ninety-six percent of New Hampshire's forest land, 4,812.1 thousand acres, is classified as timberland (formerly known as commercial forest land).
- * Area of timberland has remained fairly stable between inventories.
- * Sawtimber stands dominate with 61 percent of timberland area or 2,934 thousand acres. This is an increase of 23 percent since 1973. The forest is continuing to mature.
- * Eighty-six percent of New Hampshire's timberland is privately owned.

BIOMASS

- * The net green weight of all live trees on timberland is 488.9 million tons or 101.6 tons per acre. Softwoods account for 190.2 million tons or 39.5 tons per acre and hardwoods account for 298.6 million tons or 62.1 tons per acre.
- * Growing-stock material is 275 million tons or 55 percent of the net green weight of all trees.
- * Nongrowing-stock material is 227 million tons or 45 percent of the net green weight of all trees. Fifteen percent of this material is in rough and rotten culls, 45 percent is in growing-stock tops, 25 percent is in saplings, and the other 15 percent is in stumps, salvable dead trees, and rough and rotten tops.

VOLUME

- * Growing-stock volume increased 16 percent since 1973 to 8.0 billion cubic feet, an average of 1,667 cubic feet per acre.
- * Sawtimber volume increased 26 percent to 18.0 billion board feet, an average of 3,748 board feet per acre.
- * White pine continues to be the number one species in New Hampshire's forest. It accounts for 19 percent of the growing-stock volume and 29 percent of the sawtimber volume.
- * Red maple has increased by more than 137 percent since 1960 and has risen from an eighth-place volume ranking to second place in 1983 and now accounts for 13 percent of the growing-stock volume.
- * Sawlog quality is improving; grade 1 and 2 sawlogs make up 27 percent of pine sawtimber and 36 percent of hardwood sawtimber.

TIMBER PRODUCTS OUTPUT

- * Sawlog production is up 33 percent to 242.6 million board feet per year.
- * Total pulpwood production is up 68 percent to nearly 523,000 cords.

Introduction

New Hampshire is one of the most extensively forested states in the country. Forests occupy 87 percent of New Hampshire's land area but this has not always been so. During the early 1800's as settlers moved away from coastal areas to the more rural countryside, much of the state's forest land was cleared for homesteads and farms. The decline in forest land continued through the mid-1870's when less than 48 percent of the land remained forested.

Recovery began with the expansion of the railroad in the mid-1800's. New England farms, New Hampshire farms in particular, became less competitive and less profitable as more productive lands opened in the Midwest and West. The migration westward and the movement of people to cities for jobs created by the developing industrial revolution resulted in a period of farm abandonment that lasted well into the 1900's. It was not until 1960 that the amount of agricultural land reverting to forest leveled off. Although the forest-land base remained quite stable between 1960 and the current inventory in 1983, the forests of New Hampshire continue to change and mature.

Under the authority of the McSweeney-McNary Forest Research Act of 1928 and subsequent acts including the Renewable Resources Planning Act of 1974 and the Renewable Resources Research Act of 1978, the USDA Forest Service conducts periodic forest inventories of all states to provide up-to-date information on the forest resource of the Nation. The initial inventory of New Hampshire's forest resources was conducted in 1948. Succeeding inventories were carried out in 1960 and 1973. This report presents the forest resource data from the fourth inventory which was completed in 1983. This inventory involved a cooperative effort of the New Hampshire Department of Resources and Economic Development, the USDA Soil Conservation Service, the White Mountain National Forest, and the Northeastern Forest Experiment Station.

The Forest Inventory and Analysis project of the Northeastern Forest Experiment Station conducted the inventory on all forest land, developed the resource tables, and prepared this report.

The sampling procedure used during the 1982-83 resurvey incorporated a subsample of plots from earlier inventories and new plots selected from current aerial photography. In New Hampshire, 339 ground plots from previous inventories were selected to be remeasured. These plots are used to obtain area change, growth, mortality, and removal estimates. Photo interpreters systematically plotted 15,950 points on new aerial photography and classified these according to land use. Points determined to be timberland were further stratified into cubic-foot volume classes. A subsample of 697 of the photo points was randomly chosen to be established on the ground. Data from the ground

plots were edited and summarized using the FINSYS computer system.

The resurvey of New Hampshire's forest resources involved several associated studies and considerable analysis. Reports discussing the private forest-land owner and New Hampshire's primary forest products industry are being prepared. Two additional statistical reports will also be published. One will contain a series of tables presenting 1983 biomass statistics, and the second will describe wildlife habitat components.

The forest area, numbers of trees, timber volume, and biomass statistics shown in this report are a summary of the information collected. Other information or additional summaries may be developed. For additional data summaries or information, contact the Forest Inventory and Analysis Project, USDA Forest Service, 370 Reed Road, Broomall, PA 19008 (phone 215-461-3037).

Reliability of the Estimates

The data in this report were based on a carefully designed sample of forest conditions throughout New Hampshire. However, because the field crews did not measure every tree or every acre in the State, the data are estimates. The reliability of the estimating procedure can be judged by two important statistical measures: accuracy and precision. Among statisticians, accuracy refers to the success of estimating the true value, precision refers to the clustering of sample values about their own averages or to the variation among repeated samples. We are mainly interested in the accuracy of the inventory, but in most instances we can only measure its precision.

Although accuracy cannot be measured exactly, it can be checked. Preliminary tables are sent to other agencies and to outside experts familiar with the resources of New Hampshire. If questions arise, the data are reviewed and reanalyzed to resolve the differences. Also, great care is taken to keep all sources of procedural error to a minimum by careful training of both field and office personnel, frequent inspection of field and office work, and application of the most reliable inventory methods.

Because of the care exercised in the inventory process, estimates of precision afford a reasonable measure of the inventory's adequacy. The precision of each estimate is described by its sampling error. Sampling errors are given with several tables in this report. The others are available upon request.

Briefly, here is an example of how the sampling error is used to indicate reliability: The estimate of timberland for New Hampshire is 4,812.1 thousand acres. Its sampling error is 0.8 percent, or 38.5 thousand acres. This means

that the estimate of timberland in 1983 is 4,812.1 thousand acres, and if there are no errors in the procedure and we repeated the inventory in the same way, the odds are 2 to 1 (66 percent probability) that the estimate would be between 4,773.6 and 4,850.6 thousand acres ($4,812.1 \pm 38.5$). Similarly, the odds are 19 to 1 (95 percent probability) that the estimate would be within ± 77.0 thousand acres. It is worth noting that the state estimates have the smallest sampling errors and, therefore, are the most precise or reliable. Geographic unit estimates are the next most reliable followed by county estimates. In New Hampshire for example, the sampling error for the state area tables is 0.8 percent; the sampling error for the Northern geographic unit is 1.0 percent, and the sampling error for Carroll County is 2.3 percent. Thus, county estimates are often considerably less reliable than unit or state estimates. In general, as the size of the estimate decreases in relation to the total, the sampling error, expressed as a percentage of the estimate, increases.

Comparison Between Inventories

To evaluate the condition of the forest resource, it is often useful to compare the current inventory with data from the previous inventory. This enables one to perform trend analysis for the period between inventories. However, for the comparisons to be valid, the procedures used for the two inventories must be similar. BECAUSE OF AN ONGOING EFFORT TO IMPROVE EFFICIENCY, THERE WERE MANY CHANGES IN PROCEDURE AND DEFINITIONS BETWEEN THE 1973 AND 1983 INVENTORIES. THEREFORE DIRECT COMPARISONS OF THE DATA PUBLISHED BY KINGSLEY (1976) WITH THE DATA IN THIS REPORT WOULD BE INAPPROPRIATE.

Four significant changes affected the current New Hampshire inventory: (1) a new multiresource plot data collection procedure, (2) a new set of volume and height estimation equations, (3) a new procedure for developing county-level estimates, and (4) a different standard for calculating stand size.

The first major change was the use of a new plot design to collect multiresource data. In addition to data collected to estimate forest area and tree volume, special emphasis was placed on collecting information relevant to forest wildlife habitat, forest soils, and forest-tree biomass. Along with the implementation of the new plot design, many of the computer programs used to process the inventory data were rewritten, and several new data processing procedures were developed. One of the most noteworthy changes occurred in a routine used to determine forest type.

The elm/ash/red maple type used in the 1973 inventory has been divided into three separate types depending on physiographic class and associated species. The three types are red maple/northern hardwoods, red maple/central hardwoods, and elm/ash/red maple.

The second major change involved the development of new height and volume equations for both growing stock and sawtimber (Scott 1979, 1981). All three sets of equations are derived by nonlinear regression techniques; previously linear regression was used. Nonlinear estimation is used because it yields data with smaller errors between predicted and actual values.

A third major improvement was to change the basic building block for estimating forest area and timber volume from the geographic-unit level to the county level. In the past, the statistics were developed at the unit level and prorated back to the county level on the basis of distribution of photo-interpretation points. Development of county-level data helps users interested in more accurate local data, but can make comparisons with past county estimates developed by the proration technique uncertain.

The fourth major change was a different standard for calculating stand size. Stand size is the classification of forest land based on the predominant size of trees present: sawtimber, poletimber, seedling/sapling, or nonstocked. In past inventories, stand-size classification was based only on growing-stock trees. Currently, all live trees are used to make the determination. This has caused a major shift in acreage and volume, especially between the poletimber and seedling/sapling classes.

As a consequence of these changes, the 1973 inventory data were recalculated using procedures that were consistent with the current inventory. A set of tables containing the recalculated 1973 data has been included in this statistical report. They are printed in italic type to distinguish them from the current tables. There are seven state-level and four unit-level tables that provide area and volume data for comparison and trend analysis.

Tables of recalculated data at the county level could not be provided because plots were selected at the geographic-unit level in 1973; therefore, individual counties do not have enough plots to develop statistically sound data.

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The following tables are divided into four major sections: (1) State, (2) Northern Unit, (3) Southern Unit, and (4) County. Recalculated 1973 tables are printed in italic type.

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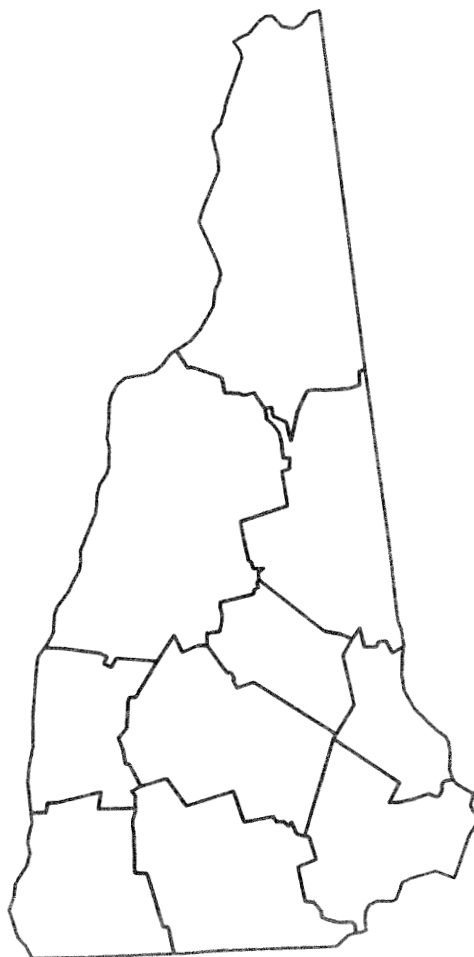
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STATE TABLES



PERCENT FOREST LAND BY COUNTY

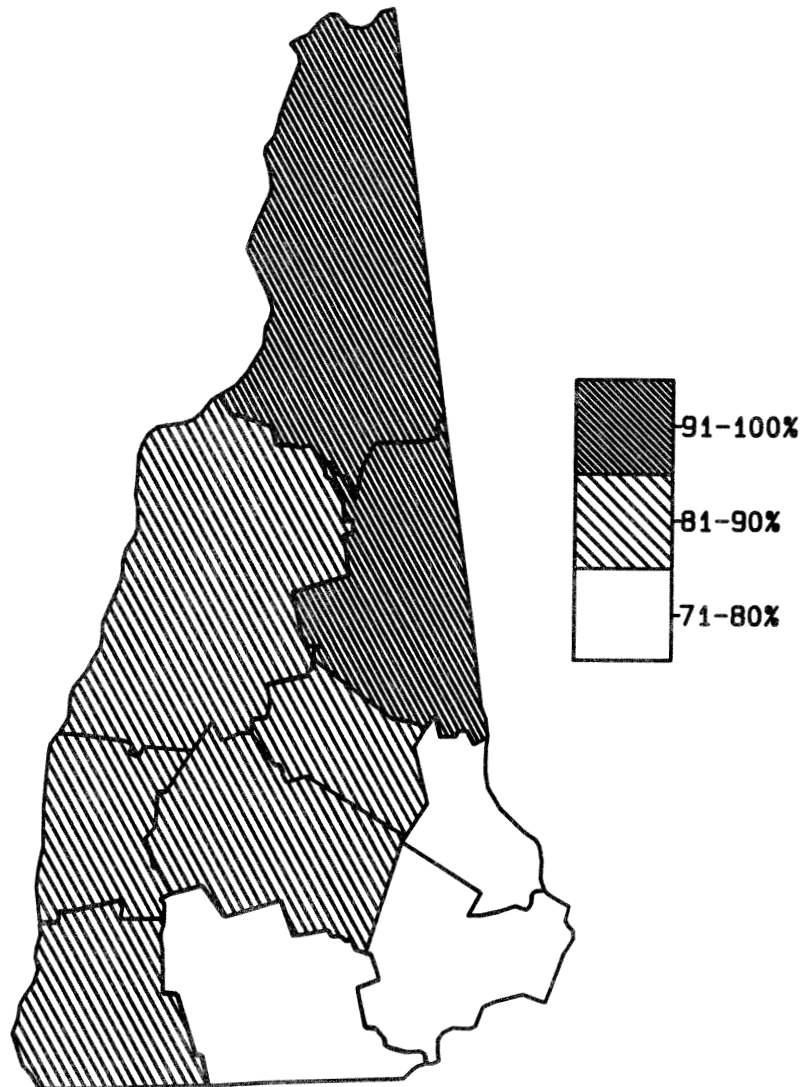


Table 1.--Land area by land class, New Hampshire, 1983

Land class	Area	
	Thousand acres	Percent
Timberland	4,812.1	84
Noncommercial forest land:		
Productive reserved ^a	102.5	2
Unproductive	72.6	1
Total forest	4,987.2	87
Nonforest land:		
Cropland ^b	124.3	2
Pasture ^b	51.3	1
Other	592.7	10
Total nonforest	768.3	13
Total land area ^c	5,755.5	100

^aIncludes lands put into wilderness areas on the White Mountain National Forest as of November 30, 1984.

^bSource: 1982 Census of Agriculture.

^cSource: 1981 United States Department of Commerce, Bureau of Census.

Table 2.--Area of timberland by forest type, forest-type group, and stand-size class, New Hampshire, 1973^a

(In thousands of acres)^b

Forest type and forest-type group	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Red pine	.0	7.1	14.5	.0	21.6
White pine	555.8	219.4	216.0	.0	991.2
White pine/hemlock	204.4	122.4	23.1	.0	349.9
Hemlock	95.8	45.3	7.2	.0	148.3
White/red pine group	856.0	394.2	260.8	.0	1,511.0
Balsam fir	17.9	124.6	53.6	.0	196.1
Red spruce	.0	49.2	16.2	.0	65.4
Red spruce/balsam fir	61.9	194.3	54.2	.0	310.4
White spruce	.0	.0	35.6	.0	35.6
Spruce/fir group	79.8	368.1	159.6	.0	607.5
Pitch pine	14.8	.0	16.1	.0	30.9
Hard pine group	14.8	.0	16.1	.0	30.9
Wh. pine/no. red oak/wh. ash	31.6	7.1	7.2	.0	45.9
Oak/pine group	31.6	7.1	7.2	.0	45.9
Post, black, or bear oak	.0	7.2	.0	.0	7.2
White oak/red oak/hickory	.0	21.5	.0	.0	21.5
White oak	7.2	.0	.0	.0	7.2
Northern red oak	78.9	201.1	14.3	.0	294.3
Scarlet oak	.0	.0	7.2	.0	7.2
Red maple/central hardwoods	7.2	23.4	14.4	.0	45.0
Mixed central hardwoods	7.2	21.5	7.1	.0	35.8
Oak/hickory group	100.5	274.7	43.0	.0	418.2
Black ash/Amer. elm/red maple	.0	.0	23.2	.0	23.2
Elm/ash/red maple group	.0	.0	23.2	.0	23.2
Sugar maple/beech/yellow birch	448.2	387.9	105.2	.0	941.3
Black cherry	.0	.0	16.0	.0	16.0
Red maple/northern hardwoods	132.1	327.1	54.4	.0	513.6
Mixed northern hardwoods	119.6	211.0	23.2	.0	353.8
Northern hardwoods group	699.9	926.0	198.8	.0	1,824.7
Aspen	8.9	32.2	62.5	.0	103.6
Paper birch	7.6	34.2	46.7	.0	88.5
Gray birch	.0	.0	9.0	.0	9.0
Aspen/birch group	16.5	66.4	118.2	.0	201.1
Indeterminate	.0	8.9	17.8	.0	26.7
All forest types	1,799.1	2,045.4	844.7	.0	4,689.2

^aThe data on all 1973 tables have been reprocessed so as to be comparable to 1983 data.

^bIn this and other tables, zeroes indicate no or negligible data. Dashes indicate no data.

Table 3.--Area of timberland by forest type, forest-type group, and stand-size class, New Hampshire, 1983

(In thousands of acres)

Forest type and forest-type group	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Red pine	24.2	.0	7.0	.0	31.2
White pine	644.4	92.8	74.5	.0	811.7
White pine/hemlock	257.9	78.1	14.4	.0	350.4
Hemlock	140.8	14.5	7.4	.0	162.7
White/red pine group	1,067.3	185.4	103.3	.0	1,356.0
Balsam fir	78.2	118.7	9.7	.0	206.6
Red spruce	34.1	72.1	9.7	.0	115.9
Red spruce/balsam fir	183.9	112.1	20.4	.0	316.4
White spruce	29.8	.0	.0	.0	29.8
Tamarack	.0	8.9	.0	.0	8.9
Spruce/fir group	326.0	311.8	39.8	.0	677.6
Pitch pine	9.4	16.7	15.6	.0	41.7
Hard pine group	9.4	16.7	15.6	.0	41.7
Wh. pine/no. red oak/wh. ash	56.0	29.2	7.3	.0	92.5
Other oak/pine	.0	7.4	.0	.0	7.4
Oak/pine group	56.0	36.6	7.3	.0	99.9
Post, black, or bear oak	22.0	.0	.0	.0	22.0
Chestnut oak	7.1	.0	.0	.0	7.1
White oak/red oak/hickory	14.6	14.3	.0	.0	28.9
White oak	14.5	.0	.0	.0	14.5
Northern red oak	100.2	111.0	9.8	.0	221.0
Scarlet oak	.0	14.2	.0	.0	14.2
Red maple/central hardwoods	7.3	28.9	.0	.0	36.2
Mixed central hardwoods	36.6	14.7	.0	.0	51.3
Oak/hickory group	202.3	183.1	9.8	.0	395.2
Black ash/Amer. elm/red maple	8.1	6.7	17.5	.0	32.3
Elm/ash/red maple group	8.1	6.7	17.5	.0	32.3
Sugar maple/beech/yellow birch	780.6	275.2	44.8	.0	1,100.6
Black cherry	10.1	.0	7.0	.0	17.1
Red maple/northern hardwoods	219.9	263.4	23.3	.0	506.6
Pin cherry/reverting field	.0	20.1	14.2	.0	34.3
Mixed northern hardwoods	205.6	122.6	16.8	.0	345.0
Northern hardwoods group	1,216.2	681.3	106.1	.0	2,003.6
Aspen	29.4	69.6	17.6	.0	116.6
Paper birch	18.8	63.0	.0	.0	81.8
Gray birch	.0	.0	7.4	.0	7.4
Aspen/birch group	48.2	132.6	25.0	.0	205.8
All forest types	2,933.5	1,554.2	324.4	.0	4,812.1

Table 4.--Area of timberland by forest-type group and ownership class, New Hampshire, 1983

(In thousands of acres)

Forest-type group	Ownership class				All classes
	National Forest	Other public	Forest industry	Other private	
White/red pine	22.8	80.6	48.2	1,204.4	1,356.0
Spruce/fir	140.9	5.2	192.7	338.8	677.6
Hard pine	-	6.7	-	35.0	41.7
Oak/pine	-	-	-	99.9	99.9
Oak/hickory	-	40.0	13.1	342.1	395.2
Elm/ash/red maple	-	-	-	32.3	32.3
Northern hardwoods	270.8	63.9	363.1	1,305.8	2,003.6
Aspen/birch	37.2	-	40.7	127.9	205.8
Total, all groups	471.7	196.4	657.8	3,486.2	4,812.1

Table 5.--Area of timberland by stand-size class and ownership class, New Hampshire, 1983

(In thousands of acres)

Stand-size class	Ownership class				All classes
	National Forest	Other public	Forest industry	Other private	
Sawtimber	323.6	135.1	385.8	2,089.0	2,933.5
Poletimber	133.7	44.1	254.0	1,122.4	1,554.2
Sapling and seedling	14.4	17.2	18.0	274.8	324.4
Nonstocked	.0	.0	.0	.0	.0
All classes	471.7	196.4	657.8	3,486.2	4,812.1

Table 6.--Area of timberland by board foot stand-volume class and ownership classes, New Hampshire, 1983

(In thousands of acres)

Stand-volume class (board feet per acre)	Ownership class				All classes
	National Forest	Other public	Forest industry	Other private	
0 - 1,999	97.3	55.9	193.5	1,168.4	1,515.1
2,000 - 3,999	86.5	52.5	235.2	999.1	1,373.3
4,000 - 5,999	88.8	38.4	141.5	738.5	1,007.2
6,000 - 7,999	88.4	34.1	64.5	339.9	526.9
8,000 - 9,999	74.1	5.2	23.1	109.9	212.3
10,000+	36.6	10.3	-	130.4	177.3
All classes	471.7	196.4	657.8	3,486.2	4,812.1

Table 7.--Area of timberland by forest-type group and cubic foot stand-volume class, New Hampshire, 1983

(In thousands of acres)

Forest-type group	Stand-volume class (cubic feet per acre)						All classes
	0-499	500-999	1000-1499	1500-1999	2000-2499	2500+	
White/red pine	51.0	108.5	240.7	318.7	299.0	338.1	1,356.0
Spruce/fir	57.2	66.3	137.9	147.1	130.7	138.4	677.6
Hard pine	15.7	9.3	7.4	9.3	.0	.0	41.7
Oak/pine	15.3	7.3	14.5	41.6	21.2	.0	99.9
Oak/hickory	7.5	63.4	96.0	145.8	49.8	32.7	395.2
Elm/ash/red maple	24.1	8.2	.0	.0	.0	.0	32.3
Northern hardwoods	103.7	197.9	393.6	484.3	461.2	362.9	2,003.6
Aspen/birch	14.9	10.1	31.8	75.9	27.4	45.7	205.8
Total, all groups	289.4	471.0	921.9	1,222.7	989.3	917.8	4,812.1

Table 8.--Area of timberland by forest-type group and board foot stand-volume class, New Hampshire, 1983

(In thousands of acres)

Forest-type group	Stand-volume class (board feet per acre)						All classes
	0-1999	2000-3999	4000-5999	6000-7999	8000-9999	10000+	
White/red pine	237.5	346.6	390.4	190.3	71.2	120.0	1,356.0
Spruce/fir	264.1	237.1	100.2	46.8	19.7	9.7	677.6
Hard pine	32.4	.0	.0	9.3	.0	.0	41.7
Oak/pine	40.7	30.8	28.4	.0	.0	.0	99.9
Oak/hickory	187.1	121.1	57.8	29.2	.0	.0	395.2
Elm/ash/red maple	32.3	.0	.0	.0	.0	.0	32.3
Northern hardwoods	619.7	580.5	412.6	232.6	110.6	47.6	2,003.6
Aspen/birch	101.3	57.2	17.8	18.7	10.8	.0	205.8
Total, all groups	1,515.1	1,373.3	1,007.2	526.9	212.3	177.3	4,812.1

Table 9.--Area of timberland by forest-type group and green ton stand-volume class, New Hampshire, 1983
(In thousands of acres)

Forest-type group	Stand-volume class (green tons per acre)									All classes
	0-24	25-49	50-74	75-99	100-124	125-149	150-174	175-199	200+	
White/red pine	26.5	66.6	168.7	271.5	338.4	278.2	121.0	62.8	22.3	1,356.0
Spruce/fir	18.2	81.0	90.1	185.2	155.8	58.7	48.7	30.2	9.7	677.6
Hard pine	15.7	7.4	9.3	.0	9.3	.0	.0	.0	.0	41.7
Oak/pine	15.3	7.3	7.4	14.0	41.9	14.0	.0	.0	.0	99.9
Oak/hickory	.0	39.0	53.2	138.4	121.0	43.6	.0	.0	.0	395.2
Elm/ash/red maple	24.1	8.2	.0	.0	.0	.0	.0	.0	.0	32.3
Northern hardwoods	79.6	112.8	215.5	509.9	522.3	412.6	110.9	30.2	9.8	2,003.6
Aspen/birch	7.5	.0	24.8	44.7	81.6	8.9	28.5	9.8	.0	205.8
Total, all groups	186.9	322.3	569.0	1,163.7	1,270.3	816.0	309.1	133.0	41.8	4,812.1

Table 10.--Area of timberland by forest-type group and stocking class of all live trees, New Hampshire, 1983
(In thousands of acres)

Forest-type group	Stocking class					All classes
	Nonstocked	Poorly stocked	Moderately stocked	Fully stocked	Overstocked	
White/red pine	.0	.0	159.5	584.2	612.3	1,356.0
Spruce/fir	.0	18.2	46.9	252.0	360.5	677.6
Hard pine	.0	.0	7.4	16.7	17.6	41.7
Oak/pine	.0	7.9	22.0	62.9	7.1	99.9
Oak/hickory	.0	14.5	29.0	196.2	155.5	395.2
Elm/ash/red maple	.0	6.0	26.3	.0	.0	32.3
Northern hardwoods	.0	20.1	159.0	1,072.2	752.3	2,003.6
Aspen/birch	.0	.0	8.9	93.2	103.7	205.8
Total, all groups	.0	66.7	459.0	2,277.4	2,009.0	4,812.1

Table 11.--Area of timberland by forest-type group and stocking class of growing-stock trees, New Hampshire, 1973

Forest-type group	Stocking class				All classes
	Nonstocked	Poorly stocked	Moderately stocked	Fully stocked	
White/red pine	6.7	60.0	368.8	725.9	1,511.0
Spruce/fir	.0	8.2	112.6	310.3	607.5
Hard pine	.0	16.1	.0	14.8	30.9
Oak/pine	.0	.0	22.5	23.4	45.9
Oak/hickory	.0	7.1	91.5	253.1	418.2
Elm/ash/red maple	16.1	.0	7.1	.0	23.2
Northern hardwoods	8.9	80.1	646.4	925.4	1,824.7
Aspen/birch	.0	14.3	79.0	89.7	201.1
Indeterminate	8.9	17.8	.0	.0	26.7
Total, all groups	40.6	203.6	1,327.9	2,342.6	4,689.2

Table 12.--Area of timberland by forest-type group and stocking class of growing-stock trees, New Hampshire, 1983

Forest-type group	Stocking class				All classes
	Nonstocked	Poorly stocked	Moderately stocked	Fully stocked	
White/red pine	.0	25.5	254.2	559.5	1,356.0
Spruce/fir	.0	27.9	94.8	206.6	677.6
Hard pine	.0	.0	14.7	9.3	41.7
Oak/pine	.0	7.9	49.6	28.3	99.9
Oak/hickory	.0	14.5	43.4	216.8	395.2
Elm/ash/red maple	.0	14.1	18.2	.0	32.3
Northern hardwoods	.0	53.3	387.9	990.9	2,003.6
Aspen/birch	.0	.0	16.5	97.8	205.8
Total, all groups	.0	143.2	879.3	2,109.2	4,812.1

Table 13.--Area of timberland by forest-type group and basal area class, New Hampshire, 1983

(In thousands of acres)

Forest-type group	Basal area class (square feet per acre)						All classes
	0-49	50-99	100-149	150-199	200-249	250-299	
White/red pine	71.4	294.6	610.1	341.7	38.2	.0	1,356.0
Spruce/fir	38.0	172.5	231.7	175.8	59.6	.0	677.6
Hard pine	7.4	15.7	9.3	9.3	.0	.0	41.7
Oak/pine	22.6	14.5	62.8	.0	.0	.0	99.9
Oak/hickory	21.8	77.5	266.6	29.3	.0	.0	395.2
Elm/ash/red maple	32.3	.0	.0	.0	.0	.0	32.3
Northern hardwoods	95.3	499.7	1,115.9	263.9	28.8	.0	2,003.6
Aspen/birch	7.5	26.3	124.7	38.4	8.9	.0	205.8
Total, all groups	296.3	1,100.8	2,421.1	858.4	135.5	.0	4,812.1

Table 14.--Area of timberland by stocking class of all live trees and basal area class, New Hampshire, 1983

(In thousands of acres)

Stocking class	Basal area class (square feet per acre)						All classes
	0-49	50-99	100-149	150-199	200-249	250-299	
0 -15 (Nonstocked)	.0	.0	.0	.0	.0	.0	.0
16 - 19	.0	.0	.0	.0	.0	.0	.0
20 - 29	8.5	.0	.0	.0	.0	.0	8.5
30 - 39	.0	.0	.0	.0	.0	.0	.0
40 - 49	13.9	19.7	.0	.0	.0	.0	33.6
50 - 59	7.2	17.4	.0	.0	.0	.0	24.6
Total poorly stocked	29.6	37.1	.0	.0	.0	.0	66.7
60 - 69	19.6	4.6	.0	.0	.0	.0	24.2
70 - 79	41.6	17.0	.0	.0	.0	.0	58.6
80 - 89	38.7	82.7	9.8	.0	.0	.0	131.2
90 - 99	14.3	176.3	54.4	.0	.0	.0	245.0
Total moderately stocked	114.2	280.6	64.2	.0	.0	.0	459.0
100 - 109	51.3	230.9	298.5	.0	.0	.0	580.7
109 - 119	30.9	226.8	559.9	7.3	.0	.0	824.9
120 - 129	37.6	146.5	627.4	60.3	.0	.0	871.8
Total fully stocked	119.8	604.2	1,485.8	67.6	.0	.0	2,277.4
130 - 139	16.7	115.9	602.5	300.0	7.4	.0	1,042.5
140 - 149	10.1	46.4	225.4	326.7	17.4	.0	626.0
150 - 160	5.9	16.6	43.2	164.1	110.7	.0	340.5
Total overstocked	32.7	178.9	871.1	790.8	135.5	.0	2,009.0
Total all classes	296.3	1,100.8	2,421.1	858.4	135.5	.0	4,812.1

Table 15.--Number of live trees on timberland by diameter and tree classes
and softwoods and hardwoods, New Hampshire, 1983

(In thousands of trees)

Diameter class	Growing Stock		Cull		Total
	Softwoods	Hardwoods	Softwoods	Hardwoods	
Seedlings	4,377,682	10,079,357	-	3,878,021	18,335,060
1.0- 2.9	665,676	974,830	-	127,581	1,768,087
3.0- 4.9	278,399	413,571	-	31,766	723,736
Total seedlings and saplings	5,321,757	11,467,758	-	4,037,368	20,826,883
5.0- 6.9	150,214	199,152	22,750	55,081	427,197
7.0- 8.9	88,483	140,630	10,710	25,550	265,373
9.0-10.9	-	86,314	-	11,470	97,784
Total poletimber	238,697	426,096	33,460	92,101	790,354
9.0-10.9	53,710	-	3,466	-	57,176
11.0-12.9	33,068	42,778	1,891	5,380	83,117
13.0-14.9	16,556	22,148	1,179	3,730	43,613
Total small sawtimber	103,334	64,926	6,536	9,110	183,906
15.0-16.9	9,145	10,326	639	2,329	22,439
17.0-18.9	5,251	5,328	409	1,502	12,490
19.0-20.9	2,619	1,871	265	677	5,432
21.0-28.9	2,944	2,247	526	1,253	6,970
29.0 and larger	221	238	131	396	986
Total larger sawtimber	20,180	20,010	1,970	6,157	48,317
All classes	5,683,968	11,978,790	41,966	4,144,736	21,849,460

Table 16.--Number of trees (5.0+ inches d.b.h.) on timberland by species and tree class, New Hampshire, 1983
(In thousands of trees)

Species	Tree class						Total		
	Preferred	Acceptable	All growing stock	Rough cull	Rotten cull	All live		Salvable dead	Nonsalvable dead
Balsam fir	2,419	93,484	95,903	1,656	2,384	99,943	11,964	13,152	125,059
Tamarack	23	1,490	1,513	185	65	1,763	642	82	2,487
White spruce	22	4,047	4,069	1,047	333	5,449	99	0	5,548
Black spruce	16	1,417	1,433	192	35	1,660	181	0	1,841
Red spruce	2,800	74,531	77,331	2,975	2,456	82,762	12,956	4,526	100,244
Red pine	495	1,820	2,315	83	0	2,398	16	34	2,448
White pine	10,977	97,217	108,194	14,851	4,474	127,519	3,837	11,081	142,437
Northern white-cedar	0	1,216	1,216	58	82	1,356	485	149	1,990
Hemlock	2,781	61,294	64,075	7,171	2,967	74,213	1,581	760	76,554
Other softwoods	167	5,995	6,162	220	732	7,114	614	497	8,225
Total softwoods	19,700	342,511	362,211	28,438	13,528	404,177	32,375	30,281	466,833
Sugar maple	3,397	50,368	53,765	3,852	4,493	62,110	779	1,164	64,053
Soft maples	4,188	146,382	150,570	18,858	15,189	184,617	2,212	4,145	190,974
Yellow birch	793	42,941	43,734	4,566	6,754	55,054	4,099	4,139	63,292
Paper birch	6,300	67,134	73,434	4,188	2,860	80,482	1,842	3,180	85,504
Gray birch	0	4,687	4,687	1,839	650	7,176	2,088	651	9,915
Beech	295	33,171	33,466	5,146	6,656	45,268	1,440	1,507	48,215
White ash	4,000	17,944	21,944	322	905	23,171	237	631	24,039
Black ash	17	2,137	2,154	87	472	2,713	79	33	2,825
Aspen	1,171	29,206	30,377	1,545	3,260	35,182	2,107	3,142	40,431
White oaks	330	8,673	9,003	2,414	121	11,538	549	116	12,203
Red oaks	11,997	54,091	66,088	3,075	1,552	70,715	443	1,072	72,230
Basswood	288	1,390	1,678	399	104	2,181	19	70	2,270
Elm	129	1,338	1,467	414	186	2,067	219	1,304	3,590
Other commercial hardwoods	1,630	17,035	18,665	3,147	2,980	24,792	1,230	1,266	27,288
Noncommercial hardwoods	0	0	0	7,590 ^a	3,744	11,334	1,938	1,628	14,900
Total hardwoods	34,535	476,497	511,032	57,442	49,926	618,400	19,281	24,048	661,729
Total, all species	54,235	819,008	873,243	85,880	63,454	1,022,577	51,656	54,329	1,128,562

^aIncludes 4,434,000 trees that, except for being noncommercial species, would qualify as growing-stock trees.

Table 17.--Number of growing-stock trees on timberland by species and diameter class, New Hampshire, 1983
(In thousands of trees)

Species	Diameter class (inches at breast height)										All classes
	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 28.9	29+	
Balsam fir	53,181	25,326	12,089	4,179	914	184	30	0	0	0	95,903
Tamarack	861	228	299	44	23	23	35	0	0	0	1,513
White spruce	1,983	1,127	398	472	89	0	0	0	0	0	4,069
Black spruce	1,173	209	17	17	17	0	0	0	0	0	1,433
Red spruce	37,310	20,474	11,348	5,182	1,741	719	294	207	56	0	77,331
Red pine	68	66	587	806	328	243	149	68	0	0	2,315
White pine	29,075	23,215	17,978	14,936	9,000	5,887	3,606	1,843	2,433	221	108,194
Northern white-cedar	325	394	260	112	79	24	0	0	22	0	1,216
Hemlock	22,876	16,279	10,058	6,921	3,995	2,005	1,072	458	411	0	64,075
Other softwoods	3,362	1,165	676	399	370	60	65	43	22	0	6,162
Total softwoods	150,214	88,483	53,710	33,068	16,556	9,145	5,251	2,619	2,944	221	362,211
Sugar maple	16,739	14,370	10,547	5,367	2,966	1,622	858	572	624	100	53,765
Red maple	67,899	41,179	24,394	9,525	4,192	1,844	895	304	326	12	150,570
Yellow birch	16,044	10,597	7,115	4,057	3,048	1,276	757	356	447	37	43,734
Paper birch	29,867	22,753	12,842	5,100	1,920	565	233	96	58	0	73,434
Gray birch	3,668	834	185	0	0	0	0	0	0	0	4,687
Beech	11,198	8,357	5,402	3,526	2,612	1,366	688	161	134	22	33,466
White ash	8,582	6,350	2,661	2,005	1,408	493	263	0	149	33	21,944
Black ash	1,025	297	597	166	69	0	0	0	0	0	2,154
Aspen	11,492	8,470	5,864	2,820	1,090	472	132	37	0	0	30,377
White oaks	3,132	2,694	1,288	1,083	383	287	83	20	10	23	9,003
Red oaks	21,632	18,172	11,094	7,268	3,822	2,086	1,251	302	461	0	66,088
Basswood	315	566	346	351	25	17	47	0	0	11	1,678
Elm	502	260	324	167	108	55	34	0	17	0	1,467
Other hardwoods	7,057	5,731	3,655	1,343	505	243	87	23	21	0	18,665
Total hardwoods	199,152	140,630	86,314	42,778	22,148	10,326	5,328	1,871	2,247	238	511,032
Total, all species	349,366	229,113	140,024	75,846	38,704	19,471	10,579	4,490	5,191	459	873,243

Table 18.--Number of standing dead trees on timberland by species, condition, and diameter class, New Hampshire, 1983

Species	Intact top			Broken top			Total all trees	Sampling error		
	5.0- 10.9	11.0- 14.9	15+	Total	5.0- 10.9	11.0- 14.9			15+	Total
----- Thousand trees -----										
Balsam fir	6,969	529	96	7,594	15,191	983	152	16,326	23,920	15
Tamarack	512	101	0	613	41	23	0	64	677	61
White spruce	100	0	0	100	0	0	0	0	100	100
Black spruce	0	0	0	0	182	0	0	182	182	100
Red spruce	9,716	428	93	10,237	6,212	473	167	6,852	17,089	16
Red pine	16	0	0	16	34	0	0	34	50	75
White pine	6,621	304	152	7,077	6,575	709	540	7,824	14,901	13
Northern white-cedar	238	23	0	261	372	0	0	372	633	79
Hemlock	963	54	122	1,139	720	244	104	1,068	2,207	23
Other softwoods	655	45	0	700	330	55	26	411	1,111	50
Total softwoods	25,790	1,484	463	27,737	29,657	2,487	989	33,133	60,870	9
Sugar maple	539	105	7	651	819	270	187	1,276	1,927	24
Red maple	1,330	48	9	1,387	3,922	527	290	4,739	6,126	15
Yellow birch	1,139	158	64	1,361	5,141	901	788	6,830	8,191	14
Paper birch	1,129	23	0	1,152	3,201	458	91	3,750	4,902	18
Gray birch	759	0	0	759	1,432	0	0	1,432	2,191	29
Beech	788	107	81	976	943	550	429	1,922	2,898	23
White ash	282	0	0	282	477	87	23	587	869	34
Black ash	46	0	0	46	65	0	0	65	111	72
Aspen	1,337	267	0	1,604	3,388	169	21	3,578	5,182	21
White oaks	135	0	26	161	392	16	0	408	569	55
Red oaks	512	44	39	595	854	34	32	920	1,515	26
Basswood	0	0	19	19	0	70	0	70	89	81
Elm	707	0	69	776	496	126	125	747	1,523	29
Other hardwoods ^a	3,139	17	0	3,156	2,597	56	85	2,738	5,894	25
Total hardwoods	11,842	769	314	12,925	23,727	3,264	2,071	29,062	41,987	7
Total, all species	37,632	2,253	777	40,662	53,384	5,751	3,060	62,195	102,857	6
Sampling error (percent)	9	16	19	9	7	11	11	6	6	

^aIncludes noncommercial hardwoods.

Table 19.--Number of all trees (5.0+ inches d.b.h.) with observed cavities on timberland
by species and condition, New Hampshire, 1983

Species	Live				Total			Dead		Total all trees	Sampling error
	No cull	Intact live top	Broken top	Dead top	Live	Intact top	Broken top	Total dead			
----- Thousand trees -----											
Balsam fir	1,012	247	0	43	1,302	252	1,520	1,772	3,074	20	
Tamarack	0	0	0	0	0	0	0	0	0	0	
White spruce	0	0	0	0	0	0	0	0	0	0	
Black spruce	0	0	0	0	0	0	0	0	0	0	
Red spruce	443	197	0	0	640	320	1,134	1,454	2,094	29	
Red pine	0	0	0	0	0	0	0	0	0	0	
White pine	691	1,723	23	0	2,437	277	1,624	1,901	4,338	17	
Northern white-cedar	0	0	0	0	0	0	0	0	0	0	
Hemlock	818	504	34	0	1,356	60	384	444	1,800	18	
Other softwoods	0	155	0	0	155	0	202	202	357	64	
Total softwoods	2,964	2,826	57	43	5,890	909	4,864	5,773	11,663	11	
Sugar maple	2,846	1,805	34	419	5,104	56	886	942	6,046	15	
Red maple	7,740	7,553	39	41	15,373	340	2,124	2,464	17,837	10	
Yellow birch	2,407	2,663	67	0	5,137	139	2,774	2,913	8,050	13	
Paper birch	2,486	1,029	22	0	3,537	34	1,720	1,754	5,291	18	
Gray birch	272	82	0	0	354	0	174	174	528	44	
Beech	4,103	3,037	168	0	7,308	93	1,084	1,177	8,485	12	
White ash	370	230	0	0	600	46	224	270	870	27	
Black ash	132	0	0	0	132	0	0	0	132	59	
Aspen	347	607	68	0	1,022	41	664	705	1,727	30	
White oaks	187	71	0	0	258	34	0	34	292	34	
Red oaks	868	716	0	44	1,628	101	655	756	2,384	20	
Basswood	78	320	0	0	398	19	70	89	487	48	
Elm	17	34	0	0	51	48	212	260	311	43	
Other hardwoods ^a	511	1,122	0	80	1,713	163	744	907	2,620	21	
Total hardwoods	22,364	19,269	398	584	42,615	1,114	11,331	12,445	55,060	5	
Total, all species	25,328	22,095	455	627	48,505	2,023	16,195	18,218	66,723	5	
Sampling error (percent)	8	7	28	52	6	21	8	8	5		

^aIncludes noncommercial hardwoods.

Table 20.--Net green weight of all live trees on timberland by species and diameter class, New Hampshire, 1983

Species	(In thousands of tons)											All classes
	Diameter class (inches at breast height)											
	1.0- 4.9	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21+		
Balsam fir	9,826.3	7,445.9	7,050.3	5,669.2	2,966.9	948.4	253.1	50.3	.0	.0	34,210.4	
Tamarack	11.1	119.6	91.4	119.5	31.9	20.3	26.2	75.5	.0	.0	495.5	
White spruce	136.4	378.0	446.5	267.8	408.8	203.7	.0	82.4	120.7	96.9	2,141.2	
Black spruce	52.5	167.1	97.1	7.7	11.2	21.3	.0	.0	.0	.0	356.9	
Red spruce	3,695.1	6,042.5	6,089.0	5,545.3	3,841.3	1,955.7	1,098.6	695.3	513.6	233.2	29,709.6	
Red pine	260.1	25.8	23.6	311.7	701.5	444.8	422.4	370.9	202.6	.0	2,763.4	
White pine	2,961.4	5,767.6	8,263.2	9,398.4	12,103.0	10,563.1	9,673.8	7,866.5	5,168.8	13,991.6	85,757.4	
Northern white-cedar	.0	36.5	69.6	56.2	42.0	42.6	13.7	.0	.0	22.8	283.4	
Hemlock	2,619.1	3,747.3	4,986.3	5,033.4	5,112.9	4,178.8	2,828.6	1,964.6	1,077.2	1,436.8	32,985.0	
Other softwoods	283.3	332.8	226.3	198.1	135.0	176.3	39.2	49.6	42.0	33.2	1,515.8	
Total softwoods	19,845.3	24,063.1	27,343.3	26,607.3	25,354.5	18,555.0	14,355.6	11,155.1	7,124.9	15,814.5	190,218.6	
Sugar maple	3,520.8	3,275.3	5,367.7	6,121.0	4,688.2	3,836.6	2,806.6	2,295.6	1,693.6	4,919.0	38,524.4	
Soft maples	11,111.2	12,548.7	14,258.4	13,336.5	8,296.1	5,214.5	3,365.6	2,034.1	1,102.0	2,263.6	73,530.7	
Yellow birch	3,368.3	3,282.4	4,216.2	4,230.5	3,685.0	3,805.6	2,572.3	1,953.9	1,307.3	2,731.7	31,153.2	
Paper birch	3,994.8	5,498.7	8,462.8	8,272.4	5,216.1	2,985.6	1,353.1	672.8	341.2	424.8	37,222.3	
Gray birch	2,312.1	872.7	260.0	91.8	.0	.0	.0	.0	.0	.0	3,536.6	
Beech	3,505.9	2,612.4	4,099.1	4,396.0	3,629.3	3,884.8	2,832.4	2,027.1	672.1	1,446.7	29,105.8	
White ash	1,176.8	1,397.3	2,009.3	1,449.7	1,553.7	1,701.4	768.3	550.6	.0	1,283.5	11,890.6	
Black ash	129.1	211.9	76.4	311.0	118.6	75.1	.0	.0	.0	.0	922.1	
Aspen	981.9	1,930.5	2,936.0	3,420.6	2,175.0	1,328.2	734.3	363.2	89.5	.0	13,959.2	
White oaks	809.7	709.7	981.3	655.4	851.5	484.1	380.6	222.8	43.4	264.5	5,403.0	
Red oaks	1,864.7	3,613.8	5,999.2	5,805.7	5,742.5	4,382.6	3,154.2	2,598.6	807.1	1,994.9	35,963.3	
Basswood	.0	97.1	179.1	192.0	274.1	28.4	63.1	93.7	.0	56.6	984.1	
Elm	305.7	145.6	109.0	202.7	127.6	118.6	151.5	68.1	38.9	47.5	1,315.2	
Other comm. hrdwds.	1,601.7	1,683.3	2,129.8	1,932.2	1,167.3	702.0	446.1	163.1	53.2	59.7	9,938.4	
Noncomm. hardwoods	3,030.0	914.1	777.6	236.9	115.1	68.3	11.2	.0	.0	39.2	5,192.4	
Total hardwoods	37,712.7	38,793.5	51,861.9	50,654.4	37,640.1	28,615.8	18,639.3	13,043.6	6,148.3	15,531.7	298,641.3	
Total, all species	57,558.0	62,856.6	79,205.2	77,261.7	62,994.6	47,170.8	32,994.9	24,198.7	13,273.2	31,346.2	488,859.9	

Table 21.--Net volume and green weight of all trees on timberland by class of material and softwoods and hardwoods, New Hampshire, 1983

Class of material	Volume ^a			Weight ^b		
	Softwoods	Hardwoods	All species	Softwoods	Hardwoods	All species
	-----Million cubic feet-----			-----Thousand tons-----		
Sawtimber trees:						
Sawlog portion	2,154.3	1,712.4	3,866.7	74,365.5	61,200.9	135,566.4
Upper stem	277.6	431.2	708.8	9,266.0	15,242.9	24,508.9
Total	2,431.9	2,143.6	4,575.5	83,631.5	76,443.8	160,075.3
Poletimber trees	1,015.8	2,428.5	3,444.3	30,287.7	84,836.3	115,124.0
All growing stock	3,447.7	4,572.1	8,019.8	113,919.2	161,280.1	275,199.3
Rough cull trees ^c	183.5	276.2	459.7	7,933.0	12,401.1	20,334.1
Rotten cull trees ^c	51.8	257.5	309.3	1,999.8	12,756.6	14,756.4
Salvable dead trees ^d	-	-	-	7,723.3	5,202.5	12,925.8
Saplings ^e	-	-	-	19,845.3	37,712.7	57,558.0
Stumps ^f	-	-	-	2,299.2	4,501.4	6,800.6
Tops - growing stock	-	-	-	40,771.6	60,666.9	101,438.5
Tops - rough and rotten	-	-	-	3,584.1	9,435.5	13,019.6
All nongrowing stock	235.3	533.7	769.0	84,156.3	142,676.7	226,833.0
All classes	3,683.0	5,105.8	8,788.8	198,075.5	303,956.8	502,032.3

^aExcludes bark.

^bIncludes bark and sound cull; excludes rotten cull.

^cBole portion of trees 5.0 inches d.b.h. and larger.

^dVolume of bole portion of trees 5.0 inches d.b.h. and larger, and weight of entire tree aboveground.

^eIncludes entire tree aboveground.

^fOf all salvable dead and all live trees 5.0 inches d.b.h. and larger.

Table 22.--Net volume of growing-stock trees on timberland by forest-type group and stand-size class, New Hampshire, 1983

(In millions of cubic feet)

Forest type group	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
White/red pine	2,173.7	246.8	50.0	.0	2,470.5
Spruce/fir	700.0	444.6	10.8	.0	1,155.4
Hard pine	17.1	14.5	3.2	.0	34.8
Oak/pine	91.0	37.7	2.0	.0	130.7
Oak/hickory	320.7	239.6	5.4	.0	565.7
Elm/ash/red maple	3.1	1.3	.5	.0	4.9
Northern hardwoods	2,346.0	912.0	33.8	.0	3,291.8
Aspen/birch	123.9	234.1	8.0	.0	366.0
Total, all groups	5,775.5	2,130.6	113.7	.0	8,019.8

Table 23.--Net volume of growing-stock trees on timberland by forest-type group and basal area class, New Hampshire, 1983

(In millions of cubic feet)

Forest-type group	Basal area class (square feet per acre)						All classes
	0-49	50-99	100-149	150-199	200-249	250-299	
White/red pine	25.1	326.7	1,109.3	899.7	109.7	.0	2,470.5
Spruce/fir	13.7	179.6	403.5	356.2	202.4	.0	1,155.4
Hard pine	.6	9.0	8.1	17.1	.0	.0	34.8
Oak/pine	6.6	16.4	107.7	.0	.0	.0	130.7
Oak/hickory	13.2	71.5	420.5	60.5	.0	.0	565.7
Elm/ash/red maple	4.9	.0	.0	.0	.0	.0	4.9
Northern hardwoods	28.7	523.5	2,015.8	652.8	71.0	.0	3,291.8
Aspen/birch	.9	28.9	200.7	106.5	29.0	.0	366.0
Total, all groups	93.7	1,155.6	4,265.6	2,092.8	412.1	.0	8,019.8

Table 24.--Net volume of growing-stock trees on timberland by species and forest-type group, New Hampshire, 1983

(In millions of cubic feet)									
Species	Forest-type group								All groups
	White/ red pine	Spruce/ fir	Hard pine	Oak/ pine	Oak/ hickory	Elm/ash/ red maple	Northern hardwoods	Aspen/ birch	
Balsam fir	36.4	414.9	.0	.0	.3	.0	136.5	28.0	616.1
Tamarack	2.6	6.5	.0	.0	.0	.0	.8	.3	10.2
White spruce	.4	26.3	.0	.0	.0	.0	.5	4.3	31.5
Black spruce	2.0	3.0	.0	.0	.0	.0	.3	.0	5.3
Red spruce	71.8	365.1	.0	.0	2.8	.0	134.1	23.7	597.5
Red pine	43.6	.0	.0	.0	1.1	.0	1.3	.0	46.0
White pine	1,249.5	19.3	3.8	34.1	53.0	.7	150.8	17.7	1,528.9
Northern white-cedar	.3	8.9	.0	.0	.0	.0	.0	.0	9.2
Hemlock	320.3	18.9	.0	3.5	29.8	.0	188.2	3.0	563.7
Other softwoods	11.3	.0	25.8	2.2	.0	.0	.0	.0	39.3
Total softwoods	1,738.2	862.9	29.6	39.8	87.0	.7	612.5	77.0	3,447.7
Sugar maple	27.7	3.7	.0	.2	8.5	.0	597.7	13.2	651.0
Red maple	247.0	70.1	2.9	10.4	74.4	3.8	631.1	27.6	1,067.3
Yellow birch	20.6	59.3	.0	.9	4.4	.0	355.6	13.0	453.8
Paper birch	89.5	102.7	.0	4.7	19.8	.0	234.8	114.2	565.7
Gray birch	6.0	.0	.0	.2	2.4	.4	5.0	1.6	15.6
Beech	15.2	.2	.0	.0	8.4	.0	359.1	1.4	384.3
White ash	42.4	4.6	.0	1.6	7.6	.0	171.9	3.9	232.0
Black ash	1.6	4.7	.0	.0	.2	.0	9.1	.0	15.6
Aspen	37.0	40.3	.0	4.0	18.2	.0	70.5	106.9	276.9
White oaks	26.7	.0	.0	5.1	36.5	.0	3.7	.6	72.6
Red oaks	173.6	.8	2.2	57.5	274.7	.0	145.7	3.1	657.6
Basswood	1.8	.0	.0	.0	.8	.0	15.0	.2	17.8
Elm	8.6	.0	.0	.0	3.0	.0	2.0	.6	14.2
Other hardwoods	34.6	6.1	.1	6.3	19.8	.0	78.1	2.7	147.7
Total hardwoods	732.3	292.5	5.2	90.9	478.7	4.2	2,679.3	289.0	4,572.1
Total, all species	2,470.5	1,155.4	34.8	130.7	565.7	4.9	3,291.8	366.0	8,019.8

Table 25.--Net volume of growing-stock trees on timberland by species
and stand-size class, New Hampshire, 1973

(In millions of cubic feet)

Species	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Balsam fir	177.3	455.5	36.3	.0	669.1
Tamarack	4.3	5.4	.0	.0	9.7
White spruce	3.6	9.7	7.7	.0	21.0
Black spruce	3.7	7.6	.0	.0	11.3
Red spruce	156.9	291.5	31.2	.0	479.6
Red pine	28.7	10.8	5.7	.0	45.2
White pine	1,128.9	312.2	99.8	.0	1,540.9
Northern white-cedar	3.0	1.5	1.8	.0	6.3
Hemlock	354.7	229.1	12.9	.0	596.7
Other softwoods	13.4	1.2	4.0	.0	18.6
Total softwoods	1,874.5	1,324.5	199.4	.0	3,398.4
Sugar maple	224.1	210.9	14.4	.0	449.4
Red maple	354.6	485.7	35.6	.0	875.9
Yellow birch	213.7	131.7	16.9	.0	362.3
Paper birch	113.0	265.2	26.7	.0	404.9
Gray birch	.9	.0	.9	.0	1.8
Beech	96.4	132.1	5.4	.0	233.9
White ash	57.0	76.2	5.3	.0	138.5
Black ash	.5	.6	.0	.0	1.1
Aspen	39.2	124.7	20.9	.0	184.8
White oaks	32.8	23.7	3.1	.0	59.6
Red oaks	275.2	357.5	28.8	.0	661.5
Basswood	4.0	8.0	.0	.0	12.0
Elm	6.3	7.5	3.0	.0	16.8
Other hardwoods	38.2	66.6	6.6	.0	111.4
Total hardwoods	1,455.9	1,890.4	167.6	.0	3,513.9
Total, all species	3,330.4	3,214.9	367.0	.0	6,912.3

Table 26.--Net volume of growing-stock trees on timberland by species
and stand-size class, New Hampshire, 1983

(In millions of cubic feet)

Species	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Balsam fir	350.3	257.3	8.5	.0	616.1
Tamarack	3.1	5.3	1.8	.0	10.2
White spruce	25.2	5.8	.5	.0	31.5
Black spruce	4.0	1.3	.0	.0	5.3
Red spruce	387.9	203.5	6.1	.0	597.5
Red pine	45.5	.0	.5	.0	46.0
White pine	1,337.8	152.9	38.2	.0	1,528.9
Northern white-cedar	7.7	1.4	.1	.0	9.2
Hemlock	496.7	63.5	3.5	.0	563.7
Other softwoods	24.2	13.6	1.5	.0	39.3
Total softwoods	2,682.4	704.6	60.7	.0	3,447.7
Sugar maple	478.7	164.8	7.5	.0	651.0
Red maple	690.1	369.1	8.1	.0	1,067.3
Yellow birch	343.1	102.6	8.1	.0	453.8
Paper birch	306.3	257.1	2.3	.0	565.7
Gray birch	7.2	7.1	1.3	.0	15.6
Beech	332.8	49.5	2.0	.0	384.3
White ash	174.5	53.8	3.7	.0	232.0
Black ash	5.6	10.0	.0	.0	15.6
Aspen	136.7	133.5	6.7	.0	276.9
White oaks	49.8	21.9	.9	.0	72.6
Red oaks	436.2	210.7	10.7	.0	657.6
Basswood	12.7	5.1	.0	.0	17.8
Elm	12.5	1.7	.0	.0	14.2
Other hardwoods	106.9	39.1	1.7	.0	147.7
Total hardwoods	3,093.1	1,426.0	53.0	.0	4,572.1
Total, all species	5,775.5	2,130.6	113.7	.0	8,019.8

Table 27.--Net volume of growing-stock trees on timberland by species and cubic foot stand-volume class, New Hampshire, 1983

(In millions of cubic feet)

Species	Stand-volume class (cubic feet per acre)						All classes
	0-499	500-999	1000-1499	1500-1999	2000-2499	2500+	
Balsam fir	5.2	25.7	110.8	144.1	147.5	182.8	616.1
Tamarack	1.4	3.6	2.1	.5	.6	2.0	10.2
White spruce	.0	1.0	6.4	.7	8.0	15.4	31.5
Black spruce	1.1	.0	.2	.0	2.0	2.0	5.3
Red spruce	7.1	19.4	78.3	144.3	147.9	200.5	597.5
Red pine	.0	.4	20.1	12.6	3.8	9.1	46.0
White pine	14.9	59.6	164.8	291.2	390.8	607.6	1,528.9
Northern white cedar	.0	1.3	.1	.2	1.7	5.9	9.2
Hemlock	1.1	8.9	46.0	134.1	152.8	220.8	563.7
Other softwoods	1.5	8.1	7.0	13.0	2.7	7.0	39.3
Total softwoods	32.3	128.0	435.8	740.7	857.8	1,253.1	3,447.7
Sugar maple	7.1	25.8	74.4	141.4	200.6	201.7	651.0
Red maple	7.5	34.0	177.7	262.8	291.2	294.1	1,067.3
Yellow birch	2.6	19.7	47.6	95.1	144.9	143.9	453.8
Paper birch	.2	11.9	87.2	194.1	118.9	153.4	565.7
Gray birch	1.7	.6	3.1	4.1	1.4	4.7	15.6
Beech	1.0	4.3	27.5	67.7	151.2	132.6	384.3
White ash	1.7	22.0	18.8	47.1	45.0	97.4	232.0
Black ash	.0	.6	1.4	1.5	1.9	10.2	15.6
Aspen	1.8	14.9	39.5	70.3	51.5	98.9	276.9
White oaks	.7	5.4	14.0	30.9	7.4	14.2	72.6
Red oaks	4.5	35.9	116.8	202.8	144.6	153.0	657.6
Basswood	.1	1.0	.8	8.0	4.5	3.4	17.8
Elm	.0	1.1	1.5	5.6	1.9	4.1	14.2
Other hardwoods	1.2	4.1	28.2	39.4	31.1	43.7	147.7
Total hardwoods	30.1	181.3	638.5	1,170.8	1,196.1	1,355.3	4,572.1
Total, all species	62.4	309.3	1,074.3	1,911.5	2,053.9	2,608.4	8,019.8

NET CUBIC FOOT VOLUME OF GROWING STOCK BY DIAMETER CLASS

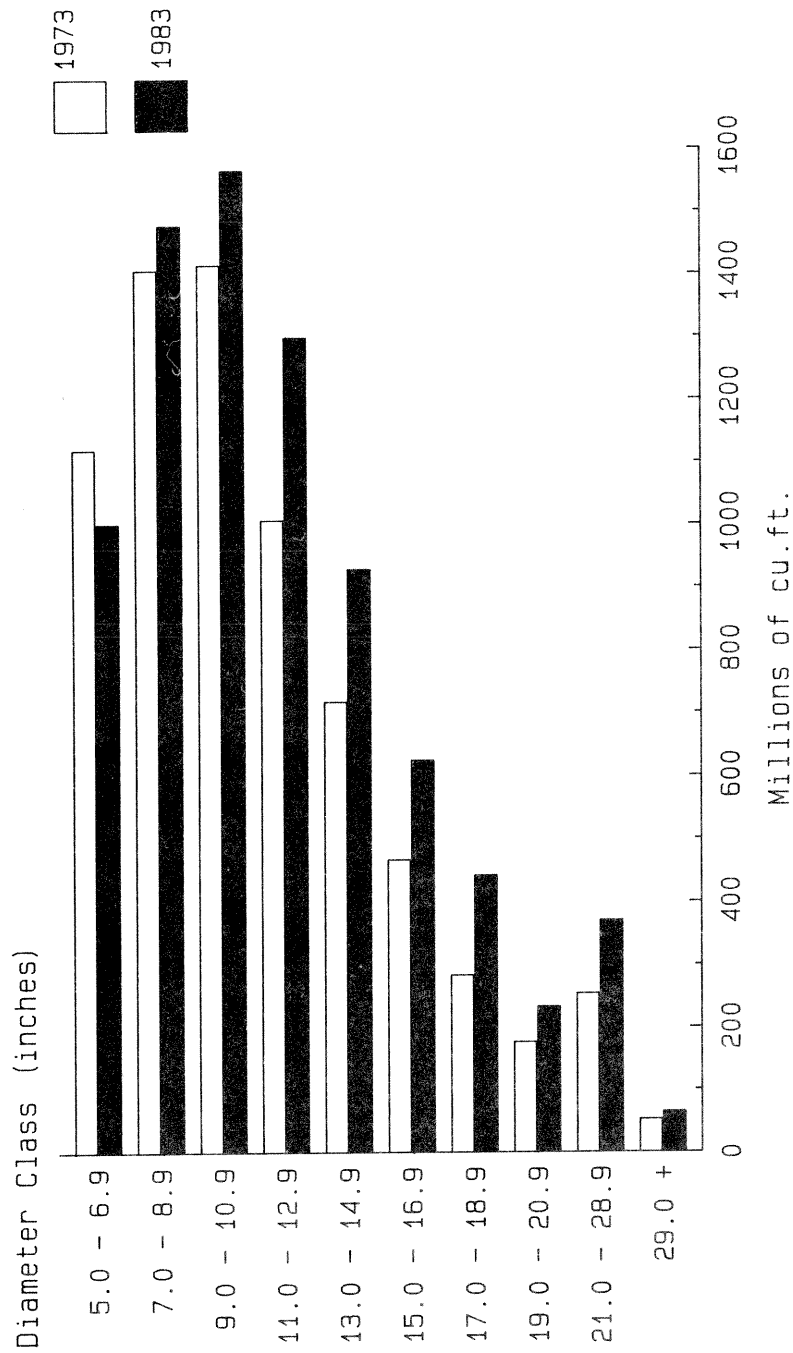


Table 28.--Net volume of growing-stock trees on timberland by species and diameter class, New Hampshire, 1973
(In millions of cubic feet)

Species	Diameter class (inches at breast height)											All classes
	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	
Balsam fir	176.3	203.6	166.2	74.1	28.4	11.5	7.1	.0	1.9	.0	.0	669.1
Tamarack	2.0	2.7	2.3	.9	1.8	.0	.0	.0	.0	.0	.0	9.7
White spruce	5.0	3.4	6.3	2.9	1.2	.0	1.0	.0	1.2	.0	.0	21.0
Black spruce	3.7	3.9	.9	.7	1.0	.0	.0	1.1	.0	.0	.0	11.3
Red spruce	131.6	138.8	109.8	43.9	24.5	19.1	6.7	3.2	1.3	.7	.0	479.6
Red pine	8.3	9.5	8.0	12.1	3.9	.5	2.0	.0	.9	.0	.0	45.2
White pine	133.3	168.3	229.0	224.2	216.0	185.5	119.4	81.9	144.4	38.9	.0	1,540.9
Northern white-cedar	.8	.6	1.9	1.8	.6	.6	.0	.0	.0	.0	.0	6.3
Hemlock	63.4	96.8	136.4	114.3	85.3	52.0	27.4	16.0	14.2	.9	.0	596.7
Other softwoods	1.1	4.1	2.8	5.7	4.0	.6	.0	.0	.3	.0	.0	18.6
Total softwoods	525.5	631.7	653.6	480.6	366.7	269.8	163.6	102.2	164.2	40.5	.0	3,398.4
Sugar maple	63.9	82.4	88.6	67.5	50.2	25.8	16.5	19.6	29.5	5.4	.0	449.4
Red maple	179.3	237.3	184.8	129.9	68.3	38.8	15.1	7.9	13.9	.6	.0	875.9
Yellow birch	40.2	56.4	75.0	64.3	43.2	22.0	23.5	15.8	19.4	2.5	.0	362.3
Paper birch	95.1	109.4	101.4	55.5	28.9	6.9	3.4	1.7	2.7	.0	.0	404.9
Gray birch	1.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8
Beech	29.3	42.3	57.3	26.3	37.7	25.6	6.8	3.3	3.9	1.4	.0	233.9
White ash	27.6	36.2	26.5	17.2	10.3	7.1	6.0	3.0	2.9	1.7	.0	138.5
Black ash	.6	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	1.1
Aspen	45.6	52.9	51.4	22.1	9.0	3.8	.0	.0	.0	.0	.0	184.8
White oak	15.5	12.4	14.4	5.9	5.5	3.1	1.1	1.1	.0	.6	.0	59.6
Red oaks	61.0	107.6	132.5	124.1	91.1	60.1	46.1	20.1	18.0	.9	.0	661.5
Basswood	1.3	5.8	1.1	2.2	.0	.0	1.6	.0	.0	.0	.0	12.0
Elm	2.0	2.9	2.4	1.2	5.0	1.5	.4	.6	.8	.0	.0	16.8
Other hardwoods	32.9	30.5	27.0	11.4	2.1	3.7	.6	2.5	.0	.7	.0	111.4
Total hardwoods	596.1	776.1	762.4	527.6	351.8	198.3	121.1	75.6	91.1	13.8	.0	3,513.9
Total, all species	1,121.6	1,407.8	1,416.0	1,008.2	718.5	468.1	284.7	177.8	255.3	54.3	.0	6,912.3

Table 29.--Net volume of growing-stock trees on timberland by species and diameter class, New Hampshire, 1983
(In millions of cubic feet)

Species	Diameter class (inches at breast height)										All classes
	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 28.9	29+	
Balsam fir	170.5	179.3	152.6	80.1	25.4	6.9	1.3	.0	.0	.0	616.1
Tamarack	2.2	1.6	3.2	.9	.5	.6	1.2	.0	.0	.0	10.2
White spruce	7.2	8.5	5.3	8.5	2.0	.0	.0	.0	.0	.0	31.5
Black spruce	3.3	1.0	.2	.3	.5	.0	.0	.0	.0	.0	5.3
Red spruce	118.8	140.7	138.2	95.1	46.5	26.9	14.9	12.4	4.0	.0	597.5
Red pine	.2	.5	6.1	13.4	7.7	7.5	6.9	3.7	.0	.0	46.0
White pine	82.8	144.4	195.9	249.5	212.7	187.9	150.5	93.2	181.2	30.8	1,528.9
Northern white-cedar	.8	1.8	1.8	1.6	1.5	.6	.0	.0	1.1	.0	9.2
Hemlock	54.9	84.8	94.8	102.3	85.1	55.8	39.8	20.8	25.4	.0	563.7
Other softwoods	6.5	6.0	6.3	5.7	7.6	1.8	2.2	2.0	1.2	.0	39.3
Total softwoods	447.2	568.6	604.4	557.4	389.5	288.0	216.8	132.1	212.9	30.8	3,447.7
Sugar maple	48.6	102.1	125.7	101.1	77.2	56.4	40.2	34.3	50.9	14.5	651.0
Red maple	175.6	247.7	256.1	157.8	98.3	58.4	34.7	15.2	22.2	1.3	1,067.3
Yellow birch	46.3	68.0	78.0	70.0	69.4	40.3	31.8	18.4	27.0	4.6	453.8
Paper birch	91.6	151.4	149.0	92.1	45.1	18.8	9.2	5.0	3.5	.0	565.7
Gray birch	8.5	5.2	1.9	.0	.0	.0	.0	.0	.0	.0	15.6
Beech	27.4	55.5	63.2	65.5	69.9	48.2	32.7	10.2	9.9	1.8	384.3
White ash	27.5	44.1	32.5	37.0	38.5	18.0	13.3	.0	11.0	10.1	232.0
Black ash	2.9	1.6	6.6	2.7	1.8	.0	.0	.0	.0	.0	15.6
Aspen	37.1	62.0	72.4	51.2	29.4	17.3	5.7	1.8	.0	.0	276.9
White oak	7.6	14.5	11.8	15.9	8.1	7.3	2.9	.8	1.0	2.7	72.6
Red oaks	59.5	116.1	117.8	117.9	87.9	63.2	49.7	15.1	30.4	.0	657.6
Basswood	.8	3.7	3.7	6.1	.5	.4	1.7	.0	.0	.9	17.8
Elm	1.2	1.5	2.8	2.4	2.2	1.7	1.3	.0	1.1	.0	14.2
Other hardwoods	20.8	36.9	41.3	22.8	12.2	7.6	3.3	1.3	1.5	.0	147.7
Total hardwoods	555.4	910.3	962.8	742.5	540.5	337.6	226.5	102.1	158.5	35.9	4,572.1
Total, all species	1,002.6	1,478.9	1,567.2	1,299.9	930.0	625.6	443.3	234.2	371.4	66.7	8,019.8

Table 30.--Net volume of sawtimber trees on timberland by species and diameter class, New Hampshire, 1973

Species	(In millions of board feet) ^a										All classes
	Diameter class (inches at breast height)										
	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	
Balsam fir	585.9	313.0	127.0	51.5	32.5	.0	8.6	.0			1,118.5
Tamarack	7.3	3.0	6.3	.0	.0	.0	.0	.0			16.6
White spruce	21.1	12.1	3.4	.0	5.5	.0	4.5	.0			46.6
Black spruce	3.1	3.5	4.8	.0	.0	5.8	.0	.0			17.2
Red spruce	377.7	178.4	95.5	90.0	26.5	15.9	4.8	4.1			792.9
Red pine	26.8	48.5	17.1	2.3	8.4	.0	4.6	.0			107.7
White pine	730.7	856.4	890.6	797.0	531.4	372.1	670.2	173.8			5,022.2
Northern white-cedar	5.2	5.4	2.4	2.3	.0	.0	.0	.0			15.3
Hemlock	388.8	399.5	313.2	192.3	101.3	60.0	50.2	3.0			1,508.3
Other softwoods	8.4	19.9	14.9	.0	.0	.0	1.1	.0			44.3
Total softwoods	2,155.0	1,839.7	1,475.2	1,135.4	705.6	453.8	744.0	180.9			8,689.6
Sugar maple	.0	267.2	205.3	109.4	72.5	88.0	132.6	24.3			899.3
Red maple	.0	489.7	270.7	160.2	59.8	30.9	60.1	2.6			1,074.0
Yellow birch	.0	259.7	182.5	90.2	99.8	66.7	93.2	12.3			804.4
Paper birch	.0	229.8	121.0	26.4	13.1	7.8	12.8	.0			410.9
Gray birch	.0	.0	.0	.0	.0	.0	.0	.0			.0
Beech	.0	117.5	167.2	110.5	30.2	14.4	18.8	6.6			465.2
White ash	.0	68.9	44.2	29.1	25.6	14.7	12.4	8.0			202.9
Black ash	.0	.0	2.6	.0	.0	.0	.0	.0			2.6
Aspen	.0	89.9	37.5	16.0	.0	.0	.0	.0			143.4
White oaks	.0	22.1	23.9	12.8	5.0	3.6	.0	2.3			69.7
Red oaks	.0	465.6	364.6	258.3	204.6	83.6	80.2	4.0			1,460.9
Basswood	.0	8.6	.0	.0	7.3	.0	.0	.0			15.9
Elm	.0	4.9	18.3	5.1	1.5	2.5	3.4	.0			35.7
Other hardwoods	.0	42.2	6.5	12.1	2.5	4.8	.0	2.9			71.0
Total hardwoods	.0	2,066.1	1,444.3	830.1	521.9	317.0	413.5	63.0			5,655.9
Total, all species	2,155.0	3,905.8	2,919.5	1,965.5	1,227.5	770.8	1,157.5	243.9			14,345.5
aInternational 1/4-inch rule.											

^aInternational 1/4-inch rule.

Table 31.--Net volume of sawtimber trees on timberland by species and diameter class, New Hampshire, 1983
(In millions of board feet)^a

Species	Diameter class (inches at breast height)								All classes
	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 28.9	29+	
Balsam fir	566.9	342.2	112.8	33.6	6.7	.0	.0	.0	1,062.2
Tamarack	10.0	2.3	1.8	1.8	5.0	.0	.0	.0	20.9
White spruce	18.4	33.1	8.3	.0	.0	.0	.0	.0	59.8
Black spruce	.5	1.0	2.3	.0	.0	.0	.0	.0	3.8
Red spruce	459.0	392.9	205.3	126.7	71.4	54.6	19.9	.0	1,329.8
Red pine	16.8	48.7	31.0	34.1	34.7	18.9	.0	.0	184.2
White pine	566.1	903.8	852.7	806.6	680.2	417.9	846.2	136.3	5,209.8
Northern white-cedar	3.9	5.2	4.5	2.2	.0	.0	2.8	.0	18.6
Hemlock	269.8	351.1	318.5	221.2	170.7	87.0	104.4	.0	1,522.7
Other softwoods	18.2	19.3	28.0	6.9	10.1	8.7	5.6	.0	96.8
Total softwoods	1,929.6	2,099.6	1,565.2	1,233.1	978.8	587.1	978.9	136.3	9,508.6
Sugar maple	.0	348.1	296.6	231.0	179.9	153.6	250.2	62.5	1,521.9
Red maple	.0	539.4	374.6	235.0	145.3	67.9	98.8	6.6	1,467.6
Yellow birch	.0	249.5	267.4	163.3	133.3	82.6	121.5	25.2	1,042.8
Paper birch	.0	348.0	174.9	78.0	42.5	23.0	14.3	.0	680.7
Gray birch	.0	.0	.0	.0	.0	.0	.0	.0	.0
Beech	.0	236.1	294.9	207.6	155.9	52.4	49.0	5.8	1,001.7
White ash	.0	140.5	158.0	80.6	60.8	.0	47.9	9.8	497.6
Black ash	.0	9.3	6.7	.0	.0	.0	.0	.0	16.0
Aspen	.0	197.1	126.6	78.6	26.1	10.2	.0	.0	438.6
White oaks	.0	55.9	33.2	31.2	12.7	4.1	6.2	15.8	159.1
Red oaks	.0	408.8	340.3	258.9	214.9	70.8	152.9	.0	1,446.6
Basswood	.0	21.3	2.8	1.4	8.7	.0	.0	4.2	38.4
Elm	.0	7.8	8.3	8.0	5.1	.0	5.8	.0	35.0
Other hardwoods	.0	77.2	46.9	29.3	15.1	5.3	7.8	.0	181.6
Total hardwoods	.0	2,639.0	2,131.2	1,402.9	1,000.3	469.9	754.4	129.9	8,527.6
Total, all species	1,929.6	4,738.6	3,696.4	2,636.0	1,979.1	1,057.0	1,733.3	266.2	18,036.2
aInternational 1/4-inch rule									

^aInternational 1/4-inch rule.

Table 32.--Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, New Hampshire, 1973

(In millions of board feet)^a

Species	All size classes					>15" Diameter at breast height				
	Grade 1	Grade 2	Grade 3	Grade 4 ^b	All grades	Grade 1	Grade 2	Grade 3	Grade 4 ^b	All grades
Balsam fir ^c	.0	.0	.0	.0	1,118.5	.0	.0	.0	.0	.0
Tamarack ^c	.0	.0	.0	.0	16.6	.0	.0	.0	.0	.0
White spruce ^c	.0	.0	.0	.0	46.6	.0	.0	.0	.0	.0
Black spruce ^c	.0	.0	.0	.0	17.2	.0	.0	.0	.0	.0
Red spruce ^c	.0	.0	.0	.0	792.9	.0	.0	.0	.0	.0
Red pine	33.4	5.3	69.0	.0	107.7	8.1	1.0	6.1	.0	15.2
White pine	70.0	553.2	2,629.0	1,770.0	5,023.2	64.4	282.8	1,169.6	1,027.6	2,544.4
Northern white-cedar ^c	.0	.0	.0	.0	15.3	.0	.0	.0	.0	.0
Hemlock ^c	.0	.0	.0	.0	1,508.3	.0	.0	.0	.0	.0
Other softwoods ^c	.0	.0	.0	.0	44.3	.0	.0	.0	.0	.0
Total softwoods	103.4	558.5	2,698.0	1,770.0	8,689.6	72.5	283.8	1,175.7	1,027.6	2,559.6
Sugar maple	78.9	130.9	555.9	133.6	899.3	68.0	82.4	218.1	58.4	426.9
Red maple	16.3	70.1	758.7	228.9	1,074.0	16.2	32.7	213.0	51.5	313.4
Yellow birch	60.3	150.3	535.9	57.9	804.4	49.4	100.3	188.1	24.4	362.2
Paper birch	8.9	54.4	274.9	72.7	410.9	6.3	18.0	29.5	6.3	60.1
Gray birch	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Beech	8.4	19.7	345.3	91.8	465.2	5.5	10.1	128.9	36.0	180.5
White ash	27.8	61.4	84.5	29.2	202.9	24.7	25.3	32.0	7.8	89.8
Black ash	.0	.0	2.1	.5	2.6	.0	.0	.0	.0	.0
Aspen	.0	9.4	104.0	30.0	143.4	.0	5.4	8.9	1.8	16.1
White oaks	1.6	19.6	29.2	19.3	69.7	1.6	6.5	8.6	6.9	23.6
Red oaks	119.9	360.6	798.7	181.7	1,460.9	108.2	200.1	252.2	70.3	630.8
Basswood	2.4	1.1	11.4	1.0	15.9	2.4	1.1	3.3	.5	7.3
Elm	1.4	1.7	23.6	9.0	35.7	.0	.0	7.7	4.7	12.4
Other hardwoods	.6	2.6	58.6	9.2	71.0	.2	2.2	17.6	2.3	22.3
Total hardwoods	326.5	881.8	3,582.8	864.8	5,655.9	282.5	484.1	1,107.9	270.9	2,145.4
Percent of hardwood in each grade	6	16	63	15	100	13	22	52	13	100

^aInternational 1/4-inch rule.

^bGrade 4 applies only to white pine. For hardwoods, the volumes in this column are for construction logs.

^cThese species are not divided into standard-lumber grades.

Table 33.--Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, New Hampshire, 1983

Species	(In millions of board feet) ^a										>15" Diameter at breast height				
	All size classes										b				
	Grade 1	Grade 2	Grade 3	Grade 4	All grades	Grade 1	Grade 2	Grade 3	Grade 4	All grades	Grade 1	Grade 2	Grade 3	Grade 4	All grades
Balsam fir ^c	.0	.0	.0	.0	1,062.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Tamarack ^c	.0	.0	.0	.0	20.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
White spruce ^c	.0	.0	.0	.0	59.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Black spruce ^c	.0	.0	.0	.0	3.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Red spruce ^c	.0	.0	.0	.0	1,329.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Red pine	19.5	51.5	113.2	.0	184.2	12.0	26.3	49.4	.0	87.7					
White pine	202.9	1,158.7	2,589.7	1,258.5	5,209.8	170.2	594.5	1,377.2	745.3	2,887.2					
Northern white-cedar ^c	.0	.0	.0	.0	18.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Hemlock ^c	.0	.0	.0	.0	1,522.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Other softwoods ^c	.0	.0	.0	.0	96.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Total softwoods	222.4	1,210.2	2,702.9	1,258.5	9,508.6	182.2	620.8	1,426.6	745.3	2,974.9					
Sugar maple	259.5	391.9	638.1	232.4	1,521.9	240.1	225.9	283.1	128.2	877.3					
Red maple	73.8	293.5	766.0	334.3	1,467.6	63.9	137.8	227.6	124.2	553.5					
Yellow birch	93.4	263.5	546.6	139.3	1,042.8	87.7	144.9	238.2	55.1	525.9					
Paper birch	48.5	210.6	332.0	89.6	680.7	41.9	53.3	36.8	25.8	157.8					
Gray birch	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0					
Beech	41.2	118.4	577.0	265.1	1,001.7	31.3	52.6	263.1	123.7	470.7					
White ash	86.7	137.3	203.5	70.1	497.6	65.3	49.7	64.9	19.3	199.2					
Black ash	.0	3.9	9.4	2.7	16.0	.0	.0	.0	.0	.0					
Aspen	9.5	110.4	230.7	88.0	438.6	4.1	42.2	47.7	20.9	114.9					
White oaks	16.0	34.5	65.9	42.7	159.1	13.5	8.4	26.3	21.7	69.9					
Red oaks	295.4	479.1	519.9	152.2	1,446.6	256.5	189.1	196.6	55.4	697.6					
Basswood	2.1	7.2	17.7	11.4	38.4	2.1	1.0	.9	10.1	14.1					
Elm	.0	12.7	14.2	8.1	35.0	.0	8.8	3.7	6.4	18.9					
Other hardwoods	12.9	39.4	91.2	38.1	181.6	12.4	13.1	18.2	13.9	57.6					
Total hardwoods	939.0	2,102.4	4,012.2	1,474.0	8,527.6	818.8	926.8	1,407.1	604.7	3,757.4					
Percent of hardwood in each grade	11	25	47	17	100	22	25	37	16	100					

^aInternational 1/4-inch rule.

^bGrade 4 applies only to white pine. For hardwoods, the volumes in this column are for construction logs.

^cThese species are not divided into standard-lumber grades.

Table 34.--Average annual net change of growing-stock volume on timberland by species and component, New Hampshire, 1973-83

(In thousands of cubic feet)

Species	Ingrowth	Accretion	Gross growth	Mortality	Cull increment	Net growth	Removals	Net change
Balsam fir	6,677	15,234	21,911	-18,758	- 890	2,263	- 7,103	-4,840
Spruce	2,710	13,856	16,566	- 3,256	-1,041	12,269	- 1,063	11,206
Pine	9,000	47,835	56,835	- 8,267	-8,337	40,231	-40,311	-80
No. white-cedar	0	438	438	- 139	- 33	266	-	266
Hemlock	1,914	8,559	10,473	- 3,993	-5,668	812	- 3,645	-2,833
Other softwoods	0	2,103	2,103	- 61	0	2,042	- 107	1,935
Total softwoods	20,301	88,025	108,326	-34,474	-15,969	57,883	-52,229	5,654
Sugar maple	6,463	17,023	23,486	-1,258	-1,218	21,010	- 1,936	19,074
Red maple	10,480	23,590	34,070	-2,786	-6,442	24,842	- 6,905	17,937
Yellow birch	1,911	13,636	15,547	-1,846	-1,007	12,694	- 3,994	8,700
Paper birch	6,150	18,091	24,241	-3,119	-1,225	19,897	- 4,861	15,036
Gray birch	253	1,798	2,051	- 101	- 56	1,894	- 565	1,329
Beech	3,796	16,480	20,276	- 625	-1,632	18,019	- 3,833	14,186
White ash	1,825	7,500	9,325	- 51	- 248	9,026	-	9,026
Black ash	0	1,432	1,432	0	- 3	1,429	-	1,429
Aspen	3,733	10,515	14,248	-2,118	- 302	11,828	- 3,096	8,732
White oaks	1,682	993	2,675	- 77	- 165	2,433	- 1,093	1,340
Red oaks	2,949	11,619	14,568	-3,649	-1,520	9,399	- 9,152	247
Basswood	347	256	603	- 8	0	595	-	595
Elm	377	501	878	- 983	- 72	-177	- 42	-219
Other hardwoods	3,110	4,149	7,259	-1,493	-1,527	4,239	- 504	3,735
Total hardwoods	43,076	127,583	170,659	-18,114	-15,417	137,128	-35,981	101,147
Total, all species	63,377	215,608	278,985	-52,588	-31,386	195,011	-88,210	106,801

OUTPUT OF TIMBER PRODUCTS
NEW HAMPSHIRE, 1982

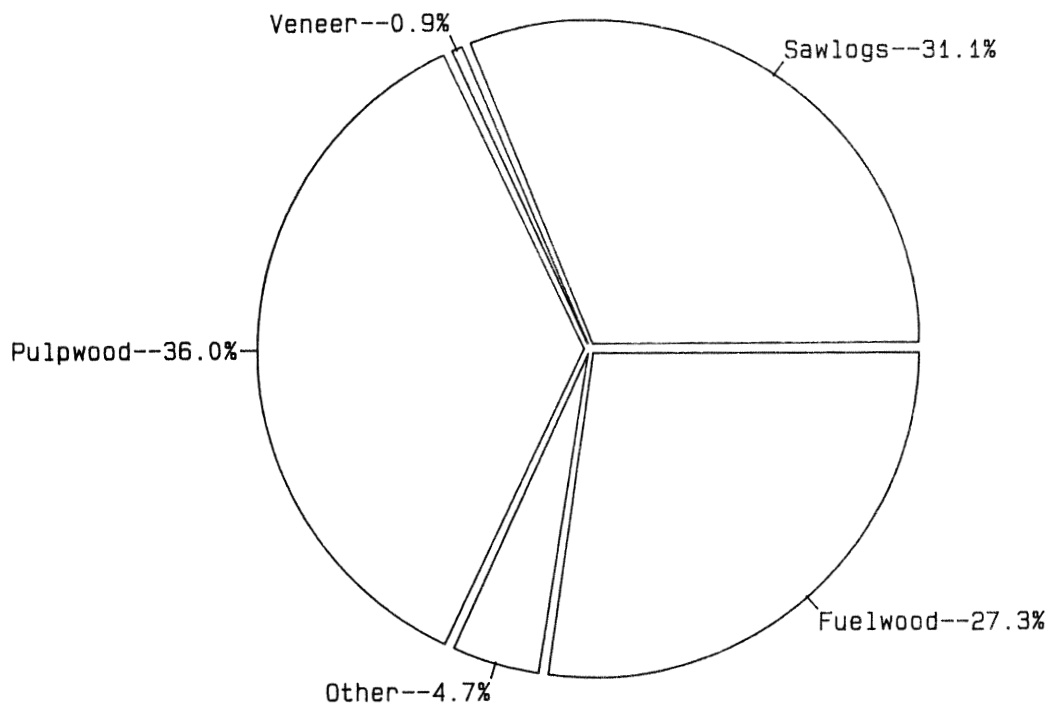


Table 35.--Output of timber products by product, softwoods and hardwoods, and source of material, New Hampshire, 1982

Product and species group	Standard units	Output from roundwood		Output from manufacturing residues		Total output	
		Number of units	Thousand cubic feet	Number of units	Thousand cubic feet	Number of units	Thousand cubic feet
Sawlogs							
Softwood	Mbf ^a	187,026	29,940	-	-	187,026	29,940
Hardwood	Mbf	55,559	8,466	-	-	55,559	8,466
Total	Mbf	242,585	38,406	-	-	242,585	38,406
Veneer logs and bolts							
Softwood	Mbf	-	-	-	-	-	-
Hardwood	Mbf	7,273	1,112	-	-	7,273	1,112
Total	Mbf	7,273	1,112	-	-	7,273	1,112
Pulpwood							
Softwood	Std cords ^b	142,663	12,126	137,107	11,654	279,770	23,780
Hardwood	Std cords	186,868	15,884	56,106	4,769	242,974	20,653
Total	Std cords	329,531	28,010	193,213	16,423	522,744	44,433
Posts							
Softwood	M pieces	-	1	-	-	-	1
Hardwood	M pieces	-	-	-	-	-	-
Total	M pieces	-	1	-	-	-	1
Other ^c							
Softwood	Mft3		2,309		100		2,409
Hardwood	Mft3		3,322		31		3,353
Total	Mft3		5,631		131		5,762

Table 35.--Continued

Product and species group	Standard units	Output from roundwood		Output from manufacturing residues		Total output	
		Number of units	Thousand cubic feet	Number of units	Thousand cubic feet	Number of units	Thousand cubic feet
Total industrial products							
Softwood	Mft 3		44,376		11,754		56,130
Hardwood	Mft 3		28,784		4,800		33,584
Total	Mft 3		73,160		16,554		89,714
Fuelwood							
Softwood	std cords ^d	29,876	2,390	26,988	2,159	56,864	4,549
Hardwood	std cords	345,235	27,619	18,512	1,481	363,747	29,100
Total	std cords	375,111	30,009	45,500	3,640	420,611	33,649
All products ^e							
Softwood	Mft 3		46,766		13,913		60,679
Hardwood	Mft 3		56,403		6,281		62,684
Total	Mft 3		103,169		20,194		123,363

^aInternational 1/4-inch rule.^bRough wood basis, includes both production from roundwood and chips from manufacturing residues, equivalent to 85 cubic feet of solid wood.^cIncludes cabin and tie logs, dimension stock, fencing, reconstituted wood panel products, shingles, turned products, and miscellaneous specialty items.^dRough wood basis, includes both production from roundwood and chips from manufacturing residues, equivalent to 80 cubic feet of solid wood.^eDoes not include 5,723 cubic feet of softwood and 1,854 cubic feet of hardwood residues used for agricultural purposes.

Table 36.--Output of roundwood products by product, softwoods and hardwoods, and source of material, New Hampshire, 1982

(In thousands of cubic feet)

Product and species group	Growing-stock trees ^a			Rough and rotten trees ^a	Salvable dead trees ^a	Other sources ^b	All sources
	Poletimber	Sawtimber	Total				
PRINCIPAL INDUSTRIAL PRODUCTS							
Sawlogs							
Softwood	324	23,832	24,156	76	384	5,324	29,940
Hardwood	136	7,475	7,611	232	-	623	8,466
Total	460	31,307	31,767	308	384	5,947	38,406
Veneer logs and bolts							
Softwood	-	-	-	-	-	-	-
Hardwood	18	1,010	1,028	-	-	84	1,112
Total	18	1,010	1,028	-	-	84	1,112
Pulpwood							
Softwood	2,303	7,358	9,661	409	85	1,971	12,126
Hardwood	3,079	9,563	12,642	1,248	59	1,935	15,884
Total	5,382	16,921	22,303	1,657	144	3,906	28,010
MISCELLANEOUS INDUSTRIAL PRODUCTS							
Posts							
Softwood	-	1	1	-	-	-	1
Hardwood	-	-	-	-	-	-	-
Total	-	1	1	-	-	-	1
Other							
Softwood	475	1,446	1,921	-	-	388	2,309
Hardwood	683	2,081	2,764	-	-	558	3,322
Total	1,158	3,527	4,685	-	-	946	5,631
TOTAL INDUSTRIAL PRODUCTS							
Softwood	3,102	32,637	35,739	485	469	7,683	44,376
Hardwood	3,916	20,129	24,045	1,480	59	3,200	28,784
Total	7,018	52,766	59,784	1,965	528	10,883	73,160
NONINDUSTRIAL PRODUCTS							
Fuelwood							
Softwood	146	466	612	443	910	425	2,390
Hardwood	1,554	4,826	6,380	11,277	3,864	6,098	27,619
Total	1,700	5,292	6,992	11,720	4,774	6,523	30,009
ALL PRODUCTS							
Softwood	3,248	33,103	36,351	928	1,379	8,108	46,766
Hardwood	5,470	24,955	30,425	12,757	3,923	9,298	56,403
Total	8,718	58,058	66,776	13,685	5,302	17,406	103,169

^aOn timberland.

^bIncludes trees less than 5.0 inches in diameter, tree tops and limbs from commercial forest areas, or any material from noncommercial forest land or nonforest land such as fence rows and suburban areas.

Table 37.--Timber removals from growing stock and sawtimber on timberland by item, softwoods and hardwoods, New Hampshire, 1982

Item	Growing stock			Sawtimber		
	Softwoods	Hardwoods	All species	Softwoods	Hardwoods	All species
	-----Thousand cubic feet-----			-----Thousand board feet ^a -----		
Roundwood products:						
Sawlogs	24,156	7,611	31,767	107,066	31,955	139,021
Veneer logs and bolts	-	1,028	1,028	-	4,318	4,318
Pulpwood	9,661	12,642	22,303	31,501	43,929	75,430
Posts	1	-	1	5	-	5
Other	1,921	2,764	4,685	7,484	8,582	16,066
Fuelwood ^b	612	6,380	6,992	1,995	22,169	24,164
All products	36,351	30,425	66,776	148,051	110,953	259,004
Logging residues	10,628	4,965	15,593	17,391	3,666	21,057
Administrative withdrawals	2,727	3,438	6,165	6,530	6,875	13,405
Total removals	49,706	38,828	88,534	171,972	121,494	293,466

^aInternational 1/4-inch rule.

Table 38.--Volume of unused residues^a from primary manufacturing plants by softwoods and hardwoods, type of residue, and industry, New Hampshire, 1982

(In thousands of cubic feet)				
Species group and type of residue	Lumber ^b	Veneer and plywood	Other	All industries
Softwoods				
Coarse ^c	16	-	1	17
Fine ^d	53	-	1	54
Total	69	-	2	71
Hardwoods				
Coarse	5	-	67	72
Fine	5	-	-	5
Total	10	-	67	77
All species				
Coarse	21	-	68	89
Fine	58	-	1	59
Total	79	-	69	148

^aIncludes only woody material; does not include bark.

^bIncludes residues from sawlogs and boltwood sawn into lumber products.

^cIncludes slabs, edgings, trimmings, veneer cores, and other material suitable for chipping.

^dIncludes sawdust, shavings, and other materials considered unsuitable for chipping.

Table 39.--Change in area of timberland between inventories by forest-type group and stand-size class, New Hampshire, 1973 - 1983

Group or class	1973	1983	Change	Change
	-----	<u>Thousands of acres</u>	-----	<u>Percent</u>
FOREST-TYPE GROUP				
White/red pine	1,511.0	1,356.0	-155.0	-10
Spruce/fir group	607.5	677.6	70.1	12
Hard pine	30.9	41.7	10.8	35
Oak/pine group	45.9	99.9	54.0	118
Oak/hickory group	418.2	395.2	-23.0	-5
Elm/ash/red maple group	23.2	32.3	9.1	39
Northern hardwoods group	1,824.7	2,003.6	178.9	10
Aspen/birch group	201.1	205.8	4.7	2
Indeterminate	26.7	-	-26.7	-100
All forest types	4,689.2	4,812.1	122.9	3
STAND-SIZE CLASS				
Sawtimber	1,799.1	2,933.5	1,134.4	63
Poletimber	2,045.4	1,554.2	-491.2	-24
Sapling and seedling	844.7	324.4	-520.3	-62
Nonstocked	.0	.0		0
All classes	4,689.2	4,812.1	122.9	3

Table 40.--Change in volume between inventories, New Hampshire, 1973-83

Species	Growing-stock volume			Sawtimber volume		
	1973	1983	Change	1973	1983	Change
	--- Millions of cubic feet ---	Change	Percent	--- Millions of board feet ^a ---	Change	Percent
Balsam fir	669.1	616.1	-53.0	1,118.5	1,062.2	-56.3
Tamarack	9.7	10.2	.5	16.6	20.9	4.3
White spruce	21.0	31.5	10.5	46.6	59.8	13.2
Black spruce	11.3	5.3	-6.0	17.2	3.8	-13.4
Red spruce	479.6	597.5	117.9	792.9	1,329.8	536.9
Red pine	45.2	46.0	.8	107.7	184.2	76.5
White pine	1,540.9	1,528.9	-12.0	5,022.2	5,209.8	187.6
Northern white-cedar	6.3	9.2	2.9	15.3	18.6	3.3
Hemlock	596.7	563.7	-33.0	1,508.3	1,522.7	14.4
Other softwoods	18.6	39.3	20.7	44.3	96.8	52.5
Total softwoods	3,398.4	3,447.7	49.3	8,689.6	9,508.6	819.0
Sugar maple	449.4	651.0	201.6	899.3	1,521.9	622.6
Red maple	875.9	1,067.3	191.4	1,074.0	1,467.6	393.6
Yellow birch	362.3	453.8	91.5	804.4	1,042.8	238.4
Paper birch	404.9	565.7	160.8	410.9	680.7	269.8
Gray birch	1.8	15.6	13.8	.0	.0	.0
Beech	233.9	384.3	150.4	465.2	1,001.7	536.5
White ash	138.5	232.0	93.5	202.9	497.6	294.7
Black ash	1.1	15.6	14.5	2.6	16.0	13.4
Aspen	184.8	276.9	92.1	143.4	438.6	295.2
White oak	59.6	72.6	13.0	69.7	159.1	89.4
Red oaks	661.5	657.6	-3.9	1,460.9	1,446.6	-14.3
Basswood	12.0	17.8	5.8	15.9	38.4	22.5
Elm	16.8	14.2	-2.6	35.7	35.0	-.7
Other hardwoods	111.4	147.7	36.3	71.0	181.6	110.6
Total hardwoods	3,513.9	4,572.1	1,058.2	5,655.9	8,527.6	2,871.7
Total, all species	6,912.3	8,019.8	1,107.5	14,345.5	18,036.2	3,690.7

^aInternational 1/4-inch rule.

Table 41.--Sampling errors for estimates in various state tables, New Hampshire, 1983

(In percent)

Area by forest-type group (Table 3)	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
White/red pine	7	20	27	-	6
Spruce/fir	16	16	48	-	10
Hard pine	100	71	71	-	44
Oak/pine	38	45	100	-	28
Oak/hickory	19	20	100	-	13
Elm/ash/red maple	100	100	62	-	47
Northern hardwoods	7	10	28	-	5
Aspen/birch	44	26	58	-	20
All groups	3.3	6.1	14.9	-	.8

Species and diameter class	Number of trees (Table 17)	Growing-stock volume (Table 29)	Sawtimber volume (Table 31)
Balsam fir	10	9	12
Tamarack	51	37	36
White spruce	46	48	50
Black spruce	58	57	100
Red spruce	10	10	12
Red pine	32	35	37
White pine	7	7	8
Northern white-cedar	58	52	64
Hemlock	9	9	10
Other softwoods	54	43	58
Sugar maple	10	10	13
Red maple	6	6	8
Yellow birch	10	9	11
Paper birch	9	9	14
Gray birch	26	27	0
Beech	11	11	13
White ash	13	16	24
Black ash	36	56	86
Aspen	13	14	20
White oaks	18	17	21
Red oaks	9	8	8
Basswood	28	28	34
Elm	30	27	32
Other hardwoods	12	12	21
All species	2.1	2.0	3.1
Dbh class (inches)			
5.0 to 6.9	4	4	-
7.0 to 8.9	3	3	-
9.0 to 10.9	3	3	6
11.0 to 12.9	3	4	4
13.0 to 14.9	4	4	4
15.0 to 16.9	5	5	5
17.0 to 18.9	6	6	6
19.0 to 20.9	8	9	9
21.0 to 28.9	8	9	9
29 +	21	25	25

Table 42.--Area of timberland by forest type, forest-type group,
and geographic unit, New Hampshire, 1983

(In thousands of acres)

Forest type and forest-type group	Northern Unit	Southern Unit	All units
Red pine	16.7	14.5	31.2
White pine	167.2	644.5	811.7
White pine/hemlock	127.5	222.9	350.4
Hemlock	28.9	133.8	162.7
White/red pine group	340.3	1,015.7	1,356.0
Balsam fir	206.6	.0	206.6
Red spruce	89.7	26.2	115.9
Red spruce/balsam fir	309.1	7.3	316.4
White spruce	29.8	.0	29.8
Tamarack	8.9	.0	8.9
Spruce/fir group	644.1	33.5	677.6
Pitch pine	27.0	14.7	41.7
Hard pine group	27.0	14.7	41.7
White pine/northern red oak/white ash	20.4	72.1	92.5
Other oak/pine	.0	7.4	7.4
Oak/pine group	20.4	79.5	99.9
Post, black, or bear oak	.0	22.0	22.0
Chestnut oak	.0	7.1	7.1
White oak/red oak/hickory	.0	28.9	28.9
White oak	.0	14.5	14.5
Northern red oak	77.8	143.2	221.0
Scarlet oak	.0	14.2	14.2
Red maple/central hardwoods	.0	36.2	36.2
Mixed central hardwoods	.0	51.3	51.3
Oak/hickory group	77.8	317.4	395.2
Black ash/American elm/red maple	16.7	15.6	32.3
Elm/ash/red maple group	16.7	15.6	32.3
Sugar maple/beech/yellow birch	797.1	303.5	1,100.6
Black cherry	10.1	7.0	17.1
Red maple/northern hardwoods	237.8	268.8	506.6
Pin cherry/reverting field	29.0	5.3	34.3
Mixed northern hardwoods	136.1	208.9	345.0
Northern hardwoods group	1,210.1	793.5	2,003.6
Aspen	87.0	29.6	116.6
Paper birch	66.8	15.0	81.8
Gray birch	.0	7.4	7.4
Aspen/birch group	153.8	52.0	205.8
All forest types	2,490.2	2,321.9	4,812.1

Table 43.--Area of timberland by ownership class
and geographic unit, New Hampshire, 1983

(In thousands of acres)

Ownership class	Northern Unit	Southern Unit	All units
National Forest	471.7	.0	471.7
Other federal	.5	17.9	18.4
State	27.6	51.5	79.1
County and municipal	15.7	83.2	98.9
Total public	515.5	152.6	668.1
Forest industry	533.8	124.0	657.8
Farmer ^a	133.6	239.5	373.1
Miscellaneous private:			
Individual	1,012.8	1,572.5	2,585.3
Corporate	125.0	124.2	249.2
Other	169.5	109.1	278.6
Total private	1,974.7	2,169.3	4,144.0
All ownerships	2,490.2	2,321.9	4,812.1

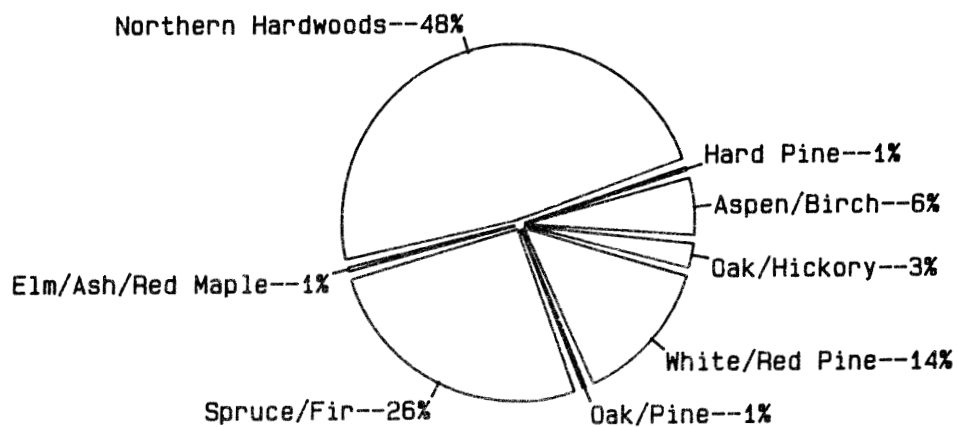
^aIncludes "part-time farmers" (persons whose occupation is not farmer but who say their land is part of a farm). These acres were included in miscellaneous private in the previous survey.

Table 44.--Net volume of growing-stock and sawtimber trees on timberland
by ownership class and geographic unit, New Hampshire, 1983

Ownership class	Northern Unit	Southern Unit	All units
GROWING STOCK			
----- Million cubic feet -----			
National Forest	1,015.7	-	1,015.7
Public	66.3	252.9	319.2
Forest industry	913.4	210.3	1,123.7
Other private	2,288.2	3,273.0	5,561.2
Total all classes	4,283.6	3,736.2	8,019.8
SAWTIMBER			
----- Million board feet ^a -----			
National Forest	2,510.9	-	2,510.9
Public	158.7	650.8	809.5
Forest industry	1,697.5	493.0	2,190.5
Other private	4,817.6	7,707.7	12,525.3
Total all classes	9,184.7	8,851.5	18,036.2

^aInternational 1/4-inch rule.

NORTHERN UNIT TABLES



Area of timberland by type group

Table 45.--Area of timberland by forest type, forest-type group, and stand-size class, Northern Unit, New Hampshire, 1973

(In thousands of acres)

Forest type and forest-type group	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
White pine	133.7	89.9	80.2	.0	303.8
White pine/hemlock	71.3	35.7	8.8	.0	115.8
Hemlock	44.5	9.0	.0	.0	53.5
White/red pine group	249.5	134.6	89.0	.0	473.1
Balsam fir	17.9	124.6	53.6	.0	196.1
Red spruce	.0	26.8	9.0	.0	35.8
Red spruce/balsam fir	61.9	187.1	54.2	.0	303.2
White spruce	.0	.0	35.6	.0	35.6
Spruce/fir group	79.8	338.5	152.4	.0	570.7
Pitch pine	.0	.0	8.9	.0	8.9
Hard pine group	.0	.0	8.9	.0	8.9
White pine/No. red oak/white ash	8.9	.0	.0	.0	8.9
Oak/pine group	8.9	.0	.0	.0	8.9
Northern red oak	35.7	71.5	.0	.0	107.2
Red maple/central hardwoods	.0	8.9	.0	.0	8.9
Oak/hickory group	35.7	80.4	.0	.0	116.1
Black ash/Amer. elm/red maple	.0	.0	8.9	.0	8.9
Elm/ash/red maple group	.0	.0	8.9	.0	8.9
Sugar maple/beech/yellow birch	332.0	286.9	98.0	.0	716.9
Black cherry	.0	.0	8.9	.0	8.9
Red maple/northern hardwoods	53.4	125.0	25.1	.0	203.5
Mixed northern hardwoods	54.0	89.2	8.9	.0	152.1
Northern hardwoods group	439.4	501.1	140.9	.0	1,081.4
Aspen	8.9	17.7	33.9	.0	60.5
Paper birch	.0	27.0	17.8	.0	44.8
Gray birch	.0	.0	9.0	.0	9.0
Aspen/birch group	8.9	44.7	60.7	.0	114.3
Indeterminate	.0	8.9	17.8	.0	26.7
All forest types	822.2	1,108.2	478.6	.0	2,409.0

Table 46.--Area of timberland by forest type, forest-type group, and stand-size class, Northern Unit, New Hampshire, 1983

(In thousands of acres)

Forest type and forest-type group	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Red pine	9.7	.0	7.0	.0	16.7
White pine	108.6	39.1	19.5	.0	167.2
White pine/hemlock	99.1	28.4	.0	.0	127.5
Hemlock	28.9	.0	.0	.0	28.9
White/red pine group	246.3	67.5	26.5	.0	340.3
Balsam fir	78.2	118.7	9.7	.0	206.6
Red spruce	19.4	60.6	9.7	.0	89.7
Red spruce/balsam fir	183.9	104.8	20.4	.0	309.1
White spruce	29.8	.0	.0	.0	29.8
Tamarack	.0	8.9	.0	.0	8.9
Spruce/fir group	311.3	293.0	39.8	.0	644.1
Pitch pine	9.4	9.3	8.3	.0	27.0
Hard pine group	9.4	9.3	8.3	.0	27.0
Wh. pine/no. red oak/wh. ash	20.4	.0	.0	.0	20.4
Oak/pine group	20.4	.0	.0	.0	20.4
Northern red oak	29.3	38.7	9.8	.0	77.8
Oak/hickory group	29.3	38.7	9.8	.0	77.8
Black ash/Amer. elm/red maple	8.1	.0	8.6	.0	16.7
Elm/ash/red maple group	8.1	.0	8.6	.0	16.7
Sugar maple/beech/yellow birch	592.5	166.5	38.1	.0	797.1
Black cherry	10.1	.0	.0	.0	10.1
Red maple/northern hardwoods	88.2	139.6	10.0	.0	237.8
Pin cherry/reverting field	.0	20.1	8.9	.0	29.0
Mixed northern hardwoods	76.1	50.3	9.7	.0	136.1
Northern hardwoods group	766.9	376.5	66.7	.0	1,210.1
Aspen	29.4	47.5	10.1	.0	87.0
Paper birch	18.8	48.0	.0	.0	66.8
Aspen/birch group	48.2	95.5	10.1	.0	153.8
All forest types	1,439.9	880.5	169.8	.0	2,490.2

Table 47.---Number of growing-stock trees on timberland by species and diameter class, Northern Unit, New Hampshire, 1983
(In thousands of trees)

Species	Diameter class (inches at breast height)										All classes
	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 28.9	29+	
Balsam fir	50,963	24,358	11,734	4,111	860	184	30	0	0	0	92,240
Tamarack	759	228	299	44	23	23	35	0	0	0	1,411
White spruce	1,983	1,127	398	472	89	0	0	0	0	0	4,069
Black spruce	1,005	41	0	0	0	0	0	0	0	0	1,046
Red spruce	30,584	16,284	9,868	4,384	1,470	647	277	139	40	0	63,693
Red pine	0	0	138	190	22	82	133	68	0	0	633
White pine	6,307	5,167	3,510	3,303	1,297	1,136	668	322	700	46	22,456
Northern white-cedar	325	394	260	112	79	24	0	0	22	0	1,216
Hemlock	5,774	4,779	2,545	1,991	1,695	724	405	140	262	0	18,315
Other softwoods	2,873	541	44	110	252	43	65	43	22	0	3,993
Total softwoods	100,573	52,919	28,796	14,717	5,787	2,863	1,613	712	1,046	46	209,072
Sugar maple	10,888	9,437	7,357	3,880	2,105	1,347	676	465	538	61	36,754
Red maple	30,482	18,532	10,739	4,003	2,086	1,070	470	119	177	12	67,690
Yellow birch	11,294	8,040	5,918	3,270	2,755	925	660	318	414	33	33,627
Paper birch	19,720	15,578	7,528	3,800	1,289	467	163	45	42	0	48,632
Gray birch	1,790	597	118	0	0	0	0	0	0	0	2,505
Beech	6,484	5,245	4,024	2,334	1,813	932	540	161	86	22	21,641
White ash	3,569	2,613	1,027	1,086	936	304	144	0	82	33	9,794
Black ash	824	232	294	23	0	0	0	0	0	0	1,373
Aspen	7,631	5,063	3,981	2,196	821	439	78	21	0	0	20,230
White oaks	252	0	0	0	63	0	0	0	0	0	315
Red oaks	7,684	5,016	2,648	1,223	664	577	299	73	49	0	18,233
Basswood	45	0	0	70	25	0	25	0	0	11	176
Elm	365	46	0	46	0	0	0	0	0	0	457
Other hardwoods	1,162	685	616	295	134	23	0	23	21	0	2,959
Total hardwoods	102,190	71,084	44,250	22,226	12,691	6,084	3,055	1,225	1,409	172	264,386
Total, all species	202,763	124,003	73,046	36,943	18,478	8,947	4,668	1,937	2,455	218	473,458

Table 48.--Net green weight of all live trees on timberland by species and diameter class,
Northern Unit, New Hampshire, 1983

Species	(In thousands of tons)											All classes
	Diameter class (inches at breast height)											
	1.0- 4.9	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21+		
Balsam fir	9,395.0	7,155.2	6,810.7	5,492.8	2,903.5	893.9	253.1	50.3	.0	.0	32,954.5	
Tamarack	11.1	95.0	91.4	119.5	31.9	20.3	26.2	75.5	.0	.0	470.9	
White spruce	136.4	378.0	446.5	267.8	408.8	203.7	.0	82.4	120.7	96.9	2,141.2	
Black spruce	.0	135.9	50.5	.0	.0	.0	.0	.0	.0	.0	186.4	
Red spruce	3,403.3	4,892.1	4,812.7	4,827.6	3,188.4	1,667.3	987.1	660.8	346.0	187.7	24,973.0	
Red pine	47.3	.0	.0	67.7	164.7	27.8	144.7	327.6	202.6	.0	982.4	
White pine	645.3	1,066.2	1,693.0	2,013.9	2,749.4	1,548.1	2,089.4	1,535.2	1,042.2	4,274.1	18,656.8	
Northern white-cedar	.0	36.5	69.6	56.2	42.0	42.6	13.7	.0	.0	22.8	283.4	
Hemlock	448.8	933.2	1,454.9	1,391.3	1,625.4	1,857.4	1,047.8	739.6	327.8	882.0	10,708.2	
Other softwoods	240.7	253.2	112.7	20.7	41.0	115.8	29.5	49.6	42.0	23.7	928.9	
Total softwoods	14,327.9	14,945.3	15,542.0	14,257.5	11,155.1	6,376.9	4,591.5	3,521.0	2,081.3	5,487.2	92,285.7	
Sugar maple	2,370.6	2,125.5	3,636.5	4,115.5	3,433.6	2,698.3	2,350.0	1,808.9	1,316.4	3,320.1	27,175.4	
Soft maples	4,541.6	5,352.7	6,106.0	5,668.7	3,695.8	2,580.1	1,865.0	1,121.6	413.6	1,219.7	32,564.8	
Yellow birch	2,265.1	2,333.7	3,133.5	3,398.5	2,959.4	3,433.5	1,962.1	1,692.9	1,189.2	2,548.1	24,916.0	
Paper birch	2,994.5	3,561.6	5,760.3	4,924.4	3,858.9	1,964.9	1,086.0	470.6	168.2	322.7	25,112.1	
Gray birch	798.9	401.7	167.5	55.5	.0	.0	.0	.0	.0	.0	1,423.6	
Beech	2,035.0	1,442.1	2,507.1	3,301.0	2,393.3	2,594.2	1,864.3	1,533.3	602.8	975.8	19,248.9	
White ash	301.1	591.2	812.2	616.6	820.3	1,128.3	483.2	299.4	.0	951.9	6,004.2	
Black ash	.0	183.3	60.2	141.8	17.8	.0	.0	.0	.0	.0	403.1	
Aspen	535.1	1,207.4	1,825.0	2,418.7	1,672.3	1,013.6	683.2	207.2	69.0	.0	9,631.5	
White oaks	23.3	44.6	.0	.0	.0	76.6	.0	.0	.0	50.2	194.7	
Red oaks	538.9	1,140.9	1,644.0	1,332.9	948.4	798.8	909.5	665.8	204.1	342.5	8,525.8	
Basswood	.0	14.7	.0	.0	50.2	28.4	40.7	47.6	.0	56.6	238.2	
Elm	248.9	77.6	17.6	17.8	36.3	.0	.0	.0	.0	.0	398.2	
Other comm. hardwoods	90.3	253.6	328.5	316.1	270.6	170.8	64.6	.0	53.2	59.7	1,607.4	
Noncomm. hardwoods	1,615.0	568.0	425.3	195.4	74.7	68.3	.0	.0	.0	39.2	2,985.9	
Total hardwoods	18,358.3	19,298.6	26,423.7	26,502.9	20,231.6	16,555.8	11,308.6	7,847.3	4,016.5	9,886.5	160,429.8	
Total, all species	32,686.2	34,243.9	41,965.7	40,760.4	31,386.7	22,932.7	15,900.1	11,368.3	6,097.8	15,373.7	252,715.5	

Table 49.--Net volume and green weight of all trees on timberland by class of material and softwoods and hardwoods, Northern Unit, New Hampshire, 1983

Class of material	Volume ^a			Weight ^b		
	Softwoods	Hardwoods	All species	Softwoods	Hardwoods	All species
	-----Million cubic feet-----			-----Thousand tons-----		
Sawtimber trees:						
Sawlog portion	918.2	1,015.9	1,934.1	28,741.7	36,018.8	64,760.5
Upper stem	126.7	251.0	377.7	3,853.2	8,793.1	12,646.3
Total	1,044.9	1,266.9	2,311.8	32,594.9	44,811.9	77,406.8
Poletimber trees	677.1	1,294.7	1,971.8	18,910.5	43,923.8	62,834.3
All growing stock	1,722.0	2,561.6	4,283.6	51,505.4	88,735.7	140,241.1
Rough cull trees ^c	83.1	133.9	217.0	3,578.2	6,125.7	9,703.9
Rotten cull trees ^c	22.4	136.2	158.6	791.8	7,065.1	7,856.9
Salvable dead trees ^d	-	-	-	6,420.3	4,095.0	10,515.3
Saplings ^e	-	-	-	14,327.9	18,358.3	32,686.2
Stumps ^f	-	-	-	1,192.6	2,385.8	3,578.4
Tops - growing stock	-	-	-	19,483.9	33,033.1	52,517.0
Tops - rough and rotten	-	-	-	1,518.6	4,806.9	6,320.5
All nongrowing stock	105.5	270.1	375.6	47,308.3	75,869.9	123,178.2
All classes	1,827.5	2,831.7	4,659.2	98,813.7	164,605.6	263,419.3

^aExcludes bark.

^bIncludes bark and sound cull; excludes rotten cull.

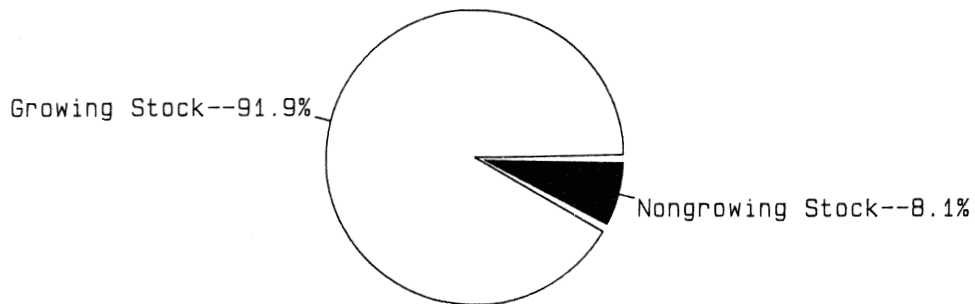
^cBole portion of trees 5.0 inches d.b.h. and larger.

^dVolume of bole portion of trees 5.0 inches d.b.h. and larger, and weight of entire tree aboveground.

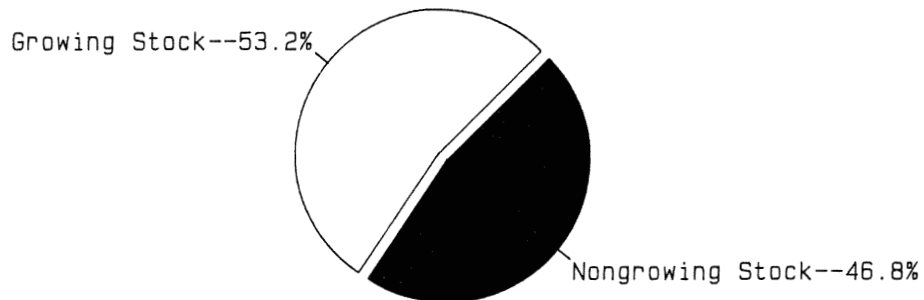
^eIncludes entire tree aboveground.

^fOf all salvable dead and all live trees 5.0 inches d.b.h. and larger.

PROPORTION OF GROWING STOCK VERSUS NONGROWING STOCK



Net Cubic Foot Volume



Net Green Weight

Table 50.--Net volume of growing-stock trees on timberland by species and diameter class,
Northern Unit, New Hampshire, 1973

(In millions of cubic feet)															
Species	Diameter class (inches at breast height)														All classes
	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	29.0- 30.9		
Balsam fir	170.9	201.8	165.0	74.1	28.4	11.5	7.1	.0	1.9	.0	.0	.0	.0	660.7	
Tamarack	2.0	2.7	2.3	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.9	
White spruce	5.0	3.4	6.3	2.2	1.2	.0	1.0	.0	1.2	.0	.0	1.2	.0	20.3	
Black spruce	1.7	3.4	.9	.7	1.0	.0	.0	.0	.0	1.1	.0	.0	.0	8.8	
Red spruce	111.5	107.7	88.0	31.7	17.8	10.7	6.7	3.2	1.3	.0	.0	.0	.0	378.6	
Red pine	1.2	2.3	1.8	6.6	1.0	.0	1.2	.0	.9	.0	.0	.0	.0	15.0	
White pine	49.2	46.3	58.3	52.5	48.2	46.8	30.7	32.0	57.5	22.0	.0	.0	.0	443.5	
Northern white-cedar	.8	.6	1.9	1.8	.6	.6	.0	.0	.0	.0	.0	.0	.0	6.3	
Hemlock	25.8	40.2	51.4	43.6	32.7	21.4	12.4	8.2	10.5	.9	.0	.0	.0	247.1	
Other softwoods	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	
Total softwoods	368.1	409.0	375.9	214.1	130.9	91.0	59.1	44.5	73.3	22.9	.0	.0	.0	1,788.8	
Sugar maple	45.5	59.3	65.2	48.5	36.6	19.9	12.6	14.5	21.9	4.3	.0	.0	.0	328.3	
Red maple	62.2	85.9	63.2	57.9	31.6	15.8	7.7	4.1	10.3	.0	.0	.0	.0	338.7	
Yellow birch	31.7	43.7	55.9	55.4	40.9	20.8	22.5	14.3	18.9	2.5	.0	.0	.0	306.6	
Paper birch	58.7	61.5	53.7	32.5	19.8	4.9	2.8	.9	2.7	.0	.0	.0	.0	237.5	
Gray birch	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	
Beech	16.4	24.3	35.4	16.0	27.7	16.4	6.1	2.1	2.3	1.4	.0	.0	.0	148.1	
White ash	10.1	17.7	12.6	8.2	4.9	5.2	4.5	3.0	2.3	1.7	.0	.0	.0	70.2	
Black ash	.6	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	1.1	
Aspen	29.9	38.2	39.0	18.3	4.2	1.1	.0	.0	.0	.0	.0	.0	.0	130.7	
White oak	1.8	.6	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.8	
Red oaks	18.9	37.5	41.4	44.2	35.2	24.5	16.2	5.5	5.6	.9	.0	.0	.0	229.9	
Basswood	.0	2.0	.0	.7	.0	.0	1.1	.0	.0	.0	.0	.0	.0	3.8	
Elm	.4	.4	1.3	.0	4.1	.6	.0	.0	.8	.0	.0	.0	.0	7.6	
Other hardwoods	6.7	9.0	7.5	3.9	.9	.8	.0	1.4	.0	.7	.0	.0	.0	30.9	
Total hardwoods	284.2	380.1	376.6	285.6	206.4	110.0	73.5	45.8	64.8	11.5	.0	.0	.0	1,838.5	
Total, all species	652.3	789.1	752.5	499.7	337.3	201.0	132.6	90.3	138.1	34.4	.0	.0	.0	3,627.3	

Table 51.--Net volume of growing-stock trees on timberland by species and diameter class, Northern Unit, New Hampshire, 1983

(In millions of cubic feet)											
Species	Diameter class (inches at breast height)										All classes
	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 28.9	29+	
Balsam fir	165.5	173.9	148.6	79.1	24.2	6.9	1.3	.0	.0	.0	599.5
Tamarack	2.0	1.6	3.2	.9	.5	.6	1.2	.0	.0	.0	10.0
White spruce	7.2	8.5	5.3	8.5	2.0	.0	.0	.0	.0	.0	31.5
Black spruce	2.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	3.0
Red spruce	101.3	115.4	122.0	81.4	39.9	24.3	14.0	8.7	3.0	.0	510.0
Red pine	.0	.0	1.2	3.2	.4	2.7	6.2	3.7	.0	.0	17.4
White pine	18.1	30.0	38.1	56.2	30.3	38.9	30.9	19.5	60.3	5.3	327.6
Northern white-cedar	.8	1.8	1.8	1.6	1.5	.6	.0	.0	1.1	.0	9.2
Hemlock	14.3	25.3	24.2	29.8	37.1	21.1	15.8	6.9	16.5	.0	191.0
Other softwoods	5.6	2.8	.4	1.9	5.4	1.3	2.2	2.0	1.2	.0	22.8
Total softwoods	317.6	359.5	344.8	262.6	141.3	96.4	71.6	40.8	82.1	5.3	1,722.0
Sugar maple	31.9	70.8	88.6	75.0	57.3	48.6	32.5	28.3	44.8	8.3	486.1
Red maple	83.2	117.4	115.1	69.4	50.2	34.4	18.7	5.9	11.2	1.3	506.8
Yellow birch	33.6	52.4	64.7	56.6	63.6	29.9	27.5	16.3	25.4	3.8	373.8
Paper birch	62.3	105.8	89.6	69.0	30.3	15.9	6.4	2.6	2.4	.0	384.3
Gray birch	4.8	3.7	1.2	.0	.0	.0	.0	.0	.0	.0	9.7
Beech	16.6	35.8	47.9	44.7	48.9	33.5	26.3	10.2	6.2	1.8	271.9
White ash	11.8	18.5	13.4	20.2	26.3	12.4	8.1	.0	4.8	10.1	125.6
Black ash	2.4	1.2	2.7	.4	.0	.0	.0	.0	.0	.0	6.7
Aspen	24.9	38.8	51.0	40.8	23.3	16.4	3.1	1.4	.0	.0	199.7
White oak	.7	.0	.0	.0	1.4	.0	.0	.0	.0	.0	2.1
Red oaks	21.6	34.9	29.9	20.2	16.1	17.3	12.0	4.4	4.7	.0	161.1
Basswood	.2	.0	.0	1.1	.5	.0	.7	.0	.0	.9	3.4
Elm	.9	.2	.0	.7	.0	.0	.0	.0	.0	.0	1.8
Other hardwoods	3.9	5.4	6.9	5.5	3.2	.9	.0	1.3	1.5	.0	28.6
Total hardwoods	298.8	484.9	511.0	403.6	321.1	209.3	135.3	70.4	101.0	26.2	2,561.6
Total, all species	616.4	844.4	855.8	666.2	462.4	305.7	206.9	111.2	183.1	31.5	4,283.6

Table 52.--Net volume of sawtimber trees on timberland by species and diameter class,
Northern Unit, New Hampshire, 1973

Species	(In millions of board feet) ^a											All classes
	Diameter class (inches at breast height)											
	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	29+	
Balsam fir	582.2	313.0	127.0	51.5	32.5	.0	8.6	.0	.0	.0	.0	1,114.8
Tamarack	7.3	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.3
White spruce	21.1	9.6	3.4	.0	5.5	.0	4.5	.0	.0	.0	.0	44.1
Black spruce	3.1	3.5	4.8	.0	.0	5.8	.0	.0	.0	.0	.0	17.2
Red spruce	302.7	126.1	66.1	50.4	26.5	15.9	4.8	.0	.0	.0	.0	592.5
Red pine	6.8	27.7	4.6	.0	4.5	.0	4.6	.0	.0	.0	.0	48.2
White pine	203.0	206.1	205.2	211.0	145.1	154.2	285.8	101.3	.0	.0	.0	1,511.7
Northern white-cedar	5.2	5.4	2.4	2.3	.0	.0	.0	.0	.0	.0	.0	15.3
Hemlock	161.1	152.7	117.8	73.6	44.2	28.5	34.4	3.0	.0	.0	.0	615.3
Other softwoods	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Total softwoods	1,292.5	847.1	531.3	388.8	258.3	204.4	342.7	104.3	.0	.0	.0	3,969.4
Sugar maple	.0	191.8	147.6	84.7	54.8	66.2	103.8	19.7	.0	.0	.0	668.6
Red maple	.0	217.3	124.4	65.0	31.0	14.2	44.5	.0	.0	.0	.0	496.4
Yellow birch	.0	222.5	174.2	85.2	95.7	61.8	91.5	12.3	.0	.0	.0	743.2
Paper birch	.0	135.8	83.8	21.6	10.9	4.0	12.8	.0	.0	.0	.0	268.9
Gray birch	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Beech	.0	70.7	124.5	70.7	27.3	7.8	10.9	6.6	.0	.0	.0	318.5
White ash	.0	33.5	21.9	20.7	18.9	14.7	10.5	8.0	.0	.0	.0	128.2
Black ash	.0	.0	2.6	.0	.0	.0	.0	.0	.0	.0	.0	2.6
Aspen	.0	74.6	16.4	4.2	.0	.0	.0	.0	.0	.0	.0	95.2
White oaks	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Red oaks	.0	167.4	143.5	105.9	71.6	25.8	26.9	4.0	.0	.0	.0	545.1
Basswood	.0	3.4	.0	.0	4.9	.0	.0	.0	.0	.0	.0	8.3
Elm	.0	.0	14.8	2.1	.0	.0	3.4	.0	.0	.0	.0	20.3
Other hardwoods	.0	14.3	1.6	4.0	.0	.0	.0	2.9	.0	.0	.0	22.8
Total hardwoods	.0	1,131.3	855.3	464.1	315.1	194.5	304.3	53.5	.0	.0	.0	3,318.1
Total, all species	1,292.5	1,978.4	1,386.6	852.9	573.4	398.9	647.0	157.8	.0	.0	.0	7,287.5

^aInternational 1/4-inch rule.

Table 53.--Net volume of sawtimber trees on timberland by species and diameter class,
Northern Unit, New Hampshire, 1983

Species	(In millions of board feet) ^a										All classes
	Diameter class (inches at breast height)										
	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 28.9	29+			
Balsam fir	556.0	339.2	107.7	33.6	6.7	.0	.0	.0	.0	1,043.2	
Tamarack	10.0	2.3	1.8	1.8	5.0	.0	.0	.0	.0	20.9	
White spruce	18.4	33.1	8.3	.0	.0	.0	.0	.0	.0	59.8	
Black spruce	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
Red spruce	411.5	341.7	178.5	114.3	68.0	40.5	15.2	.0	.0	1,169.7	
Red pine	3.0	11.0	1.3	13.0	31.3	18.9	.0	.0	.0	78.5	
White pine	109.8	206.1	119.0	167.3	145.3	87.9	283.1	18.1	.0	1,136.6	
Northern white-cedar	3.9	5.2	4.5	2.2	.0	.0	2.8	.0	.0	18.6	
Hemlock	69.6	101.9	137.1	81.8	70.2	28.0	64.5	.0	.0	553.1	
Other softwoods	1.3	6.9	20.1	5.4	10.1	8.7	5.6	.0	.0	58.1	
Total softwoods	1,183.5	1,047.4	578.3	419.4	336.6	184.0	371.2	18.1	.0	4,138.5	
Sugar maple	.0	255.0	219.7	198.5	145.6	125.7	220.0	35.5	.0	1,200.0	
Red maple	.0	237.1	186.9	134.8	76.5	24.5	46.0	6.6	.0	712.4	
Yellow birch	.0	201.4	244.4	120.4	115.8	73.0	114.4	20.1	.0	889.5	
Paper birch	.0	262.0	116.3	65.7	28.6	12.0	10.0	.0	.0	494.6	
Gray birch	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
Beech	.0	160.9	206.1	144.1	124.4	52.4	29.4	5.8	.0	723.1	
White ash	.0	77.6	108.1	57.8	37.4	.0	21.0	9.8	.0	311.7	
Black ash	.0	1.4	.0	.0	.0	.0	.0	.0	.0	1.4	
Aspen	.0	159.5	101.6	74.6	13.8	5.1	.0	.0	.0	354.6	
White oaks	.0	.0	5.8	.0	.0	.0	.0	.0	.0	5.8	
Red oaks	.0	67.3	60.5	67.3	48.3	21.4	24.4	.0	.0	289.2	
Basswood	.0	3.8	2.8	.0	4.3	.0	.0	4.2	.0	15.1	
Elm	.0	1.8	.0	.0	.0	.0	.0	.0	.0	1.8	
Other hardwoods	.0	18.4	12.7	2.8	.0	5.3	7.8	.0	.0	47.0	
Total hardwoods	.0	1,446.2	1,264.9	866.0	594.7	319.4	473.0	82.0	.0	5,046.2	
Total, all species	1,183.5	2,493.6	1,843.2	1,285.4	931.3	503.4	844.2	100.1	.0	9,184.7	

^aInternational 1/4-inch rule.

^aInternational 1/4-inch rule.

Table 54.--Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Northern Unit, New Hampshire, 1973

(In millions of board feet)^a

Species	All size classes					>15" Diameter at breast height				
	Grade 1	Grade 2	Grade 3	Grade 4 ^b	All grades	Grade 1	Grade 2	Grade 3	Grade 4 ^b	All grades
Balsam fir ^c	.0	.0	.0	.0	1,114.8	.0	.0	.0	.0	.0
Tamarack ^c	.0	.0	.0	.0	10.3	.0	.0	.0	.0	.0
White spruce ^c	.0	.0	.0	.0	44.1	.0	.0	.0	.0	.0
Black spruce ^c	.0	.0	.0	.0	17.2	.0	.0	.0	.0	.0
Red spruce ^c	.0	.0	.0	.0	592.5	.0	.0	.0	.0	.0
Red pine	6.3	.8	41.1	.0	48.2	4.8	.6	3.6	.0	9.0
White pine	48.2	213.2	768.0	482.3	1,511.7	46.6	133.4	409.5	307.9	897.4
Northern white-cedar ^c	.0	.0	.0	.0	15.3	.0	.0	.0	.0	.0
Hemlock ^c	.0	.0	.0	.0	615.3	.0	.0	.0	.0	.0
Other softwoods ^c	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Total softwoods	54.5	214.0	809.1	482.3	3,969.4	51.4	134.0	413.1	307.9	906.4
Sugar maple	75.8	98.9	398.6	95.3	668.6	65.2	65.9	155.7	42.4	329.2
Red maple	9.7	37.0	339.9	109.8	496.4	9.7	18.8	99.7	26.4	154.6
Yellow birch	59.3	143.4	488.3	52.2	743.2	49.2	96.6	178.9	21.8	346.5
Paper birch	6.3	51.4	168.2	43.0	268.9	6.3	18.0	20.1	5.0	49.4
Gray birch	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Beech	6.7	13.2	231.4	67.2	318.5	4.9	8.2	81.2	29.1	123.4
White ash	27.8	43.0	45.0	12.4	128.2	24.7	21.8	21.2	5.0	72.7
Black ash	.0	.0	2.1	.5	2.6	.0	.0	.0	.0	.0
Aspen	.0	5.5	69.5	20.2	95.2	.0	2.8	1.1	.3	4.2
White oaks	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Red oaks	76.5	131.7	274.8	62.1	545.1	71.9	63.6	72.6	26.2	234.3
Basswood	2.4	1.1	4.3	.5	8.3	2.4	1.1	1.0	.3	4.8
Elm	.0	.0	14.3	6.0	20.3	.0	.0	1.8	3.6	5.4
Other hardwoods	.0	.0	18.9	3.9	22.8	.0	.0	5.8	1.1	6.9
Total hardwoods	264.5	525.2	2,055.3	473.1	3,318.1	234.3	296.8	639.1	161.2	1,331.4
Percent of hardwood in each grade	8	16	62	14	100	18	22	48	12	100

^aInternational 1/4-inch rule.

^bGrade 4 applies only to white pine. For hardwoods, the volumes in this column are for construction logs.

^cThese species are not divided into standard-lumber grades.

Table 55.--Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Northern Unit, New Hampshire, 1983

(In millions of board feet)^a

Species	All size classes					>15" Diameter at breast height				
	Grade 1	Grade 2	Grade 3	Grade 4 ^b	All grades	Grade 1	Grade 2	Grade 3	Grade 4 ^b	All grades
Balsam fir ^c	.0	.0	.0	.0	1,043.2	.0	.0	.0	.0	.0
Tamarack ^c	.0	.0	.0	.0	20.9	.0	.0	.0	.0	.0
White spruce ^c	.0	.0	.0	.0	59.8	.0	.0	.0	.0	.0
Black spruce ^c	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Red spruce ^c	.0	.0	.0	.0	1,169.7	.0	.0	.0	.0	.0
Red pine	8.3	23.4	46.8	.0	78.5	8.3	19.0	35.9	.0	63.2
White pine	52.6	301.2	513.7	269.1	1,136.6	47.3	179.9	306.1	168.3	701.6
Northern white-cedar ^c	.0	.0	.0	.0	18.6	.0	.0	.0	.0	.0
Hemlock ^c	.0	.0	.0	.0	553.1	.0	.0	.0	.0	.0
Other softwoods ^c	.0	.0	.0	.0	58.1	.0	.0	.0	.0	.0
Total softwoods	60.9	324.6	560.5	269.1	4,138.5	55.6	198.9	342.0	168.3	764.8
Sugar maple	245.8	316.8	464.3	173.1	1,200.0	232.0	190.2	198.0	105.2	725.4
Red maple	38.4	132.0	366.9	175.1	712.4	36.8	70.1	110.0	71.4	288.3
Yellow birch	84.2	221.1	468.0	116.2	889.5	79.2	122.3	200.2	42.0	443.7
Paper birch	35.6	148.7	247.1	63.2	494.6	30.4	45.5	23.4	17.0	116.3
Gray birch	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Beech	28.4	77.3	401.7	215.7	723.1	21.3	38.0	193.4	103.4	356.1
White ash	67.9	76.2	128.0	39.6	311.7	56.4	28.5	33.5	7.6	126.0
Black ash	.0	.0	1.1	.3	1.4	.0	.0	.0	.0	.0
Aspen	6.9	86.2	184.5	77.0	354.6	2.8	30.1	41.1	19.5	93.5
White oaks	.0	3.8	1.3	.7	5.8	.0	.0	.0	.0	.0
Red oaks	66.9	89.2	108.5	24.6	289.2	64.8	40.8	44.5	11.4	161.5
Basswood	2.1	2.7	5.5	4.8	15.1	2.1	1.0	.9	4.3	8.3
Elm	.0	.7	.9	.2	1.8	.0	.0	.0	.0	.0
Other hardwoods	4.8	8.2	23.5	10.5	47.0	4.9	3.4	1.9	5.8	16.0
Total hardwoods	581.0	1,162.9	2,401.3	901.0	5,046.2	530.7	569.9	846.9	387.6	2,335.1
Percent of hardwood in each grade	11	23	48	18	100	23	24	36	17	100

^aInternational 1/4-inch rule.

^bGrade 4 applies only to white pine. For hardwoods, the volumes in this column are for construction logs.

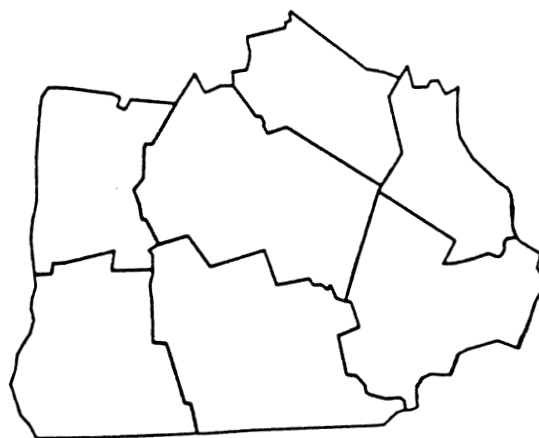
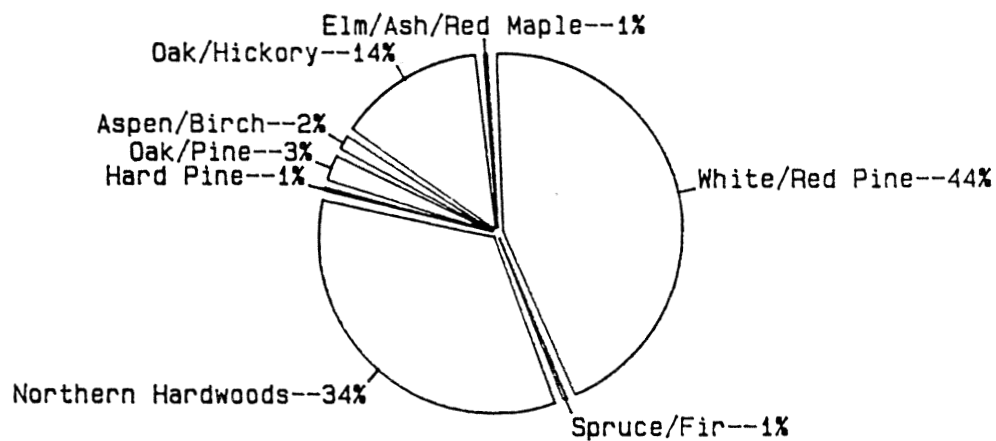
^cThese species are not divided into standard-lumber grades.

Table 56.--Sampling errors for various tables, Northern Unit,
New Hampshire, 1973 and 1983

(In percent)

Species and diameter class	Number of trees (Table 47)	Growing-stock volume Table		Sawtimber volume Table	
		(50)	(51)	(52)	(53)
Balsam fir	10	25	10	31	12
Tamarack	54	116	38	118	36
White spruce	46	68	48	81	50
Black spruce	71	148	74	155	-
Red spruce	11	28	10	33	13
Red pine	45	147	52	150	56
White pine	19	30	17	31	18
Northern white-cedar	58	132	52	162	64
Hemlock	16	44	15	46	15
Other softwoods	78	224	65	-	92
Softwoods	7	11	6	14	8
Sugar maple	12	35	13	50	16
Red maple	10	24	10	36	13
Yellow birch	11	26	11	33	12
Paper birch	11	39	12	45	18
Gray birch	41	172	41	-	-
Beech	15	42	14	49	16
White ash	20	74	26	84	35
Black ash	36	169	41	241	100
Aspen	17	51	18	83	24
White oaks	83	149	75	-	100
Red oaks	23	43	20	49	20
Basswood	55	139	55	240	60
Elm	63	74	54	91	71
Other hardwoods	28	63	35	85	54
Hardwoods	4	10	5	16	7
All species	3	4	3	7	5
D.b.h. class (inches)					
5.0 to 6.9	5	12	5	-	-
7.0 to 8.9	5	12	5	-	-
9.0 to 10.9	4	10	5	20	9
11.0 to 12.9	6	13	6	14	6
13.0 to 14.9	6	17	6	16	7
15.0 to 16.9	8	23	8	21	8
17.0 to 18.9	10	26	10	25	10
19.0 to 20.9	14	30	14	28	14
21.0 to 28.9	13	44	14	40	15
29 +	30	52	37	54	35

SOUTHERN UNIT TABLES



Area of timberland by type group

Table 57.--Area of timberland by forest type, forest-type group, and stand-size class, Southern Unit, New Hampshire, 1973

(In thousands of acres)

Forest type and forest-type group	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Red pine	.0	7.1	14.5	.0	21.6
White pine	422.1	129.5	135.8	.0	687.4
White pine/hemlock	133.1	86.7	14.3	.0	234.1
Hemlock	51.3	36.3	7.2	.0	94.8
White/red pine group	606.5	259.6	171.8	.0	1,037.9
Red spruce	.0	22.4	7.2	.0	29.6
Red spruce/balsam fir	.0	7.2	.0	.0	7.2
Spruce/fir group	.0	29.6	7.2	.0	36.8
Pitch pine	14.8	.0	7.2	.0	22.0
Hard pine group	14.8	.0	7.2	.0	22.0
Wh. pine/no. red oak/wh. ash	22.7	7.1	7.2	.0	37.0
Oak/pine group	22.7	7.1	7.2	.0	37.0
Post, black, or bear oak	.0	7.2	.0	.0	7.2
White oak/red oak/hickory	.0	21.5	.0	.0	21.5
White oak	7.2	.0	.0	.0	7.2
Northern red oak	43.2	129.6	14.3	.0	187.1
Scarlet oak	.0	.0	7.2	.0	7.2
Red maple/central hardwoods	7.2	14.5	14.4	.0	36.1
Mixed central hardwoods	7.2	21.5	7.1	.0	35.8
Oak/hickory group	64.8	194.3	43.0	.0	302.1
Black ash/Amer. elm/red maple	.0	.0	14.3	.0	14.3
Elm/ash/red maple group	.0	.0	14.3	.0	14.3
Sugar maple/beech/yellow birch	116.2	101.0	7.2	.0	224.4
Black cherry	.0	.0	7.1	.0	7.1
Red maple/northern hardwoods	78.7	202.1	29.3	.0	310.1
Mixed northern hardwoods	65.6	121.8	14.3	.0	201.7
Northern hardwoods group	260.5	424.9	57.9	.0	743.3
Aspen	.0	14.5	28.6	.0	43.1
Paper birch	7.6	7.2	28.9	.0	43.7
Aspen/birch group	7.6	21.7	57.5	.0	86.8
Indeterminate	.0	.0	.0	.0	.0
All forest types	976.9	937.2	366.1	.0	2,280.2

Table 58.--Area of timberland by forest type, forest-type group, and stand-size class, Southern Unit, New Hampshire, 1983

(In thousands of acres)

Forest type and forest-type group	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Red pine	14.5	.0	.0	.0	14.5
White pine	535.8	53.7	55.0	.0	644.5
White pine/hemlock	158.8	49.7	14.4	.0	222.9
Hemlock	111.9	14.5	7.4	.0	133.8
White/red pine group	821.0	117.9	76.8	.0	1,015.7
Red spruce	14.7	11.5	.0	.0	26.2
Red spruce/balsam fir	.0	7.3	.0	.0	7.3
Spruce/fir group	14.7	18.8	.0	.0	33.5
Pitch pine	.0	7.4	7.3	.0	14.7
Hard pine group	.0	7.4	7.3	.0	14.7
Wh. pine/no. red oak/wh. ash	35.6	29.2	7.3	.0	72.1
Other oak/pine	.0	7.4	.0	.0	7.4
Oak/pine group	35.6	36.6	7.3	.0	79.5
Post, black, or bear oak	22.0	.0	.0	.0	22.0
Chestnut oak	7.1	.0	.0	.0	7.1
White oak/red oak/hickory	14.6	14.3	.0	.0	28.9
White oak	14.5	.0	.0	.0	14.5
Northern red oak	70.9	72.3	.0	.0	143.2
Scarlet oak	.0	14.2	.0	.0	14.2
Red maple/central hardwoods	7.3	28.9	.0	.0	36.2
Mixed central hardwoods	36.6	14.7	.0	.0	51.3
Oak/hickory group	173.0	144.4	.0	.0	317.4
Black ash/Amer. elm/red maple	.0	6.7	8.9	.0	15.6
Elm/ash/red maple group	.0	6.7	8.9	.0	15.6
Sugar maple/beech/yellow birch	188.1	108.7	6.7	.0	303.5
Black cherry	.0	.0	7.0	.0	7.0
Red maple/northern hardwoods	131.7	123.8	13.3	.0	268.8
Pin cherry/reverting field	.0	.0	5.3	.0	5.3
Mixed northern hardwoods	129.5	72.3	7.1	.0	208.9
Northern hardwoods group	449.3	304.8	39.4	.0	793.5
Aspen	.0	22.1	7.5	.0	29.6
Paper birch	.0	15.0	.0	.0	15.0
Gray birch	.0	.0	7.4	.0	7.4
Aspen/birch group	.0	37.1	14.9	.0	52.0
All forest types	1,493.6	673.7	154.6	.0	2,321.9

Table 59.--Number of growing-stock trees on timberland by species and diameter class, Southern Unit, New Hampshire, 1983
(In thousands of trees)

Species	Diameter class (inches at breast height)										All classes
	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 28.9	29+	
Balsam fir	2,218	968	355	68	54	0	0	0	0	0	3,663
Tamarack	102	0	0	0	0	0	0	0	0	0	102
White spruce	0	0	0	0	0	0	0	0	0	0	0
Black spruce	168	168	17	17	17	0	0	0	0	0	387
Red spruce	6,726	4,190	1,480	798	271	72	17	68	16	0	13,638
Red pine	68	66	449	616	306	161	16	0	0	0	1,682
White pine	22,768	18,048	14,468	11,633	7,703	4,751	2,938	1,521	1,733	175	85,738
Northern white-cedar	0	0	0	0	0	0	0	0	0	0	0
Hemlock	17,102	11,500	7,513	4,930	2,300	1,281	667	318	149	0	45,760
Other softwoods	489	624	632	289	118	17	0	0	0	0	2,169
Total softwoods	49,641	35,564	24,914	18,351	10,769	6,282	3,638	1,907	1,898	175	153,139
Sugar maple	5,851	4,933	3,190	1,487	861	275	182	107	86	39	17,011
Red maple	37,417	22,647	13,655	5,522	2,106	774	425	185	149	0	82,880
Yellow birch	4,750	2,557	1,197	787	293	351	97	38	33	4	10,107
Paper birch	10,147	7,175	5,314	1,300	631	98	70	51	16	0	24,802
Gray birch	1,878	237	67	0	0	0	0	0	0	0	2,182
Beech	4,714	3,112	1,378	1,192	799	434	148	0	48	0	11,825
White ash	5,013	3,737	1,634	919	472	189	119	0	67	0	12,150
Black ash	201	65	303	143	69	0	0	0	0	0	781
Aspen	3,861	3,407	1,883	624	269	33	54	16	0	0	10,147
White oaks	2,880	2,694	1,288	1,083	320	287	83	20	10	23	8,688
Red oaks	13,948	13,156	8,446	6,045	3,158	1,509	952	229	412	0	47,855
Basswood	270	566	346	281	0	17	22	0	0	0	1,502
Elm	137	214	324	121	108	55	34	0	17	0	1,010
Other hardwoods	5,895	5,046	3,039	1,048	371	220	87	0	0	0	15,706
Total hardwoods	96,962	69,546	42,064	20,552	9,457	4,242	2,273	646	838	66	246,646
Total, all species	146,603	105,110	66,978	38,903	20,226	10,524	5,911	2,553	2,736	241	399,785

Table 60.--Net green weight of all live trees on timberland by species and diameter class, Southern Unit, New Hampshire, 1983

Species	(In thousands of tons)											All classes
	Diameter class (inches at breast height)											
	1.0- 4.9	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21+		
Balsam fir	431.3	290.7	239.6	176.4	63.4	54.5	.0	.0	.0	.0	.0	1,255.9
Tamarack	.0	24.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	24.6
White spruce	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Black spruce	52.5	31.2	46.6	7.7	11.2	21.3	.0	.0	.0	.0	.0	170.5
Red spruce	291.8	1,150.4	1,276.3	717.7	652.9	288.4	111.5	34.5	167.6	45.5	.0	4,736.6
Red pine	212.8	25.8	23.6	244.0	536.8	417.0	277.7	43.3	.0	.0	.0	1,781.0
White pine	2,316.1	4,701.4	6,570.2	7,384.5	9,353.6	9,015.0	7,584.4	6,331.3	4,126.6	9,717.5	.0	67,100.6
Northern white-cedar	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Hemlock	2,170.3	2,814.1	3,531.4	3,642.1	3,487.5	2,321.4	1,780.8	1,225.0	749.4	554.8	.0	22,276.8
Other softwoods	42.6	79.6	113.6	177.4	94.0	60.5	9.7	.0	.0	9.5	.0	586.9
Total softwoods	5,517.4	9,117.8	11,801.3	12,349.8	14,199.4	12,178.1	9,764.1	7,634.1	5,043.6	10,327.3	.0	97,932.9
Sugar maple	1,150.2	1,149.8	1,731.2	2,005.5	1,254.6	1,138.3	456.6	486.7	377.2	1,598.9	.0	11,349.0
Soft maples	6,569.6	7,196.0	8,152.4	7,667.8	4,600.3	2,634.4	1,500.6	912.5	688.4	1,043.9	.0	40,965.9
Yellow birch	1,103.2	948.7	1,082.7	832.0	725.6	372.1	610.2	261.0	118.1	183.6	.0	6,237.2
Paper birch	1,000.3	1,937.1	2,702.5	3,348.0	1,357.2	1,020.7	267.1	202.2	173.0	102.1	.0	12,110.2
Gray birch	1,513.2	471.0	92.5	36.3	.0	.0	.0	.0	.0	.0	.0	2,113.0
Beech	1,470.9	1,170.3	1,592.0	1,095.0	1,236.0	1,290.6	968.1	493.8	69.3	470.9	.0	9,856.9
White ash	875.7	806.1	1,197.1	833.1	733.4	573.1	285.1	251.2	.0	331.6	.0	5,886.4
Black ash	129.1	28.6	16.2	169.2	100.8	75.1	.0	.0	.0	.0	.0	519.0
Aspen	446.8	723.1	1,111.0	1,001.9	502.7	314.6	51.1	156.0	20.5	.0	.0	4,327.7
White oaks	786.4	665.1	981.3	655.4	851.5	407.5	380.6	222.8	43.4	214.3	.0	5,208.3
Red oaks	1,325.8	2,472.9	4,355.2	4,472.8	4,794.1	3,583.8	2,244.7	1,932.8	603.0	1,652.4	.0	27,437.5
Basswood	.0	82.4	179.1	192.0	223.9	.0	22.4	46.1	.0	.0	.0	745.9
Elm	56.8	68.0	91.4	184.9	91.3	118.6	151.5	68.1	38.9	47.5	.0	917.0
Other comm. hrdwds.	1,511.4	1,429.7	1,801.3	1,616.1	896.7	531.2	381.5	163.1	.0	.0	.0	8,331.0
Noncomm. hardwoods	1,415.0	346.1	352.3	41.5	40.4	.0	11.2	.0	.0	.0	.0	2,206.5
Total hardwoods	19,354.4	19,494.9	25,438.2	24,151.5	17,408.5	12,060.0	7,330.7	5,196.3	2,131.8	5,645.2	.0	138,211.5
Total, all species	24,871.8	28,612.7	37,239.5	36,501.3	31,607.9	24,238.1	17,094.8	12,830.4	7,175.4	15,972.5	.0	236,144.4

Table 61.--Net volume and green weight of all trees on timberland by class of material and softwoods and hardwoods, Southern Unit, New Hampshire, 1983

Class of material	Volume ^a			Weight ^b		
	Softwoods	Hardwoods	All species	Softwoods	Hardwoods	All species
	-----Million cubic feet-----			-----Thousand tons-----		
Sawtimber trees:						
Sawlog portion	1,236.1	696.5	1,932.6	45,623.8	25,182.1	70,805.9
Upper stem	150.9	180.2	331.1	5,412.8	6,449.8	11,862.6
Total	1,387.0	876.7	2,263.7	51,036.6	31,631.9	82,668.5
Poletimber trees	338.7	1,133.8	1,472.5	11,377.2	40,912.5	52,289.7
All growing stock	1,725.7	2,010.5	3,736.2	62,413.8	72,544.4	134,958.2
Rough cull trees ^c	100.4	142.3	242.7	4,354.8	6,275.4	10,630.2
Rotten cull trees ^c	29.4	121.3	150.7	1,208.0	5,691.5	6,899.5
Salvable dead trees ^d	-	-	-	1,303.0	1,107.5	2,410.5
Saplings ^e	-	-	-	5,517.4	19,354.4	24,871.8
Stumps ^f	-	-	-	1,106.6	2,115.6	3,222.2
Tops - growing stock	-	-	-	21,287.7	27,633.8	48,921.5
Tops - rough and rotten	-	-	-	2,070.5	4,628.6	6,699.1
All nongrowing stock	129.8	263.6	393.4	36,848.0	66,806.8	103,654.8
All classes	1,855.5	2,274.1	4,129.6	99,261.8	139,351.2	238,613.0

^aExcludes bark.

^bIncludes bark and sound cull; excludes rotten cull.

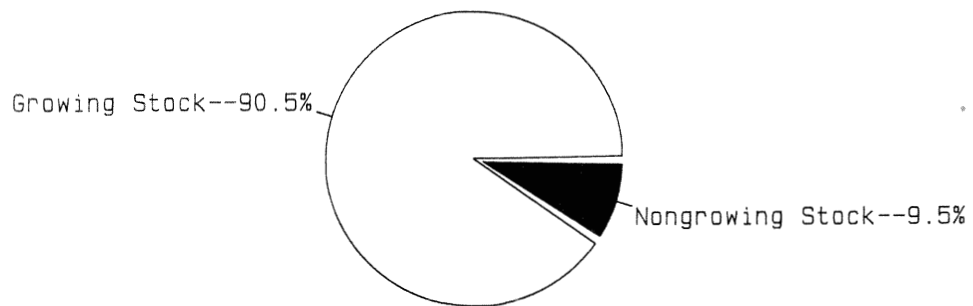
^cBole portion of trees 5.0 inches d.b.h. and larger.

^dVolume of bole portion of trees 5.0 inches d.b.h. and larger, and weight of entire tree aboveground.

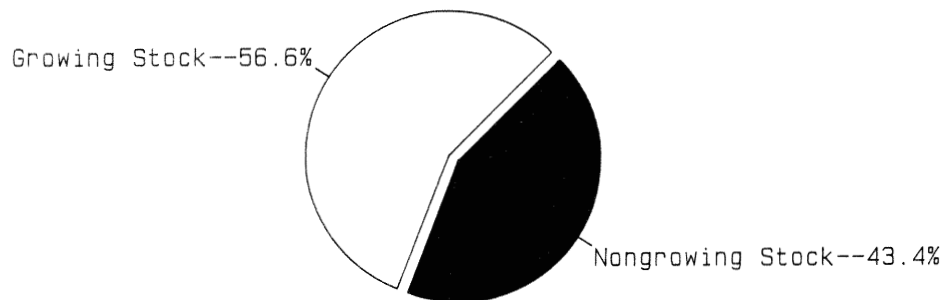
^eIncludes entire tree aboveground.

^fOf all salvable dead and all live trees 5.0 inches d.b.h. and larger.

PROPORTION OF GROWING STOCK VERSUS NONGROWING STOCK



Net Cubic Foot Volume



Net Green Weight

Table 62.--Net volume of growing-stock trees on timberland by species and diameter class, Southern Unit, New Hampshire, 1973

(In millions of cubic feet)

Species	Diameter class (inches at breast height)												All classes
	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	
Balsam fir	5.4	1.8	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.4
Tamarack	.0	.0	.0	.0	1.8	.0	.0	.0	.0	.0	.0	.0	1.8
White spruce	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.7
Black spruce	2.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.5
Red spruce	20.1	31.1	21.8	12.2	6.7	8.4	.0	.0	.0	.0	.0	.7	101.0
Red pine	7.1	7.2	6.2	5.5	2.9	.5	.8	.0	.0	.0	.0	.0	30.2
White pine	84.1	122.0	170.7	171.7	167.8	138.7	88.7	49.9	86.9	16.9	.0	.0	1,087.4
Northern white-cedar	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Hemlock	37.6	56.6	75.0	70.7	52.6	30.6	15.0	7.8	3.7	.0	.0	.0	349.6
Other softwoods	1.1	3.5	2.8	5.7	4.0	.6	.0	.3	.0	.0	.0	.0	18.0
Total softwoods	157.4	222.7	277.7	266.5	235.8	178.8	104.5	57.7	90.9	17.6	.0	.0	1,609.6
Sugar maple	18.4	23.1	23.4	19.0	13.6	5.9	3.9	5.1	7.6	1.1	.0	.0	121.1
Red maple	117.1	151.4	121.6	72.0	36.7	23.0	7.4	3.8	3.6	.6	.0	.0	537.2
Yellow birch	8.5	12.7	19.1	8.9	2.3	1.2	1.0	1.5	.5	.0	.0	.0	55.7
Paper birch	36.4	47.9	47.7	23.0	9.1	1.9	.6	.8	.0	.0	.0	.0	167.4
Gray birch	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5
Beech	12.9	18.0	21.9	10.3	10.0	9.2	.7	1.2	1.6	.0	.0	.0	85.8
White ash	17.5	18.5	13.9	9.0	5.4	1.9	1.5	.0	.6	.0	.0	.0	68.3
Black ash	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Aspen	15.7	14.7	12.4	3.8	4.8	2.7	.0	.0	.0	.0	.0	.0	54.1
White oak	13.7	11.8	13.0	5.9	5.5	3.1	1.1	1.1	.0	.6	.0	.0	55.8
Red oaks	42.1	70.1	91.1	79.9	55.9	35.6	29.9	14.6	12.4	.0	.0	.0	431.6
Basswood	1.3	3.8	1.1	1.5	.0	.0	.5	.0	.0	.0	.0	.0	8.2
Elm	1.6	2.5	1.1	1.2	.9	.9	.4	.6	.0	.0	.0	.0	9.2
Other hardwoods	26.2	21.5	19.5	7.5	1.2	2.9	.6	1.1	.0	.0	.0	.0	80.5
Total hardwoods	311.9	396.0	385.8	242.0	145.4	88.3	47.6	29.8	26.3	2.3	.0	.0	1,675.4
Total, all species	469.3	618.7	663.5	508.5	381.2	267.1	152.1	87.5	117.2	19.9	.0	.0	3,285.0

Table 63.--Net volume of growing-stock trees on timberland by species and diameter class,
Southern Unit, New Hampshire, 1983

Species	(In millions of cubic feet)															All classes
	Diameter class (inches at breast height)															
	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 28.9	29+						
Balsam fir	5.0	5.4	4.0	1.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.6
Tamarack	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
White spruce	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Black spruce	.5	.8	.2	.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3
Red spruce	17.5	25.3	16.2	13.7	6.6	2.6	.9	3.7	1.0	.0	.0	.0	.0	.0	.0	87.5
Red pine	.2	.5	4.9	10.2	7.3	4.8	.7	.0	.0	.0	.0	.0	.0	.0	.0	28.6
White pine	64.7	114.4	157.8	193.3	182.4	149.0	119.6	73.7	120.9	25.5	.0	.0	.0	.0	.0	1,201.3
Northern white-cedar	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Hemlock	40.6	59.5	70.6	72.5	48.0	34.7	24.0	13.9	8.9	.0	.0	.0	.0	.0	.0	372.7
Other softwoods	.9	3.2	5.9	3.8	2.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.5
Total softwoods	129.6	209.1	259.6	294.8	248.2	191.6	145.2	91.3	130.8	25.5	.0	.0	.0	.0	.0	1,725.7
Sugar maple	16.7	31.3	37.1	26.1	19.9	7.8	7.7	6.0	6.1	6.2	.0	.0	.0	.0	.0	164.9
Red maple	92.4	130.3	141.0	88.4	48.1	24.0	16.0	9.3	11.0	.0	.0	.0	.0	.0	.0	560.5
Yellow birch	12.7	15.6	13.3	13.4	5.8	10.4	4.3	2.1	1.6	.8	.0	.0	.0	.0	.0	80.0
Paper birch	29.3	45.6	59.4	23.1	14.8	2.9	2.8	2.4	1.1	.0	.0	.0	.0	.0	.0	181.4
Gray birch	3.7	1.5	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.9
Beech	10.8	19.7	15.3	20.8	21.0	14.7	6.4	.0	3.7	.0	.0	.0	.0	.0	.0	112.4
White ash	15.7	25.6	19.1	16.8	12.2	5.6	5.2	.0	6.2	.0	.0	.0	.0	.0	.0	106.4
Black ash	.5	.4	3.9	2.3	1.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.9
Aspen	12.2	23.2	21.4	10.4	6.1	.9	2.6	.4	.0	.0	.0	.0	.0	.0	.0	77.2
White oak	6.9	14.5	11.8	15.9	6.7	7.3	2.9	.8	1.0	2.7	.0	.0	.0	.0	.0	70.5
Red oaks	37.9	81.2	87.9	97.7	71.8	45.9	37.7	10.7	25.7	.0	.0	.0	.0	.0	.0	496.5
Basswood	.6	3.7	3.7	5.0	.0	.4	1.0	.0	.0	.0	.0	.0	.0	.0	.0	14.4
Elm	.3	1.3	2.8	1.7	2.2	1.7	1.3	.0	1.1	.0	.0	.0	.0	.0	.0	12.4
Other hardwoods	16.9	31.5	34.4	17.3	9.0	6.7	3.3	.0	.0	.0	.0	.0	.0	.0	.0	119.1
Total hardwoods	256.6	425.4	451.8	338.9	219.4	128.3	91.2	31.7	57.5	9.7	.0	.0	.0	.0	.0	2,010.5
Total, all species	386.2	634.5	711.4	633.7	467.6	319.9	236.4	123.0	188.3	35.2	.0	.0	.0	.0	.0	3,736.2

Table 64.--Net volume of sawtimber trees on timberland by species and diameter class, Southern Unit, New Hampshire, 1973

Species	(In millions of board feet) ^a											All classes
	Diameter class (inches at breast height)											
	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	29+	
Balsam fir	3.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.7
Tamarack	.0	.0	6.3	.0	.0	.0	.0	.0	.0	.0	.0	6.3
White spruce	.0	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.5
Black spruce	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Red spruce	75.0	52.3	29.4	39.6	.0	.0	.0	.0	.0	.0	4.1	200.4
Red pine	20.0	20.8	12.5	2.3	3.9	.0	.0	.0	.0	.0	.0	59.5
White pine	527.7	650.3	685.4	586.0	386.3	217.9	384.4	72.5	.0	.0	.0	3,510.5
Northern white-cedar	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Hemlock	227.7	246.8	195.4	118.7	57.1	31.5	15.8	.0	.0	.0	.0	893.0
Other softwoods	8.4	19.9	14.9	.0	.0	.0	1.1	.0	.0	.0	.0	44.3
Total softwoods	862.5	992.6	943.9	746.6	447.3	249.4	401.3	76.6	4,720.2			
Sugar maple	.0	75.4	57.7	24.7	17.7	21.8	28.8	4.6	230.7			
Red maple	.0	272.4	146.3	95.2	28.8	16.7	15.6	2.6	577.6			
Yellow birch	.0	37.2	8.3	5.0	4.1	4.9	1.7	.0	61.2			
Paper birch	.0	94.0	37.2	4.8	2.2	3.8	.0	.0	142.0			
Gray birch	.0	.0	.0	.0	.0	.0	.0	.0	.0			
Beech	.0	46.8	42.7	39.8	2.9	6.6	7.9	.0	146.7			
White ash	.0	35.4	22.3	8.4	6.7	.0	1.9	.0	74.7			
Black ash	.0	.0	.0	.0	.0	.0	.0	.0	.0			
Aspen	.0	15.3	21.1	11.8	.0	.0	.0	.0	.0			
White oaks	.0	22.1	23.9	12.8	5.0	3.6	.0	2.3	69.7			
Red oaks	.0	298.2	221.1	152.4	133.0	57.8	53.3	.0	915.8			
Basswood	.0	5.2	.0	.0	2.4	.0	.0	.0	7.6			
Elm	.0	4.9	3.5	3.0	1.5	2.5	.0	.0	15.4			
Other hardwoods	.0	27.9	4.9	8.1	2.5	4.8	.0	.0	48.2			
Total hardwoods	.0	934.8	589.0	366.0	206.8	122.5	109.2	9.5	2,337.8			
Total, all species	862.5	1,927.4	1,532.9	1,112.6	654.1	371.9	510.5	86.1	7,058.0			

^aInternational 1/4-inch rule.

Table 65.--Net volume of sawtimber trees on timberland by species and diameter class, Southern Unit, New Hampshire, 1983

Species	(In millions of board feet) ^a											All classes
	Diameter class (inches at breast height)											
	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 28.9	29+				
Balsam fir	10.9	3.0	5.1	.0	.0	.0	.0	.0	.0	.0	.0	19.0
Tamarack	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
White spruce	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Black spruce	.5	1.0	2.3	.0	.0	.0	.0	.0	.0	.0	.0	3.8
Red spruce	47.5	51.2	26.8	12.4	3.4	14.1	4.7	.0	.0	.0	.0	160.1
Red pine	13.8	37.7	29.7	21.1	3.4	.0	.0	.0	.0	.0	.0	105.7
White pine	456.3	697.7	733.7	639.3	534.9	330.0	563.1	118.2	.0	.0	.0	4,073.2
Northern white-cedar	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Hemlock	200.2	249.2	181.4	139.4	100.5	59.0	39.9	.0	.0	.0	.0	969.6
Other softwoods	16.9	12.4	7.9	1.5	.0	.0	.0	.0	.0	.0	.0	38.7
Total softwoods	746.1	1,052.2	986.9	813.7	642.2	403.1	607.7	118.2				5,370.1
Sugar maple	.0	93.1	76.9	32.5	34.3	27.9	30.2	27.0				321.9
Red maple	.0	302.3	187.7	100.2	68.8	43.4	52.8	.0				755.2
Yellow birch	.0	48.1	23.0	42.9	17.5	9.6	7.1	5.1				153.3
Paper birch	.0	86.0	58.6	12.3	13.9	11.0	4.3	.0				186.1
Gray birch	.0	.0	.0	.0	.0	.0	.0	.0				.0
Beech	.0	75.2	88.8	63.5	31.5	.0	19.6	.0				278.6
White ash	.0	62.9	49.9	22.8	23.4	.0	26.9	.0				185.9
Black ash	.0	7.9	6.7	.0	.0	.0	.0	.0				14.6
Aspen	.0	37.6	25.0	4.0	12.3	5.1	.0	.0				84.0
White oaks	.0	55.9	27.4	31.2	12.7	4.1	6.2	15.8				153.3
Red oaks	.0	341.5	279.8	191.6	166.6	49.4	128.5	.0				1,157.4
Basswood	.0	17.5	.0	1.4	4.4	.0	.0	.0				23.3
Elm	.0	6.0	8.3	8.0	5.1	.0	5.8	.0				33.2
Other hardwoods	.0	58.8	34.2	26.5	15.1	.0	.0	.0				134.6
Total hardwoods	.0	1,192.8	866.3	536.9	405.6	150.5	281.4	47.9				3,481.4
Total, all species	746.1	2,245.0	1,853.2	1,350.6	1,047.8	553.6	889.1	166.1				8,851.5
aInternational 1/4-inch rule.												

^aInternational 1/4-inch rule.

Table 66.--Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Southern Unit, New Hampshire, 1973

(In millions of board feet)^a

Species	All size classes					>15" Diameter at breast height				
	Grade 1	Grade 2	Grade 3	Grade 4 ^b	All grades	Grade 1	Grade 2	Grade 3	Grade 4 ^b	All grades
Balsam fir ^c	.0	.0	.0	.0	3.7	.0	.0	.0	.0	.0
Tamarack ^c	.0	.0	.0	.0	6.3	.0	.0	.0	.0	.0
White spruce ^c	.0	.0	.0	.0	2.5	.0	.0	.0	.0	.0
Black spruce ^c	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Red spruce ^c	.0	.0	.0	.0	200.4	.0	.0	.0	.0	.0
Red pine	27.1	4.5	27.9	.0	59.5	3.3	.4	2.5	.0	6.2
White pine	21.8	340.0	1,861.0	1,287.7	3,510.5	17.8	149.4	760.1	719.7	1,647.0
Northern white-cedar ^c	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Hemlock ^c	.0	.0	.0	.0	893.0	.0	.0	.0	.0	.0
Other softwoods ^c	.0	.0	.0	.0	44.3	.0	.0	.0	.0	.0
Total softwoods	48.9	344.5	1,888.9	1,287.7	4,720.2	21.1	149.8	762.6	719.7	1,653.2
Sugar maple	3.1	32.0	157.3	38.3	230.7	2.8	16.5	62.4	16.0	97.7
Red maple	6.6	33.1	418.8	119.1	577.6	6.5	13.9	113.3	25.1	158.8
Yellow birch	1.0	6.9	47.6	5.7	61.2	.2	3.7	9.2	2.6	15.7
Paper birch	2.6	3.0	106.7	29.7	142.0	.0	.0	9.4	1.3	10.7
Gray birch	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Beech	1.7	6.5	113.9	24.6	146.7	.6	1.9	47.7	6.9	57.1
White ash	.0	18.4	39.5	16.8	74.7	.0	3.5	10.8	2.8	17.1
Black ash	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Aspen	.0	3.9	34.5	9.8	48.2	.0	2.6	7.8	1.5	11.9
White oaks	1.6	19.6	29.2	19.3	69.7	1.6	6.5	8.6	6.9	23.6
Red oaks	43.4	228.9	523.9	119.6	915.8	36.3	136.5	179.6	44.1	396.5
Basswood	.0	.0	7.1	.5	7.6	.0	.0	2.3	.2	2.5
Elm	1.4	1.7	9.3	3.0	15.4	.0	.0	5.9	1.1	7.0
Other hardwoods	.6	2.6	39.7	5.3	48.2	.2	2.2	11.8	1.2	15.4
Total hardwoods	62.0	356.6	1,527.5	391.7	2,337.8	48.2	187.3	468.8	109.7	814.0
Percent of hardwood in each grade	3	15	65	17	100	6	23	58	13	100

^aInternational 1/4-inch rule.

^bGrade 4 applies only to white pine. For hardwoods, the volumes in this column are for construction logs.

^cThese species are not divided into standard-lumber grades.

Table 67.--Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Southern Unit, New Hampshire, 1983

(In millions of board feet)^a

Species	All size classes					>15" Diameter at breast height				
	Grade 1	Grade 2	Grade 3	Grade 4 ^b	All grades	Grade 1	Grade 2	Grade 3	Grade 4 ^b	All grades
Balsam fir ^c	.0	.0	.0	.0	19.0	.0	.0	.0	.0	.0
Tamarack ^c	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
White spruce ^c	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Black spruce ^c	.0	.0	.0	.0	3.8	.0	.0	.0	.0	.0
Red spruce ^c	.0	.0	.0	.0	160.1	.0	.0	.0	.0	.0
Red pine	11.2	28.1	66.4	.0	105.7	3.7	7.3	13.5	.0	24.5
White pine	150.3	857.5	2,076.0	989.4	4,073.2	122.9	414.6	1,071.1	577.0	2,185.6
Northern white-cedar ^c	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Hemlock ^c	.0	.0	.0	.0	969.6	.0	.0	.0	.0	.0
Other softwoods ^c	.0	.0	.0	.0	38.7	.0	.0	.0	.0	.0
Total softwoods	161.5	885.6	2,142.4	989.4	5,370.1	126.6	421.9	1,084.6	577.0	2,210.1
Sugar maple	13.7	75.1	173.8	59.3	321.9	8.1	35.7	85.1	23.0	151.9
Red maple	35.4	161.5	399.1	159.2	755.2	27.1	67.7	117.6	52.8	265.2
Yellow birch	9.2	42.4	78.6	23.1	153.3	8.5	22.6	38.0	13.1	82.2
Paper birch	12.9	61.9	84.9	26.4	186.1	11.5	7.8	13.4	8.8	41.5
Gray birch	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Beech	12.8	41.1	175.3	49.4	278.6	10.0	14.6	69.7	20.3	114.6
White ash	18.8	61.1	75.5	30.5	185.9	8.9	21.2	31.4	11.7	73.2
Black ash	.0	3.9	8.3	2.4	14.6	.0	.0	.0	.0	.0
Aspen	2.6	24.2	46.2	11.0	84.0	1.3	12.1	6.6	1.4	21.4
White oaks	16.0	30.7	64.6	42.0	153.3	13.5	8.4	26.3	21.7	69.9
Red oaks	228.5	389.9	411.4	127.6	1,157.4	191.7	148.3	152.1	44.0	536.1
Basswood	.0	4.5	12.2	6.6	23.3	.0	.0	.0	5.8	5.8
Elm	.0	12.0	13.3	7.9	33.2	.0	8.8	3.7	6.4	18.9
Other hardwoods	8.1	31.2	67.7	27.6	134.6	7.5	9.7	16.3	8.1	41.6
Total hardwoods	358.0	939.5	1,610.9	573.0	3,481.4	288.1	356.9	560.2	217.1	1,422.3
Percent of hardwood in each grade	10	27	46	17	100	20	25	40	15	100

^aInternational 1/4-inch rule.

^bGrade 4 applies only to white pine. For hardwoods, the volumes in this column are for construction logs.

^cThese species are not divided into standard-lumber grades.

Table 68.--Sampling errors for various tables, Southern Unit,
New Hampshire, 1973 and 1983

(In percent)

Species and diameter class	Number of trees (Table 59)	Growing-stock volume Table		Sawtimber volume Table	
		(62)	(63)	(64)	(65)
Balsam fir	27	77	27	148	48
Tamarack	100	187	100	187	-
White spruce	-	224	-	224	-
Black spruce	92	289	90	-	100
Red spruce	22	64	24	54	28
Red pine	41	76	46	78	49
White pine	8	15	8	12	8
Northern white-cedar	-	-	-	-	-
Hemlock	10	23	11	25	12
Other softwoods	54	92	47	98	46
Softwoods	6	9	6	7	6
Sugar maple	16	36	14	54	16
Red maple	7	15	7	25	10
Yellow birch	17	41	15	83	18
Paper birch	12	26	11	46	19
Gray birch	29	131	24	-	-
Beech	15	42	15	48	19
White ash	17	37	15	51	22
Black ash	78	-	92	-	94
Aspen	21	39	21	80	29
White oaks	18	48	18	81	22
Red oaks	8	19	8	25	9
Basswood	30	105	32	129	41
Elm	33	67	30	88	34
Other hardwoods	13	32	13	59	21
Hardwoods	4	9	4	14	6
All species	3	4	3	2	4
D.b.h. class (inches)					
5.0 to 6.9	5	10	5	-	-
7.0 to 8.9	4	10	4	-	-
9.0 to 10.9	4	9	4	16	8
11.0 to 12.9	4	10	4	9	4
13.0 to 14.9	5	11	5	9	5
15.0 to 16.9	6	14	7	12	7
17.0 to 18.9	8	19	8	17	8
19.0 to 20.9	10	26	10	24	10
21.0 to 28.9	10	30	11	28	11
29 +	29	64	33	62	34

COUNTY TABLES

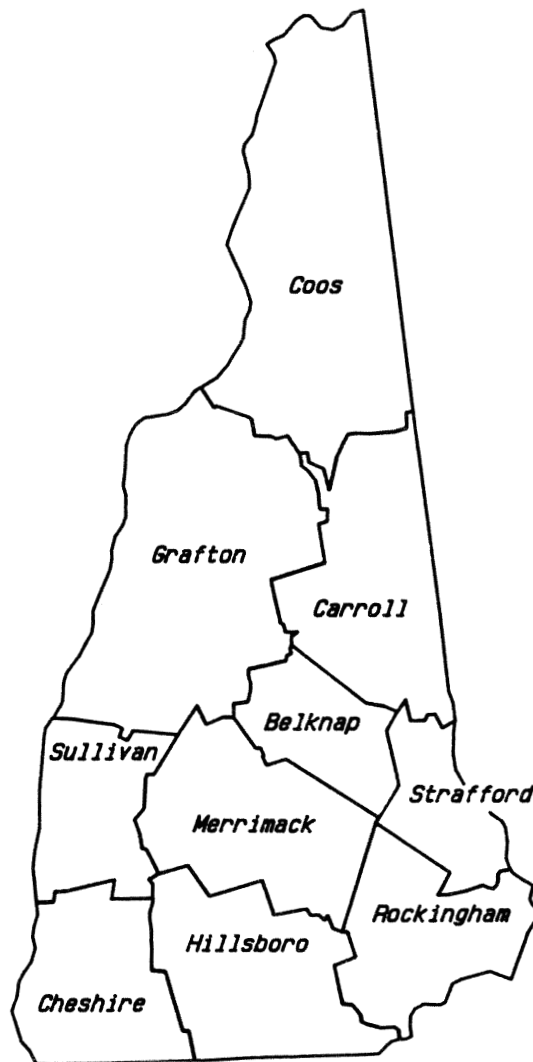


Table 69.--Land area by county and land use class, New Hampshire, 1983

(In thousands of acres)

County and unit	Forest land area				Non-forest	Total land area
	Timberland	Productive reserved	Unproductive	Total forest		
Carroll	525.8	18.6	12.9	557.3	39.5	596.8
Coos	1,021.5	41.3	22.0	1,084.8	70.1	1,154.9
Grafton	942.9	25.2	18.8	986.9	113.6	1,100.5
Northern Unit	2,490.2	85.1	53.7	2,629.0	223.2	2,852.2
Belknap	217.3	.4	2.2	219.9	38.8	258.7
Cheshire	396.6	3.9	4.6	405.1	49.7	454.8
Hillsboro	418.2	5.2	1.1	424.5	136.5	561.0
Merrimack	492.0	1.2	.7	493.9	105.0	598.9
Rockingham	319.9	4.0	4.7	328.6	118.8	447.4
Strafford	185.6	.9	.7	187.2	49.8	237.0
Sullivan	292.3	1.8	4.9	299.0	46.5	345.5
Southern Unit	2,321.9	17.4	18.9	2,358.2	545.1	2,903.3
Total	4,812.1	102.5	72.6	4,987.2	768.3	5,755.5

Table 70.--Area of timberland by county and forest-type group, New Hampshire, 1983
(In thousands of acres)

County and unit	Forest-type group								All groups
	White/ red pine	Spruce/ fir	Hard pine	Oak/ pine	Oak/ hickory	Elm/ash/ red maple	Northern hardwoods	Aspen/ birch	
Carroll	162.0	19.0	27.0	9.7	27.8	8.2	272.1	.0	525.8
Coos	9.7	471.4	.0	.0	.0	8.5	437.9	94.0	1,021.5
Grafton	168.6	153.7	.0	10.7	50.0	.0	500.1	59.8	942.9
Northern Unit	340.3	644.1	27.0	20.4	77.8	16.7	1,210.1	153.8	2,490.2
Belknap	79.4	.0	.0	14.1	36.3	.0	72.3	15.2	217.3
Cheshire	122.4	6.8	.0	14.9	58.0	6.7	187.8	.0	396.6
Hillsboro	247.8	.0	.0	7.1	70.8	.0	92.5	.0	418.2
Merrimack	196.4	12.0	14.7	14.5	72.7	.0	167.0	14.7	492.0
Rockingham	174.1	.0	.0	28.9	58.4	8.9	49.6	.0	319.9
Strafford	75.1	.0	.0	.0	14.2	.0	81.6	14.7	185.6
Sullivan	120.5	14.7	.0	.0	7.0	.0	142.7	7.4	292.3
Southern Unit	1,015.7	33.5	14.7	79.5	317.4	15.6	793.5	52.0	2,321.9
Total	1,356.0	677.6	41.7	99.9	395.2	32.3	2,003.6	205.8	4,812.1

Table 71.--Area of timberland by county and stand-size class, New Hampshire, 1983

(In thousands of acres)

County and unit	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Carroll	415.6	93.5	16.7	.0	525.8
Coos	509.4	425.4	86.7	.0	1,021.5
Grafton	514.9	361.6	66.4	.0	942.9
Northern Unit	1,439.9	880.5	169.8	.0	2,490.2
Belknap	137.1	65.6	14.6	.0	217.3
Cheshire	245.0	130.4	21.2	.0	396.6
Hillsboro	305.4	105.7	7.1	.0	418.2
Merrimack	257.6	183.7	50.7	.0	492.0
Rockingham	210.9	79.9	29.1	.0	319.9
Strafford	130.8	36.9	17.9	.0	185.6
Sullivan	206.8	71.5	14.0	.0	292.3
Southern Unit	1,493.6	673.7	154.6	.0	2,321.9
Total	2,933.5	1,554.2	324.4	.0	4,812.1

Table 72.--Area of timberland by county and cubic foot stand-volume class, New Hampshire, 1983

(In thousands of acres)

County and unit	Stand-volume class (cubic feet per acre)						Total
	0-499	500-999	1000-1499	1500-1999	2000-2499	2500+	
Carroll	16.7	45.9	67.2	130.4	151.8	113.8	525.8
Coos	94.5	119.0	162.1	240.2	204.3	201.4	1,021.5
Grafton	36.7	79.5	203.2	268.6	141.0	213.9	942.9
Northern Unit	147.9	244.4	432.5	639.2	497.1	529.1	2,490.2
Belknap	15.1	21.6	58.6	43.0	43.0	36.0	217.3
Cheshire	28.8	35.8	50.6	122.8	86.9	71.7	396.6
Hillsboro	6.9	35.1	84.9	71.5	112.7	107.1	418.2
Merrimack	29.2	69.2	138.1	121.0	90.5	44.0	492.0
Rockingham	22.1	43.6	66.1	65.0	51.2	71.9	319.9
Strafford	17.9	.0	19.6	75.0	50.9	22.2	185.6
Sullivan	21.5	21.3	71.5	85.2	57.0	35.8	292.3
Southern Unit	141.5	226.6	489.4	583.5	492.2	388.7	2,321.9
Total	289.4	471.0	921.9	1,222.7	989.3	917.8	4,812.1

Table 73.--Area of timberland by county and green ton stand-volume class, New Hampshire, 1983

(In thousands of acres)

County and unit	Stand-volume class (green tons per acre)				All classes
	0-49	50-99	100-149	150+	
Carroll	24.9	160.3	255.3	85.3	525.8
Coos	193.8	335.0	386.0	106.7	1,021.5
Grafton	56.5	419.7	363.9	102.8	942.9
Northern Unit	275.2	915.0	1,005.2	294.8	2,490.2
Belknap	22.1	58.5	122.0	14.7	217.3
Cheshire	43.2	130.1	208.6	14.7	396.6
Hillsboro	28.0	113.0	204.4	72.8	418.2
Merrimack	65.2	178.0	226.7	22.1	492.0
Rockingham	36.4	138.8	101.7	43.0	319.9
Strafford	10.6	71.4	103.6	.0	185.6
Sullivan	28.5	127.9	114.1	21.8	292.3
Southern Unit	234.0	817.7	1,081.1	189.1	2,321.9
Total	509.2	1,732.7	2,086.3	483.9	4,812.1

Table 74.--Area of timberland by county and stocking class of growing-stock trees, New Hampshire, 1983

(In thousands of acres)

County and unit	Stocking class					All classes
	Nonstocked	Poorly stocked	Moderately stocked	Fully stocked	Over-stocked	
Carroll	.0	8.2	85.9	217.3	214.4	525.8
Coos	.0	46.9	189.5	343.9	441.2	1,021.5
Grafton	.0	20.1	163.2	387.7	371.9	942.9
Northern Unit	.0	75.2	438.6	948.9	1,027.5	2,490.2
Belknap	.0	.0	37.4	122.4	57.5	217.3
Cheshire	.0	15.3	79.1	209.0	93.2	396.6
Hillsboro	.0	6.9	56.6	210.0	144.7	418.2
Merrimack	.0	21.9	109.2	210.9	150.0	492.0
Rockingham	.0	6.0	61.1	131.1	121.7	319.9
Strafford	.0	4.6	32.7	104.5	43.8	185.6
Sullivan	.0	13.3	64.6	172.4	42.0	292.3
Southern Unit	.0	68.0	440.7	1,160.3	652.9	2,321.9
Total	.0	143.2	879.3	2,109.2	1,680.4	4,812.1

(In millions of cubic feet)

County and unit	Forest-type group							All groups	
	White/red pine	Spruce/fir	Hard pine	Oak/pine	Oak/hickory	Elm/ash/red maple	Northern hardwoods		Aspen/birch
Carroll	316.6	64.2	27.8	14.2	36.7	3.0	542.0	.0	1,004.5
Coos	3.5	811.6	.0	.0	.0	.0	648.6	174.3	1,638.0
Grafton	258.5	236.4	.0	13.2	79.4	.0	921.0	132.6	1,641.1
Northern Unit	578.6	1,112.2	27.8	27.4	116.1	3.0	2,111.6	306.9	4,283.6
Belknap	157.5	.0	.0	28.4	40.5	.0	100.7	14.8	341.9
Cheshire	204.7	3.9	.0	12.4	101.7	1.3	313.8	.0	637.8
Hillsboro	527.4	.0	.0	15.1	90.2	.0	148.8	.0	781.5
Merrimack	323.2	13.3	7.0	22.4	83.3	.0	246.8	26.8	722.8
Rockingham	357.7	.0	.0	25.0	98.8	.6	58.3	.0	540.4
Strafford	121.8	.0	.0	.0	30.6	.0	142.2	8.1	302.7
Sullivan	199.6	26.0	.0	.0	4.5	.0	169.6	9.4	409.1
Southern Unit	1,891.9	43.2	7.0	103.3	449.6	1.9	1,180.2	59.1	3,736.2
Total	2,470.5	1,155.4	34.8	130.7	565.7	4.9	3,291.8	366.0	8,019.8

Table 76.--Net volume of growing-stock trees on timberland by county and stand-size class, New Hampshire, 1983

(In millions of cubic feet)

County and unit	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Carroll	877.2	123.9	3.4	.0	1,004.5
Coos	1,008.4	603.1	26.5	.0	1,638.0
Grafton	1,023.4	581.8	35.9	.0	1,641.1
Northern Unit	2,909.0	1,308.8	65.8	.0	4,283.6
Belknap	256.6	80.4	4.9	.0	341.9
Cheshire	463.4	165.9	8.5	.0	637.8
Hillsboro	663.9	113.8	3.8	.0	781.5
Merrimack	469.8	235.2	17.8	.0	722.8
Rockingham	438.1	95.4	6.9	.0	540.4
Strafford	248.9	50.2	3.6	.0	302.7
Sullivan	325.8	80.9	2.4	.0	409.1
Southern Unit	2,866.5	821.8	47.9	.0	3,736.2
Total	5,775.5	2,130.6	113.7	.0	8,019.8

Table 77.--Net volume of growing-stock trees on timberland by species
and county, New Hampshire, 1983

(In millions of cubic feet)

Species	Carroll	Coos	Grafton	Northern Unit
Balsam fir	27.1	427.9	144.5	599.5
Tamarack	.0	7.3	2.7	10.0
White spruce	.3	31.1	.1	31.5
Black spruce	1.9	1.1	.0	3.0
Red spruce	65.6	290.8	153.6	510.0
Red pine	14.4	.0	3.0	17.4
White pine	136.5	16.1	175.0	327.6
Northern white-cedar	.0	8.9	.3	9.2
Hemlock	110.1	18.5	62.4	191.0
Other softwoods	22.8	.0	.0	22.8
Total softwoods	378.7	801.7	541.6	1,722.0
Sugar maple	95.3	194.3	196.5	486.1
Red maple	163.2	114.1	229.5	506.8
Yellow birch	72.8	189.2	111.8	373.8
Paper birch	32.2	175.4	176.7	384.3
Gray birch	2.7	1.1	5.9	9.7
Beech	130.8	45.4	95.7	271.9
White ash	32.0	6.3	87.3	125.6
Black ash	.5	1.5	4.7	6.7
Aspen	29.5	91.4	78.8	199.7
White oaks	.7	.0	1.4	2.1
Red oaks	64.4	.0	96.7	161.1
Basswood	.2	.0	3.2	3.4
Elm	.0	.8	1.0	1.8
Other hardwoods	1.5	16.8	10.3	28.6
Total hardwoods	625.8	836.3	1,099.5	2,561.6
Total, all species	1,004.5	1,638.0	1,641.1	4,283.6

Table 77.--continued

(In millions of cubic feet)

Species	Belknap	Cheshire	Hillsboro	Merrimack	Rockingham	Strafford	Sullivan	Southern Unit	All counties
Balsam fir	.0	1.1	.0	8.1	.0	1.4	6.0	16.6	616.1
Tamarack	.0	.0	.0	.2	.0	.0	.0	.2	10.2
White spruce	.0	.0	.0	.0	.0	.0	.0	.0	31.5
Black spruce	.0	.3	.0	.0	.0	.0	2.0	2.3	5.3
Red spruce	3.5	15.7	4.5	15.9	.0	4.2	43.7	87.5	597.5
Red pine	11.4	1.0	1.7	3.4	11.1	.0	.0	28.6	46.0
White pine	83.0	148.1	362.3	210.2	230.6	85.3	81.8	1,201.3	1,528.9
Northern white-cedar	.0	.0	.0	.0	.0	.0	.0	.0	9.2
Hemlock	42.9	48.0	66.6	68.7	67.1	29.6	49.8	372.7	563.7
Other softwoods	.0	.0	3.9	9.2	3.4	.0	.0	16.5	39.3
Total softwoods	140.8	214.2	439.0	315.7	312.2	120.5	183.3	1,725.7	3,447.7
Sugar maple	11.6	48.6	12.7	29.5	5.7	8.8	48.0	164.9	651.0
Red maple	58.4	110.5	89.1	121.5	71.8	56.6	52.6	560.5	1,067.3
Yellow birch	10.5	14.9	13.2	14.1	1.5	11.7	14.1	80.0	453.8
Paper birch	26.9	34.2	22.0	49.2	4.6	14.1	30.4	181.4	565.7
Gray birch	.8	.6	.3	1.0	1.0	1.0	1.2	5.9	15.6
Beech	8.8	30.6	15.4	23.2	7.7	18.8	7.9	112.4	384.3
White ash	6.1	18.0	19.3	14.2	5.8	13.3	29.7	106.4	232.0
Black ash	.0	.4	.2	.1	.0	.0	8.2	8.9	15.6
Aspen	3.5	6.2	6.2	34.0	4.4	6.5	16.4	77.2	276.9
White oaks	5.1	3.5	20.1	20.9	16.1	4.8	.0	70.5	72.6
Red oaks	65.7	110.0	118.8	86.0	71.9	36.6	7.5	496.5	657.6
Basswood	2.1	.0	2.1	3.4	2.2	3.3	1.3	14.4	17.8
Elm	.8	3.1	.0	.2	4.9	.1	3.3	12.4	14.2
Other hardwoods	.8	43.0	23.1	9.8	30.6	6.6	5.2	119.1	147.7
Total hardwoods	201.1	423.6	342.5	407.1	228.2	182.2	225.8	2,010.5	4,572.1
Total, all species	341.9	637.8	781.5	722.8	540.4	302.7	409.1	3,736.2	8,019.8

Table 78.--Net volume of sawtimber trees on timberland by county
and forest-type group, New Hampshire, 1983

(In millions of board feet)^a

County and unit	Forest-type group								All groups
	White/ red pine	Spruce/ fir	Hard pine	Oak/ pine	Oak/ hickory	Elm/ash/ red maple	Northern hardwoods	Aspen/ birch	
Carroll	795.4	192.1	63.8	35.3	72.6	3.1	1,453.8	.0	2,616.1
Coos	5.6	1,443.4	.0	.0	.0	.0	1,358.7	259.0	3,066.7
Grafton	678.4	403.1	.0	16.1	66.5	.0	2,087.5	250.3	3,501.9
Northern Unit	1,479.4	2,038.6	63.8	51.4	139.1	3.1	4,900.0	509.3	9,184.7
Belknap	427.9	.0	.0	58.4	69.9	.0	189.9	27.4	773.5
Cheshire	510.5	1.7	.0	33.5	259.6	4.0	616.6	.0	1,425.9
Hillsboro	1,503.4	.0	.0	28.5	118.8	.0	358.8	.0	2,009.5
Merrimack	847.6	17.6	13.5	57.7	168.5	.0	480.2	13.8	1,598.9
Rockingham	1,035.5	.0	.0	35.4	224.4	.9	113.8	.0	1,410.0
Strafford	350.2	.0	.0	.0	61.9	.0	317.7	4.2	734.0
Sullivan	503.1	54.2	.0	.0	6.4	.0	336.0	.0	899.7
Southern Unit	5,178.2	73.5	13.5	213.5	909.5	4.9	2,413.0	45.4	8,851.5
Total	6,657.6	2,112.1	77.3	264.9	1,048.6	8.0	7,313.0	554.7	18,036.2

Table 79.--Net volume of sawtimber trees on timberland by county and stand-size class, New Hampshire, 1983

(In millions of board feet)^a

County and unit	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked	
Carroll	2,436.2	179.9	.0	.0	2,616.1
Coos	2,313.6	726.0	27.1	.0	3,066.7
Grafton	2,797.5	629.4	75.0	.0	3,501.9
Northern Unit	7,547.3	1,535.3	102.1	.0	9,184.7
Belknap	641.3	118.1	14.1	.0	773.5
Cheshire	1,187.1	220.9	17.9	.0	1,425.9
Hillsboro	1,855.6	142.1	11.8	.0	2,009.5
Merrimack	1,230.0	323.7	45.2	.0	1,598.9
Rockingham	1,269.0	117.0	24.0	.0	1,410.0
Strafford	664.0	63.2	6.8	.0	734.0
Sullivan	831.8	67.1	.8	.0	899.7
Southern Unit	7,678.8	1,052.1	120.6	.0	8,851.5
Total	15,226.1	2,587.4	222.7	.0	18,036.2

^aInternational 1/4-inch rule.

Table 80.--Net volume of sawtimber trees on timberland by species
and county, New Hampshire, 1983

Species	(In millions of board feet) ^a				Northern Unit
	Carroll	Coos	Grafton		
Balsam fir	28.5	789.4	225.3		1,043.2
Tamarack	.0	12.7	8.2		20.9
White spruce	.0	59.8	.0		59.8
Black spruce	.0	.0	.0		.0
Red spruce	206.2	622.3	341.2		1,169.7
Red pine	62.9	.0	15.6		78.5
White pine	486.7	61.4	588.5		1,136.6
Northern white-cedar	.0	18.3	.3		18.6
Hemlock	314.1	66.4	172.6		553.1
Other softwoods	58.1	.0	.0		58.1
Total softwoods	1,156.5	1,630.3	1,351.7		4,138.5
Sugar maple	325.1	405.1	469.8		1,200.0
Red maple	245.7	153.4	313.3		712.4
Yellow birch	168.1	432.4	289.0		889.5
Paper birch	44.2	186.0	264.4		494.6
Gray birch	.0	.0	.0		.0
Beech	378.6	81.9	262.6		723.1
White ash	97.4	7.6	206.7		311.7
Black ash	.0	.0	1.4		1.4
Aspen	62.4	136.0	156.2		354.6
White oaks	.0	.0	5.8		5.8
Red oaks	138.1	.0	151.1		289.2
Basswood	.0	.0	15.1		15.1
Elm	.0	.0	1.8		1.8
Other hardwoods	.0	34.0	13.0		47.0
Total hardwoods	1,459.6	1,436.4	2,150.2		5,046.2
Total, all species	2,616.1	3,066.7	3,501.9		9,184.7

Table 80.--continued

(In millions of board feet)^a

Species	Belknap	Cheshire	Hillsboro	Merrimack	Rockingham	Strafford	Sullivan	Southern Unit	All counties
Balsam fir	.0	.0	.0	14.6	.0	.0	4.4	19.0	1,062.2
Tamarack	.0	.0	.0	.0	.0	.0	.0	.0	20.9
White spruce	.0	.0	.0	.0	.0	.0	.0	.0	59.8
Black spruce	.0	.0	.0	.0	.0	.0	3.8	3.8	3.8
Red spruce	1.2	25.8	7.9	22.2	.0	9.6	93.4	160.1	1,329.8
Red pine	46.8	4.5	3.3	11.2	39.9	.0	.0	105.7	184.2
White pine	289.6	497.7	1,199.7	733.6	796.9	288.3	267.4	4,073.2	5,209.8
Northern white-cedar	.0	.0	.0	.0	.0	.0	.0	.0	18.6
Hemlock	101.7	123.3	194.6	155.1	177.8	87.1	130.0	969.6	1,522.7
Other softwoods	.0	.0	12.3	19.1	7.3	.0	.0	38.7	96.8
Total softwoods	439.3	651.3	1,417.8	955.8	1,021.9	385.0	499.0	5,370.1	9,508.6
Sugar maple	18.4	85.2	32.4	42.2	13.9	16.8	113.0	321.9	1,521.9
Red maple	86.1	141.2	114.9	147.8	84.2	103.0	78.0	755.2	1,467.6
Yellow birch	10.3	29.4	29.9	27.7	3.2	30.4	22.4	153.3	1,042.8
Paper birch	30.9	20.5	26.4	52.6	3.2	21.2	31.3	186.1	680.7
Gray birch	.0	.0	.0	.0	.0	.0	.0	.0	.0
Beech	14.8	88.8	37.3	52.7	19.9	47.6	17.5	278.6	1,001.7
White ash	1.5	33.5	16.2	29.7	13.5	19.6	71.9	185.9	497.6
Black ash	.0	1.0	.0	.0	.0	.0	13.6	14.6	16.0
Aspen	1.5	7.9	13.6	31.6	6.0	.0	23.4	84.0	438.6
White oaks	16.7	2.9	38.2	52.9	31.7	10.9	.0	153.3	159.1
Red oaks	148.2	314.5	254.6	191.5	144.8	92.8	11.0	1,157.4	1,446.6
Basswood	2.8	.0	6.7	2.8	6.0	2.8	2.2	23.3	38.4
Elm	3.0	7.8	.0	.8	13.8	.0	7.8	33.2	35.0
Other hardwoods	.0	41.9	21.5	10.8	47.9	3.9	8.6	134.6	181.6
Total hardwoods	334.2	774.6	591.7	643.1	388.1	349.0	400.7	3,481.4	8,527.6
Total, all species	773.5	1,425.9	2,009.5	1,598.9	1,410.0	734.0	899.7	8,851.5	18,036.2

^aInternational 1/4-inch rule.

Table 81.--Sampling errors for various county and geographic
unit estimates, New Hampshire, 1983

(In percent)

County	Timberland area	Growing stock volume	Sawtimber volume
Carroll	2.3	5.4	8.3
Coos	1.2	4.7	7.1
Grafton	2.1	5.1	8.6
Northern Unit	1.0	2.9	4.7
Belknap	1.6	7.7	13.1
Cheshire	3.5	5.8	22.4
Hillsboro	3.3	6.6	18.0
Merrimack	2.4	5.9	17.3
Rockingham	4.5	7.1	10.5
Strafford	2.0	6.7	10.4
Sullivan	1.3	7.7	12.4
Southern Unit	1.2	2.6	4.0
Total	.8	2.0	3.1

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Appendix

Definition of Terms

Acceptable tree. (a) Live sawtimber trees that do not qualify as preferred trees but are not cull trees. (b) Live poletimber trees that prospectively will not qualify as preferred trees, but are not now or prospectively cull trees.

Accretion. The estimated net growth on growing-stock trees that were measured during the previous inventory, divided by the number of growing seasons between surveys. It does not include the growth on trees that were cut during the period, nor those trees that died.

Basal area class. A classification of forest land in terms of basal area (cross sectional area of a tree stem at breast height in square feet per acre) of all live trees of all sizes.

Board foot. A unit of lumber measurement 1 foot long, 1 foot wide, and 1 inch thick, or its equivalent.

Board foot stand-volume class. A classification of forest land in terms of net board-foot volume of sawtimber trees per acre.

Cabin log. A relatively slender roundwood product that is cut to standard sizes; meets specifications of strength, straightness, and soundness; and is finished for use in constructing cabins, barns, and other buildings.

Cavities. Holes in tree stems and branches with entrances 1 inch or larger in diameter.

Coarse residues. Manufacturing residues suitable for chipping, such as slabs, edgings, and veneer cores.

Commercial species. Tree species presently or prospectively suitable for industrial wood products. Excludes species of typically small size, poor form, or inferior quality, such as hawthorn or sumac.

Cord. See Standard cord.

County and municipal lands. Lands owned by counties and local public agencies or municipalities or leased to them for 50 years or more.

Cubic foot stand-volume class. A classification of forest land in terms of net cubic-foot volume of all live trees per acre.

Cull tree. A rough tree or a rotten tree.

Cull increment. The net volume of growing-stock trees on the previous inventory that became rough or rotten trees in the current inventory, divided by the number of growing seasons between surveys.

Diameter at breast height (dbh). The diameter outside bark of a standing tree measured at 4-1/2 feet above the ground.

Farmer-owned lands. Lands owned by farm operators, whether part of the farmstead or not. Excludes land leased by farm operators from nonfarm owners.

Federal lands. Lands (other than National Forests) administered by Federal agencies.

Fine residues. Manufacturing residues not suitable for chipping, such as sawdust and shavings.

Forest industry lands. Lands owned by companies or individuals that operate primary wood-using plants.

Forest land. Land that is at least 10 percent stocked with trees of any size, or that formerly had such tree cover and is not currently developed for a nonforest use. The minimum area for classification of forest land is 1 acre.

Forest type. A classification of forest land based on the species that form a plurality of live tree basal area stocking.

Forest-type group. A combination of forest types that share closely associated species or site requirements. The many forest types in New Hampshire were combined into the following major forest-type groups (the descriptions apply to forests in New Hampshire):

a. White/red pine--forests in which white pine, hemlock, or red pine make up the plurality of the stocking, singly or in combination; common associates include sugar maple, red maple, red spruce, balsam fir, paper birch, and white ash.

b. Spruce/fir--forests in which red spruce, northern white-cedar, balsam fir, white spruce, black spruce, or tamarack, singly or in combination, make up a plurality of the stocking; common associates include paper birch, red maple, aspen, white pine, hemlock, and sugar maple.

c. Hard pine--forests in which pitch pine makes up the plurality of the stocking.

d. Oak/pine--forests in which northern red oak or white ash, singly or in combination, make up a plurality of the stocking but where white pine contributes 25 to 50 percent of the stocking; hemlock, red maple, and paper birch are associates.

e. Oak/hickory--forests in which upland oaks, red maple (when associated with central hardwoods), or hawthorn, singly or in combination, make up a plurality of the stocking and in which white pine makes up less than 75 percent of the stocking; common associates include white pine, paper birch, red spruce, beech, hemlock, sugar maple, and red maple.

f. Elm/ash/red maple--forests in which black ash, elm, red maple (when growing on wet sites), willow, or green ash, singly or in combination, make up a plurality of the stocking; common associates include red maple, aspen, white ash, and gray birch.

g. Northern hardwoods--forests in which sugar maple, beech, yellow birch, red maple (when associated with northern hardwoods), pin cherry, or black cherry, singly or in combination, make up a plurality of the stocking; common associates include balsam fir, red spruce, white pine, paper birch, hemlock, white ash, aspen, and basswood.

h. Aspen/birch--forests in which aspen, paper birch, or gray birch, singly or in combination, make up a plurality of the stocking; common associates include balsam fir, red maple, red spruce, white ash, and white pine.

Fuelwood. Round, split, or chipped woody material (with or without bark) that is converted to household, commercial, or industrial energy.

Geographic unit. A county or a group of counties within a state that is large enough to provide an adequate sample that will yield statistically reliable estimates of timberland area, volume, and components of change.

Green ton. A unit of measure of green weight equivalent to 2,000 pounds or 907.1848 kilograms.

Green ton stand-volume class. A classification of forest land in terms of net green weight of the aboveground components of all live trees per

unit area. It is usually expressed in green tons per acre.

Green weight. The weight of wood and bark as it would be if it had been recently cut. It is usually expressed in pounds or tons.

Gross growth. The sum of accretion and ingrowth.

Growing-stock trees. Live trees of commercial species classified as sawtimber, poletimber, saplings, or seedlings; that is all live trees of commercial species except rough and rotten trees.

Growing-stock volume. Net volume, in cubic feet, of growing-stock trees 5.0 inches d.b.h. and larger from a 1-foot stump to a minimum 4.0-inch top diameter outside bark of the central stem, or to the point where the central stem breaks into limbs. Net volume equals gross volume, less deduction for cull.

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

Indian lands. (a) Lands held in trust by the United States or States for Indian tribes or individual Indians. (b) Lands owned in fee by Indian tribes whether subject to Federal or State restrictions against alienation or not.

Industrial products. All roundwood products except fuelwood.

Ingrowth. The estimated net volume of growing-stock trees that became 5.0 inches d.b.h. or larger during the period between inventories, divided by the number of growing seasons between surveys.

International 1/4-inch rule. A log rule or formula for estimating the board-foot volume of logs. The mathematical formula is:

$$(0.22D^2 - 0.71D)(0.904762)$$

for 4-foot sections, where D=diameter inside bark at the small end of the log section. This rule is used as the USDA Forest Service standard log rule in the Eastern United States.

Land area. (a) Bureau of Census: The area of dry land and land temporarily or partly covered by water, such as marshes, swamps, and river flood plains; streams, sloughs, estuaries, and canals less than 1/8 statute mile wide; and lakes, reservoirs, and ponds less than 40 acres in area. (b) Forest Inventory and Analysis: same as (a) except that the minimum width of streams, etc., is 120 feet, and the minimum size of lakes, etc., is 1 acre.

Logging residues. The unused portions of growing-stock trees harvested or killed in the process of logging.

Manufacturing plant residues. Wood materials that are generated when round timber (roundwood) is converted into wood products. This includes slabs, edgings, trimmings, bark, miscuts, sawdust, shavings, veneer cores and clippings, and pulp screening. If these residues are used, they are referred to as plant byproducts.

Miscellaneous private lands. Privately owned lands other than forest industry and farmer-owned lands.

Mortality. The estimated net volume of growing-stock trees at the previous inventory that died from natural causes before the current inventory, divided by the number of growing seasons between surveys.

National Forest lands. Federal lands legally designated as National Forests or purchase units and other lands administered as part of the National Forest System by the USDA Forest Service.

Net change. The difference between the current and previous inventory estimates of growing-stock volume, divided by the number of growing seasons between surveys. Components of net change are ingrowth plus accretion, minus mortality, minus cull increment, minus removals.

Net green weight. The green weight of woody material less the weight of all unsound (rotten) material.

Net growth. The change, resulting from natural causes, in growing-stock volume during the period between surveys, divided by the number of growing seasons. Components of net growth are ingrowth plus accretion, minus mortality, minus cull increment.

Noncommercial forest land. Productive-reserved, urban, and unproductive forest land.

Noncommercial species. Tree species of typically small size, poor form, or inferior quality that normally do not develop into trees suitable for industrial wood products.

Nonforest land. Land that has never supported forests, or land formerly forested but now in nonforest use such as cropland, pasture, residential areas, and highways.

Nonsalvable dead tree. A dead tree with most or all of its bark missing that is at least 5.0 inches in diameter at breast height and is at least 10 feet in height.

Nonstocked area. A stand-size class of forest land that is stocked with less than 10 percent of minimum full stocking with all live trees.

Ownership class. A classification of forest land based upon ownership and nature of business or control of decisionmaking for the land. It encompasses all types of legal entities having

ownership interest in the land, whether public or private.

Piling (piles). Relatively slender structural roundwood products that are cut to the maximum length possible (within top circumference and other specifications of strength, straightness, and soundness) that when nearly buried in the ground provide vertical or lateral support for buildings, foundations, bridges, docks, and other structures.

Plant byproducts. Wood products, such as pulp chips, recycled from manufacturing plant residues.

Pole. A roundwood product that is cut to standard size and meets specifications of strength, straightness, and soundness and is driven into the ground, usually to provide vertical or lateral support for electric power and telephone transmission lines.

Poletimber stand. A stand-size class of forest land that is stocked with at least 10 percent of minimum full stocking with all live trees with half or more of such stocking in poletimber or sawtimber trees or both, and in which the stocking of poletimber exceeds that of sawtimber.

Poletimber trees. Live trees of commercial species meeting regional specifications of soundness and form and at least 5.0 inches in d.b.h., but smaller than sawtimber trees.

Post. A short roundwood product that is used in an upright position to support fences and other similar structures.

Preferred tree. A high-quality tree, from a lumber viewpoint, that would be favored in cultural operations. General characteristics include grade 1 butt log (if sawtimber size), good form, good vigor, and freedom from serious damage.

Productive-reserved forest land. Forest land sufficiently productive to qualify as timberland, but withdrawn from timber utilization through statute, administrative designation, or exclusive use for Christmas tree production.

Primary manufacturing plant. A plant that converts round timber into wood products such as woodpulp, lumber, veneer, cooperage, and dimension products.

Pulpwood. Roundwood converted into 4- or 5-foot lengths or chips, and chipped plant byproducts that are prepared for manufacture into woodpulp.

Removals. The net growing-stock volume harvested or killed in logging, cultural operations--such as timber stand improvement--or land clearing, and also the net growing-stock volume neither harvested nor killed but growing

on land that was reclassified from timberland to noncommercial forest land during the period between surveys. This volume is divided by the number of growing seasons.

Rotten tree. A live tree of commercial species that does not contain at least one 12-foot sawlog or two noncontiguous sawlogs, each 8 feet or longer, now or prospectively, and does not meet regional specifications for freedom from defect primarily because of rot; that is, more than 50 percent of the cull volume in the tree is rotten.

Rough tree. (a) The same as a rotten tree, except that a rough tree does not meet regional specifications for freedom from defect primarily because of roughness or poor form; also (b) a live tree of noncommercial species.

Roundwood products. Logs, bolts, total tree chips, or other round timber generated by harvested trees for industrial or consumer uses.

Salvable dead trees. A tree at least 5.0 inches in diameter at breast height that has recently died and still has intact bark. The tree may be standing, fallen, windthrown, knocked down, or broken off.

Sampling error. A measure of the reliability of an estimate, expressed as a percentage of the estimate. The sampling errors given in this report correspond to one standard deviation and are calculated as the square root of the variance, divided by the estimate, and multiplied by 100.

Saplings. Live trees 1.0 inch through 4.9 inches d.b.h.

Sapling-seedling stand. A stand-size class of forest land that is stocked with at least 10 percent of minimum full stocking with all live trees with half or more of such stocking in saplings or seedlings or both.

Sawlog. A log meeting regional standards of diameter, length, and freedom from defect, including a minimum 8-foot length and a minimum diameter inside bark of 6 inches for softwoods and 8 inches for hardwoods. (See specifications under Log-Grade Classification).

Sawlog portion. That part of the bole of a sawtimber tree between the stump and the sawlog top; that is, the merchantable height.

Sawlog top. The point on the bole of a sawtimber tree above which a sawlog cannot be produced. The minimum sawlog top is 7.0 inches diameter outside bark (d.o.b.) for softwoods and 9.0 inches d.o.b. for hardwoods.

Sawtimber stand. A stand-size class of forest land that is stocked with at least 10 percent of minimum full stocking with all live trees with half or more of such stocking in poletimber or

sawtimber trees or both, and in which the stocking of sawtimber is at least equal to that of poletimber.

Sawtimber trees. Live trees of commercial species at least 9.0 inches d.b.h. for softwoods or 11.0 inches for hardwoods, containing at least one 12-foot sawlog or two noncontiguous 8-foot sawlogs, and meeting regional specifications for freedom from defect.

Sawtimber volume. Net volume in board feet, by the International 1/4-inch rule, of sawlogs in sawtimber trees. Net volume equals gross volume less deductions for rot, sweep, and other defects that affect use for lumber.

Seedlings. Live trees less than 1.0-inch d.b.h. and at least 1 foot in height.

Snag. Standing dead tree with most or all of its bark missing that is at least 5.0 inches in diameter and which is at least 10 feet tall (does not include salvable dead).

Softwoods. Coniferous trees, usually evergreen and having needles or scalelike leaves.

Stand-size class. A classification of forest land based on the size class (that is, seedlings, saplings, poletimber, or sawtimber) of all live trees in the area.

Standard cord. A unit of measure for stacked bolts of wood, encompassing 128 cubic feet of wood, bark, and air space. Fuelwood cord estimates can be derived from cubic-foot estimates of growing stock by applying an average factor of 80 cubic feet of solid wood per cord. For pulpwood, a conversion of 85 cubic feet of solid wood per cord is used because pulpwood is more uniform.

Standard-lumber log grade. A classification of the quality of sawtimber volume based on standard sawlog grades for hardwoods, white pine, and southern pine. (Note: In New Hampshire, red pine was graded using the southern pine guidelines. All specifications are shown under Log-Grade Classification).

State lands. Lands owned by the State or leased to the State for 50 years or more.

Stocking. The degree of occupancy of land by trees, measured by basal area and/or number of trees in a stand compared to the basal area and/or number of trees required to fully use the growth potential of the land (or the stocking standard). In the Eastern United States this standard is 75 square feet of basal area per acre for trees 5.0 inches d.b.h. and larger, or its equivalent in numbers of trees per acre for seedlings and saplings.

Two categories of stocking are used in this report: all live trees and growing-stock trees. The relationships between the classes and the

percentage of the stocking standard are:
nonstocked = 0 to 15, poorly stocked = 16 to 59,
moderately stocked = 60 to 99, fully stocked =
100 to 129, and overstocked = 130 to 160.

Stump. The main stem of a tree from ground level to 1 foot above ground level, including the wood and bark.

Timberland. Forest land producing or capable of producing crops of industrial wood (more than 20

cubic feet per acre per year) and not withdrawn from timber utilization. Formerly known as commercial forest land.

Timber products. Roundwood (round timber) products and manufacturing plant byproducts harvested from growing-stock trees on timberland; from other sources, such as cull trees, salvable dead trees, limbs, tops and saplings; and from trees on noncommercial forest and nonforest lands.

Timber removals. The growing-stock or sawtimber volume of trees removed from the inventory for roundwood products, plus logging residues, volume destroyed during land clearing, and volume of standing trees on land that was reclassified from timberland to noncommercial forest land (See Table 37).

Top. The wood and bark of a tree above the merchantable height (or above the point on the stem 4.0 inches in diameter outside bark). It generally includes the uppermost stem, branches, and twigs of the tree, but not the foliage.

Tree class. A classification of the quality or condition of trees for sawlog production. Tree class for sawtimber trees is based on their present condition. Tree class for poletimber trees is a prospective determination--a forecast of their potential quality when they reach sawtimber size (11.0 inches d.b.h. for hardwoods, 9.0 inches dbh for softwoods).

Trees. Woody plants that have well-developed stems and are usually more than 12 feet in height at maturity.

Unproductive forest land. Forest land that is incapable of producing 20 cubic feet per acre per year of industrial wood under natural conditions, because of adverse site conditions.

Unused manufacturing residues. Plant residues that are dumped or destroyed and not recovered for plant byproducts.

Upper-stem portion. That part of the main stem or fork of a sawtimber tree above the sawlog top to a diameter of 4.0 inches outside bark, or to the point where the main stem or fork breaks into limbs.

Urban forest land. Noncommercial forest land within urban areas that is completely surrounded by urban development (not parks), whether

commercial, industrial, or residential.

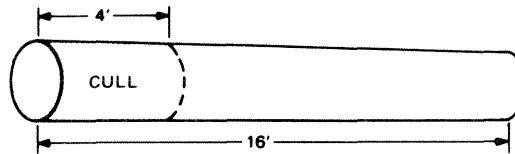
Veneer log or bolt. A roundwood product from which veneer is sliced or sawn that usually meets certain minimum standards of diameter, length, and defect.

Volume suitable for pulpwood. The sound volume (only rotten cull excluded) of growing-stock and rough trees.

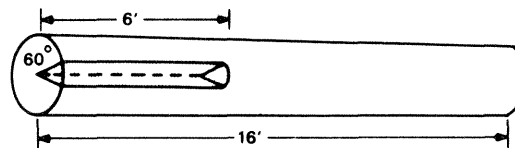
Log-grade classification

Methods of determining scaling deduction.

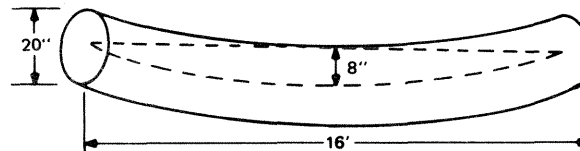
(Examples based on a 16-foot log with 20-inch scaling diameter)



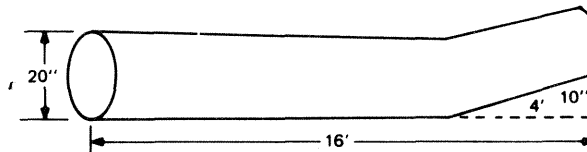
Defect section (rule 1): Percent deduction = $\frac{4}{16} = 25\%$



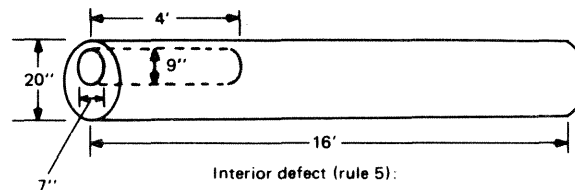
Defect section (rule 2): Percent deduction = $\left(\frac{6}{16}\right) \left(\frac{60}{360}\right) = 6\frac{1}{4}\%$



Sweep (rule 3): Percent deduction = $\frac{8 \cdot 2}{20} = 30\%$



Crook (rule 4): Percent deduction = $\left(\frac{10}{20}\right) \left(\frac{4}{16}\right) = 12\frac{1}{2}\%$



Interior defect (rule 5):

Percent deduction = $\frac{(8)(10)}{(20-1)^2} \times \frac{4}{16} = 5\frac{5}{9}\%$

In practice each ellipse axis can be divided by (20-1)

Thus $\frac{8}{19} = .4$, $\frac{10}{19} = .5$, and $(.4)(.5) \left(\frac{4}{16}\right) = 5\%$

From: Gosenbaugh, L.R. 1952. Shortcuts for cruisers and scalers. U.S. Dep. Agric. For. Serv. South. For. Exp. Stn. Occas. Pap. 126.

STANDARD GRADES FOR HARDWOOD FACTORY LUMBER LOGS

Grading Factors		Log grades							
		F1			F2				F3
Position in tree		Butts only	Butts & uppers		Butts & Uppers				Butts & uppers
Scaling diameter, inches		13-15 ^a	16-19	20 +	11 + ^b	12 +			8 +
Length without trim, feet		10 +			10 +	8-9	10-11	12 +	8 +
Required clear cuttings ^c of each of 3 best faces ^d	Min. length, feet	7	5	3	3	3	3	3	2
	Max. number	2	2	2	2	2	2	3	No limit
	Min. proportion of log length required in clear cutting	5/6	5/6	5/6	2/3	3/4	2/3	2/3	1/2
Maximum sweep & crook allowance	For logs with less than 1/4 of end in sound defects	15%			30%				50%
	For logs with more than 1/4 of end in sound defects	10%			20%				35%
Maximum scaling	deduction	40% ^e			50% ^f				50%

End defects although not visible in standing trees, are important in grading cut logs. Instructions for dealing with this factor are contained in Forest Prod. Lab. Rpt. D 1737.

^aAsh and basswood butts can be 12 inches if they otherwise meet requirements for small #1's.

^bTen-inch logs of all species can be #2 if they otherwise meet requirements for small #1's.

^cA clear cutting is the portion of a face, extending the width of the face, that is free of defects.

^dA face is 1/4 of the surface of the log as divided lengthwise.

^eOtherwise #1 logs with 41-60% deductions can be #2.

^fOtherwise #2 logs with 51-60% deductions can be #3.

From: Vaughan, C. L., A. C. Wollin, K. A. McDonald, and E. H. Bulgrin. 1966. Hardwood log grades for standard lumber. USDA For. Serv. Res. Pap. FPL-63.

STANDARD SPECIFICATIONS FOR HARDWOOD CONSTRUCTION LOGS.^a

Position in tree		Butt & upper
Min. diameter, small end		8 inches +
Min. length, without trim		8 feet
Clear cuttings		No requirements.
Sweep allowance, absolute		1/4 diameter small end for each 8 feet of length.
Sound surface defects	Single knots	Any number, if no one knot has an average diameter above the callus in excess of 1/3 of log diameter at point of occurrence.
	Whorled knots	Any number if sum of knot diameters above the callus does not exceed 1/3 of log diameter at point of occurrence.
	Holes	Any number provided none has a diameter over 1/3 of log diameter at point of occurrence, and none extends over 3 inches into included timber. ^b
Unsound surface defects		Same requirements as for sound defects if they extend into included timber. ^b No limit if they do not.
End defects	Sound	No requirements.
	Unsound	None allowed; log must be sound internally, but will admit 1 shake not to exceed 1/4 the scaling diameter and a longitudinal split not extending over 5 inches into the contained timber.

^aThese specifications are minimum for the class. If, from a group of logs, factory logs are selected first, thus leaving only non-factory logs from which to select construction logs, then the quality range of the construction logs so selected is limited, and the class may be considered a grade. If selection for construction logs is given first priority, then it may be necessary to subdivide the class into grades.

^bIncluded timber is always square, and dimension is judged from small end.

From: Rast, E. D., D. L. Sonderman, and G. L. Gammon. 1973. A guide to hardwood log grading (Revised). USDA For. Serv. Gen. Tech. Rep. NE-1.

EASTERN WHITE PINE SAWLOG GRADE SPECIFICATIONS

GRADING FACTOR	LOG GRADE 1	LOG GRADE 2	LOG GRADE 3	LOG GRADE 4
(1) MINIMUM SCALING DIAMETER (inches)	14 ¹	6	6	6
(2) MINIMUM LOG LENGTH (feet)	10 ²	8	8	8
(3) MAXIMUM WEEVIL INJURY (number)	None	None	2 injuries ³	No limit
(4) MINIMUM FACE REQUIREMENTS	Two full length or four 50% length good faces. ⁴ (In addition, log knots on balance of faces shall not exceed size limitations of grade 2 logs.)	No GOOD FACES REQUIRED. Maximum diameter of log knots on three best faces: SOUND RED KNOTS not to exceed 1/6 scaling diameter and 3 inch maximum. DEAD OR BLACK KNOTS including overgrown knots not to exceed 1/12 scaling diameter and 1½ inch maximum.		Includes all logs not qualifying for No. 3 or better and judged to have at least one-third of their gross volume in sound wood suitable for manufacture into standard lumber.
(5) MAXIMUM SWEEP OR CROOK ALLOWANCE (percent)	20	30	40	66⅔
(6) MAXIMUM TOTAL SCALING DEDUCTION (percent)	50	50	50	66⅔
After the tentative log grade is established from face examination, the log will be reduced in grade whenever the following defects are evident: (7) CONKS, PUNK KNOTS, AND PINE BORER DAMAGE ON BARK SURFACE⁵ Degraded one grade if present on one face. Degraded two grades if present on two faces. Degraded three grades if present on three or more faces. (8) LOG END DEFECTS: RED ROT, RING SHAKE, HEAVY STAIN AND PINE BORER DAMAGE OUTSIDE HEART CENTER OF LOG⁵ Consider log as having a total of 8 quarters (4 on each end) and degrade as indicated below: Degraded one grade if present in 2 quarters of log ends. Degraded two grades if present in 3 or 4 quarters of log ends. Degraded three grades if present in 5 or more quarters of log ends.				
¹12 and 13 inch logs with four full length good faces are acceptable. ²8 foot logs with four full length good faces are acceptable. ³8 foot No. 3 logs limited to one weevil injury. ⁴Minimum 50% length good face must be at least 6 feet. ⁵Factors 7 and 8 are not cumulative (total degrade based on more serious of the two). No log to be degraded below grade 4 if net scale is at least one-third gross log scale.				

From: Ostrander, M. D., and R. L. Brisbin, 1971. Sawlog grades for eastern white pine. USDA For. Serv. Res. Pap. NE-205.

SOUTHERN PINE SAWLOGS

Grade 1. Logs with 3 or 4 clear faces.¹ Code 1.

Grade 2. Logs with 1 or 2 clear faces. Code 2.

Grade 3. Logs with no clear faces. Code 3.

After the tentative log grade is established from above, the log will be degraded one grade for each of the following, except that no log can be degraded below grade 3.

1. **Sweep.** Degraded any tentative 1 or 2 log one grade if sweep amounts to 3 or more inches and equals or exceeds one third (1/3) the diameter inside bark at small end. This is the final grade if there is no evidence of heart rot.

2. **Heart rot.** Degraded any tentative 1 or 2 log one grade if conk, massed hyphae, or other evidence of advanced heart rot is found anywhere in it.

¹ A face is one-fourth of the circumference in width extending full length of the log. Clear faces are those free of: knots measuring more than one-half inch in diameter, overgrown knots of any size, holes more than one-fourth inch in diameter. The faces may be rotated if necessary to obtain the maximum number of clear ones.

From: Schroeder, J. G., R. A. Campbell, and R. C. Rodenbach. 1968. Southern pine sawlogs for yard and structural lumber. USDA For. Serv. Res. Pap. SE-39.

Tree Species of New Hampshire (as encountered on field plots)

Scientific Name ^a	Common Name(s)	Occurrence ^b
<u>Softwoods</u>		
<u>Abies balsamea</u> (L.) Mill.	balsam fir	vc
<u>Juniperus virginiana</u> L.	eastern redcedar	r
<u>Larix laricina</u> (Du Roi) K. Koch	tamarack, eastern larch	r
<u>Picea glauca</u> (Moench) Voss	white spruce	c
<u>P. mariana</u> (Mill.) B.S.P.	black spruce	r
<u>P. rubens</u> Sarg.	red spruce	vc
<u>Pinus resinosa</u> Ait.	red or Norway pine	r
<u>P. rigida</u> Mill.	pitch pine	c
<u>P. strobus</u> L.	eastern white pine	vc
<u>Thuja occidentalis</u> L.	northern white-cedar	r
<u>Tsuga canadensis</u> (L.) Carr.	eastern hemlock	vc
<u>Hardwoods</u>		
<u>Acer pensylvanicum</u> L. ^c	striped maple, moosewood	r
<u>A. rubrum</u> L.	red, soft, or swamp maple	vc
<u>A. saccharinum</u> L.	silver or soft maple	vr
<u>A. saccharum</u> Marsh.	sugar, rock or hard maple	vc
<u>A. spicatum</u> Lam. ^c	mountain maple	vr
<u>Betula alleghaniensis</u> Britton	yellow birch	vc
<u>B. lenta</u> L.	sweet, black, or cherry birch	c
<u>B. papyrifera</u> Marsh.	paper, white or canoe birch	vc
<u>B. populifolia</u> Marsh.	gray birch	c
<u>Carya</u> spp. Nutt.	hickory	r
<u>Fagus grandifolia</u> Ehrh.	American beech	c
<u>Fraxinus americana</u> L.	white ash	c
<u>F. nigra</u> Marsh.	black or brown ash	r
<u>F. pennsylvanica</u> Marsh.	green or red ash	vr
<u>Juglans cinerea</u> L.	butternut	r
<u>Malus</u> spp. Mill. ^c	apple	r
<u>Ostrya virginiana</u> (Mill.) K. Koch ^c	eastern hophornbeam, ironwood	r
<u>Populus balsamifera</u> L.	balsam poplar	r
<u>P. grandidentata</u> Michx.	bigtooth aspen, poplar, popple	c
<u>P. tremuloides</u> Michx.	quaking or trembling aspen	c
<u>Prunus pensylvanica</u> L.F. ^c	pin or fire cherry	r
<u>P. serotina</u> Ehrh.	black cherry	c
<u>Quercus alba</u> L.	white oak	c
<u>Q. coccinea</u> Muenchh.	scarlet oak	r

^aNames according to: Little, Elbert L., Jr. Checklist of United States Trees (native and naturalized). Agric. Handb. 541. Washington, DC: U.S. Department of Agriculture, Forest Service; 1979. 375 P.

^bOccurrence is based on the proportion of the species among all live trees 5.0 inches d.b.h. or larger encountered on forest survey field plots: vr = very rare (<0.05%), r = rare (0.05 to 0.49%), c = common (0.5 to 4.9%), and vc = very common (>5.0%).

^cNoncommercial species.

Metric Equivalent of Units Used in This Report

1 acre = 4,046.86 square meters or 0.404686
 hectares
1,000 acres = 404.686 hectares
1,000,000 acres = 404,686 hectares
1 board foot^a = 0.00348 cubic meters or 3,480
 cubic centimeters
1,000 board feet^a = 3.48 cubic meters
1,000,000 board feet^a = 3,480 cubic meters
1 cubic foot = 0.028317 cubic meters
1,000 cubic feet = 28.317 cubic meters
1,000,000 cubic feet = 28,317 cubic meters
1 cord (wood, bark, and airspace) = 3.6246 cubic
 meters
1 cord (solid wood, pulpwood) = 2.4069 cubic
 meters
1 cord (solid wood, other than pulpwood) =
 2.2654 cubic meters
1,000 cords (pulpwood) = 2,406.9 cubic meters
1,000 cords (other products) = 2,265.4 cubic
 meters
1 inch = 2.54 centimeters or 0.0254 meters
1 foot = 30.48 centimeters or 0.3048 meters
Breast height = 1.4 meters above ground level
1 mile = 1.609 kilometers
1 square foot = 929.03 square centimeters or
 0.0929 square meters
1 square foot per acre basal area = 0.229568
 square meters per hectare
1 ton = 907.1848 kilograms
1,000 tons = 907.1848 metric tons

^aAlthough 1,000 board feet is theoretically equivalent to 2.36 cubic meters, this is true only when a board foot is actually a piece of wood with a volume 1/12 of a cubic foot. The International 1/4-inch log rule is used by the USDA Forest Service in the East to estimate the product potential in board feet. The reliability of the estimate obtained by conversion will vary with the size of the log measure. The conversion given here, 3.48 cubic meters, is based on the cubic volume of a log 16 feet long and 15 inches in diameter inside bark (d.i.b.) at the small end. This conversion could be used for average comparisons when accuracy of 10 percent is acceptable. Because the board foot unit is not a true measure of wood volume and because products other than dimension lumber are becoming important, this unit may eventually be phased out and replaced by the cubic meter.

Frieswyk, Thomas S.; Malley, Anne M. Forest Statistics for New Hampshire--1973 and 1983. Resour. Bull. NE-88. Broomall, PA: U.S. Department of Agriculture, Forest Service; 1985. 100 p.

A statistical report on the fourth forest survey of New Hampshire (1983). Findings are displayed in 81 tables containing estimates of forest area, numbers of trees, timber volume, tree biomass, and timber products output. Data is presented at three levels: state, geographic unit, and county.

ODC 905.1 (742)

Keywords: Forest survey, inventory, area, volume, biomass.

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

- **Amherst, Massachusetts, in cooperation with the University of Massachusetts.**
 - **Berea, Kentucky, in cooperation with Berea College.**
 - **Burlington, Vermont, in cooperation with the University of Vermont.**
 - **Delaware, Ohio.**
 - **Durham, New Hampshire, in cooperation with the University of New Hampshire.**
 - **Hamden, Connecticut, in cooperation with Yale University.**
 - **Morgantown, West Virginia, in cooperation with West Virginia University, Morgantown.**
 - **Orono, Maine, in cooperation with the University of Maine, Orono.**
 - **Parsons, West Virginia.**
 - **Princeton, West Virginia.**
 - **Syracuse, New York, in cooperation with the State University of New York College of Environmental Sciences and Forestry at Syracuse University, Syracuse.**
 - **University Park, Pennsylvania, in cooperation with the Pennsylvania State University.**
 - **Warren, Pennsylvania.**
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