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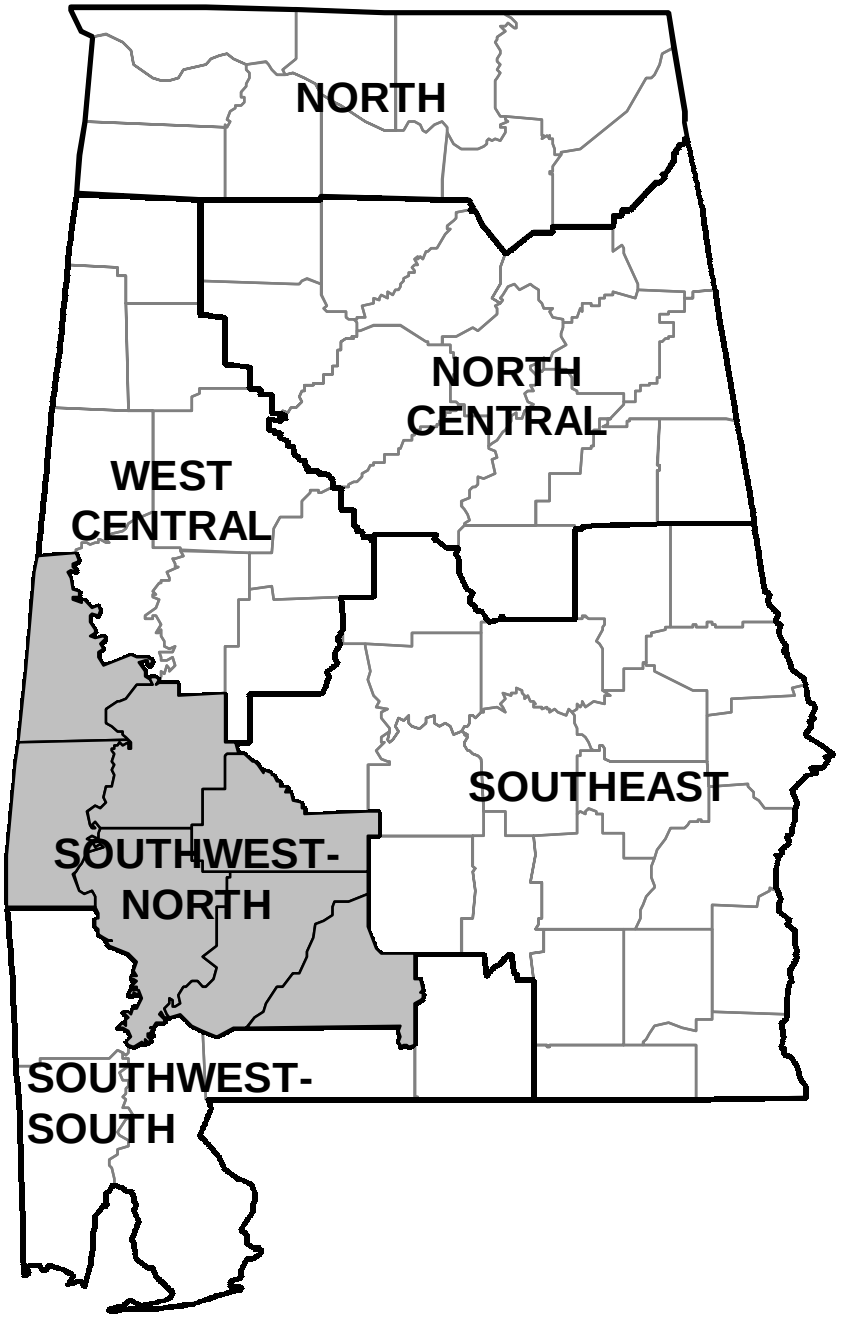
Forest Statistics for Southwest-North Alabama, 1999

John S. Vissage



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Foreword

This report highlights the principal findings of the seventh forest survey of Southwest-North Alabama. Field work began in August 1997 and was completed in January 2000. Six previous surveys, completed in 1936, 1953, 1963, 1972, 1982, and 1990, provide statistics for measuring changes and trends over the past 63 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 (FIA) Research Work Unit at the Southern Research Station, Asheville, NC. The FIA unit operates out of two locations, one in Starkville, MS, and the other in Asheville, NC, and is responsible for inventories 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 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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Acknowledgement

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

Contents

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

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.

Forest Statistics for Southwest-North Alabama, 1999

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Highlights

This report summarizes the results from a 1999 inventory of the forest resources of Southwest-North Alabama (fig. 1). 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 timber volume, stocking, forest type, stand-size class, and site class have changed. Inventory plot design also has changed since the previous survey. Changes in methods and plot design were made to increase consistency among Forest Inventory and Analysis (FIA) Research Work Units. 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 seven-county area has increased 4 percent since 1990 to 3.60 million acres. Twenty-seven thousand acres were diverted from timberland to other land uses, while 163,000 acres were added from previous nonforest land use, resulting in a 136,000-acre net change. The majority of the diverted timberland was cleared for agriculture and urban-related land uses. Timberland covers 83 percent of the land area in Southwest-North Alabama.

Ownership—Nonindustrial private forest (NIPF) land ownership increased 26 percent to 2.88 million acres. Corporate ownership of timberland increased 278 percent since 1990 to 590,000 acres. Individual ownership of timberland increased 7 percent to 2.29 million acres. NIPF owners control 80 percent of the timberland in Southwest-North Alabama. Timberland under forest industry dropped 40 percent to 675,000 acres. Public agencies control 47,000 acres, or 1 percent of total timberland.

Forest type—Forest stands classified as hardwood forest types account for 41 percent of the timberland area. The area of hardwood stands has increased about 10 percent since 1990. Stands classified as softwood forest types occupy 1.48 million acres, or 41 percent of the timberland area. Stands classified as oak-pine forest type dropped slightly to 633,000 acres, a decrease of 1 percent. Loblolly-shortleaf pine remains the dominant forest type in the region with 1.45 million acres.

Stand treatment—Harvesting and regeneration have been the predominant treatment and management activities in the timberland of the region since 1990. Final harvest occurred on 78,000 acres annually. Thirty-four percent of these harvests were from natural pine stands, 17 percent were from pine plantations, 22 percent were from oak-pine stands, 18 percent were from upland hardwood, and 10 percent were from lowland hardwood stands. Reforestation and afforestation combined averaged 111,000 acres annually.

Softwood volume—Volume of softwood growing stock increased 12 percent to 2.8 billion cubic feet between 1990 and 1999. Softwood growing-stock volume decreased 26 percent on public lands to 37 million cubic feet. Driven by the reduction in land holdings in the region, volume decreased on forest industry ownership by 49 percent to 497 million cubic feet. Volume increased on NIPF land by 54 percent to 2.2 billion cubic feet. Loblolly pine is the predominate species at 2.1 billion cubic feet, an increase of 26 percent since 1990. The inventory of softwood sawtimber totals nearly 10.6 billion board feet, an increase of 10 percent since 1990.

Hardwood volume—Volume of hardwood growing stock increased 18 percent to 2.3 billion cubic feet. Hardwood growing-stock volume increased 3 percent on public lands to 63 million cubic feet, and 46 percent on NIPF lands to 1.9 billion cubic feet. Hardwood growing-stock volume decreased 46 percent to 299 million cubic feet on forest industry lands. Other red oaks is the predominate species group with 597 million cubic feet, followed closely by sweetgum with 511 million cubic feet. The inventory of hardwood sawtimber increased 31 percent to 7.4 billion board feet.

Growth—Net annual growth of softwood growing stock averaged 200.3 million cubic feet, an increase of 37 percent since the previous survey period. Softwood growth increased 195 percent on public land, 58 percent on NIPF land, and 1 percent on forest industry land.

Hardwood growth decreased 61 percent on public land. Driven by the reductions in land holdings in the region, hardwood growth on forest industry decreased by 42 percent since the previous survey period. Hardwood growth increased 35 percent on NIPF land.

Removals—Annual removals of softwood growing stock averaged 185.7 million cubic feet, an increase of 48 percent since the previous survey period. Sixty-five percent of the softwood removals were from NIPF land, 32 percent were from forest industry land, and 3 percent were from public land. Softwood growth exceeded softwood removals by 8 percent (or by a margin of 1.08 to 1).

Annual removals of hardwood growing stock averaged 68.6 million cubic feet, a decrease of 17 percent since the previous survey period. Seventy-three percent of hardwood removals were from NIPF land, 26 percent were from forest industry land, and 1 percent were from public land. Hardwood growth exceeded removals by 43 percent (or by a margin of 1.43 to 1).

Mortality—The average annual mortality of growing stock has increased 35 percent to 39.3 million cubic feet since the previous survey period. Softwood mortality has increased 41 percent to 21.4 million cubic feet; hardwood mortality has increased 28 percent to 18.0 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 accomplished using points representing approximately 230 acres. These photo classifications were adjusted based on ground observations at sample locations representing approximately 3,840 acres. Finally, field measurements were made at forest locations on the intersections of grid lines spaced 3 miles apart.

The plot 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 inches 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. Conditions classes were defined by six attributes: land use, forest type, stand origin, stand size, forest density, and major ownership class. All trees tallied were assigned to their respective condition class.

The cluster of four fixed plots sampled timberland at 685 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. The equations were developed from detailed measurements of standing trees throughout the region.

Estimates of growth, removals, and mortality were determined from the remeasurement of 627 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.

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)*	3,599.4	±	25.9	0.72
All live *(M ft³)*				
Inventory	5,499.5	±	194.7	3.54
Net annual growth	317.5	±	13.2	4.17
Annual removals	267.2	±	18.6	6.95
Annual mortality	47.6	±	3.7	7.87
Growing stock *(M ft³)*				
Inventory	5,074.6	±	185.2	3.65
Net annual growth	298.2	±	12.1	4.06
Annual removals	254.4	±	17.8	7.00
Annual mortality	39.3	±	3.5	8.80
Sawtimber *(M fbm)*				
Inventory	17,931.6	±	884.0	4.93
Net annual growth	1,112.6	±	49.7	4.47
Annual removals	883.0	±	73.5	8.32
Annual mortality	127.6	±	15.0	11.76

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

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

where

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

SE_t = sampling error for survey unit or State total,

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

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

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

$$SE_s = 3.65 \frac{\sqrt{5{,}074.6}}{\sqrt{1{,}940.8}} = 5.90 .$$

Thus, the sampling error is 5.90 percent, and the resulting confidence interval (two times out of three) for hardwood growing-stock inventory on NIPF land is 1,940.8 ± 114.5 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, Southwest-North Alabama, 1999

Counties and survey unit	Timberland area	Live trees			Growing stock			Sawtimber		
		Volume	Growth	Removals	Volume	Growth	Removals	Volume	Growth	Removals
					Percent					
Choctaw	1.6	9.2	11.5	17.4	9.5	11.7	16.9	12.5	10.6	21.7
Clarke	1.1	6.6	9.7	14.7	6.9	7.8	14.6	8.9	8.4	17.2
Conecuh	2.4	11.0	12.9	20.0	11.5	13.8	20.3	17.2	15.2	21.0
Marengo	2.2	11.2	9.8	21.8	11.5	10.2	22.0	15.6	13.1	24.8
Monroe	1.7	9.0	7.7	17.6	9.2	8.1	18.1	12.3	10.5	21.7
Sumter	2.4	11.2	13.0	22.0	12.0	14.0	22.4	15.6	15.6	27.1
Wilcox	2.2	9.7	11.6	18.4	9.8	11.6	18.5	13.5	13.9	22.4
Survey unit	**0.7**	**3.5**	**4.2**	**7.0**	**3.7**	**4.1**	**7.0**	**4.9**	**4.5**	**8.3**

[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 merchantable. Trees must be at least 5.0 inches d.b.h. to qualify.

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

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

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

Saw-log top. The point on the bole of sawtimber trees above which a conventional saw log cannot be produced. The minimum saw-log top is 7.0 inches d.o.b. for softwoods and 9.0 inches d.o.b. for hardwoods.

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

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

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

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

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

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

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

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

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

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

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

Planted. Planted or artificially seeded.

Natural. No evidence of artificial regeneration.

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

Sawtimber stands. Stands at least 10 percent stocked with live trees, with half or more of total stocking in sawtimber and poletimber trees, and with sawtimber stocking at least equal to poletimber stocking.

Poletimber stands. Stands at least 10 percent stocked with live trees, of which half or more of total stocking is in poletimber and sawtimber trees, and with 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

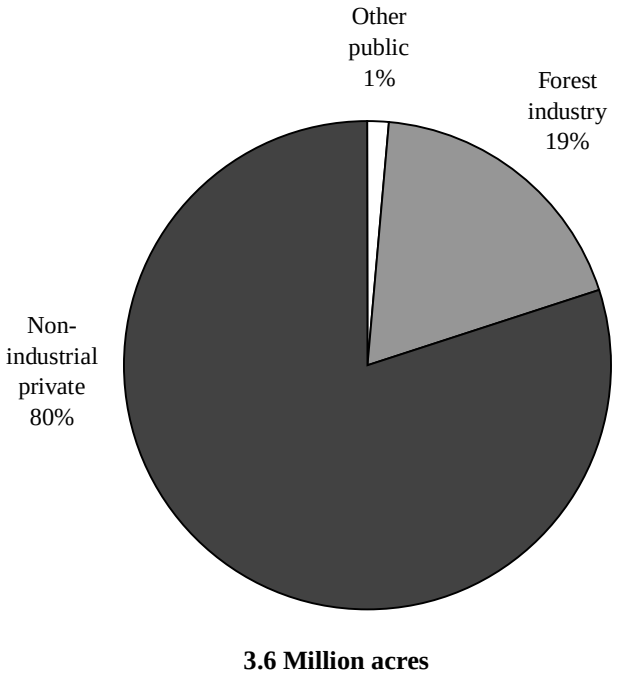


Figure 2—Distribution of timberland by ownership class, Southwest-North Alabama, 1999.

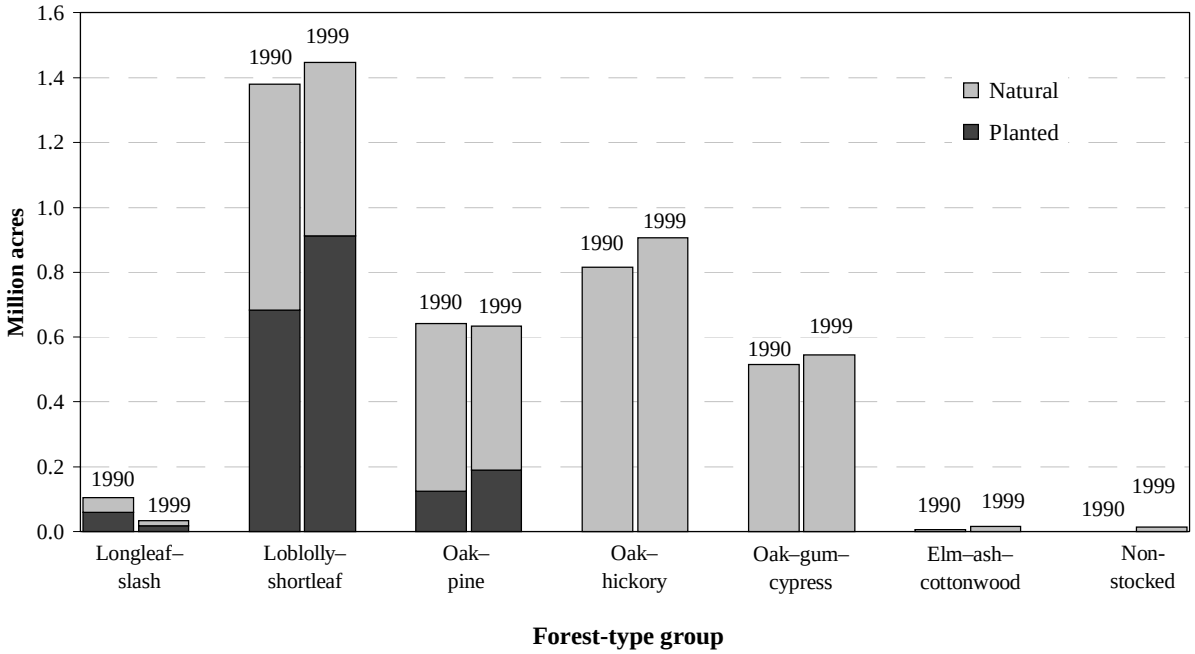


Figure 3—Area of timberland by forest-type group and stand origin, Southwest-North Alabama, 1990 and 1999.

Figure 4—Area of timberland by stand-size class and stand origin, Southwest-North Alabama, 1990 and 1999.

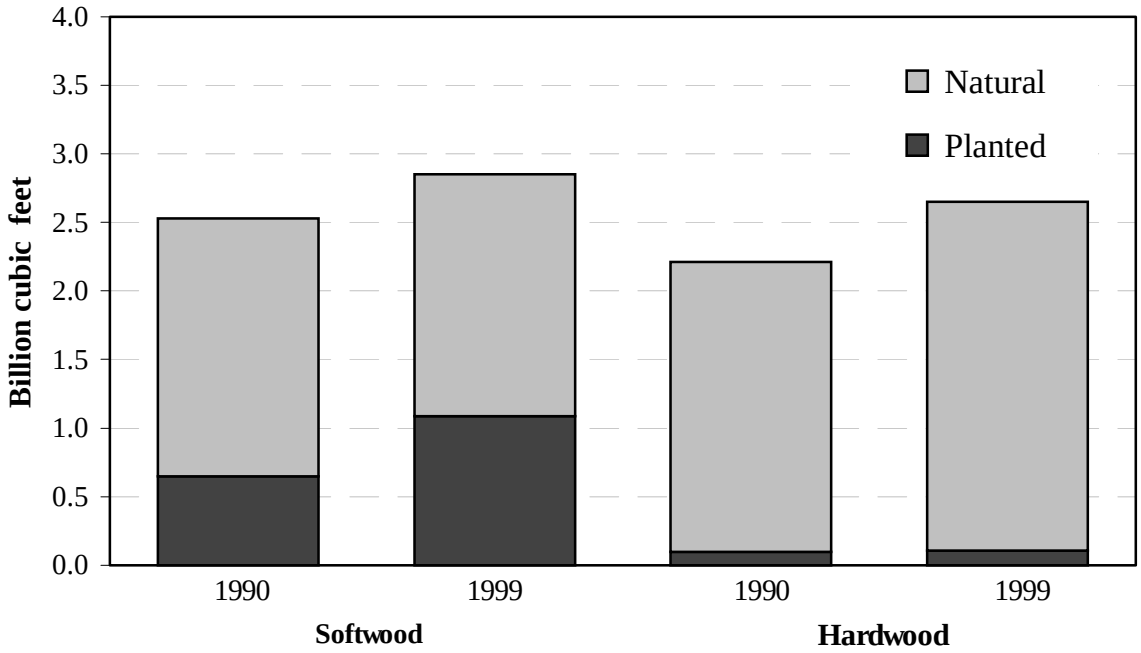
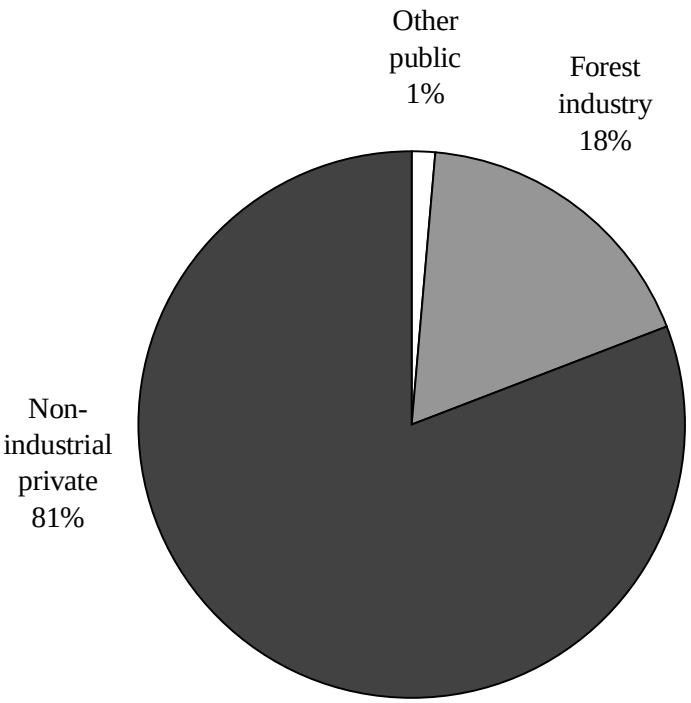
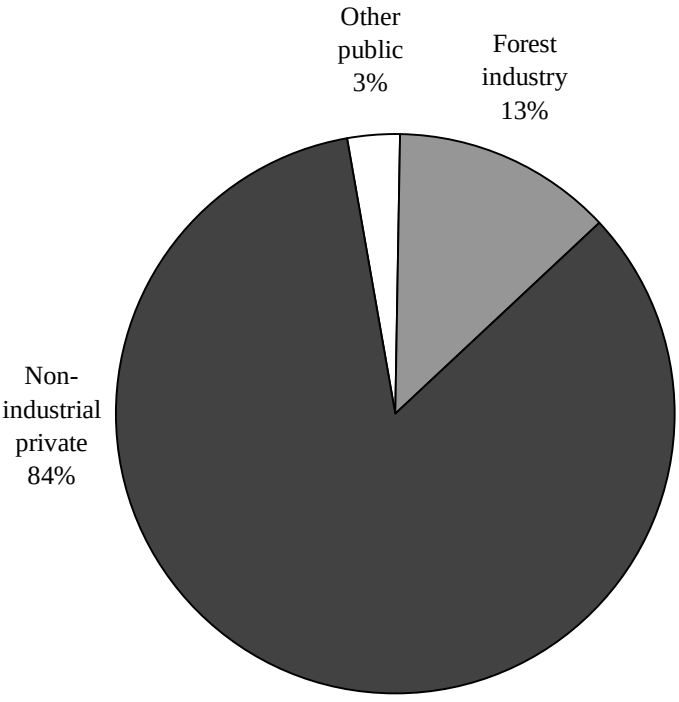


Figure 5—Volume of live trees on timberland by species group and stand origin, Southwest-North Alabama, 1990 and 1999.



2.9 Billion cubic feet

Figure 6—Distribution of softwood live tree volume by ownership class, Southwest-North Alabama, 1999.



2.6 Billion cubic feet

Figure 7—Distribution of hardwood live tree volume by ownership class, Southwest-North Alabama, 1999.

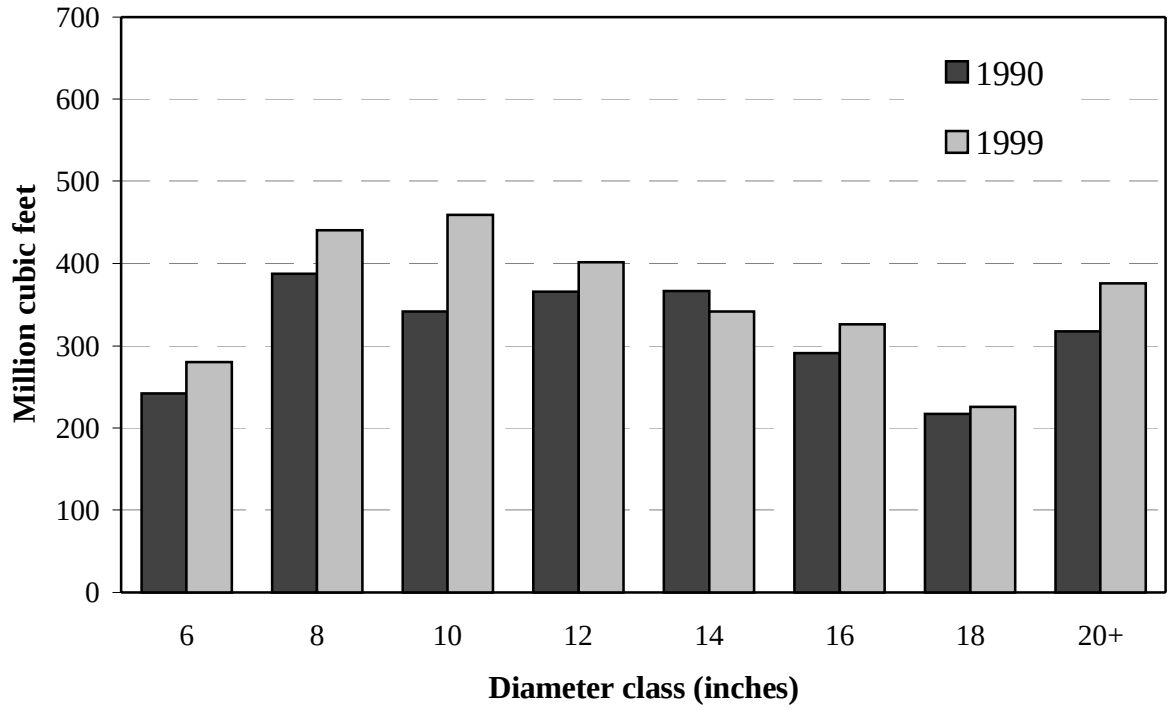


Figure 8—Volume of softwood live trees on timberland by diameter class, Southwest-North Alabama, 1990 and 1999.

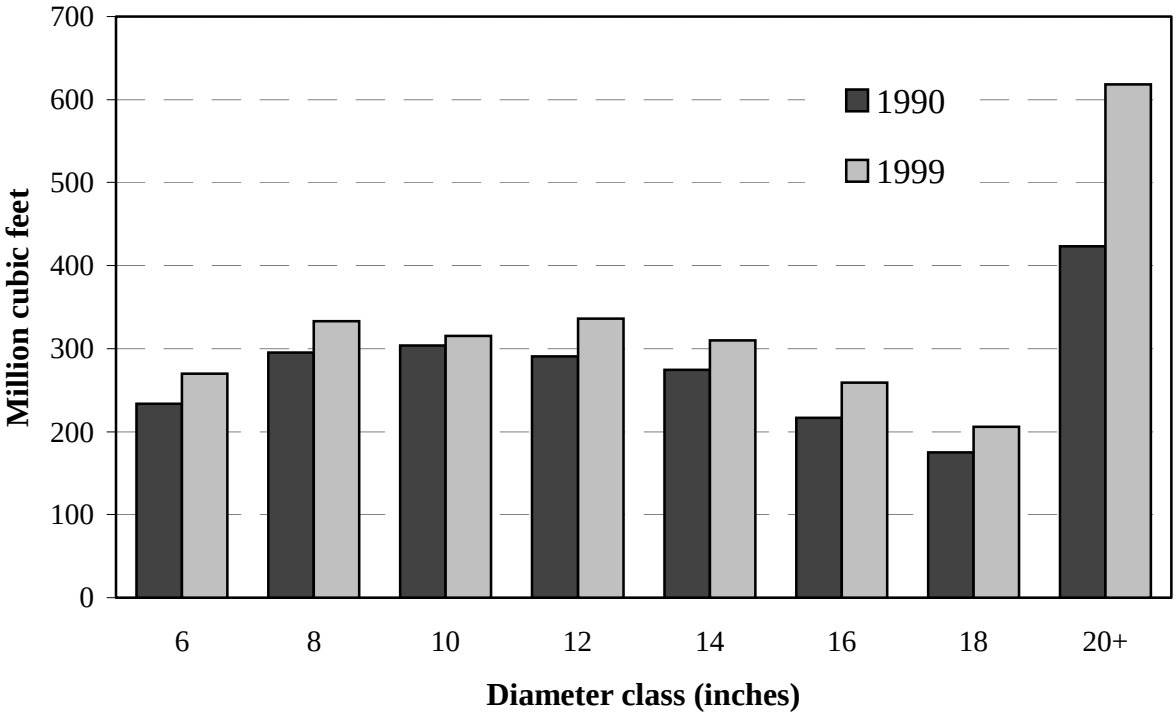


Figure 9—Volume of hardwood live trees on timberland by diameter class, Southwest-North Alabama, 1990 and 1999.

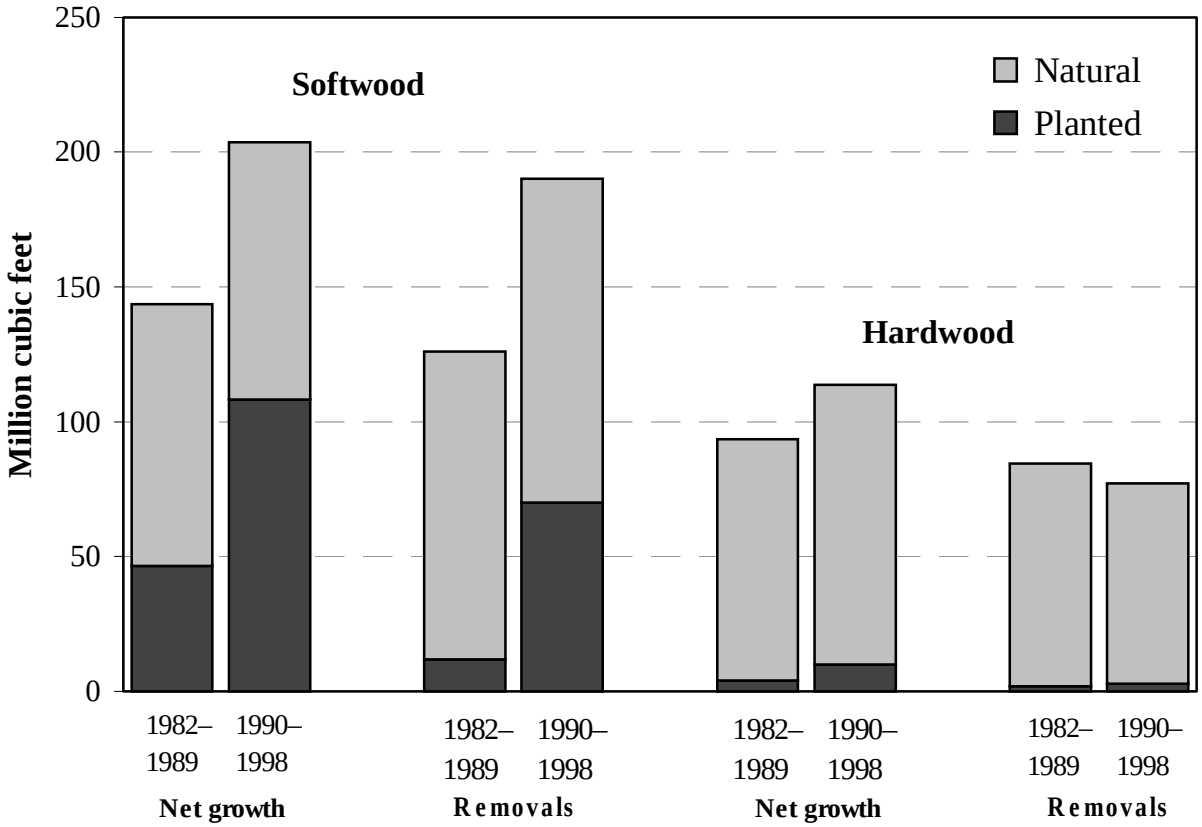


Figure 10—Average net annual growth and removals of live trees on timberland by species group and stand origin, Southwest-North Alabama, 1982–1989 and 1990–1998.

Cross Reference of Eastern Core Tables

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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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

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

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Table 1—Land area by county and land class, Southwest-North Alabama, 1999

County	Total land area[a]	Forest land				Other land[b]
		Total forest	Timberland	Productive reserved	Other	
		Thousand acres				
Choctaw	584.7	520.2	520.1	0.0	—	64.5
Clarke	792.6	724.9	724.9	—	—	67.7
Conecuh	544.6	469.5	469.5	—	—	75.0
Marengo	625.4	452.4	452.4	—	—	172.9
Monroe	656.6	533.2	533.2	—	—	123.4
Sumter	579.2	430.8	430.8	—	—	148.4
Wilcox	568.8	468.4	468.4	—	—	100.4
Total	4,351.8	3,599.4	3,599.4	0.0	—	752.4

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

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

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

[b] Includes 18.5 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, Southwest-North Alabama, 1999

Forest-type group	All classes	Ownership class					
		National forest	Miscellaneous Federal	State	County and municipal	Forest industry	Nonindustrial private
		Thousand acres					
Longleaf–slash pine	35.5	—	—	—	—	12.2	23.2
Loblolly–shortleaf pine	1,446.4	—	—	13.3	—	337.5	1,095.6
Oak–pine	633.4	—	—	5.2	—	97.4	530.7
Oak–hickory	905.9	—	1.4	2.6	5.5	123.1	773.4
Oak–gum–cypress	545.8	—	11.9	—	—	95.9	438.0
Elm–ash–cottonwood	17.0	—	5.7	—	—	—	11.3
Nonstocked	15.4	—	0.4	1.1	—	8.6	5.3
Total	3,599.4	—	19.5	22.2	5.5	674.7	2,877.6

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, Southwest-North Alabama, 1999

County	All classes	Ownership class						
		National forest	Miscellaneous Federal	State	County and municipal	Forest industry	Nonindustrial private	
							Corporate	Individual
				Thousand acres				
Choctaw	520.1	—	4.1	—	—	90.5	84.4	341.1
Clarke	724.9	—	—	5.5	5.5	86.5	131.3	496.1
Conecuh	469.5	—	—	—	—	174.3	41.2	254.0
Marengo	452.4	—	—	—	—	66.3	101.0	285.1
Monroe	533.2	—	4.2	5.2	—	157.1	71.9	294.8
Sumter	430.8	—	6.2	6.2	—	35.2	123.0	260.3
Wilcox	468.4	—	4.9	5.4	—	64.8	37.5	355.9
Total	3,599.4	—	19.4	22.2	5.5	674.7	590.3	2,287.3

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 4—Area of timberland by county and forest-type group, Southwest-North Alabama, 1999

County	All groups	Forest-type group						
		Longleaf–slash	Loblolly–shortleaf	Oak–pine	Oak–hickory	Oak–gum–cypress	Elm–ash–cottonwood	Nonstocked
				Thousand acres				
Choctaw	520.1	3.4	253.3	43.6	157.3	62.6	—	—
Clarke	724.9	3.4	283.3	133.4	185.6	118.0	—	1.1
Conecuh	469.5	6.3	176.8	97.1	116.2	64.6	—	8.6
Marengo	452.4	—	154.9	103.4	106.4	81.8	5.9	—
Monroe	533.2	22.4	224.2	82.3	125.4	73.8	—	5.2
Sumter	430.8	—	153.9	76.1	84.2	110.3	5.7	0.4
Wilcox	468.4	—	200.1	97.5	130.7	34.8	5.4	—
Total	3,599.4	35.5	1,446.4	633.4	905.9	545.8	17.0	15.4

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 5—Area of timberland by county and stand-size class, Southwest-North Alabama, 1999

County	All classes	Stand-size class			
		Sawtimber	Poletimber	Sapling-seedling	Nonstocked
			Thousand acres		
Choctaw	520.1	187.0	91.0	242.1	—
Clarke	724.9	290.3	107.1	326.4	1.1
Conecuh	469.5	88.5	113.9	258.6	8.6
Marengo	452.4	140.2	50.4	261.9	—
Monroe	533.2	205.0	93.2	229.8	5.2
Sumter	430.8	134.4	76.1	219.9	0.4
Wilcox	468.4	113.0	101.4	254.1	—
Total	3,599.4	1,158.3	633.0	1,792.7	15.4

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 6—Area of timberland by county and site class, Southwest-North Alabama, 1999

County	All classes	Site class (cubic feet/acre/year)				
		20-49	50-84	85-119	120-164	>165
		Thousand acres				
Choctaw	520.1	7.2	75.9	202.7	184.8	49.6
Clarke	724.9	0.2	136.5	252.4	247.2	88.5
Conecuh	469.5	19.0	76.7	191.6	168.3	13.8
Marengo	452.4	13.4	66.6	207.1	126.2	39.1
Monroe	533.2	21.3	118.2	217.1	146.1	30.4
Sumter	430.8	11.9	56.4	227.9	114.6	20.0
Wilcox	468.4	14.7	72.7	206.3	146.5	28.1
Total	3,599.4	87.8	603.0	1,505.3	1,133.7	269.6

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

Table 7—Area of timberland by county and stocking class of growing-stock trees, Southwest-North Alabama, 1999

County	All classes	Stocking class (percent)				
		<16.7	16.7-59	60-99	100-130	>130
		Thousand acres				
Choctaw	520.1	6.4	44.6	151.1	176.4	141.6
Clarke	724.9	13.2	57.0	232.3	266.5	155.9
Conecuh	469.5	13.6	49.1	113.8	190.1	102.9
Marengo	452.4	11.5	48.2	137.2	155.8	99.7
Monroe	533.2	21.2	77.1	149.4	163.6	121.9
Sumter	430.8	24.9	62.6	89.3	133.8	120.3
Wilcox	468.4	5.0	34.0	148.6	156.1	124.7
Total	3,599.4	95.8	372.7	1,021.7	1,242.3	866.9

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, Southwest-North Alabama, 1999

Forest-type group and stand origin	All classes	Ownership class			
		National forest	Other public	Forest industry	Nonindustrial private
		Thousand acres			
Softwood types					
Longleaf–slash pine					
Planted	18.1	—	—	7.3	10.8
Natural	17.3	—	—	4.9	12.4
Total	35.5	—	—	12.2	23.2
Loblolly–shortleaf pine					
Planted	910.7	—	6.2	285.0	619.5
Natural	535.8	—	7.1	52.5	476.2
Total	1,446.4	—	13.3	337.5	1,095.6
Total softwoods	1,481.9	—	13.3	349.7	1,118.9
Hardwood types					
Oak–pine					
Planted	190.0	—	—	40.9	149.1
Natural	443.4	—	5.2	56.5	381.6
Total	633.4	—	5.2	97.4	530.7
Oak–hickory	905.9	—	9.5	123.1	773.4
Oak–gum–cypress	545.8	—	11.9	95.9	438.0
Elm–ash–cottonwood	17.0	—	5.7	—	11.3
Total hardwoods	2,102.1	—	32.3	316.4	1,753.4
Nonstocked	15.4	—	1.6	8.6	5.3
All groups	3,599.4	—	47.2	674.7	2,877.6

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, Southwest-North Alabama, 1999

Forest-type group and detailed forest type	All classes	Ownership class			
		National forest	Other public	Forest industry	Nonindustrial private
	Thousand acres				
Softwood types					
Longleaf–slash					
Longleaf pine	17.3	—	—	4.9	12.4
Slash pine	18.1	—	—	7.3	10.8
Total	35.5	—	—	12.2	23.2
Loblolly–shortleaf					
Loblolly pine	1,341.3	—	11.5	332.8	997.0
Shortleaf pine	58.5	—	1.8	4.8	51.9
Virginia pine	1.3	—	—	—	1.3
Eastern redcedar	45.4	—	—	—	45.4
Total	1,446.4	—	13.3	337.5	1,095.6
Total softwoods	1,481.9	—	13.3	349.7	1,118.9
Hardwood types					
Oak–pine					
Eastern redcedar–hardwood	1.2	—	—	—	1.2
Shortleaf pine–oak	55.0	—	—	1.3	53.7
Loblolly pine–hardwood	501.7	—	—	76.4	425.4
Slash pine–hardwood	17.7	—	5.2	8.4	4.0
Other oak–pine	57.7	—	—	11.3	46.4
Total	633.4	—	5.2	97.4	530.7
Oak–hickory					
Post oak–black oak	3.2	—	—	—	3.2
White oak–red oak–hickory	37.3	—	1.4	8.2	27.8
White oak	1.8	—	—	0.5	1.3
Yellow-poplar–white oak–n. red oak	9.2	—	—	5.7	3.4
Sweetgum–yellow-poplar	147.5	—	—	22.9	124.6
Mixed hardwood	706.9	—	8.1	85.8	613.1
Total	905.9	—	9.5	123.1	773.4
Oak–gum–cypress					
Swamp chestnut oak–cherrybark oak	7.7	—	—	—	7.7
Sweetgum–water oak–willow oak	306.5	—	11.9	37.8	256.9
Sugarberry–American elm–green ash	91.1	—	—	13.8	77.3
Overcup oak–water hickory	22.2	—	—	12.4	9.8
Cypress–water tupelo	46.4	—	—	5.5	40.9
Sweetbay–blackgum–red maple	71.8	—	—	26.4	45.4
Total	545.8	—	11.9	95.9	438.0
Elm–ash–cottonwood					
Riverbirch-sycamore	12.6	—	5.7	—	6.9
Sycamore–pecan–elm	4.4	—	—	—	4.4
Total	17.0	—	5.7	—	11.3
Total hardwoods	2,102.1	—	32.3	316.4	1,753.4
Nonstocked	15.4	—	1.6	8.6	5.3
All groups	3,599.4	—	47.2	674.7	2,877.6

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, Southwest-North Alabama, 1999

Ownership class	All classes	Stocking class (percent)				
		<16.6	16.7-59	60-99	100-130	>130
	Thousand acres					
National forest	—	—	—	—	—	—
Other public	47.2	0.4	9.7	21.2	8.2	7.6
Forest industry	674.7	31.2	48.4	167.2	219.9	208.1
Nonindustrial private	2,877.6	64.2	314.6	833.3	1,014.1	651.3
All ownerships	3,599.4	95.8	372.7	1,021.7	1,242.3	866.9

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 11—Area of timberland by forest-type group, stand origin, and stand-size class, Southwest-North Alabama, 1999

Forest-type group and stand origin	All classes	Stand-size class			
		Sawtimber	Poletimber	Sapling-seedling	Nonstocked
	Thousand acres				
Softwood types					
Longleaf–slash pine					
Planted	18.1	0.3	11.2	6.6	—
Natural	17.3	6.8	5.6	4.9	—
Total	35.5	7.2	16.7	11.6	—
Loblolly–shortleaf pine					
Planted	910.7	157.3	259.3	494.1	—
Natural	535.8	314.6	58.0	163.2	—
Total	1,446.4	471.8	317.3	657.3	—
Total softwoods	1,481.9	479.0	334.0	668.8	—
Hardwood types					
Oak–pine					
Planted	190.0	19.5	20.4	150.1	—
Natural	443.4	154.4	61.5	227.4	—
Total	633.4	174.0	81.9	377.5	—
Oak–hickory	905.9	245.3	118.4	542.3	—
Oak–gum–cypress	545.8	251.5	97.2	197.2	—
Elm–ash–cottonwood	17.0	8.6	1.5	6.9	—
Total hardwoods	2,102.1	679.2	299.0	1,123.9	—
Nonstocked	15.4	—	—	—	15.4
All groups	3,599.4	1,158.3	633.0	1,792.7	15.4

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 12—Area of timberland by stand-age class and forest management type, all ownerships, Southwest-North Alabama, 1999

Stand-age class	All types	Forest management type					
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
Years				*Thousand acres*			
0-10	1,021.1	401.9	89.2	148.4	269.8	99.7	12.1
11-20	605.3	331.9	44.1	63.5	112.4	50.1	3.3
21-30	461.3	132.5	76.3	104.8	94.2	53.6	—
31-40	322.0	50.7	64.8	73.9	82.7	49.8	—
41-50	439.5	5.5	97.9	108.0	111.4	116.7	—
51-60	315.8	2.4	93.9	65.7	83.3	70.5	—
61-70	221.0	3.9	52.5	43.8	67.2	53.7	—
71-80	93.8	—	28.9	17.1	34.0	13.8	—
81+	119.4	—	5.5	8.2	50.8	54.9	—
All classes	3,599.4	928.8	553.1	633.4	905.9	562.8	15.4

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, Southwest-North Alabama, 1999

Stand-age class	All types	Forest management type					
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
Years				*Thousand acres*			
0-10	13.8	—	5.4	—	5.5	1.4	1.6
11-20	6.2	6.2	—	—	—	—	—
21-30	2.7	—	—	—	—	2.7	—
31-40	4.2	—	—	—	—	4.2	—
41-50	5.7	—	—	—	—	5.7	—
51-60	—	—	—	—	—	—	—
61-70	5.2	—	—	5.2	—	—	—
71-80	4.4	—	1.8	—	2.6	—	—
81+	4.9	—	—	—	1.4	3.5	—
All classes	47.2	6.2	7.1	5.2	9.5	17.6	1.6

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 14—Area of timberland by stand-age class and forest management type, forest industry ownerships, Southwest-North Alabama, 1999

Stand-age class	All types	Forest management type					
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
Years		*Thousand acres*					
0-10	250.8	133.7	13.0	27.8	46.6	24.4	5.2
11-20	124.8	99.0	—	5.4	11.6	5.5	3.3
21-30	95.5	49.1	0.4	21.7	13.1	11.1	—
31-40	47.3	10.5	12.2	11.4	11.6	1.5	—
41-50	52.2	—	18.2	16.6	4.0	13.4	—
51-60	17.1	—	4.8	3.1	5.9	3.3	—
61-70	47.2	—	8.8	11.4	23.1	3.9	—
71-80	11.2	—	—	—	1.8	9.4	—
81+	28.7	—	—	—	5.2	23.4	—
All classes	674.7	292.3	57.4	97.4	123.1	95.9	8.6

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 15—Area of timberland by stand-age class and forest management type, nonindustrial private ownerships, Southwest-North Alabama, 1999

Stand-age class	All types	Forest management type					
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
Years		*Thousand acres*					
0-10	756.5	268.2	70.9	120.5	217.7	73.9	5.3
11-20	474.4	226.8	44.1	58.1	100.8	44.6	—
21-30	363.2	83.4	75.9	83.0	81.1	39.8	—
31-40	270.5	40.2	52.6	62.5	71.1	44.1	—
41-50	381.6	5.5	79.7	91.4	107.5	97.5	—
51-60	298.8	2.4	89.2	62.6	77.4	67.2	—
61-70	168.6	3.9	43.6	27.2	44.1	49.8	—
71-80	78.3	—	27.1	17.1	29.6	4.4	—
81+	85.8	—	5.5	8.2	44.1	28.0	—
All classes	2,877.6	630.3	488.6	530.7	773.4	449.3	5.3

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 16—Area of nonindustrial private timberland by ownership, forested tract-size class, and forest management type, Southwest-North Alabama, 1999

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	80.0	11.1	17.5	13.0	22.3	13.8	2.3
11-50	432.2	72.0	88.0	94.1	108.6	66.6	3.0
51-100	466.4	77.1	59.2	99.2	153.9	77.1	—
101-200	511.8	129.6	90.3	71.3	168.3	52.4	—
201-500	607.8	139.5	104.2	94.2	152.7	117.3	—
≥ 501	188.9	54.8	26.5	27.9	47.9	31.9	—
Total	2,287.3	484.0	385.7	399.7	653.7	358.9	5.3
Corporate							
≤ 10	—	—	—	—	—	—	—
11-50	25.0	5.7	2.4	5.8	5.5	5.5	—
51-100	60.7	11.5	25.0	5.3	14.1	4.7	—
101-200	118.9	39.2	15.5	14.9	29.6	19.8	—
201-500	250.0	56.2	42.8	44.2	57.5	49.4	—
≥ 501	135.8	33.7	17.1	61.0	13.1	11.0	—
Total	590.3	146.3	102.9	131.1	119.7	90.3	—
All nonindustrial private							
≤ 10	80.0	11.1	17.5	13.0	22.3	13.8	2.3
11-50	457.2	77.7	90.5	99.9	114.1	72.0	3.0
51-100	527.1	88.6	84.2	104.5	168.0	81.8	—
101-200	630.7	168.7	105.8	86.1	197.9	72.2	—
201-500	857.8	195.7	147.0	138.4	210.1	166.7	—
≥ 501	324.7	88.5	43.5	88.9	61.0	42.8	—
Total	2,877.6	630.3	488.6	530.7	773.4	449.3	5.3

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 17—Number of live trees on timberland by species and diameter class, Southwest-North Alabama, 1999

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													
Longleaf pine	5,702	1,173	1,317	981	493	662	533	270	104	103	33	33	—
Slash pine	9,961	1,243	1,572	3,916	2,015	609	177	101	132	64	—	100	32
Shortleaf pine	37,765	13,865	7,014	3,549	3,700	3,236	2,847	2,045	967	233	204	105	—
Loblolly pine	564,334	220,086	125,275	96,756	60,670	30,317	14,297	7,134	4,862	2,955	1,259	686	37
Virginia pine	1,135	380	443	135	107	70	—	—	—	—	—	—	—
Spruce pine	10,669	5,241	1,197	1,359	658	472	237	266	500	171	130	438	—
Baldcypress	6,818	1,893	2,405	690	164	99	357	229	205	69	230	444	33
Atlantic white-cedar	32	—	—	—	—	32	—	—	—	—	—	—	—
Redcedars	29,685	17,078	6,839	2,314	1,525	652	598	324	283	72	—	—	—
Total softwoods	666,101	260,959	146,062	109,700	69,332	36,149	19,046	10,369	7,053	3,667	1,856	1,806	102
Hardwood													
Select white oaks	37,502	21,953	6,311	2,906	1,885	1,476	1,200	826	442	193	70	240	—
Select red oaks	23,575	14,817	4,419	1,446	733	488	456	206	315	106	246	274	69
Other white oaks	21,383	10,494	4,651	1,993	1,394	991	993	214	243	137	107	166	—
Other red oaks	290,899	207,654	41,114	15,674	9,005	5,480	4,075	2,649	1,765	1,060	904	1,279	240
Hickory	56,556	40,269	6,897	3,687	2,266	1,191	714	646	347	438	—	101	—
Hard maple	17,263	13,537	2,812	375	203	168	32	69	67	—	—	—	—
Soft maple	125,142	98,688	15,521	5,760	2,524	1,374	583	282	245	100	33	—	32
Beech	8,902	5,056	804	709	608	272	228	296	228	169	104	428	—
Sweetgum	461,463	322,013	78,966	31,093	14,811	6,897	3,207	2,080	858	779	366	393	—
Tupelo and blackgum	82,471	57,352	8,700	5,512	4,325	2,141	1,621	1,210	902	304	165	239	—
Ash	45,965	32,103	6,706	3,143	1,569	859	585	436	245	175	107	37	—
Cottonwood	994	924	—	—	35	35	—	—	—	—	—	—	—
Basswood	2,156	1,529	—	165	136	128	131	—	35	—	32	—	—
Yellow-poplar	45,883	30,344	6,978	3,015	1,854	773	1,064	758	374	170	205	348	—
Bay and magnolia	67,458	46,883	11,320	4,471	2,196	897	765	378	170	178	100	100	—
Black cherry	43,064	32,614	6,646	2,367	891	481	—	32	33	—	—	—	—
Black walnut	170	—	—	102	33	—	—	—	35	—	—	—	—
Sycamore	3,619	1,695	393	517	432	107	109	37	70	37	37	185	—
Elm	45,915	29,824	10,044	2,385	1,443	922	831	135	166	100	—	65	—
Other Eastern hardwoods	424,457	335,230	57,860	18,412	8,225	2,433	980	659	286	70	200	69	33
Total hardwoods	1,804,837	1,302,979	270,142	103,732	54,568	27,113	17,574	10,913	6,826	4,016	2,676	3,924	374
All species	2,470,938	1,563,938	416,204	213,432	123,900	63,262	36,620	21,282	13,879	7,683	4,532	5,730	476

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, Southwest-North Alabama, 1999

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													
Longleaf pine	5,190	762	1,317	880	493	662	533	270	104	103	33	33	—
Slash pine	9,769	1,243	1,572	3,788	1,951	609	177	101	132	64	—	100	32
Shortleaf pine	34,828	12,135	6,141	3,386	3,634	3,131	2,847	2,045	967	233	204	105	—
Loblolly pine	504,424	182,131	111,493	92,279	59,029	29,084	13,724	7,029	4,788	2,955	1,226	686	—
Virginia pine	1,071	380	443	71	107	70	—	—	—	—	—	—	—
Spruce pine	7,097	2,454	804	1,129	626	439	204	234	468	171	130	438	—
Baldcypress	4,567	430	1,683	690	164	66	357	229	205	69	230	444	—
Redcedars	18,461	11,961	3,171	1,428	1,014	251	380	184	72	—	—	—	—
Total softwoods	585,407	211,496	126,624	103,651	67,018	34,312	18,222	10,092	6,736	3,595	1,823	1,806	32
Hardwood													
Select white oaks	22,964	10,242	4,657	2,401	1,550	1,411	1,099	757	409	161	70	207	—
Select red oaks	13,214	6,785	2,762	1,086	667	344	423	206	278	74	246	274	69
Other white oaks	10,910	2,672	3,355	1,470	1,187	609	823	214	243	137	70	130	—
Other red oaks	145,930	84,923	26,463	11,826	7,249	4,687	3,532	2,412	1,663	992	872	1,141	170
Hickory	27,096	15,342	4,048	2,782	1,928	915	682	582	310	406	—	101	—
Hard maple	2,482	1,303	463	309	103	136	32	69	67	—	—	—	—
Soft maple	30,871	17,779	7,065	2,854	1,551	725	412	245	139	68	33	—	—
Beech	3,646	1,258	411	474	440	105	131	232	163	169	32	231	—
Sweetgum	302,019	188,795	60,959	26,165	13,083	6,068	2,876	1,915	757	642	366	393	—
Tupelo and blackgum	36,589	17,289	5,360	4,369	3,622	1,879	1,453	1,140	837	304	165	171	—
Ash	22,337	13,614	3,363	2,202	1,212	600	447	372	245	175	70	37	—
Cottonwood	70	—	—	—	35	35	—	—	—	—	—	—	—
Basswood	861	402	—	133	32	128	99	—	35	—	32	—	—
Yellow-poplar	36,942	23,985	4,949	2,704	1,817	704	996	725	339	170	205	348	—
Bay and magnolia	33,308	22,185	4,994	2,879	1,549	491	625	275	68	142	32	68	—
Black cherry	16,639	11,023	3,384	1,450	476	306	—	—	—	—	—	—	—
Black walnut	65	—	—	32	33	—	—	—	—	—	—	—	—
Sycamore	1,798	411	—	484	395	107	109	37	70	—	37	148	—
Elm	15,063	4,687	6,134	1,487	1,137	689	560	103	134	67	—	65	—
Other Eastern hardwoods	83,869	56,849	14,726	6,012	3,665	1,119	672	445	176	33	135	37	—
Total hardwoods	806,673	479,544	153,093	71,119	41,731	21,058	14,971	9,729	5,933	3,540	2,365	3,351	239
All species	1,392,080	691,040	279,717	174,770	108,749	55,370	33,193	19,821	12,669	7,135	4,188	5,157	271

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, Southwest-North Alabama, 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											
Longleaf pine	53.3	2.7	3.6	9.3	11.5	9.2	3.9	6.4	2.6	4.2	—
Slash pine	69.8	11.4	14.5	8.4	4.0	3.2	5.8	3.9	—	11.4	7.1
Shortleaf pine	319.2	11.1	28.9	47.4	69.7	71.5	47.6	14.8	16.8	11.2	—
Loblolly pine	2,133.2	242.6	379.1	378.4	295.3	234.9	227.5	185.6	102.5	81.0	6.2
Virginia pine	2.1	0.4	0.8	0.9	—	—	—	—	—	—	—
Spruce pine	131.2	4.5	5.2	7.0	4.9	9.7	25.4	9.7	9.6	55.2	—
Baldcypress	96.1	1.5	1.2	1.2	6.9	6.6	7.8	2.6	15.8	50.2	2.3
Atlantic white-cedar	0.3	—	—	0.3	—	—	—	—	—	—	—
Redcedars	44.9	5.4	7.0	6.0	9.2	6.9	8.0	2.4	—	—	—
Total softwoods	2,850.1	279.6	440.5	459.1	401.4	342.1	326.0	225.4	147.3	213.2	15.6
Hardwood											
Select white oaks	144.0	8.4	11.8	16.8	21.8	24.3	18.9	9.9	5.3	26.7	—
Select red oaks	112.9	5.0	4.6	6.5	9.3	6.8	12.6	5.6	17.2	28.3	16.9
Other white oaks	82.5	5.0	8.3	9.9	16.4	5.6	9.6	6.7	5.0	16.1	—
Other red oaks	665.9	44.7	56.8	65.8	76.6	72.3	64.8	52.2	57.8	124.1	50.8
Hickory	121.7	9.1	14.0	13.6	14.6	18.1	13.9	25.6	—	12.7	—
Hard maple	8.5	0.9	1.2	1.5	0.6	2.0	2.4	—	—	—	—
Soft maple	72.0	16.0	14.4	13.7	8.8	6.9	4.7	4.1	1.2	—	2.2
Beech	77.3	2.0	4.2	3.3	4.2	8.2	6.9	9.4	6.7	32.4	—
Sweetgum	550.1	78.2	95.7	88.8	69.7	67.6	38.4	41.4	28.7	41.7	—
Tupelo and blackgum	212.8	15.9	28.1	25.5	32.0	33.7	34.3	15.8	9.5	18.0	—
Ash	86.8	8.7	10.6	11.2	12.1	13.9	9.7	9.4	7.1	4.2	—
Cottonwood	0.6	—	0.2	0.5	—	—	—	—	—	—	—
Basswood	9.4	0.4	0.8	2.1	2.7	—	1.2	—	2.3	—	—
Yellow-poplar	154.1	9.9	13.2	9.2	22.2	23.1	18.4	10.0	13.7	34.6	—
Bay and magnolia	77.6	12.2	12.0	9.7	13.5	8.3	4.7	8.0	4.6	4.7	—
Black cherry	18.9	6.1	5.4	5.3	—	0.8	1.3	—	—	—	—
Black walnut	1.6	0.2	0.2	—	—	—	1.1	—	—	—	—
Sycamore	36.2	2.3	3.1	1.4	2.7	1.2	2.3	0.3	2.5	20.4	—
Elm	60.7	6.2	8.4	10.6	14.2	3.6	6.3	4.6	—	6.9	—
Other Eastern hardwoods	155.7	38.7	40.2	20.5	15.3	13.5	8.2	3.1	9.0	4.7	2.5
Total hardwoods	2,649.3	269.7	333.2	315.8	336.7	310.0	259.5	205.9	170.5	375.6	72.4
All species	5,499.5	549.3	773.8	774.9	738.1	652.0	585.5	431.3	317.8	588.7	88.0

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 20—Volume of growing-stock trees on timberland by species and diameter class, Southwest-North Alabama, 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											
Longleaf pine	53.1	2.4	3.6	9.3	11.5	9.2	3.9	6.4	2.6	4.2	—
Slash pine	69.1	11.2	14.1	8.4	4.0	3.2	5.8	3.9	—	11.4	7.1
Shortleaf pine	317.4	10.8	28.5	46.4	69.7	71.5	47.6	14.8	16.8	11.2	—
Loblolly pine	2,085.0	233.9	371.4	366.8	287.4	231.7	226.0	185.6	101.2	81.0	—
Virginia pine	2.0	0.3	0.8	0.9	—	—	—	—	—	—	—
Spruce pine	127.2	3.8	5.0	6.8	4.5	8.6	23.9	9.7	9.6	55.2	—
Baldcypress	93.4	1.5	1.2	0.8	6.9	6.6	7.8	2.6	15.8	50.2	—
Redcedars	24.5	3.6	4.9	2.7	6.8	4.2	2.3	—	—	—	—
Total softwoods	2,771.8	267.5	429.6	442.2	390.8	335.1	317.4	223.0	146.0	213.2	7.1
Hardwood											
Select white oaks	132.5	7.2	10.2	16.2	20.6	22.9	17.8	8.4	5.3	23.9	—
Select red oaks	107.3	3.9	4.3	5.1	8.8	6.8	11.8	4.1	17.2	28.3	16.9
Other white oaks	70.0	3.9	7.5	6.9	14.0	5.6	9.6	6.7	4.3	11.5	—
Other red oaks	597.3	36.0	47.7	58.4	67.8	67.0	62.3	49.3	55.9	114.7	38.1
Hickory	110.3	7.5	12.6	10.5	13.8	16.6	12.2	24.3	—	12.7	—
Hard maple	7.7	0.8	0.6	1.4	0.6	2.0	2.4	—	—	—	—
Soft maple	46.7	8.5	9.8	7.6	7.4	6.1	4.0	2.3	1.2	—	—
Beech	57.4	1.4	3.4	1.4	2.7	6.6	6.5	9.4	2.7	23.3	—
Sweetgum	510.9	69.0	87.8	79.6	65.6	64.2	35.9	38.3	28.7	41.7	—
Tupelo and blackgum	195.3	13.5	24.6	23.1	29.6	32.1	32.3	15.8	9.5	14.8	—
Ash	74.0	6.6	8.6	8.2	10.0	12.3	9.7	9.4	5.2	4.2	—
Cottonwood	0.6	—	0.2	0.5	—	—	—	—	—	—	—
Basswood	8.3	0.3	0.2	2.1	2.2	—	1.2	—	2.3	—	—
Yellow-poplar	149.4	9.0	13.0	8.6	20.7	22.7	17.1	10.0	13.7	34.6	—
Bay and magnolia	56.2	8.1	9.3	5.4	11.8	6.6	2.4	6.5	1.9	4.1	—
Black cherry	11.2	4.1	3.3	3.8	—	—	—	—	—	—	—
Black walnut	0.3	0.1	0.2	—	—	—	—	—	—	—	—
Sycamore	32.9	2.2	2.9	1.4	2.7	1.2	2.3	—	2.5	17.7	—
Elm	47.9	4.0	6.9	8.7	10.5	2.9	5.1	2.9	—	6.9	—
Other Eastern hardwoods	86.7	14.7	20.6	11.8	11.2	10.6	5.8	1.6	6.9	3.5	—
Total hardwoods	2,302.8	200.7	273.8	260.8	300.0	286.2	238.2	189.0	157.1	341.9	55.1
All species	5,074.6	468.1	703.4	703.0	690.8	621.3	555.6	412.0	303.1	555.1	62.2

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 21—Volume in the saw-log portion of sawtimber trees on timberland by species and diameter class, Southwest-North Alabama, 1999

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									
Longleaf pine	43.9	7.8	10.4	8.8	3.8	6.3	2.5	4.2	—
Slash pine	41.2	6.8	3.7	3.0	5.7	3.8	—	11.2	7.1
Shortleaf pine	258.2	37.6	63.6	68.2	46.4	14.6	16.7	11.1	—
Loblolly pine	1,343.8	284.6	257.7	219.2	219.4	182.6	100.2	80.2	—
Virginia pine	0.7	0.7	—	—	—	—	—	—	—
Spruce pine	114.6	5.5	4.0	8.2	23.2	9.5	9.5	54.6	—
Baldcypress	85.1	0.5	5.8	5.9	7.2	2.5	15.0	48.3	—
Redcedars	14.6	2.3	6.2	3.9	2.2	—	—	—	—
Total softwoods	1,902.2	345.9	351.4	317.3	307.9	219.3	143.8	209.6	7.1
Hardwood									
Select white oaks	84.6	—	14.4	18.8	15.7	7.6	4.9	23.2	—
Select red oaks	85.1	—	6.0	5.6	10.3	3.8	16.0	27.0	16.5
Other white oaks	43.8	—	10.1	4.7	8.3	6.1	4.0	10.7	—
Other red oaks	397.3	—	49.4	55.3	54.0	44.3	51.1	107.0	36.2
Hickory	68.3	—	10.0	13.6	10.6	22.0	—	12.0	—
Hard maple	4.0	—	0.4	1.6	2.0	—	—	—	—
Soft maple	16.2	—	5.0	4.8	3.3	2.0	1.1	—	—
Beech	44.7	—	2.0	5.4	5.5	8.2	2.4	21.2	—
Sweetgum	233.4	—	45.8	53.1	31.9	35.4	27.2	40.2	—
Tupelo and blackgum	111.9	—	21.1	26.1	27.9	14.2	8.6	13.8	—
Ash	42.8	—	7.0	10.1	8.4	8.5	4.8	4.0	—
Basswood	4.8	—	1.6	—	1.0	—	2.1	—	—
Yellow-poplar	104.5	—	14.6	18.8	15.3	9.2	13.0	33.6	—
Bay and magnolia	27.5	—	8.1	5.4	2.1	6.0	1.8	4.0	—
Sycamore	23.6	—	1.8	1.0	1.9	—	2.2	16.7	—
Elm	22.9	—	7.4	2.3	4.4	2.5	—	6.3	—
Other Eastern hardwoods	29.8	—	7.4	8.2	4.3	1.3	5.4	3.3	—
Total hardwoods	1,345.4	—	212.1	234.7	207.1	171.0	144.6	323.2	52.8
All species	3,247.6	345.9	563.5	552.0	515.0	390.3	288.5	532.7	59.8

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 22—Volume of sawtimber on timberland by species and diameter class, Southwest-North Alabama, 1999

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									
Longleaf pine	250.3	38.7	54.6	50.1	22.5	39.5	16.3	28.5	—
Slash pine	252.5	31.5	18.5	16.3	33.3	23.7	—	77.1	52.0
Shortleaf pine	1,395.2	174.8	318.9	369.7	267.1	87.6	104.2	72.9	—
Loblolly pine	7,406.0	1,319.8	1,295.1	1,197.1	1,281.4	1,120.5	644.8	547.2	—
Virginia pine	3.1	3.1	—	—	—	—	—	—	—
Spruce pine	692.3	28.1	20.9	45.0	133.3	56.4	57.9	350.8	—
Baldcypress	489.5	2.1	26.2	28.9	37.5	13.4	85.2	296.1	—
Redcedars	79.8	11.6	33.2	22.2	12.8	—	—	—	—
Total softwoods	10,568.7	1,609.8	1,767.3	1,729.4	1,787.9	1,341.2	908.4	1,372.7	52.0
Hardwood									
Select white oaks	449.1	—	69.2	91.2	79.7	40.2	26.8	141.9	—
Select red oaks	508.6	—	29.7	28.4	55.4	21.5	93.9	168.4	111.3
Other white oaks	234.2	—	49.9	23.7	43.3	33.1	22.4	61.9	—
Other red oaks	2,279.2	—	258.2	290.4	292.9	249.4	297.5	649.6	241.3
Hickory	361.2	—	47.6	67.2	54.7	119.1	—	72.6	—
Hard maple	19.8	—	1.9	7.8	10.0	—	—	—	—
Soft maple	79.3	—	23.9	23.1	16.5	10.3	5.7	—	—
Beech	204.8	—	9.9	25.0	25.1	37.1	11.0	96.6	—
Sweetgum	1,286.3	—	233.5	275.1	172.5	199.8	159.8	245.6	—
Tupelo and blackgum	539.0	—	90.3	116.3	134.6	72.6	45.5	79.7	—
Ash	215.5	—	32.8	48.4	41.4	43.5	25.8	23.6	—
Basswood	23.7	—	7.6	—	5.1	—	11.0	—	—
Yellow-poplar	607.3	—	75.1	99.4	85.3	53.6	78.2	215.7	—
Bay and magnolia	135.1	—	39.1	24.9	10.2	30.1	9.1	21.8	—
Sycamore	135.6	—	9.0	5.0	9.9	—	12.1	99.6	—
Elm	118.4	—	36.0	11.5	22.0	12.9	—	36.0	—
Other Eastern hardwoods	165.9	—	38.5	43.3	26.2	8.0	34.1	16.0	—
Total hardwoods	7,363.0	—	1,052.3	1,180.5	1,084.6	931.2	832.7	1,929.0	352.6
All species	17,931.6	1,609.8	2,819.6	2,909.9	2,872.6	2,272.4	1,741.1	3,301.7	404.6

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 23—Volume of sawtimber on timberland by species, size class, and tree grade, Southwest-North Alabama, 1999

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												
Longleaf pine	250.3	73.8	100.2	76.4	—	—	106.9	31.5	59.8	15.6	—	—
Slash pine	252.5	105.2	66.9	80.4	—	—	186.1	84.9	59.0	42.2	—	—
Shortleaf pine	1,395.2	635.0	286.9	473.2	—	—	531.8	285.7	86.5	159.7	—	—
Loblolly pine	7,406.0	1,980.4	1,397.0	3,968.2	—	60.4	3,594.0	1,424.9	934.3	1,205.8	—	28.9
Virginia pine	3.1	—	1.7	1.4	—	—	—	—	—	—	—	—
Spruce pine	692.3	216.3	133.7	342.3	—	—	598.4	207.1	111.3	280.0	—	—
Baldcypress	489.5	252.6	170.8	66.1	—	—	432.3	238.9	152.8	40.6	—	—
Redcedars	79.8	—	—	79.8	—	—	12.8	—	—	12.8	—	—
Total softwoods	10,568.7	3,263.3	2,157.1	5,087.9	—	60.4	5,462.2	2,273.0	1,403.7	1,756.7	—	28.9
Hardwood												
Select white oaks	449.1	86.1	91.6	165.2	78.7	27.5	288.6	86.1	76.3	72.9	38.1	15.2
Select red oaks	508.6	241.8	170.7	83.4	11.2	1.5	450.5	241.8	170.7	38.0	—	—
Other white oaks	234.2	48.7	23.7	84.6	58.3	18.9	160.6	48.7	10.0	50.4	33.8	17.8
Other red oaks	2,279.2	404.1	294.7	685.0	716.9	178.6	1,730.6	404.1	270.5	480.3	423.0	152.8
Hickory	361.2	72.7	65.6	137.7	71.5	13.7	246.4	72.7	57.3	72.2	44.2	—
Hard maple	19.8	—	—	—	15.9	3.9	10.0	—	—	—	10.0	—
Soft maple	79.3	—	21.6	32.7	21.5	3.5	32.4	—	17.9	14.5	—	—
Beech	204.8	—	24.1	44.5	125.8	10.3	169.9	—	24.1	33.7	107.1	5.0
Sweetgum	1,286.3	344.2	304.9	446.2	74.1	116.9	777.7	344.2	146.5	183.7	34.0	69.3
Tupelo and blackgum	539.0	206.6	148.4	145.4	12.8	25.7	332.4	206.6	67.4	39.9	—	18.5
Ash	215.5	65.9	49.1	53.9	10.1	36.4	134.3	65.9	18.8	15.0	6.0	28.6
Basswood	23.7	—	—	23.7	—	—	16.1	—	—	16.1	—	—
Yellow-poplar	607.3	32.1	118.0	146.8	149.7	160.7	432.7	32.1	95.5	75.5	89.1	140.5
Bay and magnolia	135.1	5.7	29.5	52.2	23.4	24.4	71.1	5.7	23.5	12.1	6.8	23.1
Sycamore	135.6	23.9	10.2	71.8	29.6	—	121.6	23.9	5.2	65.6	26.9	—
Elm	118.4	6.9	15.8	62.8	17.8	15.1	70.9	6.9	12.7	30.2	6.0	15.1
Other Eastern hardwoods	165.9	10.3	36.3	78.7	22.7	17.9	84.2	10.3	18.7	33.3	6.0	16.0
Total hardwoods	7,363.0	1,548.8	1,404.3	2,314.6	1,440.1	655.1	5,130.2	1,548.8	1,015.0	1,233.5	831.0	501.8
All species	17,931.6	4,812.1	3,561.4	7,402.5	1,440.1	715.5	10,592.4	3,821.8	2,418.7	2,990.2	831.0	530.8

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 24—Volume of growing stock on timberland by county and species group, Southwest-North Alabama, 1999

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Choctaw	840.3	516.7	487.8	28.9	323.6	171.2	152.4
Clarke	1,145.1	643.2	609.0	34.2	501.9	279.3	222.6
Conecuh	509.8	286.2	285.2	1.0	223.6	107.3	116.2
Marengo	602.0	294.8	279.9	14.9	307.2	139.6	167.6
Monroe	775.6	438.0	415.8	22.2	337.5	163.1	174.4
Sumter	561.5	267.4	255.0	12.3	294.1	111.3	182.8
Wilcox	640.4	325.5	321.2	4.4	314.9	123.4	191.4
Total	5,074.6	2,771.8	2,653.8	118.0	2,302.8	1,095.3	1,207.5

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

Table 25—Volume of live trees on timberland by county and species group, Southwest-North Alabama, 1999

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Choctaw	882.3	524.8	494.0	30.8	357.6	186.3	171.3
Clarke	1,233.6	655.2	617.4	37.8	578.4	308.6	269.9
Conecuh	568.3	296.3	292.5	3.8	272.0	127.7	144.3
Marengo	647.0	303.1	283.8	19.3	343.9	154.9	189.0
Monroe	864.1	444.9	422.2	22.7	419.2	197.9	221.3
Sumter	619.2	287.7	267.7	20.0	331.5	125.3	206.1
Wilcox	684.9	338.1	331.2	6.9	346.8	137.6	209.2
Total	5,499.5	2,850.1	2,708.8	141.3	2,649.3	1,238.3	1,411.0

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

Table 26—Volume of sawtimber on timberland by county and species group, Southwest-North Alabama, 1999

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million board feet						
Choctaw	2,999.9	2,123.5	1,958.0	165.5	876.4	410.7	465.8
Clarke	4,156.7	2,665.0	2,504.1	160.9	1,491.7	843.3	648.5
Conecuh	1,364.7	754.3	750.5	3.8	610.4	218.4	392.0
Marengo	2,203.0	1,181.2	1,111.4	69.8	1,021.7	393.1	628.6
Monroe	2,921.0	1,767.3	1,652.8	114.4	1,153.8	475.1	678.6
Sumter	2,039.6	923.2	878.1	45.1	1,116.4	312.3	804.1
Wilcox	2,246.7	1,154.2	1,144.4	9.8	1,092.5	367.8	724.8
Total	17,931.6	10,568.7	9,999.4	569.3	7,363.0	3,020.6	4,342.3

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

Table 27—Volume of timber on timberland by class of timber and species group, Southwest-North Alabama, 1999

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	3,247.6	1,902.2	1,802.5	99.8	1,345.4	561.8	783.6
Upper-stem portion[a]	394.6	172.5	165.5	7.0	222.1	102.6	119.6
Total	3,642.2	2,074.7	1,967.9	106.8	1,567.5	664.3	903.2
Poletimber trees	1,432.4	697.0	685.9	11.2	735.3	431.0	304.3
All growing-stock trees	5,074.6	2,771.8	2,653.8	118.0	2,302.8	1,095.3	1,207.5
Rough trees							
Sawtimber size	205.4	55.3	35.9	19.4	150.2	54.5	95.6
Poletimber size	203.8	23.1	19.1	4.0	180.7	80.6	100.2
Total	409.3	78.4	55.0	23.4	330.9	135.1	195.8
Rotten trees							
Sawtimber size	12.9	—	—	—	12.9	6.6	6.3
Poletimber size	2.7	—	—	—	2.7	1.2	1.5
Total	15.6	—	—	—	15.6	7.8	7.7
Salvable dead trees							
Sawtimber size	41.5	17.5	14.3	3.2	24.0	8.2	15.7
Poletimber size	12.2	9.5	9.5	—	2.7	1.6	1.1
Total	53.7	27.0	23.8	3.2	26.6	9.8	16.8
All classes	5,553.1	2,877.2	2,732.6	144.5	2,676.0	1,248.1	1,427.8

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.

[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, Southwest-North Alabama, 1999

Ownership class	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
			Live trees *(million cubic feet)*				
National forest	—	—	—	—	—	—	—
Other public	114.5	37.1	35.0	2.1	77.5	22.5	54.9
Forest industry	852.6	508.3	502.6	5.6	344.3	168.6	175.7
Nonindustrial private	4,532.4	2,304.8	2,171.2	133.6	2,227.6	1,047.2	1,180.4
All classes	5,499.5	2,850.1	2,708.8	141.3	2,649.3	1,238.3	1,411.0
			Growing-stock trees *(million cubic feet)*				
National forest	—	—	—	—	—	—	—
Other public	99.9	36.8	34.7	2.1	63.1	16.3	46.9
Forest industry	796.1	497.2	494.7	2.5	298.9	151.5	147.4
Nonindustrial private	4,178.6	2,237.8	2,124.4	113.4	1,940.8	927.6	1,013.2
All classes	5,074.6	2,771.8	2,653.8	118.0	2,302.8	1,095.3	1,207.5

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 29—Volume of sawtimber on timberland by ownership class, species group, and size class, Southwest-North Alabama, 1999

Ownership class	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
			All size classes *(million board feet)*				
National forest	—	—	—	—	—	—	—
Other public	486.8	161.2	151.1	10.1	325.6	59.5	266.1
Forest industry	2,314.2	1,416.9	1,407.6	9.3	897.3	410.4	486.9
Nonindustrial private	15,130.6	8,990.6	8,440.6	550.0	6,140.1	2,550.8	3,589.3
All classes	17,931.6	10,568.7	9,999.4	569.3	7,363.0	3,020.6	4,342.3
			Trees ≥ 15.0 inches d.b.h. *(million board feet)*				
National forest	—	—	—	—	—	—	—
Other public	432.8	130.0	122.0	8.0	302.9	45.1	257.8
Forest industry	1,217.8	594.7	586.8	7.9	623.1	272.2	350.9
Nonindustrial private	8,941.8	4,737.6	4,308.4	429.2	4,204.2	1,582.2	2,622.0
All classes	10,592.4	5,462.2	5,017.2	445.1	5,130.2	1,899.5	3,230.7

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 30—Volume of growing stock on timberland by forest-type group, stand origin, and species group, Southwest-North Alabama, 1999

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							
Longleaf–slash pine							
Planted	20.0	19.2	19.2	—	0.8	0.3	0.5
Natural	31.5	27.8	27.8	—	3.6	3.3	0.4
Total	51.4	47.1	47.1	—	4.4	3.5	0.9
Loblolly–shortleaf pine							
Planted	957.8	903.8	902.8	0.9	54.0	30.0	24.0
Natural	1,075.6	914.5	905.3	9.2	161.1	90.1	71.0
Total	2,033.4	1,818.2	1,808.1	10.1	215.2	120.2	95.0
Total softwoods	2,084.8	1,865.3	1,855.2	10.1	219.6	123.7	95.9
Hardwood types							
Oak–pine							
Planted	160.3	132.1	132.0	0.1	28.2	18.7	9.4
Natural	782.2	462.6	458.1	4.5	319.6	151.8	167.9
Total	942.5	594.7	590.1	4.6	347.8	170.5	177.3
Oak–hickory	986.7	168.5	158.7	9.8	818.2	309.8	508.4
Oak–gum–cypress	1,038.7	141.8	49.9	91.9	896.9	486.2	410.7
Elm–ash–cottonwood	21.5	1.5	—	1.5	19.9	4.8	15.1
Total hardwoods	2,989.4	906.5	798.6	107.9	2,083.0	971.3	1,111.6
Nonstocked	0.3	—	—	—	0.3	0.3	—
All groups	5,074.6	2,771.8	2,653.8	118.0	2,302.8	1,095.3	1,207.5

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 31—Average basal area of live trees per acre on timberland by ownership class, species group, and d.b.h., Southwest-North Alabama, 1999

Ownership class and species group	All tree sizes	D.b.h. (inches)			
		1.0-4.9	5.0-10.9	11.0-14.9	≥15.0
	Square feet/acre				
National forest					
Softwood	—	—	—	—	—
Hardwood	—	—	—	—	—
Total	—	—	—	—	—
Other public					
Softwood	24.9	4.7	8.9	3.8	7.6
Hardwood	59.5	8.6	12.0	7.4	31.6
Total	84.5	13.3	20.8	11.2	39.2
Forest industry					
Softwood	37.8	6.2	21.7	4.8	5.2
Hardwood	42.4	11.6	14.1	6.4	10.5
Total	80.3	17.7	35.7	11.2	15.7
Nonindustrial private					
Softwood	35.0	4.3	14.7	7.2	8.9
Hardwood	46.9	12.0	16.6	7.7	10.5
Total	81.9	16.3	31.3	14.9	19.4
All classes					
Softwood	35.4	4.6	15.9	6.7	8.2
Hardwood	46.2	11.9	16.1	7.5	10.8
Total	81.7	16.5	32.0	14.1	19.0

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 32—Average net annual growth of growing stock on timberland by county and species group, Southwest-North Alabama, 1990–1998

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
			Million cubic feet				
Choctaw	51.7	35.8	35.5	0.3	15.9	9.0	7.0
Clarke	62.8	37.8	36.5	1.3	24.9	12.9	12.0
Conecuh	36.2	28.7	28.7	—	7.5	4.1	3.3
Marengo	37.8	23.5	22.8	0.7	14.3	6.5	7.8
Monroe	42.5	28.5	28.2	0.3	14.0	6.0	8.0
Sumter	31.0	21.1	20.2	1.0	9.9	4.1	5.8
Wilcox	36.2	24.8	24.5	0.3	11.4	4.0	7.4
Total	298.2	200.3	196.4	3.9	97.9	46.5	51.4

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 33—Average net annual growth of live trees on timberland by county and species group, Southwest-North Alabama, 1990–1998

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Choctaw	53.2	36.3	36.0	0.3	17.0	9.8	7.2
Clarke	71.5	38.7	37.2	1.6	32.8	14.0	18.7
Conecuh	38.7	29.1	29.1	—	9.6	5.4	4.1
Marengo	39.4	24.0	23.1	0.9	15.5	7.5	7.9
Monroe	44.9	28.8	28.5	0.3	16.1	7.2	8.9
Sumter	33.3	22.2	21.0	1.1	11.1	4.7	6.4
Wilcox	36.5	24.7	24.5	0.3	11.7	4.1	7.7
Total	317.5	203.7	199.4	4.4	113.7	52.8	61.0

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, Southwest-North Alabama, 1990–1998

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million board feet						
Choctaw	203.1	147.0	145.4	1.7	56.1	26.2	29.9
Clarke	246.7	159.5	153.5	6.0	87.2	42.8	44.5
Conecuh	107.8	81.3	81.3	—	26.5	11.0	15.5
Marengo	150.7	93.5	90.8	2.7	57.2	20.1	37.1
Monroe	166.8	118.6	116.7	1.9	48.2	18.4	29.8
Sumter	108.3	67.9	66.7	1.2	40.4	11.4	29.0
Wilcox	129.2	93.8	93.1	0.8	35.4	8.6	26.7
Total	1,112.6	761.6	747.4	14.2	351.1	138.6	212.5

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 35—Average annual removals of growing stock on timberland by county and species group, Southwest-North Alabama, 1990–1998

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Choctaw	36.0	26.7	26.7	—	9.3	4.0	5.3
Clarke	57.5	36.6	36.5	0.1	20.9	10.5	10.4
Conecuh	36.8	33.1	33.1	—	3.7	1.2	2.5
Marengo	23.5	16.7	16.4	0.3	6.8	4.3	2.4
Monroe	34.4	24.8	24.7	0.1	9.6	3.7	5.9
Sumter	31.6	19.3	18.8	0.6	12.3	5.9	6.3
Wilcox	34.6	28.5	27.9	0.6	6.1	2.5	3.5
Total	254.4	185.7	184.0	1.7	68.6	32.2	36.4

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 36—Average annual removals of live trees on timberland by county and species group, Southwest-North Alabama, 1990–1998

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million cubic feet						
Choctaw	38.8	27.8	27.8	—	11.0	4.6	6.4
Clarke	60.4	37.2	37.0	0.2	23.2	10.9	12.3
Conecuh	38.1	33.6	33.6	—	4.5	1.7	2.8
Marengo	24.9	17.2	16.9	0.3	7.7	4.7	2.9
Monroe	36.4	25.2	25.1	0.1	11.2	4.1	7.1
Sumter	33.1	20.2	19.6	0.6	12.9	6.0	6.8
Wilcox	35.4	28.8	28.2	0.6	6.6	2.6	4.0
Total	267.2	190.1	188.2	1.8	77.1	34.6	42.5

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 37—Average annual removals of sawtimber on timberland by county and species group, Southwest-North Alabama, 1990–1998

County	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Million board feet						
Choctaw	128.0	96.8	96.8	—	31.2	9.4	21.8
Clarke	213.8	144.3	143.7	0.5	69.5	34.3	35.2
Conecuh	108.0	98.4	98.4	—	9.7	4.8	4.9
Marengo	73.6	53.2	53.2	—	20.4	12.4	8.0
Monroe	114.8	89.2	89.2	—	25.7	9.0	16.7
Sumter	122.4	82.0	82.0	—	40.5	14.9	25.5
Wilcox	122.2	113.8	112.3	1.5	8.4	1.5	6.9
Total	883.0	677.6	675.5	2.1	205.3	86.4	119.0

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 38—Average net annual growth and average annual removals of live trees, growing stock, and sawtimber on timberland by species, Southwest-North Alabama, 1990–1998

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						
Longleaf pine	3.9	6.9	3.9	6.9	17.7	31.5
Slash pine	9.4	13.2	9.3	13.0	28.3	28.1
Shortleaf pine	13.5	27.7	13.5	27.4	86.3	116.0
Loblolly pine	166.4	134.4	163.7	130.7	579.7	469.9
Spruce pine	6.2	6.0	6.0	6.0	35.5	30.1
Baldcypress	2.2	—	2.0	—	10.8	—
Redcedars	2.2	1.8	1.9	1.7	3.4	2.1
Total softwoods	203.7	190.1	200.3	185.7	761.6	677.6
Hardwood						
Select white oaks	5.3	4.2	5.1	4.2	22.1	11.6
Select red oaks	4.6	3.8	4.5	3.3	28.7	16.4
Other white oaks	3.6	3.4	3.2	3.0	13.7	11.2
Other red oaks	28.0	20.3	26.2	18.4	106.8	59.7
Hickory	5.1	4.2	5.0	3.8	21.3	12.2
Hard maple	0.1	0.1	0.1	0.1	0.2	—
Soft maple	3.9	1.4	1.9	1.2	3.2	0.3
Beech	1.4	0.2	1.4	0.2	5.6	—
Sweetgum	18.6	18.3	17.0	17.4	35.3	42.6
Tupelo and blackgum	4.8	1.3	4.5	1.0	18.3	2.3
Ash	4.0	2.5	3.6	2.2	11.4	7.3
Cottonwood	0.1	—	0.1	—	0.5	—
Basswood	0.8	0.1	1.0	0.1	3.0	0.6
Yellow-poplar	13.9	5.9	13.5	5.6	51.6	21.7
Bay and magnolia	3.5	0.9	2.4	0.5	9.8	0.4
Black cherry	1.7	0.2	1.6	0.2	0.1	0.4
Black walnut	0.1	—	0.1	—	0.3	—
Sycamore	1.7	0.8	1.7	0.8	8.0	4.1
Elm	2.4	1.7	1.9	1.6	5.3	3.7
Other Eastern hardwoods	9.9	7.8	3.1	4.9	6.1	10.6
Total hardwoods	113.7	77.1	97.9	68.6	351.1	205.3
All species	317.5	267.2	298.2	254.4	1,112.6	883.0

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, Southwest-North Alabama, 1990–1998

Species	All classes	Diameter class (inches at breast height) 5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger
					Million cubic feet						
Softwood											
Longleaf pine	6.9	0.6	0.4	0.7	1.5	1.1	1.7	0.6	0.4	—	—
Slash pine	13.0	2.0	4.6	3.7	0.9	0.7	0.2	0.2	0.4	0.2	—
Shortleaf pine	27.4	1.8	2.3	3.9	5.4	7.2	3.6	2.2	0.9	0.2	—
Loblolly pine	130.7	16.6	20.9	27.5	12.6	13.2	12.2	11.1	6.9	9.7	—
Spruce pine	6.0	0.1	0.6	0.2	0.6	0.8	0.9	1.0	0.7	1.2	—
Redcedars	1.7	1.0	0.2	0.5	—	—	—	—	—	—	—
Total softwoods	185.7	22.0	29.0	36.6	21.0	22.9	18.5	15.0	9.2	11.3	—
Hardwood											
Select white oaks	4.2	0.4	0.5	0.9	0.3	0.5	0.6	0.3	0.2	0.6	—
Select red oaks	3.3	0.1	—	—	0.5	—	0.3	0.8	0.5	0.9	0.2
Other white oaks	3.0	—	0.1	0.4	0.4	1.1	0.5	0.2	0.2	—	0.3
Other red oaks	18.4	2.1	2.1	2.1	1.4	2.4	2.1	1.5	1.2	3.1	0.3
Hickory	3.8	0.4	0.4	0.2	0.6	0.3	0.7	0.5	0.3	0.3	—
Hard maple	0.1	—	0.1	—	—	—	—	—	—	—	—
Soft maple	1.2	0.4	0.3	0.4	—	0.1	—	—	—	—	—
Beech	0.2	0.1	0.1	—	—	—	—	—	—	—	—
Sweetgum	17.4	2.6	2.8	3.1	2.6	2.1	1.0	0.4	0.9	1.7	0.2
Tupelo and blackgum	1.0	0.1	0.2	0.1	0.1	0.4	0.1	—	—	—	—
Ash	2.2	—	0.3	0.3	0.3	0.1	0.1	0.6	0.1	—	0.3
Basswood	0.1	—	—	—	—	—	0.1	—	—	—	—
Yellow-poplar	5.6	0.5	0.4	0.5	0.4	1.0	0.6	0.7	0.8	0.7	—
Bay and magnolia	0.5	0.2	0.1	0.1	—	—	0.1	—	—	—	—
Black cherry	0.2	0.1	—	—	0.1	—	—	—	—	—	—
Sycamore	0.8	—	—	—	—	—	0.4	—	—	0.3	0.1
Elm	1.6	0.3	0.2	0.1	0.6	—	0.2	—	0.2	—	—
Other Eastern hardwoods	4.9	1.1	0.5	0.8	1.1	0.5	0.1	0.3	0.2	0.3	—
Total hardwoods	68.6	8.2	8.1	9.1	8.5	8.6	6.9	5.2	4.7	8.0	1.4
All species	254.4	30.3	37.1	45.7	29.5	31.5	25.4	20.2	13.9	19.3	1.4

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 40—Average annual mortality of live trees, growing stock, and sawtimber on timberland by species, Southwest-North Alabama, 1990–1998

Species	Live trees	Growing stock	Sawtimber
	Million cubic feet		*Million board feet*
Softwood			
Longleaf pine	0.3	0.3	1.7
Slash pine	1.0	1.0	1.7
Shortleaf pine	2.3	2.3	8.1
Loblolly pine	16.7	15.3	50.7
Spruce pine	2.0	1.7	6.5
Baldcypress	0.3	0.3	1.8
Redcedars	0.5	0.4	1.2
Total softwoods	23.1	21.4	71.7
Hardwood			
Select white oaks	0.9	0.8	3.7
Select red oaks	1.5	1.4	6.0
Other white oaks	1.1	1.0	4.6
Other red oaks	6.3	4.7	14.6
Hickory	0.7	0.5	0.8
Soft maple	1.0	0.5	—
Beech	0.4	0.1	0.6
Sweetgum	5.5	4.6	12.6
Tupelo and blackgum	1.2	0.9	2.5
Ash	1.1	1.0	2.4
Basswood	0.3	0.2	0.6
Yellow-poplar	0.2	0.2	0.9
Bay and magnolia	0.6	0.2	—
Elm	0.8	0.8	2.9
Other Eastern hardwoods	2.7	1.2	3.7
Total hardwoods	24.4	18.0	55.8
All species	47.6	39.3	127.6

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, Southwest-North Alabama, 1990–1998

Ownership class	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
			Average net annual growth *(million cubic feet)*				
National forest	—	—	—	—	—	—	—
Other public	4.4	3.4	3.4	—	1.0	0.2	0.8
Forest industry	71.3	57.0	56.2	0.8	14.3	6.2	8.1
Nonindustrial private	222.5	139.9	136.7	3.2	82.6	40.1	42.5
All classes	298.2	200.3	196.4	3.9	97.9	46.5	51.4
			Average annual removals *(million cubic feet)*				
National forest	—	—	—	—	—	—	—
Other public	5.7	5.1	5.1	—	0.6	0.2	0.4
Forest industry	76.9	59.2	59.1	0.1	17.7	7.5	10.2
Nonindustrial private	171.8	121.4	119.8	1.6	50.4	24.5	25.8
All classes	254.4	185.7	184.0	1.7	68.6	32.2	36.4

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 42—Average net annual growth and average annual removals of live trees on timberland by ownership class and species group, Southwest-North Alabama, 1990–1998

Ownership class	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
			Average net annual growth *(million cubic feet)*				
National forest	—	—	—	—	—	—	—
Other public	4.3	3.4	3.4	—	0.9	0.4	0.5
Forest industry	74.4	58.0	57.1	0.9	16.4	7.6	8.8
Nonindustrial private	238.7	142.3	138.8	3.5	96.5	44.7	51.7
All classes	317.5	203.7	199.4	4.4	113.7	52.8	61.0
			Average annual removals *(million cubic feet)*				
National forest	—	—	—	—	—	—	—
Other public	5.8	5.3	5.3	—	0.6	0.2	0.4
Forest industry	79.4	60.0	59.9	0.1	19.4	8.0	11.3
Nonindustrial private	182.0	124.8	123.1	1.7	57.2	26.5	30.7
All classes	267.2	190.1	188.2	1.8	77.1	34.6	42.5

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 43—Average net annual growth and average annual removals of sawtimber on timberland by ownership class and species group, Southwest-North Alabama, 1990–1998

Ownership class	All species	Softwoods			Hardwoods		
		All softwood	Yellow pine	Other softwood	All hardwood	Soft hardwood	Hard hardwood
	Average net annual growth *(million board feet)*						
National forest	—	—	—	—	—	—	—
Other public	18.5	11.3	11.3	—	7.2	0.5	6.7
Forest industry	217.9	173.2	171.2	2.0	44.7	16.3	28.4
Nonindustrial private	876.3	577.1	564.9	12.2	299.2	121.7	177.4
All classes	1,112.6	761.6	747.4	14.2	351.1	138.6	212.5
	Average annual removals *(million board feet)*						
National forest	—	—	—	—	—	—	—
Other public	16.1	15.5	15.5	—	0.6	—	0.6
Forest industry	242.5	183.1	183.1	—	59.5	24.2	35.3
Nonindustrial private	624.3	479.1	477.0	2.1	145.3	62.2	83.0
All classes	883.0	677.6	675.5	2.1	205.3	86.4	119.0

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 44—Average net annual growth of growing stock on timberland by forest-type group, stand origin, and species group, Southwest-North Alabama, 1990–1998

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							
Longleaf–slash pine							
Planted	6.2	6.0	6.0	—	0.3	—	0.3
Natural	2.4	2.2	2.2	—	0.1	0.1	0.0
Total	8.6	8.2	8.2	—	0.4	0.1	0.3
Loblolly–shortleaf pine							
Planted	104.1	96.8	96.6	0.2	7.2	5.0	2.2
Natural	64.1	52.9	51.5	1.4	11.2	5.9	5.3
Total	168.2	149.7	148.1	1.6	18.5	10.9	7.5
Total softwoods	176.7	157.9	156.3	1.6	18.8	11.0	7.8
Hardwood types							
Oak–pine							
Planted	4.5	3.6	3.6	—	0.9	0.6	0.3
Natural	35.7	19.2	19.0	0.1	16.5	5.6	10.9
Total	40.1	22.8	22.6	0.1	17.4	6.2	11.2
Oak–hickory	43.6	12.0	11.9	0.1	31.6	14.0	17.6
Oak–gum–cypress	37.6	7.6	5.5	2.0	30.1	15.2	14.9
Elm–ash–cottonwood	0.0	—	—	—	0.0	0.1	-0.0
Total hardwoods	121.4	42.4	40.1	2.3	79.1	35.5	43.6
Nonstocked	0.0	—	—	—	0.0	0.0	—
All groups	298.2	200.3	196.4	3.9	97.9	46.5	51.4

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

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

[a] 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, Southwest-North Alabama, 1990–1998

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							
Longleaf–slash pine							
Planted	8.2	8.0	8.0	—	0.3	—	0.3
Natural	7.6	7.3	7.3	—	0.4	0.1	0.3
Total	15.8	15.2	15.2	—	0.6	0.1	0.5
Loblolly–shortleaf pine							
Planted	61.2	59.5	59.3	0.2	1.7	1.2	0.5
Natural	74.2	62.6	61.5	1.1	11.7	5.8	5.9
Total	135.4	122.0	120.8	1.3	13.4	6.9	6.5
Total softwoods	151.3	137.3	136.0	1.3	14.0	7.1	7.0
Hardwood types							
Oak–pine							
Planted	1.5	0.9	0.9	—	0.6	0.3	0.3
Natural	49.5	33.5	33.2	0.3	16.0	5.9	10.1
Total	51.0	34.3	34.0	0.3	16.6	6.2	10.4
Oak–hickory	26.3	11.1	11.0	0.1	15.1	6.3	8.8
Oak–gum–cypress	24.8	3.0	3.0	—	21.8	11.8	10.0
Elm–ash–cottonwood	1.0	—	—	—	1.0	0.7	0.3
Total hardwoods	103.1	48.5	48.0	0.4	54.6	25.2	29.5
Nonstocked	—	—	—	—	—	—	—
All groups	254.4	185.7	184.0	1.7	68.6	32.2	36.4

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

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

[a] 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, Southwest-North Alabama, 1999

Ownership class and species group	All components	Component						
		All live saplings	Growing-stock trees			Cull trees		
			Total	Boles	Stumps, tops, and limbs	Total	Boles	Stumps, tops, and limbs
	Thousand tons							
National forest								
Softwood	—	—	—	—	—	—	—	—
Hardwood	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Other public								
Softwood	1,700.7	92.4	1,595.6	1,376.6	219.1	12.7	10.8	1.9
Hardwood	4,399.0	247.2	3,435.0	2,821.0	614.0	716.9	547.8	169.1
Total	6,099.7	339.6	5,030.6	4,197.5	833.1	729.6	558.6	171.0
Forest industry								
Softwood	24,005.6	1,712.5	21,769.7	18,115.2	3,654.5	523.5	416.2	107.3
Hardwood	20,768.7	3,810.9	14,646.6	11,775.9	2,870.8	2,311.2	1,765.2	546.0
Total	44,774.3	5,523.4	36,416.3	29,891.1	6,525.2	2,834.6	2,181.4	653.2
Nonindustrial private								
Softwood	103,815.0	4,754.4	96,048.4	82,012.9	14,035.5	3,012.3	2,477.8	534.5
Hardwood	129,814.8	20,092.6	95,161.1	76,996.5	18,164.6	14,561.2	11,091.3	3,469.9
Total	233,629.8	24,846.9	191,209.4	159,009.4	32,200.0	17,573.5	13,569.1	4,004.4
All ownerships								
Softwood	129,521.3	6,559.2	119,413.6	101,504.7	17,909.0	3,548.5	2,904.8	643.7
Hardwood	154,982.4	24,150.7	113,242.6	91,593.3	21,649.3	17,589.2	13,404.3	4,184.9
Total	284,503.7	30,709.9	232,656.2	193,098.0	39,558.3	21,137.6	16,309.1	4,828.6

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 47—Area of timberland treated or disturbed annually and retained in timberland by treatment or disturbance and ownership class, Southwest-North Alabama, 1990 to 1999

Treatment or disturbance	All classes	Ownership class		
		Public	Forest industry	Nonindustrial private
		Thousand acres		
Final harvest	78.1	1.5	22.0	54.6
Partial harvest[a]	26.6	—	2.1	24.5
Seed tree/shelterwood	7.5	—	1.7	5.8
Commercial thinning	38.6	—	7.9	30.6
Other stand improvement	2.7	0.7	—	1.9
Site preparation	49.7	—	17.5	32.2
Artificial regeneration[b]	51.2	0.7	15.9	34.6
Natural regeneration[b]	59.1	0.2	8.0	50.9
Other treatment	27.8	—	4.8	23.0
Natural disturbance				
Disease	16.1	—	3.5	12.6
Insects	2.0	—	0.4	1.5
Fire	—	—	—	—
Weather	5.9	1.3	0.6	4.0
Animals	2.5	—	0.6	1.9
Other disturbances				
Grazing	1.0	—	—	1.0
Other human-caused disturbance	4.3	0.1	1.2	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, Southwest-North Alabama, 1990 to 1999

Treatment or disturbance	All types	Forest management type[a]					
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood	Nonstocked
		Thousand acres					
Final harvest	78.1	13.6	26.2	17.2	13.7	7.5	—
Partial harvest[b]	26.6	1.4	9.0	7.2	3.7	5.3	—
Seed tree/shelterwood	7.5	1.3	5.6	—	—	0.6	—
Commercial thinning	38.6	22.0	11.0	4.0	—	1.6	—
Other stand improvement	2.7	1.3	—	1.2	0.1	—	—
Site preparation	49.7	14.1	17.1	10.3	6.9	1.4	—
Other treatment	27.8	4.7	7.4	5.1	8.3	2.2	—
Natural disturbance							
Disease	16.1	7.0	5.7	1.2	1.6	0.6	—
Insects	2.0	0.6	0.2	1.2	—	—	—
Fire	—	—	—	—	—	—	—
Weather	5.9	0.7	1.1	1.3	0.8	2.0	—
Animals	2.5	0.6	—	1.3	—	0.7	—
Other disturbance							
Grazing	1.0	—	—	—	0.8	0.1	—
Other human-caused disturbance	4.3	0.3	0.9	0.8	2.2	0.1	—

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, Southwest-North Alabama, 1990 to 1999

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	38.5	29.3	—	7.2	1.9	—	—
Natural regeneration following harvest	31.0	—	5.4	3.3	16.1	6.2	—
Other artificial regeneration on forest land	5.8	2.8	—	1.5	1.4	—	—
Other natural regeneration on forest land	16.4	0.5	5.1	5.5	3.6	1.7	—
Artificial regeneration on former nonforest land	9.3	7.6	—	1.5	—	0.1	—
Natural reversion of former nonforest land	9.9	—	2.1	1.2	4.6	2.1	—
Total	110.9	40.3	12.6	20.2	27.7	10.2	—

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.

[a] Classification after regeneration.

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This report summarizes a 1999 inventory of the forest resources of a seven-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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