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Forest Statistics for North Alabama, 2000

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Foreword

This report highlights the principal findings of the seventh forest survey of North Alabama. Field work began in May 1997 and was completed in August 2000. Six previous surveys, completed in 1936, 1953, 1963, 1972, 1982, and 1990, provide statistics for measuring changes and trends over the past 64 years. This report primarily emphasizes changes and trends since 1990.

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 Research Work Unit (FIA) 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 in 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:

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Table of 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.

The use of trade or firm names in this publication is for reader information and does not imply endorsement by the U.S. Department of Agriculture of any product or service.

Figure 1—Forest survey regions in Alabama.

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Highlights

This report summarizes the results from a 2000 inventory of the forest resources of North Alabama (fig. 1). These data are considered preliminary; a final State analytical report will be published after all survey units have been inventoried. Current estimates of forest area, timberland area, related classifications such as ownership and forest type, and timber volume are presented. While comparisons are made with values from the previous inventory, methods for determining several key attributes such as volume, stocking, forest type, stand-size class, and site class have changed. The inventory plot design has changed since the previous survey. Changes in methods and plot design were made to increase consistency among Forest Inventory and Analysis Research Work Units (FIA). For comparisons in this report, growing stock and sawtimber volumes from the previous inventory have been recomputed using current methods. Resource data are presented in 49 tables and 9 graphs. A summary of major findings follows.

Timberland area—The area classified as timberland in this 10-county area has increased 7 percent since 1990 to 2.2 million acres. Ninety-five thousand acres were diverted from timberland to other land uses, while 236,000 acres were added from previously nonforest land uses, resulting in a net addition of 141,000 acres. The majority of the diverted timberland was cleared for agriculture and urban-related land uses. Timberland covered 50 percent of the land area in North Alabama.

Ownership—Nonindustrial private forest (NIPF) ownership increased 6 percent to 1.90 million acres. Corporate ownership decreased 52 percent since 1990 to 87,000 acres. Ownership by individuals increased 13 percent since 1990 to 1.81 million acres. NIPF land owners controlled 85 percent of the timberland in North Alabama. Timberland owned by forest industry increased 16 percent to 134 thousand acres. Public agencies controlled 211 thousand acres, or 9 percent of total timberland.

Forest type—Forest stands classified as hardwood forest types accounted for 72 percent of the timberland area. The area of hardwood stands decreased about 7 percent since 1990. The area of softwood stands decreased 24 percent to 281,000 acres, or 13 percent of the timberland area. The area of oak-pine stands increased 63 percent to 344,000 acres. Mixed hardwood was the dominant forest type in 2000 with 762,000 acres.

Stand treatment—Harvesting and regeneration were the predominant treatment and management activities in the timberland of the region since 1990. Final harvest occurred on 24,000 acres annually. Forty-two percent of these harvests were from oak-pine stands, 39 percent from upland hardwood stands, 10 percent from natural pine stands, 5 percent from lowland hardwood stands, and 3 percent from pine plantations. Reforestation and afforestation combined averaged 51,000 acres annually.

Softwood volumes—Volume of softwood growing stock decreased 2 percent to 650 million cubic feet between 1990 and 2000. Softwood growing-stock volume increased 61 percent on public lands to 118 million cubic feet. Softwood growing-stock volume decreased by 4 percent and 68 percent on NIPF and forest industry lands, respectively. Loblolly pine was the predominate species at 375 million cubic feet, an increase of 4 percent since 1990. The inventory of softwood sawtimber totaled about 2.5 billion board feet, an increase of 25 percent since 1990.

Hardwood volume—Volume of hardwood growing stock increased 31 percent to 2.5 billion cubic feet. Hardwood growing-stock volume increased 33 percent on public lands to 341 million cubic feet, 28 percent on NIPF lands to 2,084 million cubic feet, and 109 percent on forest industry land to 110 million cubic feet. Other red oaks were the predominate species group with 422 million cubic feet. The inventory of hardwood sawtimber increased 46 percent to 8.1 billion board feet.

Growth—Net annual growth of softwood growing stock averaged 35.1 million cubic feet, an increase of 17 percent since the previous survey period. Softwood growth increased 20 percent on public lands, and 24 percent on NIPF lands. Softwood growth decreased 11 percent on forest industry land.

Hardwood growth increased 50 percent on public lands, 73 percent on forest industry lands, and 40 percent on NIPF ownership lands since the previous survey period.

Removals—Annual removals of softwood growing stock averaged 46.5 million cubic feet, an increase of 70 percent since the previous survey period. Eighty-three percent of the softwood removals were from NIPF land, 16 percent from forest industry land, and 1 percent from public lands. Softwood removals exceeded softwood growth by 32 percent.

Annual removals of hardwood growing stock averaged 33.3 million cubic feet, an increase of 10 percent since the previous survey period. Eighty-seven percent of hardwood removals were from NIPF land, 10 percent from forest industry land, and 3 percent from public land. Hardwood growth exceeded removals by 175 percent.

Mortality—The average annual mortality of growing stock increased 14 percent to 27.2 million cubic feet since the previous survey period. Hardwood mortality decreased slightly to 13.9 million cubic feet; softwood mortality increased 51 percent to 13.3 million cubic feet.

Inventory Methods

The Southern Research Station FIA unit secured data on forest acreage and timber volume using a three-step process. A forest-nonforest classification using aerial photographs was completed using a count of points representing approximately 230 acres each. These photo classifications were then 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 approximately 3 miles apart.

The plot installed at each ground sample location was 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 microplot, located at the subplot center, was used to sample trees 1.0 to 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 land cover. Forest and nonforest condition classes were delineated and recorded on each plot. These condition classes were defined by six attributes: land use, forest type, stand origin, stand size, forest density, and major ownership. The process of delineating a fixed-radius plot into numerous sections based on forest and land-use conditions is called mapping. All trees tallied were assigned to their respective condition class. For conditions that were too small to have sufficient stocking, the field person assigned a forest type and stand size based on similar conditions outside the plot boundary. In all other cases, these classifications were derived using standard FIA algorithms.

The cluster of four fixed plots sampled timberland at 467 ground sample locations in this survey unit. Estimates of timber volume and forest classifications 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. Previous surveys used deterministic measurements taken along the bole of each tree to compute individual tree volumes. Estimates of 1990 tree volumes were recomputed using the new equations. All comparisons of standing volume were made using these recomputed values. These recomputed volumes do not match previously published numbers.

Estimates of growth, removals, and mortality were determined from the remeasurement of 408 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 points 1 through 3. Change estimates for the current survey were determined by remeasuring 5 of the 10 points from the previous survey. Any new trees that may have grown onto the plot during the intersurvey period were not sampled. The new growth algorithms do not account for ongrowth and nongrowth of new trees.

Moving from a variable-radius prism point sampling scheme comprised of 10 points, in which all points were “rotated” into forest conditions if a point fell in a nonforest condition, to a fixed-plot design where all forest and nonforest conditions are mapped on the plot brought about changes in the way stocking and expansion factors are estimated. Estimates of stocking are used in the computation

of forest type and stand size. Expansion factors are used to bring plot and tree level estimates up to the population level. The exact impact these changes have on the survey is often debated and is currently being investigated. Therefore, because the sample design and methods of deriving stand parameters have changed since the 1990 Alabama survey, users should be aware of these changes and use caution when making rigorous comparisons between this and prior surveys.

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*)	2,246.0	±	18.1	0.81
All live (*M ft³*)				
Inventory	3,661.2	±	139.9	3.82
Net annual growth	140.3	±	7.1	5.09
Annual removals	85.9	±	9.8	11.42
Annual mortality	34.3	±	3.6	10.44
Growing stock (*M ft³*)				
Inventory	3,184.3	±	129.3	4.06
Net annual growth	126.6	±	6.7	5.28
Annual removals	79.8	±	9.3	11.62
Annual mortality	27.2	±	3.2	11.58
Sawtimber (*M fbm*)				
Inventory	10,598.7	±	596.6	5.63
Net annual growth	519.9	±	27.8	5.34
Annual removals	256.7	±	33.7	13.14
Annual mortality	64.6	±	8.6	13.26

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:

$$SE_s = 4.06 \frac{\sqrt{3{,}184.3}}{\sqrt{2{,}083.5}} = 5.02 .$$

Thus, the sampling error is 5.02 percent, and the resulting confidence interval (two times out of three) for hardwood growing-stock inventory on NIPF land is 2,083.5 ± 104.6 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, North Alabama, 2000

Counties and survey unit	Timberland area	Live trees			Growing stock			Sawtimber		
		Volume	Growth	Removals	Volume	Growth	Removals	Volume	Growth	Removals
					Percent					
Colbert	2.3	13.5	25.4	25.8	14.4	27.4	26.2	18.8	16.7	28.0
De Kalb	3.2	10.4	17.2	48.5	10.7	15.3	49.0	14.1	15.1	48.1
Franklin	3.0	13.9	16.4	21.2	14.9	17.6	21.7	19.5	18.3	24.0
Jackson	1.6	7.4	9.6	27.8	7.9	10.4	28.0	12.1	12.1	29.0
Lauderdale	2.5	14.2	16.5	53.1	15.1	16.0	52.9	19.6	20.2	55.6
Lawrence	2.9	13.1	11.9	47.0	13.4	12.9	48.5	18.3	13.5	49.2
Limestone	2.9	14.6	14.9	51.0	15.6	14.9	53.9	20.8	15.6	55.8
Madison	1.8	11.6	17.4	48.6	13.0	17.9	48.2	17.7	20.8	55.6
Marshall	2.8	13.1	12.8	40.2	13.8	13.2	40.7	18.1	15.0	47.2
Morgan	2.7	10.8	13.8	36.6	11.7	13.7	36.2	16.1	15.7	40.9
Survey unit	**0.8**	**7.3**	**1.9**	**3.4**	**7.3**	**1.9**	**3.3**	**18.3**	**3.9**	**6.7**

[a] By random-sampling formula.

Definitions

Afforestation. Area of land previously classified as nonforest that is converted to forest by planting trees or by natural reversion to forest.

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.

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.

Reforestation. Area of land previously classified as forest that is regenerated by planting trees or natural regeneration.

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 merchant-able. 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 poletimber 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 above the ground
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

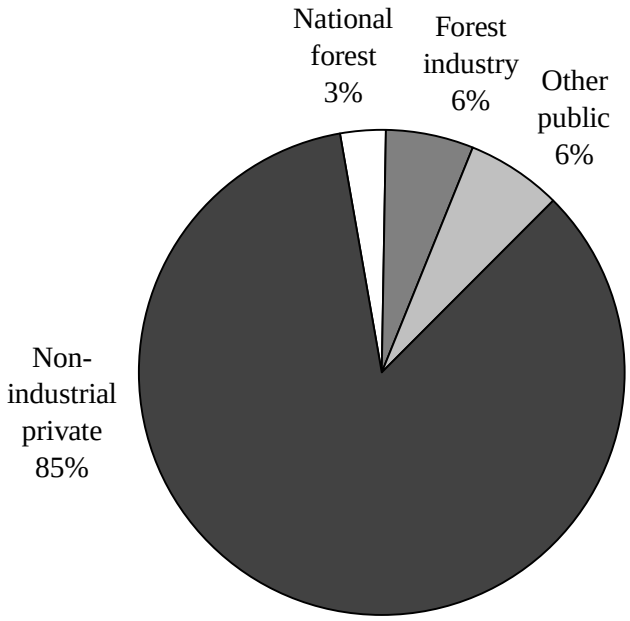

Figure 2—Distribution of timberland by ownership class, North Alabama, 2000.

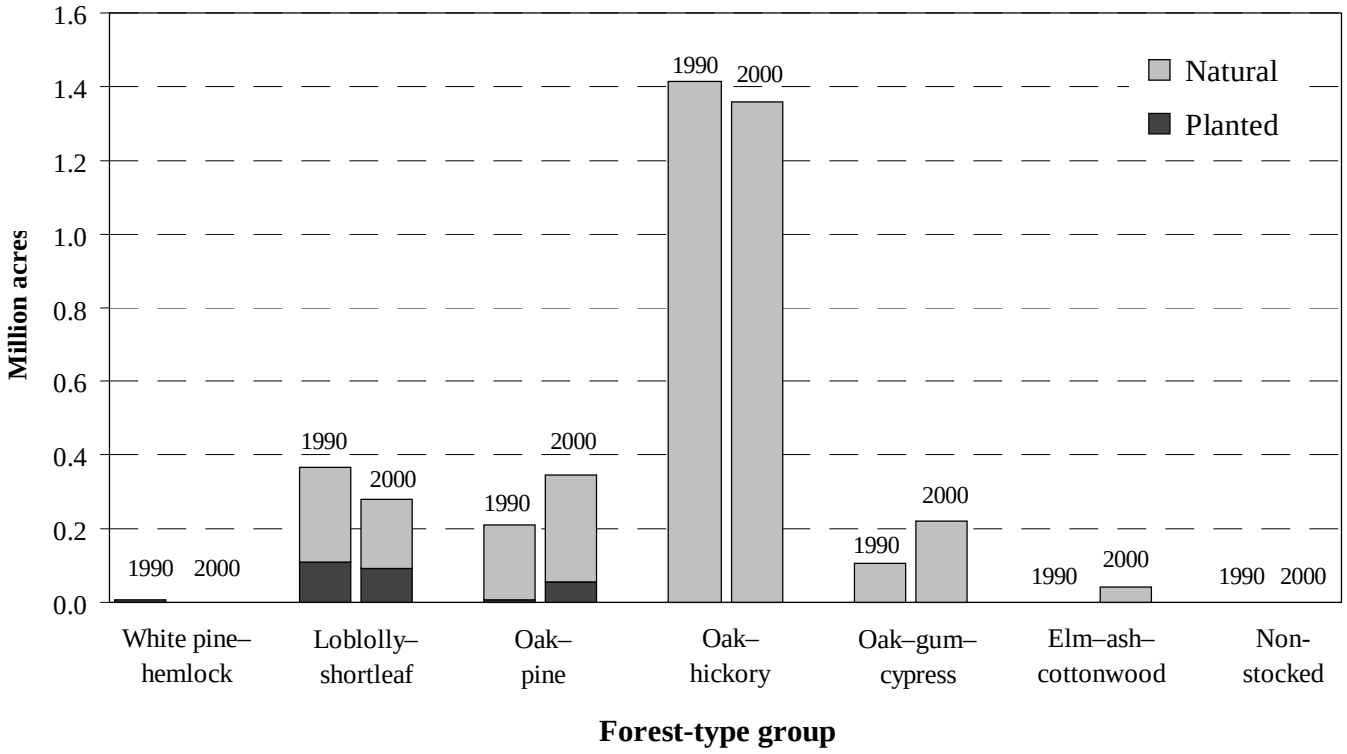

Figure 3—Area of timberland by forest-type group and stand origin, North Alabama, 1990 and 2000.

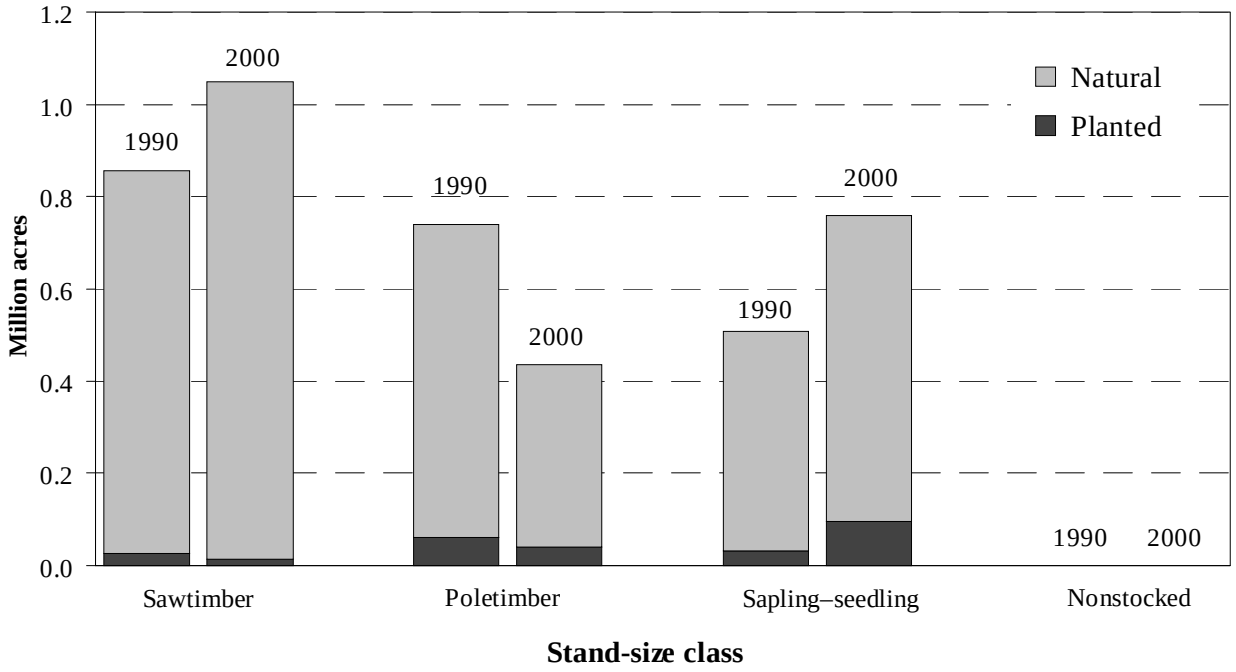

Figure 4—Area of timberland by stand-size class and stand origin, North Alabama, 1990 and 2000.

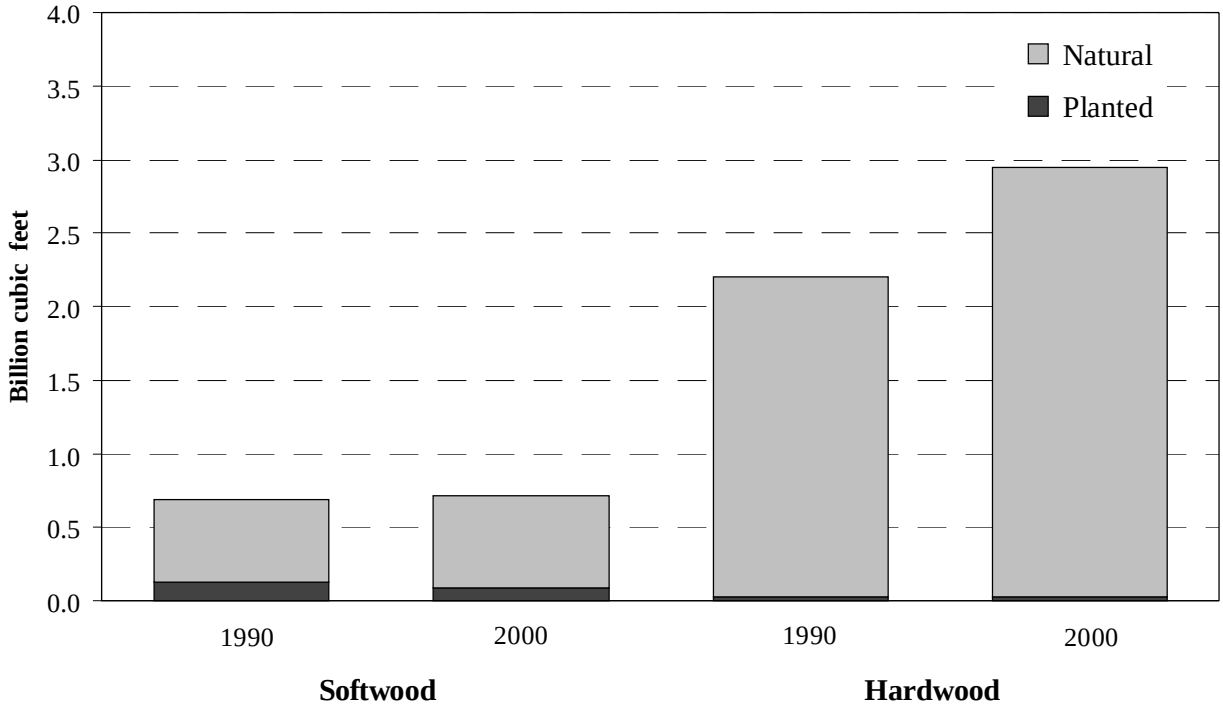

Figure 5—Volume of live trees on timberland by species group and stand origin, North Alabama, 1990 and 2000.

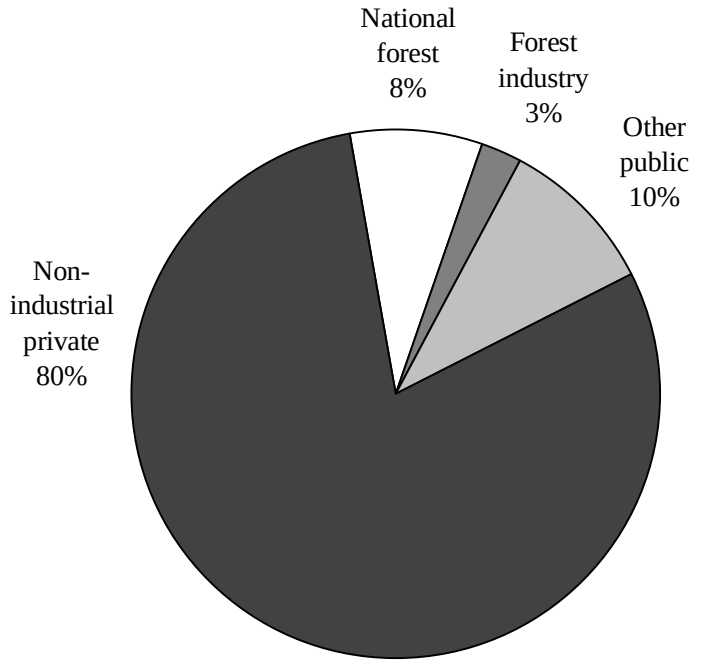

Figure 6—Distribution of softwood live tree volume by ownership class, North Alabama, 2000.

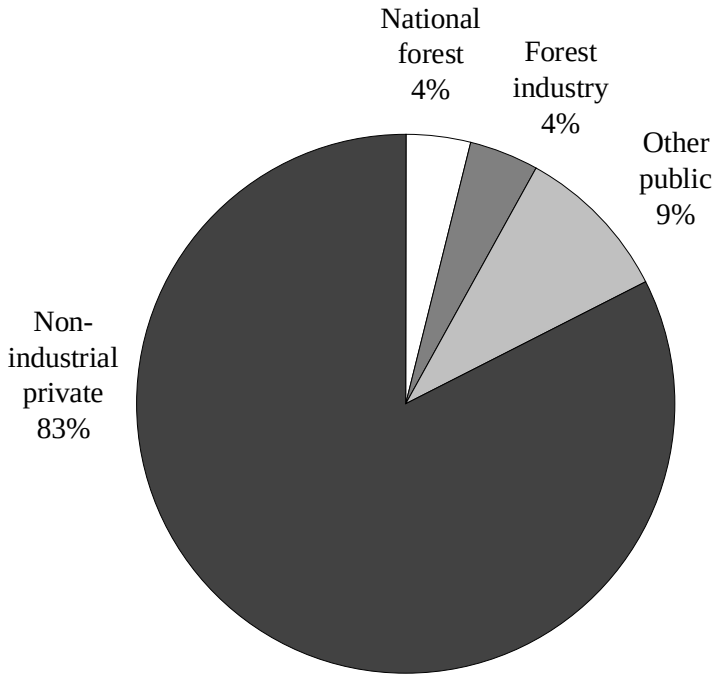

Figure 7—Distribution of hardwood live tree volume by ownership class, North Alabama, 2000.

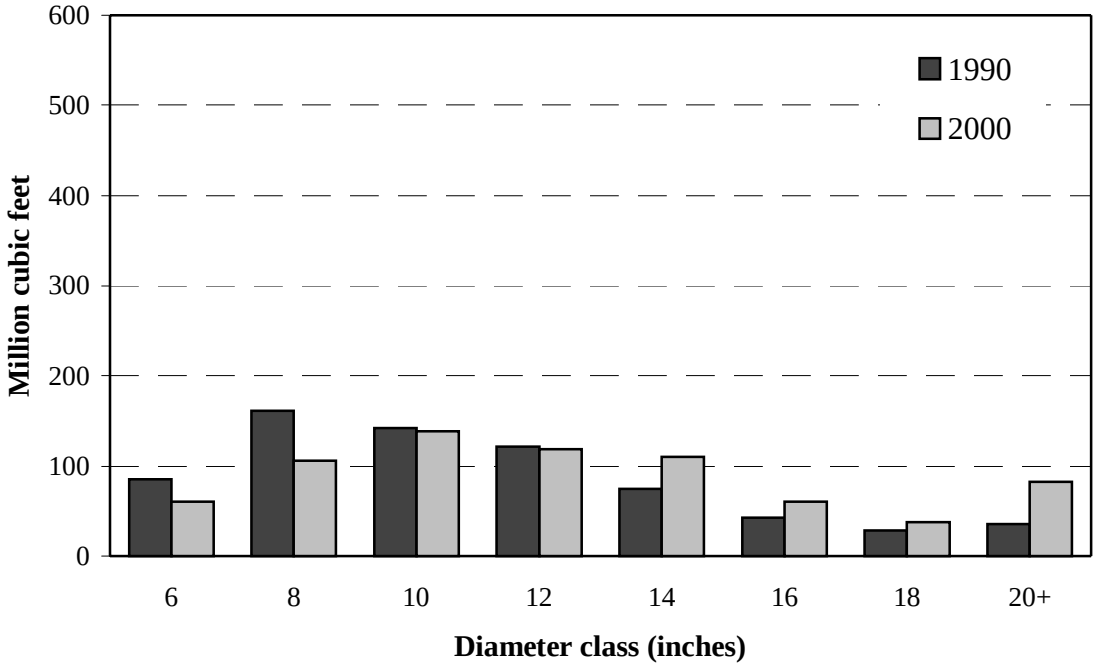

Figure 8—Volume of softwood live trees on timberland by diameter class, North Alabama, 1990 and 2000.

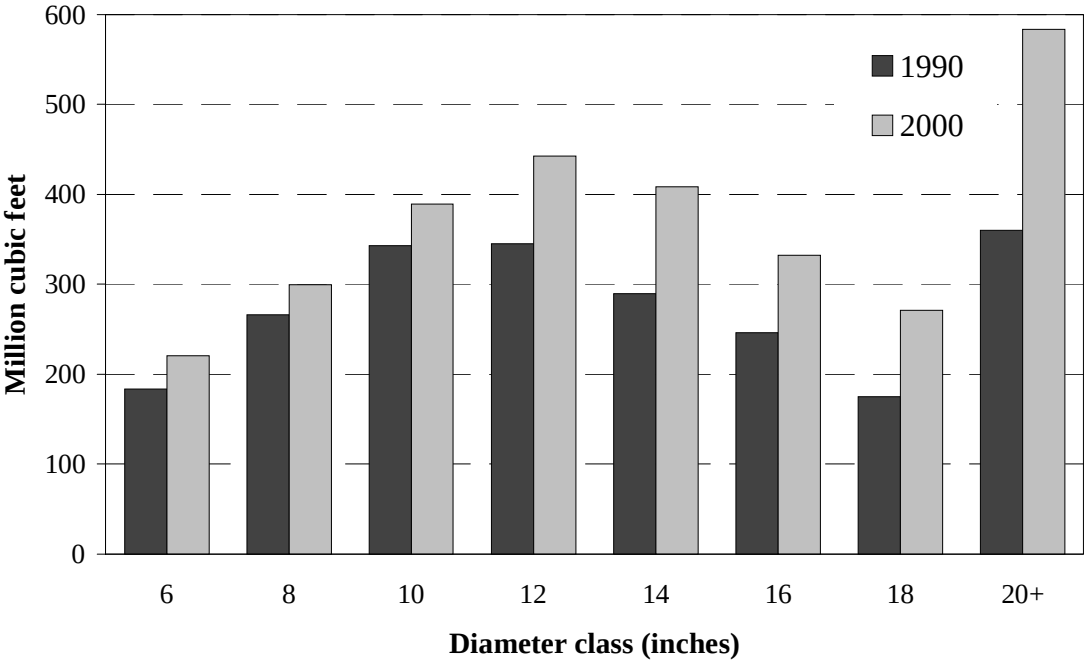

Figure 9—Volume of hardwood live trees on timberland by diameter class, North Alabama, 1990 and 2000.

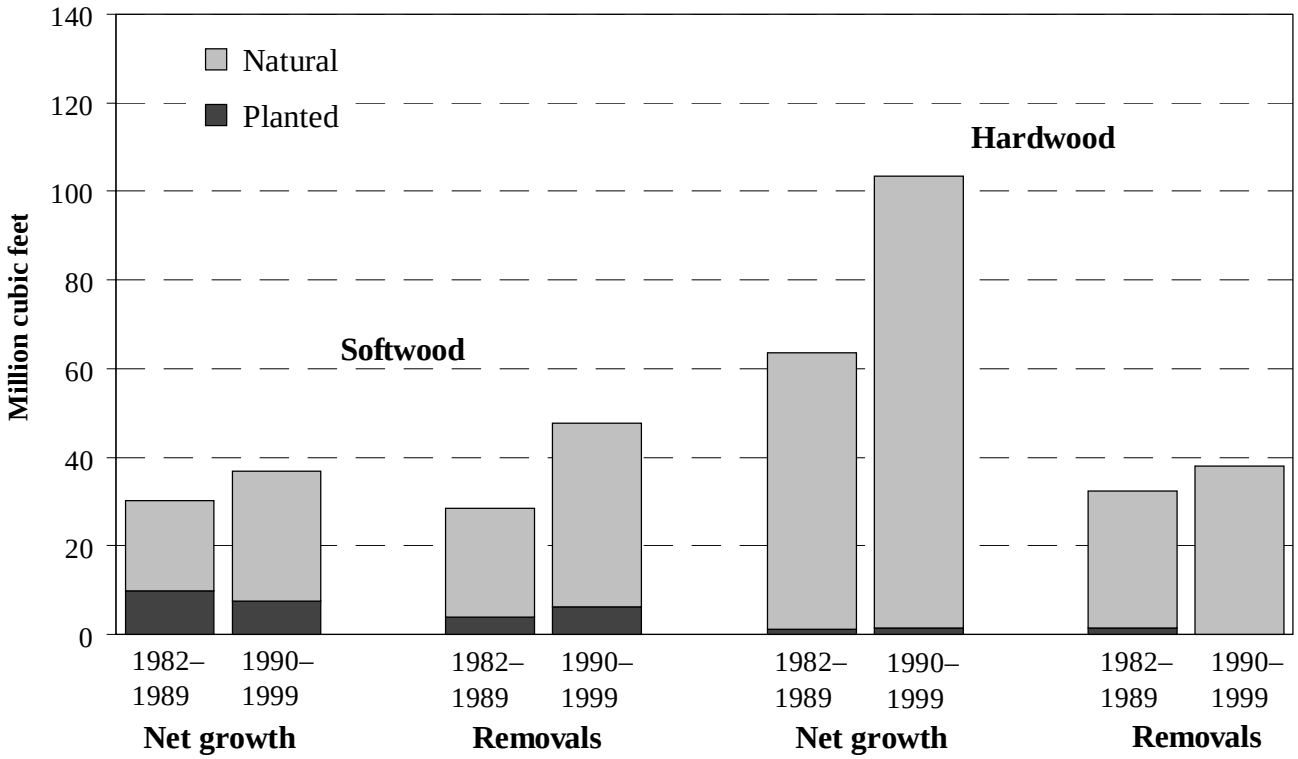

Figure 10—Average net annual growth and removals of live trees on timberland by species group and stand origin, North Alabama, 1982–1989 and 1990–1999.

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		

Index of Tables

21. Volume in the saw-log portion of sawtimber trees on timberland by species and diameter class

22. Volume of sawtimber on timberland by species and diameter class

23. Volume of sawtimber on timberland by species, size class, and tree grade

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

44. Average net annual growth of growing stock on timberland by forest-type group, stand origin, and species group

45. Average annual removals of growing stock on timberland by forest-type group, stand origin, and species group

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

Table 1—Land area by county and land class, North Alabama, 2000

County	Total land area[a]	Forest land				Other land[b]
		Total forest	Timberland	Productive reserved	Other	
	Thousand acres					
Colbert	380.5	227.2	225.5	1.6	—	153.4
De Kalb	497.9	241.8	235.4	6.3	—	256.1
Franklin	406.8	296.5	296.5	—	—	110.3
Jackson	690.4	451.0	450.7	0.3	—	239.4
Lauderdale	428.5	202.0	200.9	1.1	—	226.5
Lawrence	443.8	218.1	194.4	23.8	—	225.7
Limestone	363.6	109.6	108.9	0.7	—	254.0
Madison	515.2	180.9	180.9	—	—	334.3
Marshall	363.0	177.4	177.4	—	—	185.5
Morgan	372.6	175.7	175.2	0.5	—	196.9
Total	4,462.3	2,280.2	2,246.0	34.3	—	2,182.1

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.

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

[b] Includes 34.5 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, North Alabama, 2000

Forest-type group	All classes	Ownership class					
		National forest	Miscellaneous Federal	State	County and municipal	Forest industry	Nonindustrial private
	Thousand acres						
Loblolly–shortleaf pine	287.2	11.5	5.8	3.6	—	40.0	226.3
Oak–pine	350.2	37.6	11.4	—	1.4	21.6	278.2
Oak–hickory	1,380.9	40.7	41.0	35.1	4.3	65.3	1,194.5
Oak–gum–cypress	220.1	—	51.6	—	—	1.4	167.1
Elm–ash–cottonwood	41.9	—	0.9	—	—	5.4	35.5
Total	2,280.2	89.8	110.7	38.6	5.8	133.7	1,901.6

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 3—Area of timberland by county and ownership class, North Alabama, 2000

County	All classes	Ownership class						
		National forest	Miscellaneous Federal	State	County and municipal	Forest industry	Nonindustrial private	
							Corporate	Individual
				Thousand acres				
Colbert	225.5	—	—	12.2	—	6.1	8.0	199.2
De Kalb	235.4	—	—	6.1	—	12.2	6.1	211.0
Franklin	296.5	1.2	5.4	—	—	64.8	28.5	196.6
Jackson	450.7	—	22.9	14.2	—	37.4	34.0	342.3
Lauderdale	200.9	—	—	—	—	12.0	—	189.0
Lawrence	194.4	64.9	3.8	—	—	1.3	5.0	119.4
Limestone	108.9	—	17.2	—	—	—	—	91.7
Madison	180.9	—	31.8	2.6	1.4	—	5.8	139.3
Marshall	177.4	—	5.8	3.6	4.3	—	—	163.8
Morgan	175.2	—	13.3	—	—	—	—	161.9
Total	2,246.0	66.1	100.2	38.6	5.8	133.7	87.4	1,814.2

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, North Alabama, 2000

County	All groups	Forest-type group					
		Loblolly–shortleaf	Oak–pine	Oak–hickory	Oak–gum–cypress	Elm–ash–cottonwood	Nonstocked
				Thousand acres			
Colbert	225.5	26.5	31.3	140.1	21.5	6.1	—
De Kalb	235.4	62.2	33.5	137.9	—	1.9	—
Franklin	296.5	60.3	45.1	174.9	5.4	10.8	—
Jackson	450.7	20.1	49.7	355.0	26.0	—	—
Lauderdale	200.9	24.3	36.5	115.8	19.8	4.5	—
Lawrence	194.4	25.9	59.3	82.0	27.2	—	—
Limestone	108.9	—	6.3	58.9	39.0	4.7	—
Madison	180.9	7.2	26.0	96.7	38.2	12.7	—
Marshall	177.4	29.0	31.7	115.7	—	1.1	—
Morgan	175.2	25.8	24.9	82.0	42.5	—	—
Total	2,246.0	281.3	344.3	1,359.0	219.6	41.9	—

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 5—Area of timberland by county and stand-size class, North Alabama, 2000

County	All classes	Stand-size class			
		Sawtimber	Poletimber	Sapling-seedling	Nonstocked
		Thousand acres			
Colbert	225.5	73.3	59.7	92.6	—
De Kalb	235.4	88.0	79.8	67.7	—
Franklin	296.5	65.3	55.9	175.3	—
Jackson	450.7	258.5	84.0	108.3	—
Lauderdale	200.9	82.2	30.8	88.0	—
Lawrence	194.4	94.6	38.8	61.0	—
Limestone	108.9	64.6	15.2	29.0	—
Madison	180.9	118.1	23.5	39.3	—
Marshall	177.4	107.5	20.1	49.8	—
Morgan	175.2	97.9	28.7	48.6	—
Total	2,246.0	1,049.8	436.6	759.6	—

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 6—Area of timberland by county and site class, North Alabama, 2000

County	All classes	Site class (cubic feet/acre/year)				
		20-49	50-84	85-119	120-164	>165
		Thousand acres				
Colbert	225.5	18.4	80.8	91.4	16.6	18.3
De Kalb	235.4	30.8	125.8	52.9	21.4	4.6
Franklin	296.5	13.5	148.6	77.5	51.5	5.4
Jackson	450.7	97.2	210.0	91.8	40.7	11.0
Lauderdale	200.9	33.1	105.2	58.4	4.3	—
Lawrence	194.4	27.2	89.4	57.3	20.4	—
Limestone	108.9	—	31.9	47.6	24.9	4.6
Madison	180.9	23.1	55.9	63.5	38.3	—
Marshall	177.4	21.6	82.4	46.8	26.6	—
Morgan	175.2	20.4	69.8	50.0	35.0	—
Total	2,246.0	285.1	999.8	637.3	279.8	43.9

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 7—Area of timberland by county and stocking class of growing-stock trees, North Alabama, 2000

County	All classes	Stocking class (percent)				
		<16.7	16.7-59	60-99	100-130	>130
		Thousand acres				
Colbert	225.5	10.8	22.9	112.4	59.6	19.8
De Kalb	235.4	1.7	43.7	115.5	60.8	13.7
Franklin	296.5	5.4	48.3	109.0	117.9	16.0
Jackson	450.7	2.3	97.2	215.5	111.1	24.6
Lauderdale	200.9	12.9	36.0	93.8	36.5	21.8
Lawrence	194.4	7.7	30.7	67.2	80.1	8.7
Limestone	108.9	1.8	7.0	67.7	31.1	1.4
Madison	180.9	7.2	31.2	76.9	52.6	13.0
Marshall	177.4	7.2	19.6	73.2	61.3	16.2
Morgan	175.2	6.0	20.4	64.3	68.3	16.3
Total	2,246.0	63.0	356.8	995.4	679.3	151.5

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

Table 8—Area of timberland by forest-type group, stand origin, and ownership class, North Alabama, 2000

Forest-type group and stand origin	All classes	Ownership class			
		National forest	Other public	Forest industry	Nonindustrial private
		Thousand acres			
Softwood types					
Loblolly–shortleaf pine					
Planted	92.6	0.5	5.8	36.7	49.6
Natural	188.7	5.1	3.6	3.3	176.7
Total	281.3	5.6	9.3	40.0	226.3
Total softwoods	281.3	5.6	9.3	40.0	226.3
Hardwood types					
Oak–pine					
Planted	55.8	10.7	2.7	16.3	26.0
Natural	288.5	20.9	10.1	5.3	252.1
Total	344.3	31.7	12.8	21.6	278.2
Oak–hickory	1,359.0	28.8	70.3	65.3	1,194.5
Oak–gum–cypress	219.6	—	51.1	1.4	167.1
Elm–ash–cottonwood	41.9	—	0.9	5.4	35.5
Total hardwoods	1,964.7	60.5	135.2	93.7	1,675.3
Nonstocked	—	—	—	—	—
All groups	2,246.0	66.1	144.5	133.7	1,901.6

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 9—Area of timberland by forest-type group, detailed forest type, and ownership class, North Alabama, 2000

Forest-type group and detailed forest type	All classes	Ownership class			
		National forest	Other public	Forest industry	Nonindustrial private
	Thousand acres				
Softwood types					
Loblolly–shortleaf					
Loblolly pine	180.4	5.6	9.3	40.0	125.5
Shortleaf pine	11.6	—	—	—	11.6
Virginia pine	87.8	—	—	—	87.8
Eastern redcedar	1.4	—	—	—	1.4
Total	281.3	5.6	9.3	40.0	226.3
Total softwoods	281.3	5.6	9.3	40.0	226.3
Hardwood types					
Oak–pine					
White pine–n. red oak–white ash	3.8	3.8	—	—	—
Eastern redcedar–hardwood	80.8	5.6	4.3	—	70.9
Shortleaf pine–oak	28.5	—	—	—	28.5
Virginia pine–s. red oak	46.4	1.4	—	—	45.0
Loblolly pine–hardwood	184.8	20.9	8.5	21.6	133.8
Total	344.3	31.7	12.8	21.6	278.2
Oak–hickory					
Post oak–black oak	32.9	—	0.2	—	32.7
Chestnut oak	86.0	5.6	14.6	—	65.8
White oak–red oak–hickory	301.4	18.1	13.3	37.3	232.6
White oak	23.9	0.3	—	—	23.6
Yellow-poplar–white oak–n. red oak	56.4	—	5.7	5.4	45.3
Sweetgum–yellow-poplar	96.3	—	—	1.5	94.7
Mixed hardwood	762.2	4.8	36.6	21.1	699.7
Total	1,359.0	28.8	70.3	65.3	1,194.5
Oak–gum–cypress					
Swamp chestnut oak–cherrybark oak	25.4	—	5.3	—	20.1
Sweetgum–water oak–willow oak	113.0	—	26.7	—	86.2
Sugarberry–elm–green ash	64.7	—	7.5	—	57.2
Cypress–water tupelo	11.6	—	11.6	—	—
Sweetbay–blackgum–red maple	4.9	—	—	1.4	3.6
Total	219.6	—	51.1	1.4	167.1
Elm–ash–cottonwood					
River birch–sycamore	21.8	—	0.9	—	20.9
Willow	10.2	—	—	—	10.2
Sycamore–pecan–elm	9.8	—	—	5.4	4.4
Total	41.9	—	0.9	5.4	35.5
Total hardwoods	1,964.7	60.5	135.2	93.7	1,675.3
Nonstocked	—	—	—	—	—
All groups	2,246.0	66.1	144.5	133.7	1,901.6

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 10—Area of timberland by ownership and stocking class of growing-stock trees, North Alabama, 2000

Ownership class	All classes	Stocking class (percent)				
		<16.7	16.7-59	60-99	100-130	>130
	Thousand acres					
National forest	66.1	—	6.5	26.5	25.6	7.5
Other public	144.5	7.1	20.8	76.7	37.1	2.8
Forest industry	133.7	1.4	19.9	42.0	48.0	22.5
Nonindustrial private	1,901.6	54.6	309.6	850.1	568.6	118.6
All ownerships	2,246.0	63.0	356.8	995.4	679.3	151.5

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 11—Area of timberland by forest-type group, stand origin, and stand-size class, North Alabama, 2000

Forest-type group and stand origin	All classes	Stand-size class			
		Sawtimber	Poletimber	Sapling-seedling	Nonstocked
	Thousand acres				
Softwood types					
Loblolly–shortleaf pine					
Planted	92.6	10.1	33.7	48.8	—
Natural	188.7	117.2	24.3	47.2	—
Total	281.3	127.3	57.9	96.0	—
Total softwoods	281.3	127.3	57.9	96.0	—
Hardwood types					
Oak–pine					
Planted	55.8	3.8	6.9	45.1	—
Natural	288.5	90.7	76.8	121.0	—
Total	344.3	94.5	83.8	166.0	—
Oak–hickory	1,359.0	678.2	245.3	435.5	—
Oak–gum–cypress	219.6	131.6	46.5	41.5	—
Elm–ash–cottonwood	41.9	18.3	3.0	20.6	—
Total hardwoods	1,964.7	922.5	378.6	663.6	—
Nonstocked	—	—	—	—	—
All groups	2,246.0	1,049.8	436.6	759.6	—

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 12—Area of timberland by stand-age class and forest management type, all ownerships, North Alabama, 2000

Stand-age class	All types	Forest management type					
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
Years				*Thousand acres*			
0-10	429.4	46.5	32.0	102.2	196.3	52.4	—
11-20	170.1	32.5	8.4	19.4	96.6	13.2	—
21-30	99.8	—	23.0	27.2	37.2	12.3	—
31-40	158.8	6.6	24.3	29.0	76.7	22.2	—
41-50	435.9	—	63.2	82.9	234.7	55.1	—
51-60	371.7	7.0	17.5	51.6	229.6	65.9	—
61-70	214.3	—	16.0	11.8	173.8	12.7	—
71-80	152.0	—	—	4.2	125.0	22.8	—
81+	214.1	—	4.2	16.0	189.0	4.8	—
All classes	2,246.0	92.6	188.7	344.3	1,359.0	261.4	—

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 13—Area of timberland by stand-age class and forest management type, public ownerships, North Alabama, 2000

Stand-age class	All types	Forest management type					
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
Years				*Thousand acres*			
0-10	22.7	—	—	4.5	9.8	8.5	—
11-20	5.7	—	—	5.7	—	—	—
21-30	9.8	—	—	9.8	—	—	—
31-40	4.7	0.5	—	4.2	—	—	—
41-50	11.0	—	0.9	9.2	—	0.9	—
51-60	45.0	5.8	3.6	1.4	16.9	17.3	—
61-70	31.6	—	—	—	26.3	5.3	—
71-80	42.6	—	—	4.2	23.2	15.2	—
81+	37.5	—	4.2	5.6	23.0	4.8	—
All classes	210.6	6.3	8.7	44.5	99.1	52.0	—

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 14—Area of timberland by stand-age class and forest management type, forest industry ownerships, North Alabama, 2000

Stand-age class	All types	Forest management type					
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
Years				*Thousand acres*			
0-10	49.5	24.3	3.3	14.9	7.0	—	—
11-20	12.7	11.1	—	1.5	—	—	—
21-30	2.7	—	—	1.4	—	1.4	—
31-40	11.1	—	—	—	5.7	5.4	—
41-50	9.2	—	—	3.8	5.4	—	—
51-60	17.9	1.3	—	—	16.6	—	—
61-70	13.3	—	—	—	13.3	—	—
71-80	6.0	—	—	—	6.0	—	—
81+	11.3	—	—	—	11.3	—	—
All classes	133.7	36.7	3.3	21.6	65.3	6.8	—

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 15—Area of timberland by stand-age class and forest management type, nonindustrial private ownerships, North Alabama, 2000

Stand-age class	All types	Forest management type					
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
Years				*Thousand acres*			
0-10	357.1	22.2	28.7	82.8	179.6	43.9	—
11-20	151.7	21.4	8.4	12.1	96.6	13.2	—
21-30	87.4	—	23.0	16.1	37.2	11.0	—
31-40	143.0	6.1	24.3	24.8	71.0	16.8	—
41-50	415.6	—	62.3	70.0	229.3	54.1	—
51-60	308.8	—	14.0	50.2	196.1	48.6	—
61-70	169.4	—	16.0	11.8	134.2	7.4	—
71-80	103.4	—	—	—	95.7	7.7	—
81+	165.2	—	—	10.5	154.7	—	—
All classes	1,901.6	49.6	176.7	278.2	1,194.5	202.6	—

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 16—Area of nonindustrial private timberland by ownership, forested tract-size class, and forest management type, North Alabama, 2000

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	104.2	—	10.1	3.6	82.2	8.4	—
11-50	541.0	1.1	69.5	75.5	315.8	79.1	—
51-100	390.5	10.2	29.5	59.3	237.4	54.2	—
101-200	390.5	9.2	34.8	73.6	238.3	34.5	—
201-500	241.1	16.1	4.7	12.4	181.8	26.0	—
≥ 501	146.9	8.8	14.4	48.1	75.2	0.4	—
Total	1,814.2	45.6	162.9	272.5	1,130.6	202.6	—
Corporate							
≤ 10	—	—	—	—	—	—	—
11-50	11.4	—	—	—	11.4	—	—
51-100	11.3	—	5.7	—	5.7	—	—
101-200	12.3	—	5.4	—	6.9	—	—
201-500	40.5	4.1	2.7	5.7	28.1	—	—
≥ 501	11.8	—	—	—	11.8	—	—
Total	87.4	4.1	13.8	5.7	63.9	—	—
All nonindustrial private							
≤ 10	104.2	—	10.1	3.6	82.2	8.4	—
11-50	552.5	1.1	69.5	75.5	327.2	79.1	—
51-100	401.9	10.2	35.2	59.3	243.0	54.2	—
101-200	402.8	9.2	40.2	73.6	245.2	34.5	—
201-500	281.6	20.2	7.5	18.1	209.9	26.0	—
≥ 501	158.7	8.8	14.4	48.1	87.0	0.4	—
Total	1,901.6	49.6	176.7	278.2	1,194.5	202.6	—

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 17—Number of live trees on timberland by species and diameter class, North Alabama, 2000

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	8,649	1,607	889	1,419	1,780	1,230	991	530	67	67	—	69	—
Loblolly pine	78,383	26,981	17,494	12,252	8,861	5,819	2,646	1,899	1,209	557	270	292	103
Virginia pine	91,244	59,411	16,033	5,624	4,067	3,036	1,631	1,216	148	—	—	78	—
Eastern white pine	68	—	—	—	—	—	34	—	34	—	—	—	—
Eastern hemlock	1,177	814	—	66	33	165	66	33	—	—	—	—	—
Baldcypress	210	—	—	140	—	—	35	—	—	—	—	35	—
Redcedars	46,451	25,635	8,800	5,922	3,052	1,896	687	258	99	68	34	—	—
Total softwoods	226,182	114,448	43,216	25,423	17,793	12,146	6,090	3,936	1,557	692	304	474	103
Hardwood													
Select white oaks	67,686	26,063	15,477	7,790	4,942	4,256	3,249	2,201	1,768	813	613	451	63
Select red oaks	16,793	4,444	3,350	2,113	1,029	1,534	1,231	997	661	504	536	330	64
Other white oaks	61,049	25,077	12,032	7,040	5,355	3,725	2,934	2,170	1,009	715	489	503	—
Other red oaks	83,311	42,576	14,928	5,950	5,299	4,561	3,262	2,184	1,747	1,045	799	802	158
Hickory	117,829	68,536	18,136	9,420	7,766	5,300	4,089	2,358	1,215	576	304	129	—
Hard maple	43,594	26,351	10,289	3,510	1,554	735	607	339	67	108	34	—	—
Soft maple	111,252	87,061	12,744	5,280	2,772	1,122	1,054	435	229	169	104	179	103
Beech	13,082	10,715	844	649	205	96	97	107	104	138	30	67	30
Sweetgum	87,836	47,138	20,139	7,742	4,031	3,550	2,222	1,484	765	371	198	196	—
Tupelo and blackgum	57,469	42,498	8,180	2,761	1,324	1,212	639	485	231	105	34	—	—
Ash	62,850	39,459	12,077	4,334	2,902	1,905	923	550	280	213	70	137	—
Cottonwood	369	—	301	33	—	—	—	—	—	—	—	35	—
Basswood	2,133	—	1,151	343	172	203	34	98	64	34	—	34	—
Yellow-poplar	42,948	25,313	6,162	3,969	1,768	1,974	1,459	775	440	475	154	399	60
Bay and magnolia	3,713	3,289	—	218	37	—	99	70	—	—	—	—	—
Black cherry	37,644	26,761	6,303	2,310	1,174	499	234	235	61	—	—	67	—
Black walnut	1,803	431	407	263	378	33	92	99	34	37	—	29	—
Sycamore	1,447	301	—	206	263	207	171	66	99	68	33	33	—
Black locust	4,887	3,046	850	446	136	273	—	67	34	35	—	—	—
Elm	85,102	65,416	13,572	3,668	1,233	488	395	164	—	72	30	64	—
Other Eastern hardwoods	329,510	246,459	55,842	15,601	6,525	2,520	992	633	285	265	255	133	—
Total hardwoods	1,232,307	790,934	212,784	83,646	48,865	34,193	23,783	15,517	9,093	5,743	3,683	3,588	478
All species	1,458,489	905,382	256,000	109,069	66,658	46,339	29,873	19,453	10,650	6,435	3,987	4,062	581

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, North Alabama, 2000

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	7,923	1,248	889	1,178	1,722	1,230	991	493	36	67	—	69	—
Loblolly pine	66,955	21,957	14,151	10,922	8,084	5,264	2,513	1,741	1,175	520	270	255	103
Virginia pine	62,204	37,634	11,243	4,430	3,575	2,754	1,446	967	111	—	—	44	—
Eastern white pine	68	—	—	—	—	—	34	—	34	—	—	—	—
Eastern hemlock	737	407	—	66	—	165	66	33	—	—	—	—	—
Baldcypress	70	—	—	—	—	—	35	—	—	—	—	35	—
Redcedars	30,375	17,329	5,436	3,346	2,051	1,494	386	200	99	34	—	—	—
Total softwoods	168,332	78,575	31,719	19,942	15,432	10,907	5,471	3,434	1,455	621	270	403	103
Hardwood													
Select white oaks	44,940	11,373	11,389	6,282	4,125	3,773	2,974	1,853	1,602	671	511	387	—
Select red oaks	13,110	2,777	2,467	1,782	925	1,466	1,100	829	626	340	438	296	64
Other white oaks	40,692	10,813	9,810	5,609	4,668	3,341	2,491	1,767	830	608	350	405	—
Other red oaks	47,017	14,544	10,428	5,064	4,309	4,033	2,854	1,980	1,440	940	632	666	127
Hickory	74,447	34,659	12,879	7,461	6,648	4,918	3,704	2,154	1,152	542	232	98	—
Hard maple	17,963	6,742	5,873	2,698	1,222	575	441	310	33	35	34	—	—
Soft maple	33,161	20,553	6,095	2,916	1,594	744	547	305	165	68	35	70	69
Beech	3,765	2,852	—	373	103	96	62	70	104	71	—	34	—
Sweetgum	53,260	23,388	13,397	5,751	3,125	2,828	1,983	1,386	736	307	198	161	—
Tupelo and blackgum	26,952	16,261	5,967	1,786	946	967	381	308	231	71	34	—	—
Ash	26,142	13,396	4,304	2,959	2,259	1,531	827	412	176	141	70	67	—
Cottonwood	369	—	301	33	—	—	—	—	—	—	—	35	—
Basswood	1,538	—	792	205	172	105	34	98	64	34	—	34	—
Yellow-poplar	35,451	19,598	5,374	3,626	1,536	1,839	1,355	701	368	475	154	365	60
Bay and magnolia	3,273	2,849	—	218	37	—	99	70	—	—	—	—	—
Black cherry	12,794	7,113	3,394	1,251	517	190	165	103	61	—	—	—	—
Black walnut	472	—	—	100	178	33	62	99	—	—	—	—	—
Sycamore	1,119	301	—	140	131	170	141	33	69	68	33	33	—
Black locust	1,465	888	—	238	102	135	—	33	34	35	—	—	—
Elm	26,005	15,931	6,416	2,057	798	335	238	164	—	37	—	29	—
Other Eastern hardwoods	80,236	48,780	19,127	6,077	3,151	1,346	698	368	213	229	148	99	—
Total hardwoods	544,171	252,818	118,013	56,626	36,546	28,425	20,156	13,043	7,904	4,672	2,869	2,779	320
All species	712,503	331,393	149,732	76,568	51,978	39,332	25,627	16,477	9,359	5,293	3,139	3,182	423

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, North Alabama, 2000

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	81.5	4.2	12.5	16.6	20.4	16.0	2.3	3.2	—	6.4	—
Loblolly pine	394.6	24.1	50.3	65.4	54.2	53.8	48.9	32.1	19.8	25.8	20.0
Virginia pine	159.8	17.8	27.5	37.6	31.5	34.3	5.1	—	—	6.1	—
Eastern white pine	2.1	—	—	—	0.8	—	1.3	—	—	—	—
Eastern hemlock	4.3	0.1	0.1	1.8	1.1	1.1	—	—	—	—	—
Baldcypress	3.8	0.4	—	—	1.0	—	—	—	—	2.5	—
Redcedars	69.1	14.0	15.4	17.2	10.0	5.2	3.0	2.6	1.6	—	—
Total softwoods	715.2	60.6	105.8	138.6	119.0	110.4	60.6	38.0	21.5	40.7	20.0
Hardwood											
Select white oaks	419.9	22.3	32.6	50.0	60.9	58.0	67.7	40.5	38.0	42.5	7.4
Select red oaks	193.3	6.1	6.8	19.3	24.1	24.2	23.2	21.8	28.4	27.9	11.5
Other white oaks	339.4	19.4	34.7	42.8	53.2	56.5	34.8	33.4	26.3	38.4	—
Other red oaks	466.7	16.9	32.8	50.6	59.2	55.8	62.0	46.8	43.8	66.8	31.9
Hickory	374.8	22.0	46.3	59.0	77.3	65.4	44.1	28.9	19.8	12.0	—
Hard maple	61.1	11.4	11.0	8.0	12.0	9.4	2.0	4.4	2.9	—	—
Soft maple	107.8	14.7	16.6	10.6	16.0	9.3	7.9	7.3	4.3	10.4	10.5
Beech	30.1	2.0	1.5	1.0	1.7	2.3	4.0	5.9	1.9	4.9	4.8
Sweetgum	272.7	20.3	26.7	45.5	47.9	46.8	33.9	20.2	15.1	16.2	—
Tupelo and blackgum	60.7	7.2	7.0	12.4	9.9	11.4	7.2	3.9	1.7	—	—
Ash	111.0	12.0	18.0	22.0	17.0	13.9	8.3	8.5	4.7	6.5	—
Cottonwood	1.8	0.2	—	—	—	—	—	—	—	1.6	—
Basswood	15.8	1.1	1.3	2.2	0.8	2.3	2.2	2.1	—	3.8	—
Yellow-poplar	209.9	12.4	12.0	25.4	28.4	22.7	18.4	26.0	12.8	40.2	11.6
Bay and magnolia	4.3	0.7	0.2	—	1.7	1.8	—	—	—	—	—
Black cherry	33.6	5.7	7.0	4.9	4.2	5.6	2.8	—	—	3.5	—
Black walnut	9.2	0.6	1.8	0.4	1.3	2.2	0.3	1.6	—	0.9	—
Sycamore	21.3	0.7	1.9	2.8	3.4	1.6	3.1	3.9	2.1	1.8	—
Black locust	9.1	1.2	0.8	2.7	—	1.3	1.4	1.6	—	—	—
Elm	42.4	9.8	6.8	5.6	6.6	4.1	—	2.4	2.0	5.2	—
Other Eastern hardwoods	161.3	33.7	33.6	23.8	16.9	13.5	8.8	11.6	10.2	9.2	—
Total hardwoods	2,946.0	220.5	299.5	388.8	442.4	408.1	332.1	271.1	213.9	291.9	77.7
All species	3,661.2	281.1	405.3	527.4	561.4	518.5	392.6	309.0	235.4	332.6	97.8

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 20—Volume of growing-stock trees on timberland by species and diameter class, North Alabama, 2000

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	78.8	3.7	12.1	16.6	20.4	15.1	1.3	3.2	—	6.4	—
Loblolly pine	375.4	22.0	47.0	61.5	52.6	50.6	47.8	30.5	19.8	23.5	20.0
Virginia pine	138.5	14.7	24.9	34.9	28.7	28.1	3.8	—	—	3.2	—
Eastern white pine	2.1	—	—	—	0.8	—	1.3	—	—	—	—
Eastern hemlock	4.2	0.1	—	1.8	1.1	1.1	—	—	—	—	—
Baldcypress	3.5	—	—	—	1.0	—	—	—	—	2.5	—
Redcedars	47.4	8.3	10.9	13.6	6.0	4.2	3.0	1.4	—	—	—
Total softwoods	649.8	48.8	95.0	128.5	110.6	99.1	57.3	35.0	19.8	35.6	20.0
Hardwood											
Select white oaks	373.4	18.9	28.8	45.8	57.8	50.7	63.6	34.0	34.6	39.1	—
Select red oaks	178.5	5.2	6.4	18.7	23.1	21.0	23.1	17.0	26.4	26.1	11.5
Other white oaks	293.5	16.2	30.7	39.3	46.7	47.7	29.4	30.3	22.3	30.9	—
Other red oaks	421.7	14.7	28.5	46.3	54.0	52.3	53.1	43.3	40.1	61.6	27.7
Hickory	346.4	18.6	41.4	56.0	72.0	61.1	42.8	28.4	15.6	10.6	—
Hard maple	49.2	8.8	8.6	6.9	9.9	9.1	1.1	1.9	2.9	—	—
Soft maple	69.0	8.9	10.9	7.9	9.4	6.5	5.5	3.8	1.6	5.6	8.8
Beech	16.6	1.4	0.9	1.0	1.0	1.6	4.0	3.9	—	2.9	—
Sweetgum	246.8	16.4	22.4	38.8	44.3	43.7	33.0	17.9	15.1	15.2	—
Tupelo and blackgum	47.0	5.0	5.2	10.2	6.5	8.1	7.2	3.1	1.7	—	—
Ash	90.7	8.7	14.2	18.8	15.3	10.9	6.0	6.8	4.7	5.3	—
Cottonwood	1.8	0.2	—	—	—	—	—	—	—	1.6	—
Basswood	14.3	0.7	1.3	1.2	0.8	2.3	2.2	2.1	—	3.8	—
Yellow-poplar	199.2	11.7	10.7	23.8	26.5	21.3	16.4	26.0	12.8	38.4	11.6
Bay and magnolia	4.3	0.7	0.2	—	1.7	1.8	—	—	—	—	—
Black cherry	18.4	3.5	3.7	2.1	3.0	3.3	2.8	—	—	—	—
Black walnut	4.9	0.3	1.1	0.4	0.9	2.2	—	—	—	—	—
Sycamore	18.1	0.5	1.1	2.4	3.1	0.8	2.5	3.9	2.1	1.8	—
Black locust	6.7	0.7	0.5	1.6	—	0.9	1.4	1.6	—	—	—
Elm	28.0	5.8	4.7	4.1	4.2	4.1	—	1.7	—	3.5	—
Other Eastern hardwoods	105.7	16.1	18.5	15.1	13.0	9.4	7.3	10.4	7.7	8.2	—
Total hardwoods	2,534.5	162.9	239.9	340.3	393.1	358.8	301.3	236.3	187.6	254.7	59.6
All species	3,184.3	211.7	334.9	468.8	503.7	457.9	358.6	271.3	207.5	290.2	79.6

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 21—Volume in the saw-log portion of sawtimber trees on timberland by species and diameter class, North Alabama, 2000

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									
Shortleaf pine	57.1	13.3	18.6	14.4	1.3	3.1	—	6.3	—
Loblolly pine	282.5	48.2	47.4	47.8	46.5	30.0	19.6	23.3	19.8
Virginia pine	86.9	28.1	25.8	26.2	3.6	—	—	3.1	—
Eastern white pine	2.0	—	0.7	—	1.3	—	—	—	—
Eastern hemlock	3.4	1.4	0.9	1.0	—	—	—	—	—
Baldcypress	3.2	—	0.9	—	—	—	—	2.4	—
Redcedars	24.3	10.9	5.4	3.9	2.9	1.3	—	—	—
Total softwoods	459.4	101.9	99.6	93.4	55.5	34.4	19.6	35.1	19.8
Hardwood									
Select white oaks	239.0	—	41.5	41.8	55.8	30.8	32.1	37.0	—
Select red oaks	127.3	—	16.3	16.6	19.7	15.1	24.3	24.0	11.3
Other white oaks	175.5	—	34.2	39.0	25.7	27.4	20.5	28.8	—
Other red oaks	288.3	—	38.6	42.9	46.5	39.0	36.8	57.9	26.7
Hickory	189.7	—	52.5	50.0	37.2	25.7	14.4	10.0	—
Hard maple	20.0	—	7.1	7.5	0.9	1.8	2.7	—	—
Soft maple	34.7	—	6.6	5.1	4.7	3.4	1.5	5.2	8.4
Beech	11.5	—	0.8	1.3	3.4	3.4	—	2.6	—
Sweetgum	142.6	—	31.3	36.1	29.4	16.7	14.4	14.8	—
Tupelo and blackgum	21.6	—	4.6	6.6	6.2	2.8	1.5	—	—
Ash	40.5	—	10.9	8.8	5.2	6.2	4.4	5.0	—
Cottonwood	1.6	—	—	—	—	—	—	1.6	—
Basswood	9.9	—	0.5	1.9	2.0	1.9	—	3.6	—
Yellow-poplar	135.2	—	18.2	17.7	14.5	24.0	12.1	37.2	11.5
Bay and magnolia	2.7	—	1.2	1.5	—	—	—	—	—
Black cherry	7.4	—	2.2	2.8	2.4	—	—	—	—
Black walnut	2.4	—	0.7	1.7	—	—	—	—	—
Sycamore	11.6	—	2.0	0.6	2.0	3.4	1.9	1.7	—
Black locust	3.3	—	—	0.7	1.2	1.4	—	—	—
Elm	10.9	—	3.0	3.3	—	1.5	—	3.2	—
Other Eastern hardwoods	44.8	—	9.1	7.4	6.1	8.4	6.4	7.5	—
Total hardwoods	1,520.5	—	281.2	293.0	262.9	212.6	172.9	239.9	57.8
All species	1,979.9	101.9	380.9	386.4	318.4	247.0	192.6	275.0	77.6

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 22—Volume of sawtimber on timberland by species and diameter class, North Alabama, 2000

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									
Shortleaf pine	300.8	62.0	92.8	77.5	7.5	18.9	—	42.2	—
Loblolly pine	1,607.6	224.0	239.0	261.4	271.9	184.3	126.0	155.8	145.3
Virginia pine	420.4	127.2	123.4	132.3	19.3	—	—	18.2	—
Eastern white pine	10.8	—	3.5	—	7.3	—	—	—	—
Eastern hemlock	16.5	6.4	4.5	5.5	—	—	—	—	—
Baldcypress	17.7	—	4.0	—	—	—	—	13.8	—
Redcedars	129.1	54.4	28.3	21.6	16.8	7.9	—	—	—
Total softwoods	2,502.9	474.0	495.5	498.3	322.7	211.1	126.0	230.0	145.3
Hardwood									
Select white oaks	1,230.6	—	198.4	203.2	282.2	160.9	174.2	211.7	—
Select red oaks	701.8	—	77.4	80.6	101.3	81.9	141.0	141.3	78.4
Other white oaks	880.0	—	160.4	184.4	128.8	141.7	108.2	156.5	—
Other red oaks	1,591.9	—	192.9	214.1	240.0	208.8	207.8	349.2	179.2
Hickory	966.3	—	250.5	245.7	191.7	138.5	80.9	59.0	—
Hard maple	101.5	—	37.1	37.3	4.6	8.7	13.8	—	—
Soft maple	185.4	—	31.6	24.4	23.4	17.3	7.7	29.5	51.6
Beech	52.6	—	3.7	6.1	15.7	15.3	—	11.8	—
Sweetgum	777.9	—	159.5	186.9	159.8	95.0	84.6	92.0	—
Tupelo and blackgum	105.2	—	21.2	31.3	30.6	14.1	8.0	—	—
Ash	202.2	—	50.8	41.7	25.7	32.3	23.8	28.0	—
Cottonwood	9.5	—	—	—	—	—	—	9.5	—
Basswood	51.6	—	2.5	9.2	9.8	10.0	—	20.1	—
Yellow-poplar	795.6	—	94.3	93.5	80.1	138.9	73.7	236.5	78.6
Bay and magnolia	12.7	—	5.7	7.0	—	—	—	—	—
Black cherry	37.2	—	10.4	14.0	12.8	—	—	—	—
Black walnut	10.9	—	3.1	7.8	—	—	—	—	—
Sycamore	60.9	—	9.8	2.9	10.4	18.3	10.3	9.2	—
Black locust	15.0	—	—	3.2	5.5	6.3	—	—	—
Elm	56.2	—	14.4	16.0	—	7.8	—	18.0	—
Other Eastern hardwoods	250.5	—	45.3	38.1	33.2	49.4	40.9	43.7	—
Total hardwoods	8,095.8	—	1,369.1	1,447.2	1,355.6	1,145.2	974.9	1,416.1	387.7
All species	10,598.7	474.0	1,864.7	1,945.5	1,678.4	1,356.3	1,100.9	1,646.1	533.0

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 23—Volume of sawtimber on timberland by species, size class, and tree grade, North Alabama, 2000

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												
Shortleaf pine	300.8	122.4	66.5	107.3	—	4.7	68.6	17.7	17.4	33.4	—	—
Loblolly pine	1,607.6	494.8	475.3	626.3	—	11.3	883.3	364.3	303.9	215.1	—	—
Virginia pine	420.4	14.4	26.1	379.9	—	—	37.5	—	—	37.5	—	—
Eastern white pine	10.8	—	—	10.8	—	—	7.3	—	—	7.3	—	—
Eastern hemlock	16.5	—	7.2	9.2	—	—	—	—	—	—	—	—
Baldcypress	17.7	13.8	—	4.0	—	—	13.8	13.8	—	—	—	—
Redcedars	129.1	4.0	30.3	93.1	—	1.7	24.7	—	5.6	19.1	—	—
Total softwoods	2,502.9	649.3	605.4	1,230.6	—	17.6	1,035.1	395.8	327.0	312.4	—	—
Hardwood												
Select white oaks	1,230.6	335.3	389.6	434.9	49.0	21.9	829.1	335.3	294.1	167.2	10.6	21.9
Select red oaks	701.8	326.2	164.7	127.0	60.5	23.3	543.8	326.2	135.7	51.2	13.5	17.2
Other white oaks	880.0	206.1	225.8	299.1	97.4	51.8	535.3	206.1	136.9	114.0	38.4	40.1
Other red oaks	1,591.9	479.1	383.3	455.6	174.2	99.7	1,185.0	479.1	327.4	220.3	71.5	86.8
Hickory	966.3	134.4	291.7	379.0	101.9	59.4	470.1	134.4	172.7	87.9	26.9	48.3
Hard maple	101.5	—	3.4	56.4	37.4	4.3	27.2	—	—	22.6	4.6	—
Soft maple	185.4	9.4	24.3	95.2	24.7	31.8	129.4	9.4	19.5	72.3	4.2	24.0
Beech	52.6	—	11.8	5.0	29.1	6.8	42.8	—	11.8	5.0	19.3	6.8
Sweetgum	777.9	148.9	246.5	306.2	11.3	65.0	431.5	148.9	145.3	101.2	—	36.0
Tupelo and blackgum	105.2	15.1	42.9	30.3	8.8	8.1	52.7	15.1	22.2	7.0	4.3	4.1
Ash	202.2	39.6	60.7	71.4	6.3	24.2	109.7	39.6	35.9	17.1	—	17.1
Cottonwood	9.5	—	—	9.5	—	—	9.5	—	—	9.5	—	—
Basswood	51.6	35.0	11.0	3.2	—	2.5	39.9	35.0	4.9	—	—	—
Yellow-poplar	795.6	290.4	143.5	283.2	59.4	19.1	607.8	290.4	107.1	159.2	36.9	14.3
Bay and magnolia	12.7	—	—	12.7	—	—	—	—	—	—	—	—
Black cherry	37.2	—	9.7	10.8	8.3	8.4	12.8	—	6.2	6.6	—	—
Black walnut	10.9	—	5.5	5.4	—	—	—	—	—	—	—	—
Sycamore	60.9	9.8	—	51.1	—	—	48.1	9.8	—	38.4	—	—
Black locust	15.0	5.5	6.3	3.2	—	—	11.8	5.5	6.3	—	—	—
Elm	56.2	—	3.1	14.1	35.4	3.6	25.8	—	—	—	25.8	—
Other Eastern hardwoods	250.5	64.6	73.0	82.6	20.2	10.2	167.1	64.6	43.9	35.9	16.3	6.5
Total hardwoods	8,095.8	2,099.1	2,096.7	2,735.9	724.0	440.0	5,279.5	2,099.1	1,470.0	1,115.3	272.1	323.0
All species	10,598.7	2,748.4	2,702.1	3,966.5	724.0	457.6	6,314.6	2,494.9	1,796.9	1,427.7	272.1	323.0

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, North Alabama, 2000

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Colbert	267.8	54.6	54.6	—	213.2	67.8	145.3
De Kalb	299.5	110.3	110.3	—	189.2	45.4	143.8
Franklin	260.2	55.3	48.0	7.3	204.8	71.7	133.1
Jackson	668.2	63.1	46.6	16.5	605.1	185.7	419.4
Lauderdale	228.8	33.5	32.3	1.1	195.3	45.7	149.6
Lawrence	340.8	105.0	92.0	12.9	235.8	67.7	168.1
Limestone	206.9	9.1	8.9	0.3	197.8	63.6	134.1
Madison	313.6	50.9	41.5	9.4	262.8	112.4	150.4
Marshall	266.7	71.7	65.6	6.2	195.0	49.2	145.8
Morgan	331.8	96.3	95.1	1.3	235.5	95.9	139.6
Total	3,184.3	649.8	594.7	55.0	2,534.5	805.3	1,729.2

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, North Alabama, 2000

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Colbert	308.8	56.4	56.4	—	252.4	83.0	169.4
De Kalb	355.8	129.5	129.5	0.0	226.2	62.4	163.8
Franklin	295.7	60.1	51.9	8.3	235.6	87.1	148.4
Jackson	786.3	80.5	53.0	27.5	705.8	216.8	489.0
Lauderdale	259.9	36.9	35.1	1.8	223.0	62.1	160.8
Lawrence	384.1	112.4	97.0	15.4	271.7	79.6	192.1
Limestone	233.9	9.2	8.9	0.4	224.7	75.6	149.1
Madison	363.1	54.5	41.5	13.0	308.6	136.1	172.5
Marshall	306.1	75.1	67.1	8.0	231.0	64.9	166.1
Morgan	367.5	100.4	97.5	2.9	267.2	108.1	159.0
Total	3,661.2	715.2	637.9	77.2	2,946.0	975.8	1,970.3

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, North Alabama, 2000

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million board feet						
Colbert	815.1	207.1	207.1	—	608.1	179.9	428.1
De Kalb	827.7	364.6	364.6	—	463.1	96.5	366.6
Franklin	780.2	134.7	110.7	24.0	645.5	234.6	410.9
Jackson	2,096.0	176.3	142.1	34.2	1,919.7	576.0	1,343.7
Lauderdale	761.7	149.6	144.5	5.1	612.1	134.5	477.6
Lawrence	1,207.7	440.0	388.4	51.5	767.7	230.4	537.3
Limestone	793.9	49.6	48.6	1.0	744.3	199.8	544.4
Madison	1,165.7	276.9	243.0	33.9	888.8	385.5	503.3
Marshall	942.8	284.1	275.4	8.6	658.7	145.0	513.7
Morgan	1,207.8	420.1	415.2	4.9	787.8	314.4	473.3
Total	10,598.7	2,502.9	2,339.7	163.3	8,095.8	2,496.7	5,599.0

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 27—Volume of timber on timberland by class of timber and species group, North Alabama, 2000

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	1,979.9	459.4	428.4	30.9	1,520.5	453.4	1,067.1
Upper-stem portion[a]	317.4	46.6	41.8	4.7	270.9	82.0	188.9
Total	2,297.3	505.9	470.3	35.7	1,791.4	535.4	1,256.0
Poletimber trees	887.0	143.8	124.5	19.3	743.1	269.9	473.3
All growing-stock trees	3,184.3	649.8	594.7	55.0	2,534.5	805.3	1,729.2
Rough trees							
Sawtimber size	250.4	42.8	31.2	11.5	207.6	73.2	134.5
Poletimber size	185.0	22.6	12.0	10.6	162.4	81.7	80.7
Total	435.4	65.4	43.2	22.2	370.0	154.9	215.2
Rotten trees							
Sawtimber size	38.2	—	—	—	38.2	14.2	24.0
Poletimber size	3.3	0.0	—	0.0	3.3	1.4	1.8
Total	41.5	0.0	—	0.0	41.5	15.6	25.9
Salvable dead trees							
Sawtimber size	5.8	1.7	1.7	—	4.1	1.3	2.8
Poletimber size	3.3	1.6	1.6	—	1.6	—	1.6
Total	9.1	3.3	3.3	—	5.8	1.3	4.5
All classes	3,670.3	718.5	641.3	77.2	2,951.8	977.1	1,974.7

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] 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, North Alabama, 2000

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	175.2	56.6	51.5	5.1	118.6	21.6	97.0
Other public	343.1	69.1	59.2	10.0	273.98	84.9	189.1
Forest industry	140.0	19.0	17.2	1.7	121.03	32.9	88.1
Nonindustrial private	3,002.9	570.5	510.1	60.4	2,432.40	836.4	1,596.0
All classes	3,661.2	715.2	637.9	77.2	2,946.02	975.8	1,970.3
				Growing-stock trees *(million cubic feet)*			
National forest	162.4	55.1	50.1	5.1	107.2	20.8	86.4
Other public	296.8	62.7	56.3	6.4	234.1	66.1	168.1
Forest industry	127.7	18.1	16.4	1.7	109.6	30.1	79.5
Nonindustrial private	2,597.3	513.8	472.0	41.8	2,083.5	688.3	1,395.3
All classes	3,184.3	649.8	594.7	55.0	2,534.5	805.3	1,729.2

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

Table 29—Volume of sawtimber on timberland by ownership class, species group, and size class, North Alabama, 2000

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	595.4	255.5	229.2	26.3	339.9	59.1	280.8
Other public	1,277.8	342.2	317.9	24.3	935.7	221.9	713.8
Forest industry	395.5	28.7	21.6	7.1	366.9	98.1	268.7
Nonindustrial private	8,329.9	1,876.6	1,771.0	105.6	6,453.3	2,117.6	4,335.7
All classes	10,598.7	2,502.9	2,339.7	163.3	8,095.8	2,496.7	5,599.0
				Trees ≥ 15.0 inches d.b.h. *(million board feet)*			
National forest	389.8	164.3	144.7	19.7	225.4	40.1	185.4
Other public	1,000.6	241.3	227.6	13.8	759.3	160.9	598.5
Forest industry	282.1	17.2	17.2	—	264.9	58.3	206.6
Nonindustrial private	4,642.1	612.3	607.3	5.0	4,029.8	1,363.5	2,666.2
All classes	6,314.6	1,035.1	996.6	38.5	5,279.5	1,622.8	3,656.6

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 30—Volume of growing stock on timberland by forest-type group, stand origin, and species group, North Alabama, 2000

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							
Loblolly–shortleaf pine							
Planted	65.0	60.5	60.5	—	4.4	3.6	0.8
Natural	343.2	289.5	289.1	0.4	53.6	23.6	30.0
Total	408.1	350.1	349.6	0.4	58.0	27.2	30.9
Total softwoods	408.1	350.1	349.6	0.4	58.0	27.2	30.9
Hardwood types							
Oak–pine							
Planted	31.0	14.8	14.8	—	16.2	6.6	9.6
Natural	326.4	149.3	119.6	29.6	177.1	57.6	119.5
Total	357.4	164.1	134.5	29.6	193.4	64.2	129.1
Oak–hickory	1,913.0	94.9	76.2	18.7	1,818.1	457.6	1,360.5
Oak–gum–cypress	463.2	40.7	34.5	6.2	422.5	215.8	206.7
Elm–ash–cottonwood	42.6	—	—	—	42.6	40.5	2.0
Total hardwoods	2,776.1	299.7	245.1	54.6	2,476.5	778.1	1,698.4
Nonstocked	—	—	—	—	—	—	—
All groups	3,184.3	649.8	594.7	55.0	2,534.5	805.3	1,729.2

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., North Alabama, 2000

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	49.5	5.1	20.4	12.2	11.8
Hardwood	75.9	14.4	25.9	13.2	22.4
Total	125.4	19.4	46.3	25.4	34.2
Other public					
Softwood	15.9	1.3	2.8	4.3	7.4
Hardwood	83.3	14.0	22.8	14.1	32.4
Total	99.2	15.4	25.5	18.4	39.9
Forest industry					
Softwood	17.8	5.4	11.5	0.1	0.8
Hardwood	44.0	9.7	14.8	7.9	11.6
Total	61.8	15.1	26.3	8.1	12.4
Nonindustrial private					
Softwood	17.1	2.5	7.8	4.2	2.7
Hardwood	69.0	13.3	22.0	15.1	18.7
Total	86.2	15.8	29.9	19.2	21.3
All classes					
Softwood	18.2	2.7	8.1	4.2	3.2
Hardwood	68.7	13.2	21.8	14.5	19.3
Total	86.9	15.8	29.9	18.7	22.4

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

Table 32—Average net annual growth of growing stock on timberland by county and species group, North Alabama, 1990–1999

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
			Million cubic feet				
Colbert	7.9	1.6	1.5	0.0	6.3	2.4	3.9
De Kalb	10.6	2.3	2.3	—	8.3	2.2	6.1
Franklin	20.6	7.9	7.8	0.0	12.8	6.8	6.0
Jackson	23.2	3.5	2.8	0.6	19.7	7.3	12.4
Lauderdale	10.4	2.7	2.7	—	7.7	1.6	6.2
Lawrence	12.6	4.8	4.4	0.4	7.8	2.8	5.0
Limestone	5.4	0.4	0.4	—	5.0	2.1	3.0
Madison	12.9	3.6	2.9	0.7	9.3	4.5	4.8
Marshall	9.3	2.8	2.5	0.3	6.5	2.5	4.0
Morgan	13.6	5.6	5.6	0.0	8.0	3.7	4.3
Total	126.6	35.1	32.9	2.2	91.5	35.8	55.7

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, North Alabama, 1990–1999

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Colbert	9.2	1.5	1.5	0.0	7.6	3.2	4.5
De Kalb	12.6	2.8	2.7	0.1	9.7	3.2	6.5
Franklin	22.9	8.2	8.2	0.0	14.6	8.2	6.4
Jackson	25.3	3.7	2.8	0.8	21.6	8.2	13.4
Lauderdale	11.0	3.2	3.2	—	7.8	1.9	6.0
Lawrence	14.3	4.6	4.1	0.5	9.7	3.1	6.5
Limestone	5.5	0.4	0.4	—	5.1	2.1	3.0
Madison	15.6	3.9	2.9	1.0	11.7	5.4	6.4
Marshall	10.1	2.8	2.5	0.3	7.3	2.6	4.7
Morgan	13.9	5.6	5.6	0.0	8.3	3.7	4.6
Total	140.3	36.8	34.0	2.8	103.5	41.5	62.0

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 34—Average net annual growth of sawtimber on timberland by county and species group, North Alabama, 1990–1999

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million board feet						
Colbert	35.5	12.4	12.2	0.2	23.1	5.5	17.6
De Kalb	42.4	14.8	14.8	—	27.5	6.4	21.1
Franklin	56.4	13.0	12.9	0.1	43.4	22.0	21.4
Jackson	82.4	11.9	9.8	2.1	70.5	19.0	51.5
Lauderdale	44.8	12.9	12.9	—	31.9	6.4	25.5
Lawrence	55.0	22.5	20.5	2.0	32.5	10.8	21.8
Limestone	28.1	2.4	2.4	—	25.7	10.2	15.4
Madison	56.9	17.7	14.0	3.7	39.1	18.0	21.2
Marshall	47.2	20.9	20.2	0.7	26.4	11.3	15.1
Morgan	71.2	31.6	31.6	0.1	39.6	20.0	19.5
Total	519.9	160.1	151.3	8.8	359.7	129.5	230.2

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, North Alabama, 1990–1999

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Colbert	9.5	3.6	3.4	0.2	6.0	2.1	3.9
De Kalb	6.2	3.8	3.8	—	2.3	1.0	1.3
Franklin	19.3	10.2	10.2	—	9.1	2.7	6.4
Jackson	8.8	3.6	3.6	—	5.2	0.6	4.6
Lauderdale	5.9	5.3	5.3	—	0.6	—	0.6
Lawrence	5.5	3.0	3.0	—	2.5	0.9	1.6
Limestone	1.4	0.5	0.5	—	1.0	0.4	0.6
Madison	8.6	7.9	7.9	—	0.7	0.7	—
Marshall	8.4	5.0	5.0	—	3.4	0.8	2.6
Morgan	6.1	3.5	3.5	—	2.6	0.5	2.0
Total	79.8	46.5	46.3	0.2	33.3	9.7	23.6

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 36—Average annual removals of live trees on timberland by county and species group, North Alabama, 1990–1999

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Colbert	12.0	4.0	3.8	0.2	7.9	2.3	5.6
De Kalb	6.7	4.0	3.9	0.1	2.6	1.3	1.3
Franklin	21.0	10.5	10.5	—	10.5	3.4	7.1
Jackson	9.2	3.6	3.6	—	5.5	0.8	4.8
Lauderdale	6.3	5.6	5.6	—	0.7	—	0.7
Lawrence	5.7	3.0	3.0	—	2.7	0.9	1.8
Limestone	1.5	0.5	0.5	—	1.1	0.5	0.6
Madison	8.9	7.9	7.9	—	1.0	0.7	0.3
Marshall	8.5	5.0	5.0	—	3.5	0.9	2.6
Morgan	6.2	3.6	3.6	—	2.7	0.5	2.2
Total	85.9	47.8	47.5	0.3	38.1	11.4	26.7

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 37—Average annual removals of sawtimber on timberland by county and species group, North Alabama, 1990–1999

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million board feet						
Colbert	23.9	9.3	8.3	0.9	14.6	4.6	10.1
De Kalb	25.4	14.3	14.3	—	11.1	4.8	6.3
Franklin	40.1	17.4	17.4	—	22.7	3.9	18.8
Jackson	33.0	14.3	14.3	—	18.7	2.2	16.5
Lauderdale	19.2	16.4	16.4	—	2.7	—	2.7
Lawrence	21.1	11.9	11.9	—	9.1	4.0	5.2
Limestone	6.1	2.1	2.1	—	3.9	1.6	2.4
Madison	37.2	33.4	33.4	—	3.8	3.8	—
Marshall	31.5	21.9	21.9	—	9.6	0.7	8.9
Morgan	19.3	13.9	13.9	—	5.4	0.7	4.7
Total	256.7	155.0	154.1	0.9	101.7	26.3	75.4

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 38—Average net annual growth and average annual removals of live trees, growing stock, and sawtimber on timberland by species, North Alabama, 1990–1999

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	1.6	4.4	1.6	4.4	15.4	18.3
Loblolly pine	29.1	35.8	28.2	35.3	113.5	115.2
Virginia pine	2.8	7.2	2.5	6.5	18.6	20.5
Eastern white pine	0.5	—	0.5	—	3.7	—
Baldcypress	0.8	—	0.7	—	3.7	—
Redcedars	2.1	0.3	1.5	0.2	5.1	0.9
Total softwoods	36.8	47.8	35.1	46.5	160.1	155.0
Hardwood						
Select white oaks	14.9	7.0	14.1	6.1	57.6	22.3
Select red oaks	3.8	0.8	3.6	0.8	19.7	3.1
Other white oaks	10.0	4.6	8.9	3.7	32.9	10.5
Other red oaks	18.4	8.7	17.6	8.3	83.8	26.1
Hickory	8.7	4.7	8.1	4.3	26.5	12.6
Hard maple	1.6	0.2	1.4	0.2	4.1	0.4
Soft maple	4.3	1.4	2.9	0.6	7.7	0.9
Beech	0.5	0.1	0.4	0.1	1.2	0.5
Sweetgum	10.0	4.3	8.9	3.9	35.6	7.7
Tupelo and blackgum	2.1	0.7	2.0	0.6	3.1	1.3
Ash	4.7	1.0	4.1	1.0	11.9	2.3
Basswood	0.2	0.1	0.2	0.1	1.9	0.3
Yellow-poplar	11.9	2.1	11.5	2.1	56.5	9.3
Bay and magnolia	0.1	—	0.1	—	0.5	—
Black cherry	1.2	0.8	0.8	0.6	1.9	1.2
Black walnut	0.5	—	0.4	—	1.6	—
Sycamore	2.1	0.2	2.1	0.2	5.2	0.9
Black locust	0.3	—	0.2	—	0.5	—
Elm	1.0	0.3	0.8	0.3	0.4	1.2
Other Eastern hardwoods	7.2	1.1	3.5	0.5	7.1	1.1
Total hardwoods	103.5	38.1	91.5	33.3	359.7	101.7
All species	140.3	85.9	126.6	79.8	519.9	256.7

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, North Alabama, 1990–1999

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	4.4	0.1	0.5	1.1	1.0	0.7	1.0	—	0.2	—	—
Loblolly pine	35.3	2.4	9.9	4.5	6.2	4.3	3.2	2.0	2.0	0.8	—
Virginia pine	6.5	0.7	1.0	1.7	1.3	1.2	0.6	0.1	—	—	—
Redcedars	0.2	—	—	0.1	0.1	—	—	—	—	—	—
Total softwoods	46.5	3.2	11.4	7.4	8.6	6.1	4.7	2.1	2.2	0.8	—
Hardwood											
Select white oaks	6.1	0.5	0.5	0.2	0.4	0.9	1.5	1.0	0.3	0.4	0.4
Select red oaks	0.8	—	—	0.1	—	0.1	0.3	0.1	—	0.1	—
Other white oaks	3.7	0.2	0.6	0.5	0.4	0.9	0.5	0.2	0.2	0.1	0.1
Other red oaks	8.3	0.5	0.4	1.4	1.5	1.2	1.4	0.8	0.6	0.5	—
Hickory	4.3	0.5	0.4	0.5	0.7	0.8	0.5	0.4	0.2	0.3	—
Hard maple	0.2	—	0.1	—	0.1	—	—	—	—	—	—
Soft maple	0.6	0.1	0.1	0.2	—	—	—	—	0.2	—	—
Beech	0.1	—	—	—	—	—	—	—	—	0.1	—
Sweetgum	3.9	0.2	0.9	1.1	0.6	0.4	0.2	0.2	0.2	0.2	—
Tupelo and blackgum	0.6	0.1	—	0.2	0.4	—	—	—	—	—	—
Ash	1.0	0.1	0.1	0.1	0.2	0.1	0.3	—	—	—	—
Basswood	0.1	—	—	—	0.1	—	—	—	—	—	—
Yellow-poplar	2.1	—	0.1	0.2	0.1	0.5	0.3	0.2	0.2	0.5	—
Black cherry	0.6	—	0.2	0.1	0.2	0.1	—	—	—	—	—
Sycamore	0.2	—	—	—	—	—	—	—	—	0.2	—
Elm	0.3	—	—	—	—	—	0.1	—	0.1	—	—
Other Eastern hardwoods	0.5	0.1	0.1	0.1	—	—	—	—	—	0.2	—
Total hardwoods	33.3	2.3	3.4	4.7	4.8	5.1	4.9	2.9	2.1	2.6	0.5
All species	79.8	5.5	14.7	12.1	13.4	11.2	9.7	4.9	4.3	3.5	0.5

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 40—Average annual mortality of live trees, growing stock, and sawtimber on timberland by species, North Alabama, 1990–1999

Species	Live trees	Growing stock	Sawtimber
	Million cubic feet		*Million board feet*
Softwood			
Shortleaf pine	1.7	1.6	4.4
Loblolly pine	6.2	5.9	13.7
Virginia pine	6.0	5.4	7.2
Eastern white pine	0.1	0.1	—
Redcedars	0.2	0.2	0.4
Total softwoods	14.3	13.3	25.6
Hardwood			
Select white oaks	1.6	0.9	4.0
Select red oaks	1.4	1.0	4.4
Other white oaks	2.0	1.6	2.6
Other red oaks	4.1	3.1	8.2
Hickory	3.0	2.5	6.5
Hard maple	0.2	0.1	0.3
Soft maple	1.1	0.4	1.0
Sweetgum	1.5	1.4	4.5
Tupelo and blackgum	0.4	0.2	—
Ash	0.8	0.5	1.2
Basswood	0.2	0.2	0.8
Yellow-poplar	0.7	0.6	2.3
Sycamore	0.4	0.4	0.5
Black locust	0.0	—	—
Elm	0.9	0.6	2.2
Other Eastern hardwoods	1.6	0.4	0.6
Total hardwoods	20.1	13.9	39.0
All species	34.3	27.2	64.6

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, North Alabama, 1990–1999

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	5.0	2.1	2.0	0.1	2.9	0.9	2.0
Other public	7.8	0.8	—	0.8	7.0	3.4	3.6
Forest industry	9.3	4.9	4.9	—	4.4	1.4	3.0
Nonindustrial private	104.6	27.3	26.0	1.3	77.3	30.1	47.2
All classes	126.6	35.1	32.9	2.2	91.5	35.8	55.7
				Average annual removals *(million cubic feet)*			
National forest	0.2	0.2	0.2	—	—	—	—
Other public	1.4	0.5	0.5	—	1.0	0.1	0.9
Forest industry	10.8	7.6	7.6	—	3.2	0.9	2.4
Nonindustrial private	67.4	38.3	38.1	0.2	29.1	8.8	20.3
All classes	79.8	46.5	46.3	0.2	33.3	9.7	23.6

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 42—Average net annual growth and average annual removals of live trees on timberland by ownership class and species group, North Alabama, 1990–1999

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	5.1	1.9	1.8	0.1	3.2	0.9	2.3
Other public	8.0	0.8	-0.1	0.8	7.3	3.2	4.1
Forest industry	9.8	5.1	5.1	—	4.6	1.4	3.2
Nonindustrial private	117.3	29.0	27.1	1.9	88.3	35.9	52.4
All classes	140.3	36.8	34.0	2.8	103.5	41.5	62.0
				Average annual removals *(million cubic feet)*			
National forest	0.2	0.2	0.2	—	—	—	—
Other public	1.4	0.5	0.5	—	1.0	0.1	0.9
Forest industry	12.0	8.1	8.1	—	3.9	0.9	3.0
Nonindustrial private	72.3	39.1	38.8	0.3	33.2	10.3	22.9
All classes	85.9	47.8	47.5	0.3	38.1	11.4	26.7

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 43—Average net annual growth and average annual removals of sawtimber on timberland by ownership class and species group, North Alabama, 1990–1999

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	22.4	10.6	9.6	0.9	11.8	2.8	9.0
Other public	48.1	11.8	8.1	3.7	36.3	13.8	22.5
Forest industry	20.9	3.0	3.0	—	17.9	6.8	11.0
Nonindustrial private	428.5	134.8	130.6	4.2	293.7	106.1	187.6
All classes	519.9	160.1	151.3	8.8	359.7	129.5	230.2
	Average annual removals *(million board feet)*						
National forest	0.7	0.7	0.7	—	—	—	—
Other public	29.9	24.0	24.0	—	5.9	1.4	4.5
Forest industry	16.1	7.7	7.7	—	8.4	0.6	7.7
Nonindustrial private	209.9	122.5	121.6	0.9	87.4	24.2	63.2
All classes	256.7	155.0	154.1	0.9	101.7	26.3	75.4

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 44—Average net annual growth of growing stock on timberland by forest-type group, stand origin, and species group, North Alabama, 1990–1999

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	4.9	4.5	4.5	—	0.4	0.1	0.3
Natural	15.1	11.2	11.2	—	3.9	2.3	1.6
Total	20.0	15.7	15.7	—	4.3	2.5	1.9
Total softwoods	20.0	15.7	15.7	—	4.3	2.5	1.9
Hardwood types							
Oak–pine							
Planted	4.5	3.3	3.3	—	1.2	0.8	0.4
Natural	21.2	11.6	10.5	1.1	9.6	3.3	6.3
Total	25.7	14.9	13.8	1.1	10.8	4.1	6.7
Oak–hickory	62.9	2.7	2.4	0.4	60.2	19.7	40.6
Oak–gum–cypress	14.8	1.3	0.6	0.7	13.5	7.3	6.2
Elm–ash–cottonwood	2.7	0.5	0.5	—	2.3	2.3	0.0
Tropical hardwood	0.5	0.0	0.0	—	0.4	—	0.4
Total hardwoods	106.6	19.4	17.2	2.2	87.2	33.3	53.9
Nonstocked	—	—	—	—	—	—	—
All groups	126.6	35.1	32.9	2.2	91.5	35.8	55.7

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, North Alabama, 1990–1999

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	3.4	3.3	3.3	—	0.1	—	0.1
Natural	13.3	12.3	12.3	—	1.0	0.3	0.7
Total	16.7	15.6	15.6	—	1.1	0.3	0.8
Total softwoods	16.7	15.6	15.6	—	1.1	0.3	0.8
Hardwood types							
Oak–pine							
Planted	2.9	2.9	2.9	—	—	—	—
Natural	29.3	22.2	22.2	—	7.2	1.5	5.7
Total	32.2	25.0	25.0	—	7.2	1.5	5.7
Oak–hickory	26.3	3.5	3.3	0.2	22.8	6.8	16.0
Oak–gum–cypress	1.8	0.1	0.1	—	1.7	0.6	1.1
Elm–ash–cottonwood	2.7	2.2	2.2	—	0.6	0.6	—
Total hardwoods	63.0	30.8	30.6	0.2	32.2	9.4	22.8
Nonstocked	—	—	—	—	—	—	—
All groups	79.8	46.5	46.3	0.2	33.3	9.7	23.6

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.

[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, North Alabama, 2000

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	2,557.3	140.9	2,347.9	2,015.9	332.0	68.6	57.0	11.7
Hardwood	6,914.1	760.0	5,494.0	4,466.1	1,028.0	660.1	490.6	169.6
Total	9,471.4	900.9	7,841.9	6,482.0	1,359.9	728.7	547.5	181.2
Other public								
Softwood	2,987.3	58.3	2,640.2	2,308.5	331.7	288.9	235.7	53.2
Hardwood	15,378.6	1,111.2	12,239.9	9,994.0	2,246.0	2,027.6	1,561.3	466.3
Total	18,365.9	1,169.4	14,880.1	12,302.4	2,577.7	2,316.5	1,797.0	519.5
Forest industry								
Softwood	1,121.6	198.4	880.4	694.7	185.7	42.9	32.9	10.0
Hardwood	7,070.4	744.5	5,662.5	4,597.2	1,065.4	663.4	485.0	178.4
Total	8,191.9	942.9	6,542.9	5,291.9	1,251.0	706.2	517.9	188.3
Nonindustrial private								
Softwood	27,004.4	2,058.6	22,318.7	18,975.8	3,343.0	2,627.1	2,147.3	479.8
Hardwood	138,194.5	14,487.8	105,552.0	85,469.9	20,082.1	18,154.7	13,971.7	4,183.0
Total	165,198.9	16,546.4	127,870.7	104,445.7	23,425.1	20,781.8	16,119.0	4,662.8
All ownerships								
Softwood	33,670.6	2,456.1	28,187.1	23,994.8	4,192.3	3,027.5	2,472.9	554.6
Hardwood	167,557.5	17,103.5	128,948.4	104,527.1	24,421.4	21,505.7	16,508.5	4,997.2
Total	201,228.1	19,559.5	157,135.5	128,521.9	28,613.6	24,533.1	18,981.4	5,551.8

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

Table 47—Area of timberland treated or disturbed annually and retained in timberland by treatment or disturbance and ownership class, North Alabama, 1990 to 2000

Treatment or disturbance	All classes	Ownership class		
		Public	Forest industry	Nonindustrial private
		Thousand acres		
Final harvest	24.1	1.0	3.4	19.7
Partial harvest[a]	26.0	0.3	0.9	24.8
Seed tree/shelterwood	0.4	0.4	—	—
Commercial thinning	—	—	—	—
Other stand improvement	0.4	—	—	0.4
Site preparation	8.1	1.0	3.4	3.7
Artificial regeneration[b]	9.2	0.4	3.2	5.6
Natural regeneration[b]	42.1	3.0	1.4	37.7
Other treatment	11.6	0.1	1.1	10.4
Natural disturbance				
Disease	0.1	—	—	0.1
Insects	5.9	0.6	0.1	5.2
Fire	4.1	0.7	0.7	2.7
Weather	12.4	0.9	0.4	11.1
Animals	1.7	0.1	—	1.6
Other disturbances				
Grazing	11.0	0.4	—	10.6
Other man-caused disturbance	3.4	0.4	—	3.0

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, North Alabama, 1990 to 2000

Treatment or disturbance	All types	Forest management type[a]					
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
				Thousand acres			
Final harvest	24.1	0.8	2.5	10.2	9.4	1.2	—
Partial harvest[b]	26.0	0.0	2.6	8.6	13.5	1.3	—
Seed tree/shelterwood	0.4	—	0.4	—	—	—	—
Commercial thinning	—	—	—	—	—	—	—
Other stand improvement	0.4	—	—	—	0.4	—	—
Site preparation	8.1	1.6	0.7	3.8	1.6	0.4	—
Other treatment	11.6	0.4	1.9	4.1	4.6	0.6	—
Natural disturbance							
Disease	4.2	—	0.3	1.0	2.9	—	—
Insects	5.9	0.2	0.5	3.9	1.3	—	—
Fire	—	—	—	—	—	—	—
Weather	12.4	—	1.6	3.8	4.1	2.8	—
Animals	1.7	—	—	—	—	1.7	—
Other disturbance							
Grazing	11.0	0.4	0.5	2.1	6.7	1.2	—
Other man-caused disturbance	3.4	0.4	0.5	—	2.5	—	—

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, North Alabama, 1990 to 2000

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	6.5	2.8	—	3.2	0.5	—	—
Natural regeneration following harvest	12.3	—	0.4	1.9	9.0	0.9	—
Other artificial regeneration on forest land	0.3	0.3	—	—	—	—	—
Other natural regeneration on forest land	12.0	—	1.2	1.0	9.2	0.6	—
Artificial regeneration on former nonforest land	2.9	1.9	—	0.6	—	0.4	—
Natural reversion of former nonforest land	17.3	—	2.2	3.3	6.5	5.3	—
Total	51.3	5.0	3.7	10.0	25.3	7.3	—

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.

[a] Classification after regeneration.

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This report summarizes a 2000 inventory of the forest resources of a 10-county area of Alabama. Major findings are highlighted in text and graphics; detailed data are presented in 49 tables.

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

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