

Forest Statistics for North Carolina, 1984

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Foreword

This report highlights the principal findings of the fifth forest survey of North Carolina. Fieldwork began in November 1982 and was completed in September 1984. Four previous surveys, completed in 1938, 1956, 1964, and 1974, provide statistics for measuring changes and trends over the past 46 years. The primary emphasis in this report is on the changes and trends since 1974. Previously reported figures have been adjusted to provide the best estimate of change.

Periodic surveys of the forest resource are authorized by the Forest and Rangeland Renewable Resources Research Act of 1978. These surveys are a continuing, nationwide undertaking by the Regional Experiment Stations of the USDA Forest Service. In Florida, Georgia, North Carolina, South Carolina, and Virginia, these surveys are administered by the Forest Inventory and Analysis (Forest Survey) Research Work Unit at the Southeastern Forest Experiment Station, with headquarters in Asheville, NC. The primary objective of the survey is to periodically inventory and evaluate all forest and related resources. These multiresource data help provide a basis for formulating forest policies and programs and for the orderly development and use of the resources. This

report deals only with the extent and condition of forest lands, associated timber volumes, and rates of timber growth and removals.

Reports for the survey units in North Carolina, USDA Forest Service Resource Bulletins SE-72, SE-74, and SE-76, have been issued for the Southern Coastal Plain, Northern Coastal Plain, and Piedmont. A similar report for the Mountains is being released with this report. An in-depth, analytical State report should be available in late 1985.

The Southeastern Station gratefully acknowledges the cooperation and assistance provided by the North Carolina Forest Service of the State Department of Natural and Economic Resources and the Tennessee Valley Authority in collecting field data. Appreciation is also expressed for the excellent cooperation of other public agencies, forest industry, and other private landowners in providing information and access to the sample locations.



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Since the fourth inventory of North Carolina's forest resources was completed in 1974

● area of commercial forest declined from 19.5 to 18.5 million acres. About 1.4 million acres were removed from the forest land base, whereas only 0.3 million acres were added. Of the acreage diverted to other uses, 52 percent went to agriculture, 34 percent to urban and other nonforest uses, 9 percent to water, and 5 percent to noncommercial forest. Reductions of timberland were measured in all survey units, but almost half the net loss occurred in the Piedmont. Statewide, 60 percent of the total land area is currently classified as timberland.

● timberland owned by farmers decreased from 8.4 to 5.5 million acres, or by 35 percent. Occupational change, land transaction, clearing for agriculture, and incorporation of small family farms all contribute to the reduction of farmer-owned timberland. Forest acreage held by all other owners increased over the period. Corporate owners (excluding forest industry) added 0.5 million acres to a previous base of 1.1 million acres for a 46-percent gain. Miscellaneous private individuals acquired another 1.0 million acres and now own 6.9 million acres of commercial forest. Together, these three groups form the nonindustrial private forest (NIPF) ownership class. Although the heavy loss of farmer-owned timberland led to a net decline of 9 percent in the NIPF grouping, these owners currently possess 76 percent of the timberland in North Carolina. Forest industry added 0.2 million acres to their fee-simple holdings and now own 14 percent of the State's commercial forests. They also control another 1 percent under long-term lease. About 6 percent of North Carolina's timberland is managed by the National Forest System. The balance is owned by various other public agencies.

● more than 2.5 million acres, or nearly 14 percent of the total commercial forest, were harvested and retained in timberland. About 76 percent of the final harvest occurred on

NIPF land, 20 percent on lands controlled by forest industry, and 4 percent on public land. The average number of acres harvested annually has increased by 12 percent since the period between 1964 and 1974. This is attributable to a 24-percent increase on NIPF lands, as harvest rates on forest industry and public lands have dropped by 13 and 16 percent. About 48 percent of the final harvest occurred in pine stands, 13 percent in oak-pine, and 39 percent in hardwood stands.

● more than 2.1 million acres were regenerated, either naturally or artificially, to manageable stands of growing-stock trees. Approximately 43 percent of these new stands resulted in pine forest types, 15 percent in oak-pine, and 42 percent in hardwood types. In all, 0.7 million acres have been planted during the remeasurement period. The current planting rate, 74,000 acres per year, is the same as 10 years ago. However, the area planted annually to pines on NIPF land climbed by 84 percent, to 28,000 acres. Reforestation programs sponsored by the State and accelerating rates of harvest on these lands are probably key factors. On the other hand, slower rates of harvest have correspondingly reduced forest industry planting rates by 23 percent, to 42,000 acres each year. Although increased planting rates on NIPF lands are encouraging, a substantial planting deficit still exists. NIPF owners account for 68 percent of the total pine acreage harvested and retained as forest, yet they replaced the equivalent of only 26 percent of this acreage with adequately stocked pine plantations. In contrast, forest industry artificially regenerated 19 percent more pine acreage than they harvested.

● little change has taken place in the overall percentages of pine, oak-pine, and hardwood acreage. Declines in the total forest land base have eroded the acres assigned to each of these broad forest types somewhat proportionately. Thirty-five percent of the State's total forest acres has again been assigned a pine forest type, 12 percent is classified as oak-pine, and 53 percent falls under the hardwood category.

Within the pine broad forest type, the area of slash, loblolly, and white pine-hemlock detailed forest types has increased moderately. Longleaf, short-leaf, Virginia, and pond pine forest types have all lost ground. Among detailed forest types, the most notable change was a 454,000-acre reduction of pond pine.

● average basal area of all-live trees 5.0 inches d.b.h. and larger has increased from 67 to 78 square feet per acre. Growing-stock trees make up 90 percent of the total. Average stocking levels have improved considerably since the previous survey. In 1974, 29 percent of all commercial forest acres were classed as fully stocked, 49 percent as medium stocked, and 22 percent as poorly stocked with growing-stock trees. The breakdown now is 43 percent fully stocked, 43 percent medium stocked, and 14 percent poorly stocked. On the whole, North Carolina's timberlands are more densely stocked with growing-stock trees than any other Southeastern State.

● the number of all-live yellow pines has declined by 40 percent in the 2-inch class, 22 percent in the 4-inch class, and 4 percent in the 6-inch class. On NIPF land, reductions of yellow pines were evident through the 10-inch class. Despite improved planting efforts, NIPF owners have been unable to replace the large influx of natural pines established on abandoned farmland more than 20 years ago. On forest industry land, significant yellow pine losses were apparent in the 2-inch class only, which fell by 41 percent. Surprisingly, the number of all-live hardwoods in the smaller diameter classes has also decreased substantially. Nearly all the hardwood decline occurred on NIPF land, where reductions were found through the 10-inch class. Traditionally, long hardwood rotations, causing an accumulation of hardwoods in the larger diameter classes, and higher rates of small-diameter hardwood mortality both contribute to this decline. Consistent with losses in the smaller diameter classes, the area of all sapling-seedling stands fell from 4.6 to 3.9 million acres, and poletimber

stands from 6.3 to 5.3 million acres. The area of stands dominated by sawtimber-size trees spread from 8.2 to 9.0 million acres.

● softwood growing-stock volume rose from 10.5 to 11.2 billion cubic feet. This 7-percent rate of expansion is less than half the rate measured between 1964 and 1974. Increases were recorded in all diameter classes except the 6-inch class. Loblolly pine is the dominant species in the State, with 50 percent of the total softwood growing-stock volume. Over the remeasurement period, loblolly growing-stock volume escalated by 12 percent and supported half the total softwood increase. Virginia and white pine contributed another 29 percent to the total softwood gain. Slash pine, still a relatively minor species in North Carolina, showed a fivefold volume increase. Shortleaf pine lost more volume than any other species and declined by 17 percent. Pond pine volume fell by 18 percent. The current inventory of softwood growing stock includes 38.9 billion board feet of sawtimber, a boost of 10 percent.

● hardwood growing-stock volume climbed from 15.6 to 17.7 billion cubic feet, or by 14 percent. The rate of hardwood volume expansion is also slowing, due mainly to reductions in the 6- and 8-inch diameter classes. Yellow-poplar and red maple were responsible for 52 percent of the total increase. Oaks accounted for another 22 percent of the gain. Altogether, hardwoods contribute 61 percent to the total growing-stock volume. The current inventory of hardwood growing stock includes 52.9 billion board feet of sawtimber, a 23-percent increase.

In 1983

● net annual growth of softwood growing stock was down by 7 percent, from 536 to 501 million cubic feet. A 21-percent softwood growth loss on NIPF land offset a 98-percent increase on forest industry land to render the net decline. In the Piedmont and Mountains where NIPF ownership is more concentrated, reduced ingrowth, higher mortality, slowing growth rates of survivor

trees, and land clearing all combined to produce the net loss for the State. Pine plantations on forest industry land have mitigated these factors in the two Coastal Plain units, where softwood net annual growth was up by 18 percent. Despite higher mortality and less ingrowth, hardwood net growth increased by 6 percent across the State, to 627 million cubic feet annually. Net annual growth of hardwoods and softwoods together totaled 1.1 billion cubic feet. This growth included 4.6 billion board feet of sawtimber.

● annual removals of all growing-stock trees totaled 746 million cubic feet.

Softwood removals were down by about 1 percent and hardwood removals remained stable. Removals averaged 86 percent of net annual growth for softwood growing-stock, and 50 percent for hardwoods. A healthy margin of hardwood growth over removals exists in most of the State; but declining growth has made the situation tight for softwoods in the Piedmont, where the annual softwood growth surplus plummeted from 73.8 to 9.4 million cubic feet and removals averaged 93 percent of net growth. Circumstances have improved in the Northern Coastal

Plain, where softwood growth and removals are now in balance. In 1973, softwood removals exceeded growth by 22 million cubic feet in this region. In the Southern Coastal Plain and Mountains, annual softwood growing-stock removals averaged 73 and 79 percent of net growth. By ownership, softwood removals averaged 58 percent of growth on forest industry land. On NIPF land, however, a 124 million cubic-foot surplus dissipated to a 0.5 million cubic-foot softwood overcut. Annual growing-stock removals of all species on all ownerships included 2.8 billion board feet of sawtimber.

● mortality of growing-stock trees increased by 36 percent and totaled 191 million cubic feet. Softwood mortality rose by 51 percent and hardwood growing-stock mortality by 19 percent. The annual mortality increase was evident in all regions of the State, but was more pronounced in the Piedmont and Mountains. The leading identifiable causes of death for softwoods were insects and suppression. Disease was the major cause of death for hardwoods. Mortality of all growing-stock trees reduced gross growth by 15 percent.



How the Inventory is Made

The method of the inventory is a sampling procedure designed to provide reliable statistics primarily at the State and Survey Unit levels. Individual county statistics are presented so that any combination of counties may be added together until a total is large enough to meet the desired degree of reliability. Procedures were as follows:

1. Initial estimates of forest and nonforest areas were based on the classification of 91,765 sample clusters systematically spaced on the latest aerial photographs available. A subsample of 8,123 of the 16-point clusters was ground checked, and a linear regression was fitted to the data to develop the relationship between the photo and ground classification of the subsample. This procedure provides a means for adjusting the initial estimates of area for change in land use since date of photography and for photo misclassifications.

2. Estimates of timber volume and forest classifications were based on measurements recorded at 5,355 ground sample locations systematically distributed within the commercial forest land. The plot design at each location was based on a cluster of 10 points. In most cases, variable plots established with the use of a 37.5 BAF prism, were systematically spaced within a single forest condition at 5 of the 10 cluster points. Trees less than 5 inches d.b.h. were tallied on a fixed-radius plot around each point center.

3. Equations prepared from detailed measurements collected on standing trees in this Unit, and similar measurements taken throughout the Southeast, were used to compute the volume of individual tally trees. A mirror caliper and sectional aluminum poles were used to obtain the additional measurements on these standing trees required to develop volume equations.

4. Felled trees were measured at 100 active cutting operations. These data will supplement the standing-tree volume data and be used to generate utilization factors for product and species groups. Forest biomass estimates were made by using equations developed by the Utilization of Southern Timber Research Work Unit of the Southeastern Forest Experiment Station in Athens, GA.

5. Estimates of growth, removals, and mortality were determined from the remeasurement of 4,878 permanent sample plots established in the fourth survey.

6. Ownership information was collected from correspondence, public records, and local contacts. In those counties where the sample missed a particular ownership class, temporary sample plots were added on these lands.

7. All field data were sent to Asheville for editing and were entered into disk and magnetic-tape storage for processing. Final estimates were based on statistical summaries of the data.

Reliability of the Data

Statistical analysis of these data indicates the following sampling errors in terms of one standard error (two times out of three):

	<u>Percent</u>
Per million acres of commercial forest land . . .	0.93
Per billion cubic feet of growing stock	5.76
Per billion cubic feet of net annual growth	1.12
Per billion cubic feet of annual removals	2.99

Sampling errors for county and State totals,^a in terms of one standard error, North Carolina, 1984

County	Commercial forest area	Cubic-foot volume of growing stock		
		Inventory	Growth	Removals
		----- Sampling error ^b -----		
Alamance	2.90	9.58	9.37	43.63
Alexander	1.79	11.62	12.77	48.71
Alleghany	4.24	17.38	16.20	61.94
Anson	1.70	11.18	9.70	25.98
Ashe	3.82	10.01	11.81	100.07
Avery	2.41	8.64	10.84	81.00
Beaufort	2.10	7.29	7.08	17.71
Bertie	1.17	7.64	6.49	22.21
Bladen	1.40	9.39	10.22	17.89
Brunswick	1.15	11.83	8.18	25.66
Buncombe	1.79	7.43	9.25	47.16
Burke	1.22	11.71	12.19	32.69
Cabarrus	3.07	14.77	17.58	53.81
Caldwell	1.51	8.67	8.28	39.31
Camden	4.07	14.61	13.10	37.38
Carteret	2.25	11.51	11.00	25.75
Caswell	1.88	9.31	8.12	47.17
Catawba	3.53	16.32	14.82	47.74
Chatham	1.49	6.83	6.91	24.09
Cherokee	1.37	8.19	9.21	50.14
Chowan	3.74	24.39	19.10	31.87
Clay	2.05	11.12	15.08	100.02
Cleveland	2.38	11.37	10.40	43.08
Columbus	1.28	8.05	6.72	19.84
Craven	1.49	8.03	8.69	20.76
Cumberland	1.96	11.82	12.22	23.94
Currituck	4.34	14.03	14.01	55.50
Dare	4.68	10.55	8.88	47.66
Davidson	2.53	11.81	10.58	26.78
Davie	3.32	15.57	14.26	69.06
Duplin	1.59	9.56	8.35	21.98
Durham	2.87	10.76	12.28	52.95
Edgecombe	2.88	11.76	9.37	19.91
Forsyth	3.59	10.17	9.76	56.50
Franklin	2.31	11.52	10.55	34.83
Gaston	3.25	12.10	12.28	40.15
Gates	1.98	11.66	9.73	40.61
Graham	1.11	10.35	10.76	53.22
Granville	1.79	9.27	8.52	25.33
Greene	3.11	15.94	16.84	40.74
Guilford	2.54	9.80	9.55	49.15
Halifax	1.39	8.74	7.42	21.69
Harnett	1.78	12.25	11.09	28.95
Haywood	2.17	9.95	11.01	60.51
Henderson	2.45	8.17	9.29	84.82
Hertford	1.63	14.03	12.33	29.32
Hoke	3.27	14.77	15.73	32.81
Hyde	3.05	11.40	10.70	23.19
Iredell	2.67	13.42	13.74	27.61
Jackson	1.35	7.60	7.18	58.25
Johnston	1.54	9.22	9.71	25.65
Jones	1.97	12.08	10.91	25.97

Continued

Sampling errors for county and State totals,^a in terms of one standard error, North Carolina, 1984--Continued

County	Commercial forest area	Cubic-foot volume of growing stock		
		Inventory	Growth	Removals
		----- Sampling error ^b -----		
Lee	3.67	16.98	14.66	27.69
Lenoir	3.18	16.85	13.17	27.61
Lincoln	2.63	15.06	14.32	52.52
Macon	1.06	7.41	8.19	55.82
Madison	1.56	8.86	10.82	40.56
Martin	1.74	9.87	9.13	24.96
McDowell	1.23	9.41	9.03	45.01
Mecklenburg	2.99	10.82	12.51	36.92
Mitchell	3.86	10.48	11.27	51.58
Montgomery	1.38	7.74	7.10	28.73
Moore	1.29	8.67	8.99	20.76
Nash	1.87	10.28	9.01	24.45
New Hanover	6.42	28.02	24.78	53.48
Northampton	1.66	9.89	8.51	25.08
Onslow	2.11	10.06	10.23	22.34
Orange	2.40	9.97	9.82	43.78
Pamlico	3.56	14.50	13.56	27.01
Pasquotank	6.43	21.89	18.97	27.55
Pender	1.06	8.16	7.52	28.08
Perquimans	3.65	15.41	12.01	32.20
Person	2.23	11.74	10.09	38.64
Pitt	2.43	10.54	8.62	23.23
Polk	1.96	13.73	13.83	58.43
Randolph	1.38	8.19	7.62	26.24
Richmond	1.68	10.41	11.43	32.54
Robeson	1.81	9.34	8.75	22.54
Rockingham	1.75	8.35	8.73	41.71
Rowan	2.40	10.29	9.74	39.39
Rutherford	1.86	8.90	8.09	32.42
Sampson	1.54	9.51	7.69	17.65
Scotland	2.73	16.56	17.39	44.74
Stanly	3.37	14.80	14.53	38.16
Stokes	1.72	10.18	8.25	42.12
Surry	2.12	9.44	11.68	39.09
Swain	1.96	14.87	17.32	69.10
Transylvania	.95	6.33	6.99	100.00
Tyrrell	3.01	11.00	10.87	26.31
Union	3.41	11.38	10.29	45.84
Vance	3.00	13.61	13.01	50.08
Wake	2.52	7.68	7.39	25.57
Warren	1.76	10.46	9.49	43.94
Washington	3.84	16.04	16.54	30.19
Watauga	4.65	11.27	13.97	53.77
Wayne	2.23	12.05	10.03	26.60
Wilkes	1.03	6.05	6.15	33.34
Wilson	2.77	13.91	14.69	26.23
Yadkin	2.86	14.14	14.22	70.78
Yancey	1.68	11.52	10.35	60.62
Total	.22	1.07	1.05	3.46

^aSampling error of breakdowns of county and State totals may be computed with the following formula:

$$E = \frac{(SE)\sqrt{(\text{specified volume or area})}}{\sqrt{(\text{volume or area total in question})}}$$

Where: E = Sampling error of the volume or area total in question

SE = Specified sampling error in table.

^bBy random-sampling formula (in percent).

Definitions of Terms

All live trees. All trees 1.0 inch d.b.h. and larger which are not dead at the time of inventory.

All live-tree volume. Volume (cubic feet) of wood above the ground line in all live trees 1.0 inch d.b.h. and larger. The volume in twigs and lateral limbs smaller than 0.5 inch in diameter at the point of occurrence on sapling-size trees is included, but is excluded on poletimber and sawtimber-size trees.

Allowable cut. The volume of timber that could be cut on commercial forest land during a given period under specified management plans aimed at sustained production of timber products.

Basal area. The area in square feet of the cross section at breast height of a single tree or of all the trees in a stand, usually expressed as square feet of basal area per acre.

Biomass. The aboveground green weight of solid wood and bark in all live trees 1.0 inch d.b.h. and larger from the ground to the tip of the tree. All foliage is excluded. The weight of wood and bark in lateral limbs, secondary limbs, and twigs under 0.5 inch in diameter at the point of occurrence on sapling-size trees is included, but is excluded on poletimber and sawtimber-size trees.

Bole. That portion of a tree between a 1-foot stump and a 4-inch top diameter outside bark (d.o.b.) in trees 5.0 inches d.b.h. and larger.

Broad management class. A classification of commercial forest land based on forest type and stand origin.

Pine plantation. Stands that have been artificially regenerated by planting or direct seeding and with a southern yellow pine, white pine-hemlock, or other softwood forest type.

Natural pine. Stands that have not been artificially regenerated and

with a southern yellow pine, white pine-hemlock, or other softwood forest type.

Oak-pine. Stands with a forest type of oak-pine.

Upland hardwood. Stands with a forest type of oak-hickory, chestnut oak, southern scrub oak, or maple-beech-birch.

Lowland hardwood. Stands with a forest type of oak-gum-cypress, elm-ash-cottonwood, palm, or other tropical.

Bureau of Land Management lands. Federal lands administered by the Bureau of Land Management.

Census water. Streams, sloughs, estuaries, canals, and other moving bodies of water one-eighth of a statute mile in width and greater, and lakes, reservoirs, ponds, and other permanent bodies of water 40 acres in area and greater.

Commercial forest land. Land at least 16.7 percent stocked by forest trees of any size, or formerly having had such tree cover, not currently developed for nonforest use, capable of producing 20 cubic feet of industrial wood per acre per year and not withdrawn from timber utilization by legislative action.

Commercial species. Tree species conventionally regarded as being able to develop into trees suitable for the manufacture of industrial timber products. Species that typically exhibit small size, poor form, or inferior quality are excluded.

Cropland. Land under cultivation within the past 24 months, including orchards and land in soil-improving crops, but excluding land cultivated in developing improved pasture. Also includes idle farmland.

D.b.h. Tree diameter (outside bark) at breast height (4.5 feet above the ground).

Diameter class. A classification of trees based on tree d.b.h. Two-inch diameter classes are commonly used by Forest Inventory and Analysis, with the even inch as the approximate midpoint for a class. For example, the 6-inch class includes trees 5.0 through 6.9 inches d.b.h., inclusive.

Farm. Land on which agricultural operations are being conducted and sale of agricultural products totaled \$1,000 or more during the year.

Farm operator. A person who operates a farm, either doing the work himself or directly supervising the work.

Farmer-owned land (see: Other private land).

Forest industry land. Land owned by companies or individuals operating wood-using plants.

Forest industry leased land. Land leased or under management contracts to forest industry from other owners for periods of one forest rotation or longer. Land under cutting contracts is not included.

Forest land. Land at least 16.7 percent stocked by forest trees of any size, or formerly having had such tree cover, and not currently developed for non-forest use.

Forest type. A classification of forest land based on the species forming a plurality of live-tree stocking.

White pine-hemlock. Forests in which eastern white pine, red pine, or jack pine, singly or in combination, constitute a plurality of the stocking. (Common associates include hemlock, birch, and maple.)

Spruce-fir. Forests in which spruce or true firs, singly or in combination, constitute a plurality of the stocking. (Common associates include maple, birch, and hemlock.)

Longleaf-slash pine. Forests in which longleaf or slash pine, singly or in

combination, constitute a plurality of the stocking. (Common associates include oak, hickory, and gum.)

Loblolly-shortleaf pine. Forests in which loblolly pine, shortleaf pine, or other southern yellow pines, except longleaf or slash pine, singly or in combination, constitute a plurality of the stocking. (Common associates include oak, hickory, and gum.)

Oak-pine. Forests in which hardwoods (usually upland oaks) constitute a plurality of the stocking but in which pines account for 25 to 50 percent of the stocking. (Common associates include gum, hickory, and yellow-poplar.)

Oak-hickory. Forests in which upland oaks or hickory, singly or in combination, constitute a plurality of the stocking, except where pines account for 25 to 50 percent, in which case the stand would be classified oak-pine. (Common associates include yellow-poplar, elm, maple, and black walnut.)

Oak-gum-cypress. Bottom-land forests in which tupelo, blackgum, sweetgum, oaks, or southern cypress, singly or in combination, constitute a plurality of the stocking, except where pines account for 25 to 50 percent, in which case the stand would be classified oak-pine. (Common associates include cottonwood, willow, ash, elm, hackberry, and maple.)

Elm-ash-cottonwood. Forests in which elm, ash, or cottonwood, singly or in combination, constitute a plurality of the stocking. (Common associates include willow, sycamore, beech, and maple.)

Maple-beech-birch. Forests in which maple, beech, or yellow birch, singly or in combination, constitute a plurality of the stocking. (Common associates include hemlock, elm, basswood, and white pine.)

Palm, other tropical. Forests in which palms and other tropicals constitute a plurality of the stocking.

Gross growth. Annual increase in merchantable volume of trees in the absence of cutting and mortality. (Gross growth includes survivor growth, ingrowth, growth on ingrowth, growth on removals prior to removal, and growth on mortality prior to death.)

Growing-stock trees. Live sawtimber-size trees of commercial species containing at least a 12-foot log, or two noncontiguous saw logs each 8 feet or longer, meeting minimum grade requirements (hardwoods must qualify as either a log grade of 3 or 4; softwoods must qualify as a log grade 3) with at least one-third of the gross board-foot volume (International 1/4-inch rule) between a 1-foot stump and the minimum saw-log top being sound, or a live tree below sawtimber size that will prospectively qualify under the above standards.

Desirable tree. A tree that qualifies as growing stock and has no serious defects in quality limiting present or prospective use; is of relatively high vigor (30 percent or more live crown ratio); is compatible with the site and physiographic class; has a total board-foot loss not to exceed 15 percent in softwoods or 25 percent in hardwoods as a result of severe sweep, crook, or lean; and has a relatively clear bole.

Acceptable tree. A tree that qualifies as growing stock but does not meet the minimum requirements to qualify as a desirable tree. Included are sawtimber-size trees that do not contain a 12-foot saw log because of excessive, natural taper in the butt log, but have the potential to produce a 12-foot saw log as diameter increases.

Growing-stock volume. Volume (cubic feet) of solid wood in growing-stock trees 5.0 inches d.b.h. and larger,

from a 1-foot stump to a minimum 4.0-inch top diameter, outside bark, on the central stem. Volume of solid wood in primary forks from the point of occurrence to a minimum 4.0-inch top diameter outside bark is included.

Hardwoods. Angiosperms; dicotyledonous trees (including all palm species which are monocotyledonous), usually broad-leaf and deciduous.

Soft hardwoods. Soft-textured hardwoods such as boxelder, red and silver maples, hackberry, loblolly-bay, sweetgum, yellow-poplar, magnolia, sweetbay, water tupelo, blackgum, sycamore, cottonwood, black cherry, willow, basswood, and elm.

Hard hardwoods. Hard-textured hardwoods such as sugar maple, birch, hickory, dogwood, persimmon (forest grown), black locust, beech, ash, honeylocust, holly, black walnut, mulberry, and all commercial oaks.

Idle farmland. Land including former cropland, orchard, improved pasture, and farm sites not tended within the past 2 years, and currently less than 16.7 percent stocked with live trees.

Improved pasture. Land currently improved for grazing by cultivation, seeding, irrigation, or clearing of trees or brush.

Indian land. All lands held in trust by the United States for individual Indians or tribes, or all lands, titles to which are held by individual Indians or tribes, subject to Federal restrictions against alienation.

Industrial wood. All roundwood products except fuelwood.

Ingrowth. The number or net volume of trees that grow large enough during a specified year to qualify as saplings, poletimber, or sawtimber.

Inhibiting vegetation. Cover sufficiently dense to prevent the establishment of tree seedlings.

Land area. The area of dry land and land temporarily or partly covered by water such as marshes, swamps, and river flood plains (omitting tidal flats below mean high tide), streams, sloughs, estuaries, and canals less than one-eighth of a statute mile in width, and lakes, reservoirs, and ponds less than 40 acres in area.

Log grade. A classification of logs based on external characteristics as indicators of quality or value.

Logging residues. The unused merchantable portion of growing-stock trees cut or destroyed during logging operations.

Logging slash. The unmerchantable portion of growing-stock trees (including saplings) plus all cull trees 1.0 inch d.b.h. and larger cut or destroyed during logging operations and not used.

Manageable stand. Commercial forest land at least 60 percent stocked with growing-stock trees that can be featured together under a management scheme.

Merchantable portion. That portion of all live trees 5.0 inches d.b.h. and larger between a 1-foot stump and a minimum 4.0-inch top diameter outside bark on the central stem. That portion of primary forks from the point of occurrence to a minimum 4.0-inch top diameter outside bark is included.

Merchantable volume. Solid-wood volume in merchantable portion of all live trees.

Miscellaneous Federal land. Federal land other than National Forests, land administered by the Bureau of Land Management, and land administered by the Bureau of Indian Affairs.

Miscellaneous private land (see: Other private land).

Mortality. The merchantable volume in trees that have died from natural causes during a specified period.

National Forest land. Federal land that has been legally designated as National Forests or purchase units, and other land under the administration of the Forest Service, including experimental areas and Bankhead-Jones Title III land.

Net annual growth. The net change in merchantable volume for a specific year in the absence of cutting (gross growth minus mortality for that specified year.)

Net volume. Gross volume of wood less deductions for rot, sweep, or other defect affecting use for timber products.

Noncommercial forest land. Forest land not considered commercial. Includes both unproductive forest land and productive-reserved forest land.

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

Nonforest land. Land that has never supported forests and land formerly forested where timber production is precluded by development for other uses.

Nonindustrial private forest (NIPF) land. (see: Other private land).

Nonstocked forest land. Commercial forest land less than 16.7 percent stocked with growing-stock trees.

Other private land. Privately owned land excluding forest industry land or forest industry leased land. Also referred to as nonindustrial private forest (NIPF) land.

Farmer-owned land. Owned by farm operators excluding incorporated farm ownerships.

Other individual land. Owned by individuals other than farm operators.

Other corporate land. Owned by corporations, including incorporated farm ownerships.

Other removals. The growing-stock volume of trees removed from the inventory by cultural operations such as timber stand improvement, land clearing, and other changes in land use that result in the removal of the trees from the commercial forest.

Plant residues. Wood material generated in the production of timber products at primary manufacturing plants.

Coarse residues. Material, such as slabs, edgings, trim, veneer cores and ends, which is suitable for chipping.

Fine residues. Material, such as sawdust, shavings, and veneer chippings, which is not suitable for chipping.

Plant byproducts. Residues (coarse or fine) utilized in the further manufacture of industrial products or for consumer use, or utilized as fuel.

Unused plant residues. Residues (coarse or fine) that are not used for any product, including fuel.

Poletimber-size trees. All live trees at least 5.0 inches d.b.h. but smaller than sawtimber size.

Productive-reserved forest land. Forest land sufficiently productive to qualify as commercial forest land, but withdrawn from timber utilization through statute or administrative designation.

Quality class. A classification of sawtimber volume by log or tree grades.

Rangeland. Land on which the natural vegetation is predominantly native grasses, grass-like plants, forbs, or shrubs valuable for forage, not qualifying as commercial forest and not developed for another land use. Rangeland includes natural grassland and savannah.

Rotten trees. Live trees of commercial species that do not contain at least one 12-foot saw log, or two noncontiguous saw logs, each 8 feet or longer,

now or prospectively, primarily because of rot or missing sections, and with less than one-third of the gross board-foot tree volume in sound material.

Rough trees. Live trees of commercial species that do not contain at least one 12-foot saw log, or two noncontiguous saw logs, each 8 feet or longer, now or prospectively, primarily because of roughness, poor form, splits, and cracks, and with less than one-third of the gross board-foot tree volume in sound material; and all live trees of noncommercial species.

Roundwood (roundwood logs). Logs, bolts, or other round sections cut from trees for industrial or consumer uses.

Roundwood chipped. Any timber cut primarily for pulpwood, delivered to non-pulpmills, chipped, and then sold to pulpmills as residues, including chipped tops, jump sections, whole trees and pulpwood sticks.

Roundwood products. Any primary product such as lumber, poles, pilings, pulp, or fuelwood which is produced from roundwood.

Salvable dead trees. Standing or down dead trees considered utilizable by Forest Inventory and Analysis standards.

Saplings. Live trees 1.0 to 5.0 inches d.b.h.

Saw log. A log meeting minimum standards of diameter, length, and defect, including logs at least 8 feet long, sound and straight, and with a minimum diameter inside bark for softwoods of 6 inches (8 inches for hardwoods).

Saw-log portion. That part of the bole of sawtimber trees between a 1-foot stump and the saw-log top, including the portion of forks large enough to contain a saw log.

Saw-log top. The point on the bole of sawtimber trees above which a conventional saw log cannot be produced. The

minimum saw-log top is 7.0 inches in diameter outside bark (d.o.b.) for softwoods and 9.0 inches (d.o.b.) for hardwoods.

Sawtimber-size trees. Softwoods 9.0 inches d.b.h. and larger and hardwoods 11.0 inches d.b.h. and larger.

Sawtimber volume. Growing-stock volume in the saw-log portion of sawtimber-size trees in board feet (International 1/4-inch rule).

Seedlings. Live trees of commercial species less than 1.0 inch d.b.h. that are expected to survive and develop.

Site class. A classification of forest land in terms of inherent capacity to grow crops of industrial wood based on fully stocked natural stands, by annual production capacity.

Class 1. 165 or more cubic feet per acre.

Class 2. 120 to 164 cubic feet per acre.

Class 3. 85 to 119 cubic feet per acre.

Class 4. 50 to 84 cubic feet per acre.

Class 5. 20 to 49 cubic feet per acre.

Softwoods. Gymnosperms; in the order Coniferales, usually evergreen (includes the genus Taxodium which is deciduous), having needles or scalelike leaves.

Pines. Yellow pine species which include loblolly, longleaf, slash, pond, shortleaf, pitch, Virginia, sand, spruce, and Table Mountain pines.

Other softwoods. Cypress, eastern red-cedar, white cedar, eastern white pine, eastern hemlock, spruce, and fir.

Stand-size class. A classification of forest land based on the diameter class

distribution of growing-stock trees in the stand.

Sawtimber stands. Stands at least 16.7 percent stocked with growing-stock trees, with half or more of total stocking in sawtimber and poletimber trees, and with sawtimber stocking at least equal to poletimber stocking.

Poletimber stands. Stands at least 16.7 percent stocked with growing-stock trees of which half or more of total stocking is in poletimber and sawtimber trees, and with poletimber stocking exceeding that of sawtimber.

Sapling-seedling stands. Stands at least 16.7 percent stocked with growing-stock trees of which more than half of total stocking is saplings and seedlings.

State, county, and municipal land. Land owned by States, counties, and local public agencies or municipalities, or land leased to these governmental units for 50 years or more.

Stocking. The degree of occupancy of land by trees, measured by basal area or the number of trees in a stand and spacing in the stand, compared with a minimum standard, depending on tree size, required to fully utilize the growth potential of the land.

Fully stocked. 100 percent or more stocking.

Medium stocked. 60 to 99 percent stocking.

Poorly stocked. Less than 60 percent stocking.

Survivor growth. The merchantable volume increment on trees 5.0 inches d.b.h. and larger in the inventory at the beginning of the year and surviving to its end.

Timber products. Roundwood products and byproducts.

Timber removals. The merchantable volume of trees removed from the inventory by harvesting, cultural operations such as stand improvement, land clearing, or changes in land use.

Top. The portion of the main stem and forks from a 4.0-inch diameter outside bark to the tips of the main stem and forks, plus all other limbs above the 4.0-inch top at least 0.5 inch in diameter at their point of occurrence.

Treatment opportunity. A classification of the management or treatment that would most improve for timber production the existing condition of the stand being sampled.

Unproductive forest land. Forest land incapable of producing 20 cubic feet

per acre of industrial wood under natural conditions, because of adverse site conditions.

Upper-stem portion. That part of the main stem or fork of sawtimber trees above the saw-log top to minimum top diameter 4.0 inches outside bark or to the point where the main stem or fork breaks into limbs.

Urban and other areas. Areas developed for residential, industrial, or recreational purposes, school yards, cemeteries, roads, railroads, airports, beaches, powerlines and other rights-of-way, or other nonforest land not included in any other specified land use class.



Stocking Standard

D.b.h. class	Minimum number of trees per acre for full stocking	Minimum basal area per acre for full stocking
Seedlings	600	--
2	560	--
4	460	--
6	340	67
8	240	84
10	155	85
12	115	90
14	90	96
16	72	101
18	60	106
20	51	111

Conversion Factors

Cubic feet of wood per average cord
(excluding bark)

D.b.h. class	All species	Pine	Other softwood	Hardwood
6	60.6	61.0	68.2	60.0
8	68.5	68.1	76.0	68.4
10	73.4	73.1	81.4	73.4
12	76.7	76.7	85.2	76.4
14	79.1	79.4	88.2	78.4
16	80.7	81.6	90.4	79.8
18	82.2	83.3	92.3	80.8
20	83.0	84.8	93.8	81.5
22	83.7	86.0	95.1	82.1
24+	85.0	87.8	98.0	83.1
Average	74.9	73.6	86.8	74.8

Metric equivalents of units used in this report

1 acre = 4,046.86 square meters or 0.404686 hectare

1 cubic foot = 0.028317 cubic meter

1 inch = 2.54 centimeters or 0.0254 meter

Breast height = 1.4 meters above ground level

1 square foot = 929.03 square centimeters or 0.0929 square meter

1 square foot per acre basal area = 0.229568 square meter per hectare

1 pound = 0.454 kilogram

1 ton = 0.907 metric ton

County Tables

The county tables are intended for use in compiling forest resource estimates for groups of counties. Because the sampling procedure used by the Forest Survey was intended primarily to furnish inventory data for the survey unit as a whole, individual county estimates have limited and variable accuracy. As county totals are broken down by various subdivisions, the possibility of error increases and is greatest for the smallest items. The order of this increase can be computed with the formula on page 6.

Table 1.--Area, by county and land class, North Carolina, 1984

County	All land ^a	Forest land			Nonforest land ^b	
		Total	Commercial forest	Unproductive forest		Productive-reserved
----- Acres -----						
Alamance	277,210	122,128	122,128	--	--	155,082
Alexander	165,530	106,855	106,848	--	7	58,675
Alleghany	150,093	77,141	70,821	--	6,320	72,952
Anson	341,210	225,612	225,612	--	--	115,598
Ashe	272,742	156,214	154,383	--	1,831	116,528
Avery	158,125	116,771	114,830	50	1,891	41,354
Beaufort	528,704	301,822	301,822	--	--	226,882
Bertie	448,595	318,227	318,227	--	--	130,368
Bladen	562,509	426,304	424,374	--	1,930	136,205
Brunswick	550,714	414,849	414,849	--	--	135,865
Buncombe	421,971	271,878	265,106	1,220	5,552	150,093
Burke	322,848	246,949	229,317	73	17,559	75,899
Cabarrus	233,011	98,733	98,733	--	--	134,278
Caldwell	301,549	228,343	228,173	--	170	73,206
Camden	153,914	92,016	77,531	--	14,485	61,898
Carteret	336,365	192,836	187,888	4,858	90	143,529
Caswell	273,606	166,954	166,954	--	--	106,652
Catawba	253,222	102,277	102,277	--	--	150,945
Chatham	439,090	301,224	301,223	--	1	137,866
Cherokee	289,171	248,954	248,945	7	2	40,217
Chowan	116,192	52,326	52,326	--	--	63,866
Clay	136,902	112,935	106,432	512	5,991	23,967
Cleveland	299,642	132,555	132,555	--	--	167,087
Columbus	600,602	416,274	416,274	--	--	184,328
Craven	448,941	317,305	316,989	--	316	131,636
Cumberland	420,646	234,844	234,844	--	--	185,802
Currituck	163,578	67,774	66,469	1,305	--	95,804
Dare	250,106	166,905	147,165	18,635	1,105	83,201
Davidson	350,899	165,755	165,658	--	97	185,144
Davie	170,618	71,063	71,063	--	--	99,555
Duplin	524,301	295,238	295,238	--	--	229,063
Durham	186,538	97,821	97,577	--	244	88,717
Edgecombe	323,642	158,528	158,528	--	--	165,114
Forsyth	263,987	88,882	88,882	--	--	175,105
Franklin	316,403	178,596	178,596	--	--	137,807
Gaston	228,666	109,854	108,254	--	1,600	118,812
Gates	216,480	154,927	145,523	--	9,404	61,553
Graham	184,762	175,961	162,332	497	13,132	8,801
Granville	339,745	210,675	210,425	--	250	129,070
Greene	170,477	78,751	78,751	--	--	91,726
Guilford	416,493	156,589	156,449	--	140	259,904
Halifax	463,162	259,292	256,952	--	2,340	203,870
Harnett	384,710	212,208	209,633	--	2,575	172,502
Haywood	355,104	262,683	173,726	953	88,004	92,421
Henderson	239,610	145,810	145,615	29	166	93,800
Hertford	227,898	149,132	149,132	--	--	78,766
Hoke	250,342	160,786	160,736	--	50	89,556
Hyde	399,501	222,582	221,910	672	--	176,919
Iredell	367,437	159,319	158,219	--	1,100	208,118
Jackson	313,933	268,602	262,094	527	5,981	45,331
Johnston	509,062	253,935	253,935	--	--	255,127
Jones	300,806	227,776	227,776	--	--	73,030

Continued

Table 1.--Area, by county and land class, North Carolina, 1984--Continued

County	All land ^a	Forest land			Nonforest land ^b	
		Total	Commercial forest	Unproductive forest		Productive- reserved
----- Acres -----						
Lee	165,939	105,490	105,490	--	60,449	
Lenior	257,485	122,035	122,035	--	135,450	
Lincoln	190,886	91,957	91,949	--	98,929	
Macon	330,611	280,709	271,589	2,619	49,902	
Madison	288,838	214,618	214,566	52	74,220	
Martin	294,886	183,261	183,261	--	111,625	
McDowell	279,930	231,381	229,681	346	48,549	
Mecklenburg	337,773	144,474	144,474	--	193,299	
Mitchell	142,080	103,362	102,445	426	38,718	
Montgomery	313,312	250,377	250,377	--	62,935	
Moore	448,800	335,699	335,074	--	113,101	
Nash	345,344	177,326	177,326	--	168,018	
New Hanover	118,106	64,605	64,605	--	53,501	
Northampton	344,525	203,939	203,939	--	140,586	
Onslow	488,070	342,703	341,875	--	145,367	
Orange	256,172	144,310	142,897	--	111,862	
Pamlico	218,067	121,704	120,348	1,356	96,363	
Pasquotank	145,920	52,259	52,259	--	93,661	
Pender	559,885	459,146	459,089	--	100,739	
Perquimans	157,696	74,582	74,582	--	83,114	
Person	252,533	138,329	138,329	--	114,204	
Pitt	420,173	195,439	195,439	--	224,734	
Polk	152,512	113,960	113,960	--	38,552	
Randolph	504,851	305,134	299,210	--	199,717	
Richmond	305,402	225,609	225,609	--	79,793	
Robeson	607,482	278,383	278,383	--	329,099	
Rockingham	363,930	193,770	193,770	--	170,160	
Rowan	332,173	142,508	142,508	--	189,665	
Rutherford	363,277	256,952	256,952	--	106,325	
Sampson	605,984	344,807	344,807	--	261,177	
Scotland	204,371	118,151	118,151	--	86,220	
Stanly	253,299	105,131	100,888	--	148,168	
Stokes	289,305	170,352	164,189	--	118,953	
Surry	345,178	174,605	169,717	--	170,573	
Swain	336,627	322,202	110,777	451	14,425	
Transylvania	242,099	210,215	206,641	2,596	31,884	
Tyrrell	260,365	159,230	159,053	--	101,135	
Union	409,139	171,757	171,757	--	237,382	
Vance	159,226	88,658	88,658	--	70,568	
Wake	537,133	283,076	277,069	--	254,057	
Warren	273,344	189,773	189,773	--	83,571	
Washington	212,243	98,486	93,590	4,741	113,757	
Watauga	200,992	118,750	110,055	--	82,242	
Wayne	354,368	154,740	154,165	--	199,628	
Wilkes	481,414	354,454	339,601	--	126,960	
Wilson	239,533	101,078	101,078	--	138,455	
Yadkin	214,874	86,915	86,915	--	127,959	
Yancey	200,704	164,685	161,265	884	36,019	
Total	31,228,220	18,952,856	18,450,269	42,809	459,778	12,275,364

^aFrom U.S. Bureau of the Census, 1980.

^bIncludes 269,572 acres of water according to Forest Survey standards of area classification, but defined by the Bureau of Census as land.

Table 2.--Area of commercial forest land, by county and ownership class, North Carolina, 1984

County	All ownerships	Ownership class									
		National Forest		Miscellaneous State		County and municipal		Forest industry ^a		Other private	
		Forest	Federal	State	Municipal	County	Forest industry ^a	Farmer	Corporate	Individual	
Acres											
Alamance	122,128	--	--	197	1,275	1,914	46,871	6,250	65,621	--	--
Alexander	106,848	--	--	7	--	6,509	45,605	4,561	50,166	--	--
Allegany	70,821	--	--	6	55	168	17,648	--	52,944	--	--
Anson	225,612	--	5,857	206	429	55,413	49,493	7,614	106,600	--	--
Ashe	154,383	327	5	150	20	1,407	44,845	4,485	103,144	--	--
Avery	114,830	26,095	--	450	188	279	9,758	43,909	34,151	--	--
Beaufort	301,822	--	--	4,367	58	168,415	47,848	24,964	56,170	--	--
Bertie	318,227	--	--	65	90	108,374	109,042	50,328	50,328	--	--
Bladen	424,374	--	39	36,150	75	101,049	87,518	59,513	140,030	--	--
Brunswick	414,849	--	8,567	--	80	224,229	41,765	23,865	116,343	--	--
Buncombe	265,106	29,988	--	200	22,270	285	24,693	14,816	172,854	--	--
Burke	229,317	36,798	--	6,737	980	11,010	23,172	52,138	98,482	--	--
Cabarrus	98,733	--	60	690	555	10	28,865	10,824	57,729	--	--
Caldwell	228,173	--	--	160	1,231	20,418	9,819	4,909	142,367	--	--
Camden	77,531	--	9,203	--	--	20,099	25,163	4,194	18,872	--	--
Carteret	187,888	55,937	5,535	411	121	52,448	3,865	23,190	46,381	--	--
Caswell	166,954	--	--	13,267	365	5,730	109,090	6,417	32,085	--	--
Catawba	102,277	--	--	56	865	918	18,599	14,880	66,959	--	--
Chatham	301,223	--	12,266	410	181	40,058	92,652	22,237	133,419	--	--
Cherokee	248,945	92,145	4,740	--	1,605	5,367	27,636	20,727	96,725	--	--
Chowan	52,326	--	20	--	200	10,808	23,230	5,162	12,906	--	--
Clay	106,432	57,303	--	--	2	751	4,397	8,796	35,183	--	--
Cleveland	132,555	--	--	--	635	5,997	59,464	13,991	52,468	--	--
Columbus	416,274	--	--	89	80	201,612	110,945	7,396	96,152	--	--
Craven	316,989	55,879	5,170	105	255	115,236	60,603	79,741	79,173	--	--
Cumberland	234,844	--	29,825	319	700	11,422	85,590	39,229	67,759	--	--
Currituck	66,469	--	1,694	8,553	190	7,364	19,467	--	29,201	--	--
Dare	147,165	--	40,656	--	10	550	--	98,381	7,568	--	--
Davidson	165,658	959	--	106	753	4,804	38,169	12,723	108,144	--	--
Davie	71,063	--	--	11	5	178	37,966	7,593	25,310	--	--
Duplin	295,238	--	--	7,623	142	37,774	161,391	9,135	79,173	--	--
Durham	97,577	--	7,891	5,239	2,510	1,001	22,074	22,073	36,789	--	--
Edgecombe	158,528	--	--	175	221	7,391	85,325	14,221	51,195	--	--
Forsyth	88,882	--	--	--	722	220	10,051	15,075	62,814	--	--
Franklin	178,596	--	--	45	74	13,607	96,174	6,870	61,826	--	--
Gaston	108,254	--	--	94	563	160	26,859	23,502	57,076	--	--
Gates	145,523	--	11,528	3,800	--	50,322	43,567	--	36,306	--	--
Graham	162,332	98,337	2,200	--	6	434	8,180	8,181	44,994	--	--
Granville	210,425	--	5,716	6,889	25	8,790	140,953	--	48,052	--	--
Greene	78,751	--	--	20	1	327	42,765	3,564	32,074	--	--
Guilford	156,449	--	--	424	4,695	--	53,098	7,965	90,267	--	--
Halifax	256,952	--	27	857	225	47,284	124,627	12,717	71,215	--	--
Harnett	209,633	--	12	157	--	15,139	113,914	20,103	60,308	--	--
Haywood	173,726	39,818	--	119	8,827	6,433	33,866	5,644	79,019	--	--
Henderson	145,615	--	--	1,222	98	2,412	24,949	9,980	89,816	--	--
Hertford	149,132	--	--	165	130	38,784	66,031	5,503	38,519	--	--
Hoke	160,736	--	84,909	1,812	18	4,622	26,730	12,388	32,210	--	--
Hyde	221,910	--	8,628	12,850	58	34,113	26,730	92,069	47,520	--	--
Iredell	158,219	--	--	58	120	1,448	59,252	25,393	71,948	--	--
Jackson	262,094	64,553	17,427	352	1,881	4,026	33,805	33,805	106,245	--	--
Johnston	253,935	--	--	407	--	4,662	161,031	21,959	65,876	--	--
Jones	227,776	37,261	550	31,075	--	60,592	66,589	3,171	28,538	--	--

Continued

Table 2.--Area of commercial forest land, by county and ownership class, North Carolina, 1984--Continued

County	All ownerships	Ownership class							Other private	
		National Forest	Miscellaneous Federal	State	County and municipal	Forest industry ^a	Farmer	Corporate		Individual
								Farmer	Corporate	
----- Acres -----										
Lee	105,490	--	--	--	208	15,124	32,457	3,606	54,095	
Lenoir	122,035	--	--	355	300	10,947	73,622	6,693	30,118	
Lincoln	91,949	--	--	22	110	680	35,804	6,510	48,823	
Macon	271,589	141,864	--	--	28	1,091	25,721	19,291	83,594	
Madison	214,566	50,186	14	1,429	1,366	101,559	4,616	55,396	21,983	
Martin	183,261	--	--	--	40	62,313	98,925	--	100,779	
McDowell	229,681	66,436	431	677	1,650	13,533	28,794	19,196	92,203	
Mecklenburg	144,474	--	--	677	2,849	850	30,735	19,209	56,143	
Mitchell	102,445	17,084	132	132	186	27,080	43,959	18,316	124,550	
Montgomery	250,377	36,154	--	--	691	48,209	18,986	151,891	81,758	
Moore	335,074	--	4,543	93	87	7,341	75,469	12,578	35,943	
Nash	177,326	--	--	93	1,465	5,875	3,595	14,377	57,303	
New Hanover	64,605	--	2,000	1,350	292	27,639	106,011	11,461	7,303	
Northampton	203,939	--	--	1,233	141	113,341	26,682	2,965	88,942	
Onslow	341,875	--	63,400	46,404	141	2,851	62,333	3,667	69,667	
Orange	142,897	340	--	2,483	1,556	52,748	18,719	14,560	33,280	
Pamlico	120,348	--	--	1,000	41	5,860	25,192	8,397	8,397	
Pasquotank	52,259	--	3,831	217	365	149,181	77,141	19,285	150,424	
Pender	459,089	--	200	62,798	60	20,996	27,613	6,903	18,409	
Perquimans	74,582	--	600	--	61	8,136	55,482	7,398	66,579	
Person	138,329	--	--	--	734	29,942	79,651	10,986	74,157	
Pitt	195,439	--	--	20	683	13,171	15,338	26,843	53,686	
Polk	113,960	--	--	4,434	488	6,110	184,507	7,688	96,097	
Randolph	299,210	4,050	--	47	711	48,067	56,176	3,305	85,918	
Richmond	225,609	--	--	28,381	1,426	33,343	88,746	36,722	119,347	
Robeson	278,383	--	--	151	74	1,638	122,438	17,084	51,253	
Rockingham	193,770	--	--	384	973	2,334	37,576	11,273	90,184	
Rowan	142,508	--	23	473	645	26,735	48,382	44,350	137,082	
Rutherford	256,952	--	--	--	403	48,950	195,754	11,515	88,281	
Sampson	344,807	--	--	187	120	10,815	40,630	11,608	31,923	
Scotland	118,151	--	3,808	18,467	900	2,108	49,203	6,560	42,642	
Stanly	100,888	--	--	--	375	1,184	54,222	9,569	98,875	
Stokes	164,189	--	--	242	97	90	63,675	6,367	98,695	
Surry	169,717	--	--	200	690	8,946	8,061	16,123	36,277	
Swain	110,777	20,855	28,756	--	705	--	6,363	50,907	57,270	
Sylvania	206,641	82,744	--	--	411	45,761	13,868	90,143	9,245	
Tyrrell	159,053	--	--	27	9	2,702	91,048	10,506	66,535	
Union	171,757	--	--	55	911	3,707	63,746	--	11,952	
Vance	88,658	--	8,998	16	239	4,443	83,190	43,404	130,211	
Wake	277,069	--	11,286	2,650	1,885	33,001	74,350	7,081	74,350	
Warren	189,773	--	770	18	203	40,284	20,777	7,791	23,373	
Washington	93,590	--	1,000	361	4	3,043	30,339	25,283	50,565	
Watauga	110,055	393	--	359	73	3,915	90,117	15,673	43,100	
Wayne	154,165	--	523	571	266	26,082	58,089	8,937	236,825	
Wilkes	339,601	--	2,279	6,986	403	2,123	36,378	2,798	58,764	
Wilson	101,078	--	--	4	1,011	175	48,526	--	38,128	
Yadkin	86,915	--	--	66	20	4,925	33,007	5,501	82,517	
Yancey	161,265	35,255	--	34	26	--	--	--	--	
Total	18,450,269	1,116,828	392,675	331,980	80,087	2,501,118	5,510,029	1,652,441	6,865,111	

^aIncludes 163,794 acres of other private land under long-term lease.

Table 3.--Area of commercial forest land, by county and forest-type group, North Carolina, 1984

County	All type groups	Forest-type group									
		White pine-hemlock	Spruce-fir	Longleaf-slash	Loblolly-shortleaf	Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood	Maple-beech-birch	Acres
Alamance	122,128	--	--	--	41,896	5,039	56,444	15,624	3,125	--	--
Alexander	106,848	--	--	--	43,836	13,680	49,332	--	--	--	--
Alleghany	70,821	17,648	--	--	--	--	53,173	--	--	--	--
Anson	225,612	--	--	--	123,992	23,134	75,850	--	2,636	--	--
Ashe	154,383	--	--	--	4,485	17,937	114,021	--	--	17,940	11,402
Avery	114,830	--	--	--	--	11,590	91,838	--	--	--	--
Beaufort	301,822	--	--	3,381	171,853	31,207	41,949	53,432	--	--	--
Bertie	318,227	--	--	--	103,899	44,093	80,120	75,010	15,105	--	--
Bladen	424,374	--	--	78,610	158,052	55,975	14,001	117,736	--	--	--
Brunswick	414,849	--	--	87,306	186,017	39,584	27,795	70,217	3,930	--	--
Buncombe	265,106	200	--	--	14,815	12,436	234,473	--	--	3,182	--
Burke	229,317	37,512	--	--	33,336	45,797	112,672	--	--	--	--
Cabarrus	98,733	--	--	--	37,387	--	57,738	--	3,608	--	--
Caldwell	228,173	34,669	--	--	15,959	34,929	142,616	--	--	--	--
Camden	77,531	--	--	--	6,290	2,097	12,582	56,562	--	--	--
Carteret	187,888	--	--	20,771	94,204	34,747	12,777	25,389	--	--	--
Caswell	166,954	--	--	--	61,764	34,602	54,545	3,208	12,835	--	--
Catawba	102,277	--	--	--	33,913	18,600	42,324	3,720	3,720	--	--
Chatham	301,223	--	--	--	112,770	50,314	120,887	6,134	11,118	--	--
Cherokee	248,945	13,818	--	--	44,346	42,548	144,227	--	--	4,006	--
Chowan	52,326	--	--	--	13,368	20,770	13,026	5,162	--	--	--
Clay	106,432	--	--	--	21,999	8,804	66,813	--	--	8,816	--
Cleveland	132,555	--	--	--	45,722	13,992	72,841	--	--	--	--
Columbus	416,274	--	--	29,737	174,637	29,585	36,981	137,993	7,341	--	--
Craven	316,989	--	--	7,504	135,491	55,220	45,117	57,968	15,689	--	--
Cumberland	234,844	--	--	29,761	79,471	47,913	21,397	56,302	--	--	--
Currituck	66,469	--	--	--	18,837	11,445	12,977	23,210	--	--	--
Dare	147,165	--	--	--	56,017	22,703	--	68,445	--	--	--
Davidson	165,658	--	--	--	30,355	29,585	96,175	--	9,543	--	--
Davie	71,063	--	--	--	20,426	2,531	35,451	2,531	10,124	--	--
Duplin	295,238	--	--	7,694	102,319	56,414	42,631	86,180	--	--	--
Durham	97,577	--	--	--	38,181	11,037	28,382	6,310	13,667	--	--
Edgecombe	158,528	--	--	--	38,677	19,909	48,572	48,526	2,844	--	--
Forsyth	88,882	--	--	--	17,809	12,563	50,972	7,538	--	--	--
Franklin	178,596	--	--	--	72,045	27,478	68,694	3,509	6,870	--	--
Gaston	108,254	--	--	--	37,751	20,142	47,004	--	3,357	--	--
Gates	145,523	--	--	--	52,954	9,659	24,155	58,755	--	--	--
Graham	162,332	9,699	--	--	9,266	--	123,751	--	--	19,616	--
Granville	210,425	--	--	--	72,860	19,221	95,895	22,449	--	--	--
Greene	78,751	--	--	--	21,403	3,565	28,838	24,945	--	--	--
Guilford	156,449	--	--	--	56,179	5,310	74,337	2,655	17,968	--	--
Halifax	256,952	--	--	--	86,170	35,609	90,378	39,708	5,087	--	--
Harnett	209,633	--	--	--	57,509	20,103	90,625	16,765	3,351	--	--
Haywood	173,726	7,199	3,982	21,280	--	19,252	128,789	--	--	14,504	--
Henderson	145,615	14,969	--	--	9,979	17,479	103,188	--	--	--	--
Hertford	149,132	--	--	--	54,131	18,629	48,858	27,514	--	--	--
Hoke	160,736	--	--	63,598	31,191	21,822	14,865	29,260	--	--	--
Hyde	221,910	--	--	--	124,541	27,373	14,367	53,903	1,726	--	--
Iredell	158,219	--	--	--	43,770	12,697	93,286	--	8,466	--	--
Jackson	262,094	--	--	--	4,829	21,395	216,552	--	--	19,318	--
Johnston	253,935	--	--	7,319	70,946	62,214	40,257	47,579	25,620	--	--
Jones	227,776	--	--	3,171	139,593	11,997	14,480	42,680	15,855	--	--

Table 3.--Area of commercial forest land, by county and forest-type group, North Carolina, 1984--Continued

County	All type groups	Forest-type group										Acres
		White pine-hemlock	Spruce-fir	Longleaf-slash	Loblolly-shortleaf	Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood	Maple-beech-birch		
Lee	105,490	--	--	--	18,373	30,429	45,869	10,819	--	--	--	--
Lenoir	122,035	--	--	--	29,330	12,710	20,081	49,875	10,039	--	--	--
Lincoln	91,949	--	--	--	29,975	6,510	48,955	--	6,509	--	--	--
Macon	271,589	4,433	--	--	5,525	17,294	239,903	--	--	--	--	4,434
Madison	214,566	5,988	--	--	20,386	18,465	159,534	--	--	--	--	10,193
Martin	183,261	--	--	2,813	61,168	27,610	30,759	55,350	5,561	--	--	--
McDowell	229,681	9,598	--	--	27,012	27,903	160,369	--	4,799	--	--	--
Mecklenburg	144,474	--	--	--	55,436	7,682	77,515	--	3,841	--	--	--
Mitchell	102,445	--	--	--	5,104	5,696	72,895	--	--	--	--	18,750
Montgomery	250,377	--	--	--	76,625	48,696	114,066	10,990	--	--	--	--
Moore	335,074	--	--	49,425	94,308	45,088	116,590	22,941	6,722	--	--	--
Nash	177,326	--	--	--	58,881	26,203	73,373	15,724	3,145	--	--	--
New Hanover	64,605	--	--	18,009	23,030	3,594	9,189	7,189	3,594	--	--	--
Northampton	203,939	--	--	--	56,971	23,304	70,427	31,609	21,628	--	--	--
Onslow	341,875	--	--	39,285	175,575	43,339	12,552	60,969	10,155	--	--	--
Orange	142,897	--	--	--	37,407	20,815	69,667	--	15,008	--	--	--
Pamlico	120,348	--	--	2,080	63,251	4,160	12,480	36,297	2,080	--	--	--
Pasquotank	52,259	--	--	--	16,850	--	11,328	24,081	--	--	--	--
Pender	459,089	--	--	33,685	247,001	34,977	28,960	96,130	18,336	--	--	--
Perquimans	74,582	--	--	--	25,501	9,204	23,770	16,107	--	--	--	--
Person	138,329	--	--	--	35,014	14,796	72,989	11,831	3,699	--	--	--
Pitt	195,439	--	--	--	78,525	19,227	38,450	59,237	--	--	--	--
Polk	113,960	--	--	--	30,208	33,381	50,371	--	--	--	--	--
Randolph	299,210	--	--	--	45,876	24,075	225,415	--	3,844	--	--	--
Richmond	225,609	--	--	37,541	80,469	37,321	48,782	21,496	--	--	--	--
Robeson	278,383	--	--	3,060	78,159	30,602	12,391	154,171	--	--	--	--
Rockingham	193,770	--	--	--	85,186	14,236	80,111	--	14,237	--	--	--
Rowan	142,508	--	--	--	49,015	18,788	70,947	--	3,758	--	--	--
Rutherford	256,952	--	--	--	83,967	60,280	100,609	--	12,096	--	--	--
Sampson	344,807	--	--	12,677	109,671	75,429	62,576	84,454	--	--	--	--
Scotland	118,151	--	--	21,753	49,611	20,666	20,316	5,805	--	--	--	--
Stanly	100,888	--	--	--	31,630	6,560	59,417	--	3,281	--	--	--
Stokes	164,189	--	--	--	46,078	15,947	98,974	--	3,190	--	--	--
Surry	169,717	3,184	--	--	35,802	25,471	102,076	--	3,184	--	--	--
Swain	110,777	--	--	--	21,851	4,031	84,895	--	--	--	--	--
Transylvania	206,641	12,726	--	--	--	22,072	171,843	--	--	--	--	--
Tyrrell	159,053	--	--	--	65,440	20,414	--	73,199	--	--	--	--
Union	171,757	--	--	--	34,218	21,011	102,521	--	14,007	--	--	--
Vance	88,658	--	--	--	36,592	14,203	33,624	4,239	--	--	--	--
Wake	277,069	--	--	--	102,906	21,847	112,416	39,900	--	--	--	--
Warren	189,773	--	--	--	70,093	26,254	74,806	3,541	15,079	--	--	--
Washington	93,590	--	--	--	20,413	14,901	9,933	48,343	--	--	--	--
Watauga	110,055	5,057	--	--	--	834	94,051	--	--	--	--	5,056
Wayne	154,165	--	--	3,918	61,428	13,802	39,753	35,264	--	--	--	--
Wilkes	339,601	22,475	--	--	64,836	64,578	187,712	--	--	--	--	--
Wilson	101,078	--	--	--	30,106	2,799	39,179	26,196	2,798	--	--	--
Yadkin	86,915	--	--	--	31,371	10,398	38,128	86	6,932	--	--	--
Yancey	161,265	5,535	9,418	--	3,917	14,343	107,632	--	--	--	--	20,420
Total	18,450,269	204,710	18,457	584,378	5,537,331	2,276,670	6,967,217	2,302,762	401,107	157,637	--	--

Table 4.--Area of commercial forest land, by county and stand-size class, North Carolina, 1984

County	All stands	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling-seedling	
----- Acres -----					
Alamance	122,128	60,844	43,746	17,538	--
Alexander	106,848	52,025	39,281	15,542	--
Alleghany	70,821	44,349	22,060	4,412	--
Anson	225,612	98,379	78,621	44,805	3,807
Ashe	154,383	114,022	31,392	8,969	--
Avery	114,830	84,919	20,153	9,758	--
Beaufort	301,822	99,672	123,018	70,678	8,454
Bertie	318,227	174,790	68,099	72,959	2,379
Bladen	424,374	124,617	107,706	185,068	6,983
Brunswick	414,849	87,274	165,344	141,492	20,739
Buncombe	265,106	188,751	52,567	23,788	--
Burke	229,317	105,310	63,870	60,137	--
Cabarrus	98,733	36,091	37,385	25,257	--
Caldwell	228,173	132,231	60,346	35,596	--
Camden	77,531	40,657	10,485	24,292	2,097
Carteret	187,888	82,599	51,345	53,944	--
Caswell	166,954	79,156	49,295	35,294	3,209
Catawba	102,277	31,597	37,200	33,480	--
Chatham	301,223	151,462	103,332	46,429	--
Cherokee	248,945	138,382	100,762	9,801	--
Chowan	52,326	20,890	10,445	18,289	2,702
Clay	106,432	79,253	22,020	5,159	--
Cleveland	132,555	68,708	37,488	26,359	--
Columbus	416,274	190,310	121,218	86,365	18,381
Craven	316,989	124,319	82,793	106,688	3,189
Cumberland	234,844	112,198	39,549	75,965	7,132
Currituck	66,469	39,724	15,299	11,446	--
Dare	147,165	46,464	76,181	19,475	5,045
Davidson	165,658	48,465	62,918	54,275	--
Davie	71,063	32,915	20,248	17,895	5
Duplin	295,238	122,128	69,483	89,914	13,713
Durham	97,577	61,906	28,313	7,358	--
Edgecombe	158,528	62,747	57,735	38,046	--
Forsyth	88,882	55,278	27,857	5,025	722
Franklin	178,596	51,567	59,481	67,548	--
Gaston	108,254	63,791	20,962	23,501	--
Gates	145,523	56,954	49,112	37,060	2,397
Graham	162,332	104,129	39,670	13,357	5,176
Granville	210,425	80,088	82,977	44,157	3,203
Greene	78,751	42,784	17,820	18,147	--
Guilford	156,449	84,343	42,902	29,204	--
Halifax	256,952	134,503	62,160	60,289	--
Harnett	209,633	87,125	50,807	51,599	20,102
Haywood	173,726	124,076	49,650	--	--
Henderson	145,615	110,686	34,929	--	--
Hertford	149,132	63,447	40,044	45,641	--
Hoke	160,736	81,317	24,063	50,401	4,955
Hyde	221,910	76,702	69,276	52,655	23,277
Iredell	158,219	72,125	39,540	38,089	8,465
Jackson	262,094	172,116	71,766	18,212	--
Johnston	253,935	158,339	58,996	36,600	--
Jones	227,776	91,805	54,148	78,653	3,170

Continued

Table 4.--Area of commercial forest land, by county and stand-size class, North Carolina, 1984--Continued

County	All stands	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling-seedling	
----- Acres -----					
Lee	105,490	41,458	34,616	29,416	--
Lenoir	122,035	46,529	35,762	29,705	10,039
Lincoln	91,949	56,013	22,916	13,020	--
Macon	271,589	182,685	80,037	8,867	--
Madison	214,566	154,854	31,054	28,658	--
Martin	183,261	99,641	36,050	44,291	3,279
McDowell	229,681	131,390	61,681	32,702	3,908
Mecklenburg	144,474	63,118	53,786	27,570	--
Mitchell	102,445	74,077	20,416	7,952	--
Montgomery	250,377	102,414	83,018	52,572	12,373
Moore	335,074	141,210	95,468	83,458	14,938
Nash	177,326	105,865	33,724	37,737	--
New Hanover	64,605	15,598	14,378	31,035	3,594
Northampton	203,939	110,388	52,777	37,909	2,865
Onslow	341,875	123,473	109,321	95,838	13,243
Orange	142,897	92,039	25,910	21,281	3,667
Pamlico	120,348	58,048	21,384	32,596	8,320
Pasquotank	52,259	40,770	6,332	5,157	--
Pender	459,089	182,322	129,919	126,551	20,297
Perquimans	74,582	24,309	31,166	13,807	5,300
Person	138,329	56,216	60,907	21,206	--
Pitt	195,439	102,476	45,025	45,192	2,746
Polk	113,960	47,198	37,216	25,711	3,835
Randolph	299,210	132,451	111,931	53,815	1,013
Richmond	225,609	83,958	69,459	58,123	14,069
Robeson	278,383	145,444	60,827	62,932	9,180
Rockingham	193,770	62,541	94,209	37,020	--
Rowan	142,508	77,964	41,832	22,712	--
Rutherford	256,952	120,757	83,575	52,620	--
Sampson	344,807	128,910	104,919	107,140	3,838
Scotland	118,151	68,702	20,427	26,119	2,903
Stanly	100,888	47,881	22,960	30,047	--
Stokes	164,189	76,550	62,026	25,516	97
Surry	169,717	54,121	86,852	28,744	--
Swain	110,777	57,645	45,070	8,062	--
Transylvania	206,641	133,157	60,758	12,726	--
Tyrrell	159,053	72,781	42,165	37,172	6,935
Union	171,757	67,502	62,232	42,023	--
Vance	88,658	49,561	21,925	17,172	--
Wake	277,069	189,002	55,442	32,625	--
Warren	189,773	94,752	40,081	54,940	--
Washington	93,590	37,820	20,457	29,575	5,738
Watauga	110,055	73,827	36,228	--	--
Wayne	154,165	96,605	25,949	27,693	3,918
Wilkes	339,601	214,526	102,602	22,473	--
Wilson	101,078	48,586	30,105	19,589	2,798
Yadkin	86,915	48,611	20,797	17,507	--
Yancey	161,265	94,502	35,340	31,423	--
Total	18,450,269	8,978,576	5,286,888	3,856,610	328,195

Table 5.--Area of commercial forest land, by county and site class, North Carolina, 1984

County	All classes	Site class (cubic feet per acre per year)				
		> 164	120-164	85-119	50-84	20-49
----- Acres -----						
Alamance	122,128	--	3,124	31,249	84,630	3,125
Alexander	106,848	--	4,560	52,026	44,765	5,497
Alleghany	70,821	13,236	4,412	17,871	30,890	4,412
Anson	225,612	6,443	3,807	74,292	120,570	20,500
Ashe	154,383	4,484	4,485	63,109	68,851	13,454
Avery	114,830	--	6,711	46,283	52,078	9,758
Beaufort	301,822	--	4,161	126,807	155,184	15,670
Bertie	318,227	--	11,184	152,975	148,476	5,592
Bladen	424,374	--	17,503	54,007	218,525	134,339
Brunswick	414,849	--	--	56,639	250,680	107,530
Buncombe	265,106	200	38,319	81,009	126,156	19,422
Burke	229,317	25,926	43,303	50,133	91,010	18,945
Cabarrus	98,733	--	--	14,432	73,467	10,834
Caldwell	228,173	15,857	28,630	69,759	93,319	20,608
Camden	77,531	--	2,097	20,969	54,465	--
Carteret	187,888	--	--	32,064	91,476	64,348
Caswell	166,954	3,208	3,687	67,596	82,836	9,627
Catawba	102,277	--	3,719	20,006	63,672	14,880
Chatham	301,223	--	12,505	93,508	187,798	7,412
Cherokee	248,945	38,551	20,532	70,907	114,949	4,006
Chowan	52,326	--	5,162	39,421	5,162	2,581
Clay	106,432	--	2	40,382	35,202	30,846
Cleveland	132,555	--	--	42,599	82,960	6,996
Columbus	416,274	--	24,122	163,913	217,255	10,984
Craven	316,989	--	14,429	94,185	153,747	54,628
Cumberland	234,844	--	10,699	38,470	115,799	69,876
Currituck	66,469	--	--	29,200	28,412	8,857
Dare	147,165	--	--	10,693	77,943	58,529
Davidson	165,658	--	753	44,635	101,186	19,084
Davie	71,063	--	2,531	35,623	30,378	2,531
Duplin	295,238	--	15,226	119,084	125,897	35,031
Durham	97,577	--	3,679	33,573	60,325	--
Edgecombe	158,528	--	25,599	55,065	77,864	--
Forsyth	88,882	--	--	55,276	33,606	--
Franklin	178,596	--	17,174	73,266	88,156	--
Gaston	108,254	3,358	--	50,614	44,210	10,072
Gates	145,523	--	4,841	50,732	81,790	8,160
Graham	162,332	14,776	32,328	52,287	57,765	5,176
Granville	210,425	--	3,204	60,893	139,921	6,407
Greene	78,751	--	3,564	24,946	43,113	7,128
Guilford	156,449	2,655	21,239	57,793	74,762	--
Halifax	256,952	5,087	12,716	99,865	128,663	10,621
Harnett	209,633	--	--	56,960	94,931	57,742
Haywood	173,726	--	24,132	47,092	92,876	9,626
Henderson	145,615	4,989	4,989	48,543	64,261	22,833
Hertford	149,132	--	2,751	48,265	98,116	--
Hoke	160,736	--	--	9,606	89,096	62,034
Hyde	221,910	--	5,940	24,604	97,084	94,282
Iredell	158,219	--	4,352	59,309	77,629	16,929
Jackson	262,094	9,659	27,065	78,242	106,323	40,805
Johnston	253,935	--	7,319	74,606	157,371	14,639
Jones	227,776	--	--	65,226	121,470	41,080

Continued

Table 5.--Area of commercial forest land, by county and site class, North Carolina, 1984--Continued

County	All classes	Site class (cubic feet per acre per year)				
		> 164	120-164	85-119	50-84	20-49
----- Acres -----						
Lee	105,490	--	7,213	32,665	51,185	14,427
Lenoir	122,035	3,347	--	59,563	42,394	16,731
Lincoln	91,949	3,255	3,255	39,737	45,702	--
Macon	271,589	--	37,051	77,135	85,351	72,052
Madison	214,566	15,220	31,056	60,011	92,511	15,768
Martin	183,261	--	13,740	57,837	111,684	--
McDowell	229,681	4,799	3,908	44,426	149,915	26,633
Mecklenburg	144,474	3,842	11,525	49,945	52,269	26,893
Mitchell	102,445	--	13,055	40,013	41,425	7,952
Montgomery	250,377	--	7,327	85,725	126,949	30,376
Moore	335,074	--	9,495	42,713	222,344	60,522
Nash	177,326	--	15,721	88,140	73,465	--
New Hanover	64,605	--	3,594	5,059	19,973	35,979
Northampton	203,939	--	8,688	78,963	110,558	5,730
Onslow	341,875	--	17,347	46,270	181,949	96,309
Orange	142,897	--	3,667	51,949	87,281	--
Pamlico	120,348	--	6,011	32,367	54,386	27,584
Pasquotank	52,259	--	8,762	32,967	10,530	--
Pender	459,089	--	3,857	52,100	252,840	150,292
Perquimans	74,582	--	9,902	31,971	30,408	2,301
Person	138,329	--	--	22,928	100,605	14,796
Pitt	195,439	--	16,480	86,539	92,420	--
Polk	113,960	3,835	7,670	41,711	42,136	18,608
Randolph	299,210	--	11,532	48,706	203,630	35,342
Richmond	225,609	3,305	--	30,589	130,313	61,402
Robeson	278,383	--	6,121	88,744	171,127	12,391
Rockingham	193,770	--	14,235	85,325	88,515	5,695
Rowan	142,508	--	11,273	79,555	49,512	2,168
Rutherford	256,952	12,096	16,125	56,346	124,397	47,988
Sampson	344,807	--	7,676	71,685	238,632	26,814
Scotland	118,151	--	--	14,510	44,431	59,210
Stanly	100,888	--	--	14,704	65,978	20,206
Stokes	164,189	6,380	19,138	45,947	86,345	6,379
Surry	169,717	--	9,550	19,101	105,845	35,221
Swain	110,777	260	21,337	20,153	59,783	9,244
Transylvania	206,641	12,726	11,283	35,293	120,347	26,992
Tyrrell	159,053	--	--	33,490	79,733	45,830
Union	171,757	--	--	27,778	115,964	28,015
Vance	88,658	--	2,249	29,895	51,294	5,220
Wake	277,069	--	21,702	145,742	98,774	10,851
Warren	189,773	--	10,621	73,967	105,185	--
Washington	93,590	--	2,597	35,130	44,475	11,388
Watauga	110,055	--	73	22,901	56,742	30,339
Wayne	154,165	3,918	15,673	75,233	47,586	11,755
Wilkes	339,601	38,027	26,808	118,199	150,080	6,487
Wilson	101,078	--	5,596	40,193	55,289	--
Yadkin	86,915	--	--	24,349	55,634	6,932
Yancey	161,265	4,959	13,335	57,346	73,873	11,752
Total	18,450,269	264,398	952,803	5,436,224	9,458,834	2,338,010

Table 6.--Area of commercial forest land, by county and stocking class of growing-stock trees, North Carolina, 1984

County	All classes	Stocking percentage ^a				
		> 130	100-130	60-99	16.7-59	< 16.7
----- Acres -----						
Alamance	122,128	3,124	50,060	62,695	6,249	--
Alexander	106,848	9,121	42,904	47,472	7,351	--
Alleghany	70,821	9,053	4,412	44,120	13,236	--
Anson	225,612	19,521	59,292	111,069	31,923	3,807
Ashe	154,383	6,066	49,331	76,565	22,421	--
Avery	114,830	--	39,365	60,828	14,637	--
Beaufort	301,822	43,760	124,387	106,307	18,914	8,454
Bertie	318,227	26,288	164,328	100,904	24,328	2,379
Bladen	424,374	15,561	166,132	157,729	77,969	6,983
Brunswick	414,849	23,682	159,313	150,794	60,321	20,739
Buncombe	265,106	200	58,592	156,128	50,186	--
Burke	229,317	12,566	63,528	118,465	34,758	--
Cabarrus	98,733	3,608	29,420	58,489	7,216	--
Caldwell	228,173	9,979	75,216	123,036	19,942	--
Camden	77,531	2,097	31,453	35,186	6,698	2,097
Carteret	187,888	10,216	92,081	43,659	41,932	--
Caswell	166,954	13,528	67,744	72,848	9,625	3,209
Catawba	102,277	11,593	22,319	57,205	11,160	--
Chatham	301,223	44,014	101,881	147,916	7,412	--
Cherokee	248,945	17,825	42,558	173,640	14,922	--
Chowan	52,326	2,581	26,274	20,769	--	2,702
Clay	106,432	--	30,815	53,608	22,009	--
Cleveland	132,555	--	53,351	54,718	24,486	--
Columbus	416,274	48,710	188,831	139,820	20,532	18,381
Craven	316,989	21,939	133,875	128,677	29,309	3,189
Cumberland	234,844	--	77,643	101,683	48,386	7,132
Currituck	66,469	--	34,958	21,616	9,895	--
Dare	147,165	10,695	66,648	45,908	18,869	5,045
Davidson	165,658	12,722	50,191	90,023	12,722	--
Davie	71,063	--	40,674	22,791	7,593	5
Duplin	295,238	26,107	89,901	135,065	30,452	13,713
Durham	97,577	12,498	48,338	36,741	--	--
Edgecombe	158,528	8,532	78,495	60,125	11,376	--
Forsyth	88,882	7,757	25,129	52,761	2,513	722
Franklin	178,596	10,305	106,466	51,520	10,305	--
Gaston	108,254	10,326	40,290	50,923	6,715	--
Gates	145,523	19,290	70,846	48,172	4,818	2,397
Graham	162,332	--	47,414	70,812	38,930	5,176
Granville	210,425	24,809	108,736	64,067	9,610	3,203
Greene	78,751	--	24,967	42,766	11,018	--
Guilford	156,449	21,240	63,104	53,521	18,584	--
Halifax	256,952	28,862	124,765	87,838	15,487	--
Harnett	209,633	16,909	58,544	83,924	30,154	20,102
Haywood	173,726	11,289	46,710	85,187	30,540	--
Henderson	145,615	6,211	41,625	73,536	24,243	--
Hertford	149,132	8,254	78,097	38,649	24,132	--
Hoke	160,736	18	36,368	59,599	59,796	4,955
Hyde	221,910	28,336	63,856	77,061	29,380	23,277
Iredell	158,219	9,855	55,196	67,773	16,930	8,465
Jackson	262,094	--	60,503	153,203	48,388	--
Johnston	253,935	32,935	85,587	124,434	10,979	--
Jones	227,776	7,055	100,534	76,105	40,912	3,170

Continued

Table 6.--Area of commercial forest land, by county and stocking class of growing-stock trees, North Carolina, 1984--Continued

County	All classes	Stocking percentage ^a				
		> 130	100-130	60-99	16.7-59	< 16.7
		----- Acres -----				
Lee	105,490	9,580	42,829	45,868	7,213	--
Lenoir	122,035	3,347	40,720	51,872	16,057	10,039
Lincoln	91,949	7,190	48,824	29,293	6,642	--
Macon	271,589	17,294	93,341	121,494	39,460	--
Madison	214,566	29,068	63,851	103,180	18,467	--
Martin	183,261	25,058	99,771	52,340	2,813	3,279
McDowell	229,681	13,506	78,204	101,740	32,323	3,908
Mecklenburg	144,474	15,367	49,945	74,643	4,519	--
Mitchell	102,445	21,006	47,377	34,062	--	--
Montgomery	250,377	--	86,989	110,324	40,691	12,373
Moore	335,074	24,338	124,132	114,704	56,962	14,938
Nash	177,326	31,445	73,551	48,219	24,111	--
New Hanover	64,605	--	12,250	23,602	25,159	3,594
Northampton	203,939	11,187	87,618	90,809	11,460	2,865
Onslow	341,875	9,500	119,373	151,757	48,002	13,243
Orange	142,897	14,908	76,656	40,334	7,332	3,667
Pamlico	120,348	25,937	20,900	54,791	10,400	8,320
Pasquotank	52,259	4,780	19,413	18,711	9,355	--
Pender	459,089	23,452	208,172	149,673	57,495	20,297
Perquimans	74,582	5,900	24,202	36,879	2,301	5,300
Person	138,329	6,411	55,483	58,930	17,505	--
Pitt	195,439	15,376	92,724	81,847	2,746	2,746
Polk	113,960	3,930	37,215	48,720	20,260	3,835
Randolph	299,210	3,844	78,445	169,781	46,127	1,013
Richmond	225,609	14,551	64,855	70,978	61,156	14,069
Robeson	278,383	27,161	88,062	118,587	35,393	9,180
Rockingham	193,770	15,875	60,770	97,191	19,934	--
Rowan	142,508	11,919	38,240	84,833	7,516	--
Rutherford	256,952	4,032	99,701	120,561	32,658	--
Sampson	344,807	10,176	121,239	169,875	39,679	3,838
Scotland	118,151	2,902	24,117	41,534	46,695	2,903
Stanly	100,888	6,560	28,351	49,577	16,400	--
Stokes	164,189	22,568	45,837	82,928	12,759	97
Surry	169,717	6,368	41,586	99,476	22,287	--
Swain	110,777	260	24,889	58,570	27,058	--
Transylvania	206,641	6,363	73,452	116,702	10,124	--
Tyrrell	159,053	18,490	38,111	63,530	31,987	6,935
Union	171,757	16,307	52,929	81,510	21,011	--
Vance	88,658	7,968	52,800	27,890	--	--
Wake	277,069	25,319	110,430	110,539	30,781	--
Warren	189,773	29,551	79,484	61,565	19,173	--
Washington	93,590	4,967	27,663	32,757	22,465	5,738
Watauga	110,055	5,057	33,375	56,455	15,168	--
Wayne	154,165	13,622	28,788	96,082	11,755	3,918
Wilkes	339,601	42,494	134,025	147,160	15,922	--
Wilson	101,078	5,600	38,500	42,986	11,194	2,798
Yadkin	86,915	6,933	31,195	38,387	10,400	--
Yancey	161,265	11,036	65,177	70,132	14,920	--
Total	18,450,269	1,307,540	6,688,608	7,931,828	2,194,098	328,195

^aSee stocking standards on page 14.

Table 7.--Volume of sawtimber and growing stock on commercial forest land, by county and species group, North Carolina, 1984

County	Sawtimber				Growing stock					
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
		Thousand board feet				Thousand cubic feet ^a				
Alamance	617,591	192,601	--	168,686	256,304	209,047	67,835	815	61,689	78,708
Alexander	396,146	153,735	16,798	92,403	133,210	160,339	66,339	3,586	40,933	49,776
Alleghany	329,201	3,329	84,664	71,209	169,999	109,651	1,433	23,968	28,262	55,388
Anson	1,027,730	763,309	1,898	141,485	121,038	328,474	221,359	1,267	55,879	49,969
Ashe	832,582	8,452	92,941	245,745	485,444	268,936	6,933	19,683	80,779	161,541
Avery	712,848	--	78,429	239,624	394,795	232,651	984	14,999	91,297	125,371
Beaufort	1,238,454	583,901	47,709	401,605	205,239	448,054	220,753	10,700	152,355	246,246
Bertie	2,030,788	698,846	115,371	816,687	399,884	582,838	182,684	24,793	248,275	127,086
Bladen	1,269,484	720,631	57,503	315,478	175,872	419,892	222,756	11,950	126,199	58,987
Brunswick	1,093,199	633,079	151,352	195,159	113,609	410,669	238,212	49,188	83,116	40,153
Buncombe	1,527,083	37,625	48,670	446,852	993,936	439,190	14,906	10,665	123,256	290,363
Burke	954,808	231,281	371,406	142,798	209,323	307,987	82,979	82,575	57,482	84,951
Cabarrus	364,092	109,612	5,760	86,883	161,837	135,663	48,308	3,476	32,233	51,646
Caldwell	1,410,133	153,364	364,523	303,707	588,539	407,470	42,199	78,463	96,084	190,724
Camden	573,711	164,316	27,567	322,950	58,878	164,177	32,603	7,184	105,944	18,446
Carteret	773,531	630,049	--	112,969	30,513	232,952	166,788	--	53,053	13,111
Caswell	772,851	381,043	3,508	203,843	184,457	278,804	135,497	1,465	72,888	68,954
Catawba	308,848	74,234	30,333	32,208	172,073	127,865	50,428	8,164	14,390	54,883
Chatham	1,654,372	770,320	11,545	408,772	463,735	554,968	257,477	7,463	140,378	149,650
Cherokee	1,209,018	293,929	263,954	137,847	513,288	407,677	96,763	57,460	62,164	191,290
Chowan	342,085	162,152	6,325	137,161	36,447	84,176	31,230	1,294	40,765	10,887
Clay	488,371	170,257	10,597	51,307	256,210	162,927	59,668	2,383	17,566	83,310
Cleveland	525,290	146,326	1,492	142,361	235,111	175,614	51,237	1,164	47,594	75,619
Columbus	2,236,417	931,704	175,026	816,730	312,957	711,201	310,201	38,064	265,425	97,511
Craven	1,529,798	803,588	38,145	506,282	181,783	462,110	234,350	8,147	167,401	52,212
Cumberland	961,584	726,095	37,421	125,579	72,489	279,072	162,109	10,160	72,520	34,283
Currituck	498,187	303,002	26,171	136,319	32,695	136,264	61,074	6,144	57,026	12,020
Dare	615,603	303,563	102,214	194,829	14,997	220,070	92,033	25,484	99,046	3,507
Davidson	602,857	78,314	--	204,651	319,892	211,976	40,134	1,599	73,086	97,157
Davie	355,502	49,489	1,548	163,056	141,409	111,400	21,119	1,744	41,743	46,794
Duplin	1,376,685	648,480	21,101	484,761	222,343	401,051	171,923	4,542	147,593	76,993
Durham	670,178	345,538	4,405	175,355	144,880	213,761	104,000	1,315	59,034	49,412
Edgecombe	1,081,286	364,007	56,309	407,900	253,070	303,351	84,612	11,204	123,979	83,556
Forsyth	472,319	110,808	3,397	162,860	195,254	160,184	41,378	1,205	55,701	61,900
Franklin	763,198	401,228	--	186,330	175,640	268,908	133,856	379	67,382	67,291
Gaston	744,536	314,741	--	193,750	236,045	211,396	82,361	1,698	58,866	68,471
Gates	887,196	418,557	68,702	340,873	59,064	277,641	102,090	15,594	132,568	27,389
Graham	1,078,074	125,492	236,020	262,013	454,549	313,077	29,237	44,886	98,055	140,899
Granville	1,071,592	398,091	2,020	375,006	296,475	384,855	143,404	1,783	127,107	112,561
Greene	400,744	150,534	38,369	145,305	66,536	112,533	36,284	7,261	40,323	28,665
Guilford	988,717	282,892	--	475,093	310,680	310,680	108,649	416	128,454	73,161
Halifax	1,871,493	793,969	25,816	663,275	388,433	503,515	184,642	4,494	191,467	122,912
Harnett	832,588	418,030	2,286	198,139	214,133	248,859	104,048	425	64,117	80,269
Haywood	1,196,924	51,778	194,750	418,941	531,455	363,073	14,692	54,245	109,227	184,909
Henderson	997,929	82,335	162,709	198,636	554,249	296,371	33,776	36,468	61,606	164,521
Hertford	797,948	281,043	36,875	306,893	173,137	227,749	67,254	7,775	99,141	53,579
Hoke	452,359	339,356	5,385	78,468	29,150	128,385	82,376	1,431	31,828	12,750
Hyde	892,371	574,215	46,197	222,738	49,221	294,262	176,781	10,684	95,657	11,140
Iredell	651,595	237,866	13,540	197,108	203,081	209,692	74,359	4,317	66,977	64,039
Jackson	1,308,356	30,444	123,961	321,872	832,079	421,129	7,144	27,572	105,487	280,746
Johnston	1,664,776	781,360	--	525,807	357,609	441,403	177,732	--	148,434	115,237
Jones	868,603	447,463	79,378	222,206	119,556	259,236	130,102	17,094	67,097	44,943

Continued

Table 7.--Volume of sawtimber and growing stock on commercial forest land, by county and species group, North Carolina, 1984--Continued

County	Sawtimber					Growing stock				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
Lee	484,896	254,467	--	115,515	114,914	161,966	59,755	432	56,017	45,762
Lenoir	643,752	199,981	107,096	168,378	168,297	181,946	47,399	20,743	59,831	53,973
Lincoln	603,169	215,362	--	161,373	226,434	174,497	67,035	288	45,802	61,372
Macon	1,628,122	107,082	128,038	434,674	958,328	503,881	26,102	25,558	134,628	317,593
Madison	1,459,806	103,821	215,533	480,813	659,619	424,124	35,515	51,484	135,791	201,334
Martin	1,252,556	466,643	111,504	561,480	112,929	372,602	121,698	22,602	189,640	38,669
McDowell	1,360,269	134,510	121,378	242,026	862,355	423,253	54,514	26,159	89,387	253,193
Mecklenburg	669,937	218,955	9,817	227,433	213,732	219,480	78,359	4,434	75,535	61,152
Mitchell	783,382	6,469	58,111	336,093	382,709	250,079	3,394	14,027	100,516	132,142
Montgomery	1,005,950	462,159	--	194,446	349,345	347,294	139,222	1,441	78,820	127,811
Moore	1,317,059	908,262	45,455	182,966	180,376	428,771	256,601	10,248	75,565	86,357
Nash	1,354,865	678,906	19,144	378,648	278,167	349,094	149,445	4,033	113,651	81,965
New Hanover	112,727	68,993	--	20,519	23,215	39,104	20,863	--	10,135	8,106
Northampton	1,218,034	391,246	37,605	400,659	388,524	342,561	103,498	8,027	122,106	108,930
Onslow	1,245,283	764,220	19,806	286,159	175,098	400,457	229,940	5,144	115,501	49,872
Orange	1,036,101	422,811	--	355,703	257,587	311,782	109,559	1,410	113,044	87,769
Pamlico	655,933	432,569	14,803	176,430	32,131	194,421	111,248	2,902	68,433	11,838
Pasquotank	478,144	156,460	26,348	251,199	44,137	127,791	31,963	6,686	78,919	10,223
Pender	1,585,888	862,871	138,277	323,290	261,450	543,880	299,950	33,711	123,890	86,329
Perquimans	283,766	53,253	20,147	116,996	93,370	109,967	27,301	4,907	49,337	28,422
Person	488,896	168,389	8,475	124,012	188,020	179,502	58,741	2,779	51,353	66,629
Pitt	1,278,581	454,692	122,182	548,499	153,208	361,155	128,151	23,333	159,431	50,240
Polk	1,135,934	77,917	9,289	100,814	216,330	150,753	45,703	1,687	31,172	72,191
Randolph	1,49,497	126,916	13,001	365,018	630,999	404,653	67,497	3,489	115,924	217,743
Richmond	621,593	427,340	--	143,467	50,786	233,177	147,569	428	61,349	23,831
Robeson	1,659,600	614,871	116,475	723,143	205,111	472,550	150,438	28,794	228,584	64,734
Rockingham	624,114	225,085	--	165,880	233,149	291,487	139,042	--	64,895	87,550
Rowan	693,608	309,148	4,192	181,470	198,798	234,580	90,570	2,871	65,037	76,102
Rutherford	935,492	378,000	7,173	117,001	433,318	355,504	144,411	3,341	49,393	158,359
Sampson	1,149,497	618,012	44,864	355,772	130,849	367,269	170,220	11,205	125,105	60,739
Scotland	485,696	349,560	24,395	94,742	16,999	133,794	89,981	6,065	31,588	6,160
Stanly	451,842	207,348	--	94,730	149,764	145,887	71,036	453	27,429	46,969
Stokes	669,768	234,358	2,747	184,998	247,665	260,685	92,937	842	74,565	92,341
Surry	509,761	123,719	40,862	99,838	245,342	221,237	56,387	13,819	49,373	101,658
Swain	595,112	69,469	--	206,438	319,205	192,062	31,527	513	61,299	98,727
Transylvania	1,275,932	44,001	109,928	292,568	829,435	391,076	11,406	30,037	102,366	247,267
Tyrrell	762,335	419,834	65,247	249,103	28,151	260,687	110,496	27,288	114,348	111,116
Union	639,240	275,383	3,602	95,587	284,668	230,919	79,167	2,826	37,810	134,427
Vance	517,017	276,780	--	139,208	101,029	160,872	74,935	374	175,251	138,292
Wake	1,836,745	812,454	--	604,685	419,606	536,409	226,731	--	175,251	134,427
Warren	959,188	422,680	--	328,142	208,366	322,571	132,585	--	117,913	72,073
Washington	412,676	123,759	41,427	200,785	46,705	133,905	27,281	11,641	77,552	17,431
Watauga	642,288	--	54,696	251,671	335,921	216,973	--	14,406	89,375	113,192
Wayne	1,046,660	689,898	--	218,557	138,205	256,548	138,950	--	67,267	50,331
Wilkes	2,223,462	531,422	498,447	534,644	658,949	721,124	193,395	109,806	192,698	225,225
Wilson	701,109	290,106	9,941	252,754	148,308	191,839	63,129	2,091	71,676	54,943
Yadkin	401,886	151,466	--	74,962	175,458	136,684	55,139	1,384	26,952	51,209
Yancey	1,235,710	15,505	181,601	321,890	716,714	347,414	6,431	39,452	93,116	208,415
Total	91,879,362	33,223,525	5,725,716	26,413,692	26,516,429	28,951,193	9,888,307	1,352,175	8,937,568	8,773,143

^aFactors for converting to cords are shown on page 14.

Table 8.--Net annual growth of sawtimber and growing stock on commercial forest land, by county and species group, North Carolina, 1983

County	Sawtimber					Growing stock				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	--- Thousand board feet ---					--- Thousand cubic feet ---				
Alamance	32,685	9,457	--	10,772	12,456	7,426	2,120	62	2,745	2,499
Alexander	21,411	6,821	836	8,155	5,599	6,375	2,725	121	2,024	1,505
Alleghany	17,230	117	4,330	6,702	6,081	3,466	25	1,014	1,034	1,393
Anson	56,710	41,403	59	8,291	6,957	14,711	9,633	37	2,880	2,161
Ashe	36,333	1,746	3,820	12,897	17,870	8,968	254	828	3,356	4,530
Avery	35,561	--	2,293	21,545	11,723	7,144	19	401	3,917	2,807
Beaufort	86,265	52,836	1,617	21,117	10,695	24,732	15,270	268	6,637	2,557
Bertie	98,977	38,084	3,356	35,189	22,348	24,757	9,676	640	9,312	5,129
Bladen	72,851	49,369	1,534	13,826	8,122	20,833	14,110	238	4,587	1,898
Brunswick	65,144	46,767	6,811	8,217	3,349	24,390	17,799	1,450	3,526	1,615
Buncombe	57,407	1,997	1,792	24,297	29,321	12,515	496	442	4,963	6,614
Burke	50,650	14,393	18,584	8,643	9,030	10,671	2,602	3,162	2,589	2,318
Cabarrus	20,465	8,706	153	4,595	7,011	4,758	1,641	102	1,372	1,643
Caldwell	55,898	3,180	14,348	18,127	20,243	11,477	881	2,408	3,976	4,212
Camden	23,618	6,497	823	13,564	2,734	5,467	1,020	180	3,605	662
Carteret	43,028	35,048	--	6,206	1,774	9,369	6,440	--	2,291	638
Caswell	45,855	20,696	226	16,848	8,085	10,755	4,723	33	3,528	2,471
Catawba	19,762	8,073	1,833	2,811	7,045	5,290	2,257	414	679	1,940
Chatham	92,628	46,861	773	21,642	23,352	22,055	10,605	344	6,241	4,865
Cherokee	49,461	10,709	11,543	8,517	18,692	11,992	2,032	1,958	3,144	4,858
Chowan	15,774	5,054	95	7,060	3,565	3,208	1,023	16	1,731	438
Clay	26,034	15,762	549	3,029	6,694	4,303	1,575	88	706	1,934
Cleveland	26,529	8,368	34	9,075	9,052	6,069	1,915	43	1,920	2,191
Columbus	142,015	87,261	5,680	34,547	14,527	35,015	22,154	961	8,053	3,847
Craven	74,436	41,206	1,227	25,802	6,201	21,468	12,979	184	6,389	1,916
Cumberland	45,659	32,554	1,215	8,566	3,324	13,048	7,450	527	2,955	2,116
Currituck	20,003	9,534	610	7,108	2,751	4,916	1,583	225	2,509	599
Dare	34,876	20,365	5,191	8,896	424	7,259	3,244	891	3,052	72
Davidson	33,501	4,962	271	15,768	12,500	7,524	1,313	111	3,304	2,796
Davie	16,997	2,878	216	7,237	6,666	4,322	707	84	1,659	1,872
Duplin	73,652	40,342	926	20,300	12,084	17,313	8,947	173	4,795	3,398
Durham	35,103	18,204	87	9,410	7,402	9,296	5,061	19	2,698	1,518
Edgecombe	54,324	16,261	1,741	22,389	13,933	12,217	4,238	283	4,455	3,241
Forsyth	26,403	5,427	62	12,146	8,768	5,631	1,267	19	2,440	1,905
Franklin	44,704	27,083	--	8,763	8,858	11,579	5,966	7	3,040	2,566
Gaston	28,063	8,895	104	9,989	9,075	6,502	1,921	38	2,501	2,042
Gates	44,531	18,834	2,391	19,342	3,964	11,462	5,031	433	4,681	1,317
Graham	39,887	2,472	7,243	18,082	12,090	8,666	355	927	4,041	3,343
Granville	67,907	27,032	38	22,041	18,796	15,805	5,914	37	5,784	4,070
Greene	21,959	11,339	1,239	3,960	5,421	4,115	1,708	205	1,256	946
Guilford	55,673	18,339	202	25,383	11,749	11,396	3,590	54	5,328	2,424
Halifax	95,184	41,030	390	34,283	19,481	22,065	8,376	69	8,332	5,288
Harnett	45,180	22,625	26	12,484	10,045	12,258	6,818	4	2,147	3,289
Haywood	56,694	1,562	13,099	20,618	21,415	10,449	218	1,766	3,587	4,878
Henderson	39,282	3,339	8,842	10,945	16,156	7,873	791	1,170	2,014	3,898
Hertford	34,071	12,013	1,127	13,400	7,531	9,281	3,415	199	3,744	1,923
Hoke	24,101	15,936	230	3,887	4,048	5,483	3,741	40	1,147	555
Hyde	50,312	33,285	1,533	13,228	2,266	12,573	7,676	248	4,263	386
Iredell	34,426	11,322	641	11,614	10,849	8,686	3,043	134	3,285	2,224
Jackson	53,046	447	5,117	18,688	28,794	11,779	106	819	3,816	7,038
Johnston	80,887	41,688	--	23,134	16,065	18,327	9,192	--	5,070	4,065
Jones	42,464	24,944	2,882	8,883	5,755	11,611	7,492	501	2,071	1,547

Continued

Table 8.--Net annual growth of sawtimber and growing stock on commercial forest land, by county and species group, North Carolina, 1983--Continued

County	Sawtimber					Growing stock				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
----- Thousand cubic feet -----										
Lee	29,815	11,675	--	11,284	6,856	8,015	3,071	16	2,832	2,096
Lenoir	30,869	9,751	3,319	10,183	7,616	7,147	2,302	553	2,449	1,843
Lincoln	29,887	12,306	--	9,306	8,275	6,629	2,492	20	2,216	1,901
Macon	68,073	2,166	3,326	25,361	37,220	13,919	398	516	5,199	7,806
Madison	58,613	2,805	10,902	27,979	16,927	12,232	719	1,644	5,344	4,525
Martin	62,898	25,186	3,346	26,835	7,531	15,652	6,417	928	6,686	1,621
McDowell	48,026	3,506	4,556	14,407	25,557	12,553	2,316	756	3,588	5,893
Mecklenburg	27,595	9,542	438	11,266	6,349	8,193	2,917	183	3,062	2,031
Mitchell	42,584	297	3,063	22,644	16,580	7,517	82	413	3,897	3,125
Montgomery	54,620	24,219	--	13,479	16,922	13,973	5,219	54	3,913	4,787
Moore	78,115	56,764	717	9,284	11,350	19,894	13,222	238	2,830	3,604
Nash	57,322	26,636	405	16,326	13,955	14,106	6,143	68	4,804	3,091
New Hanover	7,391	4,768	--	1,667	956	1,314	730	29	311	244
Northampton	56,630	22,718	871	16,854	16,187	14,584	5,889	136	4,391	4,168
Onslow	70,797	48,734	498	15,181	6,384	18,776	12,503	230	4,410	1,633
Orange	56,642	21,182	--	19,229	16,231	11,642	4,121	56	4,480	2,985
Pamlico	36,362	25,608	460	8,988	1,306	8,639	4,799	74	3,339	427
Pasquotank	18,703	6,208	1,006	9,435	2,054	3,973	1,189	186	2,260	338
Pender	93,433	60,047	5,267	14,688	13,431	28,441	20,410	905	4,304	2,822
Perquimans	14,533	4,691	624	5,778	3,440	5,033	2,294	121	1,546	1,072
Person	26,383	7,198	197	9,997	8,991	6,884	2,110	122	2,235	2,417
Pitt	60,528	23,236	3,485	26,214	7,593	15,432	7,578	560	5,189	2,105
Polk	20,526	5,997	330	4,998	9,201	6,230	2,550	48	1,198	2,434
Randolph	59,412	8,668	302	19,306	31,136	15,366	2,599	175	5,227	7,365
Richmond	49,175	39,114	--	7,095	2,966	13,161	10,009	15	2,210	927
Robeson	74,519	35,930	3,712	27,430	7,447	16,284	6,733	641	6,359	2,551
Rockingham	50,247	24,927	--	12,800	12,520	12,611	6,154	--	3,439	3,018
Rowan	32,253	11,337	231	9,600	11,085	8,758	2,060	198	3,277	3,223
Rutherford	48,160	22,257	417	5,692	19,794	12,835	5,144	190	2,462	5,039
Sampson	63,252	38,836	1,620	15,445	7,351	16,395	9,321	308	3,976	2,790
Scotland	27,131	21,735	516	3,917	963	5,528	4,159	82	1,019	268
Stanly	17,007	7,745	115	4,212	4,935	4,582	2,070	27	1,087	1,398
Stokes	46,788	16,373	217	17,579	12,619	10,565	3,694	26	3,804	3,041
Surry	39,342	10,148	2,405	11,725	15,064	9,876	2,494	669	2,922	3,791
Swain	27,972	3,558	--	15,927	8,487	5,157	602	27	2,165	2,363
Transylvania	47,067	809	5,566	16,219	24,473	11,315	232	1,259	3,985	5,839
Tyrrell	37,522	21,406	3,079	11,793	1,244	9,743	4,238	931	4,246	328
Union	28,699	8,922	865	5,908	13,004	7,838	2,278	116	1,822	3,622
Vance	25,631	14,503	--	6,597	4,531	6,106	2,746	7	2,007	1,346
Wake	96,018	47,099	--	28,162	20,757	20,914	9,483	10	6,693	4,728
Warren	57,030	26,054	--	19,187	11,789	14,856	6,722	--	5,485	2,649
Washington	16,646	5,272	1,515	8,157	1,702	5,935	1,079	533	3,539	784
Watauga	30,721	--	1,590	16,333	12,798	6,932	--	394	3,442	3,096
Wayne	47,681	31,103	--	9,854	6,724	10,029	5,431	--	2,412	2,186
Wilkes	104,337	24,311	19,798	34,793	25,435	20,943	4,351	3,477	7,772	5,343
Wilson	39,190	12,614	331	16,604	9,641	8,235	2,651	55	3,403	2,126
Yadkin	20,231	7,284	142	5,265	7,540	5,072	1,653	45	1,810	1,564
Yancey	38,139	355	4,661	14,416	18,707	9,146	102	862	3,590	4,592
Total	4,640,131	1,888,723	227,631	1,417,417	1,106,360	1,127,610	458,613	42,280	353,815	272,902

Table 9.--Annual removals of sawtimber and growing stock on commercial forest land, by county and species group, North Carolina, 1983

County	Sawtimber					Growing stock				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand board feet					Thousand cubic feet				
Alamance	16,230	2,139	--	6,904	7,187	3,492	665	--	1,399	1,428
Alexander	11,849	6,438	--	2,273	3,138	3,260	1,861	--	560	839
Alleghany	11,504	--	3,008	1,281	7,215	2,791	--	671	312	1,808
Anson	20,302	17,624	--	501	2,177	7,130	6,075	--	315	740
Ashe	4,598	--	--	--	4,598	1,133	--	--	222	911
Avery	4,966	--	--	3,575	1,391	1,935	--	--	958	977
Beaufort	65,230	45,685	1,178	11,169	7,198	15,778	10,551	220	3,460	1,547
Bertie	55,663	38,794	688	7,989	8,192	14,313	8,488	142	3,183	2,500
Bladen	90,983	71,382	--	9,822	9,779	23,391	17,171	--	3,696	2,524
Brunswick	38,048	30,295	582	7,171	--	13,600	10,185	122	3,118	175
Buncombe	22,021	9,238	--	5,583	7,200	5,269	2,450	--	963	1,856
Burke	34,141	19,287	3,639	2,128	9,087	10,362	5,121	731	1,287	3,223
Cabarrus	11,514	1,854	812	613	8,235	3,395	541	166	458	2,230
Caldwell	30,355	3,060	5,292	5,975	16,028	7,595	1,006	987	1,785	3,817
Camden	33,187	24,122	5,126	2,014	1,925	7,313	4,370	1,092	1,343	508
Carteret	27,512	26,451	--	1,061	--	9,051	8,177	--	821	53
Caswell	7,368	984	--	3,731	2,653	2,335	483	--	1,016	836
Catawba	31,421	12,639	--	15,133	3,649	7,350	3,642	--	2,741	967
Chatham	57,148	27,903	--	16,783	12,462	17,924	7,314	--	6,238	4,372
Cherokee	6,772	3,427	1,416	--	1,929	2,049	1,010	272	--	767
Chowan	21,801	16,107	--	2,632	3,062	4,880	3,014	--	858	1,008
Clay	5,451	5,451	--	--	--	1,700	1,700	--	--	--
Cleveland	9,063	5,639	--	--	3,424	3,119	1,978	--	--	1,141
Columbus	33,034	22,885	820	6,534	2,795	10,884	8,246	145	1,908	585
Craven	46,478	36,771	--	8,630	1,077	11,873	8,702	--	2,619	552
Cumberland	38,676	25,832	--	6,223	6,621	11,449	6,658	--	1,984	2,807
Currituck	13,614	6,963	--	6,651	--	3,680	1,812	--	1,868	--
Dare	19,419	15,360	3,673	386	--	5,905	3,280	2,274	351	--
Davidson	20,571	10,477	--	549	9,545	6,822	2,658	--	1,310	2,854
Davie	4,737	1,066	--	3,671	--	1,457	179	--	1,278	--
Duplin	61,163	47,342	--	10,335	3,486	13,412	9,580	--	2,661	1,171
Durham	19,116	3,214	--	5,323	10,579	4,462	499	--	1,412	2,551
Edgecombe	60,114	35,861	--	15,668	8,585	13,964	8,474	--	3,288	2,202
Forsyth	3,687	526	--	745	2,416	1,229	118	--	362	749
Franklin	90,887	63,066	--	13,225	14,596	18,366	11,209	--	3,388	3,769
Gaston	5,978	2,097	--	2,708	1,173	1,858	953	--	689	216
Gates	33,388	26,352	--	5,769	1,267	7,057	4,731	--	1,768	558
Graham	14,148	1,642	--	6,480	6,026	2,710	419	--	1,111	1,180
Granville	31,852	16,048	--	11,024	4,780	10,006	5,221	--	3,020	1,765
Greene	15,022	8,352	--	4,473	2,197	2,753	1,443	--	740	570
Guilford	19,071	8,891	--	2,501	7,679	5,394	2,417	--	766	2,211
Halifax	45,783	17,556	--	17,992	10,235	13,222	4,775	--	3,990	4,457
Harnett	19,335	12,658	--	2,266	4,411	5,701	3,593	--	613	1,495
Haywood	16,950	1,827	5,993	4,556	4,574	3,901	315	1,091	1,191	1,304
Henderson	18,502	--	13,053	3,847	1,602	3,969	--	2,016	637	1,316
Hertford	28,064	17,725	--	3,863	6,476	7,034	3,787	--	979	2,268
Hoke	16,856	12,748	--	4,108	--	4,363	2,869	--	1,377	117
Hyde	28,049	20,866	1,134	6,049	--	7,568	5,557	236	1,726	49
Iredell	53,975	16,581	--	19,066	18,328	15,115	5,169	--	5,575	4,371
Jackson	12,595	--	--	8,506	4,089	3,174	--	--	1,648	1,526
Johnston	59,400	39,276	--	11,792	8,332	13,912	8,848	--	3,128	1,936
Jones	27,026	20,177	824	3,585	2,440	7,194	4,929	138	1,363	764

Continued

Table 9.--Annual removals of sawtimber and growing stock on commercial forest land, by county and species group, North Carolina, 1983--Continued

County	Sawtimber					Growing stock				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand board feet					Thousand cubic feet				
Lee	14,869	8,872	--	2,109	3,888	4,022	1,970	--	1,048	1,004
Lenoir	29,650	24,130	--	3,720	1,800	6,733	5,369	--	908	456
Lincoln	19,437	14,444	--	1,488	3,505	4,773	3,595	--	365	813
Macon	3,936	1,110	--	1,643	1,183	1,168	363	--	304	501
Madison	43,932	--	38,346	3,171	2,415	11,224	460	6,890	591	3,283
Martin	40,440	34,162	--	953	5,325	8,821	6,875	--	397	1,549
McDowell	8,785	2,584	1,677	--	4,524	2,579	541	286	491	1,261
Mecklenburg	42,699	23,867	--	1,653	17,179	9,691	5,799	--	476	3,416
Mitchell	9,720	--	2,722	1,429	5,569	2,716	--	496	312	1,908
Montgomery	41,312	25,534	--	7,534	8,244	11,422	6,546	77	1,568	3,231
Moore	47,782	30,177	--	11,433	6,172	12,692	7,460	--	3,115	2,117
Nash	47,150	26,880	--	11,832	8,438	11,573	5,822	--	3,364	2,387
New Hanover	7,356	7,356	--	--	--	1,834	1,834	--	--	--
Northampton	38,190	9,723	--	15,153	13,314	10,656	2,472	--	4,141	4,043
Onslow	29,398	26,518	--	2,364	516	9,648	8,731	--	646	271
Orange	18,219	16,462	--	--	1,757	5,410	3,844	--	163	1,403
Pamlico	41,221	26,577	--	8,305	6,339	11,267	6,022	--	3,212	2,033
Pasquotank	22,993	9,400	5,206	4,999	3,388	6,758	2,198	1,087	2,558	915
Pender	45,670	40,541	1,616	2,133	1,380	11,593	10,035	295	921	342
Perquimans	17,916	10,901	1,980	312	4,723	5,496	2,749	417	968	1,362
Person	27,358	23,400	--	2,118	1,840	8,369	6,321	--	992	1,056
Pitt	53,112	25,693	1,836	19,302	6,281	13,694	6,400	362	5,502	1,430
Polk	8,246	5,861	--	611	1,774	2,769	2,048	--	162	559
Randolph	40,820	11,607	--	4,137	25,076	10,943	3,316	--	1,558	6,069
Richmond	35,278	23,398	--	7,150	4,730	8,711	5,716	--	1,593	1,402
Robeson	41,419	20,796	--	16,119	4,504	8,909	4,090	--	3,784	1,035
Rockingham	20,439	1,088	--	9,906	9,445	7,388	1,199	--	3,392	2,797
Rowan	28,963	16,534	--	8,885	3,544	8,067	4,452	--	2,919	696
Rutherford	25,359	16,674	558	4,706	3,421	9,037	5,645	133	1,636	1,623
Sampson	71,236	51,887	1,476	12,173	5,700	18,824	13,357	304	3,226	1,937
Scotland	17,221	17,221	--	--	--	3,026	3,026	--	--	--
Stanly	19,463	8,424	510	929	9,600	5,544	2,902	117	272	2,253
Stokes	21,229	10,300	--	5,288	5,641	5,453	2,395	--	1,942	1,116
Surry	25,926	15,392	--	4,681	5,853	8,244	4,572	--	1,337	2,335
Swain	4,449	--	--	2,175	2,274	781	--	--	336	445
Transylvania	1,711	--	--	1,038	673	686	--	--	480	206
Tyrrell	36,236	25,706	2,311	6,701	1,518	10,098	6,447	453	2,705	493
Union	6,681	4,589	--	--	2,092	5,130	3,243	--	129	1,758
Vance	24,780	22,792	--	1,988	--	8,026	6,286	--	1,325	415
Wake	58,602	26,808	--	20,952	10,842	16,634	8,020	--	4,875	3,739
Warren	5,865	3,341	--	1,249	1,275	3,394	2,325	--	352	717
Washington	24,748	18,376	--	5,931	441	6,694	3,663	--	2,836	195
Watauga	10,063	--	5,755	--	4,308	2,086	--	1,044	--	1,042
Wayne	32,696	24,631	--	3,641	4,424	8,282	6,248	--	1,024	1,010
Wilkes	43,072	2,141	21,085	11,536	8,310	11,535	1,330	4,089	3,291	2,825
Wilson	35,312	26,052	--	5,049	4,211	7,278	4,801	--	1,198	1,279
Yadkin	5,095	2,830	--	--	2,265	2,210	1,172	--	197	841
Yancey	25,657	--	1,766	4,774	19,117	6,288	--	472	1,548	4,268
Total	2,796,328	1,605,457	134,082	544,133	512,656	745,775	403,902	26,825	161,642	153,406

State Tables

Table 10.--Area of commercial forest land, by forest type and ownership class, North Carolina, 1984

Forest type	All ownerships	Ownership class				
		National Forest	Other public	Forest industry	Forest industry- leased	Other private
----- Acres -----						
Softwood types:						
White pine-hemlock	204,710	24,539	248	11,845	132	167,946
Spruce-fir	18,457	7,899	--	--	--	10,558
Longleaf pine	389,013	16,437	124,942	43,263	1,558	202,813
Slash pine	195,365	--	8,933	125,789	23,178	37,465
Loblolly pine	3,409,207	43,302	127,114	1,044,115	103,562	2,091,114
Shortleaf pine	502,901	6,899	10,378	21,695	--	463,929
Virginia pine	780,017	6,800	12,199	18,712	4,338	737,968
Sand pine	--	--	--	--	--	--
Eastern redcedar	30,430	--	--	--	3,879	26,551
Pond pine	742,850	37,659	123,654	142,627	343	438,567
Spruce pine	--	--	--	--	--	--
Pitch pine	61,155	28,684	9,499	1,091	--	21,881
Table Mountain pine	10,771	7,587	--	--	--	3,184
Total	6,344,876	179,806	416,967	1,409,137	136,990	4,201,976
Hardwood types:						
Oak-pine	2,276,670	137,167	84,216	200,572	4,747	1,849,968
Oak-hickory	6,600,835	636,314	147,129	219,926	10,906	5,586,560
Chestnut oak	259,241	91,493	10,571	22,668	--	134,509
Southern scrub oak	107,141	--	4,973	2,501	--	99,667
Oak-gum-cypress	2,302,762	14,707	124,087	431,748	11,151	1,721,069
Elm-ash-cottonwood	401,107	--	13,617	47,556	--	339,934
Maple-beech-birch	157,637	57,341	3,182	3,216	--	93,898
Total	12,105,393	937,022	387,775	928,187	26,804	9,825,605
All types	18,450,269	1,116,828	804,742	2,337,324	163,794	14,027,581

Table 11.--Area of commercial forest land, by ownership and stocking classes of growing-stock trees, North Carolina, 1984

Ownership class	All classes	Stocking percentage ^a				
		> 130	100-130	60-99	16.7-59	< 16.7
----- Acres -----						
National Forest	1,116,828	23,369	331,223	593,746	158,393	10,097
Other public	804,742	42,567	217,438	321,313	205,514	17,910
Forest industry	2,337,324	209,958	1,105,062	731,774	218,209	72,321
Forest industry-leased	163,794	29,880	77,840	36,650	12,837	6,587
Other private	14,027,581	1,001,766	4,957,045	6,248,345	1,599,145	221,280
All ownerships	18,450,269	1,307,540	6,688,608	7,931,828	2,194,098	328,195

^aSee stocking standards on page 14.

Table 12.--Area of commercial forest land, by stand-age and broad management classes, all ownerships, North Carolina, 1984

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
----- Acres -----						
00-10	2,187,357	618,720	303,725	344,936	724,388	195,588
11-20	1,950,942	648,924	596,132	208,084	342,171	155,631
21-30	1,757,578	308,115	782,169	156,180	365,263	145,851
31-40	2,050,965	20,012	923,180	259,424	671,824	176,525
41-50	2,382,080	3,982	745,297	317,303	952,415	363,083
51-60	2,168,887	--	466,747	275,620	1,066,526	359,994
61-70	1,571,811	--	275,072	222,704	802,263	271,772
71-80	925,339	--	78,848	108,533	563,713	174,245
81+	1,133,750	--	94,387	69,963	596,433	372,967
No manageable stand	2,321,560	14,049	465,517	313,923	1,039,858	488,213
All classes	18,450,269	1,613,802	4,731,074	2,276,670	7,124,854	2,703,869

Table 13.--Area of commercial forest land, by stand-age and broad management classes, public ownerships, North Carolina, 1984

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
----- Acres -----						
00-10	99,966	33,477	23,354	9,166	32,308	1,661
11-20	135,358	48,978	43,920	12,397	17,151	12,912
21-30	77,005	13,173	26,980	6,298	24,532	6,022
31-40	120,605	5,684	45,141	9,651	57,841	2,288
41-50	216,229	3,982	87,275	26,065	75,157	23,750
51-60	244,743	--	47,120	25,891	135,369	36,363
61-70	289,222	--	60,422	41,746	148,607	38,447
71-80	138,905	--	5,225	11,097	118,559	4,024
81+	241,386	--	31,541	19,929	185,721	4,195
No manageable stand	358,151	2,885	117,616	59,143	155,758	22,749
All classes	1,921,570	108,179	488,594	221,383	951,003	152,411

Table 14.--Area of commercial forest land, by stand-age and broad management classes, forest industry,^a North Carolina, 1984

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
----- Acres -----						
00-10	470,965	349,793	21,257	33,429	31,328	35,158
11-20	664,177	488,194	86,705	36,318	29,739	23,221
21-30	308,825	188,486	81,718	13,618	7,632	17,371
31-40	181,766	3,187	105,489	35,312	7,923	29,855
41-50	176,756	--	50,391	24,336	40,155	61,874
51-60	133,524	--	41,411	15,903	27,444	48,766
61-70	111,099	--	17,836	20,617	35,343	37,303
71-80	101,286	--	20,948	2,702	19,857	57,779
81+	102,271	--	6,326	4,388	1,048	90,509
No manageable stand	250,449	7,299	77,087	18,696	58,748	88,619
All classes	2,501,118	1,036,959	509,168	205,319	259,217	490,455

^aIncludes 163,794 acres of other private land under long-term lease.

Table 15.--Area of commercial forest land, by stand-age and broad management classes, other private ownerships,^a North Carolina, 1984

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
----- Acres -----						
00-10	1,616,426	235,450	259,114	302,341	660,752	158,769
11-20	1,151,407	111,752	465,507	159,369	295,281	119,498
21-30	1,371,748	106,456	673,471	136,264	333,099	122,458
31-40	1,748,594	11,141	772,550	214,461	606,060	144,382
41-50	1,989,095	--	607,631	266,902	837,103	277,459
51-60	1,790,620	--	378,216	233,826	903,713	274,865
61-70	1,171,490	--	196,814	160,341	618,313	196,022
71-80	685,148	--	52,675	94,734	425,297	112,442
81+	790,093	--	56,520	45,646	409,664	278,263
No manageable stand	1,712,960	3,865	270,814	236,084	825,352	376,845
All classes	14,027,581	468,664	3,733,312	1,849,968	5,914,634	2,061,003

^aExcludes 163,794 acres of other private land under long-term lease to forest industry.

Table 16.--Area of commercial forest land, by broad management and stand-volume classes, North Carolina, 1984

Broad management class	All classes	Stand-volume class (cubic feet of growing stock per acre)				
		0-499	500-999	1000-1499	1500-1999	2000+
----- Acres -----						
Pine plantation	1,613,802	820,998	262,474	193,325	146,587	190,418
Natural pine	4,731,074	995,083	697,585	594,632	693,695	1,750,079
Oak-pine	2,276,670	574,701	377,125	410,465	333,850	580,529
Upland hardwood	7,124,854	1,285,896	1,010,429	1,315,982	1,168,237	2,344,310
Lowland hardwood	2,703,869	536,539	325,300	303,132	337,650	1,201,248
All classes	18,450,269	4,213,217	2,672,913	2,817,536	2,680,019	6,066,584

Table 17.--Volume of growing stock on commercial forest land, by broad management class, species group, and stand-age class, North Carolina, 1984

Broad management class and species group	All classes	No manageable stand	Stand-age class (years)								81+
			0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	
----- Thousand cubic feet -----											
Pine plantation:											
Softwood	1,188,284	4,152	21,372	561,111	555,307	32,948	13,394	--	--	--	--
Hardwood	59,775	--	6,259	23,014	24,330	1,691	4,481	--	--	--	--
Total	1,248,059	4,152	27,631	584,125	579,637	34,639	17,875	--	--	--	--
Natural pine:											
Softwood	6,939,259	130,760	53,201	391,270	1,070,316	1,763,111	1,483,333	1,015,793	629,726	193,401	208,348
Hardwood	1,013,232	6,528	13,335	42,915	134,531	205,130	209,970	173,560	131,053	38,398	57,812
Total	7,952,491	137,288	66,536	434,185	1,204,847	1,968,241	1,693,303	1,189,353	760,779	231,799	266,160
Oak-pine:											
Softwood	1,598,104	99,844	46,785	76,610	101,730	226,588	300,098	298,556	224,109	136,643	87,141
Hardwood	1,585,101	45,244	47,003	52,929	72,752	224,542	325,822	320,021	253,916	144,612	98,260
Total	3,183,205	145,088	93,788	129,539	174,482	451,130	625,920	618,577	478,025	281,255	185,401
Upland hardwood:											
Softwood	830,344	72,031	27,455	35,022	38,728	83,209	140,909	163,183	125,202	83,731	60,874
Hardwood	10,458,273	482,548	209,826	201,352	377,907	1,023,975	1,653,371	2,119,382	1,807,497	1,253,184	1,329,231
Total	11,288,617	554,579	237,281	236,374	416,635	1,107,184	1,794,280	2,282,565	1,932,699	1,336,915	1,390,105
Lowland hardwood:											
Softwood	684,491	44,773	6,529	16,624	30,248	23,343	72,211	88,631	83,426	91,841	226,865
Hardwood	4,594,330	208,102	39,471	73,009	143,051	312,730	805,924	853,486	680,599	416,275	1,061,683
Total	5,278,821	252,875	46,000	89,633	173,299	336,073	878,135	942,117	764,025	508,116	1,288,548
All classes:											
Softwood	11,240,482	351,560	155,342	1,080,637	1,796,329	2,129,199	2,009,945	1,566,163	1,062,463	505,616	583,228
Hardwood	17,710,711	742,422	315,894	393,219	752,571	1,768,068	2,999,568	3,466,449	2,873,065	1,852,469	2,546,986
Total	28,951,193	1,093,982	471,236	1,473,856	2,548,900	3,897,267	5,009,513	5,032,612	3,935,528	2,358,085	3,130,214

Table 18.--Net annual growth of growing stock on commercial forest land, by broad management class, species group, and stand-age class, North Carolina, 1983

Broad management class ^a and species group	All classes	No manageable stand	Stand-age class ^a (years)										Thousand cubic feet
			0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81+		
Pine plantation:													
Softwood	112,469	422	8,145	62,976	39,013	1,416	497	--	--	--	--	--	--
Hardwood	3,874	--	194	1,861	148	60	--	--	--	--	--	--	--
Total	116,343	422	8,339	64,837	40,624	1,476	645	--	--	--	--	--	--
Natural pine:													
Softwood	287,142	4,748	3,732	34,749	57,674	77,417	52,095	31,846	15,814	5,033	4,034		
Hardwood	54,275	362	669	3,676	8,498	12,198	10,839	8,877	5,576	1,691	1,889		
Total	341,417	5,110	4,401	38,425	66,172	89,615	62,934	40,723	21,390	6,724	5,923		
Oak-pine:													
Softwood	55,958	3,601	2,422	6,273	4,085	8,955	10,399	8,587	6,406	3,163	2,067		
Hardwood	65,941	2,013	1,945	3,326	4,646	11,091	13,181	12,591	9,386	4,750	3,012		
Total	121,899	5,614	4,367	9,599	8,731	20,046	23,580	21,178	15,792	7,913	5,079		
Upland hardwood:													
Softwood	25,218	2,316	1,314	1,850	1,531	2,649	4,197	5,031	2,693	2,243	1,394		
Hardwood	354,571	17,509	10,337	12,362	19,864	43,322	60,733	69,056	52,787	35,439	33,162		
Total	379,789	19,825	11,651	14,212	21,395	45,971	64,930	74,087	55,480	37,682	34,556		
Lowland hardwood:													
Softwood	20,106	1,799	280	868	1,175	873	2,195	2,389	2,331	2,330	5,866		
Hardwood	148,056	8,325	1,648	4,292	8,184	13,058	29,583	26,042	19,818	11,515	25,591		
Total	168,162	10,124	1,928	5,160	9,359	13,931	31,778	28,431	22,149	13,845	31,457		
All classes:													
Softwood	500,893	12,886	15,893	106,716	103,478	91,310	69,383	47,853	27,244	12,769	13,361		
Hardwood	626,717	28,209	14,793	25,517	42,803	79,729	114,484	116,566	87,567	53,395	63,654		
Total	1,127,610	41,095	30,686	132,233	146,281	171,039	183,867	164,419	114,811	66,164	77,015		

^aClassifications at the end of the remeasurement period.

Table 19.--Annual removals of growing stock on commercial forest land, by broad management class, species group, and stand-age class, North Carolina, 1983

Broad management class ^a and species group	All classes	No manageable stand	Stand-age class ^a (years)								Thousand cubic feet									
			0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80		81+								
Pine plantation:																				
Softwood	15,408	--	2,205	13,203	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hardwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	15,408	--	2,205	13,203	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Natural pine:																				
Softwood	307,923	5,264	2,043	12,609	48,270	75,691	68,092	41,397	24,611	21,887	8,059									
Hardwood	32,247	459	701	1,055	3,971	6,685	8,443	6,649	2,639	1,131	514									
Total	340,170	5,723	2,744	13,664	52,241	82,376	76,535	48,046	27,250	23,018	8,573									
Oak-pine:																				
Softwood	56,871	3,866	2,400	2,332	4,332	11,015	13,056	7,698	4,091	3,641	4,440									
Hardwood	40,774	1,012	1,061	1,327	2,530	7,928	7,810	8,042	3,461	3,091	4,512									
Total	97,645	4,878	3,461	3,659	6,862	18,943	20,866	15,740	7,552	6,732	8,952									
Upland hardwood:																				
Softwood	34,517	1,922	1,327	1,951	1,933	3,849	5,298	10,386	4,576	934	2,341									
Hardwood	165,265	10,040	2,847	5,433	9,166	20,376	41,503	24,287	21,684	11,515	18,414									
Total	199,782	11,962	4,174	7,384	11,099	24,225	46,801	34,673	26,260	12,449	20,755									
Lowland hardwood:																				
Softwood	16,008	2,049	203	--	230	2,007	2,241	3,850	3,030	1,333	1,065									
Hardwood	76,762	7,894	155	--	5,420	10,119	12,608	12,859	8,954	8,961	9,792									
Total	92,770	9,943	358	--	5,650	12,126	14,849	16,709	11,984	10,294	10,857									
All classes:																				
Softwood	430,727	13,101	8,178	30,095	54,765	125,561	88,687	63,331	36,308	27,795	15,905									
Hardwood	315,048	19,405	4,764	7,815	21,087	45,158	70,364	51,837	36,738	24,698	33,232									
Total	745,775	32,506	12,942	37,910	75,852	137,670	159,051	115,168	73,046	52,493	49,137									

^aClassifications before timber removals occurred.

Table 20.--Merchantable volume of all live trees and growing stock on commercial forest land, by forest-type group and species group, North Carolina, 1984

Forest-type group	All live trees					Growing stock				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand cubic feet									
White pine-hemlock	499,342	44,378	348,872	29,998	76,094	476,863	43,575	345,024	26,869	61,395
Spruce-fir	26,726	--	17,543	--	9,183	23,143	--	16,972	--	6,171
Longleaf-slash pine	502,241	488,977	--	5,483	7,781	495,339	487,479	--	4,674	3,186
Loblolly-shortleaf pine	8,352,118	7,187,667	79,384	652,728	432,339	8,205,205	7,159,124	75,369	612,425	358,287
Oak-pine	3,375,666	1,371,467	241,655	824,089	938,455	3,183,205	1,362,517	235,587	768,946	816,155
Oak-hickory	11,831,738	624,679	191,965	3,971,216	7,043,878	10,941,612	620,393	186,372	3,747,495	6,387,352
Oak-gum-cypress	5,141,743	203,404	477,834	3,663,951	796,554	4,622,070	201,887	458,352	3,289,607	672,224
Elm-ash-cottonwood	737,973	13,532	11,243	424,006	289,192	656,751	13,332	10,920	385,635	246,864
Maple-beech-birch	387,275	--	24,097	110,848	252,330	347,005	--	23,579	101,917	221,509
All types	30,854,822	9,934,104	1,392,593	9,682,319	9,845,806	28,951,193	9,888,307	1,352,175	8,937,568	8,773,143

Table 21.--Area of commercial forest land treated or disturbed annually and retained in commercial forest land, by treatment or disturbance and ownership class, North Carolina, 1974 to 1984

Treatment or disturbance	All ownerships			Ownership class		
	All ownerships	Public	Forest industry	Forest industry-leased	Other private	
	Acres ^a					
Final harvest	259,776	10,936	49,966	2,411	196,463	
Selective cutting and high grading	60,366	2,839	1,909	1	55,617	
Commercial thinning	29,859	5,772	4,667	1,464	17,956	
Other stand improvement	15,582	912	4,574	120	9,976	
Site preparation	93,664	4,650	44,618	2,266	42,130	
Artificial regeneration ^b	73,538	3,727	39,930	1,924	27,957	
Natural regeneration ^b	150,146	6,757	7,588	206	135,595	
Other treatment	58,917	3,274	4,772	--	50,871	
Natural disturbance	196,649	15,844	25,092	2,128	153,585	

^aSince some acres experience more than one treatment or disturbance, there are no column totals.

^bIncludes establishment of trees for timber production on forest and nonforest land.

Table 22.--Area of commercial forest land treated or disturbed annually and retained in commercial forest land, by treatment or disturbance and broad management class, North Carolina, 1974 to 1984

Treatment or disturbance	All classes	Broad management class ^a				
		Pine plantation	Natural pine	Oak- pine	Upland hardwood	Lowland hardwood
----- Acres ^b -----						
Final harvest	259,776	2,657	122,263	34,738	75,397	24,721
Selective cutting and high grading	60,366	680	12,573	10,149	25,300	11,664
Commercial thinning	29,859	10,570	12,938	1,736	3,306	1,309
Other stand improvement	15,582	1,706	5,574	2,738	3,463	2,101
Site preparation	93,664	3,640	48,714	12,587	21,018	7,705
Other treatment	58,917	1,313	16,396	8,610	29,102	3,496
Natural disturbance	196,649	15,187	86,729	24,359	45,423	24,951

^aClassification before treatment or disturbance.

^bSince some acres experience more than one treatment or disturbance, there are no column totals.

Table 23.--Area of commercial forest land regenerated annually, by type of regeneration and broad management class, North Carolina, 1974 to 1984

Type of regeneration	All classes	Broad management class ^a				
		Pine plantation	Natural pine	Oak- pine	Upland hardwood	Lowland hardwood
----- Acres -----						
Artificial regeneration following harvest	53,386	47,341	--	4,079	1,648	318
Natural regeneration following harvest	100,481	301	12,700	19,097	56,266	12,117
Other artificial regen- eration on forest land	18,467	16,539	--	1,769	159	--
Other natural regen- eration on forest land	29,957	316	7,138	6,805	12,091	3,607
Artificial regeneration on nonforest land	1,685	1,526	--	--	--	159
Natural reversion of nonforest land	19,708	409	10,227	2,116	4,160	2,796
Total	223,684	66,432	30,065	33,866	74,324	18,997

^aClassification after regeneration.

Table 24.--Area of commercial forest land, by treatment opportunity and broad management classes, North Carolina, 1984

Treatment opportunity class	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
----- Acres -----						
Salvage	59,399	900	30,697	13,260	8,128	6,414
Harvest	1,907,561	--	490,821	267,252	688,932	460,556
Commercial thinning	868,775	290,753	508,332	12,555	26,941	30,194
Other stand improvement	1,364,701	48,997	347,604	236,498	514,086	217,516
Stand conversion	217,526	7,376	19,712	14,442	118,970	57,026
Regeneration	2,022,545	14,049	454,000	309,307	797,494	447,695
Stands in relatively good condition	9,162,776	1,233,207	2,659,422	1,222,788	2,983,983	1,063,376
Adverse sites ^a	2,846,986	18,520	220,486	200,568	1,986,320	421,092
All classes	18,450,269	1,613,802	4,731,074	2,276,670	7,124,854	2,703,869

^a Areas where management opportunities are severely limited because of steep slopes or poor drainage.

Table 25.--Area of commercial forest land, by treatment opportunity and ownership classes, North Carolina, 1984

Treatment opportunity class	All ownerships	Ownership class			
		Public	Forest industry	Forest industry-leased	Other private
----- Acres -----					
Salvage	59,399	6,620	2,752	--	50,027
Harvest	1,907,561	176,382	187,011	3,540	1,540,628
Commercial thinning	868,775	24,643	239,988	37,699	566,445
Other stand improvement	1,364,701	46,263	155,194	132	1,163,112
Stand conversion	217,526	7,097	24,042	--	186,387
Regeneration	2,022,545	236,053	227,198	9,438	1,549,856
Stands in relatively good condition	9,162,776	662,633	1,292,066	112,976	7,095,101
Adverse sites ^a	2,846,986	761,879	209,073	9	1,876,025
All classes	18,450,269	1,921,570	2,337,324	163,794	14,027,581

^a Areas where management opportunities are severely limited because of steep slopes or poor drainage.

Table 26.--Merchantable volume of all live trees and growing stock on commercial forest land, by ownership class and species group, North Carolina, 1984

Ownership class	All live trees					Growing stock				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand cubic feet									
National Forest	2,422,966	316,167	171,491	524,622	1,410,686	2,205,370	313,352	164,934	487,546	1,239,538
Other public	1,113,120	511,925	23,947	295,543	281,705	1,044,678	509,551	20,766	275,701	238,660
Forest industry	3,053,523	1,326,341	190,952	1,027,191	509,039	2,885,283	1,321,513	184,562	928,967	450,241
Forest industry-leased	189,243	155,230	1,034	25,333	7,646	181,498	153,001	1,034	18,638	6,825
Other private	24,075,970	7,624,441	1,005,169	7,809,630	7,636,730	22,634,364	7,588,890	980,879	7,226,716	6,837,879
All ownerships	30,854,822	9,934,104	1,392,593	9,682,319	9,845,806	28,951,193	9,888,307	1,352,175	8,937,568	8,773,143

Table 27.--Volume of sawtimber on commercial forest land, by ownership class and species group, North Carolina, 1984

Ownership class	Small sawtimber ^a					Large sawtimber ^b				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand board feet									
National Forest	2,560,456	723,975	178,338	546,743	1,111,400	5,058,141	498,331	621,586	900,670	3,037,554
Other public	1,721,884	1,157,423	28,724	291,464	244,273	1,626,206	660,796	23,274	462,923	479,213
Forest industry	3,768,824	2,189,181	278,305	953,215	348,123	4,367,647	1,064,974	460,878	1,709,722	1,132,073
Forest industry-leased	213,448	188,704	1,927	17,101	5,716	36,442	7,130	--	16,539	12,773
Other private	34,099,432	16,936,057	1,289,691	8,251,272	7,622,412	38,426,882	9,796,954	2,842,993	13,264,043	12,522,892
All ownerships	42,364,044	21,195,340	1,776,985	10,059,795	9,331,924	49,515,318	12,028,185	3,948,731	16,353,897	17,184,505

^aVolume of sawtimber trees less than 15.0 inches at d.b.h.

^bVolume of sawtimber trees 15.0 inches and larger at d.b.h.

Table 28.--Net annual growth and removals of growing stock on commercial forest land, by ownership class and species group, North Carolina, 1983

Ownership class	Net annual growth					Annual timber removals				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	----- Thousand cubic feet -----									
National Forest	61,640	9,258	4,179	18,662	29,541	9,668	5,401	272	989	3,006
Other public	38,687	20,613	943	10,351	6,780	20,390	8,423	858	6,387	4,722
Forest industry	154,416	99,266	5,875	34,188	15,087	89,449	61,941	1,518	14,967	11,023
Forest industry-leased	16,199	15,034	43	865	257	9,228	6,071	77	1,935	1,145
Other private	856,668	314,442	31,240	289,749	221,237	617,040	322,066	24,100	137,364	133,510
All ownerships	1,127,610	458,613	42,280	353,815	272,902	745,775	403,902	26,825	161,642	153,406

Table 29.--Net annual growth and removals of sawtimber on commercial forest land, by ownership class and species group, North Carolina, 1983

Ownership class	Net annual growth					Annual timber removals				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	----- Thousand board feet -----									
National Forest	275,604	45,258	27,560	77,908	124,878	32,014	16,332	1,416	5,108	9,158
Other public	162,377	92,558	3,641	36,119	30,059	76,662	39,584	4,007	15,482	17,589
Forest industry	472,502	266,640	31,309	118,032	56,521	297,743	219,677	7,982	37,384	32,700
Forest industry-leased	46,718	44,579	104	1,516	519	27,997	17,273	--	5,198	5,526
Other private	3,682,930	1,439,688	165,017	1,183,842	894,383	2,361,912	1,312,591	120,677	480,961	447,683
All ownerships	4,640,131	1,888,723	227,631	1,417,417	1,106,360	2,796,328	1,605,457	134,082	544,133	512,656

Table 30.--Volume of timber on commercial forest land, by class and species group, North Carolina, 1984

Class of timber	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
----- Thousand cubic feet -----					
Sawtimber trees:					
Saw-log portion	15,803,441	5,954,502	1,004,192	4,500,078	4,344,669
Upper-stem portion ^a	4,170,627	966,657	121,612	1,352,351	1,730,007
Total	19,974,068	6,921,159	1,125,804	5,852,429	6,074,676
Poletimber trees	8,977,125	2,967,148	226,371	3,085,139	2,698,467
All growing-stock trees	28,951,193	9,888,307	1,352,175	8,937,568	8,773,143
Rough trees:					
Sawtimber size	501,977	18,401	10,998	209,471	263,107
Poletimber size	1,015,413	25,596	5,159	317,889	666,769
Total	1,517,390	43,997	16,157	527,360	929,876
Rotten trees:					
Sawtimber size	350,481	1,800	23,959	195,731	128,991
Poletimber size	35,758	--	302	21,660	13,796
Total	386,239	1,800	24,261	217,391	142,787
Salvable dead trees:					
Sawtimber size	22,289	12,281	1,193	3,243	5,572
Poletimber size	22,203	15,488	876	2,448	3,391
Total	44,492	27,769	2,069	5,691	8,963
Total, all timber	30,899,314	9,961,873	1,394,662	9,688,010	9,854,769

^aIncludes cull sections in the saw-log portion.

Table 31.--Number of all live trees on commercial forest land, by species and diameter class, North Carolina, 1984

Species	All classes	Diameter class (inches at breast height)														17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger
		1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger						
----- Thousand trees -----																			
Softwood:																			
Longleaf pine	84,952	27,605	16,360	12,345	9,434	8,186	5,468	3,326	1,417	592	158	61	--	--	--	--	--	--	--
Slash pine	73,740	12,341	25,527	24,116	9,368	1,878	437	73	--	--	--	--	--	--	--	--	--	--	--
Shortleaf pine	271,272	65,734	61,534	48,257	43,968	28,673	14,583	5,947	1,958	420	153	45	--	--	--	--	--	--	--
Loblolly pine	1,391,126	483,512	337,671	243,656	146,540	75,247	44,673	28,404	16,245	8,677	3,877	2,570	54	--	--	--	--	--	--
Pond pine	282,576	109,282	67,772	40,643	29,618	18,656	9,909	4,251	1,486	609	253	97	--	--	--	--	--	--	--
Virginia pine	450,505	159,636	119,173	72,895	54,259	28,905	10,730	4,026	683	169	29	--	--	--	--	--	--	--	--
Pitch pine	34,058	6,494	8,949	6,193	4,437	3,734	2,118	1,204	537	233	83	76	--	--	--	--	--	--	--
Table Mountain pine	5,829	1,678	2,254	367	528	318	332	74	--	--	18	--	--	--	--	--	--	--	--
Spruce pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sand pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern white pine	140,971	76,803	24,930	13,030	8,925	5,330	3,514	2,679	2,134	1,582	898	1,026	120	--	--	--	--	--	--
Eastern hemlock	73,521	44,658	12,640	8,191	2,832	1,194	1,253	791	775	468	244	4,24	51	--	--	--	--	--	--
Spruce and fir	9,083	4,630	1,630	1,143	773	294	355	172	55	24	--	--	7	--	--	--	--	--	--
Baldcypress	22,753	6,413	3,214	2,079	1,677	2,263	1,743	1,716	1,054	746	663	955	230	--	--	--	--	--	--
Pondcypress	12,221	6,357	633	781	1,730	790	570	537	272	242	119	149	41	--	--	--	--	--	--
Cedars	204,283	136,223	42,923	14,390	6,189	2,585	1,220	302	199	157	59	16	20	--	--	--	--	--	--
Total softwoods	3,056,890	1,141,366	725,210	488,086	320,278	178,053	96,905	53,688	26,889	13,919	6,554	5,419	523						
Hardwood:																			
Select white oaks	420,559	196,493	84,490	50,146	29,797	19,532	16,079	9,741	6,123	3,694	1,861	2,265	338	--	--	--	--	--	--
Select red oaks	123,660	48,759	27,043	12,506	8,047	7,666	5,860	4,496	3,142	2,279	1,394	2,111	357	--	--	--	--	--	--
Chestnut oak	173,283	55,311	34,027	23,797	20,839	12,789	9,045	6,355	4,377	2,899	1,547	2,007	290	--	--	--	--	--	--
Other white oaks	126,075	65,154	25,004	13,082	9,068	5,607	3,835	2,102	1,088	582	149	351	53	--	--	--	--	--	--
Other red oaks	810,517	462,388	137,548	76,262	47,691	31,864	22,445	13,221	8,518	5,191	2,360	2,666	363	--	--	--	--	--	--
Hickory	353,915	214,949	57,664	31,284	17,769	12,681	7,752	5,503	2,704	1,812	832	932	33	--	--	--	--	--	--
Yellow birch	15,549	6,208	3,517	2,541	1,326	630	274	369	370	86	47	157	24	--	--	--	--	--	--
Hard maple	63,177	41,726	10,978	4,210	2,274	1,398	791	611	569	262	202	117	39	--	--	--	--	--	--
Soft maple	2,170,082	1,576,518	338,714	118,082	61,393	31,139	20,118	10,637	6,501	3,290	1,676	1,888	126	--	--	--	--	--	--
Beech	100,560	63,427	15,691	6,641	4,657	3,183	1,904	1,872	1,431	724	447	530	53	--	--	--	--	--	--
Sweetgum	1,409,227	965,189	243,783	95,256	43,239	25,820	15,554	9,314	5,418	2,863	1,510	1,210	71	--	--	--	--	--	--
Tupelo and blackgum	937,987	627,894	140,081	62,653	35,714	24,880	18,266	11,022	6,944	4,285	2,678	2,892	679	--	--	--	--	--	--
Ash	307,210	205,877	52,012	22,301	11,234	6,187	3,898	2,161	1,581	1,044	403	485	27	--	--	--	--	--	--
Cottonwood	9,601	4,344	2,815	1,024	573	350	132	172	90	48	19	34	--	--	--	--	--	--	--
Basswood	22,383	12,924	2,938	966	1,649	1,369	1,009	518	583	186	137	96	8	--	--	--	--	--	--
Yellow-poplar	517,375	267,244	80,919	46,844	36,544	24,579	21,507	16,035	10,698	5,662	3,758	3,344	241	--	--	--	--	--	--
Bay and magnolia	446,710	364,724	53,580	16,067	8,039	1,963	1,279	587	232	136	29	74	--	--	--	--	--	--	--
Black cherry	144,664	108,557	22,273	7,012	3,678	2,227	368	243	187	130	18	56	--	--	--	--	--	--	--
Black walnut	8,565	1,843	1,714	1,736	1,288	739	725	232	187	49	--	47	5	--	--	--	--	--	--
Sycamore	13,066	5,148	3,036	1,337	916	611	578	569	351	167	98	208	47	--	--	--	--	--	--
Black locust	50,488	18,460	8,150	5,735	6,137	5,094	3,251	1,672	1,044	512	189	239	5	--	--	--	--	--	--
Elm	134,886	90,480	22,901	8,802	4,974	3,154	2,205	1,138	513	297	218	191	13	--	--	--	--	--	--
Other eastern hardwoods	3,179,011	2,347,116	579,517	162,788	52,486	19,402	8,932	4,551	2,049	946	502	694	28	--	--	--	--	--	--
Total hardwoods	11,538,550	7,750,733	1,948,395	771,072	409,332	242,864	165,807	103,120	64,615	37,144	20,074	22,594	2,800						
All species	14,595,440	8,892,099	2,673,605	1,259,158	729,610	420,917	262,712	156,808	91,504	51,063	26,628	28,013	3,323						

Table 32.--Number of growing-stock trees on commercial forest land, by species and diameter class, North Carolina, 1984

Species	Diameter class (inches at breast height)														19.0-20.9	21.0-28.9	29.0 and larger
	All classes	1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger				
----- Thousand trees -----																	
Softwood:																	
Longleaf pine	82,348	25,595	16,071	12,345	9,191	8,186	5,441	3,299	1,417	592	158	53					
Slash pine	73,005	12,000	25,133	24,116	9,368	1,878	437	73									
Shortleaf pine	260,240	57,793	59,598	47,534	43,632	28,610	14,550	5,947	1,958	420	153	45					
Loblolly pine	1,341,421	446,369	328,300	241,690	146,035	74,904	44,423	28,321	16,224	8,677	3,864	2,560	54				
Pond pine	227,567	67,528	57,864	38,395	28,760	18,613	9,818	4,231	1,396	609	253	97					
Virginia pine	429,779	148,230	111,898	71,416	53,748	28,866	10,730	4,010	683	169	29						
Pitch pine	29,703	4,773	6,957	5,659	4,437	3,672	2,072	1,204	537	233	83	76					
Table Mountain pine	5,811	1,678	2,254	367	528	318	332	260	74								
Spruce pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sand pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern white pine	132,806	70,299	23,781	12,708	8,925	5,253	3,464	2,641	2,134	1,582	879	1,026	114				
Eastern hemlock	67,647	40,008	12,059	7,773	2,832	1,118	1,201	791	750	444	244	381	46				
Spruce and fir	8,931	4,630	1,630	1,143	645	294	355	172	55				7				
Baldcypress	20,886	5,101	3,214	1,966	1,608	2,203	1,719	1,648	1,011	712	639	905	160				
Pondcypress	11,741	5,982	633	781	1,730	790	570	537	218	242	108	136	14				
Cedars	175,368	112,676	39,276	13,501	5,811	2,349	1,151	233	167	129	59	16					
Total softwoods	2,867,253	1,002,662	688,671	479,394	317,250	177,054	96,263	53,367	26,624	13,809	6,469	5,295	395				
Hardwood:																	
Select white oaks	346,469	140,509	73,830	46,245	28,279	18,895	15,577	9,465	6,019	3,567	1,752	2,060	271				
Select red oaks	104,283	35,699	23,360	11,397	7,610	7,134	5,716	4,422	3,040	2,243	1,377	2,003	282				
Chestnut oak	129,620	27,879	26,354	20,460	19,244	11,708	8,307	5,797	4,097	2,605	1,370	1,585	214				
Other white oaks	89,396	37,085	19,854	11,228	8,491	5,294	3,508	1,984	927	504	149	324	48				
Other red oaks	641,128	327,985	116,851	70,288	44,222	29,796	21,408	12,789	7,938	4,940	2,211	2,435	265				
Hickory	257,280	131,745	50,736	27,592	16,236	12,506	7,368	5,212	2,619	1,665	774	802	25				
Yellow birch	11,623	3,969	2,953	2,075	1,162	551	189	271	241	65	47	100	--				
Hard maple	43,896	25,368	8,951	3,982	1,779	1,348	739	611	548	262	202	81	25				
Soft maple	1,236,569	786,386	247,241	91,989	49,614	25,448	16,449	8,805	5,281	2,760	1,300	1,243	53				
Beech	70,220	38,935	12,262	5,832	4,147	2,850	1,612	1,740	1,319	643	430	418	32				
Sweetgum	1,059,227	667,459	204,972	87,146	40,420	24,589	15,204	9,040	5,120	2,751	1,365	1,099	62				
Tupelo and blackgum	504,274	259,142	101,430	50,989	30,139	21,786	16,670	10,061	5,963	3,697	2,108	1,968	321				
Ash	153,502	79,902	34,518	16,146	9,342	5,118	3,485	1,726	1,480	1,005	357	410	13				
Cottonwood	8,164	2,907	2,815	1,024	573	350	132	172	90	48	19	34	--				
Basswood	14,146	5,183	2,625	966	1,537	1,369	968	518	583	186	137	66	8				
Yellow-poplar	460,958	223,305	72,491	45,035	35,479	24,213	21,245	15,826	10,660	5,588	3,680	3,242	194				
Bay and magnolia	212,873	162,397	30,495	10,545	6,330	1,473	907	400	177	80	17	52	--				
Black cherry	73,909	50,229	13,586	4,789	2,704	1,779	368	155	102	130	18	49	--				
Black walnut	7,397	1,465	1,495	736	906	739	585	232	187	13	--	34	5				
Sycamore	10,815	3,464	3,036	1,106	731	611	578	527	296	153	86	182	45				
Black locust	31,662	8,268	5,542	3,649	4,778	3,786	2,748	1,268	869	422	189	137	5				
Elm	81,571	43,836	18,340	7,695	4,487	2,985	2,011	1,072	491	271	209	169	5				
Other eastern hardwoods	321,108	190,306	64,219	30,217	16,566	8,061	5,022	3,259	1,628	873	410	534	13				
Total hardwoods	5,870,090	3,253,423	1,137,956	552,131	334,776	212,389	150,797	95,352	59,675	34,471	18,207	19,027	1,886				
All species	8,737,343	4,256,085	1,826,627	1,031,525	652,026	389,443	247,060	148,719	86,299	48,280	24,676	24,322	2,281				

Table 33.--Merchantable volume of all live trees on commercial forest land, by species and diameter class, North Carolina, 1984

Species	All classes	Diameter class (inches at breast height)										17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger	
		5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger					
Softwood:																
Longleaf pine	444,861	29,594	58,998	94,448	95,939	82,364	47,358	24,748	7,385	4,027						
Slash pine	129,459	53,366	49,065	18,850	6,408	1,770										
Shortleaf pine	1,340,652	131,244	282,516	344,760	285,713	176,270	80,929	22,711	12,089	4,420						
Loblolly pine	5,667,615	590,015	870,615	867,751	865,839	831,443	658,094	463,892	261,848	248,393	9,725					
Pond pine	827,742	93,826	168,401	196,228	166,576	103,065	50,147	27,571	14,185	7,743						
Virginia pine	1,311,615	239,217	381,742	346,344	199,637	109,948	25,085	8,162	1,480							
Pitch pine	189,586	15,237	24,060	40,100	36,071	32,208	18,880	10,243	5,938	6,849						
Table Mountain pine	22,574	1,344	3,504	3,004	5,735	5,938	2,361		688							
Spruce pine	--	--	--	--	--	--	--	--	--	--						
Sand pine	--	--	--	--	--	--	--	--	--	--						
Eastern white pine	595,906	34,500	53,626	57,848	60,365	69,137	73,640	73,201	55,641	94,089	23,859					
Eastern hemlock	190,873	16,288	12,695	9,455	19,449	18,933	28,157	20,343	15,514	37,177	12,862					
Spruce and fir	18,941	2,671	3,084	2,140	4,939	3,200	1,441	292								
Baldcypress	348,457	6,990	12,457	28,796	32,466	43,198	38,104	32,962	38,224	82,323	32,937					
Pondcypress	92,290	2,300	11,886	8,660	10,364	14,681	8,197	10,980	6,087	11,546	7,589					
Cedars	146,126	37,927	37,408	25,962	19,714	6,534	5,809	6,355	3,117	892	2,408					
Total softwoods	11,326,697	1,254,519	1,970,057	2,044,346	1,809,215	1,498,689	1,038,202	701,460	422,196	497,459	90,554					
Hardwood:																
Select white oaks	1,820,932	128,526	179,307	216,915	292,442	255,642	223,112	174,443	107,668	186,183	56,694					
Select red oaks	935,654	36,753	50,119	84,484	107,251	118,361	109,453	105,177	79,424	184,649	59,983					
Chestnut oak	1,101,234	56,187	115,982	129,411	148,338	146,470	141,203	113,983	72,185	138,656	38,819					
Other white oaks	344,917	31,045	45,186	55,878	60,134	49,268	33,708	23,742	7,923	27,179	10,854					
Other red oaks	2,429,649	189,986	266,309	332,161	376,603	331,330	288,809	231,329	132,118	220,805	60,199					
Hickory	910,756	66,638	101,686	137,471	138,546	145,663	100,180	87,788	49,139	79,045	4,600					
Yellow birch	57,733	6,408	7,336	5,391	3,597	6,815	10,407	2,784	2,567	9,498	2,930					
Hard maple	133,264	12,140	13,100	15,525	13,982	16,774	20,648	12,089	11,503	8,903	8,600					
Soft maple	2,133,683	321,663	355,311	326,736	331,569	246,360	200,211	129,435	85,129	123,336	13,933					
Beech	316,633	18,639	27,205	34,611	31,842	48,490	48,477	32,481	23,401	44,153	7,334					
Sweetgum	1,898,679	209,715	256,851	301,896	297,994	262,665	209,865	148,053	92,668	106,320	12,652					
Tupelo and blackgum	1,991,978	158,669	205,004	260,315	308,865	269,221	224,267	169,380	128,890	187,895	79,472					
Ash	484,324	52,124	67,818	69,238	67,437	53,247	57,367	51,085	22,935	39,963	3,110					
Cottonwood	26,456	2,722	2,879	4,073	2,471	4,639	3,496	2,114	1,006	3,056						
Basswood	118,658	2,561	11,055	18,322	21,654	15,267	23,359	8,977	9,032	7,779	652					
Yellow-poplar	2,795,531	140,003	232,299	291,888	415,133	459,180	416,044	277,228	229,221	296,397	38,138					
Bay and magnolia	144,718	38,570	43,273	17,837	17,014	11,373	6,341	4,252	712	5,346						
Black cherry	90,038	16,318	19,669	23,017	7,687	6,284	3,918	6,646	1,328	5,171						
Black walnut	48,273	4,062	6,936	8,655	11,235	6,109	5,941	1,592		3,111	632					
Sycamore	89,272	5,412	6,301	7,051	9,389	15,777	10,858	7,532	4,766	14,912	7,274					
Black locust	252,231	12,679	29,660	47,852	51,452	34,986	29,962	19,389	9,335	15,910	1,006					
Elm	215,780	19,375	28,801	35,281	40,472	28,394	18,422	14,300	13,116	15,810	1,809					
Other eastern hardwoods	1,187,732	353,587	248,825	175,018	131,707	98,933	62,739	40,247	25,584	47,501	3,591					
Total hardwoods	19,528,125	1,883,782	2,320,912	2,599,026	2,886,814	2,631,248	2,248,787	1,664,046	1,109,650	1,771,578	412,282					
All species	30,854,822	3,138,301	4,290,969	4,643,372	4,696,029	4,129,937	3,286,989	2,365,506	1,531,846	2,269,037	502,836					

Table 34.--Volume of growing stock on commercial forest land, by species and diameter class, North Carolina, 1984

Species	All classes	Diameter class (inches at breast height)										19.0-20.9	21.0-28.9	29.0 and larger	
		5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger				
----- Thousand cubic feet -----															
Softwood:															
Longleaf pine	442,605	29,594	58,031	94,448	95,475	81,941	47,358	24,748	7,385						
Slash pine	129,459	53,366	49,065	18,850	6,408	1,770									
Shortleaf pine	1,336,686	130,021	280,663	344,352	285,231	176,270	80,929	22,711	12,089						
Loblolly pine	5,650,852	586,124	868,430	864,502	862,118	829,465	657,680	463,892	261,167						9,725
Pond pine	815,973	90,239	164,353	195,717	165,561	102,834	47,770	27,571	14,185						7,743
Virginia pine	1,304,112	235,236	378,962	345,953	199,637	109,597	25,085	8,162	1,480						
Pitch pine	186,734	14,156	24,060	39,448	34,952	32,208	18,880	10,243	5,938						6,849
Table Mountain pine	21,886	1,344	3,504	3,004	5,735	5,938	2,361								
Spruce pine	--	--	--	--	--	--	--	--	--						
Sand pine	--	--	--	--	--	--	--	--	--						
Eastern white pine	591,837	33,717	53,626	57,529	59,664	68,301	73,640	73,201	54,836						23,234
Eastern hemlock	184,395	15,770	12,695	9,203	19,069	18,933	27,438	19,835	15,514						11,306
Spruce and fir	18,370	2,671	2,805	2,140	4,939	3,200	1,441								1,174
Baldcypress	335,864	6,641	12,283	28,642	32,076	42,075	37,093	32,490	37,531						79,810
Pondcypress	86,411	2,300	11,886	8,660	10,364	14,681	7,311	10,980	5,687						10,703
Cedars	135,298	36,106	35,871	23,993	18,852	5,499	5,280	5,688	3,117						892
Total softwoods	11,240,482	1,237,285	1,956,234	2,036,441	1,800,081	1,492,712	1,032,266	699,521	418,929	490,512	490,512	490,512	490,512	490,512	76,501
Hardwood:															
Select white oaks	1,762,535	120,988	172,286	211,927	286,042	250,805	220,429	170,518	103,968						175,330
Select red oaks	905,280	33,975	48,120	79,949	105,647	117,017	106,846	104,111	78,969						52,704
Chestnut oak	1,018,429	50,275	109,172	121,105	139,178	136,619	134,369	106,521	68,055						32,469
Other white oaks	322,245	26,936	42,007	53,550	56,693	47,492	30,032	21,593	7,923						26,120
Other red oaks	2,323,225	177,784	252,942	316,804	365,309	324,472	277,208	224,251	126,380						49,128
Hickory	871,766	60,630	95,345	136,064	134,056	140,310	98,329	82,924	46,968						3,869
Yellow birch	44,729	5,828	6,622	5,145	2,749	4,794	7,041	2,326	2,567						7,657
Hard maple	123,351	11,493	10,279	15,100	13,221	16,774	20,041	12,089	11,503						5,741
Soft maple	1,808,738	260,127	302,892	279,764	284,839	216,187	174,415	115,215	71,843						95,504
Beech	286,579	16,269	24,939	30,993	27,109	46,278	45,400	30,176	22,979						36,930
Sweetgum	1,827,069	195,525	243,182	291,068	294,492	257,460	202,818	144,565	86,905						11,090
Tupelo and blackgum	1,766,583	134,467	180,825	235,153	289,679	254,891	201,500	155,873	113,602						51,317
Ash	431,581	39,910	58,088	59,862	63,473	45,998	55,558	49,941	21,004						2,347
Cottonwood	26,456	2,722	2,879	4,073	2,471	3,496	3,496	2,114	1,006						3,056
Basswood	116,096	2,561	10,151	18,322	21,148	15,267	23,359	8,977	9,032						6,627
Yellow-poplar	2,762,952	136,608	227,558	289,632	411,528	455,897	415,475	275,038	226,336						34,344
Bay and magnolia	111,154	26,346	35,046	14,219	14,166	8,753	5,511	2,614	695						3,804
Black cherry	74,577	11,654	14,837	19,128	7,687	4,636	3,918	6,646	1,328						4,743
Black walnut	42,972	4,062	5,088	6,655	9,714	6,109	5,941	492	--						2,279
Sycamore	83,872	4,731	5,321	7,051	9,389	15,162	9,778	7,134	4,498						13,698
Black locust	213,731	8,689	25,622	37,581	46,808	29,446	26,446	17,686	9,335						11,063
Elm	201,090	17,287	26,394	33,485	37,759	26,975	18,000	13,391	12,488						14,580
Other eastern hardwoods	585,701	81,320	97,602	87,592	83,764	78,316	53,821	38,387	22,807						40,155
Total hardwoods	17,710,711	1,430,187	1,997,197	2,356,222	2,706,921	2,504,297	2,139,780	1,592,582	1,050,191	1,604,658	1,604,658	1,604,658	1,604,658	1,604,658	328,676
All species	28,951,193	2,667,472	3,953,431	4,392,663	4,507,002	3,997,009	3,172,046	2,292,103	1,469,120	2,095,170	2,095,170	2,095,170	2,095,170	2,095,170	405,177

Table 35.--Volume of sawtimber on commercial forest land, by species and diameter class, North Carolina, 1984

Species	All classes	Diameter class (inches at breast height)										19.0-29.0 and larger
		9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger			
----- Thousand board feet -----												
Softwood:												
Longleaf pine	1,776,008	380,746	460,566	439,893	273,287	150,443	46,753					
Slash pine	106,803	69,181	28,522	9,100								
Shortleaf pine	4,166,903	1,277,947	1,292,366	906,151	451,189	135,047	75,607					
Loblolly pine	21,063,301	3,083,392	3,869,507	4,260,684	3,694,726	2,782,692	1,645,038	1,656,222				71,040
Pond pine	2,579,763	738,622	755,514	523,975	264,154	161,382	86,492					
Virginia pine	2,769,319	1,245,510	839,468	509,258	124,290	42,756	8,037					
Pitch pine	678,686	130,965	146,598	157,647	102,719	59,701	36,722					
Table Mountain pine	82,742	11,936	27,391	30,401	13,014							
Spruce pine	--	--	--	--	--	--	--	--	--	--	--	--
Sand pine	--	--	--	--	--	--	--	--	--	--	--	--
Eastern white pine	2,627,722	207,822	258,569	330,700	384,713	403,844	315,747	573,581				152,746
Eastern hemlock	820,337	30,936	78,794	88,822	139,933	107,474	88,294	209,982				76,102
Spruce and fir	60,284	7,786	21,458	15,838	7,555							7,647
Baldcypress	1,576,878	86,793	121,755	184,670	178,056	166,470	203,215	463,364				172,555
Pondcypress	345,807	28,075	40,754	65,949	35,394	57,162	31,028	61,981				25,464
Cedars	294,688	93,085	87,348	27,831	29,079	32,985	18,846	5,514				
Total softwoods	38,949,241	7,392,796	8,028,610	7,550,919	5,698,109	4,099,956	2,555,779	3,117,518				505,554
Hardwood:												
Select white oaks	5,541,200	--	977,575	994,947	973,774	809,808	522,777	956,197				306,122
Select red oaks	3,308,116	--	351,704	450,719	449,205	469,473	373,939	907,232				305,844
Chestnut oak	3,153,623	--	457,397	519,807	567,596	482,705	324,546	618,743				182,829
Other white oaks	901,244	--	207,436	200,501	140,216	107,355	41,122	144,457				60,157
Other red oaks	7,093,372	--	1,291,743	1,328,757	1,256,666	1,093,212	651,403	1,164,273				307,318
Hickory	2,544,677	--	459,321	566,341	442,565	404,665	241,498	406,956				23,331
Yellow birch	121,617	--	9,542	18,813	30,340	10,734	12,492	39,696				--
Hard maple	379,371	--	48,857	68,738	86,850	54,532	54,100	35,153				31,141
Soft maple	3,883,039	--	921,824	822,763	736,069	522,997	344,443	489,938				45,005
Beech	842,539	--	98,908	176,043	177,111	120,302	93,013	153,673				23,489
Sweetgum	5,052,057	--	1,050,886	1,101,225	978,087	761,315	484,608	601,840				74,096
Tupelo and blackgum	5,260,507	--	926,757	987,994	876,039	740,101	574,935	828,374				326,307
Ash	1,164,694	--	203,958	171,654	241,233	233,905	104,348	189,557				14,039
Cottonwood	76,775	--	8,632	19,088	16,068	10,425	5,270	17,292				--
Basswood	354,123	--	73,487	59,702	99,607	41,213	43,192	33,355				3,567
Yellow-poplar	10,249,726	--	1,470,727	1,969,001	2,032,767	1,463,651	1,285,617	1,791,468				236,495
Bay and magnolia	138,124	--	46,831	33,037	23,670	11,700	3,255	19,631				--
Black cherry	127,488	--	28,424	19,352	17,372	31,166	6,510	24,664				--
Black walnut	91,693	--	32,468	22,133	22,683	1,926	--	--				9,673
Sycamore	300,858	--	30,072	58,855	41,246	33,311	22,431	72,408				42,535
Black locust	519,835	--	164,886	106,935	98,283	66,739	35,741	43,190				4,061
Elm	509,382	--	130,080	104,395	76,639	61,169	59,423	73,718				3,958
Other eastern hardwoods	1,316,061	--	286,084	307,320	231,757	173,643	107,623	199,823				9,811
Total hardwoods	52,930,121	--	9,277,599	10,114,120	9,615,843	7,706,047	5,392,286	8,821,311				2,002,915
All species	91,879,362	7,392,796	17,306,209	17,665,039	15,313,952	11,806,003	7,948,065	11,938,829				2,508,469

Table 36.--Volume of sawtimber on commercial forest land, by species, size class, and log grade, North Carolina, 1984

Species	All size classes														
	All grades					Log grade					All grades	Trees 15.0 inches d.b.h. and larger			
	1	2	3	4	5	1	2	3	4	5		1	2	3	4
	----- Thousand board feet -----														
Softwood:															
Yellow pines ^a	33,223,525	7,725,184	4,200,465	21,297,876	(b)	12,028,185	3,807,098	1,559,240	6,661,847	(b)					
Eastern white pine ^c	2,627,722	195,418	184,707	1,304,129	943,468	1,830,631	195,418	123,681	716,631	794,901					
Spruce and fir ^c	60,284	--	2,568	34,630	23,086	15,202	--	1,216	5,777	8,209					
Cypress ^c	1,922,685	395,793	993,421	533,471	--	1,394,689	390,513	655,504	348,672	--					
Other eastern softwoods ^c	1,115,025	49,452	93,133	539,592	412,848	708,209	41,629	72,541	255,589	338,450					
Total	38,949,241	8,365,847	5,474,294	23,729,698	1,379,402	15,976,916	4,434,658	2,412,182	7,988,516	1,141,560					
Hardwood:															
Select white and red oaks	8,849,316	1,829,082	2,094,567	3,646,620	1,279,047	6,074,371	1,829,082	1,650,485	1,971,137	623,667					
Other white and red oaks	11,148,239	1,765,661	2,685,368	4,633,461	2,063,749	7,142,598	1,765,661	2,075,357	2,237,255	1,064,325					
Hickory	2,544,677	397,909	519,780	1,129,429	497,559	1,519,015	397,909	358,279	538,619	224,208					
Yellow birch	121,617	19,585	35,231	45,723	21,078	93,262	19,585	29,844	29,844	13,989					
Hard maple	379,371	54,973	90,934	156,453	77,011	261,776	54,973	83,768	83,768	39,267					
Sweetgum	5,052,057	879,290	1,127,897	2,507,285	537,585	2,899,946	879,290	711,920	1,014,087	294,649					
Ash, walnut, and black cherry	1,383,875	247,222	427,050	609,959	99,644	899,886	242,435	301,488	281,786	74,177					
Yellow-poplar	10,249,726	2,325,828	2,089,815	4,123,262	1,710,821	6,809,998	2,325,828	1,342,012	2,165,446	976,712					
Other eastern hardwoods	13,201,243	2,114,780	3,417,614	5,789,368	1,879,481	7,837,550	2,114,780	2,296,697	2,447,572	978,501					
Total	52,930,121	9,634,330	12,488,256	22,641,560	8,165,975	33,538,402	9,629,543	8,849,850	10,769,514	4,289,495					
All species	91,879,362	18,000,177	17,962,550	46,371,258	9,545,377	49,515,318	14,064,201	11,262,032	18,758,030	5,431,055					

^aBased on "Southern Pine Log Grades for Yard and Structural Lumber," Research Paper SE-39, published by the Southeastern Forest Experiment Station, Asheville, NC, 1968.

^bNot applicable.

^cBased on "Sawlog Grades for Eastern White Pine," Research Paper NE-205, published by the Northeastern Forest Experiment Station, Broomall, PA, 1971.

^dBased on "A Guide to Hardwood Log Grading (revised)," General Technical Report NE-1, published by the Northeastern Forest Experiment Station, Broomall, PA, 1973.

Table 37.--Cubic volume in the merchantable saw-log portion of sawtimber trees, by species and diameter class, North Carolina, 1984

Species	All classes	Diameter class (inches at breast height)										29.0 and larger
		9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger			
		Thousand cubic feet										
Softwood:												
Longleaf pine	323,342	79,883	86,860	77,156	45,149	23,728	7,086	3,480	--	--	--	
Slash pine	21,490	14,515	5,379	1,596	--	--	--	--	--	--	--	
Shortleaf pine	782,535	268,111	243,740	158,935	74,582	21,440	11,504	4,223	--	--	--	
Loblolly pine	3,674,001	646,896	729,787	747,322	610,738	441,856	250,247	237,818	9,337	--	--	
Pond pine	479,131	154,963	142,488	91,905	43,666	25,627	13,181	7,301	--	--	--	
Virginia pine	537,511	261,307	158,320	89,325	20,545	6,790	1,224	--	--	--	--	
Pitch pine	121,336	27,477	27,650	27,651	16,979	9,481	5,597	6,501	--	--	--	
Table Mountain pine	15,156	2,505	5,167	5,332	2,152	--	--	--	--	--	--	
Spruce pine	--	--	--	--	--	--	--	--	--	--	--	
Sand pine	--	--	--	--	--	--	--	--	--	--	--	
Eastern white pine	455,398	45,075	52,747	62,669	68,632	68,492	50,298	86,786	20,699	--	--	
Eastern hemlock	138,960	6,710	16,073	16,831	24,964	18,227	14,065	31,778	10,312	--	--	
Spruce and fir	11,446	1,688	4,377	2,997	1,348	--	--	--	1,036	--	--	
Baldypress	277,913	20,517	25,651	35,917	31,960	28,302	34,080	75,352	26,134	--	--	
Pondypress	63,102	6,636	8,588	12,826	6,353	9,717	5,203	10,093	3,686	--	--	
Cedars	57,373	20,191	17,587	5,240	5,069	5,460	2,991	835	--	--	--	
Total softwoods	6,958,694	1,556,474	1,524,414	1,335,702	952,137	659,120	395,476	464,167	71,204	--	--	
Hardwood:												
Select white oaks	908,663	--	182,808	173,721	159,797	127,544	79,881	141,324	43,588	--	--	
Select red oaks	526,625	--	65,767	78,695	73,715	73,944	57,138	134,089	43,277	--	--	
Chestnut oak	512,719	--	85,534	90,759	93,142	76,028	49,591	91,449	26,216	--	--	
Other white oaks	149,982	--	38,789	35,007	23,012	16,910	6,285	21,352	8,627	--	--	
Other red oaks	1,167,512	--	241,555	231,999	206,217	172,180	99,535	172,067	43,959	--	--	
Hickory	421,529	--	85,895	98,882	72,623	63,738	36,900	60,145	3,346	--	--	
Yellow birch	19,514	--	1,784	3,285	4,979	1,691	1,908	5,867	--	--	--	
Hard maple	61,910	--	9,137	12,003	14,252	8,589	8,267	5,197	4,465	--	--	
Soft maple	660,725	--	173,394	145,543	123,075	83,936	53,938	74,421	6,418	--	--	
Beech	137,533	--	18,494	30,737	29,061	18,948	14,214	22,710	3,369	--	--	
Sweetgum	855,893	--	197,673	194,805	163,538	122,190	75,887	91,307	10,493	--	--	
Tupelo and blackgum	947,025	--	193,135	190,981	156,835	125,348	96,224	135,373	49,129	--	--	
Ash	191,567	--	38,143	31,019	39,586	36,843	15,943	28,020	2,013	--	--	
Cottonwood	12,812	--	1,624	3,377	2,686	1,674	825	2,626	--	--	--	
Basswood	59,994	--	13,824	10,560	16,655	6,615	6,764	5,067	509	--	--	
Yellow-poplar	1,704,276	--	276,643	348,314	339,879	234,922	201,328	270,248	32,942	--	--	
Bay and magnolia	23,981	--	8,809	5,844	3,957	1,879	510	2,982	--	--	--	
Black cherry	21,440	--	5,346	3,423	2,904	5,002	1,019	3,746	--	--	--	
Black walnut	15,795	--	6,072	3,864	3,723	303	--	1,430	403	--	--	
Sycamore	48,889	--	5,656	10,412	6,897	5,347	3,513	10,998	6,066	--	--	
Black locust	88,568	--	30,835	18,670	16,126	10,511	5,461	6,383	582	--	--	
Elm	86,637	--	24,469	18,466	12,815	9,820	9,307	11,196	564	--	--	
Other eastern hardwoods	221,158	--	53,598	53,894	38,357	27,541	16,571	29,790	1,407	--	--	
Total hardwoods	8,844,747	--	1,758,984	1,794,260	1,603,831	1,231,503	841,009	1,327,787	287,373	--	--	
All species	15,803,441	1,556,474	3,283,398	3,129,962	2,555,968	1,890,623	1,236,485	1,791,954	358,577	--	--	

Table 38.--Total volume of all live trees on commercial forest land, by species and diameter class, North Carolina, 1984

Species	Diameter class (inches at breast height)												Thousand cubic feet	17.0- 18.9	19.0- 20.9	21.0- 28.9	29.0 and larger	
	All classes	1.0- 2.9	3.0- 4.9	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	15.0- 16.9	17.0- 18.9	19.0- 20.9						
Softwood:																		
Longleaf pine	541,539	6,678	17,306	41,622	71,051	109,359	109,101	92,863	53,127	27,673	8,252	4,507	--	--	--	--	--	--
Slash pine	194,912	3,603	25,867	74,792	59,545	21,810	7,297	1,998	--	--	--	--	--	--	--	--	--	--
Shortleaf pine	1,668,145	15,284	68,984	178,402	340,887	401,161	327,348	200,302	91,577	25,620	13,610	4,970	--	--	--	--	--	--
Loblolly pine	7,165,774	109,403	357,807	835,003	1,064,547	1,013,821	992,528	944,118	743,227	522,072	294,075	278,306	10,867	--	--	--	--	--
Pond pine	1,071,400	21,333	64,865	126,688	203,845	229,877	192,550	118,392	57,407	31,463	16,159	8,821	--	--	--	--	--	--
Virginia pine	1,800,626	40,471	179,716	316,704	459,728	406,041	231,409	126,697	28,813	9,354	1,693	--	--	--	--	--	--	--
Pitch pine	235,443	1,583	9,624	19,510	28,972	47,309	42,223	37,548	21,946	11,894	6,899	7,935	--	--	--	--	--	--
Table Mountain pine	28,356	446	1,822	1,706	4,110	3,462	6,552	6,766	2,682	--	--	--	--	--	--	--	--	--
Spruce pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sand pine	747,511	18,504	29,133	46,490	64,723	68,203	70,409	80,222	85,237	84,526	64,168	108,344	27,552	--	--	--	--	--
Eastern white pine	253,884	10,367	16,793	23,531	15,649	11,204	22,727	21,920	32,510	23,432	17,825	43,071	14,855	--	--	--	--	--
Eastern hemlock	25,933	930	1,805	3,820	3,832	2,570	5,829	3,740	1,678	364	--	--	--	--	--	--	--	--
Spruce and fir	433,283	1,926	4,519	10,525	16,085	35,735	39,694	52,542	46,098	39,789	46,048	99,032	41,290	--	--	--	--	--
Baldcypress	122,364	1,350	751	3,714	16,379	11,341	13,297	18,618	10,477	13,772	7,673	14,563	10,429	--	--	--	--	--
Pondcypress	271,376	30,066	55,821	54,467	46,580	31,489	23,380	7,725	6,914	7,398	3,626	1,034	2,876	--	--	--	--	--
Cedars	14,560,546	261,944	834,813	1,736,974	2,395,933	2,393,382	2,084,344	1,713,451	1,181,693	797,357	480,838	570,583	109,234	--	--	--	--	--
Total softwoods																		
Hardwood:																		
Select white oaks	2,474,085	47,877	115,969	189,868	234,989	275,014	365,805	317,617	276,030	215,556	133,051	231,189	71,120	--	--	--	--	--
Select red oaks	1,234,889	14,464	40,722	51,670	64,948	107,009	134,672	147,966	136,677	131,059	98,990	230,492	76,220	--	--	--	--	--
Chestnut oak	1,433,995	12,159	44,158	80,891	149,416	161,911	183,573	180,332	173,099	139,755	88,861	171,469	48,371	--	--	--	--	--
Other white oaks	495,885	14,898	32,248	46,757	60,771	72,184	76,780	62,235	42,626	29,934	9,899	33,816	13,736	--	--	--	--	--
Other red oaks	3,410,615	105,666	188,764	291,828	355,518	424,360	473,125	412,604	359,007	286,128	163,466	274,004	76,145	--	--	--	--	--
Hickory	1,261,882	42,893	68,449	103,789	134,160	173,153	171,197	178,327	121,899	106,676	59,502	96,204	5,633	--	--	--	--	--
Yellow birch	80,506	1,728	5,144	9,591	9,467	6,791	4,424	8,363	12,765	3,453	3,102	11,833	3,845	--	--	--	--	--
Hard maple	190,206	9,919	14,850	17,073	16,805	19,278	17,105	20,356	24,981	14,596	13,896	10,930	10,417	--	--	--	--	--
Soft maple	3,591,258	363,782	536,450	467,535	453,317	402,234	402,553	297,615	241,605	155,862	102,486	150,320	17,499	--	--	--	--	--
Beech	443,728	19,349	23,823	28,346	36,047	43,833	39,719	60,000	59,845	40,094	28,844	54,686	9,142	--	--	--	--	--
Sweetgum	2,789,530	204,784	297,961	310,419	319,107	357,890	346,287	302,315	240,394	168,905	105,803	121,113	14,552	--	--	--	--	--
Tupelo and blackgum	2,877,727	147,758	192,622	235,870	265,740	326,509	382,440	332,382	277,272	209,699	161,478	239,340	106,617	--	--	--	--	--
Ash	702,453	52,211	68,054	76,209	83,658	81,886	78,605	61,511	65,850	58,416	26,254	46,058	3,741	--	--	--	--	--
Cottonwood	37,029	1,394	3,607	3,868	2,916	4,899	2,916	5,438	4,079	2,470	1,187	3,542	--	--	--	--	--	--
Basswood	144,985	3,078	4,280	3,337	13,217	21,291	25,025	17,540	26,794	10,301	10,331	9,047	744	--	--	--	--	--
Yellow-poplar	3,398,256	63,136	112,788	186,986	277,937	338,648	475,091	522,190	471,382	313,381	258,769	334,535	43,413	--	--	--	--	--
Bay and magnolia	342,473	83,185	71,294	56,825	55,096	21,847	20,652	13,705	7,574	5,088	889	6,318	--	--	--	--	--	--
Black cherry	180,505	35,361	33,282	23,603	24,623	27,507	9,001	7,423	4,546	7,079	1,945	5,949	747	--	--	--	--	--
Black walnut	62,261	502	2,169	5,813	8,755	10,538	13,588	7,316	7,079	1,945	--	--	--	--	--	--	--	--
Sycamore	111,359	1,477	4,211	7,103	7,683	8,380	11,068	18,485	12,714	8,769	5,574	17,413	8,482	--	--	--	--	--
Black locust	344,598	3,750	11,608	18,708	40,018	62,096	66,150	44,922	38,425	24,940	11,895	20,773	1,313	--	--	--	--	--
Elm	311,916	18,290	29,756	28,326	36,268	42,720	48,244	33,619	21,670	16,784	15,332	18,589	2,318	--	--	--	--	--
Other eastern hardwoods	2,809,825	532,921	679,065	538,888	329,560	223,028	164,453	121,840	76,426	48,939	31,385	58,596	4,724	--	--	--	--	--
Total hardwoods																		
	28,729,966	1,780,582	2,581,275	2,783,303	2,980,729	3,213,006	3,512,473	3,174,101	2,702,739	2,000,430	1,332,524	2,150,025	518,179	--	--	--	--	--
All species																		
	43,290,512	2,042,526	3,416,088	4,520,277	5,376,662	5,606,388	5,596,817	4,887,552	3,884,432	2,797,787	1,813,362	2,720,608	628,013	--	--	--	--	--

Table 39.--Green weight of forest biomass on commercial forest land, by species and diameter class, North Carolina, 1984

Species	Diameter class (inches at breast height)												17.0- 18.9	19.0- 20.9	21.0- 28.9	29.0 and larger		
	All classes	1.0- 2.9	3.0- 4.9	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 28.9						
----- Hundred thousand pounds -----																		
Softwood:																		
Longleaf pine	427,669	5,554	14,822	28,308	56,221	87,645	87,702	74,130	41,760	21,487	6,458	3,582	--	--	--	--	--	
Slash pine	154,093	2,835	24,005	54,146	47,734	17,960	5,852	1,561	--	--	--	--	--	--	--	--	--	
Shortleaf pine	1,149,692	8,691	41,728	104,893	234,021	288,152	234,516	142,405	64,679	17,873	9,347	3,387	--	--	--	--	--	
Loblolly pine	5,140,685	56,657	211,932	576,488	780,710	762,090	738,406	691,200	537,791	374,204	208,710	195,026	7,471	--	--	--	--	
Pond pine	757,057	11,217	37,183	85,671	148,282	168,759	140,407	85,335	40,873	22,094	11,156	6,080	--	--	--	--	--	
Virginia pine	1,366,686	34,762	143,967	237,011	346,810	310,902	172,644	92,206	20,604	6,560	1,220	5,581	--	--	--	--	--	
Pitch pine	163,287	1,282	8,841	13,172	19,851	31,197	28,639	25,791	15,442	8,552	4,939	5,581	--	--	--	--	--	
Table Mountain pine	18,377	370	1,687	876	2,567	2,189	4,151	4,241	1,663	--	633	--	--	--	--	--	--	
Spruce pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sand pine	470,286	7,722	14,012	29,309	44,881	47,229	48,028	52,977	55,328	53,107	39,391	63,211	15,091	--	--	--	--	
Eastern white pine	192,901	6,431	10,551	19,975	13,683	9,892	18,326	17,069	24,301	17,569	12,898	32,003	10,003	--	--	--	--	
Eastern hemlock	19,210	566	1,152	2,463	2,468	1,987	4,337	2,956	1,296	475	--	--	--	--	--	--	--	
Spruce and fir	324,773	1,020	2,833	4,200	9,246	24,529	28,619	39,485	34,688	30,281	35,160	76,183	38,529	--	--	--	--	
Baldcypress	91,605	590	477	1,690	9,409	7,338	9,221	13,546	8,267	10,547	6,155	12,065	12,300	--	--	--	--	
Pondcypress	193,096	18,994	33,907	38,330	34,539	24,374	18,267	6,440	5,806	6,537	3,231	929	1,742	--	--	--	--	
Cedars																		
Total softwoods	10,469,417	156,691	547,097	1,196,532	1,750,902	1,784,243	1,539,415	1,249,342	852,498	569,286	339,298	398,047	86,066	--	--	--	--	
Hardwood:																		
Select white oaks	2,055,223	37,993	84,077	130,667	184,161	226,521	316,420	273,459	235,261	183,454	114,105	203,630	65,475	--	--	--	--	
Select red oaks	1,041,865	10,542	28,555	37,005	51,873	89,751	112,546	125,215	116,413	111,024	84,834	200,078	74,029	--	--	--	--	
Chestnut oak	1,175,892	11,157	34,750	55,286	112,290	126,593	153,164	151,542	143,427	117,408	76,385	150,247	43,643	--	--	--	--	
Other white oaks	417,610	10,830	22,238	33,949	47,741	59,093	66,020	54,614	39,544	28,198	9,261	31,815	14,287	--	--	--	--	
Other red oaks	2,910,889	88,800	141,673	208,544	289,448	362,019	419,190	365,167	318,975	254,087	143,945	244,537	74,464	--	--	--	--	
Hickory	1,051,858	38,143	59,531	74,625	101,649	136,730	137,619	149,238	104,988	95,391	54,005	93,970	5,969	--	--	--	--	
Yellow birch	78,188	1,502	4,241	6,927	8,014	6,137	4,321	8,461	12,839	3,718	2,940	13,568	5,520	--	--	--	--	
Hard maple	164,453	8,465	12,426	12,276	13,338	15,708	15,210	18,296	22,209	13,008	12,648	10,941	9,928	--	--	--	--	
Soft maple	2,720,948	280,546	373,201	306,756	340,376	309,421	324,560	242,102	196,379	124,947	81,327	125,083	16,250	--	--	--	--	
Beech	364,424	12,074	15,238	16,809	26,844	35,450	35,035	52,259	52,530	35,119	25,480	49,215	8,371	--	--	--	--	
Sweetgum	2,026,116	135,097	199,565	200,572	225,317	264,176	263,588	230,789	185,436	129,781	83,337	95,894	12,564	--	--	--	--	
Tupelo and blackgum	2,079,378	103,520	128,390	116,358	158,588	209,495	276,837	247,148	212,009	165,197	133,250	214,878	113,708	--	--	--	--	
Ash	450,774	32,482	43,426	51,636	57,807	54,458	52,689	39,820	40,215	33,496	15,212	26,884	2,649	--	--	--	--	
Cottonwood	25,731	965	2,478	2,125	2,312	3,259	2,107	3,996	2,981	1,903	980	2,625	--	--	--	--	--	
Basswood	98,456	2,053	2,928	1,870	8,164	14,268	17,033	11,920	18,351	7,249	7,098	6,959	563	--	--	--	--	
Yellow-poplar	2,417,242	45,815	76,635	110,791	186,280	239,036	340,427	376,621	341,350	228,178	189,162	247,875	35,072	--	--	--	--	
Bay and magnolia	212,138	50,856	42,969	29,673	34,027	14,583	15,848	10,188	5,380	3,697	816	4,101	--	--	--	--	--	
Black cherry	110,129	16,497	21,287	13,473	5,668	18,207	5,668	5,395	5,380	5,241	1,038	4,315	--	--	--	--	--	
Black walnut	58,771	428	1,818	4,655	7,583	9,146	13,528	7,080	7,086	2,244	--	4,430	773	--	--	--	--	
Sycamore	80,189	1,023	2,865	3,404	4,699	5,746	8,419	13,767	9,715	6,533	4,329	13,292	6,397	--	--	--	--	
Black locust	350,428	3,118	9,691	15,704	37,942	60,881	71,015	48,814	40,888	26,343	12,041	22,604	1,387	--	--	--	--	
Elm	208,480	13,253	20,807	16,276	22,689	28,081	32,530	22,927	14,608	11,400	10,334	13,113	2,462	--	--	--	--	
Other eastern hardwoods	2,198,990	446,436	561,144	341,721	238,936	169,710	143,987	105,456	64,059	40,562	27,249	53,897	5,833	--	--	--	--	
Total hardwoods	22,298,172	1,351,595	1,889,953	1,791,102	2,176,007	2,458,469	2,827,761	2,564,274	2,187,762	1,628,178	1,089,776	1,833,951	499,344	--	--	--	--	
All species	32,767,589	1,508,286	2,437,050	2,987,634	3,926,909	4,242,712	4,367,176	3,813,616	3,040,260	2,197,464	1,429,074	2,231,998	585,410	--	--	--	--	

Table 40.--Net annual growth and removals of all live timber and growing stock on commercial forest land, by species, North Carolina, 1983

Species	All live timber ^a		Growing stock	
	Net annual growth	Annual timber removals	Net annual growth	Annual timber removals
- - - - - <u>Thousand cubic feet</u> - - - - -				
Softwood:				
Yellow pines	459,642	406,454	458,613	403,902
Eastern white pine	20,933	18,294	20,932	18,294
Spruce and fir	572	--	572	--
Cypress	10,813	2,679	10,711	2,566
Other eastern softwoods	10,142	6,174	10,065	5,965
Total softwoods	502,102	433,601	500,893	430,727
Hardwood:				
Select white and red oaks	86,602	54,090	86,138	51,230
Other white and red oaks	120,333	77,228	119,058	69,980
Hickory	20,640	14,244	20,466	13,399
Yellow birch	1,203	--	1,202	--
Hard maple	3,761	243	3,736	243
Sweetgum	75,802	44,935	74,629	42,040
Ash, walnut, and black cherry	19,802	9,154	18,955	7,331
Yellow-poplar	130,690	60,570	130,308	59,801
Tupelo and blackgum	37,203	27,010	35,976	22,726
Bay and magnolia	6,410	2,325	5,802	1,501
Other eastern hardwoods	140,776	66,355	130,447	46,797
Total hardwoods	643,222	356,154	626,717	315,048
All species	1,145,324	789,755	1,127,610	745,775

^aMerchantable portion only.

Table 41.--Net annual growth and removals of sawtimber on commercial forest land, by species, North Carolina, 1983

Species	Net annual growth	Annual timber removals
	<u>Thousand board feet</u>	
Softwood:		
Yellow pines	1,888,723	1,605,457
Eastern white pine	126,642	100,793
Spruce and fir	2,336	--
Cypress	59,127	13,129
Other eastern softwoods	39,526	20,160
	Total softwoods	1,739,539
	2,116,354	1,739,539
Hardwood:		
Select white and red oaks	376,128	181,638
Other white and red oaks	500,609	230,130
Hickory	77,060	43,202
Yellow birch	2,370	--
Hard maple	12,652	715
Sweetgum	265,282	120,986
Ash, walnut, and black cherry	70,903	24,855
Yellow-poplar	661,523	252,571
Tupelo and blackgum	148,534	79,243
Bay and magnolia	9,643	1,464
Other eastern hardwoods	399,073	121,985
	Total hardwoods	1,056,789
	2,523,777	1,056,789
All species	4,640,131	2,796,328

Table 42.--Annual removals of growing stock on commercial forest land, by species and diameter class, North Carolina, 1983

Species	Diameter class (inches at breast height)												29.0 and larger
	All classes	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger		
----- Thousand cubic feet -----													
Softwood:													
Yellow pines	403,902	29,597	57,406	66,792	68,619	66,260	42,914	36,677	16,104	17,982	1,551		
Eastern white pine	18,294	--	--	215	2,057	1,787	5,006	3,267	1,696	3,169	1,097		
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--		
Cypress	2,566	--	--	--	129	170	622	469	699	477	--		
Other eastern softwoods	5,965	899	599	1,487	1,519	724	81	250	312	94	--		
Total softwoods	430,727	30,496	58,005	68,494	72,324	68,941	48,623	40,663	18,811	21,722	2,648		
Hardwood:													
Select white and red oaks	51,230	2,098	4,799	5,645	6,268	7,387	6,671	4,339	3,092	9,335	1,596		
Other white and red oaks	69,980	5,274	6,420	9,824	9,178	10,751	9,870	5,335	4,508	5,759	3,061		
Hickory	13,399	1,078	1,780	1,230	1,325	1,944	3,431	931	898	486	296		
Yellow birch	--	--	--	--	--	--	--	--	--	--	--		
Hard maple	243	62	--	--	--	181	--	--	--	--	--		
Sweetgum	42,040	5,321	5,997	6,392	5,332	5,856	4,281	3,389	2,441	2,895	136		
Ash, walnut, and black cherry	7,331	805	349	484	1,716	569	1,252	463	1,064	629	--		
Yellow-poplar	59,801	1,589	4,041	4,854	9,647	10,740	7,515	6,736	5,561	8,240	878		
Tupelo and blackgum	22,726	1,260	1,987	2,089	3,803	3,206	3,301	2,958	1,855	2,139	128		
Bay and magnolia	1,501	198	392	545	162	--	98	106	--	--	--		
Other eastern hardwoods	46,797	4,687	7,867	6,020	7,408	5,121	4,563	4,152	2,127	4,452	400		
Total hardwoods	315,048	22,372	33,632	37,083	44,839	45,755	40,982	28,409	21,546	33,935	6,495		
All species	745,775	52,868	91,637	105,577	117,163	114,696	89,605	69,072	40,357	55,657	9,143		

Table 43.--Mortality of all live timber, growing stock, and sawtimber on commercial forest land, by species, North Carolina, 1983

Species	All live timber ^a	Growing stock	Sawtimber
	- - <u>Thousand</u> <u>cubic feet</u> - -		<u>Thousand</u> <u>board feet</u>
Softwood:			
Yellow pines	110,656	108,053	222,097
Eastern white pine	4,024	4,024	10,163
Spruce and fir	619	619	3,160
Cypress	1,240	1,187	3,355
Other eastern softwoods	2,386	2,223	5,262
Total softwoods	118,925	116,106	244,037
Hardwood:			
Select white and red oaks	10,682	6,919	19,231
Other white and red oaks	33,120	25,443	74,793
Hickory	6,137	4,796	14,686
Yellow birch	317	211	--
Hard maple	1,072	902	2,689
Sweetgum	7,323	5,853	17,576
Ash, walnut, and black cherry	4,259	2,449	6,020
Yellow-poplar	5,804	4,957	12,930
Tupelo and blackgum	7,265	3,494	11,203
Bay and magnolia	1,893	862	1,630
Other eastern hardwoods	43,753	19,266	47,819
Total hardwoods	121,625	75,152	208,577
All species	240,550	191,258	452,614

^aMerchantable portion only.

Table 44.--Change in number of all live trees on commercial forest land, by species group, survey completion date, and diameter class, North Carolina

Species group and year	All classes	Diameter class (inches at breast height)										15.0 and larger
		1.0- 2.9	3.0- 4.9	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- larger			
----- Thousand trees -----												
Yellow pine												
1974	3,345,366	1,444,520	820,536	468,136	283,206	162,327	84,882	44,783	36,976			
1984	2,594,058	866,282	639,240	448,472	298,152	165,597	88,250	47,491	40,574			
Change	-751,308	-578,238	-181,296	-19,664	+14,946	+3,270	+3,368	+2,780	+3,598			
Other softwood												
1974	455,853	286,772	82,390	32,325	19,881	13,264	7,457	5,452	8,312			
1984	462,832	275,084	85,970	39,614	22,126	12,456	8,655	6,197	12,730			
Change	+6,979	-11,688	+3,580	+7,289	+2,245	-808	+1,198	+745	+4,418			
Hardwood												
1974	12,748,251	8,838,470	2,117,288	793,462	409,660	238,981	146,621	89,478	114,291			
1984	11,538,550	7,750,733	1,948,395	771,072	409,332	242,864	165,807	103,120	147,227			
Change	-1,209,701	-1,087,737	-168,893	-22,390	-328	+3,883	+19,186	+13,642	+32,936			

Table 45.--Land area, by class, major forest type, and survey completion date, North Carolina

Land use class	Survey completion date			Change 1974-1984
	1964	1974	1984	
----- Acres -----				
Forest land:				
Commercial forest land:				
Pine and oak-pine types	10,671,457	9,388,453	8,621,546	-766,907
Hardwood types	9,304,463	10,156,382	9,828,723	-327,659
Total	19,975,920	19,544,835	18,450,269	-1,094,566
Noncommercial forest land:				
Productive-reserved	372,002	433,792	459,778	+25,986
Unproductive	48,767	46,230	42,809	-3,421
Total	420,769	480,022	502,587	+22,565
Nonforest land:				
Cropland	7,072,817	6,402,053	6,768,121	+366,068
Pasture and range	1,723,634	1,808,363	1,680,331	-128,032
Other	1,941,220	2,819,840	3,557,340	+737,500
Total	10,737,671	11,030,256	12,005,792	+975,536
All land^a	31,134,360	31,055,113	30,958,648	-96,465

^aExcludes all water areas.

Table 46.--Volume^a of sawtimber, growing stock, and all live timber on commercial forest land, by species group, survey completion date, and diameter class, North Carolina

Species group and year	Diameter class (inches at breast height)										
	All classes		5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0 and larger
SAWTIMBER (in thousand board feet)											
Softwood											
1964	30,469,796	--	--	6,307,809	7,024,819	6,129,632	4,426,398	2,909,092	1,513,367	2,158,679	
1974	35,285,634	--	--	7,291,844	7,672,989	7,096,528	5,293,057	3,375,431	1,955,659	2,600,126	
1984	38,949,241	--	--	7,392,796	8,028,610	7,550,919	5,698,109	4,099,956	2,555,779	3,623,072	
Hardwood											
1964	34,973,347	--	--	--	6,670,303	7,014,733	6,156,615	4,929,247	3,280,378	6,922,071	
1974	42,931,181	--	--	--	8,219,139	8,775,026	7,609,257	6,027,284	3,955,435	8,345,040	
1984	52,930,121	--	--	--	9,277,599	10,114,120	9,615,843	7,706,047	5,392,286	10,824,226	
GROWING STOCK (in thousand cubic feet)											
Softwood											
1964	9,162,949	1,156,736	1,610,347	1,737,558	1,572,548	1,208,323	798,999	493,994	247,461	336,983	
1974	10,535,330	1,286,881	1,861,168	2,009,223	1,718,364	1,401,272	957,163	574,369	320,466	406,424	
1984	11,240,482	1,237,285	1,956,234	2,036,441	1,800,081	1,492,712	1,032,266	699,521	418,929	567,013	
Hardwood											
1964	12,792,176	1,250,825	1,690,940	1,911,935	1,946,791	1,735,849	1,368,531	1,015,654	638,268	1,233,383	
1974	15,569,655	1,474,727	2,001,238	2,323,229	2,398,461	2,172,486	1,691,674	1,244,286	770,417	1,493,137	
1984	17,710,711	1,430,187	1,997,197	2,356,222	2,706,921	2,504,297	2,139,780	1,592,582	1,050,191	1,933,334	
ALL LIVE TIMBER^b (in thousand cubic feet)											
Softwood											
1964	9,231,820	1,174,048	1,620,917	1,744,452	1,581,045	1,213,632	803,845	495,258	248,827	349,796	
1974	10,613,778	1,305,924	1,873,227	2,017,142	1,727,026	1,407,064	962,755	575,845	322,749	422,046	
1984	11,326,697	1,254,519	1,970,057	2,044,346	1,809,215	1,498,689	1,038,202	701,460	422,196	588,013	
Hardwood											
1964	14,200,182	1,648,286	1,964,168	2,107,578	2,077,437	1,825,313	1,441,877	1,062,485	675,529	1,397,509	
1974	17,243,389	1,942,511	2,323,506	2,561,026	2,556,596	2,282,747	1,777,985	1,300,228	814,056	1,684,734	
1984	19,528,125	1,883,782	2,320,912	2,599,026	2,886,814	2,631,248	2,248,787	1,664,046	1,109,650	2,183,860	

^aTo provide a basis for valid comparisons, adjustments have been made to allow for differences in volume tables and sawtimber specifications used in previous surveys.

^bMerchantable volume.

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Since 1974 the area of commercial forest declined from 19.5 to 18.5 million acres. Timberland owned by farmers decreased from 8.4 to 5.5 million acres. More than 2.5 million acres were harvested and retained in timberland. Over 2.1 million acres were regenerated to manageable stands of growing-stock trees. Average basal area of all-live trees 5.0 inches d.b.h. and larger increased from 67 to 78 square feet per acre. The number of all-live yellow pine saplings declined considerably. Softwood growing-stock volume rose from 10.5 to 11.2 billion cubic feet; hardwood growing stock, from 15.6 to 17.7 billion cubic feet. In 1983, net annual growth of softwood growing stock was down by 7 percent, to 501 million cubic feet. Hardwood growth increased by 6 percent to 627 million cubic feet. Annual removals of all growing-stock trees totaled 746 million cubic feet. Mortality of growing-stock trees increased by 36 percent and totaled 191 million cubic feet.

KEYWORDS: Commercial forest land, timber volume, net annual growth, timber removals, timber mortality.

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