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Biomass Statistics for New Hampshire - 1983

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Abstract

A new measure of the forest resource has been added to the fourth forest inventory of New Hampshire. The inventory, which was conducted in 1982-83, included estimates of aboveground tree biomass on timberland. There are approximately 502 million green tons of wood and bark in the aboveground portion of all trees, or 104 green tons per acre. Fifty-five percent or 275 million green tons is in growing stock, and 45 percent or 227 million green tons is non-growing stock (growing-stock tops, saplings, cull trees, stumps and salvable dead trees).

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 by the field crews. 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 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.

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BIOMASS STATISTICS FOR NEW HAMPSHIRE - 1983

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Highlights

- * There are approximately 502 million green tons of aboveground biomass in all trees. Over 97 percent or 489 million green tons is in live trees.
- * Two hundred and seventy-five million tons or 52 percent of the net green weight of all trees is in growing stock.
- * Two hundred and twenty-seven million tons or 45 percent of the net green weight of all trees is in nongrowing stock. Forty-five percent of the nongrowing stock is in growing-stock tops, 25 percent is in saplings, 21 percent is in rough and rotten cull trees and 9 percent is in stumps and salvable dead trees.
- * Sixty-one percent or 304 million green tons of the net aboveground biomass of all trees is in hardwoods.
- * Net aboveground biomass for all trees averages 104 green tons per acre in New Hampshire, and ranges from a low of 96 green tons per acre in Merrimack County to a high of 115 green tons per acre in Carroll County.

- * Sawtimber stands contain 338.7 million green tons or 69 percent of aboveground biomass of all live trees.
- * The northern hardwoods forest-type group contains the largest amount of aboveground tree biomass (204 million green tons), but the white/red pine group is more concentrated (109.6 green tons per acre of timberland).
- * White pine is the leading species in terms of aboveground biomass as well as in cubic foot volume. It accounts for 18 percent of the aboveground biomass of all live trees. Red maple is the leading hardwood species and accounts for 15 percent of the aboveground biomass.
- * Cull and salvable dead trees average 13.1 green tons per acre of timberland, and range from a low of 8.2 green tons per acre in Rockingham County to a high of 18.4 green tons per acre in Sullivan County.

Introduction

The USDA Forest Service completed the fourth inventory of New Hampshire's forest resources in 1983. Previous inventories were conducted in 1948, 1960, and 1973.

The inventories are conducted 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 biomass, area, and volume statistics presented in this report are a summary of information collected on new field plots established during the fourth inventory. The new plot sample consisted of 697 ground plots randomly selected from 15,950 photo points classified by land use and cubic-foot volume class.

Data were collected, processed, and analyzed by the Forest Inventory and Analysis staff. A complete list of available biomass tables is included in the appendix of this report. These tables are available on microfiche by state, geographic unit (Fig. 1) and county levels. Other tables or additional information not presented in this report may be developed. For further information, contact the Forest Inventory, Analysis, and Economics Project, USDA Forest Service, 370 Reed Road, Broomall, PA 19008 (phone 215-461-3037).

Background

Traditionally, forest resource data have been collected to describe the forest in terms of its timber production capabilities. Board- and cubic-foot measures of volume (Fig. 2) were and are adequate for that purpose. Today, timber production is still considered by many to be the primary use of forest land, however, many data users are also interested in how the resource can be used for energy production, fiber-based products, wildlife or recreation.

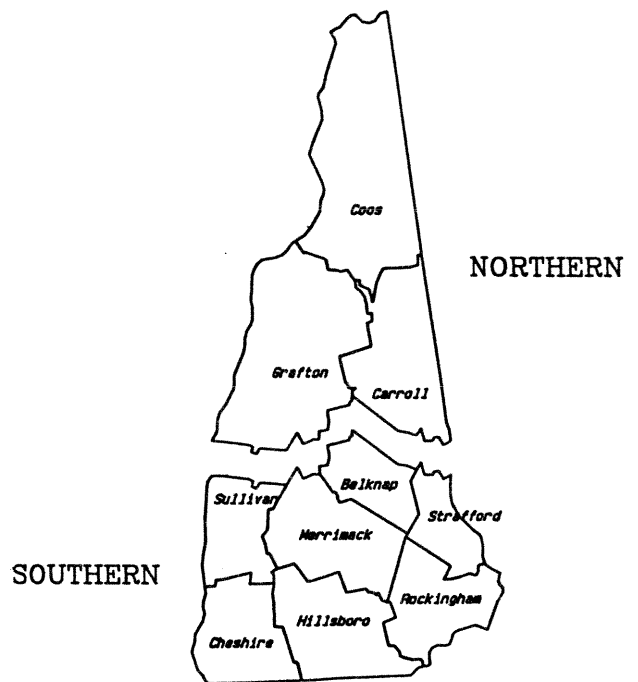


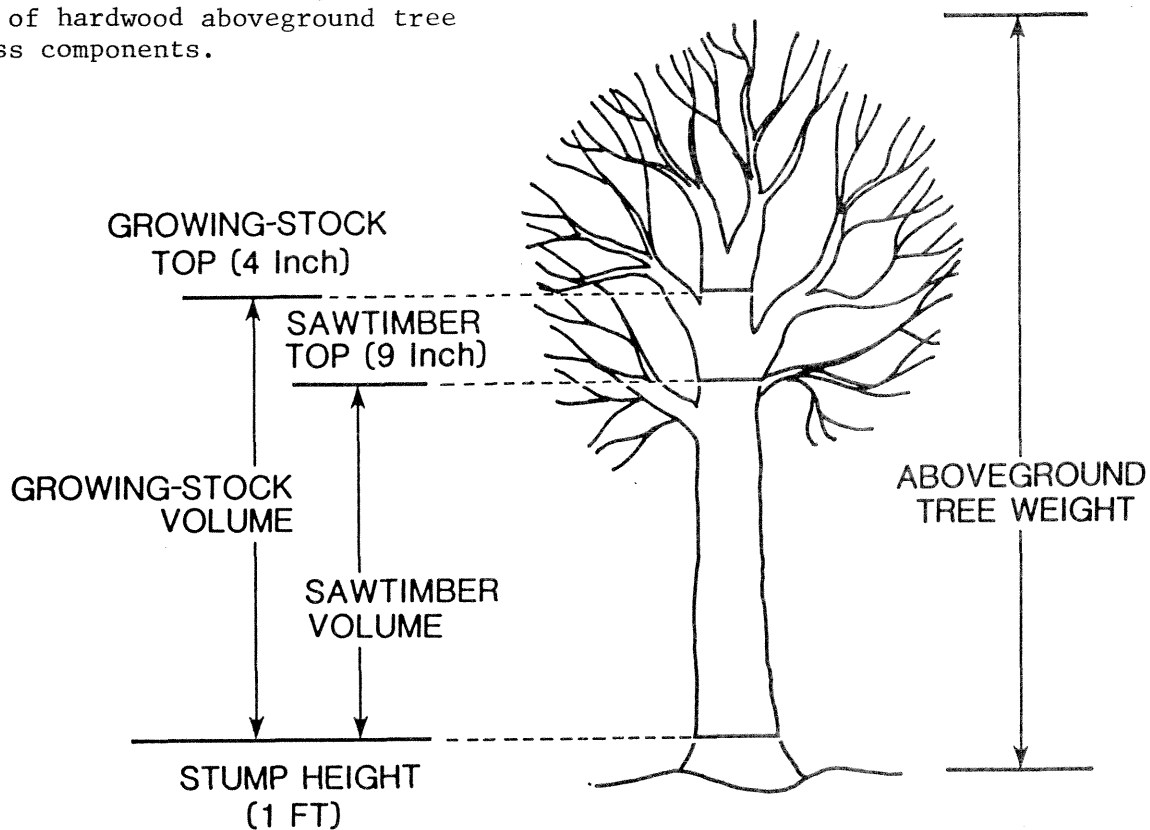
Figure 1.--Geographic Units.

Because board-foot and cubic-foot volume estimates do not describe the forest resource broadly enough, biomass estimates have been built into the standard Forest Service inventory procedure (Fig. 2).

Weight equations developed for the major tree species in Maine (Young et al. 1980) were included along with the conventional volume equations used during the compilation of statewide statistics. The weight equations provide an estimate of the above-stump biomass of all trees. Separate techniques had to be used to derive estimates for specific components of trees such as stump biomass (ground level to a 1-foot stump height), merchantable stem biomass (1-foot stump height to a 4-inch top diameter outside bark (d.o.b.) and tops and branches.

Determination of stump biomass involved a two step process. First, the volume in stumps was estimated using regression equations in which diameter at breast

Figure 2.--Volume and weight relationships of hardwood aboveground tree biomass components.



height (d.b.h.) was the independent variable (Raile 1982). Then the volumes were converted to weight using species-specific weight/volume ratios (Markwardt 1930).

The weight of the merchantable stem was calculated by applying weight/volume ratios to estimates of volume. Timber volume was estimated from new equations for both sawtimber and growing stock (Scott 1979, 1981). The difference between above-stump biomass from the weight regression equations and the independent estimate of merchantable stem biomass was the estimate for tops and branches.

Estimates of area, volume, numbers of trees, and above-ground tree biomass have been summarized in this report. The statistics are presented by forest-type group, species or species group, and diameter group; all estimates are provided at the state and county level.

Reliability of 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 nor examine every acre in the state, the data are estimates. Therefore, zeros in any table cell indicate that (1) the condition did not appear in the sample, or that the amount encountered was negligible. They do not necessarily mean that the condition does not exist.

There are two important sources of error to consider when looking at the estimates provided in this report: (1) the error associated with estimation from sample plots, and (2) the error associated with combining independent estimates. Some of the errors associated with estimation from sample plots are included in the tables, and are shown as a percentage of the total. We are not able to calculate a value for the error

associated with combined independent estimates.

Briefly, here is an example of how the sampling error is used to indicate reliability. The estimate of aboveground biomass of all trees on timberland in New Hampshire is 502 million green tons. It has an associated sampling error of 1.6 percent, or 8 million green tons. This means that if the survey were repeated, the odds are 2 to 1 (66 percent probability) that the estimate would be between 494 and 510 million green tons (502 ± 8). Similarly, the odds are 19 to 1 (95 percent probability) that the estimate would be within ± 16 million green tons.

State estimates have the smallest sampling errors and therefore are the most reliable. Geographic unit estimates are the next most reliable followed by county estimates. For example, the sampling error for aboveground tree biomass at for New Hampshire is 1.6 percent, while the sampling error for Rockingham County is 6.4 percent. County estimates are expected to be considerably less reliable than state estimates. The state estimates are based on a larger sample than county estimates, and as the sample size used to obtain the estimate decreases in relation to the population size, the sampling error is expected to increase.

Some of the estimates have sampling errors that are greater than 25 percent and may not be reliable. A single and double asterisk have been used to denote errors that exceed 25 and 50 percent, respectively. Any estimate with a sampling error of 50 percent or more would not be significantly different from zero, and those estimates with errors between 25 and 50 percent are suspect. Therefore, any estimates that have errors exceeding 25 percent should be used with caution.

The second important source of error occurs when two independent estimates are used to derive a third estimate.

The biomass in tops and branches has been derived in this manner. The estimate of the merchantable stem biomass was subtracted from the estimate of total above-stump biomass to yield an estimate of the biomass in tops and branches. Consequently, the estimates of tops and branches should be used with caution.

Index to tables

The tables are divided into three sections: (1) net volume and aboveground biomass of all trees, (2) net aboveground biomass of all live trees and (3) net aboveground biomass of cull and salvable dead trees.

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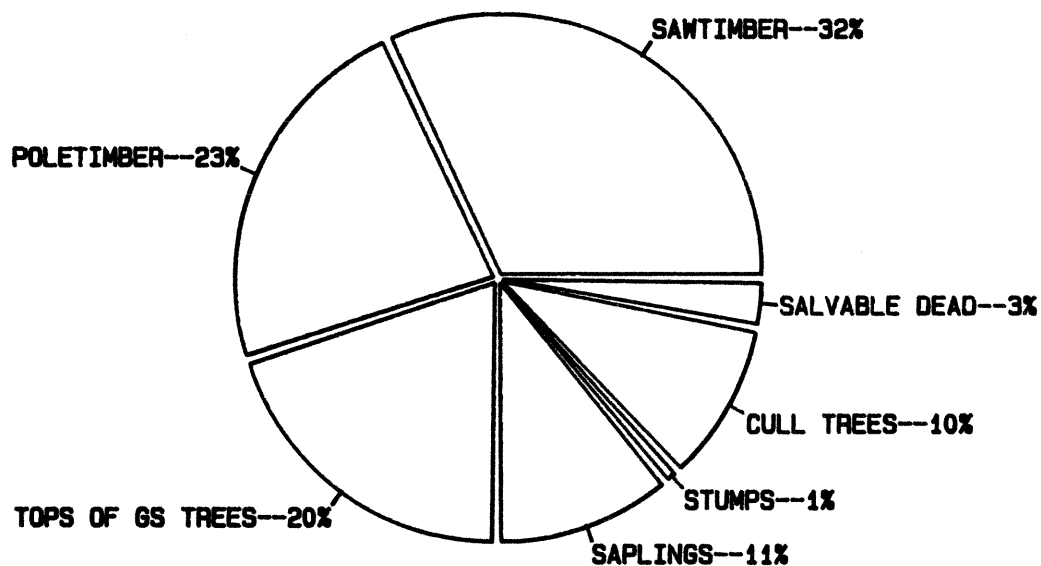
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ABOVEGROUND BIOMASS of ALL TREES



CLASS OF MATERIAL

Table 1.--Net volume of sawtimber, growing stock, and aboveground tree biomass of all trees on timberland, by county and species group, New Hampshire, 1983

County	Species group		All species
	Softwoods	Hardwoods	
SAWTIMBER ^a			
	<u>Million board feet</u>		
Belknap	439.3	334.2	773.5
Carroll	1,156.5	1,459.6	2,616.1
Cheshire	651.3	774.6	1,425.9
Coos	1,630.3	1,436.4	3,066.7
Grafton	1,351.7	2,150.2	3,501.9
Hillsboro	1,417.8	591.7	2,009.5
Merrimack	955.8	643.1	1,598.9
Rockingham	1,021.9	388.1	1,410.0
Strafford	385.0	349.0	734.0
Sullivan	499.0	400.7	899.7
All counties	9,508.6	8,527.6	18,036.2
GROWING STOCK ^b			
	<u>Million cubic feet</u>		
Belknap	140.8	201.1	341.9
Carroll	378.7	625.8	1,004.5
Cheshire	214.2	423.6	637.8
Coos	801.7	836.3	1,638.0
Grafton	541.6	1,099.5	1,641.1
Hillsboro	439.0	342.5	781.5
Merrimack	315.7	407.1	722.8
Rockingham	312.2	228.2	540.4
Strafford	120.5	182.2	302.7
Sullivan	183.3	225.8	409.1
All counties	3,447.7	4,572.1	8,019.8
ABOVEGROUND TREE BIOMASS ^c			
	<u>Thousand green tons</u>		
Belknap	8,130.5	14,098.5	22,229.0
Carroll	20,921.9	39,451.3	60,373.2
Cheshire	13,117.3	28,232.7	41,350.0
Coos	44,266.3	56,663.6	100,929.9
Grafton	33,625.5	68,490.7	102,116.2
Hillsboro	23,767.9	24,115.0	47,882.9
Merrimack	18,882.0	28,339.4	47,221.4
Rockingham	17,430.7	14,870.1	32,300.8
Strafford	6,854.1	12,176.2	19,030.3
Sullivan	11,079.3	17,519.3	28,598.6
All counties	198,075.5	303,956.8	502,032.3

^aNet volume in board feet, by International 1/4-inch rule, of live trees of commercial species at least 9.0 inches d.b.h. (diameter breast height) for softwoods or 11.0 inches d.b.h. for hardwoods, between a 1-foot stump height and a minimum sawlog top of 7.0 inches d.o.b. (diameter outside bark) for softwoods or 9.0 inches d.o.b. for hardwoods, or until the point on the main stem above which a sawlog cannot be produced.

^bNet volume, in cubic feet, of live trees of commercial species at least 5.0 inches d.b.h. between a 1-foot stump height and a minimum top of 4.0 inches d.o.b., or to the point where the main stem breaks into limbs.

^cNet biomass, in green tons, of all trees (commercial species, noncommercial species, cull trees, and salvageable dead trees) at least 1.0 inch d.b.h., above the ground level (excluding foliage).

Table 2.--Area of timberland, net aboveground tree biomass of all trees on timberland, and net aboveground tree biomass per acre of timberland, by county, New Hampshire, 1983

County	Timberland area	Total aboveground tree biomass ^a	Total aboveground tree biomass per unit area
	<u>Thousand acres</u>	<u>Thousand green tons</u>	<u>Green tons per acre</u>
Belknap	217.3	22,229.0	102.3
Carroll	525.8	60,373.2	114.8
Cheshire	396.6	41,350.0	104.3
Coos	1,021.5	100,929.9	98.8
Grafton	942.9	102,116.2	108.3
Hillsboro	418.2	47,882.9	114.5
Merrimack	492.0	47,221.4	96.0
Rockingham	319.9	32,300.8	101.0
Strafford	185.6	19,030.3	102.5
Sullivan	292.3	28,598.6	97.8
All counties	4,812.1	502,032.3	104.3

^aNet biomass in green tons, of all trees (commercial species, noncommercial species, cull trees, and salvable dead trees) at least 1.0 inch d.b.h. above the ground level (excluding foliage).

Table 3.--Net aboveground tree biomass of all trees on timberland, by class of material and species group, New Hampshire, 1983

Class of material	Species group		All species	Sampling error ^a
	Softwoods	Hardwoods		
	----- Thousand green tons -----			Percent
Sawtimber trees:				
Sawlog portion	74,365.5	61,163.4	135,528.9	3
Upper stem	9,266.0	15,231.4	24,497.4	3
Total	83,631.5	76,394.8	160,026.3	3
Poletimber trees	30,287.7	84,311.4	114,599.1	2
All growing stock	113,919.2	160,706.2	274,625.4	2
Rough cull trees ^b	7,933.0	12,975.0	20,908.0	6
Rotten cull trees ^b	1,999.8	12,756.6	14,756.4	5
Salvable dead trees ^c	7,723.3	5,202.5	12,925.8	8
Saplings ^d	19,845.3	37,712.7	57,558.0	5
Stumps ^e	2,299.2	4,501.4	6,800.6	2
Tops - growing stock	40,771.6	60,666.9	101,438.5	2
Tops - rough and rotten	3,584.1	9,435.5	13,019.6	4
All nongrowing stock	84,156.3	143,250.6	227,406.9	2
All classes	198,075.5	303,956.8	502,032.3	1.6
Sampling error (percent)	3.9	2.5	1.6	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bMain stem portion of trees 5.0 inches d.b.h. and larger between a 1-foot stump height and a 4-inch top d.o.b.

^cIncludes entire tree above a 1-foot stump height.

^dIncludes entire tree above the ground.

^eOf all trees 5.0 inches d.b.h. and larger.

Table 4.--Net aboveground tree biomass of all trees on timberland, by class of material and species group, Belknap County, New Hampshire, 1983

Class of material	Species group		All species	Sampling error ^a
	Softwoods	Hardwoods		
	----- Thousand green tons -----			Percent
Sawtimber trees:				
Sawlog portion	3,798.0	2,418.8	6,216.8	14
Upper stem	436.0	633.8	1,069.8	10
Total	4,234.0	3,052.6	7,286.6	13
Poletimber trees	1,031.1*	4,272.8	5,303.9	8
All growing stock	5,265.1	7,325.4	12,590.5	8
Rough cull trees ^b	289.6*	355.1*	644.7	20
Rotten cull trees ^b	22.4**	692.9*	715.3	25
Salvable dead trees ^c	79.2**	85.6**	164.8	40
Saplings ^d	472.3*	2,236.4	2,708.7	14
Stumps ^e	92.2	209.0	301.2	8
Tops - growing stock	1,789.5	2,811.6	4,601.1	7
Tops - rough and rotten	120.2*	382.5	502.7	14
All nongrowing stock	2,865.4	6,773.1	9,638.5	6
All classes	8,130.5	14,098.5	22,229.0	5.7
Sampling error (percent)	20	9	5.7	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bMain stem portion of trees 5.0 inches d.b.h. and larger between a 1-foot stump height and a 4-inch top d.o.b.

^cIncludes entire tree above a 1-foot stump height.

^dIncludes entire tree above the ground.

^eOf all trees 5.0 inches d.b.h. and larger.

Table 5.--Net aboveground tree biomass of all trees on timberland, by class of material and species group, Carroll County, New Hampshire, 1983

Class of material	Species group		All species	Sampling error ^a
	Softwoods	Hardwoods		
	----- Thousand green tons -----			Percent
Sawtimber trees:				
Sawlog portion	8,716.2	10,258.9	18,975.1	8
Upper stem	1,052.1	2,369.5	3,421.6	7
Total	9,768.3	12,628.4	22,396.7	8
Poletimber trees	2,703.6	9,336.5	12,040.1	7
All growing stock	12,471.9	21,964.9	34,436.8	5
Rough cull trees ^b	897.2*	1,137.9	2,035.1	20
Rotten cull trees ^b	166.1*	1,751.6	1,917.7	14
Salvable dead trees ^c	492.8*	570.9*	1,063.7	21
Saplings ^d	1,929.9	4,431.0	6,360.9	14
Stumps ^e	252.8	581.6	834.4	5
Tops - growing stock	4,380.8	8,012.0	12,392.8	5
Tops - rough and rotten	330.4*	1,001.4	1,331.8	11
All nongrowing stock	8,450.0	17,486.4	25,936.4	5
All classes	20,921.9	39,451.3	60,373.2	4.4
Sampling error (percent)	12	7	4.4	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bMain stem portion of trees 5.0 inches d.b.h. and larger between a 1-foot stump height and a 4-inch top d.o.b.

^cIncludes entire tree above a 1-foot stump height.

^dIncludes entire tree above the ground.

^eOf all trees 5.0 inches d.b.h. and larger.

Table 6.--Net aboveground tree biomass of all trees on timberland, by class of material and species group, Cheshire County, New Hampshire, 1983

Class of material	Species group		All species	Sampling error ^a
	Softwoods	Hardwoods		
	----- Thousand green tons -----			Percent
Sawtimber trees:				
Sawlog portion	5,608.4	5,428.9	11,037.3	9
Upper stem	663.6	1,364.6	2,028.2	8
Total	6,272.0	6,793.5	13,065.5	9
Poletimber trees	1,579.9	8,157.6	9,737.5	7
All growing stock	7,851.9	14,951.1	22,803.0	6
Rough cull trees ^b	736.0*	1,061.7	1,797.7	16
Rotten cull trees ^b	251.6*	1,331.9	1,583.5	12
Salvable dead trees ^c	180.3**	111.1*	291.4	38
Saplings ^d	911.7*	3,779.1	4,690.8	19
Stumps ^e	142.9	437.7	580.6	5
Tops - growing stock	2,669.9	5,651.2	8,321.1	5
Tops - rough and rotten	373.0	908.9	1,281.9	10
All nongrowing stock	5,265.4	13,281.6	18,547.0	5
All classes	13,117.3	28,232.7	41,350.0	4.5
Sampling error (percent)	13	7	4.5	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bMain stem portion of trees 5.0 inches d.b.h. and larger between a 1-foot stump height and a 4-inch top d.o.b.

^cIncludes entire tree above a 1-foot stump height.

^dIncludes entire tree above the ground.

^eOf all trees 5.0 inches d.b.h. and larger.

Table 7.--Net aboveground tree biomass of all trees on timberland, by class of material and species group, Coos County, New Hampshire, 1983

Class of material	Species group		All species	Sampling error ^a
	Softwoods	Hardwoods		
	----- Thousand green tons -----			Percent
Sawtimber trees:				
Sawlog portion	10,176.6	10,453.6	20,630.2	7
Upper stem	1,540.8	2,675.9	4,216.7	7
Total	11,717.4	13,129.5	24,846.9	7
Poletimber trees	10,191.7	15,537.5	25,729.2	5
All growing stock	21,909.1	28,667.0	50,576.1	5
Rough cull trees ^b	1,260.0*	2,678.5	3,938.5	14
Rotten cull trees ^b	423.0	2,838.2	3,261.2	10
Salvable dead trees ^c	3,059.6	1,592.5	4,652.1	14
Saplings ^d	7,649.6	7,089.8	14,739.4	11
Stumps ^e	559.2	826.7	1,385.9	4
Tops - growing stock	8,746.8	10,903.3	19,650.1	4
Tops - rough and rotten	659.0	2,067.6	2,726.6	9
All nongrowing stock	22,357.2	27,996.6	50,353.8	4
All classes	44,266.3	56,663.6	100,929.9	4.0
Sampling error (percent)	9	6	4.0	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bMain stem portion of trees 5.0 inches d.b.h. and larger between a 1-foot stump height and a 4-inch top d.o.b.

^cIncludes entire tree above a 1-foot stump height.

^dIncludes entire tree above the ground.

^eOf all trees 5.0 inches d.b.h. and larger.

Table 8.--Net aboveground tree biomass of all trees on timberland, by class of material and species group, Grafton County, New Hampshire, 1983

Class of material	Species group		All species	Sampling error ^a
	Softwoods	Hardwoods		
	----- Thousand green tons -----			Percent
Sawtimber trees:				
Sawlog portion	9,848.9	15,290.1	25,139.0	8
Upper stem	1,260.3	3,743.8	5,004.1	8
Total	11,109.2	19,033.9	30,143.1	8
Poletimber trees	6,015.2	18,771.5	24,786.7	6
All growing stock	17,124.4	37,805.4	54,929.8	5
Rough cull trees ^b	1,421.0*	2,607.7	4,028.7	15
Rotten cull trees ^b	202.7*	2,475.3	2,678.0	15
Salvable dead trees ^c	2,867.9	1,931.6	4,799.5	15
Saplings ^d	4,748.4	6,837.5	11,585.9	13
Stumps ^e	380.6	977.5	1,358.1	5
Tops - growing stock	6,356.3	14,117.8	20,474.1	5
Tops - rough and rotten	524.2	1,737.9	2,262.1	11
All nongrowing stock	16,501.1	30,685.3	47,186.4	4
All classes	33,625.5	68,490.7	102,116.2	3.8
Sampling error (percent)	10	7	3.8	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bMain stem portion of trees 5.0 inches d.b.h. and larger between a 1-foot stump height and a 4-inch top d.o.b.

^cIncludes entire tree above a 1-foot stump height.

^dIncludes entire tree above the ground.

^eOf all trees 5.0 inches d.b.h. and larger.

Table 9.--Net aboveground tree biomass of all trees on timberland, by class of material and species group, Hillsboro County, New Hampshire, 1983

Class of material	Species group		All species	Sampling error ^a
	Softwoods	Hardwoods		
	----- Thousand green tons -----			Percent
Sawtimber trees:				
Sawlog portion	11,848.7	4,390.6	16,239.3	10
Upper stem	1,402.7	1,093.5	2,496.2	8
Total	13,251.4	5,484.1	18,735.5	9
Poletimber trees	2,424.9	6,989.8	9,414.7	7
All growing stock	15,676.3	12,473.9	28,150.2	7
Rough cull trees ^b	678.6	1,310.2	1,988.8	13
Rotten cull trees ^b	424.1	1,012.9	1,437.0	18
Salvable dead trees ^c	276.9*	86.1*	363.0	28
Saplings ^d	750.5*	3,251.5	4,002.0	18
Stumps ^e	250.0	372.7	622.7	6
Tops - growing stock	5,277.8	4,732.6	10,010.4	6
Tops - rough and rotten	433.7	875.1	1,308.8	11
All nongrowing stock	8,091.6	11,641.1	19,732.7	6
All classes	23,767.9	24,115.0	47,882.9	5.4
Sampling error (percent)	11	8	5.4	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bMain stem portion of trees 5.0 inches d.b.h. and larger between a 1-foot stump height and a 4-inch top d.o.b.

^cIncludes entire tree above a 1-foot stump height.

^dIncludes entire tree above the ground.

^eOf all trees 5.0 inches d.b.h. and larger.

Table 10.--Net aboveground tree biomass of all trees on timberland, by class of material and species group, Merrimack County, New Hampshire, 1983

Class of material	Species group		All species	Sampling error ^a
	Softwoods	Hardwoods		
	----- Thousand green tons -----			Percent
Sawtimber trees:				
Sawlog portion	8,055.0	4,783.1	12,838.1	9
Upper stem	968.7	1,258.7	2,227.4	7
Total	9,023.7	6,041.8	15,065.5	8
Poletimber trees	2,287.0	8,557.5	10,844.5	7
All growing stock	11,310.7	14,599.3	25,910.0	6
Rough cull trees ^b	901.9	1,123.4	2,025.3	15
Rotten cull trees ^b	170.3*	836.1	1,006.4	16
Salvable dead trees ^c	404.1*	371.8*	775.9	19
Saplings ^d	1,560.3	4,576.0	6,136.3	14
Stumps ^e	210.5	401.0	611.5	5
Tops - growing stock	3,922.0	5,664.5	9,586.5	6
Tops - rough and rotten	402.2	767.3	1,169.5	12
All nongrowing stock	7,571.3	13,740.1	21,311.4	5
All classes	18,882.0	28,339.4	47,221.4	4.6
Sampling error (percent)	11	7	4.6	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bMain stem portion of trees 5.0 inches d.b.h. and larger between a 1-foot stump height and a 4-inch top d.o.b.

^cIncludes entire tree above a 1-foot stump height.

^dIncludes entire tree above the ground.

^eOf all trees 5.0 inches d.b.h. and larger.

Table 11.--Net aboveground tree biomass of all trees on timberland, by class of material and species group, Rockingham County, New Hampshire, 1983

Class of material	Species group		All species	Sampling error ^a
	Softwoods	Hardwoods		
	----- Thousand green tons -----			Percent
Sawtimber trees:				
Sawlog portion	8,763.6	2,782.6	11,546.2	11
Upper stem	1,039.7	732.4	1,772.1	8
Total	9,803.3	3,515.0	13,318.3	10
Poletimber trees	1,577.7	4,730.8	6,308.5	11
All growing stock	11,381.0	8,245.8	19,626.8	7
Rough cull trees ^b	594.9	677.9	1,272.8	15
Rotten cull trees ^b	159.7*	159.1*	318.8	24
Salvable dead trees ^c	173.6*	152.7*	326.3	29
Saplings ^d	843.8*	1,894.4	2,738.2	19
Stumps ^e	191.4	235.3	426.7	6
Tops - growing stock	3,798.6	3,172.7	6,971.3	7
Tops - rough and rotten	287.7	332.2	619.9	11
All nongrowing stock	6,049.7	6,624.3	12,674.0	7
All classes	17,430.7	14,870.1	32,300.8	6.4
Sampling error (percent)	14	10	6.4	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bMain stem portion of trees 5.0 inches d.b.h. and larger between a 1-foot stump height and a 4-inch top d.o.b.

^cIncludes entire tree above a 1-foot stump height.

^dIncludes entire tree above the ground.

^eOf all trees 5.0 inches d.b.h. and larger.

Table 12.--Net aboveground tree biomass of all trees on timberland, by class of material and species group, Strafford County, New Hampshire, 1983

Class of material	Species group		All species	Sampling error ^a
	Softwoods	Hardwoods		
	----- Thousand green tons -----			Percent
Sawtimber trees:				
Sawlog portion	3,261.8	2,547.3	5,809.1	11
Upper stem	380.0	637.6	1,017.6	11
Total	3,641.8	3,184.9	6,826.7	11
Poletimber trees	806.7	3,493.2	4,299.9	11
All growing stock	4,448.5	6,678.1	11,126.6	7
Rough cull trees ^b	184.1	866.5	1,050.6	13
Rotten cull trees ^b	57.9	330.9	388.8	22
Salvable dead trees ^c	14.8	60.2	75.0	50
Saplings ^d	457.5	1,046.7	1,504.2	24
Stumps ^e	75.5	192.2	267.7	7
Tops - growing stock	1,517.0	2,500.4	4,017.4	7
Tops - rough and rotten	98.8	501.2	600.0	10
All nongrowing stock	2,405.6	5,498.1	7,903.7	5
All classes	6,854.1	12,176.2	19,030.3	4.9
Sampling error (percent)	15	9	4.9	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bMain stem portion of trees 5.0 inches d.b.h. and larger between a 1-foot stump height and a 4-inch top d.o.b.

^cIncludes entire tree above a 1-foot stump height.

^dIncludes entire tree above the ground.

^eOf all trees 5.0 inches d.b.h. and larger.

Table 13.--Net aboveground tree biomass of all trees on timberland, by class of material and species group, Sullivan County, New Hampshire, 1983

Class of material	Species group		All species	Sampling error ^a
	Softwoods	Hardwoods		
	----- <u>Thousand green tons</u> -----			<u>Percent</u>
Sawtimber trees:				
Sawlog portion	4,288.3	2,809.5	7,097.8	12
Upper stem	522.1	721.6	1,243.7	11
Total	4,810.4	3,531.1	8,341.5	12
Poletimber trees	1,669.9	4,464.2	6,134.1	8
All growing stock	6,480.3	7,995.3	14,475.6	8
Rough cull trees ^b	969.7*	1,156.1	2,125.8	23
Rotten cull trees ^b	122.0*	1,327.7	1,449.7	19
Salvable dead trees ^c	174.1*	240.0*	414.1	35
Saplings ^d	521.3*	2,570.3	3,091.6	20
Stumps ^e	144.1	267.7	411.8	6
Tops - growing stock	2,312.9	3,100.8	5,413.7	7
Tops - rough and rotten	354.9*	861.4	1,216.3	12
All nongrowing stock	4,599.0	9,524.0	14,123.0	6
All classes	11,079.3	17,519.3	28,598.6	5.5
Sampling error (percent)	14	8	5.5	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

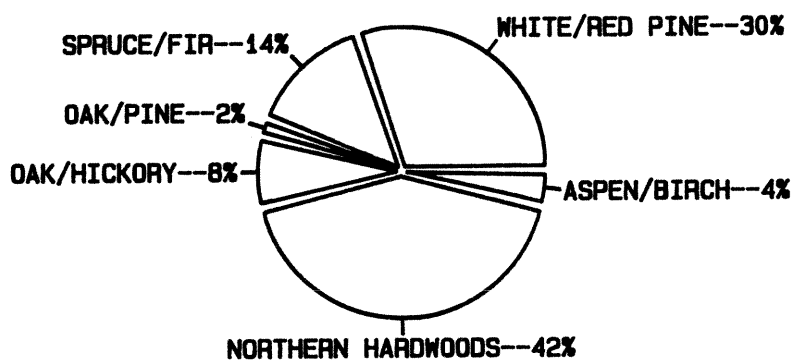
^bMain stem portion of trees 5.0 inches d.b.h. and larger between a 1-foot stump height and a 4-inch top d.o.b.

^cIncludes entire tree above a 1-foot stump height.

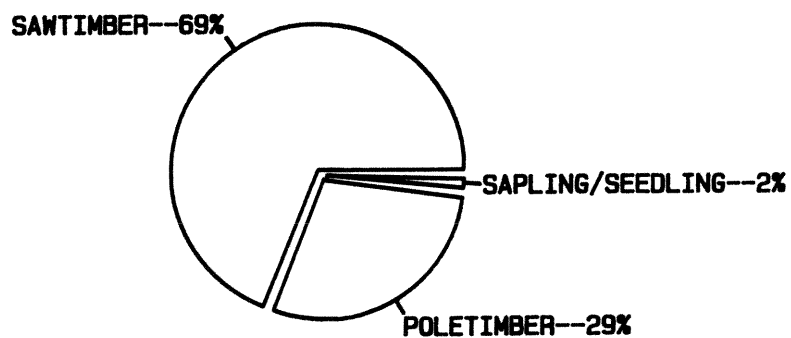
^dIncludes entire tree above the ground.

^eOf all trees 5.0 inches d.b.h. and larger.

ABOVEGROUND BIOMASS of ALL LIVE TREES



FOREST-TYPE GROUP



STANDSIZE CLASS

Table 14.--Net aboveground tree biomass of all live trees on timberland, by forest-type group and stand-size class, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	Thousand green tons					Percent
White/red pine	128,598.3	15,558.2	4,442.2*	.0	148,598.7	7
Spruce/fir	37,924.3	27,367.4	1,200.6**	.0	66,492.3	11
Hard pine	1,040.8**	937.8**	292.6**	.0	2,271.2	54
Oak/pine	5,919.5*	2,275.9**	162.8**	.0	8,358.2	31
Oak/hickory	20,520.8	15,931.9	479.5**	.0	36,932.2	14
Elm/ash/red maple	206.9**	91.7**	73.9**	.0	372.5	63
Northern hardwoods	137,823.1	63,319.9	2,868.5*	.0	204,011.5	5
Aspen/birch	6,686.6*	14,068.0*	1,068.7**	.0	21,823.3	22
Total, all groups	338,720.3	139,550.8	10,588.8	.0	488,859.9	1.6
Sampling error (percent)	3.5	6.7	18.9	-	1.6	
	Thousand acres					Percent
White/red pine	1,067.3	185.4	103.3*	.0	1,356.0	6
Spruce/fir	326.0	311.8	39.8*	.0	677.6	10
Hard pine	9.4**	16.7**	15.6**	.0	41.7	44
Oak/pine	56.0*	36.6*	7.3**	.0	99.9	28
Oak/hickory	202.3	183.1	9.8**	.0	395.2	13
Elm/ash/red maple	8.1**	6.7**	17.5**	.0	32.3	47
Northern hardwoods	1,216.2	681.3	106.1*	.0	2,003.6	5
Aspen/birch	48.2*	132.6*	25.0**	.0	205.8	20
Total, all groups	2,933.5	1,554.2	324.4	.0	4,812.1	.8
Sampling error (percent)	3.3	6.1	14.9	-	.8	
	Green tons per acre ^b					
White/red pine	120.5	83.9	43.0	.0	109.6	
Spruce/fir	116.3	87.8	30.2	.0	98.1	
Hard pine	110.7	56.2	18.8	.0	54.5	
Oak/pine	105.7	62.2	22.3	.0	83.7	
Oak/hickory	101.4	87.0	48.9	.0	93.5	
Elm/ash/red maple	25.5	13.7	4.2	.0	11.5	
Northern hardwoods	113.3	92.9	27.0	.0	101.8	
Aspen/birch	138.7	106.1	42.7	.0	106.0	
All groups	115.5	89.8	32.6	.0	101.6	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 15.--Net aboveground tree biomass of all live trees on timberland, by forest-type group and stand-size class, Belknap County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	Thousand green tons					Percent
White/red pine	8,068.3*	906.5**	.0	.0	8,974.8	27
Spruce/fir	.0	.0	.0	.0	.0	-
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	923.1**	851.6**	.0	.0	1,774.7	71
Oak/hickory	2,636.1**	219.0**	.0	.0	2,855.1	47
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	4,427.0*	2,844.4**	229.6**	.0	7,501.0	29
Aspen/birch	.0	862.9**	92.0**	.0	954.9	91
Total, all groups	16,054.5	5,684.4	321.6	.0	22,060.5	5.7
Sampling error (percent)	14	31	77	-	5.7	
	Thousand acres					Percent
White/red pine	65.3*	14.1**	.0	.0	79.4	26
Spruce/fir	.0	.0	.0	.0	.0	-
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	7.1**	7.0**	.0	.0	14.1	71
Oak/hickory	28.7*	7.6**	.0	.0	36.3	41
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	36.0*	29.3*	7.0**	.0	72.3	27
Aspen/birch	.0	7.6**	7.6**	.0	15.2	71
Total, all groups	137.1	65.6	14.6	.0	217.3	1.6
Sampling error (percent)	14	29	71	-	1.6	
	Green tons per acre ^b					
White/red pine	123.6	64.3	.0	.0	113.0	
Spruce/fir	.0	.0	.0	.0	.0	
Hard pine	.0	.0	.0	.0	.0	
Oak/pine	130.0	121.7	.0	.0	125.9	
Oak/hickory	91.9	28.8	.0	.0	78.7	
Elm/ash/red maple	.0	.0	.0	.0	.0	
Northern hardwoods	123.0	97.1	32.8	.0	103.7	
Aspen/birch	.0	113.5	12.1	.0	62.8	
All groups	117.1	86.7	22.0	.0	101.5	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 16.--Net aboveground tree biomass of all live trees on timberland, by forest-type group and stand-size class, Carroll County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	----- Thousand green tons -----					Percent
White/red pine	15,225.7*	3,135.8*	.0	.0	18,361.5	22
Spruce/fir	2,876.5**	.0	.0	.0	2,876.5	75
Hard pine	1,040.8**	587.8**	134.3**	.0	1,762.9	66
Oak/pine	977.6**	.0	.0	.0	977.6	100
Oak/hickory	1,437.0**	805.9**	.0	.0	2,242.9	58
Elm/ash/red maple	206.9**	.0	.0	.0	206.9	100
Northern hardwoods	29,078.2	3,623.1*	159.7**	.0	32,861.0	14
Aspen/birch	.0	.0	.0	.0	.0	-
Total, all groups	50,842.7	8,152.6	294.0	.0	59,289.3	4.3
Sampling error (percent)	8	29	62	-	4.3	
	----- Thousand acres -----					Percent
White/red pine	124.3	37.7*	.0	.0	162.0	20
Spruce/fir	19.0**	.0	.0	.0	19.0	71
Hard pine	9.3**	9.3**	8.4**	.0	27.0	57
Oak/pine	9.7**	.0	.0	.0	9.7	100
Oak/hickory	19.4**	8.4**	.0	.0	27.8	57
Elm/ash/red maple	8.2**	.0	.0	.0	8.2	100
Northern hardwoods	225.7	38.1*	8.3**	.0	272.1	13
Aspen/birch	.0	.0	.0	.0	.0	-
Total, all groups	415.6	93.5	16.7	.0	525.8	2.3
Sampling error (percent)	7	28	62	-	2.3	
	----- Green tons per acre ^b -----					
White/red pine	122.5	83.2	.0	.0	113.3	
Spruce/fir	151.4	.0	.0	.0	151.4	
Hard pine	111.9	63.2	16.0	.0	65.3	
Oak/pine	100.8	.0	.0	.0	100.8	
Oak/hickory	74.1	95.9	.0	.0	80.7	
Elm/ash/red maple	25.2	.0	.0	.0	25.2	
Northern hardwoods	128.8	95.1	19.2	.0	120.8	
Aspen/birch	.0	.0	.0	.0	.0	
All groups	122.3	87.2	17.6	.0	112.8	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 17.--Net aboveground tree biomass of all live trees on timberland, by forest-type group and stand-size class, Cheshire County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	----- Thousand green tons -----					Percent
White/red pine	10,078.5*	1,575.1**	1,143.8**	.0	12,797.4	22
Spruce/fir	.0	412.1**	.0	.0	412.1	100
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	864.0**	123.3**	.0	.0	987.3	88
Oak/hickory	4,285.7*	2,241.3**	.0	.0	6,527.0	34
Elm/ash/red maple	.0	91.7**	.0	.0	91.7	100
Northern hardwoods	12,650.6	7,366.7*	219.4**	.0	20,236.7	15
Aspen/birch	.0	.0	.0	.0	.0	-
Total, all groups	27,878.8	11,810.2	1,363.2	.0	41,052.2	4.4
Sampling error (percent)	11	21	64	-	4.4	
	----- Thousand acres -----					Percent
White/red pine	93.5	14.4**	14.5**	.0	122.4	20
Spruce/fir	.0	6.8**	.0	.0	6.8	100
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	6.9**	8.0**	.0	.0	14.9	71
Oak/hickory	36.1*	21.9**	.0	.0	58.0	33
Elm/ash/red maple	.0	6.7**	.0	.0	6.7	100
Northern hardwoods	108.5	72.6*	6.7**	.0	187.8	15
Aspen/birch	.0	.0	.0	.0	.0	-
Total, all groups	245.0	130.4	21.2	.0	396.6	3.5
Sampling error (percent)	11	20	58	-	3.5	
	----- Green tons per acre ^b -----					
White/red pine	107.8	109.4	78.9	.0	104.6	
Spruce/fir	.0	60.6	.0	.0	60.6	
Hard pine	.0	.0	.0	.0	.0	
Oak/pine	125.2	15.4	.0	.0	66.3	
Oak/hickory	118.7	102.3	.0	.0	112.5	
Elm/ash/red maple	.0	13.7	.0	.0	13.7	
Northern hardwoods	116.6	101.5	32.7	.0	107.8	
Aspen/birch	.0	.0	.0	.0	.0	
All groups	113.8	90.6	64.3	.0	103.5	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 18.--Net aboveground tree biomass of all live trees on timberland, by forest-type group and stand-size class, Coos County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	Thousand green tons					Percent
White/red pine	.0	.0	254.0**	.0	254.0	100
Spruce/fir	26,549.5	19,179.0	783.2**	.0	46,511.7	12
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	.0	.0	.0	.0	.0	-
Oak/hickory	.0	.0	.0	.0	.0	-
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	26,887.5	11,131.4*	741.2**	.0	38,760.1	13
Aspen/birch	2,345.5**	7,770.6*	547.9**	.0	10,664.0	31
Total, all groups	55,782.5	38,081.0	2,326.3	.0	96,189.8	4.0
Sampling error (percent)	10	13	36	-	4.0	
	Thousand acres					Percent
White/red pine	.0	.0	9.7**	.0	9.7	100
Spruce/fir	219.7	222.7	29.0**	.0	471.4	11
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	.0	.0	.0	.0	.0	-
Oak/hickory	.0	.0	.0	.0	.0	-
Elm/ash/red maple	.0	.0	8.5**	.0	8.5	100
Northern hardwoods	271.9	136.6	29.4**	.0	437.9	11
Aspen/birch	17.8**	66.1*	10.1**	.0	94.0	30
Total, all groups	509.4	425.4	86.7	.0	1,021.5	1.2
Sampling error (percent)	9	12	30	-	1.2	
	Green tons per acre ^b					
White/red pine	.0	.0	26.2	.0	26.2	
Spruce/fir	120.8	86.1	27.0	.0	98.7	
Hard pine	.0	.0	.0	.0	.0	
Oak/pine	.0	.0	.0	.0	.0	
Oak/hickory	.0	.0	.0	.0	.0	
Elm/ash/red maple	.0	.0	.0	.0	.0	
Northern hardwoods	98.9	81.5	25.2	.0	88.5	
Aspen/birch	131.8	117.6	54.2	.0	113.4	
All groups	109.5	89.5	26.8	.0	94.2	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 19.--Net aboveground tree biomass of all live trees on timberland, by forest-type group and stand-size class, Grafton County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	Thousand green tons					Percent
White/red pine	12,809.5	2,333.1	659.3	.0	15,801.9	24
Spruce/fir	7,012.7	6,852.3	417.4	.0	14,282.4	25
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	1,106.6	.0	.0	.0	1,106.6	100
Oak/hickory	1,067.9	3,150.6	479.5	.0	4,698.0	46
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	31,992.3	20,781.8	1,151.6	.0	53,925.7	11
Aspen/birch	4,341.1	3,080.7	.0	.0	7,421.8	42
Total, all groups	58,330.1	36,198.5	2,707.8	.0	97,236.4	3.8
Sampling error (percent)	10	14	41	-	3.8	
	Thousand acres					Percent
White/red pine	122.0*	29.7**	16.9**	.0	168.6	23
Spruce/fir	72.6*	70.3*	10.8**	.0	153.7	204
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	10.7**	.0	.0	.0	10.7	100
Oak/hickory	9.8**	30.4**	9.8**	.0	50.0	44
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	269.4	201.8	28.9**	.0	500.1	10
Aspen/birch	30.4**	29.4**	.0	.0	59.8	40
Total, all groups	514.9	361.6	66.4	.0	942.9	2.1
Sampling error (percent)	10	13	38	-	2.1	
	Green tons per acre ^b					
White/red pine	105.0	78.6	39.0	.0	93.7	
Spruce/fir	96.6	97.5	38.6	.0	92.9	
Hard pine	.0	.0	.0	.0	.0	
Oak/pine	103.4	.0	.0	.0	103.4	
Oak/hickory	109.0	103.6	48.9	.0	94.0	
Elm/ash/red maple	.0	.0	.0	.0	.0	
Northern hardwoods	118.8	103.0	39.8	.0	107.8	
Aspen/birch	142.8	104.8	.0	.0	124.1	
All groups	113.3	100.1	40.8	.0	103.1	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 20.--Net aboveground tree biomass of all live trees on timberland, by forest-type group and stand-size class, Hillsboro County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	----- Thousand green tons -----					Percent
White/red pine	28,350.1	1,840.0**	194.6**	.0	30,384.7	13
Spruce/fir	.0	.0	.0	.0	.0	-
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	774.0**	.0	.0	.0	774.0	100
Oak/hickory	1,550.9**	4,849.9*	.0	.0	6,400.8	29
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	8,700.8*	1,251.4**	.0	.0	9,952.2	27
Aspen/birch	.0	.0	.0	.0	.0	-
Total, all groups	39,375.8	7,941.3	194.6	.0	47,511.7	5.4
Sampling error (percent)	9	23	100	-	5.4	
	----- Thousand acres -----					Percent
White/red pine	212.5	28.2*	7.1**	.0	247.8	11
Spruce/fir	.0	.0	.0	.0	.0	-
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	7.1**	.0	.0	.0	7.1	100
Oak/hickory	14.2**	56.6*	.0	.0	70.8	28
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	71.6*	20.9**	.0	.0	92.5	25
Aspen/birch	.0	.0	.0	.0	.0	-
Total, all groups	305.4	105.7	7.1	.0	418.2	3.3
Sampling error (percent)	8	21	100	-	3.3	
	----- Green tons per acre ^b -----					
White/red pine	133.4	65.2	27.4	.0	122.6	
Spruce/fir	.0	.0	.0	.0	.0	
Hard pine	.0	.0	.0	.0	.0	
Oak/pine	109.0	.0	.0	.0	109.0	
Oak/hickory	109.2	85.7	.0	.0	90.4	
Elm/ash/red maple	.0	.0	.0	.0	.0	
Northern hardwoods	121.5	59.9	.0	.0	107.6	
Aspen/birch	.0	.0	.0	.0	.0	
All groups	128.9	75.1	27.4	.0	113.6	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 21.--Net aboveground tree biomass of all live trees on timberland, by forest-type group and stand-size class, Merrimack County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	----- Thousand 'green tons -----					Percent
White/red pine	16,022.1	2,453.3**	1,697.6**	.0	20,173.0	17
Spruce/fir	.0	924.0**	.0	.0	924.0	71
Hard pine	.0	350.0**	158.3**	.0	508.3	76
Oak/pine	1,274.2**	.0	.0	.0	1,274.2	72
Oak/hickory	2,528.6**	3,359.1*	.0	.0	5,887.7	31
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	8,028.6*	8,091.6*	140.8**	.0	16,261.0	18
Aspen/birch	.0	1,401.6**	.0	.0	1,401.6	71
Total, all groups	27,853.5	16,579.6	1,996.7	.0	46,429.8	4.6
Sampling error (percent)	12	17	46	-	4.6	
	----- Thousand acres -----					Percent
White/red pine	135.0	25.4**	36.0*	.0	196.4	15
Spruce/fir	.0	12.0**	.0	.0	12.0	73
Hard pine	.0	7.4**	7.3**	.0	14.7	71
Oak/pine	14.5**	.0	.0	.0	14.5	71
Oak/hickory	28.9*	43.8*	.0	.0	72.7	30
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	79.2*	80.4*	7.4**	.0	167.0	17
Aspen/birch	.0	14.7**	.0	.0	14.7	71
Total, all groups	257.6	183.7	50.7	.0	492.0	2.4
Sampling error (percent)	11	16	36	-	2.4	
	----- Green tons per acre ^b -----					
White/red pine	118.7	96.6	47.2	.0	102.7	
Spruce/fir	.0	77.0	.0	.0	77.0	
Hard pine	.0	47.3	21.7	.0	34.6	
Oak/pine	87.9	.0	.0	.0	87.9	
Oak/hickory	87.5	76.7	.0	.0	81.0	
Elm/ash/red maple	.0	.0	.0	.0	.0	
Northern hardwoods	101.4	100.6	19.0	.0	97.4	
Aspen/birch	.0	95.3	.0	.0	95.3	
All groups	108.1	90.3	39.4	.0	94.4	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 22.--Net aboveground tree biomass of all live trees on timberland, by forest-type group and stand-size class, Rockingham County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	----- Thousand green tons -----					Percent
White/red pine	19,155.1	1,433.9**	241.2**	.0	20,830.2	16
Spruce/fir	.0	.0	.0	.0	.0	-
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	.0	1,301.0**	162.8**	.0	1,463.8	55
Oak/hickory	4,847.8*	1,306.1**	.0	.0	6,153.9	32
Elm/ash/red maple	.0	.0	73.9**	.0	73.9	76
Northern hardwoods	1,497.1**	1,947.8*	.0	.0	3,444.9	42
Aspen/birch	.0	.0	.0	.0	.0	-
Total, all groups	25,500.0	5,988.8	477.9	.0	31,966.7	6.4
Sampling error (percent)	11	29	62	-	6.4	
	----- Thousand acres -----					Percent
White/red pine	152.9	14.2**	7.0**	.0	174.1	15
Spruce/fir	.0	.0	.0	.0	.0	-
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	.0	21.6**	7.3**	.0	28.9	49
Oak/hickory	43.8*	14.6**	.0	.0	58.4	31
Elm/ash/red maple	.0	.0	8.9**	.0	8.9	75
Northern hardwoods	14.2**	29.5*	5.9**	.0	49.6	37
Aspen/birch	.0	.0	.0	.0	.0	-
Total, all groups	210.9	79.9	29.1	.0	319.9	4.5
Sampling error (percent)	10	27	42	-	4.5	
	----- Green tons per acre ^b -----					
White/red pine	125.3	101.0	34.5	.0	119.6	
Spruce/fir	.0	.0	.0	.0	.0	
Hard pine	.0	.0	.0	.0	.0	
Oak/pine	.0	60.2	22.3	.0	50.7	
Oak/hickory	110.7	89.5	.0	.0	105.4	
Elm/ash/red maple	.0	.0	8.3	.0	8.3	
Northern hardwoods	105.4	66.0	.0	.0	69.5	
Aspen/birch	.0	.0	.0	.0	.0	
All groups	120.9	75.0	16.4	.0	99.9	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 23.--Net aboveground tree biomass of all live trees on timberland, by forest-type group and stand-size class, Strafford County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	----- Thousand green tons -----					Percent
White/red pine	6,239.7*	1,279.5**	106.8**	.0	7,626.0	26
Spruce/fir	.0	.0	.0	.0	.0	-
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	.0	.0	.0	.0	.0	-
Oak/hickory	1,772.2**	.0	.0	.0	1,772.2	71
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	7,283.0	1,351.4**	112.3**	.0	8,746.7	20
Aspen/birch	.0	380.2**	428.8**	.0	809.0	62
Total, all groups	15,294.9	3,011.1	647.9	.0	18,953.9	4.9
Sampling error (percent)	12	43	66	-	4.9	
	----- Thousand acres -----					Percent
White/red pine	55.6*	14.2**	5.3**	.0	75.1	25
Spruce/fir	.0	.0	.0	.0	.0	-
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	.0	.0	.0	.0	.0	-
Oak/hickory	14.2**	.0	.0	.0	14.2	71
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	61.0	15.3**	5.3**	.0	81.6	19
Aspen/birch	.0	7.4**	7.3**	.0	14.7	62
Total, all groups	130.8	36.9	17.9	.0	185.6	2.0
Sampling error (percent)	12	41	42	-	2.0	
	----- Green tons per acre ^b -----					
White/red pine	112.2	90.1	20.2	.0	101.5	
Spruce/fir	.0	.0	.0	.0	.0	
Hard pine	.0	.0	.0	.0	.0	
Oak/pine	.0	.0	.0	.0	.0	
Oak/hickory	124.8	.0	.0	.0	124.8	
Elm/ash/red maple	.0	.0	.0	.0	.0	
Northern hardwoods	119.4	88.3	21.2	.0	107.2	
Aspen/birch	.0	51.4	58.7	.0	55.0	
All groups	116.9	81.6	36.2	.0	102.1	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 24.--Net aboveground tree biomass of all live trees on timberland, by forest-type group and stand-size class, Sullivan County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	Thousand green tons					Percent
White/red pine	12,649.3	601.0**	144.9**	.0	13,395.2	20
Spruce/fir	1,485.6**	.0	.0	.0	1,485.6	71
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	.0	.0	.0	.0	.0	-
Oak/hickory	394.6**	.0	.0	.0	394.6	100
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	7,278.0*	4,930.3*	113.9**	.0	12,322.2	18
Aspen/birch	.0	572.0**	.0	.0	572.0	100
Total, all groups	21,807.5	6,103.3	258.8	.0	28,169.6	5.6
Sampling error (percent)	11	30	69	.0	5.6	
	Thousand acres					Percent
White/red pine	106.2	7.3**	7.0**	.0	120.5	19
Spruce/fir	14.7**	.0	.0	.0	14.7	71
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	.0	.0	.0	.0	.0	-
Oak/hickory	7.0**	.0	.0	.0	7.0	100
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	78.9*	56.8*	7.0**	.0	142.7	16
Aspen/birch	.0	7.4**	.0	.0	7.4	100
Total, all groups	206.8	71.5	14.0	.0	292.3	1.3
Sampling error (percent)	10	28	69	-	1.3	
	Green tons per acre ^b					
White/red pine	119.1	82.3	20.7	.0	111.2	
Spruce/fir	101.1	.0	.0	.0	101.1	
Hard pine	.0	.0	.0	.0	.0	
Oak/pine	.0	.0	.0	.0	.0	
Oak/hickory	56.4	.0	.0	.0	56.4	
Elm/ash/red maple	.0	.0	.0	.0	.0	
Northern hardwoods	92.2	86.8	16.3	.0	86.4	
Aspen/birch	.0	77.3	.0	.0	77.3	
All groups	105.5	85.4	18.5	.0	96.4	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

MAJOR SPECIES BY WEIGHT

million tons

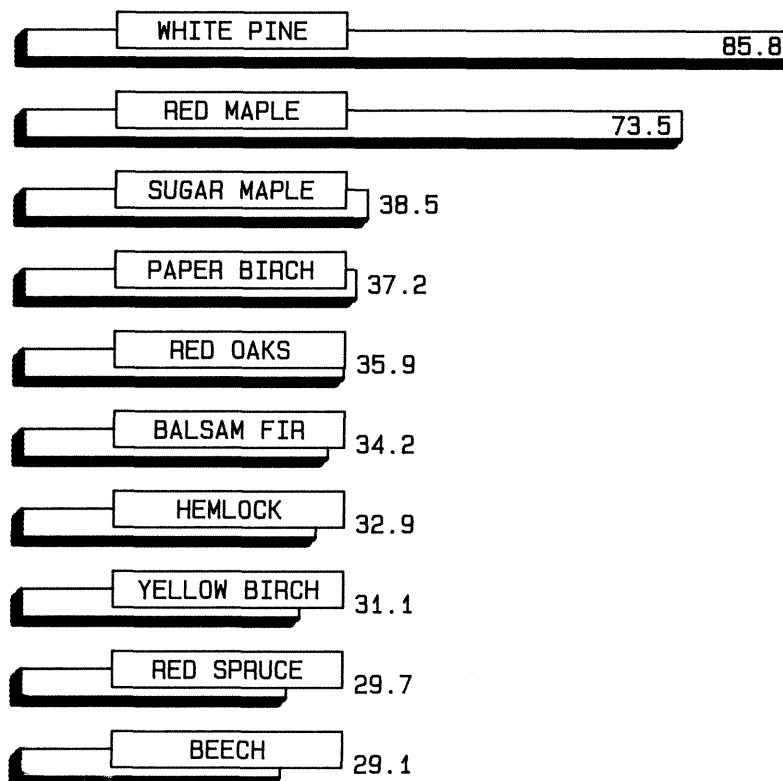


Table 25.--Number of trees and net aboveground tree biomass of all live trees on timberland, by species and diameter group, New Hampshire, 1983

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
	----- Thousand trees -----				
Balsam fir	496,047	94,480	5,463	0	595,990
Tamarack	1,801	1,617	146	0	3,564
White spruce	9,524	4,552	875	22	14,973
Black spruce	1,502	1,627	33	0	3,162
Red spruce	150,586	74,113	8,576	73	233,348
Red pine	8,834	788	1,610	0	11,232
White pine	156,021	86,715	37,625	3,179	283,540
Northern white-cedar	0	1,096	238	22	1,356
Hemlock	114,483	58,221	15,503	489	188,696
Other softwoods	5,276	6,124	956	34	12,390
Total softwoods	944,074	329,333	71,025	3,819	1,348,251
Sugar maple	169,032	47,742	13,188	1,180	231,142
Soft maples	454,925	162,912	21,018	687	639,542
Yellow birch	111,708	42,555	11,664	835	166,762
Paper birch	151,356	71,546	8,831	105	231,838
Gray birch	99,785	7,176	0	0	106,961
Beech	158,052	34,274	10,545	449	203,320
White ash	41,744	18,528	4,449	194	64,915
Black ash	5,962	2,477	236	0	8,675
Aspen	34,091	30,336	4,846	0	69,273
White oaks	21,195	9,460	2,028	50	32,733
Red oaks	69,127	54,851	15,297	567	139,842
Basswood	0	1,694	475	12	2,181
Elm	8,361	1,601	449	17	10,428
Other commercial hardwoods	63,064	22,031	2,741	20	87,856
Noncommercial hardwoods	159,347	11,014	299	21	170,681
Total hardwoods	1,547,749	518,197	96,066	4,137	2,166,149
Total, all species	2,491,823	847,530	167,091	7,956	3,514,400

Table 25.--Continued

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
	----- Thousand green tons -----				
Balsam fir	9,826.3	20,165.4	4,218.7	.0	34,210.4
Tamarack	11.1	330.5	153.9	.0	495.5
White spruce	136.4	1,092.3	815.6	96.9	2,141.2
Black spruce	52.5	271.9	32.5	.0	356.9
Red spruce	3,695.1	17,676.8	8,104.5	233.2	29,709.6
Red pine	260.1	361.1	2,142.2	.0	2,763.4
White pine	2,961.4	23,429.2	45,375.2	13,991.6	85,757.4
Northern white-cedar	.0	162.3	98.3	22.8	283.4
Hemlock	2,619.1	13,767.0	15,162.1	1,436.8	32,985.0
Other softwoods	283.3	757.2	442.1	33.2	1,515.8
Total softwoods	19,845.3	78,013.7	76,545.1	15,814.5	190,218.6
Sugar maple	3,520.8	14,764.0	15,320.6	4,919.0	38,524.4
Soft maples	11,111.2	40,143.6	20,012.3	2,263.6	73,530.7
Yellow birch	3,368.3	11,729.1	13,324.1	2,731.7	31,153.2
Paper birch	3,994.8	22,233.9	10,568.8	424.8	37,222.3
Gray birch	2,312.1	1,224.5	.0	.0	3,536.6
Beech	3,505.9	11,107.5	13,045.7	1,446.7	29,105.8
White ash	1,176.8	4,856.3	4,574.0	1,283.5	11,890.6
Black ash	129.1	599.3	193.7	.0	922.1
Aspen	981.9	8,287.1	4,690.2	.0	13,959.2
White oaks	809.7	2,346.4	1,982.4	264.5	5,403.0
Red oaks	1,864.7	15,418.7	16,685.0	1,994.9	35,963.3
Basswood	.0	468.2	459.3	56.6	984.1
Elm	305.7	457.3	504.7	47.5	1,315.2
Other commercial hardwoods	1,601.7	5,745.3	2,531.7	59.7	9,938.4
Noncommercial hardwoods	3,030.0	1,928.6	194.6	39.2	5,192.4
Total hardwoods	37,712.7	141,309.8	104,087.1	15,531.7	298,641.3
Total, all species	57,558.0	219,323.5	180,632.2	31,346.2	488,859.9

Table 26.--Number of trees and net aboveground tree biomass of all live trees on timberland, by species and diameter group, Belknap County, New Hampshire, 1983

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
	----- <u>Thousand trees</u> -----				
Balsam fir	4,628	0	0	0	4,628
Tamarack	0	0	0	0	0
White spruce	0	0	0	0	0
Black spruce	0	0	0	0	0
Red spruce	0	631	0	0	631
Red pine	1,426	16	520	0	1,962
White pine	5,748	4,648	1,828	235	12,459
Northern white-cedar	0	0	0	0	0
Hemlock	10,201	5,198	1,142	0	16,541
Other softwoods	0	0	0	0	0
Total softwoods	22,003	10,493	3,490	235	36,221
Sugar maple	7,393	1,853	215	100	9,561
Soft maples	19,020	9,213	1,138	13	29,384
Yellow birch	4,409	2,246	48	33	6,736
Paper birch	10,056	3,299	389	0	13,744
Gray birch	1,426	519	0	0	1,945
Beech	8,644	1,540	343	0	10,527
White ash	0	1,066	18	0	1,084
Black ash	0	0	0	0	0
Aspen	4,278	692	68	0	5,038
White oaks	1,441	222	190	0	1,853
Red oaks	7,174	4,901	1,703	94	13,872
Basswood	0	200	44	0	244
Elm	1,528	0	37	0	1,565
Other commercial hardwoods	0	140	0	0	140
Noncommercial hardwoods	16,706	298	0	0	17,004
Total hardwoods	82,075	26,189	4,193	240	112,697
Total, all species	104,078	36,682	7,683	475	148,918

Table 26.--Continued

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
	----- Thousand green tons -----				
Balsam fir	51.2	.0	.0	.0	51.2
Tamarack	.0	.0	.0	.0	.0
White spruce	.0	.0	.0	.0	.0
Black spruce	.0	.0	.0	.0	.0
Red spruce	.0	162.0	.0	.0	162.0
Red pine	81.4	11.1	639.0	.0	731.5
White pine	48.4	1,250.0	2,339.3	986.2	4,623.9
Northern white-cedar	.0	.0	.0	.0	.0
Hemlock	291.3	1,165.7	1,024.0	.0	2,481.0
Other softwoods	.0	.0	.0	.0	.0
Total softwoods	472.3	2,588.8	4,002.3	986.2	8,049.6
Sugar maple	232.6	446.0	204.2	327.3	1,210.1
Soft maples	416.4	2,302.0	1,096.4	42.4	3,857.2
Yellow birch	328.8	508.3	41.6	92.4	971.1
Paper birch	547.9	1,067.5	460.2	.0	2,075.6
Gray birch	4.1	72.2	.0	.0	76.3
Beech	79.8	406.9	317.8	.0	804.5
White ash	.0	263.5	18.3	.0	281.8
Black ash	.0	.0	.0	.0	.0
Aspen	99.4	157.9	44.3	.0	301.6
White oaks	126.7	77.2	208.0	.0	411.9
Red oaks	58.4	1,425.5	1,683.6	274.8	3,442.3
Basswood	.0	64.2	37.0	.0	101.2
Elm	34.8	.0	38.7	.0	73.5
Other commercial hardwoods	.0	44.8	.0	.0	44.8
Noncommercial hardwoods	307.5	51.5	.0	.0	359.0
Total hardwoods	2,236.4	6,887.5	4,150.1	736.9	14,010.9
Total, all species	2,708.7	9,476.3	8,152.4	1,723.1	22,060.5

Table 27.--Number of trees and net aboveground tree biomass of all live trees on timberland, by species and diameter group, Carroll County, New Hampshire, 1983

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
	----- Thousand trees -----				
Balsam fir	34,654	4,861	211	0	39,726
Tamarack	0	0	0	0	0
White spruce	0	90	0	0	90
Black spruce	0	598	0	0	598
Red spruce	9,536	4,338	1,448	0	15,322
Red pine	0	139	436	0	575
White pine	21,392	5,719	3,869	283	31,263
Northern white-cedar	0	0	0	0	0
Hemlock	13,285	9,088	3,195	136	25,704
Other softwoods	3,786	3,680	513	21	8,000
Total softwoods	82,653	28,513	9,672	440	121,278
Sugar maple	21,212	3,358	1,727	265	26,562
Soft maples	52,529	23,295	3,182	153	79,159
Yellow birch	7,582	4,873	1,578	149	14,182
Paper birch	16,604	4,140	451	22	21,217
Gray birch	11,430	709	0	0	12,139
Beech	45,072	8,633	3,437	176	57,318
White ash	5,750	1,429	739	49	7,967
Black ash	0	435	0	0	435
Aspen	0	2,698	728	0	3,426
White oaks	0	252	21	0	273
Red oaks	9,608	5,478	1,468	11	16,565
Basswood	0	45	0	0	45
Elm	0	88	0	0	88
Other commercial hardwoods	0	350	0	0	350
Noncommercial hardwoods	14,200	609	0	0	14,809
Total hardwoods	183,987	56,392	13,331	825	254,535
Total, all species	266,640	84,905	23,003	1,265	375,813

Table 27.--Continued

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
	----- Thousand green tons -----				
Balsam fir	777.1	978.9	153.2	.0	1,909.2
Tamarack	.0	.0	.0	.0	.0
White spruce	.0	17.5	.0	.0	17.5
Black spruce	.0	86.1	.0	.0	86.1
Red spruce	270.8	1,257.8	1,394.9	.0	2,923.5
Red pine	.0	67.7	711.8	.0	779.5
White pine	297.5	1,485.9	4,458.8	1,283.8	7,526.0
Northern white-cedar	.0	.0	.0	.0	.0
Hemlock	343.8	2,252.1	3,260.4	394.3	6,250.6
Other softwoods	240.7	386.6	277.9	23.7	928.9
Total softwoods	1,929.9	6,532.6	10,257.0	1,701.8	20,421.3
Sugar maple	422.5	895.2	2,604.0	1,183.3	5,105.0
Soft maples	1,088.8	5,401.4	3,328.1	552.3	10,370.6
Yellow birch	221.3	1,642.2	1,798.0	526.0	4,187.5
Paper birch	410.4	1,195.1	558.9	99.7	2,264.1
Gray birch	543.9	133.7	.0	.0	677.6
Beech	1,011.5	2,823.5	4,771.8	629.5	9,236.3
White ash	155.0	373.3	807.5	172.9	1,508.7
Black ash	.0	73.7	.0	.0	73.7
Aspen	.0	748.8	631.3	.0	1,380.1
White oaks	.0	44.6	11.8	.0	56.4
Red oaks	420.3	1,427.0	1,768.9	65.3	3,681.5
Basswood	.0	9.6	.0	.0	9.6
Elm	.0	16.6	.0	.0	16.6
Other commercial hardwoods	.0	77.0	.0	.0	77.0
Noncommercial hardwoods	157.3	66.0	.0	.0	223.3
Total hardwoods	4,431.0	14,927.7	16,280.3	3,229.0	38,868.0
Total, all species	6,360.9	21,460.3	26,537.3	4,930.8	59,289.3

Table 28.--Number of trees and net aboveground tree biomass of all live trees on timberland, by species and diameter group, Cheshire County, New Hampshire, 1983

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
	----- Thousand trees -----				
Balsam fir	4,475	402	0	0	4,877
Tamarack	0	33	0	0	33
White spruce	0	0	0	0	0
Black spruce	0	35	0	0	35
Red spruce	2,984	3,151	103	16	6,254
Red pine	0	0	30	0	30
White pine	9,961	9,461	3,683	284	23,389
Northern white-cedar	0	0	0	0	0
Hemlock	23,356	5,657	1,321	0	30,334
Other softwoods	0	0	0	0	0
Total softwoods	40,776	18,739	5,137	300	64,952
Sugar maple	2,983	4,247	867	77	8,174
Soft maples	58,714	18,306	2,455	125	79,600
Yellow birch	5,915	2,052	309	4	8,280
Paper birch	4,475	5,122	318	0	9,915
Gray birch	0	382	0	0	382
Beech	23,502	3,303	1,208	41	28,054
White ash	4,371	1,467	444	0	6,282
Black ash	0	34	17	0	51
Aspen	0	1,101	80	0	1,181
White oaks	1,439	438	96	0	1,973
Red oaks	4,371	6,607	2,915	57	13,950
Basswood	0	0	0	0	0
Elm	0	135	63	0	198
Other commercial hardwoods	11,621	7,037	714	0	19,372
Noncommercial hardwoods	5,914	620	0	0	6,534
Total hardwoods	123,305	50,851	9,486	304	183,946
Total, all species	164,081	69,590	14,623	604	248,898

Table 28.--Continued

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
----- Thousand green tons -----					
Balsam fir	39.5	58.0	.0	.0	97.5
Tamarack	.0	3.7	.0	.0	3.7
White spruce	.0	.0	.0	.0	.0
Black spruce	.0	11.8	.0	.0	11.8
Red spruce	17.3	721.2	132.1	45.5	916.1
Red pine	.0	.0	51.0	.0	51.0
White pine	287.8	2,642.0	4,164.7	1,614.9	8,709.4
Northern white-cedar	.0	.0	.0	.0	.0
Hemlock	567.1	1,278.1	1,299.6	.0	3,144.8
Other softwoods	.0	.0	.0	.0	.0
Total softwoods	911.7	4,714.8	5,647.4	1,660.4	12,934.3
Sugar maple	153.2	1,461.2	859.1	350.4	2,823.9
Soft maples	1,947.1	4,458.0	2,007.5	309.7	8,722.3
Yellow birch	68.7	506.3	319.9	52.7	947.6
Paper birch	161.6	1,647.3	306.4	.0	2,115.3
Gray birch	.0	60.9	.0	.0	60.9
Beech	488.1	957.7	1,268.8	119.9	2,834.5
White ash	68.2	420.6	404.2	.0	893.0
Black ash	.0	3.9	12.5	.0	16.4
Aspen	.0	273.5	90.6	.0	364.1
White oaks	54.9	169.2	91.2	.0	315.3
Red oaks	211.6	1,811.5	3,544.2	170.1	5,737.4
Basswood	.0	.0	.0	.0	.0
Elm	.0	79.4	85.9	.0	165.3
Other commercial hardwoods	255.8	1,759.8	627.6	.0	2,643.2
Noncommercial hardwoods	369.9	108.8	.0	.0	478.7
Total hardwoods	3,779.1	13,718.1	9,617.9	1,002.8	28,117.9
Total, all species	4,690.8	18,432.9	15,265.3	2,663.2	41,052.2

Table 29.--Number of trees and net aboveground tree biomass of all live trees on timberland, by species and diameter group, Coos County, New Hampshire, 1983

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
----- Thousand trees -----					
Balsam fir	293,258	61,197	4,206	0	358,661
Tamarack	1,801	1,165	88	0	3,054
White spruce	7,530	4,416	875	22	12,843
Black spruce	0	641	0	0	641
Red spruce	60,655	36,192	3,663	41	100,551
Red pine	0	0	0	0	0
White pine	0	666	190	110	966
Northern white-cedar	0	1,027	238	22	1,287
Hemlock	0	456	490	121	1,067
Other softwoods	0	0	0	0	0
Total softwoods	363,244	105,760	9,750	316	479,070
Sugar maple	31,737	14,506	3,978	177	50,398
Soft maples	44,303	16,597	2,530	0	63,430
Yellow birch	39,090	17,884	5,072	388	62,434
Paper birch	48,560	24,354	2,396	20	75,330
Gray birch	0	544	0	0	544
Beech	11,513	5,198	874	0	17,585
White ash	0	828	93	0	921
Black ash	0	413	0	0	413
Aspen	13,632	10,958	1,602	0	26,192
White oaks	0	0	0	0	0
Red oaks	0	0	0	0	0
Basswood	0	0	0	0	0
Elm	5,402	332	0	0	5,734
Other commercial hardwoods	0	1,642	340	20	2,002
Noncommercial hardwoods	58,030	3,472	74	0	61,576
Total hardwoods	252,267	96,728	16,959	605	366,559
Total, all species	615,511	202,488	26,709	921	845,629

Table 29.--Continued

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
	----- Thousand green tons -----				
Balsam fir	5,856.7	13,384.6	3,303.9	.0	22,545.2
Tamarack	11.1	268.1	86.6	.0	365.8
White spruce	124.5	1,069.6	815.6	96.9	2,106.6
Black spruce	.0	100.3	.0	.0	100.3
Red spruce	1,657.3	8,644.0	3,415.3	125.1	13,841.7
Red pine	.0	.0	.0	.0	.0
White pine	.0	186.3	232.8	503.3	922.4
Northern white-cedar	.0	151.8	98.3	22.8	272.9
Hemlock	.0	160.3	473.4	363.7	997.4
Other softwoods	.0	.0	.0	.0	.0
Total softwoods	7,649.6	23,965.0	8,425.9	1,111.8	41,152.3
Sugar maple	1,061.8	4,794.7	4,390.1	676.1	10,922.7
Soft maples	1,591.9	4,239.4	2,448.1	.0	8,279.4
Yellow birch	1,237.4	4,758.1	5,953.6	1,276.7	13,225.8
Paper birch	1,150.6	7,291.1	2,966.6	87.5	11,495.8
Gray birch	.0	103.6	.0	.0	103.6
Beech	115.3	1,803.7	1,016.2	.0	2,935.2
White ash	.0	188.8	83.8	.0	272.6
Black ash	.0	69.1	.0	.0	69.1
Aspen	528.5	2,869.5	1,456.0	.0	4,854.0
White oaks	.0	.0	.0	.0	.0
Red oaks	.0	.0	.0	.0	.0
Basswood	.0	.0	.0	.0	.0
Elm	248.9	52.7	.0	.0	301.6
Other commercial hardwoods	.0	436.5	292.1	59.7	788.3
Noncommercial hardwoods	1,155.4	573.3	60.7	.0	1,789.4
Total hardwoods	7,089.8	27,180.5	18,667.2	2,100.0	55,037.5
Total, all species	14,739.4	51,145.5	27,093.1	3,211.8	96,189.8

Table 30.--Number of trees and net aboveground tree biomass of all live trees on timberland, by species and diameter group, Grafton County, New Hampshire, 1983

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
	----- Thousand trees -----				
Balsam fir	143,630	24,617	876	0	169,123
Tamarack	0	251	58	0	309
White spruce	1,994	46	0	0	2,040
Black spruce	0	0	0	0	0
Red spruce	60,394	19,741	2,079	16	82,230
Red pine	2,844	0	60	0	2,904
White pine	20,321	10,508	3,280	487	34,596
Northern white-cedar	0	69	0	0	69
Hemlock	10,504	5,748	1,843	41	18,136
Other softwoods	0	0	0	0	0
Total softwoods	239,687	60,980	8,196	544	309,407
Sugar maple	60,558	13,686	3,804	328	78,376
Soft maples	93,355	28,867	3,806	179	126,207
Yellow birch	26,670	8,339	2,968	228	38,205
Paper birch	48,075	17,619	3,364	32	69,090
Gray birch	14,312	2,087	0	0	16,399
Beech	38,646	6,911	2,430	107	48,094
White ash	14,491	5,451	1,758	67	21,767
Black ash	0	1,060	23	0	1,083
Aspen	2,844	5,596	1,351	0	9,791
White oaks	1,994	0	63	16	2,073
Red oaks	4,019	10,213	1,481	51	15,764
Basswood	0	46	156	12	214
Elm	0	184	46	0	230
Other commercial hardwoods	6,159	1,592	278	0	8,029
Noncommercial hardwoods	24,996	2,945	137	21	28,099
Total hardwoods	336,119	104,596	21,665	1,041	463,421
Total, all species	575,806	165,576	29,861	1,585	772,828

Table 30.--Continued

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
-----Thousand green tons-----					
Balsam fir	2,761.2	5,095.2	643.7	.0	8,500.1
Tamarack	.0	37.8	67.3	.0	105.1
White spruce	11.9	5.2	.0	.0	17.1
Black spruce	.0	.0	.0	.0	.0
Red spruce	1,475.2	4,630.6	2,039.4	62.6	8,207.8
Red pine	47.3	.0	155.6	.0	202.9
White pine	347.8	3,100.9	4,272.7	2,487.0	10,208.4
Northern white-cedar	.0	10.5	.0	.0	10.5
Hemlock	105.0	1,367.0	1,864.2	124.0	3,460.2
Other softwoods	.0	.0	.0	.0	.0
Total softwoods	4,748.4	14,247.2	9,042.9	2,673.6	30,712.1
Sugar maple	886.3	4,187.6	4,613.1	1,460.7	11,147.7
Soft maples	1,860.9	7,486.6	3,899.9	667.4	13,914.8
Yellow birch	806.4	2,465.4	3,485.5	745.4	7,502.7
Paper birch	1,433.5	5,760.1	4,023.1	135.5	11,352.2
Gray birch	255.0	387.4	.0	.0	642.4
Beech	908.2	2,623.0	3,199.9	346.3	7,077.4
White ash	146.1	1,457.9	1,839.9	779.0	4,222.9
Black ash	.0	242.5	17.8	.0	260.3
Aspen	6.6	1,832.8	1,558.0	.0	3,397.4
White oaks	23.3	.0	64.8	50.2	138.3
Red oaks	118.6	2,690.8	1,757.7	277.2	4,844.3
Basswood	.0	5.1	166.9	56.6	228.6
Elm	.0	43.7	36.3	.0	80.0
Other commercial hardwoods	90.3	384.7	267.1	.0	742.1
Noncommercial hardwoods	302.3	549.4	82.3	39.2	973.2
Total hardwoods	6,837.5	30,117.0	25,012.3	4,557.5	66,524.3
Total, all species	11,585.9	44,364.2	34,055.2	7,231.1	97,236.4

Table 31.--Number of trees and net aboveground tree biomass of all live trees on timberland, by species and diameter group, Hillsboro County, New Hampshire, 1983

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
	----- <u>Thousand trees</u> -----				
Balsam fir	0	0	0	0	0
Tamarack	0	32	0	0	32
White spruce	0	0	0	0	0
Black spruce	0	0	0	0	0
Red spruce	1,431	637	122	0	2,190
Red pine	1,584	165	57	0	1,806
White pine	22,934	21,769	9,118	514	54,335
Northern white-cedar	0	0	0	0	0
Hemlock	5,885	5,935	1,852	79	13,751
Other softwoods	0	139	167	0	306
Total softwoods	31,834	28,677	11,316	593	72,420
Sugar maple	5,362	770	582	28	6,742
Soft maples	48,633	15,689	1,576	82	65,980
Yellow birch	4,318	1,342	354	0	6,014
Paper birch	1,431	3,700	371	0	5,502
Gray birch	4,454	230	0	0	4,684
Beech	13,033	1,598	513	52	15,196
White ash	7,030	3,092	257	0	10,379
Black ash	0	66	0	0	66
Aspen	0	732	253	0	985
White oaks	1,440	3,830	349	24	5,643
Red oaks	8,588	9,697	2,542	210	21,037
Basswood	0	0	120	0	120
Elm	1,431	33	0	0	1,464
Other commercial hardwoods	11,571	3,836	431	0	15,838
Noncommercial hardwoods	7,180	548	0	0	7,728
Total hardwoods	114,471	45,163	7,348	396	167,378
Total, all species	146,305	73,840	18,664	989	239,798

Table 31.--Continued

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
----- Thousand green tons -----					
Balsam fir	.0	.0	.0	.0	.0
Tamarack	.0	4.8	.0	.0	4.8
White spruce	.0	.0	.0	.0	.0
Black spruce	.0	.0	.0	.0	.0
Red spruce	30.8	126.5	93.7	.0	251.0
Red pine	51.2	52.7	43.7	.0	147.6
White pine	547.0	5,952.9	10,527.9	2,201.7	19,229.5
Northern white-cedar	.0	.0	.0	.0	.0
Hemlock	121.5	1,395.0	1,997.1	240.5	3,754.1
Other softwoods	.0	40.5	57.7	.0	98.2
Total softwoods	750.5	7,572.4	12,720.1	2,442.2	23,485.2
Sugar maple	63.2	248.4	560.2	97.9	969.7
Soft maples	1,188.8	3,874.7	1,542.8	231.9	6,838.2
Yellow birch	169.3	331.3	454.9	.0	955.5
Paper birch	30.4	1,008.3	469.5	.0	1,508.2
Gray birch	312.0	37.2	.0	.0	349.2
Beech	427.3	522.7	644.5	141.0	1,735.5
White ash	275.2	708.2	219.3	.0	1,202.7
Black ash	.0	12.4	.0	.0	12.4
Aspen	.0	132.6	177.8	.0	310.4
White oaks	81.4	899.1	309.4	157.3	1,447.2
Red oaks	188.2	3,059.4	2,607.3	714.6	6,569.5
Basswood	.0	.0	92.5	.0	92.5
Elm	22.0	4.8	.0	.0	26.8
Other commercial hardwoods	430.8	971.7	409.6	.0	1,812.1
Noncommercial hardwoods	62.9	133.7	.0	.0	196.6
Total hardwoods	3,251.5	11,944.5	7,487.8	1,342.7	24,026.5
Total, all species	4,002.0	19,516.9	20,207.9	3,784.9	47,511.7

Table 32.--Number of trees and net aboveground tree biomass of all live trees on timberland, by species and diameter group, Merrimack County, New Hampshire, 1983

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
	----- <u>Thousand trees</u> -----				
Balsam fir	5,251	1,292	105	0	6,648
Tamarack	0	136	0	0	136
White spruce	0	0	0	0	0
Black spruce	0	0	0	0	0
Red spruce	12,662	2,719	157	0	15,538
Red pine	2,980	206	82	0	3,268
White pine	32,511	11,913	5,314	392	50,130
Northern white-cedar	0	0	0	0	0
Hemlock	27,811	10,570	1,531	15	39,927
Other softwoods	1,490	1,399	196	13	3,098
Total softwoods	82,705	28,235	7,385	420	118,745
Sugar maple	8,864	3,627	394	49	12,934
Soft maples	65,860	23,363	2,106	44	91,373
Yellow birch	8,902	1,872	459	17	11,250
Paper birch	7,836	6,041	788	0	14,665
Gray birch	23,801	875	0	0	24,676
Beech	7,306	2,514	696	0	10,516
White ash	1,491	1,295	237	28	3,051
Black ash	5,962	68	0	0	6,030
Aspen	10,428	4,591	427	0	15,446
White oaks	5,933	1,952	647	10	8,542
Red oaks	10,354	6,175	2,495	39	19,063
Basswood	0	431	34	0	465
Elm	0	68	46	0	114
Other commercial hardwoods	13,260	1,861	168	0	15,289
Noncommercial hardwoods	8,901	480	71	0	9,452
Total hardwoods	178,898	55,213	8,568	187	242,866
Total, all species	261,603	83,448	15,953	607	361,611

Table 32.--Continued

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
----- Thousand green tons -----					
Balsam fir	76.7	268.1	85.8	.0	430.6
Tamarack	.0	16.1	.0	.0	16.1
White spruce	.0	.0	.0	.0	.0
Black spruce	.0	.0	.0	.0	.0
Red spruce	224.7	683.6	123.1	.0	1,031.4
Red pine	80.2	99.5	97.3	.0	277.0
White pine	538.7	3,236.3	6,679.8	1,572.5	12,027.3
Northern white-cedar	.0	.0	.0	.0	.0
Hemlock	597.4	2,276.2	1,437.4	24.0	4,335.0
Other softwoods	42.6	231.4	70.1	9.5	353.6
Total softwoods	1,560.3	6,811.2	8,493.5	1,606.0	18,471.0
Sugar maple	147.8	1,020.6	448.1	115.7	1,732.2
Soft maples	1,627.7	5,192.1	1,947.9	182.1	8,949.8
Yellow birch	243.1	496.1	443.3	20.2	1,202.7
Paper birch	90.2	2,080.2	924.4	.0	3,094.8
Gray birch	700.3	124.5	.0	.0	824.8
Beech	361.9	676.2	750.8	.0	1,788.9
White ash	65.3	310.3	215.7	151.6	742.9
Black ash	129.1	6.9	.0	.0	136.0
Aspen	288.9	1,183.4	377.5	.0	1,849.8
White oaks	227.4	493.2	669.4	57.0	1,447.0
Red oaks	373.3	1,961.0	2,476.1	130.8	4,941.2
Basswood	.0	127.0	31.1	.0	158.1
Elm	.0	14.5	48.8	.0	63.3
Other commercial hardwoods	138.8	424.7	153.0	.0	716.5
Noncommercial hardwoods	182.2	77.9	50.7	.0	310.8
Total hardwoods	4,576.0	14,188.6	8,536.8	657.4	27,958.8
Total, all species	6,136.3	20,999.8	17,030.3	2,263.4	46,429.8

Table 33.--Number of trees and net aboveground tree biomass of all live trees on timberland, by species and diameter group, Rockingham County, New Hampshire, 1983

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
	----- Thousand trees -----				
Balsam fir	0	0	0	0	0
Tamarack	0	0	0	0	0
White spruce	0	0	0	0	0
Black spruce	0	0	0	0	0
Red spruce	0	0	0	0	0
Red pine	0	262	425	0	687
White pine	17,765	11,567	6,275	439	36,046
Northern white-cedar	0	0	0	0	0
Hemlock	11,513	7,747	1,655	43	20,958
Other softwoods	0	872	80	0	952
Total softwoods	29,278	20,448	8,435	482	58,643
Sugar maple	8,981	568	83	12	9,644
Soft maples	28,703	11,518	1,285	0	41,506
Yellow birch	5,918	538	36	0	6,492
Paper birch	3,000	746	34	0	3,780
Gray birch	16,341	454	0	0	16,795
Beech	4,356	759	225	13	5,353
White ash	0	549	128	14	691
Black ash	0	0	0	0	0
Aspen	0	903	86	0	989
White oaks	7,399	1,843	527	0	9,769
Red oaks	5,918	7,542	1,669	48	15,177
Basswood	0	241	39	0	280
Elm	0	333	101	17	451
Other commercial hardwoods	14,708	3,557	502	0	18,767
Noncommercial hardwoods	8,638	312	0	0	8,950
Total hardwoods	103,962	29,863	4,715	104	138,644
Total, all species	133,240	50,311	13,150	586	197,287

Table 33.--Continued

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
	----- Thousand green tons -----				
Balsam fir	.0	.0	.0	.0	.0
Tamarack	.0	.0	.0	.0	.0
White spruce	.0	.0	.0	.0	.0
Black spruce	.0	.0	.0	.0	.0
Red spruce	.0	.0	.0	.0	.0
Red pine	.0	130.1	443.8	.0	573.9
White pine	456.2	2,928.2	7,461.0	1,727.2	12,572.6
Northern white-cedar	.0	.0	.0	.0	.0
Hemlock	387.6	1,896.1	1,575.0	117.6	3,976.3
Other softwoods	.0	94.1	36.4	.0	130.5
Total softwoods	843.8	5,048.5	9,516.2	1,844.8	17,253.3
Sugar maple	125.5	187.7	101.1	48.4	462.7
Soft maples	413.6	2,921.9	1,126.0	.0	4,461.5
Yellow birch	190.1	93.7	39.9	.0	323.7
Paper birch	81.4	243.4	45.0	.0	369.8
Gray birch	130.7	84.6	.0	.0	215.3
Beech	52.0	200.6	235.4	26.1	514.1
White ash	.0	133.6	112.0	49.2	294.8
Black ash	.0	.0	.0	.0	.0
Aspen	.0	183.8	72.9	.0	256.7
White oaks	286.8	504.2	484.1	.0	1,275.1
Red oaks	43.4	1,961.1	1,645.8	143.5	3,793.8
Basswood	.0	74.4	61.2	.0	135.6
Elm	.0	128.0	119.7	47.5	295.2
Other commercial hardwoods	448.1	1,108.0	560.8	.0	2,116.9
Noncommercial hardwoods	122.8	75.4	.0	.0	198.2
Total hardwoods	1,894.4	7,900.4	4,603.9	314.7	14,713.4
Total, all species	2,738.2	12,948.9	14,120.1	2,159.5	31,966.7

Table 34.--Number of trees and net aboveground tree biomass of all live trees on timberland, by species and diameter group, Strafford County, New Hampshire, 1983

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
----- <u>Thousand trees</u> -----					
Balsam fir	0	606	0	0	606
Tamarack	0	0	0	0	0
White spruce	0	0	0	0	0
Black spruce	0	0	0	0	0
Red spruce	0	560	90	0	650
Red pine	0	0	0	0	0
White pine	21,436	5,415	2,032	135	29,018
Northern white-cedar	0	0	0	0	0
Hemlock	7,663	2,542	845	54	11,104
Other softwoods	0	34	0	0	34
Total softwoods	29,099	9,157	2,967	189	41,412
Sugar maple	0	904	227	0	1,131
Soft maples	14,513	8,125	1,410	46	24,094
Yellow birch	4,478	1,025	454	0	5,957
Paper birch	1,487	1,684	210	0	3,381
Gray birch	28,021	689	0	0	28,710
Beech	4,478	1,878	512	32	6,900
White ash	0	1,253	180	0	1,433
Black ash	0	0	0	0	0
Aspen	1,487	1,241	0	0	2,728
White oaks	1,549	923	135	0	2,607
Red oaks	3,035	3,348	812	57	7,252
Basswood	0	462	49	0	511
Elm	0	189	0	0	189
Other commercial hardwoods	1,399	1,343	83	0	2,825
Noncommercial hardwoods	3,098	171	0	0	3,269
Total hardwoods	63,545	23,235	4,072	135	90,987
Total, all species	92,644	32,392	7,039	324	132,399

Table 34.--Continued

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
	----- Thousand green tons -----				
Balsam fir	.0	80.7	.0	.0	80.7
Tamarack	.0	.0	.0	.0	.0
White spruce	.0	.0	.0	.0	.0
Black spruce	.0	.0	.0	.0	.0
Red spruce	.0	133.4	72.5	.0	205.9
Red pine	.0	.0	.0	.0	.0
White pine	398.9	1,466.6	2,592.2	486.4	4,944.1
Northern white-cedar	.0	.0	.0	.0	.0
Hemlock	58.6	548.1	824.4	172.7	1,603.8
Other softwoods	.0	4.6	.0	.0	4.6
Total softwoods	457.5	2,233.4	3,489.1	659.1	6,839.1
Sugar maple	.0	253.3	203.3	.0	456.6
Soft maples	371.9	2,248.6	1,369.7	120.7	4,110.9
Yellow birch	21.1	319.0	431.6	.0	771.7
Paper birch	5.7	570.7	301.8	.0	878.2
Gray birch	366.1	111.2	.0	.0	477.3
Beech	36.0	545.4	505.9	105.3	1,192.6
White ash	.0	390.7	213.8	.0	604.5
Black ash	.0	.0	.0	.0	.0
Aspen	55.3	362.2	.0	.0	417.5
White oaks	9.2	158.9	143.7	.0	311.8
Red oaks	8.8	841.8	970.2	218.6	2,039.4
Basswood	.0	144.7	37.8	.0	182.5
Elm	.0	40.6	.0	.0	40.6
Other commercial hardwoods	116.5	365.4	62.7	.0	544.6
Noncommercial hardwoods	56.1	30.5	.0	.0	86.6
Total hardwoods	1,046.7	6,383.0	4,240.5	444.6	12,114.8
Total, all species	1,504.2	8,616.4	7,729.6	1,103.7	18,953.9

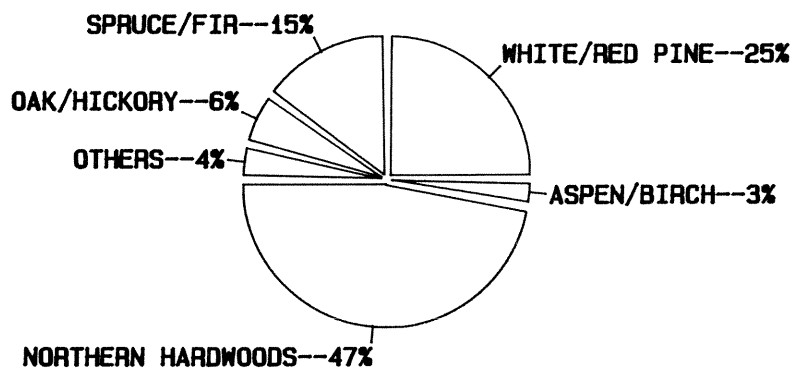
Table 35.--Number of trees and net aboveground tree biomass of all live trees on timberland, by species and diameter group, Sullivan County, New Hampshire, 1983

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
	----- Thousand trees -----				
Balsam fir	10,151	1,505	65	0	11,721
Tamarack	0	0	0	0	0
White spruce	0	0	0	0	0
Black spruce	1,502	353	33	0	1,888
Red spruce	2,924	6,144	914	0	9,982
Red pine	0	0	0	0	0
White pine	3,953	5,049	2,036	300	11,338
Northern white-cedar	0	0	0	0	0
Hemlock	4,265	5,280	1,629	0	11,174
Other softwoods	0	0	0	0	0
Total softwoods	22,795	18,331	4,677	300	46,103
Sugar maple	21,942	4,223	1,311	144	27,620
Soft maples	29,295	7,939	1,530	45	38,809
Yellow birch	4,426	2,384	386	16	7,212
Paper birch	9,832	4,841	510	31	15,214
Gray birch	0	687	0	0	687
Beech	1,502	1,940	307	28	3,777
White ash	8,611	2,098	595	36	11,340
Black ash	0	401	196	0	597
Aspen	1,422	1,824	251	0	3,497
White oaks	0	0	0	0	0
Red oaks	16,060	890	212	0	17,162
Basswood	0	269	33	0	302
Elm	0	239	156	0	395
Other commercial hardwoods	4,346	673	225	0	5,244
Noncommercial hardwoods	11,684	1,559	17	0	13,260
Total hardwoods	109,120	29,967	5,729	300	145,116
Total, all species	131,915	48,298	10,406	600	191,219

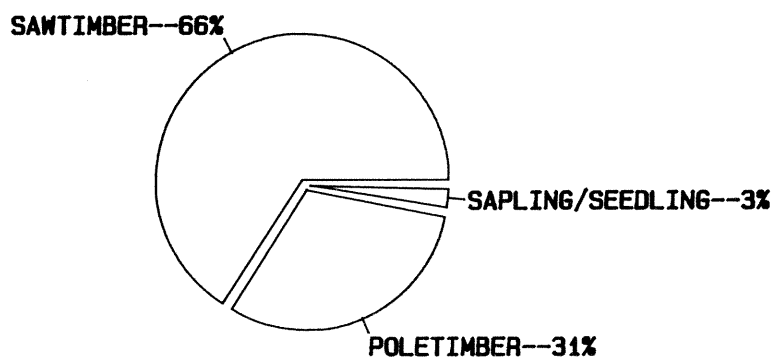
Table 35.--Continued

Species	Diameter group (inches at breast height)				All groups
	1.0- 4.9	5.0- 10.9	11.0- 20.9	21+	
	----- Thousand green tons -----				
Balsam fir	263.9	299.9	32.1	.0	595.9
Tamarack	.0	.0	.0	.0	.0
White spruce	.0	.0	.0	.0	.0
Black spruce	52.5	73.7	32.5	.0	158.7
Red spruce	19.0	1,317.7	833.5	.0	2,170.2
Red pine	.0	.0	.0	.0	.0
White pine	39.1	1,180.1	2,646.0	1,128.6	4,993.8
Northern white-cedar	.0	.0	.0	.0	.0
Hemlock	146.8	1,428.4	1,406.6	.0	2,981.8
Other softwoods	.0	.0	.0	.0	.0
Total softwoods	521.3	4,299.8	4,950.7	1,128.6	10,900.4
Sugar maple	427.9	1,269.3	1,337.4	659.2	3,693.8
Soft maples	604.1	2,018.9	1,245.9	157.1	4,026.0
Yellow birch	82.1	608.7	355.8	18.3	1,064.9
Paper birch	83.1	1,370.2	512.9	102.1	2,068.3
Gray birch	.0	109.2	.0	.0	109.2
Beech	25.8	547.8	334.6	78.6	986.8
White ash	467.0	609.4	659.5	130.8	1,866.7
Black ash	.0	190.8	163.4	.0	354.2
Aspen	3.2	542.6	281.8	.0	827.6
White oaks	.0	.0	.0	.0	.0
Red oaks	442.1	240.6	231.2	.0	913.9
Basswood	.0	43.2	32.8	.0	76.0
Elm	.0	77.0	175.3	.0	252.3
Other commercial hardwoods	121.4	172.7	158.8	.0	452.9
Noncommercial hardwoods	313.6	262.1	.9	.0	576.6
Total hardwoods	2,570.3	8,062.5	5,490.3	1,146.1	17,269.2
Total, all species	3,091.6	12,362.3	10,441.0	2,274.7	28,169.6

ABOVEGROUND BIOMASS of CULL and SALVABLE DEAD TREES



FOREST-TYPE GROUP



STANDSIZE CLASS

Table 36.--Net aboveground tree biomass of cull and salvable dead trees (5.0+ inches d.b.h.) on timberland, by forest-type group and stand-size class, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	Thousand green tons					Percent
White/red pine	12,786.4	2,399.2	695.6*	.0	15,881.2	9
Spruce/fir	6,043.4	3,476.3	56.4**	.0	9,576.1	14
Hard pine	.0	138.4**	72.1**	.0	210.5	68
Oak/pine	873.6**	265.3**	10.3**	.0	1,149.2	44
Oak/hickory	2,299.7	1,769.4*	.0	.0	4,069.1	17
Elm/ash/red maple	57.4**	42.7**	39.4**	.0	139.5	55
Northern hardwoods	19,077.4	10,094.1	720.2*	.0	29,891.7	7
Aspen/birch	536.6*	1,586.5*	53.1**	.0	2,176.2	25
Total, all groups	41,674.5	19,771.9	1,647.1	.0	63,093.5	3.4
Sampling error (percent)	5.3	8.3	24.4	-	3.4	
	Thousand acres					Percent
White/red pine	1,067.3	185.4	103.3*	.0	1,356.0	6
Spruce/fir	326.0	311.8	39.8*	.0	677.6	10
Hard pine	9.4**	16.7**	15.6**	.0	41.7	44
Oak/pine	56.0*	36.6*	7.3**	.0	99.9	28
Oak/hickory	202.3	183.1	9.8**	.0	395.2	13
Elm/ash/red maple	8.1**	6.7**	17.5**	.0	32.3	47
Northern hardwoods	1,216.2	681.3	106.1*	.0	2,003.6	5
Aspen/birch	48.2*	132.6*	25.0**	.0	205.8	20
Total, all groups	2,933.5	1,554.2	324.4	.0	4,812.1	.8
Sampling error (percent)	3.3	6.1	14.9	-	.8	
	Green tons per acre ^b					
White/red pine	12.0	12.9	6.7	.0	11.7	
Spruce/fir	18.5	11.1	1.4	.0	14.1	
Hard pine	.0	8.3	4.6	.0	5.0	
Oak/pine	15.6	7.2	1.4	.0	11.5	
Oak/hickory	11.4	9.7	.0	.0	10.3	
Elm/ash/red maple	7.1	6.4	2.3	.0	4.3	
Northern hardwoods	15.7	14.8	6.8	.0	14.9	
Aspen/birch	11.1	12.0	2.1	.0	10.6	
All groups	14.2	12.7	5.1	.0	13.1	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 37.--Net aboveground tree biomass of cull and salvable dead trees (5.0+ inches d.b.h.) on timberland, by forest-type group and stand-size class, Belknap County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	----- Thousand green tons -----					Percent
White/red pine	393.9*	45.7**	.0	.0	439.6	37
Spruce/fir	.0	.0	.0	.0	.0	-
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	51.7**	10.5**	.0	.0	62.2	85
Oak/hickory	374.2**	19.3**	.0	.0	393.5	49
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	626.2*	461.0**	6.5**	.0	1,093.7	33
Aspen/birch	.0	83.8**	.0	.0	83.8	100
Total, all groups	1,446.0	620.3	6.5	.0	2,072.8	15.4
Sampling error (percent)	22	43	100	-	15.4	
	----- Thousand acres -----					Percent
White/red pine	65.3*	14.1**	.0	.0	79.4	26
Spruce/fir	.0	.0	.0	.0	.0	-
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	7.1**	7.0**	.0	.0	14.1	71
Oak/hickory	28.7*	7.6**	.0	.0	36.3	41
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	36.0*	29.3*	7.0**	.0	72.3	27
Aspen/birch	.0	7.6**	7.6**	.0	15.2	71
Total, all groups	137.1	65.6	14.6	.0	217.3	1.6
Sampling error (percent)	14	29	71	-	1.6	
	----- Green tons per acre ^b -----					
White/red pine	6.0	3.2	.0	.0	5.5	
Spruce/fir	.0	.0	.0	.0	.0	
Hard pine	.0	.0	.0	.0	.0	
Oak/pine	7.3	1.5	.0	.0	4.4	
Oak/hickory	13.0	2.5	.0	.0	10.8	
Elm/ash/red maple	.0	.0	.0	.0	.0	
Northern hardwoods	17.4	15.7	.9	.0	15.1	
Aspen/birch	.0	11.0	.0	.0	5.5	
All groups	10.5	9.5	.0	.0	9.5	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 38.--Net aboveground tree biomass of cull and salvable dead trees (5.0+ inches d.b.h.) on timberland, by forest-type group and stand-size class, Carroll County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	Thousand green tons					Percent
White/red pine	1,160.2*	594.0**	.0	.0	1,754.2	35
Spruce/fir	275.6**	.0	.0	.0	275.6	71
Hard pine	.0	4.5**	26.0**	.0	30.5	87
Oak/pine	233.0**	.0	.0	.0	233.0	100
Oak/hickory	23.1**	8.0**	.0	.0	31.1	79
Elm/ash/red maple	57.4**	.0	.0	.0	57.4	100
Northern hardwoods	3,560.8	532.7**	.0	.0	4,093.5	17
Aspen/birch	.0	.0	.0	.0	.0	-
Total, all groups	5,310.1	1,139.2	26.0	.0	6,475.3	11.1
Sampling error (percent)	14	36	100	-	11.1	
	Thousand acres					Percent
White/red pine	124.3	37.7*	.0	.0	162.0	20
Spruce/fir	19.0**	.0	.0	.0	19.0	71
Hard pine	9.3**	9.3**	8.4**	.0	27.0	57
Oak/pine	9.7**	.0	.0	.0	9.7	100
Oak/hickory	19.4**	8.4**	.0	.0	27.8	57
Elm/ash/red maple	8.2**	.0	.0	.0	8.2	100
Northern hardwoods	225.7	38.1*	8.3**	.0	272.1	13
Aspen/birch	.0	.0	.0	.0	.0	-
Total, all groups	415.6	93.5	16.7	.0	525.8	2.3
Sampling error (percent)	7	28	62	-	2.3	
	Green tons per acre ^b					
White/red pine	9.3	15.8	.0	.0	10.8	
Spruce/fir	14.5	.0	.0	.0	14.5	
Hard pine	.0	.5	3.1	.0	1.1	
Oak/pine	24.0	.0	.0	.0	24.0	
Oak/hickory	1.2	1.0	.0	.0	1.1	
Elm/ash/red maple	7.0	.0	.0	.0	7.0	
Northern hardwoods	15.8	14.0	.0	.0	15.0	
Aspen/birch	.0	.0	.0	.0	.0	
All groups	12.8	12.2	1.6	.0	12.3	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 39.--Net aboveground tree biomass of cull and salvable dead trees (5.0+ inches d.b.h.) on timberland, by forest-type group and stand-size class, Cheshire County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	Thousand green tons					Percent
White/red pine	1,143.6*	284.5**	25.5**	.0	1,453.6	30
Spruce/fir	.0	94.6**	.0	.0	94.6	100
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	10.4**	94.9**	.0	.0	105.3	91
Oak/hickory	280.7*	437.6**	.0	.0	718.3	43
Elm/ash/red maple	.0	42.7**	.0	.0	42.7	100
Northern hardwoods	1,480.3	1,096.8*	97.3**	.0	2,674.4	17
Aspen/birch	.0	.0	.0	.0	.0	-
Total, all groups	2,915.0	2,051.1	122.8	.0	5,088.9	9.4
Sampling error (percent)	16	23	81	-	9.4	
	Thousand acres					Percent
White/red pine	93.5	14.4**	14.5**	.0	122.4	20
Spruce/fir	.0	6.8**	.0	.0	6.8	100
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	6.9**	8.0**	.0	.0	14.9	71
Oak/hickory	36.1*	21.9**	.0	.0	58.0	33
Elm/ash/red maple	.0	6.7**	.0	.0	6.7	100
Northern hardwoods	108.5	72.6*	6.7**	.0	187.8	15
Aspen/birch	.0	.0	.0	.0	.0	-
Total, all groups	245.0	130.4	21.2	.0	396.6	3.5
Sampling error (percent)	11	20	58	-	3.5	
	Green tons per acre ^b					
White/red pine	12.2	19.8	1.8	.0	11.9	
Spruce/fir	.0	13.9	.0	.0	13.9	
Hard pine	.0	.0	.0	.0	.0	
Oak/pine	1.5	11.9	.0	.0	7.1	
Oak/hickory	7.8	20.0	.0	.0	12.4	
Elm/ash/red maple	.0	6.4	.0	.0	6.4	
Northern hardwoods	13.6	15.1	14.5	.0	14.2	
Aspen/birch	.0	.0	.0	.0	.0	
All groups	11.9	15.7	5.8	.0	12.8	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 40.--Net aboveground tree biomass of cull and salvable dead trees (5.0+ inches d.b.h.) on timberland, by forest-type group and stand-size class, Coos County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	----- Thousand green tons -----					Percent
White/red pine	.0	.0	152.5**	.0	152.5	100
Spruce/fir	4,332.3	2,353.4*	56.4**	.0	6,742.1	16
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	.0	.0	.0	.0	.0	-
Oak/hickory	.0	.0	.0	.0	.0	-
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	4,370.9	2,372.3*	166.7**	.0	6,909.9	14
Aspen/birch	223.3**	846.3*	30.2**	.0	1,099.8	36
Total, all groups	8,926.5	5,572.0	405.8	.0	14,904.3	7.3
Sampling error (percent)	13	16	44	-	7.3	
	----- Thousand acres -----					Percent
White/red pine	.0	.0	9.7**	.0	9.7	100
Spruce/fir	219.7	222.7	29.0**	.0	471.4	11
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	.0	.0	.0	.0	.0	-
Oak/hickory	.0	.0	.0	.0	.0	-
Elm/ash/red maple	.0	.0	8.5**	.0	8.5	100
Northern hardwoods	271.9	136.6	29.4**	.0	437.9	11
Aspen/birch	17.8**	66.1*	10.1**	.0	94.0	30
Total, all groups	509.4	425.4	86.7	.0	1,021.5	1.2
Sampling error (percent)	9	12	30	-	1.2	
	----- Green tons per acre ^b -----					
White/red pine	.0	.0	15.7	.0	15.7	
Spruce/fir	19.7	10.6	1.9	.0	14.3	
Hard pine	.0	.0	.0	.0	.0	
Oak/pine	.0	.0	.0	.0	.0	
Oak/hickory	.0	.0	.0	.0	.0	
Elm/ash/red maple	.0	.0	.0	.0	.0	
Northern hardwoods	16.1	17.4	5.7	.0	15.8	
Aspen/birch	12.5	12.8	3.0	.0	11.7	
All groups	17.5	13.1	4.7	.0	14.6	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 41.--Net aboveground tree biomass of cull and salvable dead trees (5.0+ inches d.b.h.) on timberland, by forest-type group and stand-size class, Grafton County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	Thousand green tons					Percent
White/red pine	2,077.8*	362.2**	124.3**	.0	2,564.3	28
Spruce/fir	1,325.7*	981.6*	.0	.0	2,307.3	30
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	417.5**	.0	.0	.0	417.5	100
Oak/hickory	241.9**	109.0**	.0	.0	350.9	73
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	4,198.7	3,064.0*	382.5**	.0	7,645.2	15
Aspen/birch	313.3**	501.4**	.0	.0	814.7	43
Total, all groups	8,574.9	5,018.2	506.8	.0	14,099.9	8.2
Sampling error (percent)	14	19	58	-	8.2	
	Thousand acres					Percent
White/red pine	122.0*	29.7**	16.9**	.0	168.6	23
Spruce/fir	72.6*	70.3*	10.8**	.0	153.7	24
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	10.7**	.0	.0	.0	10.7	100
Oak/hickory	9.8**	30.4**	9.8**	.0	50.0	44
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	269.4	201.8	28.9**	.0	500.1	10
Aspen/birch	30.4**	29.4**	.0	.0	59.8	40
Total, all groups	514.9	361.6	66.4	.0	942.9	2.1
Sampling error (percent)	10	13	38	-	2.1	
	Green tons per acre ^b					
White/red pine	17.0	12.2	7.4	.0	15.2	
Spruce/fir	18.3	14.0	.0	.0	15.0	
Hard pine	.0	.0	.0	.0	.0	
Oak/pine	39.0	.0	.0	.0	39.0	
Oak/hickory	24.7	3.6	.0	.0	7.0	
Elm/ash/red maple	.0	.0	.0	.0	.0	
Northern hardwoods	15.6	15.2	13.2	.0	15.3	
Aspen/birch	10.3	17.1	.0	.0	13.6	
All groups	16.7	13.9	7.6	.0	15.0	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 42.--Net aboveground tree biomass of cull and salvable dead trees (5.0+ inches d.b.h.) on timberland, by forest-type group and stand-size class, Hillsboro County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	Thousand green tons					Percent
White/red pine	2,350.7	249.4**	9.0**	.0	2,609.1	17
Spruce/fir	.0	.0	.0	.0	.0	-
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	29.5**	.0	.0	.0	29.5	100
Oak/hickory	342.9**	667.9*	.0	.0	1,010.8	35
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	1,473.4*	83.6**	.0	.0	1,557.0	35
Aspen/birch	.0	.0	.0	.0	.0	-
Total, all groups	4,196.5	1,000.9	9.0	.0	5,206.4	11.2
Sampling error (percent)	15	30	100	-	11.2	
	Thousand acres					Percent
White/red pine	212.5	28.2*	7.1**	.0	247.8	11
Spruce/fir	.0	.0	.0	.0	.0	-
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	7.1**	.0	.0	.0	7.1	100
Oak/hickory	14.2**	56.6*	.0	.0	70.8	28
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	71.6*	20.9**	.0	.0	92.5	25
Aspen/birch	.0	.0	.0	.0	.0	-
Total, all groups	305.4	105.7	7.1	.0	418.2	3.3
Sampling error (percent)	8	21	100	-	3.3	
	Green tons per acre ^b					
White/red pine	11.1	8.8	1.3	.0	10.5	
Spruce/fir	.0	.0	.0	.0	.0	
Hard pine	.0	.0	.0	.0	.0	
Oak/pine	4.2	.0	.0	.0	4.2	
Oak/hickory	24.1	11.8	.0	.0	14.3	
Elm/ash/red maple	.0	.0	.0	.0	.0	
Northern hardwoods	20.6	4.0	.0	.0	16.8	
Aspen/birch	.0	.0	.0	.0	.0	
All groups	13.7	9.5	1.3	.0	12.4	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 43.--Net aboveground tree biomass of cull and salvable dead trees (5.0+ inches d.b.h.) on timberland, by forest-type group and stand-size class, Merrimack County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	Thousand green tons					Percent
White/red pine	1,139.3*	518.0**	266.9**	.0	1,924.2	25
Spruce/fir	.0	46.7**	.0	.0	46.7	75
Hard pine	.0	133.9**	46.1**	.0	180.0	79
Oak/pine	131.5**	.0	.0	.0	131.5	73
Oak/hickory	141.7**	478.8*	.0	.0	620.5	38
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	1,034.7*	1,048.3*	15.6**	.0	2,098.6	21
Aspen/birch	.0	99.6**	.0	.0	99.6	74
Total, all groups	2,447.2	2,325.3	328.6	.0	5,101.1	10.6
Sampling error (percent)	19	21	46	-	10.6	
	Thousand acres					Percent
White/red pine	135.0	25.4**	36.0*	.0	196.4	15
Spruce/fir	.0	12.0**	.0	.0	12.0	73
Hard pine	.0	7.4**	7.3**	.0	14.7	71
Oak/pine	14.5**	.0	.0	.0	14.5	71
Oak/hickory	28.9*	43.8*	.0	.0	72.7	30
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	79.2*	80.4*	7.4**	.0	167.0	17
Aspen/birch	.0	14.7**	.0	.0	14.7	71
Total, all groups	257.6	183.7	50.7	.0	492.0	2.4
Sampling error (percent)	11	16	36	-	2.4	
	Green tons per acre ^b					
White/red pine	8.4	20.4	7.4	.0	9.8	
Spruce/fir	.0	3.9	.0	.0	3.9	
Hard pine	.0	18.1	6.3	.0	12.2	
Oak/pine	9.1	.0	.0	.0	9.1	
Oak/hickory	4.9	10.9	.0	.0	8.5	
Elm/ash/red maple	.0	.0	.0	.0	.0	
Northern hardwoods	13.1	13.0	2.1	.0	12.6	
Aspen/birch	.0	6.8	.0	.0	6.8	
All groups	9.5	12.7	6.5	.0	10.4	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 44.--Net aboveground tree biomass of cull and salvable dead trees (5.0+ inches d.b.h.) on timberland, by forest-type group and stand-size class, Rockingham County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	Thousand green tons					Percent
White/red pine	1,360.6	163.9**	.0	.0	1,524.5	21
Spruce/fir	.0	.0	.0	.0	.0	-
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	.0	159.9**	10.3**	.0	170.2	55
Oak/hickory	515.9*	48.8**	.0	.0	564.7	36
Elm/ash/red maple	.0	.0	39.4**	.0	39.4	72
Northern hardwoods	57.8**	256.1**	.0	.0	313.9	46
Aspen/birch	.0	.0	.0	.0	.0	-
Total, all groups	1,934.3	628.7	49.7	.0	2,612.7	11.2
Sampling error (percent)	16	30	61	-	11.2	
	Thousand acres					Percent
White/red pine	152.9	14.2**	7.0**	.0	174.1	15
Spruce/fir	.0	.0	.0	.0	.0	-
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	.0	21.6**	7.3**	.0	28.9	49
Oak/hickory	43.8*	14.6**	.0	.0	58.4	31
Elm/ash/red maple	.0	.0	8.9**	.0	8.9	75
Northern hardwoods	14.2**	29.5*	5.9**	.0	49.6	37
Aspen/birch	.0	.0	.0	.0	.0	-
Total, all groups	210.9	79.9	29.1	.0	319.9	4.5
Sampling error (percent)	10	27	42	-	4.5	
	Green tons per acre ^b					
White/red pine	8.9	11.5	.0	.0	8.8	
Spruce/fir	.0	.0	.0	.0	.0	
Hard pine	.0	.0	.0	.0	.0	
Oak/pine	.0	7.4	1.4	.0	5.9	
Oak/hickory	11.8	3.3	.0	.0	9.7	
Elm/ash/red maple	.0	.0	4.4	.0	4.4	
Northern hardwoods	4.1	8.7	.0	.0	6.3	
Aspen/birch	.0	.0	.0	.0	.0	
All groups	9.2	7.9	1.7	.0	8.2	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 45.--Net aboveground tree biomass of cull and salvable dead trees (5.0+ inches d.b.h.) on timberland, by forest-type group and stand-size class, Strafford County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	----- Thousand green tons -----					Percent
White/red pine	694.6*	105.9**	30.3**	.0	830.8	26
Spruce/fir	.0	.0	.0	.0	.0	-
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	.0	.0	.0	.0	.0	-
Oak/hickory	209.7**	.0	.0	.0	209.7	71
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	797.5*	220.1**	24.0**	.0	1,041.6	22
Aspen/birch	.0	52.1**	22.9**	.0	75.0	69
Total, all groups	1,701.8	378.1	77.2	.0	2,157.1	9.4
Sampling error (percent)	16	46	33	-	9.4	
	----- Thousand acres -----					Percent
White/red pine	55.6*	14.2**	5.3**	.0	75.1	25
Spruce/fir	.0	.0	.0	.0	.0	-
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	.0	.0	.0	.0	.0	-
Oak/hickory	14.2**	.0	.0	.0	14.2	71
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	61.0	15.3**	5.3**	.0	81.6	19
Aspen/birch	.0	7.4**	7.3**	.0	14.7	62
Total, all groups	130.8	36.9	17.9	.0	185.6	2.0
Sampling error (percent)	12	41	42	-	2.0	
	----- Green tons per acre ^b -----					
White/red pine	12.5	7.5	5.7	.0	11.1	
Spruce/fir	.0	.0	.0	.0	.0	
Hard pine	.0	.0	.0	.0	.0	
Oak/pine	.0	.0	.0	.0	.0	
Oak/hickory	14.8	.0	.0	.0	14.8	
Elm/ash/red maple	.0	.0	.0	.0	.0	
Northern hardwoods	13.1	14.4	4.5	.0	12.8	
Aspen/birch	.0	7.0	3.1	.0	5.1	
All groups	13.0	10.2	4.3	.0	11.6	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 46.--Net aboveground tree biomass of cull and salvable dead trees (5.0+ inches d.b.h.) on timberland, by forest-type group and stand-size class, Sullivan County, New Hampshire, 1983

Forest-type group	Stand-size class				All classes	Sampling error ^a
	Sawtimber	Poletimber	Sapling and seedling	Nonstocked		
	Thousand green tons					Percent
White/red pine	2,465.7*	75.6**	87.1**	.0	2,628.4	26
Spruce/fir	109.8**	.0	.0	.0	109.8	100
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	.0	.0	.0	.0	.0	-
Oak/hickory	169.6**	.0	.0	.0	169.6	100
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	1,477.1*	959.2*	27.6**	.0	2,463.9	24
Aspen/birch	.0	3.3**	.0	.0	3.3	100
Total, all groups	4,222.2	1,038.1	114.7	.0	5,375.0	12.5
Sampling error (percent)	17	36	79	-	12.5	
	Thousand acres					Percent
White/red pine	106.2	7.3**	7.0**	.0	120.5	19
Spruce/fir	14.7**	.0	.0	.0	14.7	71
Hard pine	.0	.0	.0	.0	.0	-
Oak/pine	.0	.0	.0	.0	.0	-
Oak/hickory	7.0**	.0	.0	.0	7.0	100
Elm/ash/red maple	.0	.0	.0	.0	.0	-
Northern hardwoods	78.9*	56.8*	7.0**	.0	142.7	16
Aspen/birch	.0	7.4**	.0	.0	7.4	100
Total, all groups	206.8	71.5	14.0	.0	292.3	1.3
Sampling error (percent)	10	28	69	-	1.3	
	Green tons per acre ^b					
White/red pine	23.2	10.4	12.4	.0	21.8	
Spruce/fir	7.5	.0	.0	.0	7.5	
Hard pine	.0	.0	.0	.0	.0	
Oak/pine	.0	.0	.0	.0	.0	
Oak/hickory	24.2	.0	.0	.0	24.2	
Elm/ash/red maple	.0	.0	.0	.0	.0	
Northern hardwoods	18.7	16.9	3.9	.0	17.3	
Aspen/birch	.0	.4	.0	.0	.4	
All groups	20.4	14.5	8.2	.0	18.4	

^aSampling errors are expressed as a percent of the total and are included only for row and column totals. A single asterisk (*) by a cell value indicates that the estimate has an associated sampling error between 25 and 50 percent; a double asterisk (**) indicates that the estimate has an associated sampling error greater than 50 percent, and therefore is not significantly different from zero.

^bPer acre estimates are based on the timberland area in each forest-type group and stand-size class.

Table 47.--Number of trees and net aboveground tree biomass of cull and salvable dead trees on timberland, by species group and diameter group, New Hampshire, 1983

Species group	Diameter group (inches at breast height) of cull trees				Salvable dead trees	All cull and salvable dead trees
	5.0- 10.9	11.0- 20.9	21+	All diameter groups		
<hr style="border-top: 1px dashed black;"/> <div>Thousand trees</div> <hr style="border-top: 1px dashed black;"/>						
Softwoods	36,927	4,382	657	41,966	32,375	74,341
Hardwoods	92,099	13,618	1,651	107,368	19,281	126,649
Total, all species	129,026	18,000	2,308	149,334	51,656	200,990
<hr style="border-top: 1px dashed black;"/> <div>Thousand green tons</div> <hr style="border-top: 1px dashed black;"/>						
Softwoods	7,069.6	4,008.1	2,634.3	13,712.0	7,856.6	21,568.6
Hardwoods	19,005.2	12,077.7	5,126.4	36,209.3	5,315.6	41,524.9
Total, all species	26,074.8	16,085.8	7,760.7	49,921.3	13,172.2	63,093.5

Table 48.--Number of trees and net aboveground tree biomass of cull and salvable dead trees on timberland, by species group and diameter group, Belknap County, New Hampshire, 1983

Species group	Diameter group (inches at breast height) of cull trees				Salvable dead trees	All cull and salvable dead trees
	5.0- 10.9	11.0- 20.9	21+	All diameter groups		
	----- <u>Thousand trees</u> -----					
Softwoods	1,298	112	27	1,437	489	1,926
Hardwoods	3,638	580	124	4,342	241	4,583
Total, all species	4,936	692	151	5,779	730	6,509
	----- <u>Thousand green tons</u> -----					
Softwoods	271.1	86.1	80.8	438.0	80.8	518.8
Hardwoods	680.2	429.1	357.0	1,466.3	87.7	1,554.0
Total, all species	951.3	515.2	437.8	1,904.3	168.5	2,072.8

Table 49.--Number of trees and net aboveground tree biomass of cull and salvable dead trees on timberland, by species group and diameter group, Carroll County, New Hampshire, 1983

Species group	Diameter group (inches at breast height) of cull trees				Salvable dead trees	All cull and salvable dead trees
	5.0- 10.9	11.0- 20.9	21+	All diameter groups		
	<hr style="border-top: 1px dashed black;"/> Thousand trees <hr style="border-top: 1px dashed black;"/>					
Softwoods	2,276	509	102	2,887	1,818	4,705
Hardwoods	5,975	1,676	272	7,923	1,845	9,768
Total, all species	8,251	2,185	374	10,810	3,663	14,473
	<hr style="border-top: 1px dashed black;"/> Thousand green tons <hr style="border-top: 1px dashed black;"/>					
Softwoods	476.3	459.5	478.2	1,414.0	500.6	1,914.6
Hardwoods	1,352.4	1,718.6	906.5	3,977.5	583.2	4,560.7
Total, all species	1,828.7	2,178.1	1,384.7	5,391.5	1,083.8	6,475.3

Table 50.--Number of trees and net aboveground tree biomass of cull and salvable dead trees on timberland, by species group and diameter group, Cheshire County, New Hampshire, 1983

Species group	Diameter group (inches at breast height) of cull trees				Salvable dead trees	All cull and salvable dead trees
	5.0- 10.9	11.0- 20.9	21+	All diameter groups		
	----- <u>Thousand trees</u> -----					
Softwoods	4,283	425	49	4,757	797	5,554
Hardwoods	10,452	1,794	113	12,359	724	13,083
Total, all species	14,735	2,219	162	17,116	1,521	18,637
	----- <u>Thousand green tons</u> -----					
Softwoods	780.0	413.0	186.8	1,379.8	183.0	1,562.8
Hardwoods	1,913.5	1,245.7	252.1	3,411.3	114.8	3,526.1
Total, all species	2,693.5	1,658.7	438.9	4,791.1	297.8	5,088.9

Table 51.--Number of trees and net aboveground tree biomass of cull and salvable dead trees on timberland, by species group and diameter group, Coos County, New Hampshire, 1983

Species group	Diameter group (inches at breast height) of cull trees				Salvable dead trees	All cull and salvable dead trees
	5.0- 10.9	11.0- 20.9	21+	All diameter groups		
	<hr style="border-top: 1px dashed black;"/> Thousand trees <hr style="border-top: 1px dashed black;"/>					
Softwoods	7,284	664	37	7,985	11,882	19,867
Hardwoods	20,780	2,319	227	23,326	5,402	28,728
Total, all species	28,064	2,983	264	31,311	17,284	48,595
	<hr style="border-top: 1px dashed black;"/> Thousand green tons <hr style="border-top: 1px dashed black;"/>					
Softwoods	1,517.0	697.4	162.6	2,377.0	3,113.9	5,490.9
Hardwoods	4,642.2	2,443.5	701.6	7,787.3	1,626.1	9,413.4
Total, all species	6,159.2	3,140.9	864.2	10,164.3	4,740.0	14,904.3

Table 52.--Number of trees and net aboveground tree biomass of cull and salvable dead trees on timberland, by species group and diameter group, Grafton County, New Hampshire, 1983

Species group	Diameter group (inches at breast height) of cull trees				Salvable dead trees	All cull and salvable dead trees
	5.0- 10.9	11.0- 20.9	21+	All diameter groups		
	----- Thousand trees -----					
Softwoods	3,405	752	69	4,226	12,274	16,500
Hardwoods	13,436	2,679	391	16,506	5,932	22,438
Total, all species	16,841	3,431	460	20,732	18,206	38,938
	----- Thousand green tons -----					
Softwoods	766.0	839.1	567.7	2,172.8	2,913.3	5,086.1
Hardwoods	2,939.4	2,690.0	1,417.9	7,047.3	1,966.5	9,013.8
Total, all species	3,705.4	3,529.1	1,985.6	9,220.1	4,879.8	14,099.9

Table 53.--Number of trees and net aboveground tree biomass of cull and salvable dead trees on timberland, by species group and diameter group, Hillsboro County, New Hampshire, 1983

Species group	Diameter group (inches at breast height) of cull trees				Salvable dead trees	All cull and salvable dead trees
	5.0- 10.9	11.0- 20.9	21+	All diameter groups		
	<hr style="border-top: 1px dashed black;"/> Thousand trees <hr style="border-top: 1px dashed black;"/>					
Softwoods	5,674	442	48	6,164	1,918	8,082
Hardwoods	8,974	1,225	178	10,377	617	10,994
Total, all species	14,648	1,667	226	16,541	2,535	19,076
	<hr style="border-top: 1px dashed black;"/> Thousand green tons <hr style="border-top: 1px dashed black;"/>					
Softwoods	990.2	362.8	205.9	1,558.9	282.7	1,841.6
Hardwoods	1,803.2	962.7	510.4	3,276.3	88.5	3,364.8
Total, all species	2,793.4	1,325.5	716.3	4,835.2	371.2	5,206.4

Table 54.--Number of trees and net aboveground tree biomass of cull and salvable dead trees on timberland, by species group and diameter group, Merrimack County, New Hampshire, 1983

Species group	Diameter group (inches at breast height) of cull trees				Salvable dead trees	All cull and salvable dead trees
	5.0- 10.9	11.0- 20.9	21+	All diameter groups		
	<hr style="border-top: 1px dashed black;"/> Thousand trees <hr style="border-top: 1px dashed black;"/>					
Softwoods	4,661	425	101	5,187	1,385	6,572
Hardwoods	10,425	1,164	77	11,666	1,558	13,224
Total, all species	15,086	1,589	178	16,853	2,943	19,796
	<hr style="border-top: 1px dashed black;"/> Thousand green tons <hr style="border-top: 1px dashed black;"/>					
Softwoods	882.4	323.9	289.4	1,495.7	411.0	1,906.7
Hardwoods	1,740.6	895.8	177.4	2,813.8	380.6	3,194.4
Total, all species	2,623.0	1,219.7	466.8	4,309.5	791.6	5,101.1

Table 55.--Number of trees and net aboveground tree biomass of cull and salvable dead trees on timberland, by species group and diameter group, Rockingham County, New Hampshire, 1983

Species group	Diameter group (inches at breast height) of cull trees				Salvable dead trees	All cull and salvable dead trees
	5.0- 10.9	11.0- 20.9	21+	All diameter groups		
	----- <u>Thousand trees</u> -----					
Softwoods	4,119	294	73	4,486	908	5,394
Hardwoods	4,830	175	13	5,018	1,187	6,205
Total, all species	8,949	469	86	9,504	2,095	11,599
	----- <u>Thousand green tons</u> -----					
Softwoods	617.8	231.8	209.6	1,059.2	177.4	1,236.6
Hardwoods	1,033.8	159.4	26.2	1,219.4	156.7	1,376.1
Total, all species	1,651.6	391.2	235.8	2,278.6	334.1	2,612.7

Table 56.--Number of trees and net aboveground tree biomass of cull and salvable dead trees on timberland, by species group and diameter group, Strafford County, New Hampshire, 1983

Species group	Diameter group (inches at breast height) of cull trees				Salvable dead trees	All cull and salvable dead trees
	5.0- 10.9	11.0- 20.9	21+	All diameter groups		
	<hr/> <u>Thousand trees</u> <hr/>					
Softwoods	1,186	76	15	1,277	99	1,376
Hardwoods	6,462	383	54	6,899	391	7,290
Total, all species	7,648	459	69	8,176	490	8,666
	<hr/> <u>Thousand green tons</u> <hr/>					
Softwoods	238.3	59.7	47.5	345.5	15.0	360.5
Hardwoods	1,328.0	242.8	164.4	1,735.2	61.4	1,796.6
Total, all species	1,566.3	302.5	211.9	2,080.7	76.4	2,157.1

Table 57.--Number of trees and net aboveground tree biomass of cull and salvable dead trees on timberland, by species group and diameter group, Sullivan County, New Hampshire, 1983

Species group	Diameter group (inches at breast height) of cull trees				Salvable dead trees	All cull and salvable dead trees
	5.0- 10.9	11.0- 20.9	21+	All diameter groups		
	<hr/> <u>Thousand trees</u> <hr/>					
Softwoods	2,741	683	136	3,560	805	4,365
Hardwoods	7,127	1,623	202	8,952	1,384	10,336
Total, all species	9,868	2,306	338	12,512	2,189	14,701
	<hr/> <u>Thousand green tons</u> <hr/>					
Softwoods	530.5	534.8	405.8	1,471.1	178.9	1,650.0
Hardwoods	1,571.9	1,290.1	612.9	3,474.9	250.1	3,725.0
Total, all species	2,102.4	1,824.9	1,018.7	4,946.0	429.0	5,375.0

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Appendix

Definition of Terms

Aboveground tree biomass. The net green weight of wood and bark in trees aboveground.

Biomass. The quantity of material in organic matter measured in terms of its weight.

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

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.

Cull trees. Rotten trees, that is, live trees of commercial species that do not contain at least one 12-foot sawlog or two noncontiguous 8-foot sawlogs and more than 50 percent of the cull volume is rotten; rough trees, that is, live trees that (1) do not meet regional specifications for freedom from defect primarily because of roughness or poor form, or (2) noncommercial species.

Diameter at breast height (d.b.h.). The diameter outside bark of a standing tree measured at 4-1/2 feet above the ground on the uphill side of the tree.

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 the stocking (basal area of all live trees).

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.

Green weight. The weight of wood and bark as it would be if it had been recently cut, usually expressed in pounds or tons. Net green weight equals

gross weight less deductions for all unsound (rotten) material.

Growing-stock trees. Live trees of commercial species classified as either sawtimber, poletimber, saplings, or seedlings; all live trees except cull trees. While saplings and seedlings are classified as growing-stock trees, by USDA Forest Service definition, they contain no volume.

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 height to a minimum 4.0-inch top d.o.b. of the central stem, or to the point where the central stem breaks into limbs if that occurs before it reaches this minimum diameter. Net volume equals gross volume less deduction for cull.

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

International 1/4-inch rule. A log rule or formula for estimating the board-foot volume of logs. For 4-foot sections, the mathematical formula is $(0.22D^2 - 0.71D)(0.904762)$; 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.

Merchantable stem. The main stem of the tree between a 1-foot stump height and a 4-inch top diameter (outside the bark), including the wood and bark.

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.

Nongrowing-stock biomass. The biomass in cull trees (including noncommercial tree species), salvable dead trees, saplings, stumps between ground level and a 1-foot stump height, and the tops of growing-stock trees.

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.

Rotten trees. Live trees of commercial species that do not contain at least one 12-foot sawlog or two noncontiguous 8-foot sawlogs and more than 50 percent of the cull volume is rotten.

Rough trees. Live trees that (1) do not meet regional specifications for freedom from defect primarily because of roughness or poor form, or (2) noncommercial species.

Salvable dead trees. Trees at least 5.0 inches in d.b.h. that have recently died, but still have intact bark. The trees 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 inches through 4.9 inches d.b.h.

Sawlog portion. The part of the bole of a sawtimber tree between the stump and the point on the bole above which a sawlog cannot be produced. The minimum sawlog top is 7.0 inches d.o.b. for softwoods and 9.0 inches d.o.b. for hardwoods.

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.

Softwoods. Coniferous trees, usually evergreen, with needles or scalelike leaves.

Stand-size class. A classification of forest land based on the size class of all live trees in the area.

a. Sawtimber stand--stands of timber on forest land where (1) all live trees make up at least 10 percent of the minimum full stocking; (2) half or more of the stocking is made up of poletimber trees, sawtimber trees, or both; and (3) the stocking of sawtimber is at least equal to that of poletimber.

b. Poletimber stand--stands of timber on forest land where (1) all live trees make up at least 10 percent of the minimum full stocking; (2) half or more of the stocking is made up of poletimber trees, sawtimber trees, or both; and (3) the stocking of poletimber exceeds that of sawtimber.

c. Sapling-seedling stand--stands of timber on forest land where (1) all live trees make up at least 10 percent of the minimum full stocking; and (2) half or more of the stocking is made up of saplings, seedlings, or both.

d. Nonstocked area--stands of timber on forest land where all live trees make up less than 10 percent of the minimum full stocking.

Stump. The main stem of a tree from ground level to 1 foot above ground level, including the wood and bark. Excludes the stump-root system below the ground.

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.

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

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

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 d.o.b., or to the point where the main stem or fork breaks into limbs.

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. ^c	sugar, rock or hard maple	vc
<u>A. spicatum</u> Lam.	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 cinera</u> L. ^c	butternut	r
<u>Malus</u> spp. Mill.	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
<u>Q. prinus</u> L.	chestnut oak	r
<u>Q. rubra</u> L.	northern red oak	vc
<u>Q. velutina</u> Lam.	black oak	c

Tree Species (Cont'd)

Scientific Name ^a	Common Name(s)	Occurrence ^b
<u>Salix</u> spp.	willows	vr
<u>Tilia americana</u> L.	american basswood	r
<u>Ulmus americana</u> L.	american elm	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.

Conversions and Metric Equivalents

1 acre = 4,046.86 square meters or 0.404686
hectares
1 board foot^a = 0.00348 cubic meters or 3,480
cubic centimeters
1 cubic foot = 0.028317 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
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

^aWhile 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, using a 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. Since the board-foot unit is not a true measure of wood volume, and since products other than dimension lumber are becoming important, this unit may eventually be phased out and replaced with the cubic meter unit.

List of Available Biomass Tables

The following biomass tables are on microfiche. These tables are available at the state, geographic unit, and county level. Copies of fiche or photocopies of particular tables can be obtained by calling or writing

USDA Forest Service
Forest Inventory, Analysis, and Economics
370 Reed Road
Broomall, PA 19008
(215)461-3037

<u>Table Number</u>	<u>Table description</u>
9000	Softwood aboveground biomass by diameter class and stand-size class.
9001	Hardwood aboveground biomass by diameter class and stand-size class.
9010	Net weight (tons) of cull and salvable dead trees on timberland by component type of tree and softwoods/hardwoods.
9020	Net weight (tons) of all live trees on timberland by components and age class.
9030	Net weight (tons) of merchantable stem of growing stock trees on timberland by species and diameter class.
9050	Net weight (tons) of all live trees on timberland by forest type and stand-size class.
9051	Net weight (tons) of all live trees on timberland by forest-type group and stand-size class.
9060	Net weight (tons) per acre of all live trees on timberland by forest type and stand-size classes.
9090	Net weight (tons) of cull and salvable dead trees on timberland by forest-type group and stand-size class.
9100	Net weight (tons) per acre of cull and salvable dead trees on timberland by forest-type group and stand-size class.
9120	Net weight (tons) of all live trees on timberland by timber management class and stand area class.

- 9130 Net weight (tons) per acre of all live trees on timberland by timber management and stand area classes.
- 9150 Net weight (tons) of all live trees on timberland by timber management class and forest-type group.
- 9160 Net weight (tons) of all trees on timberland by class of materials and softwoods and hardwoods.
- 9170 Net weight (tons) of all live trees on timberland by species and diameter class.
- 9171 Net weight (tons) of all live trees on timberland by species and diameter group.
- 9172 Net weight (tons) of cull and salvable dead trees 5"+ on timberland by species group and diameter group.
- 9180 Net weight (tons) of growing stock trees on timberland by species and diameter class .
- 9190 Net weight per acre of all live trees on timberland by timber management class and forest-type group.

Frieswyk, Thomas S.; Malley, Anne M. Biomass statistics for New Hampshire--1983. Resour. Bull. NE-92. Broomall, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station; 1986. 85 p.

A statistical report on the fourth forest survey of New Hampshire (1983). Findings are displayed in 72 tables containing estimates of forest area, numbers of trees, tree biomass and timber volume. Data is presented by state and county level.

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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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