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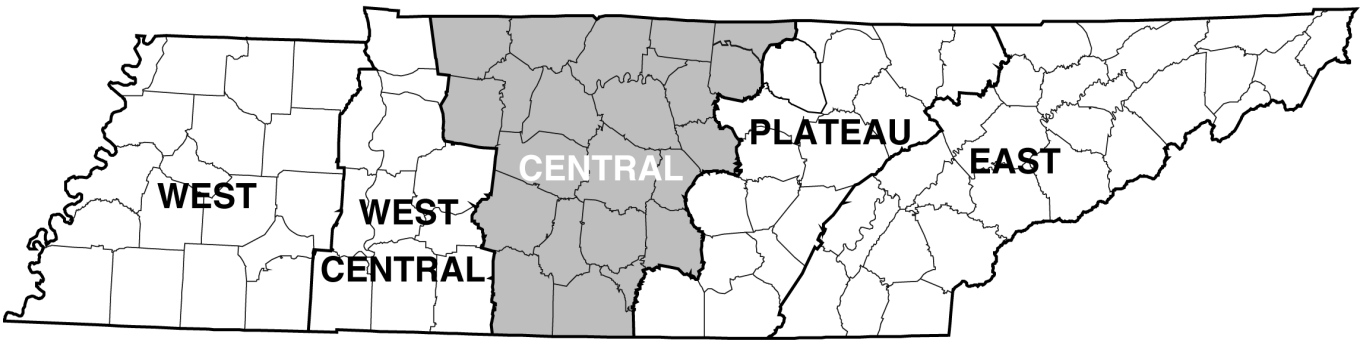
Forest Statistics for Central Tennessee, 1998

Callie Jo Schweitzer



The Author:

Callie Jo Schweitzer is a Research Forester with the Forest Inventory and Analysis Research Work Unit, Southern Research Station, U.S. Department of Agriculture, Forest Service, Asheville, NC 28802.

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Southern Research Station
P.O. Box 2680
Asheville, NC 28802

Foreword

This report highlights the principal findings of the sixth forest survey of Central Tennessee. Field work began in July 1997 and was completed in April 1998. Five previous surveys, completed in 1950, 1961, 1971, 1980, and 1989, provide statistics for measuring changes and trends over the past 48 years. This report primarily emphasizes the changes and trends since 1989.

Periodic surveys of forest resources 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 U.S. Department of Agriculture, Forest Service. In the Southern United States, these surveys are conducted by the Forest Inventory and Analysis (FIA) Research Work Unit at the Southern Research Station, Asheville, NC. The FIA unit operates out of two locations, one in Starkville, MS, and the other in Asheville, NC, and is responsible for inventories of 13 Southern States and the Commonwealth of Puerto Rico. The primary objective of these surveys 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 discusses the extent and condition of forest land, associated timber volumes, and rates of timber growth, mortality, and removals.

Additional information about any aspect of this survey may be obtained from:

Forest Inventory and Analysis
Southern Research Station
P.O. Box 2680
Asheville, NC 28802-2680
Telephone: 828-257-4350

Acknowledgment

The Southern Research Station gratefully acknowledges the cooperation and assistance provided by the Tennessee Department of Agriculture, Forestry Division. The research was made possible through collaboration within USDA Forest Service, FIA personnel (including those in Data Collection, Data Compilation, Analysis, and Publications Management). Appreciation is also expressed for the cooperation of other public agencies and private landowners in providing access to measurement plots.

Contents

[a] All tables in this report are available in Microsoft® Excel workbook files. Upon request, these files will be supplied on 3½-inch diskettes.

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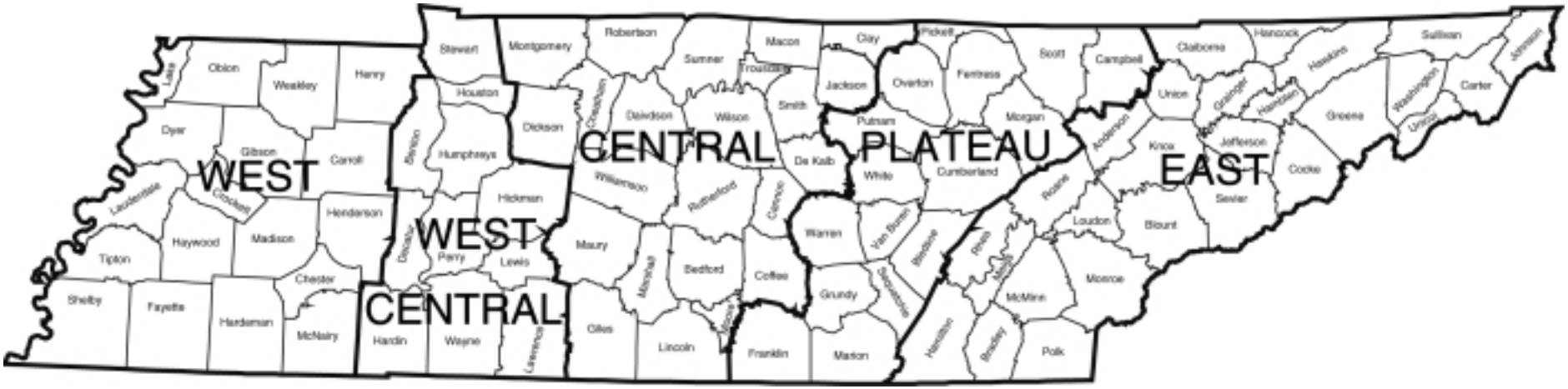

Figure 1—Forest survey regions in Central Tennessee.

Forest Statistics for Central Tennessee, 1998

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Highlights

This report summarizes results from a 1998 inventory of the forest resources of Central Tennessee (fig. 1). Current estimates of forest area, timberland area, related classifications such as ownership and forest type, and timber volumes are presented and compared with previous values. Average annual rates of net growth, removals, and mortality are summarized since the previous inventory in 1989. Resource data are presented in 51 tables and 9 graphs. A summary of major findings follows.

Timberland area—The area classified as timberland in the 23-county area has increased 16 percent since 1989, from 2.46 million acres to 2.85 million acres. One hundred and seven thousand acres were diverted from timberland to other uses, while 499,200 acres were added from previous nonforest use, resulting in a 392,600-acre net change. The diverted area was cleared for either agriculture or urban-related land uses. Forests cover 46 percent of the land area in Central Tennessee.

Ownership—Nonindustrial private forest (NIPF) land ownership increased 14 percent and totaled 2.64 million acres. NIPF land owners control 92 percent of the timberland in Central Tennessee. The area of timberland increased 43 percent on industry land, from 21,400 acres in 1989 to 30,600 acres in 1998. Public agencies control 185,300 acres, a 45-percent increase since 1989.

Forest type—Forest stands classified as hardwood forest type occupy 2.62 million acres, or 92 percent of timberland in the region. Hardwood stands have increased 15 percent, and softwood stands have increased 17 percent since 1989. Stands classified as oak-pine forest type increased 36 percent to 412,200 acres. Stands classified as oak-hickory have increased 7 percent since 1989, and the oak-hickory forest type remained the predominant forest type in the region with 2.08 million acres.

Stand treatment—Partial harvesting has been the predominant treatment and management activity in the timberland of Central Tennessee since 1989. Partial harvests occurred on 35,700 acres annually. Ninety-three percent of partial harvests was in hardwood stands, and 7 percent in oak-pine stands. A combination of reforestation and afforestation averaged 42,800 acres annually. Planting activities accounted for 1 percent of this total.

Hardwood volume—Volume of hardwood growing stock increased 44 percent to 3.3 billion cubic feet. On public lands, hardwood volume increased 94 percent to 232.5 million cubic feet, on NIPF land it increased 40 percent to 3.0 billion cubic feet, and on forest industry land it increased 125 percent to 69.1 million cubic feet. Oak species collectively accounted for 1.1 billion cubic feet, or 34 percent of hardwood volume; volume in hickories increased 40 percent to 499.5 million cubic feet, and ash volume increased 75 percent to 230.4 million cubic feet. Volume of hardwood sawtimber increased 47 percent to 10.4 billion board feet.

Softwood volume—Volume of softwood growing stock increased 18 percent to 162.5 million cubic feet between 1989 and 1998. Softwood volume increased 67 percent to 5.5 million cubic feet on forest industry land, 63 percent to 16.3 million cubic feet on public land, and 13 percent to 140.7 million cubic feet on NIPF land. Eastern redcedar accounts for 136.0 million cubic feet of the total softwood volume in Central Tennessee. The remaining softwood volume was classified as loblolly pine at 17.3 million cubic feet, Virginia pine at 3.4 million cubic feet , eastern white pine at 5.5 million cubic feet, and shortleaf pine at 0.3 million cubic feet. The inventory of softwood sawtimber totals 318.5 million board feet, a 62-percent increase from the previous survey period.

Growth—Net annual growth of hardwood growing stock averaged 109.2 million cubic feet. Net annual growth of hardwoods increased 21 percent since the

previous survey period. Hardwood growth increased 35 percent on public land and 21 percent on NIPF lands, and decreased 13 percent on forest industry lands.

Net annual growth of softwood growing stock averaged 8.4 million cubic feet. Net annual growth of softwoods has increased 28 percent since the previous survey period. Softwood growth decreased 23 percent on public land and 86 percent on forest industry land, and increased 38 percent on NIPF land.

Removals—Annual removals of hardwood growing stock averaged 44.7 million cubic feet. Hardwood removals have increased 37 percent since the previous survey period. Ninety-eight percent of hardwood removals occurred on NIPF lands and 2 percent on forest industry land. Across all ownerships, hardwood growth exceeded removals by 144 percent (or by a margin of 2.44 to 1).

Annual removals of softwood growing stock averaged 3.0 million cubic feet. Softwood removals have increased 177 percent since the previous survey period. Eighty-four percent of softwood growing stock removals occurred on NIPF lands, and 16 percent on public land. Softwood growth exceeded removals by 177 percent (or by a margin of 2.77 to 1).

Mortality—Mortality of growing stock has increased 13 percent to 22.4 million cubic feet since 1989. Hardwood mortality increased 9 percent to 21.0 million cubic feet; mortality increased 257 percent on forest industry timberlands, 31 percent on public lands, and 6 percent on NIPF lands. Softwood mortality increased 172 percent to 1.37 million cubic feet. Ninety-three percent of this total softwood mortality was accounted for on NIPF lands.

Inventory Methods

The Southern Research Station, Forest Inventory and Analysis (FIA) unit secured data on forest acreage and timber volume using a three-step process. A forest-nonforest classification using aerial photographs was accomplished for points representing approximately 230 acres. These photo classifications were adjusted based on ground observations at sample locations representing approximately 3,840 acres. Finally, field measurements were made at forest locations on the intersections of grid lines spaced 3 miles apart.

The plot design at each ground sample location was based on a cluster of four points spaced 120 feet apart. Each point served as the center of a 1/24-acre circular subplot used to sample trees 5.0 inches diameter at breast height (d.b.h.) and larger. A 1/300-acre circular microplot, located at the center of the subplot, was used to sample trees 1.0 through 4.9 inches d.b.h. and seedlings (trees less than 1.0 inch d.b.h.). These fixed-radius sample plots were established without regard to land use or forest cover. Forest and nonforest condition classes were delineated and recorded. Condition classes were defined by six attributes: land use, forest type, stand origin, stand size, stand density, and major ownership. All trees tallied were assigned to their respective condition class.

The cluster of four fixed plots sampled timberland at 560 ground sample locations in this survey unit. Estimates of timber volume and forest classification were derived from tree measurements and classifications made at these locations. Volumes for individual tally trees were computed using equations for each of the major species in the survey unit. The equations were developed from detailed measurements collected on standing trees in this survey unit and throughout the region.

Estimates of growth, removals, and mortality were determined from the remeasurement of 452 permanent sample plots established in the previous inventory. The plot design for the previous inventory was based on a cluster of 10 points. At each point, trees 5.0 inches d.b.h. and larger were selected for measurement on a variable-radius plot defined by a 37.5-factor prism. Trees less than 5.0 inches d.b.h. were tallied on a fixed-radius plot around each plot center.

Statistical Reliability

FIA inventories employ sampling methods designed to achieve reliable statistics at the survey unit and State levels. A measure of reliability of inventory statistics is provided by sampling errors. These sampling errors mean that the chances are two out of three that the true population value is within the limits indicated by a confidence interval. Sampling errors (in percent) and associated confidence intervals around the sample estimates for timberland area, inventory volumes, and components of change are presented in the following table.

Item	Sample estimate and confidence interval	Sampling error
		Percent
Timberland *(1,000 acres)*	2,853.9 ± 17.4	0.61
All live *(M ft³)*		
Inventory	4,514.6 ± 145.4	3.22
Net annual growth	142.2 ± 5.7	4.02
Annual removals	53.7 ± 6.7	12.48
Annual mortality	35.8 ± 3.2	8.90
Growing stock *(M ft³)*		
Inventory	3,470.4 ± 137.8	3.97
Net annual growth	117.6 ± 5.3	4.52
Annual removals	47.7 ± 6.2	12.99
Annual mortality	22.4 ± 2.6	11.53
Sawtimber *(M fbm)*		
Inventory	10,694.0 ± 623.5	5.83
Net annual growth	480.8 ± 25.0	5.21
Annual removals	202.4 ± 28.0	13.84
Annual mortality	46.8 ± 6.8	14.56

Sampling error increases as the area or volume considered decreases in magnitude. Sampling errors and associated confidence intervals are often unacceptably high for small components of the total resource. Statistical confidence may be computed for any subdivision of survey unit or State totals using the following formula. Sampling errors obtained from this method are only approximations of reliability because this process assumes constant variance across all subdivisions of totals.

$$SE_s = SE_t \frac{\sqrt{X_t}}{\sqrt{X_s}},$$

where

SE_s = sampling error for subdivision of survey unit or State total,

SE_t = sampling error for survey unit or State total,

X_s = sum of values for the variable of interest (area or volume) for subdivision of survey unit or State,

X_t = total area or volume for survey unit or State.

For example, the estimate of sampling error for hardwood growing-stock volume on NIPF land is computed as:

$$SE_s = 3.97 \frac{\sqrt{3{,}470.4}}{\sqrt{3{,}006.3}} = 4.27.$$

Thus, the sampling error is 4.27 percent, and the resulting confidence interval (two times out of three) for hardwood growing-stock inventory on NIPF land is 3,006.3 ± 128.4 million cubic feet.

County statistics are provided, but users are cautioned that the accuracy of individual county data is highly variable. Individual county statistics are provided so any combination of counties may be added together until the totals are large enough to meet the desired degree of reliability. Sampling errors for key resource items for individual counties are provided in the following table.

Sampling errors[a] by counties and survey unit for timberland, live trees, growing stock, and sawtimber, Central Tennessee, 1998

Counties and survey unit	Timberland area	Live trees			Growing stock			Sawtimber		
		Volume	Growth	Removals	Volume	Growth	Removals	Volume	Growth	Removals
					Percent					
Bedford	1.7	27.2	23.8	100.0	36.3	31.6	—	50.8	40.5	—
Cannon	4.2	17.3	26.3	61.1	21.7	34.3	62.7	39.4	38.4	55.2
Cheatham	3.2	14.2	17.5	90.3	15.9	18.2	100.1	25.0	14.5	100.1
Clay	1.8	15.1	10.6	78.7	15.5	11.8	78.7	27.2	15.6	86.0
Coffee	2.8	11.5	14.2	53.9	13.0	15.8	54.9	15.4	18.6	60.3
Davidson	3.2	14.8	15.2	66.2	18.3	18.8	59.3	24.0	24.8	73.3
DeKalb	4.2	15.6	11.2	72.0	18.7	13.5	72.0	26.7	19.9	70.2
Dickson	2.8	8.6	12.0	44.7	9.9	12.2	45.8	13.8	13.0	47.0
Giles	2.5	10.8	13.7	32.2	12.1	13.6	32.7	17.1	15.3	39.6
Jackson	3.4	12.5	11.6	38.9	16.1	13.9	40.6	21.4	18.7	45.3
Lincoln	2.1	10.5	11.4	46.1	13.2	14.9	41.7	17.8	17.3	45.2
Macon	3.4	20.3	21.5	38.6	24.3	24.1	37.6	30.4	27.1	37.0
Marshall	2.7	20.6	21.5	43.0	21.9	26.3	44.6	33.2	34.2	45.0
Maury	2.1	17.6	19.2	47.8	20.9	21.3	47.3	37.1	24.8	67.0
Montgomery	2.8	14.8	15.8	39.0	16.8	17.2	38.2	22.0	18.0	38.9
Moore	4.8	13.1	18.6	65.5	16.1	18.6	65.5	33.0	16.8	64.7
Robertson	3.8	16.4	28.3	52.6	26.3	26.4	61.6	37.2	22.6	59.7
Rutherford	2.2	11.9	23.6	72.3	19.3	22.7	—	32.5	58.2	—
Smith	4.1	16.9	35.5	76.0	24.1	45.1	80.5	34.4	28.0	82.7
Sumner	3.3	17.0	22.5	42.9	25.2	26.2	42.5	34.9	28.4	46.1
Trousdale	2.7	5.7	40.3	100.0	12.3	43.0	100.0	22.0	51.9	100.0
Williamson	2.8	9.9	18.2	48.1	12.6	16.4	50.0	16.2	19.5	52.6
Wilson	1.6	13.5	14.8	—	17.7	15.3	—	29.9	29.6	—
Survey unit	**0.6**	**3.2**	**4.0**	**12.5**	**4.0**	**4.5**	**13.0**	**5.8**	**5.2**	**13.8**

[a] By random-sampling formula.

Definitions

Average annual mortality. Average annual volume of trees 5.0 inches d.b.h. and larger that died from natural causes during the intersurvey period.

Average annual removals. Average annual volume of trees 5.0 inches d.b.h. and larger removed from the inventory by harvesting, cultural operations (such as timber-stand improvement), land clearing, or changes in land use during the intersurvey period.

Average net annual growth. Average annual net change in volume of trees 5.0 inches d.b.h. and larger in the absence of cutting (gross growth minus mortality) during the intersurvey period.

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 in square feet per acre.

Biomass. The aboveground fresh weight of solid wood and bark in 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 d.o.b. in trees 5.0 inches d.b.h. and larger.

Census water. Streams, sloughs, estuaries, canals, and other moving bodies of water 200 feet wide and greater, and lakes, reservoirs, ponds, and other permanent bodies of water 4.5 acres in area and greater.

Commercial species. Tree species currently or potentially suitable for industrial wood products.

D.b.h. Tree diameter in inches (outside bark) at breast height (4.5 feet aboveground).

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.

D.o.b. (diameter outside bark). Stem diameter including bark.

Forest land. Land at least 10 percent stocked by forest trees of any size, or formerly having had such tree cover, and not currently developed for nonforest use. The minimum area considered for classification is 1 acre. Forested strips must be at least 120 feet wide.

Forest management type. A classification of timberland based on forest type and stand origin.

Pine plantation. Stands that (a) have been artificially regenerated by planting or direct seeding, (b) are classed as a pine or other softwood forest type, and (c) have at least 10 percent stocking.

Natural pine. Stands that (a) have not been artificially regenerated, (b) are classed as a pine or other softwood forest type, and (c) have at least 10 percent stocking.

Oak-pine. Stands that have at least 10 percent stocking and classed as a forest type of oak-pine.

Upland hardwood. Stands that have at least 10 percent stocking and classed as an oak-hickory or maple-beech-birch forest type.

Lowland hardwood. Stands that have at least 10 percent stocking with a forest type of oak-gum-cypress, elm-ash-cottonwood, palm, or other tropical.

Nonstocked stands. Stands less than 10 percent stocked with live trees.

Forest type. A classification of forest land based on the species forming a plurality of live-tree stocking. Major eastern forest-type groups are:

White-red-jack pine. 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).

Nonstocked stands. Stands less than 10 percent stocked with live trees.

Forested tract size. The area of forest within the contiguous tract containing each Forest Inventory and Analysis sample plot.

Fresh weight. Mass of tree component at time of cutting.

Gross growth. Annual increase in volume of trees 5.0 inches d.b.h. and larger in the absence of cutting and mortality. (Gross growth includes survivor growth, ingrowth, growth on ingrowth, growth on removals before removal, and growth on mortality before death).

Growing-stock trees. Living trees of commercial species classified as sawtimber, poletimber, saplings, and seedlings. Trees must contain at least one 12-foot or two 8-foot logs in the saw-log portion, currently or potentially (if too small to qualify), to be classed as growing stock. The log(s) must meet dimension and merchantability standards to qualify. Trees must also have, currently or potentially, one-third of the gross board-foot volume in sound wood.

Growing-stock volume. The cubic-foot volume of sound wood in growing-stock trees at least 5.0 inches d.b.h. from a 1-foot stump to a minimum 4.0-inch top d.o.b. of the central stem.

Hardwoods. Dicotyledonous trees, usually broadleaf and deciduous.

Soft hardwoods. Hardwood species with an average specific gravity of 0.50 or less, such as gums, yellow-poplar, cottonwoods, red maple, basswoods, and willows.

Hard hardwoods. Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maples, hickories, and beech.

Industrial wood. All roundwood products except fuelwood.

Land area. The area of dry land and land temporarily or partly covered by water, such as marshes, swamps, and river floodplains (omitting tidal flats below mean high tide), streams, sloughs, estuaries, and canals less than 200 feet wide, and lakes, reservoirs, and ponds less than 4.5 acres in area.

Live trees. All living trees. All size classes, all tree classes, and both commercial and noncommercial species are included.

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

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

Net annual change. Increase or decrease in volume of live trees at least 5.0 inches d.b.h. Net annual change is equal to net annual growth minus average annual removals.

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

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

Nonstocked stands. Stands less than 10 percent stocked with live trees.

Other forest land. Forest land other than timberland and productive reserved forest land. It includes available and reserved forest land which is incapable of producing annually 20 cubic feet per acre of industrial wood under natural conditions, because of adverse site conditions such as sterile soils, dry climate, poor drainage, high elevation, steepness, or rockiness.

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, resulting in the removal of the trees from timberland.

Ownership. The property owned by one ownership unit, including all parcels of land in the United States.

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.

Forest industry land. Land owned by companies or individuals operating primary 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.

Nonindustrial private forest (NIPF) land. Privately owned land excluding forest industry land or forest industry-leased land.

Corporate. Owned by corporations, including incorporated farm ownerships.

Individual. All lands owned by individuals, including farm operators.

Other public. An ownership class that includes all public lands except national forests.

Miscellaneous Federal land. Federal land other than national forests.

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.

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, suitable for chipping.

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

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

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

Poletimber-size trees. Softwoods 5.0 to 8.9 inches d.b.h. and hardwoods 5.0 to 10.9 inches d.b.h.

Primary wood-using plants. Industries receiving roundwood or chips from roundwood for the manufacture of products, such as veneer, pulp, and lumber.

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

Rotten trees. Live trees of commercial species not containing 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 not containing 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 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 nonpulpmills, 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, that is produced from roundwood.

Salvable dead trees. Standing or downed dead trees that were formerly growing stock and considered merchantable. Trees must be at least 5.0 inches d.b.h. to qualify.

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, with a minimum diameter inside bark for softwoods of 6 inches (8 inches for hardwoods).

Saw-log portion. The part of the bole of sawtimber trees between a 1-foot stump and the saw-log top.

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 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. Trees less than 1.0 inch d.b.h. and greater than 1 foot tall for hardwoods, greater than 6 inches tall for softwood, and greater than 0.5 inch in diameter at ground level for longleaf pine.

Select red oaks. A group of several red oak species composed of cherrybark, Shumard, and northern red oaks. Other red oak species are included in the "other red oaks" group.

Select white oaks. A group of several white oak species composed of white, swamp chestnut, swamp white, chinkapin, Durand, and bur oaks. Other white oak species are included in the "other white oaks" group.

Site class. A classification of forest land in terms of potential capacity to grow crops of industrial wood based on fully stocked natural stands.

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

Yellow pines. Loblolly, longleaf, slash, pond, shortleaf, pitch, Virginia, sand, spruce, and Table Mountain pines.

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

Stand age. The average age of dominant and codominant trees in the stand.

Stand origin. A classification of forest stands describing their means of origin.

Planted. Planted or artificially seeded.

Natural. No evidence of artificial regeneration.

Stand-size class. A classification of forest land based on the diameter class distribution of live trees in the stand.

Sawtimber stands. Stands at least 10 percent stocked with live 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 10 percent stocked with live trees, of which half or more of total stocking is in poletimber and sawtimber trees, and with pole-timber stocking exceeding that of sawtimber.

Sapling-seedling stands. Stands at least 10 percent stocked with live trees of which more than half of total stocking is saplings and seedlings.

Nonstocked stands. Stands less than 10 percent stocked with live trees.

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.

Density of trees and basal area per acre required for full stocking

D.b.h. class	Trees per acre for full stocking	Basal area per acre
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

Timberland. Forest land capable of producing 20 cubic feet of industrial wood per acre per year and not withdrawn from timber utilization.

Timber products. Roundwood products and byproducts.

Tree. Woody plants having one erect perennial stem or trunk at least 3 inches d.b.h., a more or less definitely formed crown of foliage, and a height of at least 13 feet (at maturity).

Tree grade. A classification of the saw-log portion of sawtimber trees based on: (1) the grade of the butt log or (2) the ability to produce at least one 12-foot or two 8-foot logs in the upper section of the saw-log portion. Tree grade is an indicator of quality; grade 1 is the best quality.

Upper-stem portion. The 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.

Volume of live trees. The cubic-foot volume of sound wood in live trees at least 5.0 inches d.b.h. from a 1-foot stump to a minimum 4.0-inch top d.o.b. of the central stem.

Volume of saw-log portion of sawtimber trees. The cubic-foot volume of sound wood in the saw-log portion of sawtimber trees. Volume is the net result after deductions for rot, sweep, and other defects that affect use for lumber.

Metric Equivalents

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 aboveground 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

Graphs

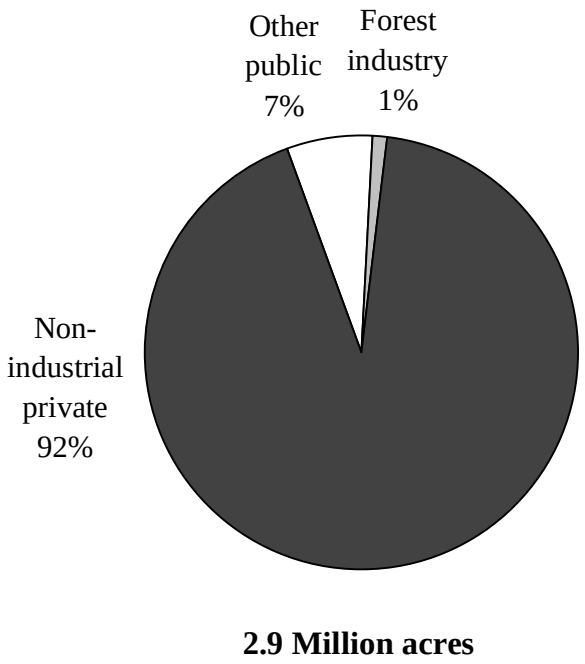

Figure 2—Distribution of timberland by ownership class, Central Tennessee, 1998.

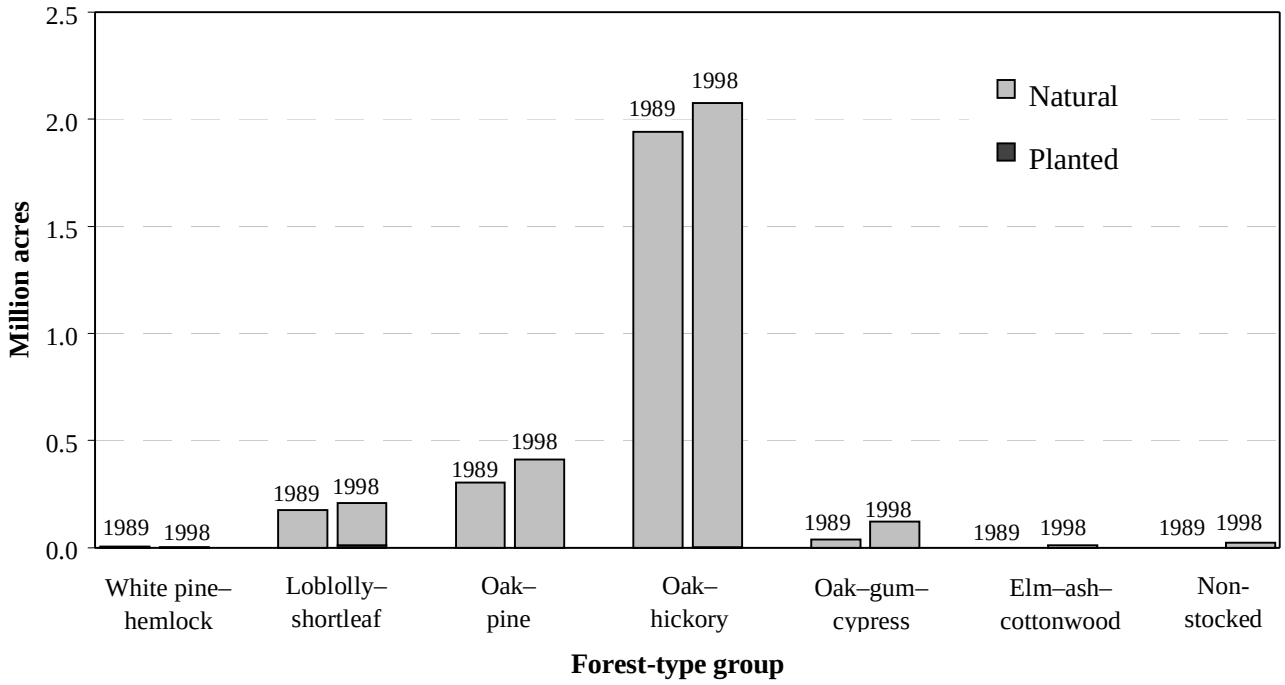

Figure 3—Area of timberland by forest-type group and stand origin, Central Tennessee, 1989 and 1998.

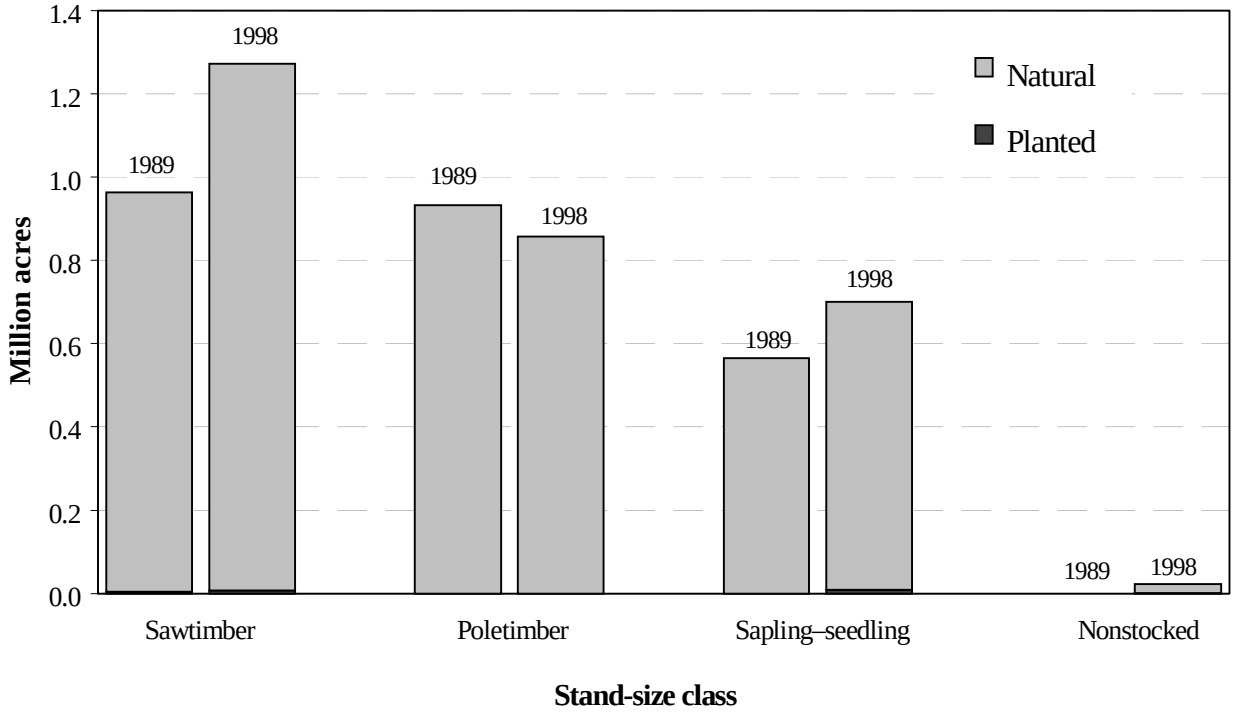

Figure 4—Area of timberland by stand-size class and stand origin, Central Tennessee, 1989 and 1998.

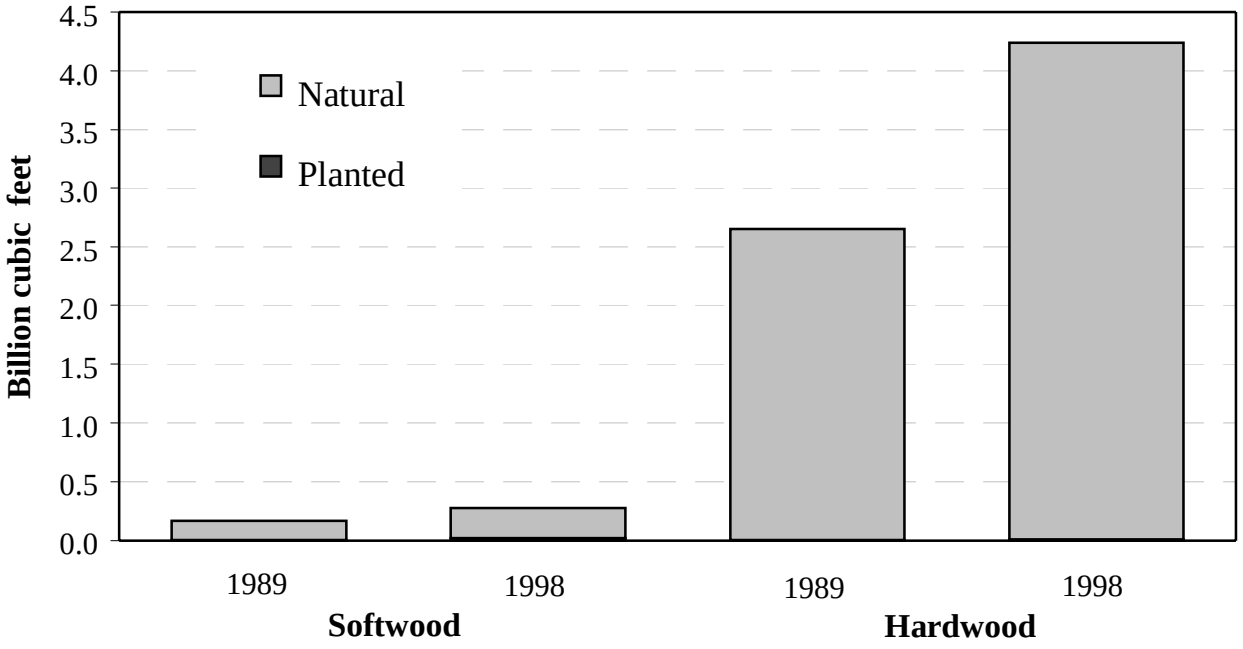

Figure 5—Volume of live trees on timberland by species group and stand origin, Central Tennessee, 1989 and 1998.

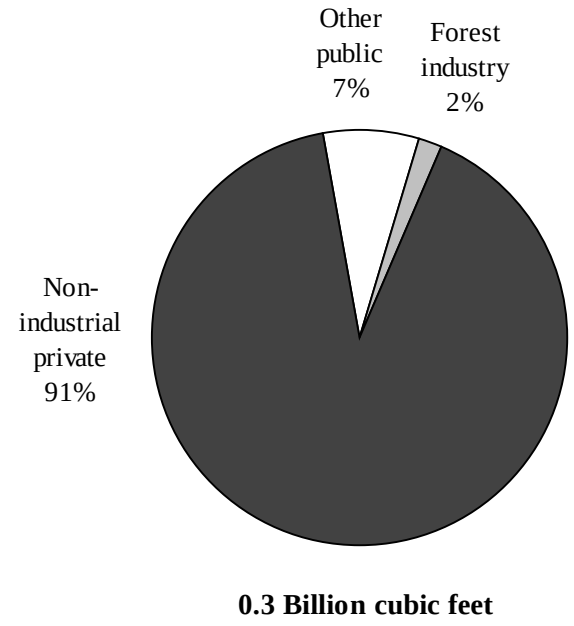

Figure 6—Distribution of softwood live tree volume by ownership class, Central Tennessee, 1998.

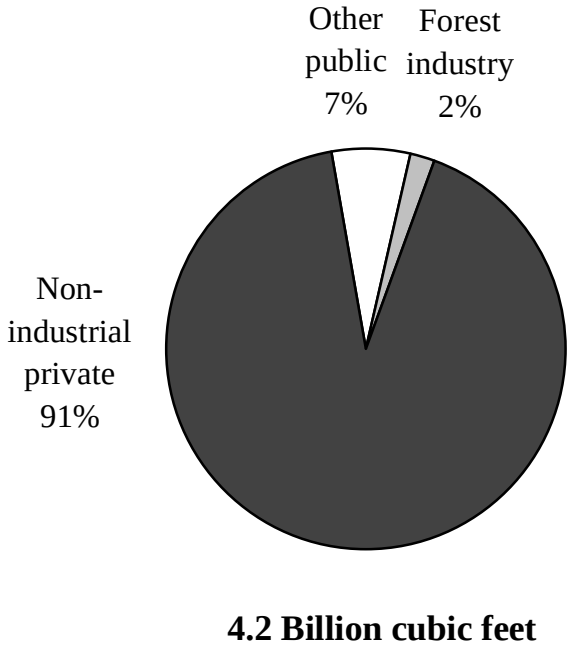

Figure 7—Distribution of hardwood live tree volume by ownership class, Central Tennessee, 1998.

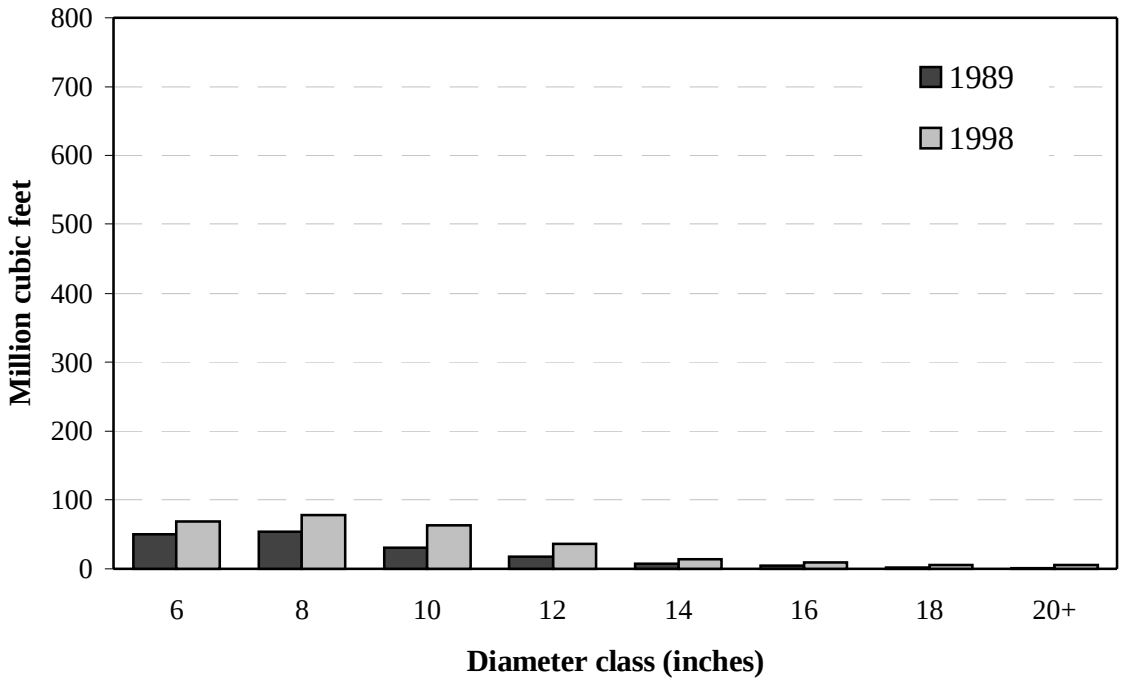

Figure 8—Volume of softwood live trees on timberland by diameter class, Central Tennessee, 1989 and 1998.

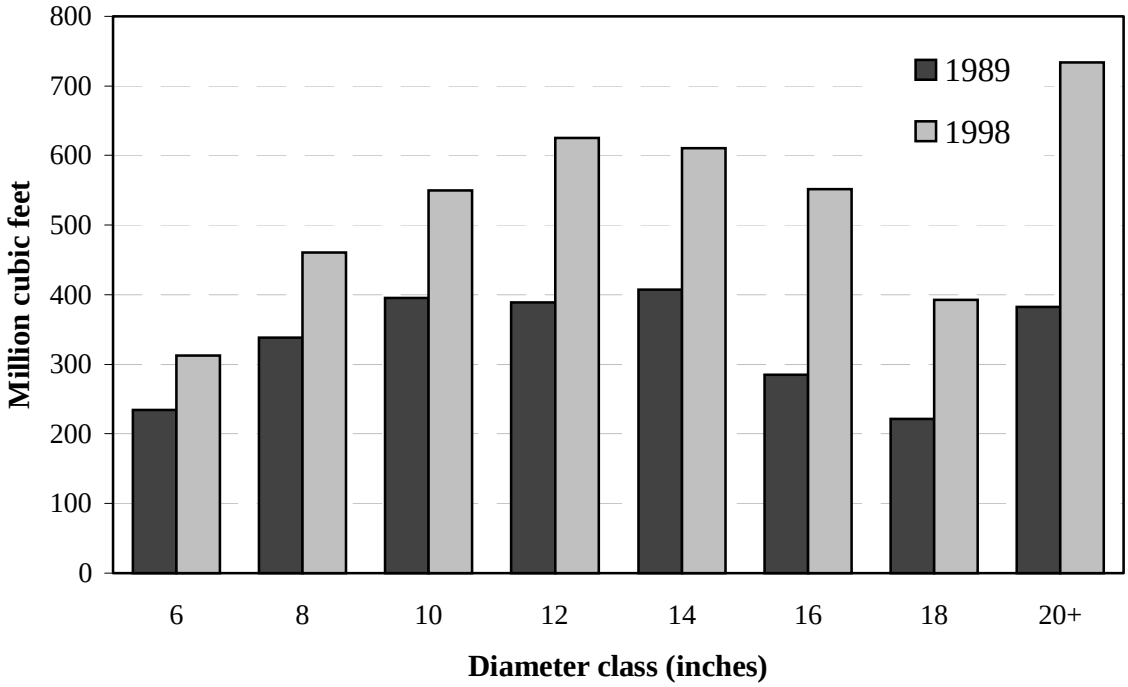

Figure 9—Volume of hardwood live trees on timberland by diameter class, Central Tennessee, 1989 and 1998.

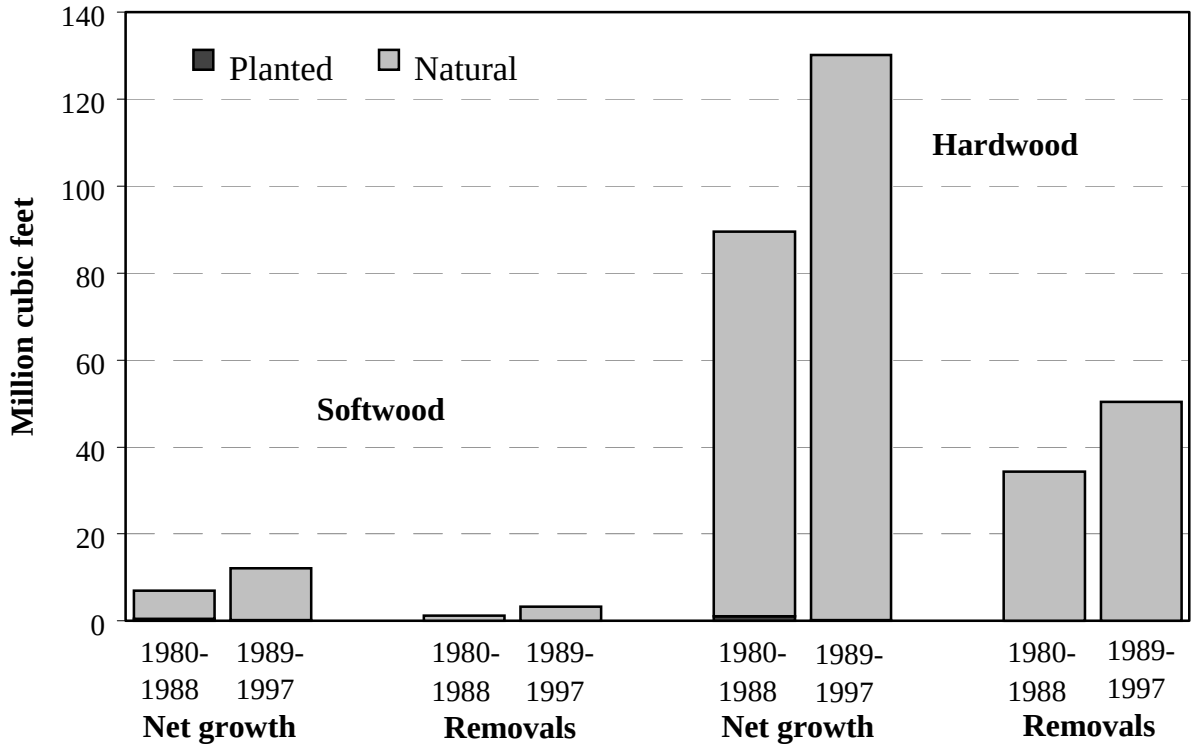

Figure 10—Average net annual growth and removals of live trees on timberland by species group and stand origin, Central Tennessee, 1980-1988 and 1989-1997.

Cross Reference of Eastern Core Tables

Core table	Corresponding table number in this report	Core table	Corresponding table number in this report
1	1	14	22
2	3	15	24, 26
3	4	16	27
4	5	17	28
5	6	18	32, 34
6	7	19	35, 37
7	8	20	38
8	10	21	38
9	11	22	40
10	17	23	41
11	18	24	43
12	20	25	23
13	21		

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24. Volume of growing stock on timberland by county and species group

25. Volume of live trees on timberland by county and species group

26. Volume of sawtimber on timberland by county and species group

27. Volume of timber on timberland by class of timber and species group

28. Volume of live and growing-stock trees on timberland by ownership class and species group

29. Volume of sawtimber on timberland by ownership class, species group, and size class

30. Volume of growing stock on timberland by forest-type group, stand origin, and species group

31. Average basal area of live trees per acre on timberland by ownership class, species group, and d.b.h.

32. Average net annual growth of growing stock on timberland by county and species group

33. Average net annual growth of live trees on timberland by county and species group

34. Average net annual growth of sawtimber on timberland by county and species group

35. Average annual removals of growing stock on timberland by county and species group

36. Average annual removals of live trees on timberland by county and species group

37. Average annual removals of sawtimber on timberland by county and species group

38. Average net annual growth and average annual removals of live trees, growing stock, and sawtimber on timberland by species

39. Average annual removals of growing stock on timberland by species and diameter class

40. Average annual mortality of live trees, growing stock, and sawtimber on timberland by species

41. Average net annual growth and average annual removals of growing stock on timberland by ownership class and species group

42. Average net annual growth and average annual removals of live trees on timberland by ownership class and species group

43. Average net annual growth and average annual removals of sawtimber on timberland by ownership class and species group

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46. Fresh weight of live trees on timberland by ownership class, species group, and tree component

47. Area of timberland treated or disturbed annually and retained in timberland by treatment or disturbance and ownership class

48. Area of timberland treated or disturbed annually and retained in timberland by treatment or disturbance and forest management type

49. Area of timberland regenerated annually by type of regeneration and forest management type

50. Land area by land-use class, major forest type, and survey completion date

51. Volume of sawtimber, growing stock, and live trees on timberland by species group, survey completion date, and diameter class

Table 1—Land area by county and land class, Central Tennessee, 1998

County	Total land area[a]	Forest land				Other land[b]
		Total forest	Timberland	Productive reserved	Other	
	Thousand acres					
Bedford	303.2	93.0	93.0	—	—	210.2
Cannon	170.0	98.2	98.2	—	—	71.9
Cheatham	193.7	130.7	130.7	—	—	63.1
Clay	151.1	105.5	105.5	—	—	45.6
Coffee	274.5	127.0	126.5	0.5	—	147.5
Davidson	321.4	136.1	135.1	1.0	—	185.3
DeKalb	194.9	121.8	121.8	—	—	73.1
Dickson	313.5	184.7	184.1	0.6	—	128.9
Giles	391.0	199.0	199.0	—	—	192.0
Jackson	197.7	138.0	138.0	0.1	—	59.6
Lincoln	365.0	162.8	162.8	—	—	202.2
Macon	196.6	89.2	89.2	—	—	107.4
Marshall	240.3	97.6	97.6	—	—	142.7
Maury	392.3	182.9	182.9	—	—	209.3
Montgomery	345.1	168.3	168.1	0.1	—	176.8
Moore	82.7	36.0	36.0	—	—	46.7
Robertson	305.0	70.9	70.9	—	—	234.1
Rutherford	396.1	155.7	155.5	0.2	—	240.4
Smith	201.2	108.6	108.6	—	—	92.6
Sumner	338.8	115.7	115.5	0.2	—	223.1
Trousdale	73.1	25.6	25.6	—	—	47.5
Williamson	372.9	168.8	168.8	—	—	204.2
Wilson	365.2	141.4	140.5	0.9	—	223.8
Total	6,185.4	2,857.4	2,853.9	3.5	—	3,328.0

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

[a] From the U.S. Bureau of the Census, 1990.

[b] Includes 37.5 thousand acres of water according to Forest Inventory and Analysis standards of area classification, but defined by the Bureau of Census as land.

Table 2—Area of forest land by forest-type group and ownership class, Central Tennessee, 1998

Forest-type group	All classes	Ownership class					
		National forest	Miscellaneous Federal	State	County and municipal	Forest industry	Nonindustrial private
	Thousand acres						
White–red–jack pine	2.8	—	—	—	—	2.6	0.2
Loblolly–shortleaf pine	206.4	—	8.8	4.8	—	—	192.9
Oak–pine	412.3	—	27.2	8.1	—	—	377.0
Oak–hickory	2,078.6	—	56.4	41.8	17.2	27.9	1,935.2
Oak–gum–cypress	121.4	—	18.6	5.1	—	—	97.7
Elm–ash–cottonwood	12.0	—	—	—	—	—	12.0
Nonstocked	23.8	—	0.4	—	0.3	—	23.1
Total	2,857.4	—	111.4	59.9	17.5	30.6	2,638.1

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 3—Area of timberland by county and ownership class, Central Tennessee, 1998

County	All classes	Ownership class						
		National forest	Miscellaneous Federal	State	County and municipal	Forest industry	Nonindustrial private	
							Corporate	Individual
				Thousand acres				
Bedford	93.0	—	—	—	—	6.4	—	86.6
Cannon	98.2	—	—	6.2	—	—	—	91.9
Cheatham	130.7	—	—	22.2	—	—	7.2	101.3
Clay	105.5	—	—	—	—	—	8.2	97.3
Coffee	126.5	—	12.7	5.7	—	—	13.2	94.9
Davidson	135.1	—	4.7	1.6	12.5	—	20.2	96.3
DeKalb	121.8	—	15.0	—	0.3	—	8.3	98.1
Dickson	184.1	—	—	1.5	—	—	7.6	175.0
Giles	199.0	—	—	—	—	12.3	5.4	181.3
Jackson	138.0	—	5.4	—	—	5.4	—	127.1
Lincoln	162.8	—	—	—	—	—	—	162.8
Macon	89.2	—	—	—	—	—	—	89.2
Marshall	97.6	—	—	—	—	—	2.6	95.0
Maury	182.9	—	8.6	—	—	—	25.7	148.7
Montgomery	168.1	—	38.8	—	—	6.5	12.9	110.0
Moore	36.0	—	—	—	—	—	4.8	31.2
Robertson	70.9	—	—	—	—	—	16.2	54.6
Rutherford	155.5	—	11.6	—	—	—	17.5	126.4
Smith	108.6	—	5.0	—	—	—	4.8	98.8
Sumner	115.5	—	—	—	—	—	6.5	109.1
Trousdale	25.6	—	—	—	—	—	—	25.6
Williamson	168.8	—	6.4	—	4.8	—	6.4	151.3
Wilson	140.5	—	3.2	19.2	—	—	12.8	105.3
Total	2,853.9	—	111.4	56.3	17.5	30.6	180.2	2,457.8

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 4—Area of timberland by county and forest-type group, Central Tennessee, 1998

County	All groups	Forest-type group						
		White–red–jack pine	Loblolly–shortleaf	Oak–pine	Oak–hickory	Oak–gum–cypress	Elm–ash–cottonwood	Nonstocked
				Thousand acres				
Bedford	93.0	—	29.3	14.0	48.1	—	—	1.6
Cannon	98.2	—	13.5	11.7	68.3	4.7	—	—
Cheatham	130.7	—	3.6	11.1	109.2	5.4	—	1.3
Clay	105.5	—	—	4.0	101.5	—	—	—
Coffee	126.5	0.2	0.9	—	111.2	11.3	—	2.8
Davidson	135.1	—	—	21.7	111.8	1.6	—	—
DeKalb	121.8	—	18.1	22.7	78.0	2.8	—	0.3
Dickson	184.1	—	—	6.1	172.4	4.6	—	1.1
Giles	199.0	2.6	5.4	10.9	163.6	12.5	—	3.9
Jackson	138.0	—	—	11.6	124.8	—	—	1.5
Lincoln	162.8	—	12.8	22.7	113.6	12.5	—	1.2
Macon	89.2	—	—	14.2	75.0	—	—	—
Marshall	97.6	—	18.5	24.9	53.6	—	—	0.6
Maury	182.9	—	6.7	16.4	147.5	7.8	2.1	2.3
Montgomery	168.1	—	8.1	18.8	126.3	12.9	1.6	0.4
Moore	36.0	—	0.8	1.2	34.0	—	—	—
Robertson	70.9	—	—	—	65.4	5.4	—	—
Rutherford	155.5	—	40.7	54.0	45.1	8.0	5.8	1.9
Smith	108.6	—	15.7	30.5	56.4	6.0	—	—
Sumner	115.5	—	1.6	17.8	84.8	8.1	—	3.2
Trousdale	25.6	—	1.2	4.9	19.5	—	—	—
Williamson	168.8	—	6.4	22.2	118.8	17.4	2.4	1.6
Wilson	140.5	—	23.1	70.7	46.7	—	—	—
Total	2,853.9	2.8	206.4	412.2	2,075.7	121.0	12.0	23.8

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 5—Area of timberland by county and stand-size class, Central Tennessee, 1998

County	All classes	Stand-size class			
		Sawtimber	Poletimber	Sapling-seedling	Nonstocked
		Thousand acres			
Bedford	93.0	36.4	42.1	12.8	1.6
Cannon	98.2	26.8	54.7	16.7	—
Cheatham	130.7	72.7	40.7	16.0	1.3
Clay	105.5	41.9	37.7	25.9	—
Coffee	126.5	85.8	9.9	28.0	2.8
Davidson	135.1	53.8	45.0	36.4	—
DeKalb	121.8	65.5	19.5	36.5	0.3
Dickson	184.1	107.5	34.8	40.8	1.1
Giles	199.0	73.5	69.0	52.6	3.9
Jackson	138.0	71.9	25.8	38.8	1.5
Lincoln	162.8	69.7	68.9	23.0	1.2
Macon	89.2	48.6	13.9	26.7	—
Marshall	97.6	22.9	49.6	24.5	0.6
Maury	182.9	90.0	38.3	52.2	2.3
Montgomery	168.1	80.9	26.5	60.2	0.4
Moore	36.0	14.4	15.6	6.0	—
Robertson	70.9	62.7	5.4	2.7	—
Rutherford	155.5	27.9	79.0	46.7	1.9
Smith	108.6	29.4	52.1	27.1	—
Sumner	115.5	40.2	31.6	40.5	3.2
Trousdale	25.6	7.3	17.1	1.2	—
Williamson	168.8	108.8	30.5	27.8	1.6
Wilson	140.5	33.6	49.7	57.2	—
Total	2,853.9	1,272.2	857.5	700.4	23.8

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 6—Area of timberland by county and site class, Central Tennessee, 1998

County	All classes	Site class (cubic feet/acre/year)				
		20-49	50-84	85-119	120-164	>165
		Thousand acres				
Bedford	93.0	38.4	35.3	6.4	12.8	—
Cannon	98.2	26.8	35.9	21.8	13.7	—
Cheatham	130.7	8.5	94.3	18.9	7.2	1.8
Clay	105.5	8.2	78.8	18.5	—	—
Coffee	126.5	—	32.5	71.6	22.4	—
Davidson	135.1	14.0	99.5	21.6	—	—
DeKalb	121.8	23.6	26.8	46.6	24.7	—
Dickson	184.1	19.8	82.4	62.5	19.4	—
Giles	199.0	14.4	82.9	62.9	38.8	—
Jackson	138.0	44.9	49.1	34.4	9.5	—
Lincoln	162.8	25.6	68.8	63.4	4.9	—
Macon	89.2	5.1	33.8	45.0	5.2	—
Marshall	97.6	33.5	25.2	33.7	5.2	—
Maury	182.9	21.7	90.4	57.2	13.7	—
Montgomery	168.1	1.6	63.9	57.5	38.6	6.5
Moore	36.0	—	11.6	14.8	9.6	—
Robertson	70.9	—	21.6	49.2	—	—
Rutherford	155.5	84.4	59.5	11.6	—	—
Smith	108.6	28.0	49.3	31.3	—	—
Sumner	115.5	19.5	54.3	36.9	4.9	—
Trousdale	25.6	14.6	3.7	3.7	3.7	—
Williamson	168.8	19.1	77.4	34.2	38.1	—
Wilson	140.5	80.0	52.2	8.3	—	—
Total	2,853.9	531.9	1,229.1	812.1	272.5	8.3

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 7—Area of timberland by county and stocking class of growing-stock trees, Central Tennessee, 1998

County	All classes	Stocking class (percent)				
		<16.7	16.7-59	60-99	100-130	>130
			Thousand acres			
Bedford	93.0	3.2	56.1	12.8	20.9	—
Cannon	98.2	0.6	62.4	20.6	14.5	—
Cheatham	130.7	6.7	27.0	79.1	17.8	—
Clay	105.5	—	20.4	65.3	8.2	11.6
Coffee	126.5	7.6	9.9	55.6	29.4	24.1
Davidson	135.1	8.3	54.6	45.1	22.6	4.6
DeKalb	121.8	1.7	18.7	76.7	15.0	9.7
Dickson	184.1	2.6	23.4	103.2	39.7	15.3
Giles	199.0	9.4	72.6	83.4	28.3	5.4
Jackson	138.0	24.9	42.2	60.9	4.5	5.4
Lincoln	162.8	14.0	54.5	82.8	11.5	—
Macon	89.2	10.1	17.5	50.8	8.8	2.0
Marshall	97.6	7.8	8.7	51.9	16.5	12.8
Maury	182.9	7.0	55.7	79.7	31.3	9.1
Montgomery	168.1	15.2	28.5	57.3	46.1	21.0
Moore	36.0	0.8	10.0	14.4	6.0	4.8
Robertson	70.9	2.7	35.1	30.3	—	2.7
Rutherford	155.5	20.0	65.1	62.2	8.3	—
Smith	108.6	13.9	44.7	30.2	13.4	6.4
Sumner	115.5	4.9	44.4	47.9	18.3	—
Trousdale	25.6	—	8.5	13.4	3.7	—
Williamson	168.8	1.6	73.8	70.0	23.4	—
Wilson	140.5	3.2	55.6	46.8	29.5	5.4
Total	2,853.9	166.2	889.6	1,240.4	417.6	140.1

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 8—Area of timberland by forest-type group, stand origin, and ownership class, Central Tennessee, 1998

Forest-type group and stand origin	All classes	Ownership class			
		National forest	Other public	Forest industry	Nonindustrial private
		Thousand acres			
Softwood types					
White–red–jack pine					
Planted	2.8	—	—	2.6	0.2
Natural	—	—	—	—	—
Total	2.8	—	—	2.6	0.2
Loblolly–shortleaf pine					
Planted	11.0	—	2.5	—	8.5
Natural	195.4	—	11.0	—	184.4
Total	206.4	—	13.6	—	192.9
Total softwoods	209.3	—	13.6	2.6	193.1
Hardwood types					
Oak–pine					
Planted	—	—	—	—	—
Natural	412.2	—	35.1	—	377.0
Total	412.2	—	35.1	—	377.0
Oak–hickory	2,075.7	—	112.5	27.9	1,935.2
Oak–gum–cypress	121.0	—	23.3	—	97.7
Elm–ash–cottonwood	12.0	—	—	—	12.0
Total hardwoods	2,620.8	—	170.9	27.9	2,421.9
Nonstocked	23.8	—	0.7	—	23.1
All groups	2,853.9	—	185.3	30.6	2,638.1

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 9—Area of timberland by forest-type group, detailed forest type, and ownership class, Central Tennessee, 1998

Forest-type group and detailed forest type	All classes	Ownership class			
		National forest	Other public	Forest industry	Nonindustrial private
	Thousand acres				
Softwood types					
White–red–jack pine					
White pine	2.8	—	—	2.6	0.2
Total	2.8	—	—	2.6	0.2
Loblolly–shortleaf					
Loblolly pine	14.1	—	7.4	—	6.7
Virginia pine	6.0	—	—	—	6.0
Eastern redcedar	186.4	—	6.2	—	180.2
Total	206.4	—	13.6	—	192.9
Total softwoods	209.3	—	13.6	2.6	193.1
Hardwood types					
Oak–pine					
Eastern redcedar–hardwood	406.2	—	29.1	—	377.0
Loblolly pine–hardwood	6.0	—	6.0	—	—
Total	412.2	—	35.1	—	377.0
Oak–hickory					
Post oak–black oak	46.2	—	11.0	5.4	29.8
Chestnut oak	73.8	—	—	—	73.8
White oak–red oak–hickory	509.9	—	41.2	9.6	459.1
White oak	11.9	—	—	—	11.9
Yellow-poplar–white oak–n. red oak	163.4	—	19.1	—	144.3
Sweetgum–yellow-poplar	92.6	—	1.8	—	90.8
Mixed hardwood	1,177.8	—	39.4	12.9	1,125.5
Total	2,075.7	—	112.5	27.9	1,935.2
Oak–gum–cypress					
Sweetgum–water oak–willow oak	20.0	—	5.7	—	14.4
Sugarberry–elm–green ash	100.9	—	17.6	—	83.3
Total	121.0	—	23.3	—	97.7
Elm–ash–cottonwood					
Cottonwood	2.4	—	—	—	2.4
Sycamore–pecan–elm	9.6	—	—	—	9.6
Total	12.0	—	—	—	12.0
Total hardwoods	2,620.8	—	170.9	27.9	2,421.9
Nonstocked	23.8	—	0.7	—	23.1
All groups	2,853.9	—	185.3	30.6	2,638.1

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 10—Area of timberland by ownership and stocking class of growing-stock trees, Central Tennessee, 1998

Ownership class	All classes	Stocking class (percent)				
		<16.7	16.7-59	60-99	100-130	>130
		Thousand acres				
National forest	—	—	—	—	—	—
Other public	185.3	14.3	46.0	78.4	32.6	14.1
Forest industry	30.6	—	5.4	16.0	6.5	2.6
Nonindustrial private	2,638.1	151.9	838.1	1,146.1	378.6	123.3
All ownerships	2,853.9	166.2	889.6	1,240.4	417.6	140.1

Numbers in rows and columns may not sum to totals due to rounding.
A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 11—Area of timberland by forest-type group, stand origin, and stand-size class, Central Tennessee, 1998

Forest-type group and stand origin	All classes	Stand-size class			
		Sawtimber	Poletimber	Sapling-seedling	Nonstocked
		Thousand acres			
Softwood types					
White–red–jack pine					
Planted	2.8	0.2	—	2.6	—
Natural	—	—	—	—	—
Total	2.8	0.2	—	2.6	—
Loblolly–shortleaf pine					
Planted	11.0	6.7	—	4.4	—
Natural	195.4	11.8	67.0	116.6	—
Total	206.4	18.5	67.0	121.0	—
Total softwoods	209.3	18.6	67.0	123.6	—
Hardwood types					
Oak–pine					
Planted	—	—	—	—	—
Natural	412.2	92.6	145.0	174.6	—
Total	412.2	92.6	145.0	174.6	—
Oak–hickory	2,075.7	1,100.3	591.9	383.5	—
Oak–gum–cypress	121.0	54.5	47.8	18.7	—
Elm–ash–cottonwood	12.0	6.1	5.8	—	—
Total hardwoods	2,620.8	1,253.5	790.5	576.8	—
Nonstocked	23.8	—	—	—	23.8
All groups	2,853.9	1,272.2	857.5	700.4	23.8

Numbers in rows and columns may not sum to totals due to rounding.
A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 12—Area of timberland by stand-age class and forest management type, all ownerships, Central Tennessee, 1998

Stand-age class	All types	Forest management type					
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
Years				*Thousand acres*			
0-10	174.2	0.9	16.2	49.6	82.6	15.2	9.7
11-20	227.2	3.3	55.2	39.2	115.7	6.8	6.9
21-30	285.9	6.3	35.1	43.2	174.1	25.6	1.7
31-40	473.3	3.4	55.2	92.7	298.7	22.9	0.5
41-50	624.2	—	23.7	92.0	486.5	20.0	1.9
51-60	509.0	—	5.2	31.9	449.0	22.8	—
61-70	321.0	—	—	37.8	262.3	18.1	2.9
71-80	140.3	—	4.8	19.3	114.5	1.6	0.2
81+	98.7	—	—	6.4	92.3	—	—
All classes	2,853.9	13.9	195.4	412.2	2,075.7	133.0	23.8

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 13—Area of timberland by stand-age class and forest management type, public ownerships, Central Tennessee, 1998

Stand-age class	All types	Forest management type					
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
Years				*Thousand acres*			
0-10	10.4	0.9	—	6.0	3.4	—	—
11-20	27.6	—	—	7.9	15.0	4.7	—
21-30	16.5	1.6	—	8.6	—	5.8	0.4
31-40	20.5	—	4.8	4.7	11.0	—	—
41-50	25.1	—	1.4	—	22.7	0.7	0.3
51-60	34.1	—	—	—	28.4	5.7	—
61-70	30.6	—	—	6.4	17.8	6.5	—
71-80	18.9	—	4.8	1.6	12.6	—	—
81+	1.6	—	—	—	1.6	—	—
All classes	185.3	2.5	11.0	35.1	112.5	23.3	0.7

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 14—Area of timberland by stand-age class and forest management type, forest industry ownerships, Central Tennessee, 1998

Stand-age class	All types	Forest management type: Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
Years				*Thousand acres*			
0-10	—	—	—	—	—	—	—
11-20	—	—	—	—	—	—	—
21-30	5.4	2.6	—	—	2.8	—	—
31-40	—	—	—	—	—	—	—
41-50	—	—	—	—	—	—	—
51-60	10.9	—	—	—	10.9	—	—
61-70	14.2	—	—	—	14.2	—	—
71-80	—	—	—	—	—	—	—
81+	—	—	—	—	—	—	—
All classes	30.6	2.6	—	—	27.9	—	—

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 15—Area of timberland by stand-age class and forest management type, nonindustrial private ownerships, Central Tennessee, 1998

Stand-age class	All types	Forest management type: Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
Years				*Thousand acres*			
0-10	163.8	—	16.2	43.6	79.2	15.2	9.7
11-20	199.6	3.3	55.2	31.4	100.6	2.1	6.9
21-30	264.0	2.0	35.1	34.6	171.3	19.8	1.2
31-40	452.8	3.4	50.3	88.0	287.7	22.9	0.5
41-50	599.1	—	22.3	92.0	463.8	19.3	1.6
51-60	464.0	—	5.2	31.9	409.7	17.2	—
61-70	276.2	—	—	31.4	230.2	11.6	2.9
71-80	121.4	—	—	17.7	101.9	1.6	0.2
81+	97.1	—	—	6.4	90.7	—	—
All classes	2,638.1	8.7	184.4	377.0	1,935.2	109.7	23.1

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 16—Area of nonindustrial private timberland by ownership, forested tract-size class, and forest management type, Central Tennessee, 1998

Ownership and forested tract-size class	All types	Forest management type					
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
Acres		*Thousand acres*					
Individual							
≤ 10	183.0	1.8	15.5	30.8	118.9	13.9	2.2
11-50	527.0	1.3	33.9	81.9	389.4	16.1	4.4
51-100	662.3	—	54.2	58.3	524.6	14.8	10.3
101-200	582.1	—	29.7	95.8	417.7	38.1	0.7
201-500	393.0	5.4	37.5	54.5	280.5	10.6	4.4
≥ 501	110.5	—	—	21.6	85.7	2.1	1.0
Total	2,457.8	8.5	170.8	342.9	1,817.0	95.6	23.1
Corporate							
≤ 10	20.5	—	1.4	4.1	15.0	—	—
11-50	22.0	—	4.8	6.2	11.0	—	—
51-100	20.2	—	—	6.4	7.3	6.5	—
101-200	47.6	—	1.6	11.1	29.5	5.4	—
201-500	29.0	0.2	5.8	—	20.8	2.1	—
≥ 501	41.1	—	—	6.4	34.7	—	—
Total	180.2	0.2	13.6	34.1	118.3	14.0	—
All nonindustrial private							
≤ 10	203.5	1.8	16.8	34.8	134.0	13.9	2.2
11-50	549.0	1.3	38.7	88.1	400.4	16.1	4.4
51-100	682.5	—	54.2	64.7	532.0	21.3	10.3
101-200	629.7	—	31.3	106.9	447.2	43.5	0.7
201-500	422.0	5.6	43.3	54.5	301.3	12.8	4.4
≥ 501	151.5	—	—	28.0	120.4	2.1	1.0
Total	2,638.1	8.7	184.4	377.0	1,935.2	109.7	23.1

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 17—Number of live trees on timberland by species and diameter class, Central Tennessee, 1998

Species	All classes	Diameter class (inches at breast height) 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													
Shortleaf pine	98	—	—	98	—	—	—	—	—	—	—	—	—
Loblolly pine	2,675	1,039	—	367	403	340	317	131	78	—	—	—	—
Virginia pine	1,885	417	834	255	177	202	—	—	—	—	—	—	—
Eastern white pine	396	—	—	165	33	33	66	66	33	—	—	—	—
Redcedars	255,565	143,177	57,703	29,994	15,249	6,436	2,210	404	178	140	—	74	—
Total softwoods	260,619	144,633	58,537	30,879	15,862	7,011	2,593	601	289	140	—	74	—
Hardwood													
Select white oaks	71,930	29,948	13,877	7,908	5,772	3,729	3,844	3,090	1,910	1,018	333	420	81
Select red oaks	12,825	5,352	1,717	1,172	938	874	588	643	443	406	394	222	76
Other white oaks	21,902	4,377	3,165	3,418	2,828	1,932	2,066	1,566	936	776	396	442	—
Other red oaks	32,517	7,494	4,113	3,244	3,172	3,524	3,545	2,767	2,028	1,022	801	774	33
Hickory	107,463	40,722	21,192	14,059	11,037	7,900	5,374	3,777	1,992	767	309	296	38
Hard maple	142,330	93,237	20,567	11,558	7,417	3,801	2,635	1,488	771	395	221	207	33
Soft maple	70,570	47,629	9,525	5,027	3,301	2,115	1,337	710	526	171	38	119	72
Beech	33,825	20,823	5,625	1,842	1,549	958	777	462	287	504	423	498	77
Sweetgum	31,486	19,934	4,554	2,193	1,289	1,803	766	285	387	121	116	38	—
Tupelo and blackgum	40,830	29,273	5,275	3,039	1,482	632	646	190	104	189	—	—	—
Ash	113,123	66,616	18,282	10,405	8,028	3,577	2,475	1,689	1,148	292	362	210	39
Cottonwood	165	—	—	33	99	33	—	—	—	—	—	—	—
Basswood	3,267	1,474	848	246	165	33	203	104	194	—	—	—	—
Yellow-poplar	52,116	25,463	8,672	4,754	3,391	2,605	1,507	1,510	1,743	920	728	745	78
Bay and magnolia	49	—	—	49	—	—	—	—	—	—	—	—	—
Black cherry	21,226	13,876	3,998	1,312	484	417	266	537	138	122	43	33	—
Black walnut	14,731	2,486	2,497	2,490	2,391	2,082	1,837	356	512	40	40	—	—
Sycamore	5,565	2,492	484	473	545	389	265	225	152	111	187	177	65
Black locust	10,284	3,114	2,137	1,764	1,013	774	717	513	124	90	38	—	—
Elm	146,860	86,098	34,857	12,796	6,454	3,520	1,793	707	352	174	31	78	—
Other Eastern hardwoods	483,312	311,749	100,254	35,862	16,726	8,306	4,359	3,162	1,448	863	249	301	33
Total hardwoods	1,416,376	812,157	261,639	123,644	78,081	49,004	35,000	23,781	15,195	7,981	4,709	4,560	625
All species	1,676,995	956,790	320,176	154,523	93,943	56,015	37,593	24,382	15,484	8,121	4,709	4,634	625

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell.

Table 18—Number of growing-stock trees on timberland by species and diameter class, Central Tennessee, 1998

Species	All classes	Diameter class (inches at breast height) 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													
Shortleaf pine	98	—	—	98	—	—	—	—	—	—	—	—	—
Loblolly pine	2,054	615	—	289	364	340	237	131	78	—	—	—	—
Virginia pine	1,735	417	834	183	139	162	—	—	—	—	—	—	—
Eastern white pine	396	—	—	165	33	33	66	66	33	—	—	—	—
Redcedars	179,264	107,914	40,164	18,188	8,620	3,156	1,004	73	116	29	—	—	—
Total softwoods	183,547	108,946	40,998	18,923	9,156	3,691	1,307	270	227	29	—	—	—
Hardwood													
Select white oaks	46,903	12,190	12,509	5,760	4,739	2,872	3,194	2,561	1,685	830	294	226	43
Select red oaks	8,966	2,200	1,717	914	900	800	501	643	257	406	363	222	43
Other white oaks	16,735	2,032	2,624	3,013	2,304	1,673	1,761	1,145	785	624	363	411	—
Other red oaks	25,446	4,078	3,629	2,553	2,766	3,255	2,979	2,306	1,721	950	596	580	33
Hickory	66,689	14,821	12,885	12,030	9,610	7,024	4,192	3,236	1,878	625	269	119	—
Hard maple	59,513	28,526	12,155	8,168	5,026	2,393	1,675	794	280	319	144	33	—
Soft maple	24,680	13,664	5,580	2,090	1,371	824	509	226	202	91	38	85	—
Beech	13,099	5,380	2,972	974	1,114	759	603	244	211	385	238	181	38
Sweetgum	22,958	13,247	4,188	1,533	1,066	1,645	569	285	227	121	39	38	—
Tupelo and blackgum	19,275	12,126	2,557	2,368	910	462	464	138	104	146	—	—	—
Ash	44,788	16,683	8,172	6,535	5,839	2,775	1,931	1,413	828	184	256	172	—
Cottonwood	165	—	—	33	99	33	—	—	—	—	—	—	—
Basswood	1,534	424	424	141	132	33	172	66	142	—	—	—	—
Yellow-poplar	44,556	21,264	6,703	3,984	3,034	2,483	1,468	1,510	1,710	920	657	745	78
Black cherry	8,149	4,055	1,955	798	302	265	194	425	72	40	43	—	—
Black walnut	7,988	642	1,524	1,053	1,537	1,487	1,094	251	400	—	—	—	—
Sycamore	3,496	1,262	484	144	314	318	232	225	152	72	154	74	65
Black locust	2,836	—	424	874	418	514	268	176	86	38	38	—	—
Elm	43,360	10,383	17,041	7,856	4,047	2,116	1,081	430	280	88	—	38	—
Other Eastern hardwoods	123,284	64,969	29,035	12,407	6,887	4,234	2,518	1,587	647	636	181	183	—
Total hardwoods	584,420	227,946	126,578	73,228	52,415	35,965	25,405	17,661	11,667	6,475	3,673	3,107	300
All species	767,967	336,892	167,576	92,151	61,571	39,656	26,712	17,931	11,894	6,504	3,673	3,107	300

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell.

Table 19—Volume of live trees on timberland by species and diameter class, Central Tennessee, 1998

Species	All classes	Diameter class (inches at breast height) 5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger
					Million cubic feet						
Softwood											
Shortleaf pine	0.3	0.3	—	—	—	—	—	—	—	—	—
Loblolly pine	18.4	0.8	2.7	4.4	4.8	3.1	2.7	—	—	—	—
Virginia pine	4.0	0.8	0.9	2.3	—	—	—	—	—	—	—
Eastern white pine	5.5	0.6	0.3	0.4	1.2	1.7	1.3	—	—	—	—
Redcedars	249.7	66.4	73.9	55.9	30.2	8.2	4.9	4.9	—	5.3	—
Total softwoods	277.8	68.9	77.8	63.0	36.2	12.9	8.8	4.9	—	5.3	—
Hardwood											
Select white oaks	447.5	22.0	36.8	42.6	71.8	85.0	72.7	50.8	22.2	34.7	9.0
Select red oaks	138.7	3.6	6.5	11.7	11.0	18.2	16.2	18.2	25.0	21.4	6.9
Other white oaks	252.0	9.0	18.7	23.0	37.3	36.6	33.1	36.1	23.6	34.4	—
Other red oaks	448.3	9.4	20.7	43.3	65.0	71.6	76.9	52.2	42.8	59.4	7.0
Hickory	583.8	36.7	70.8	96.6	101.9	109.7	77.4	40.9	19.1	24.7	6.2
Hard maple	292.7	36.0	48.4	45.1	49.4	37.0	25.4	20.0	12.5	15.2	3.8
Soft maple	122.4	12.5	17.6	20.5	20.8	14.1	14.2	6.1	2.5	8.0	6.1
Beech	147.2	4.9	10.6	11.1	15.6	10.4	9.4	25.2	21.5	32.9	5.6
Sweetgum	95.7	5.2	8.6	25.0	16.1	9.0	15.3	6.6	7.1	2.9	—
Tupelo and blackgum	49.9	8.1	8.4	6.5	10.0	4.5	3.4	9.0	—	—	—
Ash	295.5	27.0	46.8	39.3	44.3	41.9	39.3	13.8	21.5	19.3	2.1
Cottonwood	1.3	0.1	0.9	0.4	—	—	—	—	—	—	—
Basswood	16.7	0.8	1.5	0.4	4.0	3.3	6.7	—	—	—	—
Yellow-poplar	431.3	14.0	22.8	34.1	34.6	47.9	76.2	54.4	51.2	82.4	13.8
Bay and magnolia	0.1	0.1	—	—	—	—	—	—	—	—	—
Black cherry	46.6	3.3	2.3	4.9	5.3	15.1	5.3	5.4	2.8	2.2	—
Black walnut	98.0	5.8	13.0	21.2	29.1	8.3	17.8	1.2	1.5	—	—
Sycamore	69.5	1.5	4.1	5.2	5.3	6.2	6.4	4.4	11.1	14.6	10.6
Black locust	42.8	4.1	4.9	7.3	9.3	9.1	3.3	3.4	1.4	—	—
Elm	170.2	31.2	34.7	33.9	28.5	15.9	11.7	7.5	1.1	5.6	—
Other Eastern hardwoods	486.5	77.9	83.0	77.7	65.9	66.5	40.7	37.2	15.3	18.6	3.8
Total hardwoods	4,236.7	313.3	461.0	549.7	625.1	610.4	551.6	392.4	282.2	376.2	74.9
All species	4,514.6	382.2	538.8	612.7	661.3	623.3	560.4	397.3	282.2	381.5	74.9

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 20—Volume of growing-stock trees on timberland by species and diameter class, Central Tennessee, 1998

Species	All classes	Diameter class (inches at breast height) 5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger
					Million cubic feet						
Softwood											
Shortleaf pine	0.3	0.3	—	—	—	—	—	—	—	—	—
Loblolly pine	17.3	0.7	2.5	4.4	4.0	3.1	2.7	—	—	—	—
Virginia pine	3.4	0.6	0.8	2.0	—	—	—	—	—	—	—
Eastern white pine	5.5	0.6	0.3	0.4	1.2	1.7	1.3	—	—	—	—
Redcedars	136.0	40.9	44.6	29.5	14.5	1.3	3.9	1.3	—	—	—
Total softwoods	162.5	43.1	48.2	36.3	19.7	6.1	7.8	1.3	—	—	—
Hardwood											
Select white oaks	377.7	17.3	31.4	35.1	61.6	73.2	66.2	44.2	21.0	20.1	7.8
Select red oaks	126.0	2.9	6.2	10.7	9.5	18.2	10.9	18.2	23.1	21.4	4.9
Other white oaks	218.2	8.1	15.5	20.4	32.8	28.6	28.8	31.2	21.7	31.2	—
Other red oaks	395.6	7.7	18.5	40.4	57.3	62.1	67.7	48.7	36.1	50.1	7.0
Hickory	499.5	32.9	63.1	87.4	82.5	96.2	73.3	35.0	17.8	11.5	—
Hard maple	182.8	26.5	34.5	29.8	32.8	20.7	10.1	16.5	8.6	3.4	—
Soft maple	58.7	6.3	8.3	10.0	9.5	5.2	6.8	3.9	2.5	6.2	—
Beech	100.8	3.0	7.9	9.3	12.4	6.4	7.5	19.8	13.3	16.4	4.8
Sweetgum	78.5	3.9	7.6	23.5	12.7	9.0	9.4	6.6	2.8	2.9	—
Tupelo and blackgum	39.1	6.8	5.3	5.3	7.3	3.5	3.4	7.5	—	—	—
Ash	230.4	18.0	35.1	31.6	35.8	36.2	30.4	10.4	16.2	16.7	—
Cottonwood	1.3	0.1	0.9	0.4	—	—	—	—	—	—	—
Basswood	14.3	0.5	1.3	0.4	3.4	2.6	6.1	—	—	—	—
Yellow-poplar	420.7	12.1	20.6	32.6	33.7	47.9	75.6	54.4	47.6	82.4	13.8
Black cherry	32.5	2.4	1.6	3.6	4.2	12.2	3.3	2.4	2.8	—	—
Black walnut	65.9	2.7	8.7	15.7	18.2	5.6	14.9	—	—	—	—
Sycamore	55.4	0.6	2.4	4.3	4.8	6.2	6.4	3.2	10.2	6.6	10.6
Black locust	23.5	2.3	2.4	5.3	4.2	4.0	2.1	1.8	1.4	—	—
Elm	111.8	20.2	23.0	21.3	18.8	10.9	9.9	4.5	—	3.2	—
Other Eastern hardwoods	275.2	31.3	40.8	44.8	43.0	39.1	20.3	28.8	12.7	14.4	—
Total hardwoods	3,307.9	205.6	335.2	431.9	484.6	487.7	452.9	336.8	237.8	286.6	48.9
All species	3,470.4	248.7	383.3	468.2	504.3	493.8	460.8	338.1	237.8	286.6	48.9

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 21—Volume in the saw-log portion of sawtimber trees on timberland by species and diameter class, Central Tennessee, 1998

Species	All classes	Diameter class (inches at breast height) 9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger
				Million cubic feet					
Softwood									
Loblolly pine	12.5	3.5	3.6	2.9	2.6	—	—	—	—
Virginia pine	1.7	1.7	—	—	—	—	—	—	—
Eastern white pine	4.2	0.3	1.1	1.6	1.2	—	—	—	—
Redcedars	42.9	23.8	13.0	1.2	3.7	1.2	—	—	—
Total softwoods	61.2	29.2	17.6	5.7	7.5	1.2	—	—	—
Hardwood									
Select white oaks	247.8	—	43.7	59.9	58.1	40.0	19.4	19.0	7.8
Select red oaks	90.2	—	6.8	14.5	9.3	15.7	20.4	19.2	4.4
Other white oaks	149.5	—	23.6	23.5	25.3	28.1	19.9	29.0	—
Other red oaks	282.4	—	40.9	51.0	59.3	44.0	33.3	47.2	6.7
Hickory	261.0	—	59.5	79.2	63.8	31.5	16.3	10.7	—
Hard maple	75.0	—	23.3	16.8	8.8	15.0	8.0	3.1	—
Soft maple	27.9	—	6.6	4.2	5.7	3.5	2.2	5.7	—
Beech	69.1	—	9.1	5.2	6.3	17.3	11.8	14.9	4.5
Sweetgum	36.1	—	8.9	7.5	8.3	6.1	2.7	2.8	—
Tupelo and blackgum	17.4	—	5.0	2.8	2.9	6.7	—	—	—
Ash	121.1	—	24.7	29.5	26.5	9.5	15.0	15.9	—
Basswood	10.0	—	2.5	2.1	5.4	—	—	—	—
Yellow-poplar	320.0	—	24.3	39.7	67.1	50.4	45.1	79.9	13.6
Black cherry	20.9	—	3.1	10.2	2.9	2.2	2.6	—	—
Black walnut	29.9	—	12.8	4.4	12.7	—	—	—	—
Sycamore	41.6	—	3.1	4.8	5.5	2.8	9.2	6.1	10.1
Black locust	10.8	—	3.1	3.2	1.7	1.5	1.2	—	—
Elm	37.3	—	13.3	8.7	8.4	4.0	—	2.9	—
Other Eastern hardwoods	115.1	—	28.0	28.3	15.2	21.8	9.2	12.6	—
Total hardwoods	1,963.5	—	342.2	395.6	393.2	299.9	216.3	269.2	47.0
All species	2,024.7	29.2	359.8	401.3	400.8	301.1	216.3	269.2	47.0

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 22—Volume of sawtimber on timberland by species and diameter class, Central Tennessee, 1998

Species	All classes	Diameter class (inches at breast height) 9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger
				Million board feet					
Softwood									
Loblolly pine	64.7	16.1	18.2	15.3	15.2	—	—	—	—
Virginia pine	7.5	7.5	—	—	—	—	—	—	—
Eastern white pine	21.9	1.2	5.3	8.4	6.9	—	—	—	—
Redcedars	224.4	119.5	68.3	6.9	22.3	7.5	—	—	—
Total softwoods	318.5	144.3	91.7	30.5	44.5	7.5	—	—	—
Hardwood									
Select white oaks	1,268.5	—	208.9	291.5	294.0	208.8	105.2	108.4	51.7
Select red oaks	473.1	—	31.9	69.4	46.7	81.7	109.0	108.0	26.4
Other white oaks	759.8	—	108.9	113.3	127.1	144.9	106.3	159.3	—
Other red oaks	1,484.3	—	198.8	251.2	304.1	232.6	183.3	269.0	45.4
Hickory	1,326.0	—	284.2	390.5	328.3	170.1	90.6	62.3	—
Hard maple	381.3	—	122.1	83.7	43.7	74.9	40.6	16.2	—
Soft maple	143.5	—	31.7	20.8	28.3	18.4	12.0	32.3	—
Beech	319.5	—	45.5	24.4	29.0	78.6	53.5	67.9	20.5
Sweetgum	195.3	—	45.3	38.9	44.6	34.1	16.0	16.6	—
Tupelo and blackgum	85.4	—	23.1	13.3	14.3	34.8	—	—	—
Ash	607.8	—	115.3	140.2	131.9	49.6	80.7	90.2	—
Basswood	49.1	—	11.7	10.3	27.1	—	—	—	—
Yellow-poplar	1,875.4	—	125.1	210.3	372.0	293.6	271.5	509.8	93.1
Black cherry	108.4	—	14.8	51.4	15.4	12.2	14.6	—	—
Black walnut	138.8	—	61.1	20.1	57.5	—	—	—	—
Sycamore	229.9	—	15.2	23.8	28.1	15.1	50.7	34.9	62.1
Black locust	50.0	—	15.1	14.8	7.9	6.9	5.4	—	—
Elm	186.9	—	64.6	42.6	42.4	20.8	—	16.5	—
Other Eastern hardwoods	692.5	—	152.0	161.3	91.9	139.9	65.8	81.6	—
Total hardwoods	10,375.5	—	1,675.5	1,971.6	2,034.2	1,616.8	1,205.1	1,573.0	299.3
All species	10,694.0	144.3	1,767.2	2,002.1	2,078.7	1,624.3	1,205.1	1,573.0	299.3

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 23—Volume of sawtimber on timberland by species, size class, and tree grade, Central Tennessee, 1998

Species	All size classes						Trees ≥15.0 inches d.b.h.					
	All grades	Tree grade					All grades	Tree grade				
		1	2	3	4	5		1	2	3	4	5
	Million board feet											
Softwood												
Loblolly pine	64.7	—	—	64.7	—	—	15.2	—	—	15.2	—	—
Virginia pine	7.5	—	—	7.5	—	—	—	—	—	—	—	—
Eastern white pine	21.9	—	21.9	—	—	—	6.9	—	6.9	—	—	—
Redcedars	224.4	—	15.2	206.7	—	2.6	29.8	—	—	29.8	—	—
Total softwoods	318.5	—	37.0	278.9	—	2.6	52.0	—	6.9	45.0	—	—
Hardwood												
Select white oaks	1,268.5	315.4	336.4	483.3	56.1	77.2	768.1	315.4	196.5	172.7	11.8	71.6
Select red oaks	473.1	210.7	114.8	99.7	30.9	17.0	371.8	210.7	76.9	41.0	26.2	17.0
Other white oaks	759.8	127.2	208.7	300.7	68.5	54.7	537.6	127.2	163.9	159.1	52.5	34.8
Other red oaks	1,484.3	474.9	333.8	468.4	144.4	62.8	1,034.3	474.9	246.2	233.7	33.8	45.7
Hickory	1,326.0	191.8	431.6	508.6	100.6	93.4	651.3	191.8	241.7	119.8	45.6	52.3
Hard maple	381.3	12.7	81.6	164.4	104.8	17.8	175.4	12.7	56.8	53.7	47.2	5.0
Soft maple	143.5	—	12.0	61.9	31.0	38.6	91.0	—	4.3	36.4	19.3	30.9
Beech	319.5	64.6	51.9	90.8	83.6	28.6	249.6	64.6	44.7	58.0	58.9	23.4
Sweetgum	195.3	42.2	76.0	56.8	10.3	10.1	111.2	42.2	47.4	21.6	—	—
Tupelo and blackgum	85.4	10.2	38.5	22.5	12.7	1.5	49.0	10.2	31.3	—	7.5	—
Ash	607.8	207.4	199.9	138.0	30.7	31.8	352.4	207.4	110.0	—	22.7	12.2
Basswood	49.1	14.0	4.9	11.7	—	18.5	27.1	14.0	—	—	—	13.1
Yellow-poplar	1,875.4	818.9	485.0	338.4	149.0	84.2	1,540.0	818.9	381.6	182.1	78.9	78.6
Black cherry	108.4	—	48.9	36.4	—	23.2	42.2	—	14.6	15.4	—	12.2
Black walnut	138.8	28.4	36.6	62.0	—	11.8	57.5	28.4	19.3	—	—	9.9
Sycamore	229.9	142.9	23.2	29.1	23.5	11.1	190.9	142.9	16.1	—	20.8	11.1
Black locust	50.0	6.9	6.0	30.5	1.4	5.4	20.1	6.9	—	7.9	—	5.4
Elm	186.9	27.9	58.4	74.5	8.8	17.3	79.7	27.9	26.3	8.3	—	17.3
Other Eastern hardwoods	692.5	130.9	149.3	271.2	53.8	87.3	379.2	130.9	75.3	94.5	24.0	54.5
Total hardwoods	10,375.5	2,826.9	2,697.4	3,248.9	910.1	692.2	6,728.4	2,826.9	1,753.0	1,204.3	449.3	495.0
All species	10,694.0	2,826.9	2,734.5	3,527.8	910.1	694.7	6,780.4	2,826.9	1,759.9	1,249.3	449.3	495.0

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 24—Volume of growing stock on timberland by county and species group, Central Tennessee, 1998

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Bedford	121.0	8.8	—	8.8	112.2	44.9	67.3
Cannon	84.9	6.3	0.6	5.8	78.6	23.1	55.5
Cheatham	198.1	8.6	1.7	6.9	189.6	45.7	143.9
Clay	144.2	2.7	0.3	2.4	141.4	29.0	112.4
Coffee	247.2	—	—	—	247.2	38.7	208.5
Davidson	161.4	6.6	1.0	5.6	154.8	25.9	129.0
DeKalb	212.3	9.9	0.5	9.3	202.4	89.6	112.9
Dickson	273.6	1.2	—	1.2	272.4	53.6	218.8
Giles	223.3	7.7	0.0	7.6	215.6	62.1	153.5
Jackson	170.6	6.3	0.3	6.1	164.3	38.1	126.2
Lincoln	165.7	9.8	3.7	6.1	155.9	48.1	107.8
Macon	125.7	1.1	—	1.1	124.6	53.3	71.3
Marshall	82.1	14.3	—	14.3	67.9	19.2	48.7
Maury	209.6	8.0	3.9	4.1	201.6	83.1	118.5
Montgomery	239.3	14.4	8.7	5.8	224.9	82.3	142.6
Moore	48.1	3.1	—	3.1	45.0	11.7	33.3
Robertson	110.4	0.1	—	0.1	110.3	43.9	66.5
Rutherford	75.1	16.1	—	16.1	59.1	6.4	52.6
Smith	102.6	5.7	—	5.7	96.9	21.3	75.7
Sumner	86.8	4.2	—	4.2	82.6	32.2	50.4
Trousdale	28.3	3.3	—	3.3	25.0	10.1	14.9
Williamson	251.2	5.2	0.4	4.8	246.0	74.8	171.1
Wilson	108.6	19.0	0.0	19.0	89.6	10.1	79.5
Total	3,470.4	162.5	21.0	141.5	3,307.9	947.2	2,360.7

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 25—Volume of live trees on timberland by county and species group, Central Tennessee, 1998

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Bedford	177.7	19.2	—	19.2	158.5	58.7	99.9
Cannon	124.6	13.0	0.6	12.5	111.6	40.6	71.0
Cheatham	233.0	10.7	1.7	9.0	222.4	54.4	168.0
Clay	172.4	4.1	0.3	3.8	168.3	31.6	136.7
Coffee	279.0	—	—	—	279.0	54.2	224.8
Davidson	208.0	12.6	1.3	11.4	195.4	32.5	162.8
DeKalb	251.1	19.9	0.6	19.4	231.1	96.0	135.2
Dickson	324.7	1.8	—	1.8	322.9	59.4	263.5
Giles	289.1	8.9	0.0	8.9	280.2	87.1	193.2
Jackson	233.4	9.2	0.3	9.0	224.1	48.4	175.8
Lincoln	229.8	19.2	4.8	14.4	210.7	65.2	145.5
Macon	152.6	1.6	—	1.6	151.0	58.1	92.9
Marshall	125.3	23.4	—	23.4	102.0	29.0	72.9
Maury	270.1	9.7	3.9	5.8	260.4	107.6	152.8
Montgomery	278.2	15.4	8.8	6.6	262.8	96.4	166.4
Moore	56.5	5.0	—	5.0	51.5	15.2	36.3
Robertson	147.6	0.2	—	0.2	147.4	65.1	82.3
Rutherford	134.4	35.3	—	35.3	99.0	20.4	78.7
Smith	159.6	13.3	—	13.3	146.3	40.9	105.3
Sumner	146.3	8.5	—	8.5	137.7	53.2	84.6
Trousdale	35.9	4.0	—	4.0	31.9	14.6	17.3
Williamson	341.5	13.7	0.4	13.3	327.8	96.2	231.5
Wilson	143.7	29.0	0.1	29.0	114.7	16.7	98.0
Total	4,514.6	277.8	22.7	255.2	4,236.7	1,241.4	2,995.3

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 26—Volume of sawtimber on timberland by county and species group, Central Tennessee, 1998

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million board feet						
Bedford	461.3	11.9	—	11.9	449.4	239.1	210.3
Cannon	192.6	10.0	—	10.0	182.6	41.1	141.5
Cheatham	668.3	29.7	5.2	24.5	638.6	136.7	501.9
Clay	363.4	3.3	—	3.3	360.1	88.4	271.7
Coffee	883.7	—	—	—	883.7	107.7	776.0
Davidson	497.4	13.2	2.3	11.0	484.1	102.2	382.0
DeKalb	738.2	10.3	—	10.3	727.9	374.0	353.8
Dickson	814.0	—	—	—	814.0	147.9	666.1
Giles	637.1	24.7	—	24.7	612.4	187.3	425.1
Jackson	517.2	13.2	—	13.2	504.1	120.9	383.2
Lincoln	456.6	18.8	12.8	5.9	437.8	106.9	330.9
Macon	421.8	1.2	—	1.2	420.6	192.8	227.8
Marshall	201.0	21.9	—	21.9	179.2	52.7	126.4
Maury	650.0	16.4	13.7	2.8	633.6	333.7	299.9
Montgomery	784.1	52.5	38.2	14.3	731.6	314.3	417.4
Moore	137.9	8.5	—	8.5	129.4	24.0	105.4
Robertson	422.3	—	—	—	422.3	196.6	225.8
Rutherford	158.2	23.3	—	23.3	134.9	8.3	126.6
Smith	282.7	9.5	—	9.5	273.2	57.9	215.3
Sumner	251.7	9.5	—	9.5	242.2	104.3	137.8
Trousdale	66.1	3.5	—	3.5	62.6	29.4	33.3
Williamson	852.5	7.9	—	7.9	844.7	315.1	529.5
Wilson	235.8	29.4	—	29.4	206.4	8.4	197.9
Total	10,694.0	318.5	72.2	246.3	10,375.5	3,289.8	7,085.7

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 27—Volume of timber on timberland by class of timber and species group, Central Tennessee, 1998

Class of timber	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Sawtimber trees							
Saw-log portion	2,024.7	61.2	14.1	47.1	1,963.5	583.4	1,380.1
Upper-stem portion[a]	381.7	10.0	2.0	8.0	371.7	94.5	277.2
Total	2,406.4	71.2	16.1	55.1	2,335.2	677.9	1,657.3
Poletimber trees	1,064.0	91.3	4.9	86.4	972.7	269.3	703.4
All growing-stock trees	3,470.4	162.5	21.0	141.5	3,307.9	947.2	2,360.7
Rough trees							
Sawtimber size	604.1	59.8	1.1	58.7	544.3	155.1	389.2
Poletimber size	401.3	55.0	0.6	54.4	346.3	126.5	219.8
Total	1,005.3	114.8	1.7	113.1	890.6	281.6	609.0
Rotten trees							
Sawtimber size	33.4	0.1	—	0.1	33.2	10.1	23.1
Poletimber size	5.5	0.4	—	0.4	5.0	2.6	2.5
Total	38.8	0.6	—	0.6	38.3	12.7	25.6
Salvable dead trees							
Sawtimber size	19.9	2.4	—	2.4	17.5	3.8	13.7
Poletimber size	21.5	2.9	—	2.9	18.6	4.2	14.4
Total	41.3	5.3	—	5.3	36.0	8.0	28.1
All classes	4,555.9	283.1	22.7	260.4	4,272.8	1,249.4	3,023.4

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

[a] Includes cull sections in the saw-log portion.

Table 28—Volume of live and growing-stock trees on timberland by ownership class and species group, Central Tennessee, 1998

Ownership class	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
				Live trees *(million cubic feet)*			
National forest	—	—	—	—	—	—	—
Other public	296.9	20.7	8.8	11.9	276.2	76.1	200.1
Forest industry	85.2	5.5	—	5.5	79.7	26.9	52.8
Nonindustrial private	4,132.4	251.6	13.9	237.7	3,880.8	1,138.4	2,742.4
All classes	4,514.6	277.8	22.7	255.2	4,236.7	1,241.4	2,995.3
				Growing-stock trees *(million cubic feet)*			
National forest	—	—	—	—	—	—	—
Other public	248.8	16.3	8.7	7.6	232.5	58.1	174.4
Forest industry	74.6	5.5	—	5.5	69.1	25.8	43.3
Nonindustrial private	3,147.0	140.7	12.3	128.4	3,006.3	863.2	2,143.1
All classes	3,470.4	162.5	21.0	141.5	3,307.9	947.2	2,360.7

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 29—Volume of sawtimber on timberland by ownership class, species group, and size class, Central Tennessee, 1998

Ownership class	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
				All size classes *(million board feet)*			
National forest	—	—	—	—	—	—	—
Other public	837.8	50.5	38.2	12.3	787.3	208.7	578.6
Forest industry	306.4	21.9	—	21.9	284.5	159.9	124.6
Nonindustrial private	9,549.8	246.1	34.0	212.2	9,303.7	2,921.2	6,382.5
All classes	10,694.0	318.5	72.2	246.3	10,375.5	3,289.8	7,085.7
				Trees ≥ 15.0 inches d.b.h. *(million board feet)*			
National forest	—	—	—	—	—	—	—
Other public	551.7	15.2	15.2	—	536.5	145.0	391.5
Forest industry	232.5	6.9	—	6.9	225.6	157.9	67.7
Nonindustrial private	5,996.2	29.8	—	29.8	5,966.4	2,081.2	3,885.2
All classes	6,780.4	52.0	15.2	36.7	6,728.4	2,384.1	4,344.3

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 30—Volume of growing stock on timberland by forest-type group, stand origin, and species group, Central Tennessee, 1998

Forest-type group and stand origin	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
				Million cubic feet			
Softwood types							
White–red–jack pine							
Planted	5.5	4.1	—	4.1	1.3	—	1.3
Natural	—	—	—	—	—	—	—
Total	5.5	4.1	—	4.1	1.3	—	1.3
Loblolly–shortleaf pine							
Planted	17.5	14.8	14.8	—	2.8	2.3	0.5
Natural	57.6	35.7	4.2	31.5	21.9	5.7	16.1
Total	75.1	50.5	18.9	31.5	24.6	8.0	16.6
Total softwoods	80.6	54.6	18.9	35.7	26.0	8.0	17.9
Hardwood types							
Oak–pine							
Planted	—	—	—	—	—	—	—
Natural	216.0	70.6	0.0	70.5	145.5	33.7	111.7
Total	216.0	70.6	0.0	70.5	145.5	33.7	111.7
Oak–hickory	3,033.6	36.5	2.0	34.5	2,997.0	812.7	2,184.3
Oak–gum–cypress	127.7	0.7	—	0.7	127.0	84.3	42.7
Elm–ash–cottonwood	11.3	—	—	—	11.3	8.2	3.1
Total hardwoods	3,388.6	107.8	2.0	105.8	3,280.7	938.9	2,341.8
Nonstocked	1.2	—	—	—	1.2	0.3	1.0
All groups	3,470.4	162.5	21.0	141.5	3,307.9	947.2	2,360.7

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 31—Average basal area of live trees per acre on timberland by ownership class, species group, and d.b.h., Central Tennessee, 1998

Ownership class and species group	All tree sizes	D.b.h. (inches)			
		1.0-4.9	5.0-10.9	11.0-14.9	≥15.0
	Square feet/acre				
National forest					
Softwood	—	—	—	—	—
Hardwood	—	—	—	—	—
Total	—	—	—	—	—
Other public					
Softwood	11.3	3.2	5.6	2.0	0.5
Hardwood	77.2	9.5	20.9	25.9	21.0
Total	88.5	12.7	26.4	27.9	21.5
Forest industry					
Softwood	12.0	—	3.2	6.3	2.4
Hardwood	101.3	15.5	33.1	27.7	25.0
Total	113.3	15.5	36.3	34.0	27.4
Nonindustrial private					
Softwood	10.3	2.7	5.5	1.6	0.5
Hardwood	77.7	12.4	26.9	17.3	21.1
Total	88.0	15.2	32.4	18.9	21.6
All classes					
Softwood	10.4	2.8	5.5	1.6	0.5
Hardwood	77.9	12.3	26.5	18.0	21.1
Total	88.3	15.0	32.0	19.7	21.6

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 32—Average net annual growth of growing stock on timberland by county and species group, Central Tennessee, 1989-1997

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Bedford	3.3	0.3	—	0.3	3.0	0.9	2.1
Cannon	4.4	0.8	0.5	0.3	3.6	0.3	3.3
Cheatham	5.8	0.1	0.0	0.1	5.7	1.7	4.0
Clay	5.7	0.3	—	0.3	5.3	0.7	4.6
Coffee	6.1	—	—	—	6.1	0.8	5.3
Davidson	4.8	0.4	0.4	0.0	4.3	0.3	4.0
DeKalb	4.8	0.4	0.3	0.2	4.4	1.5	2.9
Dickson	12.7	0.1	—	0.1	12.7	3.3	9.3
Giles	6.9	0.1	0.1	0.0	6.8	2.7	4.1
Jackson	6.1	0.6	0.0	0.6	5.5	2.0	3.5
Lincoln	7.8	0.4	0.2	0.2	7.5	2.4	5.1
Macon	4.1	0.3	—	0.3	3.9	1.9	2.0
Marshall	3.2	0.8	—	0.8	2.4	0.3	2.2
Maury	5.2	—	—	—	5.2	1.5	3.7
Montgomery	9.1	0.2	0.3	-0.1	8.8	3.2	5.6
Moore	1.4	-0.0	—	-0.0	1.4	0.3	1.2
Robertson	2.4	—	—	—	2.4	1.5	1.0
Rutherford	3.4	0.9	—	0.9	2.5	0.5	2.0
Smith	2.3	0.2	—	0.2	2.1	0.7	1.4
Sumner	3.4	0.0	—	0.0	3.3	1.0	2.3
Trousdale	4.1	0.4	—	0.4	3.7	2.5	1.3
Williamson	7.8	0.9	0.3	0.6	6.9	2.3	4.6
Wilson	2.8	1.1	—	1.1	1.6	0.3	1.4
Total	117.6	8.4	2.0	6.4	109.2	32.5	76.7

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 33—Average net annual growth of live trees on timberland by county and species group, Central Tennessee, 1989-1997

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Bedford	4.1	0.7	—	0.7	3.4	0.9	2.5
Cannon	5.8	0.9	0.5	0.4	4.9	1.0	3.8
Cheatham	6.7	0.2	0.0	0.2	6.5	2.3	4.2
Clay	6.6	0.3	—	0.3	6.2	1.0	5.2
Coffee	6.8	—	—	—	6.8	1.1	5.8
Davidson	5.9	0.6	0.4	0.2	5.3	0.4	4.9
DeKalb	5.8	1.1	0.3	0.8	4.8	1.4	3.4
Dickson	13.9	0.1	—	0.1	13.8	3.4	10.4
Giles	8.4	0.1	0.1	0.0	8.3	3.2	5.1
Jackson	8.4	0.8	0.0	0.7	7.7	2.4	5.3
Lincoln	10.5	0.6	0.2	0.4	9.9	3.2	6.7
Macon	4.5	0.3	—	0.3	4.2	2.0	2.2
Marshall	4.1	1.2	—	1.2	2.9	0.6	2.4
Maury	6.6	0.1	—	0.1	6.5	2.0	4.6
Montgomery	10.3	0.2	0.3	-0.1	10.1	3.4	6.7
Moore	1.7	0.0	—	0.0	1.7	0.3	1.4
Robertson	3.5	—	—	—	3.5	2.3	1.3
Rutherford	4.1	1.4	—	1.4	2.7	0.2	2.5
Smith	3.2	0.3	—	0.3	2.9	1.0	1.9
Sumner	5.3	0.2	—	0.2	5.2	1.5	3.7
Trousdale	4.4	0.4	—	0.4	4.0	2.7	1.4
Williamson	7.7	1.1	0.3	0.8	6.6	2.4	4.2
Wilson	3.7	1.6	—	1.6	2.1	0.1	2.0
Total	142.2	12.1	2.0	10.1	130.2	38.8	91.3

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 34—Average net annual growth of sawtimber on timberland by county and species group, Central Tennessee, 1989-1997

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
				Million board feet			
Bedford	11.6	0.3	—	0.3	11.3	3.7	7.6
Cannon	17.5	4.4	4.4	—	13.1	0.4	12.7
Cheatham	28.0	0.3	0.1	0.3	27.6	3.8	23.8
Clay	19.4	—	—	—	19.4	3.3	16.1
Coffee	29.1	—	—	—	29.1	3.8	25.2
Davidson	15.5	2.1	1.6	0.5	13.4	2.3	11.1
DeKalb	23.8	0.5	—	0.5	23.3	9.7	13.5
Dickson	51.8	—	—	—	51.8	11.6	40.2
Giles	28.2	0.9	0.4	0.6	27.2	11.0	16.2
Jackson	22.2	1.9	0.2	1.7	20.3	5.4	14.9
Lincoln	28.6	1.7	0.7	1.0	26.9	6.5	20.4
Macon	18.7	0.6	—	0.6	18.1	8.4	9.7
Marshall	10.4	1.0	—	1.0	9.3	2.1	7.2
Maury	20.2	—	—	—	20.2	5.4	14.8
Montgomery	41.6	2.4	2.0	0.4	39.2	15.3	23.9
Moore	8.2	0.3	—	0.3	7.9	1.5	6.4
Robertson	10.8	—	—	—	10.8	5.6	5.2
Rutherford	7.5	0.4	—	0.4	7.1	0.6	6.5
Smith	11.8	0.3	—	0.3	11.5	2.3	9.3
Sumner	16.6	0.3	—	0.3	16.3	3.9	12.4
Trousdale	16.2	1.6	—	1.6	14.6	9.9	4.7
Williamson	35.7	4.7	2.1	2.6	31.0	12.7	18.4
Wilson	7.4	2.6	—	2.6	4.9	0.6	4.2
Total	480.8	26.4	11.5	14.9	454.4	130.0	324.4

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 35—Average annual removals of growing stock on timberland by county and species group, Central Tennessee, 1989-1997

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Bedford	—	—	—	—	—	—	—
Cannon	3.4	0.8	0.8	—	2.6	0.7	1.9
Cheatham	1.0	—	—	—	1.0	—	1.0
Clay	1.3	—	—	—	1.3	0.6	0.7
Coffee	2.3	—	—	—	2.3	1.1	1.1
Davidson	0.7	0.3	—	0.3	0.4	0.2	0.3
DeKalb	0.5	0.3	—	0.3	0.2	0.2	—
Dickson	4.1	—	—	—	4.1	1.2	2.9
Giles	2.4	—	—	—	2.4	0.7	1.7
Jackson	6.1	0.3	0.1	0.2	5.8	1.6	4.2
Lincoln	3.5	0.6	—	0.6	2.9	1.5	1.4
Macon	4.8	—	—	—	4.8	2.7	2.1
Marshall	1.5	—	—	—	1.5	—	1.5
Maury	1.4	—	—	—	1.4	0.6	0.8
Montgomery	3.4	0.5	0.5	—	2.9	0.4	2.5
Moore	0.8	—	—	—	0.8	—	0.8
Robertson	2.0	—	—	—	2.0	0.9	1.1
Rutherford	—	—	—	—	—	—	—
Smith	2.6	—	—	—	2.6	1.9	0.7
Sumner	4.9	—	—	—	4.9	1.9	3.0
Trousdale	0.1	—	—	—	0.1	—	0.1
Williamson	1.1	0.3	—	0.3	0.8	0.2	0.6
Wilson	—	—	—	—	—	—	—
Total	47.7	3.0	1.5	1.6	44.7	16.2	28.5

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 36—Average annual removals of live trees on timberland by county and species group, Central Tennessee, 1989-1997

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Bedford	0.1	—	—	—	0.1	—	0.1
Cannon	3.6	0.8	0.8	—	2.8	0.8	2.0
Cheatham	1.1	—	—	—	1.1	—	1.1
Clay	1.3	—	—	—	1.3	0.6	0.7
Coffee	2.4	—	—	—	2.4	1.1	1.2
Davidson	1.0	0.3	—	0.3	0.7	0.2	0.5
DeKalb	0.5	0.3	—	0.3	0.2	0.2	—
Dickson	4.2	—	—	—	4.2	1.2	3.0
Giles	2.8	—	—	—	2.8	0.7	2.1
Jackson	6.8	0.3	0.1	0.2	6.5	1.6	4.9
Lincoln	3.9	0.6	—	0.6	3.3	1.7	1.7
Macon	4.9	—	—	—	4.9	2.7	2.3
Marshall	1.7	—	—	—	1.7	—	1.7
Maury	2.3	—	—	—	2.3	0.8	1.5
Montgomery	3.5	0.5	0.5	—	3.0	0.4	2.7
Moore	0.8	—	—	—	0.8	—	0.8
Robertson	2.8	—	—	—	2.8	1.6	1.2
Rutherford	0.5	0.2	—	0.2	0.3	—	0.3
Smith	2.7	—	—	—	2.7	1.9	0.9
Sumner	5.4	—	—	—	5.4	1.9	3.5
Trousdale	0.1	—	—	—	0.1	—	0.1
Williamson	1.3	0.4	—	0.4	0.9	0.2	0.7
Wilson	—	—	—	—	—	—	—
Total	53.7	3.3	1.5	1.9	50.4	17.3	33.0

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 37—Average annual removals of sawtimber on timberland by county and species group, Central Tennessee, 1989-1997

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million board feet						
Bedford	—	—	—	—	—	—	—
Cannon	10.5	3.1	3.1	—	7.4	3.5	3.8
Cheatham	4.6	—	—	—	4.6	—	4.6
Clay	4.7	—	—	—	4.7	2.3	2.4
Coffee	7.6	—	—	—	7.6	3.3	4.3
Davidson	2.2	0.7	—	0.7	1.5	—	1.5
DeKalb	1.2	0.5	—	0.5	0.7	0.7	—
Dickson	17.8	—	—	—	17.8	5.7	12.1
Giles	9.1	—	—	—	9.1	3.4	5.8
Jackson	27.2	1.1	0.7	0.3	26.1	8.1	18.1
Lincoln	15.8	1.8	—	1.8	14.0	7.1	6.9
Macon	21.3	—	—	—	21.3	11.6	9.7
Marshall	7.3	—	—	—	7.3	—	7.3
Maury	3.7	—	—	—	3.7	0.7	3.0
Montgomery	15.2	2.5	2.5	—	12.8	1.7	11.1
Moore	4.2	—	—	—	4.2	—	4.2
Robertson	9.9	—	—	—	9.9	4.5	5.4
Rutherford	—	—	—	—	—	—	—
Smith	12.5	—	—	—	12.5	11.6	0.9
Sumner	23.0	—	—	—	23.0	10.2	12.8
Trousdale	0.5	—	—	—	0.5	—	0.5
Williamson	4.2	0.3	—	0.3	3.9	1.1	2.7
Wilson	—	—	—	—	—	—	—
Total	202.4	10.0	6.3	3.7	192.4	75.5	116.9

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 38—Average net annual growth and average annual removals of live trees, growing stock, and sawtimber on timberland by species, Central Tennessee, 1989-1997

Species	Live trees		Growing stock		Sawtimber	
	Net annual growth	Annual removals	Net annual growth	Annual removals	Net annual growth	Annual removals
	Million cubic feet				*Million board feet*	
Softwood						
Shortleaf pine	0.0	—	0.0	—	0.1	—
Loblolly pine	1.3	1.3	1.3	1.3	9.6	5.6
Virginia pine	0.7	0.1	0.7	0.1	1.8	0.7
Eastern white pine	0.0	—	0.0	—	0.4	—
Redcedars	10.0	1.9	6.3	1.6	14.5	3.7
Total softwoods	12.1	3.3	8.4	3.0	26.4	10.0
Hardwood						
Select white oaks	15.0	5.5	11.4	4.7	55.4	21.5
Select red oaks	5.5	2.3	5.2	2.3	23.8	10.7
Other white oaks	6.5	3.3	6.0	3.2	30.6	14.4
Other red oaks	12.9	5.2	12.6	5.0	64.7	23.5
Hickory	15.4	3.0	14.2	2.9	56.3	11.1
Hard maple	11.7	4.2	9.2	3.1	29.6	11.9
Soft maple	4.2	1.9	3.0	1.0	6.0	3.6
Beech	2.9	0.7	2.9	0.6	9.0	2.5
Sweetgum	2.8	1.2	2.8	1.2	8.9	3.9
Tupelo and blackgum	1.4	0.3	1.3	0.3	1.3	1.4
Ash	10.2	3.2	8.1	2.6	26.8	11.7
Basswood	0.7	0.4	0.7	0.4	1.5	1.9
Yellow-poplar	16.2	10.6	15.7	10.6	77.9	58.1
Black cherry	1.1	0.5	0.7	0.5	3.8	1.8
Black walnut	2.6	0.7	1.5	0.7	5.0	1.7
Sycamore	1.1	0.5	1.0	0.5	4.8	0.8
Black locust	-0.6	0.8	-0.3	0.4	2.3	—
Elm	4.5	0.8	2.6	0.7	8.0	1.6
Other Eastern hardwoods	15.9	5.2	10.5	4.1	38.9	10.2
Total hardwoods	130.2	50.4	109.2	44.7	454.4	192.4
All species	142.2	53.7	117.6	47.7	480.8	202.4

Numbers in columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 39—Average annual removals of growing stock on timberland by species and diameter class, Central Tennessee, 1989-1997

Species	All classes	Diameter class (inches at breast height) 5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger
					Million cubic feet						
Softwood											
Loblolly pine	1.3	—	—	1.0	—	0.2	—	0.2	—	—	—
Virginia pine	0.1	—	—	—	—	—	0.1	—	—	—	—
Redcedars	1.6	—	0.7	0.8	—	0.1	—	—	—	—	—
Total softwoods	3.0	—	0.7	1.7	—	0.3	0.1	0.2	—	—	—
Hardwood											
Select white oaks	4.7	—	—	—	0.3	1.2	0.5	1.1	0.8	0.8	—
Select red oaks	2.3	—	—	—	—	—	0.7	1.0	—	0.6	—
Other white oaks	3.2	—	—	—	0.3	0.6	1.0	0.3	0.3	0.5	0.3
Other red oaks	5.0	—	0.1	0.2	0.1	0.6	0.9	0.6	0.7	1.5	0.3
Hickory	2.9	—	0.2	0.2	0.2	1.1	0.5	0.2	0.5	—	—
Hard maple	3.1	0.3	0.1	—	0.2	0.3	0.3	0.7	0.7	0.5	—
Soft maple	1.0	—	0.2	0.1	—	—	—	—	0.3	0.5	—
Beech	0.6	—	—	—	0.2	—	—	—	—	0.4	—
Sweetgum	1.2	—	—	0.3	0.3	0.3	0.3	—	—	—	—
Tupelo and blackgum	0.3	—	—	—	—	—	0.3	—	—	—	—
Ash	2.6	—	—	0.1	0.1	0.3	0.7	0.1	0.4	0.7	0.2
Basswood	0.4	—	—	—	—	—	—	—	—	0.4	—
Yellow-poplar	10.6	—	—	0.1	0.7	1.2	1.5	2.3	0.9	2.7	1.1
Black cherry	0.5	—	0.1	—	—	—	0.2	0.2	—	—	—
Black walnut	0.7	—	—	0.2	—	0.4	0.1	—	—	—	—
Sycamore	0.5	—	0.3	—	—	—	—	—	—	0.2	—
Black locust	0.4	—	0.1	0.3	—	—	—	—	—	—	—
Elm	0.7	0.1	0.2	—	0.2	—	—	—	0.2	—	—
Other Eastern hardwoods	4.1	0.3	0.9	0.7	0.2	0.3	0.8	0.4	0.3	0.1	0.1
Total hardwoods	44.7	0.6	2.3	2.2	2.6	6.3	7.6	7.1	5.0	8.8	2.1
All species	47.7	0.6	3.0	4.0	2.6	6.6	7.8	7.2	5.0	8.8	2.1

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 40—Average annual mortality of live trees, growing stock, and sawtimber on timberland by species, Central Tennessee, 1989-1997

Species	Live trees	Growing stock	Sawtimber
	Million cubic feet		*Million board feet*
Softwood			
Loblolly pine	0.4	0.4	—
Eastern white pine	0.1	0.1	0.5
Redcedars	1.0	0.8	0.3
Total softwoods	1.5	1.4	0.8
Hardwood			
Select white oaks	1.3	0.9	1.5
Select red oaks	0.7	0.4	1.7
Other white oaks	2.7	2.2	6.6
Other red oaks	3.4	2.5	8.0
Hickory	3.8	3.3	8.7
Hard maple	1.9	0.7	0.5
Soft maple	0.6	0.2	0.7
Beech	2.3	0.9	3.4
Sweetgum	0.5	0.4	0.4
Tupelo and blackgum	0.2	0.2	0.8
Ash	1.3	0.9	2.4
Basswood	0.3	0.2	0.7
Yellow-poplar	2.2	2.0	3.0
Black cherry	0.2	0.1	—
Black walnut	0.4	0.3	0.5
Sycamore	0.1	0.1	0.8
Black locust	2.4	1.6	0.8
Elm	2.8	2.0	3.4
Other Eastern hardwoods	7.2	2.1	2.4
Total hardwoods	34.3	21.0	46.0
All species	35.8	22.4	46.8

Numbers in columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 41—Average net annual growth and average annual removals of growing stock on timberland by ownership class and species group, Central Tennessee, 1989-1997

Ownership class	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
		Average net annual growth *(million cubic feet)*					
National forest	—	—	—	—	—	—	—
Other public	6.7	0.4	0.3	0.1	6.3	1.3	5.1
Forest industry	1.0	0.0	—	0.0	1.0	0.4	0.5
Nonindustrial private	109.9	8.0	1.7	6.3	101.9	30.8	71.1
All classes	117.6	8.4	2.0	6.4	109.2	32.5	76.7
		Average annual removals *(million cubic feet)*					
National forest	—	—	—	—	—	—	—
Other public	0.5	0.5	0.5	—	—	—	—
Forest industry	0.7	—	—	—	0.7	0.4	0.3
Nonindustrial private	46.5	2.6	1.0	1.6	44.0	15.8	28.2
All classes	47.7	3.0	1.5	1.6	44.7	16.2	28.5

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 42—Average net annual growth and average annual removals of live trees on timberland by ownership class and species group, Central Tennessee, 1989-1997

Ownership class	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
		Average net annual growth *(million cubic feet)*					
National forest	—	—	—	—	—	—	—
Other public	7.3	0.5	0.3	0.3	6.7	1.0	5.7
Forest industry	0.9	0.0	—	0.0	0.9	0.3	0.5
Nonindustrial private	134.1	11.5	1.7	9.8	122.6	37.5	85.1
All classes	142.2	12.1	2.0	10.1	130.2	38.8	91.3
		Average annual removals *(million cubic feet)*					
National forest	—	—	—	—	—	—	—
Other public	0.6	0.5	0.5	—	0.1	—	0.1
Forest industry	0.7	—	—	—	0.7	0.4	0.3
Nonindustrial private	52.4	2.8	1.0	1.9	49.5	16.9	32.6
All classes	53.7	3.3	1.5	1.9	50.4	17.3	33.0

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 43—Average net annual growth and average annual removals of sawtimber on timberland by ownership class and species group, Central Tennessee, 1989-1997

Ownership class	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
				Average net annual growth *(million board feet)*			
National forest	—	—	—	—	—	—	—
Other public	32.2	2.2	2.0	0.2	30.0	6.6	23.3
Forest industry	7.1	0.4	—	0.4	6.7	2.5	4.2
Nonindustrial private	441.6	23.8	9.5	14.3	417.8	120.9	296.9
All classes	480.8	26.4	11.5	14.9	454.4	130.0	324.4
				Average annual removals *(million board feet)*			
National forest	—	—	—	—	—	—	—
Other public	2.5	2.5	2.5	—	—	—	—
Forest industry	3.8	—	—	—	3.8	2.3	1.5
Nonindustrial private	196.2	7.5	3.8	3.7	188.7	73.2	115.5
All classes	202.4	10.0	6.3	3.7	192.4	75.5	116.9

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 44—Average net annual growth of growing stock on timberland by forest-type group, stand origin, and species group, Central Tennessee, 1989-1997

Forest-type group and stand origin[a]	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Softwood types							
White–red–jack pine							
Planted	0.2	0.0	—	0.0	0.2	0.1	0.1
Natural	—	—	—	—	—	—	—
Total	0.2	0.0	—	0.0	0.2	0.1	0.1
Loblolly–shortleaf pine							
Planted	0.2	0.2	0.2	—	—	—	—
Natural	2.4	1.9	0.3	1.5	0.5	-0.0	0.6
Total	2.5	2.0	0.5	1.5	0.5	-0.0	0.6
Total softwoods	2.8	2.1	0.5	1.6	0.7	0.0	0.7
Hardwood types							
Oak–pine							
Planted	—	—	—	—	—	—	—
Natural	8.5	3.5	0.1	3.4	5.0	0.9	4.2
Total	8.5	3.5	0.1	3.4	5.0	0.9	4.2
Oak–hickory	101.1	2.8	1.5	1.3	98.3	27.6	70.6
Oak–gum–cypress	5.3	0.1	—	0.1	5.2	4.0	1.2
Total hardwoods	114.9	6.4	1.5	4.8	108.5	32.5	76.0
Nonstocked	—	—	—	—	—	—	—
All groups	117.6	8.4	2.0	6.4	109.2	32.5	76.7

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

[a] Classifications at the beginning of the remeasurement period.

Table 45—Average annual removals of growing stock on timberland by forest-type group, stand origin, and species group, Central Tennessee, 1989-1997

Forest-type group and stand origin[a]	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Softwood types							
Loblolly–shortleaf pine							
Planted	—	—	—	—	—	—	—
Natural	0.1	0.1	0.1	—	—	—	—
Total	0.1	0.1	0.1	—	—	—	—
Total softwoods	0.1	0.1	0.1	—	—	—	—
Hardwood types							
Oak–pine							
Planted	—	—	—	—	—	—	—
Natural	2.6	1.2	—	1.2	1.5	0.2	1.3
Total	2.6	1.2	—	1.2	1.5	0.2	1.3
Oak–hickory	42.1	1.8	1.3	0.4	40.3	14.3	26.0
Oak–gum–cypress	2.9	—	—	—	2.9	1.7	1.2
Total hardwoods	47.6	2.9	1.3	1.6	44.7	16.2	28.5
Nonstocked	—	—	—	—	—	—	—
All groups	47.7	3.0	1.5	1.6	44.7	16.2	28.5

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

[a] Classifications at the beginning of the remeasurement period.

Table 46—Fresh weight of live trees on timberland by ownership class, species group, and tree component, Central Tennessee, 1998

Ownership class and species group	All components	Component						
		All live saplings	Growing-stock trees			Cull trees		
			Total	Boles	Stumps, tops, and limbs	Total	Boles	Stumps, tops, and limbs
			Thousand tons					
National forest								
Softwood	—	—	—	—	—	—	—	—
Hardwood	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Other public								
Softwood	1,248.7	273.4	745.7	606.1	139.6	229.6	174.7	54.9
Hardwood	15,364.9	1,143.1	11,926.1	9,720.1	2,206.0	2,295.7	1,785.8	510.0
Total	16,613.5	1,416.5	12,671.8	10,326.2	2,345.6	2,525.3	1,960.4	564.9
Forest industry								
Softwood	211.9	—	211.9	179.1	32.8	—	—	—
Hardwood	3,933.1	295.2	3,171.8	2,629.4	542.4	466.1	352.3	113.9
Total	4,145.0	295.2	3,383.7	2,808.5	575.2	466.1	352.3	113.9
Nonindustrial private								
Softwood	15,327.1	2,896.5	6,968.2	5,287.6	1,680.6	5,462.5	4,214.9	1,247.6
Hardwood	213,444.9	19,063.7	149,608.0	122,019.4	27,588.6	44,773.2	35,273.1	9,500.2
Total	228,772.0	21,960.2	156,576.2	127,307.0	29,269.2	50,235.7	39,488.0	10,747.7
All ownerships								
Softwood	16,787.7	3,169.9	7,925.8	6,072.8	1,853.0	5,692.0	4,389.6	1,302.5
Hardwood	232,742.8	20,502.0	164,705.8	134,368.9	30,336.9	47,535.0	37,411.1	10,124.0
Total	249,530.4	23,671.9	172,631.6	140,441.7	32,189.9	53,227.0	41,800.6	11,426.4

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

Table 47—Area of timberland treated or disturbed annually and retained in timberland by treatment or disturbance and ownership class, Central Tennessee, 1989-1998

Treatment or disturbance	All classes	Ownership class		
		Public	Forest industry	Nonindustrial private
		Thousand acres		
Final harvest	3.5	0.3	—	3.2
Partial harvest[a]	35.7	—	1.4	34.3
Seed tree/shelterwood	—	—	—	—
Commercial thinning	0.5	—	—	0.5
Other stand improvement	0.6	—	—	0.6
Site preparation	0.1	0.1	—	—
Artificial regeneration[b]	0.5	0.1	—	0.4
Natural regeneration[b]	42.4	1.9	—	40.5
Other treatment	22.3	—	—	22.3
Natural disturbance				
Disease	4.1	—	—	4.1
Insects	—	—	—	—
Fire	—	—	—	—
Weather	10.2	—	0.3	9.9
Animals	—	—	—	—
Other disturbances				
Grazing	15.6	—	—	15.6
Other man-caused disturbance	7.8	—	—	7.8

Since some acres experience more than one treatment or disturbance, there are no column totals. Numbers in rows may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

[a] Includes high-grading and some selective cutting.

[b] Includes establishment of trees for timber production on forest and nonforest land.

Table 48—Area of timberland treated or disturbed annually and retained in timberland by treatment or disturbance and forest management type, Central Tennessee, 1989-1998

Treatment or disturbance	All types	Forest management type[a]					
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
				Thousand acres			
Final harvest	3.5	0.1	—	0.7	2.7	—	—
Partial harvest[b]	35.7	—	—	2.6	30.9	2.2	—
Seed tree/shelterwood	—	—	—	—	—	—	—
Commercial thinning	0.5	—	—	—	0.5	—	—
Other stand improvement	0.6	—	—	—	0.6	—	—
Site preparation	0.1	0.1	—	—	—	—	—
Other treatment	22.3	—	1.9	4.2	14.9	1.3	—
Natural disturbance							
Disease	4.1	—	—	—	3.3	0.8	—
Insects	—	—	—	—	—	—	—
Fire	—	—	—	—	—	—	—
Weather	10.2	0.5	1.4	0.4	7.3	0.6	—
Animals	—	—	—	—	—	—	—
Other disturbance							
Grazing	15.6	0.4	1.3	3.2	9.0	1.7	—
Other man-caused disturbance	7.8	—	0.7	1.7	4.7	0.6	—

Since some acres experience more than one treatment or disturbance, there are no column totals. Numbers in rows may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

[a] Classification before treatment or disturbance.

[b] Includes high-grading and some selective cutting.

Table 49—Area of timberland regenerated annually by type of regeneration and forest management type, Central Tennessee, 1989-1998

Type of regeneration	All types	Forest management type[a]					
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
				Thousand acres			
Artificial regeneration following harvest	0.1	0.1	—	—	—	—	—
Natural regeneration following harvest	2.6	—	—	0.7	1.8	—	—
Other artificial regeneration on forest land	—	—	—	—	—	—	—
Other natural regeneration on forest land	13.5	0.2	—	—	12.2	0.8	0.3
Artificial regeneration on former nonforest land	0.4	0.4	—	—	—	—	—
Natural reversion of former nonforest land	26.3	—	2.8	6.3	14.7	2.4	0.1
Total	42.8	0.7	2.8	7.0	28.8	3.2	0.4

Numbers in rows and columns may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

[a] Classification after regeneration.

Table 50—Land area by land-use class, major forest type, and survey completion date, Central Tennessee

Land-use class	Survey completion date			Change
	1980	1989	1998	1989-1998
			Thousand acres	
Forest land				
Timberland				
Pine types	162.8	179.1	209.3	30.2
Oak–pine types	248.9	303.5	412.2	108.7
Hardwood types	1,727.7	1,978.7	2,232.4	253.7
Total	2,139.4	2,461.3	2,853.9	392.6
Productive reserved	23.4	2.1	3.5	1.4
Other	—	—	—	—
Total forest land	2,162.8	2,463.4	2,857.4	394.0
Other land[a]	4,040.8	3,699.7	3,328.0	371.7
All land[b]	6,203.6	6,163.1	6,185.4	22.3

Numbers in rows may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

[a] Includes 37.5 thousand acres of water according to Forest Inventory and Analysis standards of area classification, but defined by the Bureau of Census as land.

[b] From the U.S. Bureau of the Census, 1990.

Table 51—Volume of sawtimber, growing stock, and live trees on timberland by species group, survey completion date, and diameter class, Central Tennessee

Species group and year	All classes	Diameter class (inches at breast height) 5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0 and larger
				Sawtimber *(million board feet)*						
Softwood										
1980	93.3	—	—	38.1	18.9	19.6	12.4	4.2	—	—
1989	196.1	—	—	89.2	59.2	22.6	19.2	4.7	0.7	0.5
1998	318.5	—	—	144.3	91.7	30.5	44.5	7.5	—	—
Hardwood										
1980	4,225.4	—	—	—	1,055.2	970.4	870.5	567.3	288.0	474.1
1989	7,073.0	—	—	—	1,387.9	1,719.2	1,287.8	1,008.4	647.1	1,022.6
1998	10,375.5	—	—	—	1,675.5	1,971.6	2,034.2	1,616.8	1,205.1	1,872.3
				Growing stock *(million cubic feet)*						
Softwood										
1980	79.4	32.4	26.3	9.3	4.3	3.7	2.5	0.8	—	—
1989	137.3	44.5	46.7	22.8	13.7	4.5	3.8	0.9	0.2	0.2
1998	162.5	43.1	48.2	36.3	19.7	6.1	7.8	1.3	—	—
Hardwood										
1980	1,488.1	158.2	227.6	246.5	248.5	203.6	165.8	104.4	53.6	80.0
1989	2,300.8	172.7	292.2	361.2	343.6	364.5	255.7	197.2	121.3	192.4
1998	3,307.9	205.6	335.2	431.9	484.6	487.7	452.9	336.8	237.8	335.4
				Live trees *(million cubic feet)*						
Softwood										
1980	161.2	21.5	45.7	42.9	29.4	9.4	7.0	4.0	1.3	—
1989	166.5	50.1	53.9	30.3	18.1	7.4	4.7	1.4	0.2	0.6
1998	277.8	68.9	77.8	63.0	36.2	12.9	8.8	4.9	—	5.3
Hardwood										
1980	2,231.7	249.6	343.0	429.0	406.0	327.2	208.5	126.5	65.7	76.4
1989	2,652.1	234.1	338.3	395.4	388.9	407.2	284.8	220.7	134.6	248.0
1998	4,236.7	313.3	461.0	549.7	625.1	610.4	551.6	392.4	282.2	451.1

Numbers in rows may not sum to totals due to rounding.

A dash (—) indicates no sample for the cell; 0.0 indicates a value of >0.0 but <0.05 for the cell.

The Forest Service, U.S. Department of Agriculture, is dedicated to the principle of multiple use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the States and private forest owners, and management of the National Forests and National Grasslands, it strives—as directed by Congress—to provide increasingly greater service to a growing Nation.

Schweitzer, Callie Jo. 1999**.** Forest statistics for Central Tennessee, 1998. Resour. Bull. SRS-47. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 60 p.

This report summarizes a 1998 inventory of the forest resources of a 23-county area of Tennessee. Major findings are highlighted in text and graphs; detailed data are presented in 51 tables.

Keywords: Forest ownership, timberland, timber growth, timber removals, timber volume.

United States
Department of Agriculture

Forest Service

Southern
Research Station
P.O. Box 2680
200 Weaver Blvd.
Asheville, NC 28802

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