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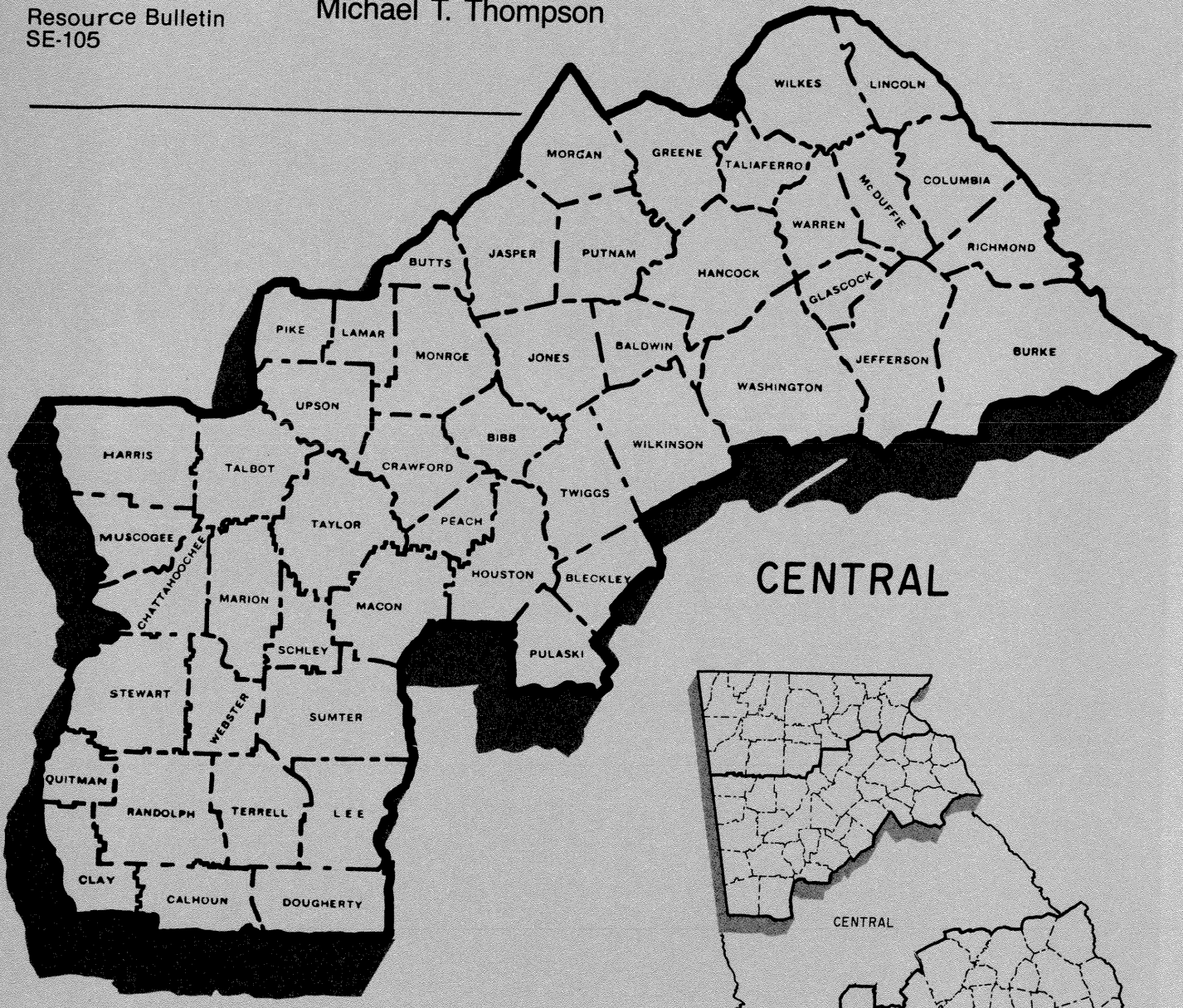
Forest Statistics for Central Georgia, 1989

Michael T. Thompson



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Southeastern Forest Experiment Station
P.O. Box 2680
Asheville, North Carolina 28802

Forest Statistics for Central Georgia, 1989

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Forest Inventory and Analysis
Asheville, North Carolina

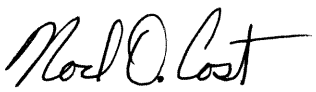
Foreword

This report highlights the principal findings of the sixth forest survey in Central Georgia. Field work began in August 1988 and was completed in December 1988. Five previous surveys, completed in 1936, 1952, 1961, 1972, and 1982, provide statistics for measuring changes and trends over the past 53 years. The primary emphasis in this report is on the changes and trends since 1982. Previously reported figures have been adjusted to provide the best estimate of change.

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

The 49-county area covered by this report is one of five Survey Units in Georgia. Similar reports, USDA Forest Service Resource Bulletins SE-102 and SE-104 has been issued for Southwest and Southeast Georgia. Comparable reports for the other two units will be issued as the statewide inventory progresses. When completed, the inventory will provide updated statistics on the timber resource for all of Georgia.

The Southeastern Station gratefully acknowledges the cooperation and assistance provided by the Georgia Forestry Commission in collecting field data. Appreciation is also expressed for the excellent cooperation of other public agencies, forest industry, and other private landowners in providing information and access to the sample locations.



Noel D. Cost
Acting Project Leader

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*Tables 1-12, 27, 29-33, 35-38, 41, 42, and 44 are common to all Forest Inventory and Analysis forest resource statistical reports of the Eastern United States.

Since 1982 in Central Georgia--

° area of timberland increased 2.5 percent and now totals 7.2 million acres. This increase in timberland is the first since 1961. During the remeasurement period, this region experienced land use changes on nearly 300,000 acres. Almost 61,000 acres of diversions to other land uses were more than offset by the addition of over 238,000 acres to the timberland base. About 92 percent of the additions resulted from tree planting or natural reversion on former agricultural land; the remainder came from the reclassification of State-owned reserved forest land to timberland status. Forest clearing for agriculture accounted for over half of the timberland diversions. Urban and related land uses accounted for 42 percent of the diverted area. Timberland now covers 69 percent of the total land area in this 49-county region.

° area of nonindustrial private forest (NIPF) timberland increased by 4 percent to 4.9 million acres. Within the NIPF category, farmer-owned timberland declined 121,000 acres to 1.4 million acres, that of other individuals increased by 2 percent to 2.8 million acres, and timberland held by corporate owners jumped 58 percent to 0.7 million acres. Collectively, NIPF owners now control more than two-thirds of the timberland area. Forest industry holdings remained stable. About 5 percent of the timberland, or 396,000 acres, is controlled by public agencies.

° area in planted pine stands is up 40 percent and now totals 1.4 million acres. Pine plantations currently account for 44 percent of all pine stands in the region. Natural pine stands declined 19 percent to 1.8 million acres. Area supporting loblolly pine type--the predominant forest type in the region--increased 208,000 acres to 2.7 million acres and was responsible for almost all the gain in planted acreage. Slash pine stands showed a substantial drop of 42 percent to 219,000 acres. Shortleaf pine type declined 24 percent to 228,000 acres. Longleaf pine fell 14 percent to 84,000 acres. Oak-pine type increased by 10 percent to 992,000 acres. Hardwood forest types increased 4 percent to 2.9 million acres. The major hardwood forest type in the region, oak-hickory, rose 9 percent to 1.9 million acres, and oak-gum-cypress types increased 9 percent to 736,000 acres.

° area harvested and retained in timberland averaged 188,000 acres annually. Pine stands made up about 56 percent, or 106,000 acres, of the annual harvest, whereas 30 percent occurred on hardwood types, and 14 percent was from oak-pine stands. Land controlled by NIPF owners accounted for more than 59 percent of the harvested acreage; most of the remainder came from forest industry lands. Partial harvests and other intermediate cuttings occurred on another 110,000 acres each year. Natural disturbances such as fire, insects, disease, and weather damaged some 79,000 acres annually.

° annual rate of stand regeneration more than doubled since the previous period and averaged more than 217,000 acres each year. The establishment of new pine stands by both artificial and natural means exceeded the area of pine harvested by almost 11 percent. Nearly 41 percent, or 89,000 acres, of the total annual regeneration was attributed to planting activities. Almost two-thirds of the total regeneration occurred on NIPF lands. Including the annual addition of some 15,000 acres of new pine stands on nonforest land, the rate of planting on lands under NIPF control increased from 10,000 acres to 46,000 acres per year. This sharp rise in artificial regeneration resulted in more than a threefold increase of acreage in pine plantations on NIPF land that are less than 10 years old. The rate of planting on forest industry lands increased 9 percent to 30,000 acres annually.

° average basal area of live trees 5.0 inches d.b.h. and larger has declined from 62 to 58 square feet per acre. This drop in average stand density results from an increasingly younger resource brought about by heavier cutting and improvements in regeneration. Declines

in basal area occurred in the oak-pine, upland hardwood, and lowland hardwood types. Merchantable net volume per acre currently averages about 1,300 cubic feet per acre. Acreage in stands classified as fully stocked increased 16 percent to 2.7 million acres, while medium-stocked stands increased 5 percent to almost 3.4 million acres. Poorly stocked or nonstocked stands dropped 23 percent to 1.1 million acres and now make up 16 percent of the total timberland area.

• due in part to a large buildup of young pine stands in the 0- to 10-year age group, number of live 2-inch softwood trees increased 17 percent. Number of 4-inch softwood stems remained about the same. Except for an increase in softwoods 20 inches and larger in diameter, reductions were observed in all other diameter classes. The most severe losses of 20 and 15 percent occurred in the respective 8- and 10-inch diameter classes. On lands under NIPF control, softwood stems declined significantly in the 6- and 8-inch classes. The most substantial decreases on forest industry land were recorded in the 10- and 12-inch categories. On the whole, changes in number of hardwood trees were relatively stable across all size classes.

• volume of softwood growing stock has fallen by 8 percent and now totals 4.3 billion cubic feet. Loblolly pine volume was down 3 percent to 3.2 billion cubic feet and currently makes up three-fourths of the total softwood growing-stock volume. Slash pine dropped 45 percent to 180 million cubic feet and accounted for most of the decline in softwood volume. Shortleaf pine was down 15 percent to 560 million cubic feet, and longleaf pine volume dropped 10 percent to 166 million cubic feet. Despite these overall losses in pine inventory, the volume of growing stock contained in pine plantations rose over 8 percent to 668,000 cubic feet. Pine plantations now support 16 percent of all softwood volume in the region. This percentage will increase significantly as small stems in young plantations reach merchantable size. A combined 13-percent decline in the 8- to 12-inch diameter classes--where almost half of the softwood volume is concentrated--accounted for nearly three-fourths of the loss in softwood growing stock. Softwood inventory was down in all ownership categories. The greatest decline occurred on forest industry land--here softwood volume dropped 13 percent to 1.1 billion cubic feet. Volume of softwood sawtimber was down by 2 percent and now totals 15.9 billion board feet.

• volume of hardwood growing stock increased by almost 3 percent to 4.5 billion cubic feet. Sweetgum and a variety of red oaks are the dominant hardwoods species; together they make up 47 percent of the current hardwood inventory. Volume of these species has increased 2 percent to 2.2 billion cubic feet. Tupelo and blackgum volume was up 6 percent to 526 million cubic feet. Select white oaks rose 5 percent to 331 million cubic feet. Small declines in hardwood volume in the 6- and 12-inch classes were countered by rather modest increases in all other diameter classes. Increases in board-foot volume across all diameter classes contributed to an 8-percent gain in hardwood sawtimber. Hardwoods currently account for slightly over half of the total growing-stock volume and for 43 percent of all sawtimber volume.

• net annual growth of softwood growing stock declined by 16 percent to 217 million cubic feet. Softwood net growth fell by 22 percent on NIPF land and accounted for most of the overall reduction. Softwood net growth remained at about the same level on forest industry land but decreased 29 percent on public land. One explanation for the decline in net growth is the reduced number of trees in the 6- to 12-inch diameter classes, which resulted in fewer trees available to support volume growth. Future increases in growth are likely because of recent increases in regenerated acreage. Planted pine stands currently account for 39 percent of softwood net annual growth, compared with 22 percent in the previous period. Hardwood net growth declined by 8 percent and currently averages 157 million cubic feet

annually. Reductions in hardwood growth occurred in all ownership categories. For softwoods and hardwoods combined, net annual growth of growing stock included 1.5 billion board feet of sawtimber. Net growth per acre for both softwood and hardwood growing stock dropped from 61 to 52 cubic feet per acre.

° annual removals of softwood growing stock averaged 270 million cubic feet, an increase of 4 percent from the previous period. By ownership, 58 percent of softwood removals came from NIPF land, 37 percent from forest industry land, and nearly 5 percent from public land. Softwood removals increased on NIPF and forest industry lands by 7 and 12 percent, but declined 49 percent on public lands. For all ownerships combined, removals of softwoods exceeded net growth by 24 percent. Deficit growth-removal relationships existed on NIPF and forest industry lands of 27 and 29 percent, respectively. Pine plantations now supply one-fourth of all softwood removals. Hardwood growing-stock removals were up 50 percent from the previous level and averaged 139 million cubic feet. Hardwood growth exceeded removals by 13 percent across all owner categories, compared with an 85-percent growth surplus in the previous period. Land under NIPF control accounts for 70 percent of hardwood removals, while forest industry land furnished most of the remainder. For softwoods and hardwoods combined, removals included 1.4 billion board feet of sawtimber.

° annual mortality of softwood growing stock averaged 51 million cubic feet. Softwood mortality was down 13 percent, whereas annual mortality of hardwood growing stock increased 28 percent to 38 million cubic feet. Softwood mortality reduced gross growth by 19 percent. Hardwood mortality reduced gross growth by 20 percent. Annual mortality of growing stock included 145 million board feet of softwood sawtimber and 90 million board feet of hardwood sawtimber. Recently, the FIA Unit reviewed its data processing procedures. During this process, a computer error was discovered that led to inflated estimates of annual removals, net annual growth, and annual mortality for the 1972-1982 remeasurement period in Georgia. Therefore, the preceding discussion of trends for these components of change is based on revised data for this period. If you desire further information about these changes, please contact the FIA staff at:

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How the Inventory is Made

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

1. Initial estimates of forest and nonforest areas were based on the classification of 25,494 sample clusters systematically spaced on the latest aerial photographs available. A subsample of 2,982 of the 16-point clusters was ground checked, and a linear regression was fitted to the data to develop the relationship between the photo and ground classification of the subsample. This procedure provides a means for adjusting the initial estimates of area for change in land use since date of photography and for photo misclassifications.

2. Estimates of timber volume and forest classifications were based on measurements recorded at 1,953 ground sample locations systematically distributed on timberland. The plot design at each location was based on a cluster of 10 points. In most cases, variable plots, established by using a basal-area factor of 37.5 square feet per acre, were systematically spaced within a single forest condition at 5 of the 10 cluster points. Trees less than 5 inches d.b.h. were tallied on a fixed-radius plot around each point center.

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

4. Felled trees were measured at 31 active cutting operations. These data will supplement the standing-tree volume data and be used to generate utilization factors for product and species groups. Forest biomass estimates were made from equations developed by the Utilization of Southern Timber Research Work Unit of the Southeastern Forest Experiment Station in Athens, GA.

5. Estimates of growth, removals, and mortality were determined from the remeasurement of 1,975 permanent sample plots established in the fifth survey.

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

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

Reliability of the Data

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

	Percent
Per million acres of timberland	1.08
Per billion cubic feet of growing stock	6.56
Per billion cubic feet of net annual growth	1.32
Per billion cubic feet of annual removals	3.07

Sampling errors for county and unit totals,[a] in terms of one standard error, Central Georgia, 1989

County	Timberland area	Cubic-foot volume of growing stock		
		Inventory	Growth	Removals
		Sampling error[b]		
Baldwin	2.56	15.74	18.77	35.59
Bibb	4.79	18.69	14.47	29.18
Bleckley	6.71	22.60	16.75	.00
Burke	2.08	11.59	10.33	21.76
Butts	2.20	21.20	16.16	39.05
Calhoun	4.90	21.94	17.24	51.29
Chattahoochee	2.33	16.12	13.82	44.50
Clay	4.65	19.08	16.37	42.96
Columbia	2.45	11.37	10.97	36.21
Crawford	2.39	19.10	16.87	35.04
Dougherty	4.27	25.27	14.06	45.88
Glascock	3.75	22.12	19.86	53.36
Greene	1.54	10.34	9.97	36.05
Hancock	.93	10.21	10.59	24.69
Harris	1.50	12.02	10.50	25.07
Houston	4.29	19.02	25.03	38.28
Jasper	1.55	11.31	10.42	32.16
Jefferson	3.20	12.31	13.47	31.49
Jones	1.41	9.42	11.40	21.99
Lamar	4.46	18.62	22.87	45.94
Lee	3.79	13.44	12.39	32.14
Lincoln	2.48	17.18	18.76	49.83
McDuffie	3.19	13.16	14.18	37.88
Macon	5.30	15.08	14.69	49.49
Marion	2.60	19.67	22.02	33.25
Monroe	1.42	11.80	11.44	22.78
Morgan	3.07	12.16	11.76	31.45
Muscogee	4.85	19.02	13.19	47.95
Peach	7.03	55.11	41.74	32.85
Pike	3.23	15.13	13.75	43.32
Pulaski	4.49	20.58	17.68	40.72
Putnam	1.98	15.23	16.33	31.49
Quitman	3.56	23.03	16.55	49.43
Randolph	2.85	14.15	13.53	26.55
Richmond	4.69	17.63	17.25	40.75
Schley	2.91	25.38	20.77	54.68
Stewart	1.20	13.19	12.80	28.62
Sumter	4.40	17.64	15.75	25.77
Talbot	1.15	14.59	13.58	22.75
Taliaferro	1.19	15.51	13.01	41.31
Taylor	1.70	18.53	17.22	32.73
Terrell	3.62	16.97	17.19	35.61
Twiggs	1.46	12.03	12.42	28.49
Upson	2.25	14.31	16.62	35.44
Warren	2.52	12.53	14.10	30.66
Washington	1.74	9.91	9.78	21.61
Webster	4.77	36.60	23.46	46.58
Wilkes	1.65	12.42	11.32	22.72
Wilkinson	1.67	11.04	13.32	21.84
Total	.38	2.21	2.16	4.79

[a]Sampling error of breakdowns of county and unit totals may be computed with the following formula:

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

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

SE = Specified sampling error in table.

[b]By random-sampling formula (in percent).

Definitions of Terms

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

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

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

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

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

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

Natural pine. Stands that have not been artificially regenerated and with a southern yellow pine, white pine-hemlock, or other softwood forest type.

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

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

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

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

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

Commercial forest land. (see: Timberland).

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

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

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

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

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

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

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

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

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

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

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

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

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

Longleaf-slash pine. Forests in which longleaf or slash pine, singly or in combination, constitute a plurality of the stocking. (Common associates include oak, hickory, and gum.)

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

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

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

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

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

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

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

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

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

Desirable tree. A tree that qualifies as growing stock and has no serious defects in quality limiting present or prospective use; is of relatively high vigor (30 percent or more live crown ratio); is compatible with the site and

physiographic class; has a total board-foot loss not to exceed 15 percent in softwoods or 25 percent in hardwoods as a result of severe sweep, crook, or lean; and has a relatively clear bole.

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

Growing-stock volume. Volume (cubic feet) of solid wood in growing-stock trees 5.0 inches d.b.h. and larger, from a 1-foot stump to a minimum 4.0-inch top diameter, outside bark, on the central stem. Volume of solid wood in primary forks from the point of occurrence to a minimum 4.0-inch top diameter outside bark is included.

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

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

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

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

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

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

Industrial wood. All roundwood products except fuelwood.

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

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

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

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

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

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

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

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

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

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

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

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

Miscellaneous private land. (see: Other private land).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Productive-reserved forest land. (see: Reserved timberland).

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

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

Reserved timberland. Forest land sufficiently productive to qualify as timberland, but withdrawn from timber utilization through statute or administrative designation.

Rotten trees. Live trees of commercial species that do not contain at least one 12-foot saw log, or two noncontiguous saw logs, each 8 feet or longer, now or prospectively, primarily because of rot or missing sections, and with less than one-third of the gross board-foot tree volume in sound material.

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

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

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

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

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

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

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

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

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

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

Class 1. 165 or more cubic feet per acre.

Class 2. 120 to 164 cubic feet per acre.

Class 3. 85 to 119 cubic feet per acre.

Class 4. 50 to 84 cubic feet per acre.

Class 5. 20 to 49 cubic feet per acre.

Softwoods. Gymnosperms; in the order Coniferales, usually evergreen (includes

the genus Taxodium which is deciduous), having needles or scalelike leaves.

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

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

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

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

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

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

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

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

Fully stocked. 100 percent or more stocking.

Medium stocked. 60 to 99 percent stocking.

Poorly stocked. Less than 60 percent stocking.

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

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

Timber products. Roundwood products and byproducts.

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

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

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

Tree grade. A classification of sawtimber trees based on the log grade of the butt log in the tree.

Unproductive forest land. (see: Woodland).

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

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

Woodland. Forest land incapable of producing 20 cubic feet per acre per year of industrial wood under natural conditions, because of adverse site conditions.

Stocking Standard

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

Conversion factors

Cubic feet of wood per average cord (excluding bark)

D.b.h. class	All species	Pine	Other softwood	Hardwood
6	60.4	61.0	68.2	60.0
8	68.4	68.1	76.0	68.4
10	73.3	73.1	81.4	73.4
12	76.6	76.7	85.2	76.4
14	79.0	79.4	88.2	78.4
16	80.8	81.6	90.4	79.8
18	82.1	83.3	92.3	80.8
20	83.1	84.8	93.8	81.5
22	83.8	86.0	95.1	82.1
24+	84.2	87.6	97.4	83.0
Average	74.4	74.6	86.9	73.9

Metric equivalents of units used in this report

1 acre = 4,046.86 square meters or 0.404686 hectare
1 cubic foot = 0.028317 cubic meter
1 inch = 2.54 centimeters or 0.0254 meter
Breast height (4.5 feet) = 1.4 meters above ground level
1 square foot = 929.03 square centimeters or 0.0929 square meter
1 square foot per acre basal area = 0.229568 square meter per hectare
1 pound = 0.454 kilogram
1 ton = 0.907 metric ton

County Tables

The county tables are intended for use in compiling forest resource estimates for groups of counties. Because the sampling procedure used by the Forest Survey was intended primarily to furnish inventory data for the survey unit as a whole, individual county estimates have limited and variable accuracy. As county totals are broken down by various subdivisions, the possibility of error increases and is greatest for the smallest items. The order of this increase can be computed with the formula on page 5.

Table 1.--Area, by county and land class, Central Georgia, 1989

County	All land[a]	Forest land				Nonforest land[b]
		Total	Timberland	Woodland	Reserved timberland	
			Acres			
Baldwin	164,761	118,849	118,849	--	--	45,912
Bibb	161,920	91,219	90,749	--	470	70,701
Bleckley	140,153	73,010	73,010	--	--	67,143
Burke	533,011	293,529	293,529	--	--	239,482
Butts	119,616	88,553	88,553	--	--	31,063
Calhoun	181,606	94,160	94,160	--	--	87,446
Chattahoochee	160,051	133,313	133,313	--	--	26,738
Clay	125,696	84,161	84,161	--	--	41,535
Columbia	185,709	140,506	140,506	--	--	45,203
Crawford	209,779	162,443	162,443	--	--	47,336
Dougherty	210,906	98,606	98,606	--	--	112,300
Glascock	92,378	70,108	70,108	--	--	22,270
Greene	249,248	201,445	201,445	--	--	47,803
Hancock	300,582	270,130	270,130	--	--	30,452
Harris	297,241	242,200	242,200	--	--	55,041
Houston	243,040	128,019	128,019	--	--	115,021
Jasper	237,651	186,845	186,845	--	--	50,806
Jefferson	338,656	212,820	212,820	--	--	125,836
Jones	252,371	204,339	204,337	--	2	48,032
Lamar	118,758	77,219	77,219	--	--	41,539
Lee	229,402	95,972	95,647	--	325	133,430
Lincoln	125,222	105,268	105,268	--	--	19,954
McDuffie	163,808	108,535	108,535	--	--	55,273
Macon	258,451	137,723	137,615	--	108	120,728
Marion	234,362	190,993	190,993	--	--	43,369
Monroe	253,958	209,696	209,696	--	--	44,262
Morgan	223,303	139,795	139,795	--	--	83,508
Muscogee	139,411	89,237	89,237	--	--	50,174
Peach	96,973	36,188	36,188	--	--	60,785
Pike	140,339	86,834	86,834	--	--	53,505
Pulaski	159,501	75,771	75,771	--	--	83,730
Putnam	219,859	162,955	162,955	--	--	56,904
Quitman	93,440	87,973	87,973	--	--	5,467
Randolph	275,539	179,568	179,568	--	--	95,971
Richmond	208,589	120,769	120,769	--	--	87,820
Schley	108,154	74,693	74,693	--	--	33,461
Stewart	289,440	251,846	251,846	--	--	37,594
Sumter	312,666	128,108	128,108	--	--	184,558
Talbot	252,499	215,201	215,201	--	--	37,298
Taliaferro	125,344	107,340	107,340	--	--	18,004
Taylor	244,256	187,991	187,991	--	--	56,265
Terrell	215,667	89,903	89,903	--	--	125,764
Twiggs	231,462	190,333	190,333	--	--	41,129
Upson	208,442	157,990	157,990	--	--	50,452
Warren	182,733	122,341	122,341	--	--	60,392
Washington	437,446	306,617	306,617	--	--	130,829
Webster	134,317	89,382	89,382	--	--	44,935
Wilkes	300,870	229,062	229,062	--	--	71,808
Wilkinson	288,947	249,406	249,406	--	--	39,541
Total	10,477,533	7,198,964	7,198,059	--	905	3,278,569

[a] From U.S. Bureau of the Census, 1980.

[b] Includes 34,066 acres of water according to Forest Survey standards of area classification, but defined by the Bureau of Census as land.

Table 2.--Area of timberland, by county and ownership class, Central Georgia, 1989

County	All ownerships	Ownership class							
		National forest	Miscellaneous Federal	State	County and municipal	Forest industry[a]	Other private		
							Farmer	Corporate	Individual
					Acres				
Baldwin	118,849	--	--	4,730	99	13,650	11,152	14,870	74,348
Bibb	90,749	--	7	--	--	5,418	4,491	26,944	53,889
Bleckley	73,010	--	--	106	20	17,401	44,386	3,699	7,398
Burke	293,529	--	--	25	93	90,272	101,570	15,870	85,699
Butts	88,553	--	--	940	58	18,374	6,289	3,145	59,747
Calhoun	94,160	--	--	--	3	9,763	45,713	24,615	14,066
Chattahoochee	133,313	--	73,111	--	14	19,206	--	--	40,982
Clay	84,161	--	2,310	322	20	14,647	11,799	--	55,063
Columbia	140,506	--	10,907	2,064	1,357	31,563	31,538	5,256	57,821
Crawford	162,443	--	1,151	--	33	71,810	11,667	11,667	66,115
Dougherty	98,606	--	1,541	100	60	15,326	30,055	30,055	21,469
Glascock	70,108	--	--	--	--	15,075	22,930	9,172	22,931
Greene	201,445	21,605	--	617	173	57,103	25,868	22,172	73,907
Hancock	270,130	--	--	--	273	101,298	21,518	10,759	136,282
Harris	242,200	--	23	6,437	437	52,561	26,650	38,071	118,021
Houston	128,019	--	2,827	--	324	51,841	13,693	18,257	41,077
Jasper	186,845	26,787	6,092	--	5	34,355	31,895	11,961	75,750
Jefferson	212,820	--	3,858	--	185	39,709	100,636	12,076	56,356
Jones	204,337	16,271	28,382	--	396	47,951	30,365	23,617	57,355
Lamar	77,219	--	--	--	--	10,063	14,924	--	52,232
Lee	95,647	--	--	--	50	7,970	49,071	24,536	14,020
Lincoln	105,268	--	20,721	402	--	21,214	8,391	--	54,540
McDuffie	108,535	--	14,484	110	145	24,224	23,191	3,313	43,068
Macon	137,615	--	146	120	834	33,992	62,653	11,391	28,479
Marion	190,993	--	--	--	65	87,697	14,747	14,747	73,737
Monroe	209,696	--	--	418	479	58,213	17,210	17,210	116,166
Morgan	139,795	274	--	5,502	334	7,025	34,544	34,544	57,572
Muscogee	89,237	--	30,260	279	1,137	994	--	18,856	37,711
Peach	36,188	--	60	194	--	3,821	24,085	4,014	4,014
Pike	86,834	--	--	70	227	12,154	21,695	3,099	49,589
Pulaski	75,771	--	44	58	42	11,834	26,860	3,358	33,575
Putnam	162,955	34,296	--	14,040	426	26,708	15,622	43,743	28,120
Quitman	87,973	--	773	--	8	35,525	28,182	--	23,485
Randolph	179,568	--	--	--	--	51,620	59,976	--	67,972
Richmond	120,769	--	39,375	100	1,093	19,115	3,054	6,109	51,923
Schley	74,693	--	--	--	21	16,566	18,349	3,058	36,699
Stewart	251,846	--	383	608	153	178,612	24,030	21,627	26,433
Sumter	128,108	--	83	50	200	23,479	29,799	20,859	53,638
Talbot	215,201	--	--	3,430	24	86,351	15,200	15,200	94,996
Taliaferro	107,340	--	--	1,159	43	46,844	8,086	5,390	45,818
Taylor	187,991	--	306	--	154	50,599	39,123	32,603	65,206
Terrell	89,903	--	--	--	20	6,470	56,721	6,673	20,019
Twiggs	190,333	--	--	--	76	59,084	14,181	17,726	99,266
Upson	157,990	--	--	--	901	55,030	22,187	13,312	66,560
Warren	122,341	--	128	--	130	43,544	24,166	12,083	42,290
Washington	306,617	--	--	526	155	55,982	69,218	34,609	146,127
Webster	89,382	--	--	--	--	24,047	26,134	8,711	30,490
Wilkes	229,062	--	6,518	149	308	81,189	28,820	6,404	105,674
Wilkinson	249,406	--	--	100	300	65,375	23,952	35,928	123,751
Total	7,198,059	99,233	243,490	42,656	10,875	1,912,664	1,376,386	701,309	2,811,446

[a]Includes 294,352 acres of other private land under long-term lease.

Table 3.--Area of timberland, by county and forest-type group, Central Georgia, 1989

County	All type groups	Forest-type group								
		White pine-hemlock	Spruce-fir	Longleaf-slash	Loblolly-shortleaf	Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood	Maple-beech-birch
					Acres					
Baldwin	118,849	--	--	3,717	81,576	11,152	11,250	3,718	7,436	--
Bibb	90,749	--	--	2,545	36,253	8,981	25,000	17,970	--	--
Bleckley	73,010	--	--	--	23,975	14,900	15,208	18,927	--	--
Burke	293,529	--	--	22,354	74,844	38,360	95,745	49,394	12,832	--
Butts	88,553	--	--	--	49,747	9,507	28,359	940	--	--
Calhoun	94,160	--	--	14,066	8,277	--	46,206	22,095	3,516	--
Chattahoochee	133,313	--	--	9,432	62,862	9,434	39,779	9,448	2,358	--
Clay	84,161	--	--	14,773	20,586	10,232	27,729	10,841	--	--
Columbia	140,506	--	--	--	79,854	26,281	23,657	5,453	5,261	--
Crawford	162,443	--	--	7,779	75,676	33,268	40,890	4,830	--	--
Dougherty	98,606	--	--	18,717	19,422	2,189	25,948	25,848	6,482	--
Glascock	70,108	--	--	4,586	26,700	8,354	17,527	8,355	4,586	--
Greene	201,445	--	--	--	139,070	14,173	44,506	3,696	--	--
Hancock	270,130	--	--	10,354	178,237	27,876	42,904	10,759	--	--
Harris	242,200	--	--	3,807	110,796	50,450	67,005	3,831	6,311	--
Houston	128,019	--	--	--	30,485	12,369	50,798	34,367	--	--
Jasper	186,845	--	--	--	89,246	39,242	58,357	--	--	--
Jefferson	212,820	--	--	4,026	72,567	16,102	64,463	51,637	4,025	--
Jones	204,337	--	--	--	123,411	32,415	31,370	13,631	3,510	--
Lamar	77,219	--	--	--	35,713	7,462	14,923	11,659	7,462	--
Lee	95,647	--	--	24,280	343	3,505	45,616	18,397	3,506	--
Lincoln	105,268	--	--	--	55,778	28,513	20,977	--	--	--
McDuffie	108,535	--	--	3,313	59,771	6,626	22,966	15,859	--	--
Macon	137,615	--	--	--	40,406	11,392	49,368	36,449	--	--
Marion	190,993	--	--	5,798	62,959	20,545	73,232	15,630	12,829	--
Monroe	209,696	--	--	--	104,225	32,221	70,241	418	2,591	--
Morgan	139,795	--	--	--	67,348	32,357	34,877	3,838	1,375	--
Muscogee	89,237	--	--	3,745	27,108	19,644	29,350	6,639	2,751	--
Peach	36,188	--	--	--	2,105	4,014	25,995	4,074	--	--
Pike	86,834	--	--	--	21,680	12,397	40,116	6,442	6,199	--
Pulaski	75,771	--	--	6,715	15,990	19,446	13,431	20,189	--	--
Putnam	162,955	--	--	--	88,667	38,161	36,127	--	--	--
Quitman	87,973	--	--	--	47,924	20,976	8,906	10,167	--	--
Randolph	179,568	--	--	3,998	41,062	36,504	60,440	33,566	3,998	--
Richmond	120,769	--	--	18,853	22,360	15,726	33,142	24,434	6,254	--
Schley	74,693	--	--	--	36,434	9,175	22,967	6,117	--	--
Stewart	251,846	--	--	10,315	124,803	24,197	83,969	8,562	--	--
Sumter	128,108	--	--	14,900	43,233	16,054	15,099	38,822	--	--
Talbot	215,201	--	--	3,800	111,431	30,621	58,161	7,600	3,588	--
Taliaferro	107,340	--	--	--	47,616	32,601	27,123	--	--	--
Taylor	187,991	--	--	35,739	53,430	19,868	60,445	18,509	--	--
Terrell	89,903	--	--	--	20,040	10,009	14,776	45,078	--	--
Twiggs	190,333	--	--	3,545	82,086	14,589	64,479	14,589	11,045	--
Upson	157,990	--	--	2,894	50,810	23,537	72,157	8,592	--	--
Warren	122,341	--	--	5,105	61,585	15,104	37,526	3,021	--	--
Washington	306,617	--	--	10,079	141,063	38,454	90,102	23,073	3,846	--
Webster	89,382	--	--	30,491	19,876	8,619	21,732	4,355	4,309	--
Wilkes	229,062	--	--	--	121,596	41,628	50,979	11,656	3,203	--
Wilkinson	249,406	--	--	3,992	84,251	32,280	74,053	42,854	11,976	--
Total	7,198,059	--	--	303,718	2,995,277	991,510	2,029,976	736,329	141,249	--

Table 4.--Area of timberland, by county and stand-size class, Central Georgia, 1989

County	All stands	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling-seedling	
			Acres		
Baldwin	118,849	49,438	25,033	44,378	--
Bibb	90,749	53,897	25,326	11,526	--
Bleckley	73,010	35,091	15,725	22,194	--
Burke	293,529	135,458	38,360	116,512	3,199
Butts	88,553	25,215	26,097	37,241	--
Calhoun	94,160	36,655	17,582	36,407	3,516
Chattahoochee	133,313	50,452	34,973	43,171	4,717
Clay	84,161	28,070	24,374	31,717	--
Columbia	140,506	82,724	23,854	33,928	--
Crawford	162,443	18,975	48,033	88,619	6,816
Dougherty	98,606	57,591	10,775	25,946	4,294
Glascock	70,108	27,516	21,296	21,296	--
Greene	201,445	88,482	67,434	45,529	--
Hancock	270,130	109,822	70,107	90,201	--
Harris	242,200	73,268	72,661	83,891	12,380
Houston	128,019	45,413	24,737	57,869	--
Jasper	186,845	77,244	52,368	57,233	--
Jefferson	212,820	97,959	40,253	66,557	8,051
Jones	204,337	112,330	33,821	54,676	3,510
Lamar	77,219	36,711	18,654	21,854	--
Lee	95,647	44,608	24,878	26,161	--
Lincoln	105,268	53,366	30,032	21,870	--
McDuffie	108,535	57,990	35,055	15,490	--
Macon	137,615	61,206	29,310	41,403	5,696
Marion	190,993	38,104	33,549	88,962	30,378
Monroe	209,696	74,543	56,393	78,760	--
Morgan	139,795	52,605	41,132	46,058	--
Muscogee	89,237	30,853	23,532	34,852	--
Peach	36,188	254	8,028	23,892	4,014
Pike	86,834	30,991	37,420	18,423	--
Pulaski	75,771	33,660	16,788	21,965	3,358
Putnam	162,955	39,492	66,791	56,672	--
Quitman	87,973	26,242	25,635	36,096	--
Randolph	179,568	65,275	39,148	67,706	7,439
Richmond	120,769	44,553	25,488	41,420	9,308
Schley	74,693	21,428	16,831	36,434	--
Stewart	251,846	45,210	86,730	111,345	8,561
Sumter	128,108	39,071	32,054	56,983	--
Talbot	215,201	54,227	69,775	83,599	7,600
Taliaferro	107,340	44,455	22,135	40,750	--
Taylor	187,991	32,688	43,616	95,386	16,301
Terrell	89,903	23,542	24,893	38,132	3,336
Twiggs	190,333	80,114	59,180	47,314	3,725
Upson	157,990	50,587	64,634	42,769	--
Warren	122,341	58,173	25,415	38,753	--
Washington	306,617	97,952	87,068	117,752	3,845
Webster	89,382	26,085	4,356	58,941	--
Wilkes	229,062	94,074	58,651	64,681	11,656
Wilkinson	249,406	80,734	93,886	74,786	--
Total	7,198,059	2,644,393	1,873,866	2,518,100	161,700

Table 5.--Area of timberland, by county and site class, Central Georgia, 1989

County	All classes	Site class (cubic feet per acre per year)				
		>164	120-164	85-119	50-84	20-49
				Acres		
Baldwin	118,849	--	99	51,056	67,694	--
Bibb	90,749	--	8,981	17,962	63,806	--
Bleckley	73,010	--	4,111	20,708	44,492	3,699
Burke	293,529	--	6,348	80,122	200,685	6,374
Butts	88,553	--	58	18,939	66,411	3,145
Calhoun	94,160	--	3	29,127	65,030	--
Chattahoochee	133,313	--	14,665	33,019	80,913	4,716
Clay	84,161	--	3,933	17,270	59,025	3,933
Columbia	140,506	--	22,582	53,608	64,316	--
Crawford	162,443	--	2,961	28,875	115,050	15,557
Dougherty	98,606	--	--	49,504	49,102	--
Glascock	70,108	--	--	25,881	44,227	--
Greene	201,445	--	3,868	68,820	121,366	7,391
Hancock	270,130	--	3,657	122,277	144,196	--
Harris	242,200	--	3,807	76,597	142,281	19,515
Houston	128,019	--	--	53,306	70,149	4,564
Jasper	186,845	--	9,350	66,013	106,125	5,357
Jefferson	212,820	--	4,025	70,526	134,243	4,026
Jones	204,337	--	10,569	106,415	87,353	--
Lamar	77,219	--	--	10,660	66,559	--
Lee	95,647	--	50	28,128	60,459	7,010
Lincoln	105,268	--	4,195	40,115	60,958	--
McDuffie	108,535	--	145	38,959	66,118	3,313
Macon	137,615	--	--	39,708	77,851	20,056
Marion	190,993	--	--	35,139	96,234	59,620
Monroe	209,696	--	479	56,852	148,063	4,302
Morgan	139,795	--	334	47,108	92,353	--
Muscogee	89,237	--	10,215	26,140	42,666	10,216
Peach	36,188	--	--	9,939	26,249	--
Pike	86,834	--	--	18,320	62,314	6,200
Pulaski	75,771	--	--	15,990	56,382	3,399
Putnam	162,955	--	6,934	63,785	89,112	3,124
Quitman	87,973	--	8	29,873	58,092	--
Randolph	179,568	--	--	43,145	136,423	--
Richmond	120,769	--	7,374	31,214	59,748	22,433
Schley	74,693	--	21	18,349	56,323	--
Stewart	251,846	--	24,081	82,744	136,459	8,562
Sumter	128,108	--	12,119	36,189	73,840	5,960
Talbot	215,201	--	--	28,611	175,190	11,400
Taliaferro	107,340	--	5,498	40,558	53,134	8,150
Taylor	187,991	--	--	46,728	75,504	65,759
Terrell	89,903	--	--	41,469	48,434	--
Twiggs	190,333	--	76	37,089	149,214	3,954
Upson	157,990	--	2,894	29,325	116,897	8,874
Warren	122,341	--	9,191	69,402	40,727	3,021
Washington	306,617	--	7,690	135,756	155,480	7,691
Webster	89,382	--	4,355	34,799	50,228	--
Wilkes	229,062	--	8,453	80,113	140,496	--
Wilkinson	249,406	--	--	56,922	192,484	--
Total	7,198,059	--	203,129	2,263,154	4,390,455	341,321

Table 6.--Area of timberland, by county and stocking class of growing-stock trees, Central Georgia, 1989

County	All classes	Stocking class (percent)[a]				
		>130	100-130	60-99	16.7-59	<16.7
			Acres			
Baldwin	118,849	3,717	40,758	70,656	3,718	--
Bibb	90,749	4,498	36,253	36,525	13,473	--
Bleckley	73,010	--	23,975	41,637	7,398	--
Burke	293,529	11,034	98,897	142,040	38,359	3,199
Butts	88,553	6,290	30,125	45,776	6,362	--
Calhoun	94,160	7,034	26,857	35,652	21,101	3,516
Chattahoochee	133,313	7,076	42,760	67,860	10,900	4,717
Clay	84,161	3,933	13,332	48,854	18,042	--
Columbia	140,506	--	56,436	70,926	13,144	--
Crawford	162,443	--	54,253	81,739	19,635	6,816
Dougherty	98,606	4,380	18,031	41,846	30,055	4,294
Glascock	70,108	3,768	16,710	40,458	9,172	--
Greene	201,445	12,089	93,104	76,771	19,481	--
Hancock	270,130	--	108,613	125,855	35,662	--
Harris	242,200	9,290	82,428	99,897	38,205	12,380
Houston	128,019	6,391	39,021	71,563	11,044	--
Jasper	186,845	9,345	69,621	100,533	7,346	--
Jefferson	212,820	7,341	56,409	98,723	42,296	8,051
Jones	204,337	3,374	83,173	105,535	8,745	3,510
Lamar	77,219	--	35,713	30,313	11,193	--
Lee	95,647	--	20,825	64,307	10,515	--
Lincoln	105,268	--	49,011	49,414	6,843	--
McDuffie	108,535	3,621	47,767	37,638	19,509	--
Macon	137,615	--	38,698	63,787	29,434	5,696
Marion	190,993	--	53,060	73,396	34,159	30,378
Monroe	209,696	--	103,802	87,807	18,087	--
Morgan	139,795	7,352	59,245	61,684	11,514	--
Muscogee	89,237	--	39,456	42,316	7,465	--
Peach	36,188	--	2,105	16,117	13,952	4,014
Pike	86,834	--	58,955	18,581	9,298	--
Pulaski	75,771	3,401	10,073	42,051	16,888	3,358
Putnam	162,955	3,125	81,712	71,870	6,248	--
Quitman	87,973	773	29,918	45,700	11,582	--
Randolph	179,568	--	72,208	73,050	26,871	7,439
Richmond	120,769	--	35,844	40,232	35,385	9,308
Schley	74,693	--	24,486	36,434	13,773	--
Stewart	251,846	12,717	106,860	98,292	25,416	8,561
Sumter	128,108	3,063	49,570	66,535	8,940	--
Talbot	215,201	7,388	82,077	101,138	16,998	7,600
Taliaferro	107,340	--	47,723	51,532	8,085	--
Taylor	187,991	--	58,293	75,996	37,401	16,301
Terrell	89,903	--	28,122	43,562	14,883	3,336
Twiggs	190,333	14,998	66,346	90,266	14,998	3,725
Upson	157,990	7,331	39,491	64,094	47,074	--
Warren	122,341	14,478	26,562	62,029	19,272	--
Washington	306,617	3,846	91,037	157,899	49,990	3,845
Webster	89,382	--	37,299	39,109	12,974	--
Wilkes	229,062	16,906	83,480	110,616	6,404	11,656
Wilkinson	249,406	4,337	62,812	121,732	60,525	--
Total	7,198,059	202,896	2,533,306	3,340,343	959,814	161,700

[a]See stocking standards on page 12.

County	Growing stock					Sawtimber				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand cubic feet[a]					Thousand board feet				
Baldwin	143,366	87,790	--	35,143	20,433	451,487	286,904	--	92,568	72,015
Bibb	144,911	75,512	--	47,398	22,001	546,684	330,011	--	150,762	65,911
Bleckley	94,282	14,881	--	40,741	38,660	307,335	38,262	--	129,673	139,400
Burke	364,070	108,801	10,270	142,312	102,687	1,217,221	414,783	48,633	458,304	295,501
Butts	131,975	62,338	1,011	35,164	33,462	426,177	228,512	1,873	118,223	77,569
Calhoun	111,469	15,252	22,404	42,776	31,037	348,028	59,202	79,890	94,846	114,090
Chattahoochee	188,425	98,267	--	63,995	26,163	673,998	472,261	--	137,019	64,718
Clay	78,827	31,880	--	23,997	22,950	239,025	114,103	--	67,447	57,475
Columbia	283,639	187,196	--	54,739	41,704	1,119,705	838,136	--	164,937	116,632
Crawford	99,065	51,724	--	34,466	12,875	217,126	102,010	--	83,334	31,782
Dougherty	168,154	64,267	41,005	23,161	39,721	663,424	307,070	165,110	61,547	129,697
Glascock	66,337	33,400	--	14,083	18,854	190,455	118,029	--	34,993	37,433
Greene	320,595	205,780	902	70,958	42,955	926,429	686,418	1,827	139,813	98,371
Hancock	316,636	221,969	--	50,834	43,833	1,017,615	808,956	--	110,691	97,968
Harris	231,070	117,642	423	65,008	47,997	601,834	359,449	1,805	124,993	115,587
Houston	160,908	33,713	2,263	70,013	54,919	578,540	142,632	10,595	205,870	219,443
Jasper	298,519	156,840	1,533	61,698	78,448	1,028,280	655,588	3,621	150,389	218,682
Jefferson	315,282	84,257	19,174	122,183	89,668	1,005,316	371,339	61,873	313,420	258,684
Jones	309,416	212,671	--	55,169	41,576	1,140,441	890,537	--	138,722	111,182
Lamar	96,131	41,365	--	29,357	25,409	308,698	148,903	--	100,729	59,066
Lee	127,745	42,973	2,835	31,741	50,196	457,501	183,155	16,048	105,793	152,505
Lincoln	151,887	119,942	--	10,081	21,864	563,174	524,054	--	8,263	30,857
McDuffie	193,193	118,067	--	44,578	30,548	704,233	475,613	--	146,137	82,483
Macon	167,626	40,599	--	68,183	58,844	581,658	153,458	--	222,716	205,484
Marion	135,009	43,817	--	44,148	47,044	422,323	157,403	--	127,772	137,148
Monroe	250,342	101,791	--	78,154	70,397	659,567	306,296	--	145,489	207,782
Morgan	201,680	121,300	--	56,498	23,882	637,766	464,106	--	112,611	61,049
Muscogee	127,013	52,198	--	50,873	23,942	448,842	234,699	--	151,248	62,895
Peach	8,749	1,273	--	2,572	4,904	6,733	5,236	--	--	1,497
Pike	125,964	27,889	--	42,587	55,488	353,306	99,353	--	113,098	140,855
Pulaski	95,896	27,854	4,719	27,517	35,806	318,756	89,092	25,916	79,638	124,110
Putnam	198,147	116,608	926	32,786	47,827	592,244	452,409	2,086	43,447	94,302
Quitman	95,183	49,874	--	27,484	17,825	281,533	170,786	--	67,389	43,358
Randolph	203,412	49,206	--	82,225	71,981	616,546	188,989	--	234,194	193,363
Richmond	128,972	47,040	3,862	56,175	21,895	424,932	188,843	21,046	153,955	61,088
Schley	77,798	26,883	599	28,690	21,626	231,731	107,386	2,100	62,550	59,695
Stewart	218,803	116,060	--	42,249	60,494	572,834	315,671	--	95,029	162,134
Sumter	143,314	59,964	2,353	47,381	33,616	416,175	184,406	14,554	107,693	109,522
Talbot	192,020	82,664	1,209	50,979	57,168	497,072	218,127	2,871	132,365	143,709
Taliaferro	143,300	101,910	--	19,963	21,427	443,444	345,157	--	40,681	57,606
Taylor	122,046	45,690	364	39,606	36,386	349,806	141,794	--	105,970	102,042
Terrell	88,968	25,163	3,099	48,104	12,602	279,819	99,483	11,648	137,049	31,639
Twiggs	272,623	119,382	--	79,815	73,426	782,950	344,651	--	257,348	180,951
Upson	195,681	71,390	--	48,030	76,261	534,803	198,034	--	117,383	219,386
Warren	177,394	116,448	--	32,942	28,004	601,995	479,623	--	51,680	70,692
Washington	325,805	151,103	742	102,589	71,371	932,342	494,492	3,373	243,972	190,505
Webster	65,874	32,002	--	14,888	18,984	251,988	158,208	--	40,451	53,329
Wilkes	372,106	236,675	439	61,347	73,645	1,382,102	984,369	2,511	155,626	239,596
Wilkinson	291,266	91,812	11,054	109,598	78,802	809,656	262,182	55,899	275,286	216,289
Total	8,820,893	4,143,122	131,186	2,464,978	2,081,607	28,163,649	15,400,180	533,279	6,413,113	5,817,077

[a]Factors for converting to cords are shown on page 12.

Table 8.--Average net annual growth of growing stock and sawtimber on timberland, by county and species group, Central Georgia, 1989

County	Growing stock					Sawtimber				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand cubic feet					Thousand board feet				
Baldwin	6,056	4,195	--	1,111	750	27,245	20,937	--	3,907	2,401
Bibb	4,905	2,581	--	1,343	981	20,847	13,881	--	4,819	2,147
Bleckley	3,803	1,597	--	1,001	1,205	11,463	2,118	--	3,831	5,514
Burke	14,699	5,879	194	4,126	4,500	68,219	33,680	1,312	18,651	14,576
Butts	5,579	3,121	46	1,280	1,132	27,320	15,316	8	4,398	7,598
Calhoun	3,743	719	573	1,261	1,190	19,639	5,905	3,933	5,727	4,074
Chattahoochee	4,738	2,325	--	1,459	954	23,833	13,030	--	6,659	4,144
Clay	3,267	1,507	--	822	938	18,568	9,822	--	2,989	5,757
Columbia	9,014	6,208	--	1,624	1,182	44,079	33,561	--	5,697	4,821
Crawford	6,940	5,471	43	934	492	18,495	14,200	--	3,148	1,147
Dougherty	4,700	1,960	361	891	1,488	24,330	13,330	2,104	3,575	5,321
Glascock	2,933	1,525	--	564	844	12,607	9,509	--	1,379	1,719
Greene	14,926	9,759	26	3,148	1,993	58,712	45,776	268	7,506	5,162
Hancock	16,556	12,826	--	1,866	1,864	60,769	49,079	--	5,839	5,851
Harris	11,276	7,107	6	2,303	1,860	35,797	25,573	36	5,600	4,588
Houston	6,390	2,326	74	1,966	2,024	21,945	4,857	478	7,333	9,277
Jasper	12,119	6,277	106	2,611	3,125	43,682	27,942	203	7,362	8,175
Jefferson	11,536	4,205	516	3,539	3,276	49,768	20,484	1,868	13,425	13,991
Jones	11,817	8,172	--	2,125	1,520	58,398	46,103	--	6,451	5,844
Lamar	4,632	2,750	--	833	1,049	16,548	9,185	--	4,385	2,978
Lee	4,526	1,363	50	1,129	1,984	19,009	8,776	347	3,418	6,468
Lincoln	6,912	5,634	--	458	820	22,101	18,269	--	1,520	2,312
McDuffie	7,365	4,994	--	1,321	1,050	31,138	22,789	--	4,640	3,709
Macon	5,960	1,503	--	1,977	2,480	29,286	10,456	--	8,623	10,207
Marion	6,426	3,571	--	1,327	1,528	18,469	6,743	--	4,704	7,022
Monroe	11,483	5,928	--	3,018	2,537	47,677	27,831	--	9,999	9,847
Morgan	8,275	5,193	--	2,289	793	41,895	30,252	--	8,201	3,442
Muscogee	4,743	2,445	--	1,440	858	17,379	10,638	--	4,873	1,868
Peach	459	134	--	61	264	988	264	--	--	724
Pike	5,294	1,855	--	1,413	2,026	21,232	9,143	--	5,768	6,321
Pulaski	3,572	1,320	138	816	1,298	17,189	7,135	944	3,105	6,005
Putnam	10,550	7,485	48	1,089	1,928	22,965	16,168	74	1,953	4,770
Quitman	4,192	2,576	--	682	934	12,118	8,346	--	1,632	2,140
Randolph	6,307	2,097	--	1,757	2,453	30,641	10,706	--	8,932	11,003
Richmond	5,323	2,058	148	1,993	1,124	20,704	11,596	1,007	5,750	2,351
Schley	2,216	986	11	447	772	8,112	4,660	106	1,081	2,265
Stewart	12,637	8,678	--	1,548	2,411	42,315	26,767	--	7,234	8,314
Sumter	5,434	2,550	45	1,651	1,188	21,806	12,569	313	4,601	4,323
Talbot	9,152	5,083	65	1,636	2,368	32,467	22,480	60	3,948	5,979
Taliaferro	6,672	5,046	--	798	828	33,263	29,044	--	1,431	2,788
Taylor	6,237	4,068	13	1,060	1,096	25,532	13,825	--	6,134	5,573
Terrell	3,028	985	37	1,432	574	13,947	5,033	46	4,833	4,035
Twiggs	12,582	7,564	--	2,070	2,948	52,259	32,083	--	6,843	13,333
Upson	9,638	5,516	--	1,495	2,627	26,743	14,166	--	3,957	8,620
Warren	7,170	5,133	--	1,009	1,028	33,988	26,149	--	2,740	5,099
Washington	16,080	9,386	21	3,444	3,229	70,439	46,142	129	13,363	10,805
Webster	2,619	1,376	--	438	805	11,507	5,235	--	1,287	4,985
Wilkes	14,895	10,552	53	1,936	2,354	64,567	50,572	49	5,908	8,038
Wilkinson	15,442	9,024	258	2,629	3,531	49,582	19,372	1,696	10,806	17,708
Total	374,818	214,613	2,832	77,170	80,203	1,501,582	921,497	14,981	269,965	295,139

Table 9.--Average annual removals of growing stock and sawtimber on timberland, by county and species group, Central Georgia, 1989

County	Growing stock					Sawtimber				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand cubic feet					Thousand board feet				
Baldwin	5,439	4,568	58	267	546	16,163	15,125	--	500	538
Bibb	3,515	2,813	--	335	367	15,289	13,410	--	373	1,506
Bleckley	--	--	--	--	--	--	--	--	--	--
Burke	20,560	9,664	101	5,671	5,124	66,777	34,699	533	15,927	15,618
Butts	4,684	4,171	--	173	340	13,264	12,480	--	--	784
Calhoun	5,688	2,700	--	464	2,524	19,418	9,811	--	1,619	7,988
Chattahoochee	3,594	2,427	--	992	175	15,000	11,593	--	3,000	407
Clay	2,429	1,975	--	--	454	6,089	4,889	--	--	1,200
Columbia	3,102	2,435	--	460	207	11,277	9,449	--	1,296	532
Crawford	7,035	6,109	--	765	161	20,090	17,238	--	2,852	--
Dougherty	6,152	6,152	--	--	--	22,833	22,833	--	--	--
Glascock	4,103	2,364	--	585	1,154	14,482	9,381	--	875	4,226
Greene	7,316	6,691	--	244	381	25,796	24,985	--	428	383
Hancock	17,970	13,726	--	3,112	1,132	72,322	57,444	--	11,782	3,096
Harris	15,753	10,011	--	2,617	3,125	58,351	41,615	--	6,481	10,255
Houston	7,626	4,415	--	1,604	1,607	29,423	16,408	--	5,876	7,139
Jasper	8,391	6,335	--	1,402	654	33,519	27,426	--	3,907	2,186
Jefferson	9,097	4,757	--	3,247	1,093	32,965	16,998	--	12,688	3,279
Jones	16,672	13,076	--	2,570	1,026	60,888	51,711	--	5,972	3,205
Lamar	3,617	1,199	--	938	1,480	14,189	5,509	--	2,781	5,899
Lee	4,601	2,788	--	105	1,708	17,469	10,509	--	445	6,515
Lincoln	3,219	1,952	--	220	1,047	10,482	6,594	--	804	3,084
McDuffie	5,673	4,471	--	493	709	18,394	13,624	--	1,713	3,057
Macon	2,330	1,225	--	--	1,105	8,454	5,451	--	--	3,003
Marion	8,472	2,775	--	3,387	2,310	23,104	8,936	--	8,843	5,325
Monroe	15,846	9,974	--	2,404	3,468	50,106	31,689	--	5,534	12,883
Morgan	6,021	3,374	--	1,082	1,565	20,484	12,326	--	2,847	5,311
Muscogee	4,579	4,400	--	179	--	25,794	25,322	--	472	--
Peach	5,198	3,808	--	915	475	16,255	10,665	--	4,016	1,574
Pike	5,174	5,105	--	69	--	23,968	23,968	--	--	--
Pulaski	3,712	1,990	372	852	498	12,577	5,037	2,031	3,351	2,158
Putnam	10,383	8,859	--	573	951	38,129	33,409	--	1,304	3,416
Quitman	6,050	5,034	--	428	588	24,844	22,678	--	1,599	567
Randolph	12,792	8,090	--	2,573	2,129	44,757	29,113	--	7,932	7,712
Richmond	5,743	4,287	--	800	656	22,340	18,267	--	1,854	2,219
Schley	4,340	2,873	--	956	511	11,566	8,530	--	2,489	547
Stewart	12,161	8,624	--	1,029	2,508	36,927	27,948	--	2,631	6,348
Sumter	11,259	8,170	--	1,227	1,862	44,027	33,949	--	4,059	6,019
Talbot	13,371	8,881	123	2,286	2,081	38,569	31,244	702	3,742	2,881
Taliaferro	9,190	6,799	--	716	1,675	34,384	28,342	--	2,102	3,940
Taylor	11,635	9,176	165	1,010	1,284	32,032	25,886	--	2,153	3,993
Terrell	9,852	1,458	--	6,482	1,912	29,606	6,461	--	19,683	3,462
Twiggs	9,156	4,125	--	2,048	2,983	34,538	14,882	--	6,947	12,709
Upson	7,712	3,418	--	3,331	963	28,782	11,299	--	13,547	3,936
Warren	6,259	3,048	--	886	2,325	20,798	12,220	--	2,142	6,436
Washington	18,317	13,973	--	1,008	3,336	47,737	40,246	--	2,043	5,448
Webster	3,938	126	--	2,360	1,452	15,283	271	--	10,779	4,233
Wilkes	21,089	13,042	82	5,629	2,336	66,546	44,303	--	15,170	7,073
Wilkinson	18,889	10,583	1,398	4,389	2,519	70,229	36,385	7,673	15,107	11,064
Total	409,704	268,016	2,299	72,883	66,506	1,416,316	982,558	10,939	219,665	203,154

Unit Tables

Table 10.--Area of timberland, by forest type and ownership class, Central Georgia, 1989

Forest type	All ownerships	Ownership class				
		National forest	Other public	Forest industry	Forest industry-leased	Other private
				Acres		
Softwood types						
White pine-hemlock	--	--	--	--	--	--
Spruce-fir	--	--	--	--	--	--
Longleaf pine	84,353	--	19,516	9,963	--	54,874
Slash pine	219,365	--	771	52,884	6,559	159,151
Loblolly pine	2,727,253	71,928	124,673	847,761	139,555	1,543,336
Shortleaf pine	227,851	--	15,260	42,369	33,014	137,208
Virginia pine	--	--	--	--	--	--
Sand pine	30,889	--	--	12,372	--	18,517
Eastern redcedar	--	--	--	--	--	--
Pond pine	9,284	--	--	--	--	9,284
Spruce pine	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--
Total	3,298,995	71,928	160,220	965,349	179,128	1,922,370
Hardwood types						
Oak-pine	991,510	7,171	40,474	166,263	31,818	745,784
Oak-hickory	1,932,166	20,134	43,304	313,710	44,879	1,510,139
Chestnut oak	3,731	--	--	--	--	3,731
Southern scrub oak	94,079	--	15,210	11,825	3,725	63,319
Oak-gum-cypress	736,329	--	31,329	123,024	24,385	557,591
Elm-ash-cottonwood	141,249	--	6,484	38,141	10,417	86,207
Maple-beech-birch	--	--	--	--	--	--
Total	3,899,064	27,305	136,801	652,963	115,224	2,966,771
All types	7,198,059	99,233	297,021	1,618,312	294,352	4,889,141

Table 11.--Area of timberland, by ownership and stocking classes of growing-stock trees, Central Georgia, 1989

Ownership class	All classes	Stocking class (percent)[a]				
		>130	100-130	60-99	16.7-59	<16.7
				Acres		
National forest	99,233	5,358	47,162	46,713	--	--
Other public	297,021	14,778	127,761	114,722	35,018	4,742
Forest industry	1,618,312	62,792	706,513	624,331	181,169	43,507
Forest industry-leased	294,352	21,269	146,346	97,837	25,175	3,725
Other private	4,889,141	98,699	1,505,524	2,456,740	718,452	109,726
All ownerships	7,198,059	202,896	2,533,306	3,340,343	959,814	161,700

[a]See stocking standards on page 12.

Table 12.--Area of timberland, by forest type and stand-size class, Central Georgia, 1989

Forest type	All stands	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling-seedling	
		Acres			
Softwood types					
White pine-hemlock	--	--	--	--	--
Spruce-fir	--	--	--	--	--
Longleaf pine	84,353	51,893	15,611	16,849	--
Slash pine	219,365	73,994	57,914	87,457	--
Loblolly pine	2,727,253	943,297	679,313	1,098,440	6,203
Shortleaf pine	227,851	122,219	72,807	32,825	--
Virginia pine	--	--	--	--	--
Sand pine	30,889	--	5,856	25,033	--
Eastern redcedar	--	--	--	--	--
Pond pine	9,284	9,284	--	--	--
Spruce pine	--	--	--	--	--
Pitch pine	--	--	--	--	--
Table Mountain pine	--	--	--	--	--
Total	3,298,995	1,200,687	831,501	1,260,604	6,203
Hardwood types					
Oak-pine	991,510	260,259	264,550	462,676	4,025
Oak-hickory	1,932,166	624,149	567,084	672,295	68,638
Chestnut oak	3,731	--	--	3,731	--
Southern scrub oak	94,079	3,514	2,403	30,024	58,138
Oak-gum-cypress	736,329	447,820	187,981	75,832	24,696
Elm-ash-cottonwood	141,249	107,964	20,347	12,938	--
Maple-beech-birch	--	--	--	--	--
Total	3,899,064	1,443,706	1,042,365	1,257,496	155,497
All types	7,198,059	2,644,393	1,873,866	2,518,100	161,700

Table 13.--Area of timberland, by stand-age and broad management classes, all ownerships, Central Georgia, 1989

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
		Acres				
0-10	1,701,359	765,912	218,841	306,799	369,815	39,992
11-20	919,026	403,414	139,757	145,579	191,816	38,460
21-30	779,437	172,821	316,067	79,994	171,572	38,983
31-40	853,938	92,303	430,977	105,345	165,782	59,531
41-50	807,697	--	321,105	98,526	254,197	133,869
51-60	604,226	--	149,293	73,542	211,782	169,609
61-70	301,460	--	100,302	28,153	72,995	100,010
71-80	104,609	--	22,696	3,695	26,075	52,143
81+	99,236	--	15,592	3,510	20,218	59,916
No manageable stand	1,027,071	14,760	135,155	146,367	545,724	185,065
All classes	7,198,059	1,449,210	1,849,785	991,510	2,029,976	877,578

Table 14.--Area of timberland, by stand-age and broad management classes, public ownerships, Central Georgia, 1989

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
			Acres			
0-10	67,962	28,109	15,291	17,149	5,055	2,358
11-20	27,770	12,620	2,750	6,563	5,837	--
21-30	46,240	3,621	17,307	3,735	15,090	6,487
31-40	41,293	4,838	28,575	--	2,358	5,522
41-50	50,701	--	28,717	6,310	7,862	7,812
51-60	59,025	--	38,797	--	14,153	6,075
61-70	39,102	--	23,398	3,855	10,474	1,375
71-80	15,259	--	7,075	--	--	8,184
81+	12,544	--	9,034	3,510	--	--
No manageable stand	36,358	--	12,016	6,523	17,819	--
All classes	396,254	49,188	182,960	47,645	78,648	37,813

Table 15.--Area of timberland, by stand-age and broad management classes, forest industry,[a] Central Georgia, 1989

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
			Acres			
0-10	597,990	379,518	39,350	91,961	83,405	3,756
11-20	407,470	287,224	11,149	56,126	52,971	--
21-30	196,083	100,848	54,482	3,954	29,104	7,695
31-40	183,902	29,491	126,795	3,383	16,551	7,682
41-50	105,364	--	48,469	22,579	18,542	15,774
51-60	102,353	--	29,776	--	41,069	31,508
61-70	68,417	--	17,295	--	11,417	39,705
71-80	18,070	--	3,755	--	--	14,315
81+	33,948	--	6,558	--	2,631	24,759
No manageable stand	199,067	--	9,767	20,078	118,449	50,773
All classes	1,912,664	797,081	347,396	198,081	374,139	195,967

[a]Includes 294,352 acres of other private land under long-term lease.

Table 16.--Area of timberland, by stand-age and broad management classes, other private ownerships,[a] Central Georgia, 1989

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
		Acres				
0-10	1,035,407	358,285	164,200	197,689	281,355	33,878
11-20	483,786	103,570	125,858	82,890	133,008	38,460
21-30	537,114	68,352	244,278	72,305	127,378	24,801
31-40	628,743	57,974	275,607	101,962	146,873	46,327
41-50	651,632	--	243,919	69,637	227,793	110,283
51-60	442,848	--	80,720	73,542	156,560	132,026
61-70	193,941	--	59,609	24,298	51,104	58,930
71-80	71,280	--	11,866	3,695	26,075	29,644
81+	52,744	--	--	--	17,587	35,157
No manageable stand	791,646	14,760	113,372	119,766	409,456	134,292
All classes	4,889,141	602,941	1,319,429	745,784	1,577,189	643,798

[a]Excludes 294,352 acres of other private land under long-term lease to forest industry.

Table 17.--Area of timberland, by broad management and stand-volume classes, Central Georgia, 1989

Broad management class	All classes	Stand-volume class (cubic feet of growing stock per acre)				
		0-499	500-999	1000-1499	1500-1999	2000+
		Acres				
Pine plantation	1,449,210	987,739	169,427	129,705	76,108	86,231
Natural pine	1,849,785	289,518	248,778	363,381	279,961	668,147
Oak-pine	991,510	403,374	191,709	158,498	72,776	165,153
Upland hardwood	2,029,976	794,910	355,723	306,581	248,839	323,923
Lowland hardwood	877,578	114,567	89,330	128,626	139,974	405,081
All classes	7,198,059	2,590,108	1,054,967	1,086,791	817,658	1,648,535

Table 18.--Volume of growing stock on timberland, by broad management class, species group, and stand-age class, Central Georgia, 1989

Broad management class and species group	All classes	No manageable stand	Stand-age class (years)								
			0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81+
			Thousand cubic feet								
Pine plantation											
Softwood	668,164	4,506	20,683	238,763	237,301	166,911	--	--	--	--	--
Hardwood	34,422	--	10,871	6,617	16,204	730	--	--	--	--	--
Total	702,586	4,506	31,554	245,380	253,505	167,641	--	--	--	--	--
Natural pine											
Softwood	2,755,693	60,887	91,236	89,174	418,816	750,210	644,717	349,052	245,274	71,358	34,969
Hardwood	410,197	11,977	14,896	21,915	49,893	90,938	106,695	63,930	39,016	8,527	2,410
Total	3,165,890	72,864	106,132	111,089	468,709	841,148	751,412	412,982	284,290	79,885	37,379
Oak-pine											
Softwood	471,015	46,970	45,214	37,605	38,151	81,105	100,210	78,577	34,118	3,015	6,050
Hardwood	507,489	25,527	48,793	24,556	47,197	99,771	103,739	105,087	44,467	3,623	4,729
Total	978,504	72,497	94,007	62,161	85,348	180,876	203,949	183,664	78,585	6,638	10,779
Upland hardwood											
Softwood	204,590	35,448	11,020	19,534	22,780	24,359	39,341	33,547	15,182	2,328	1,051
Hardwood	1,936,722	169,275	101,150	85,993	148,613	232,715	432,936	453,109	192,766	73,265	46,900
Total	2,141,312	204,723	112,170	105,527	171,393	257,074	472,277	486,656	207,948	75,593	47,951
Lowland hardwood											
Softwood	174,846	6,123	1,124	345	2,758	8,327	15,133	21,984	28,456	63,299	27,297
Hardwood	1,657,755	128,809	16,584	27,700	62,825	122,543	311,425	448,703	240,421	161,017	137,728
Total	1,832,601	134,932	17,708	28,045	65,583	130,870	326,558	470,687	268,877	224,316	165,025
All types											
Softwood	4,274,308	153,934	169,277	385,421	719,806	1,030,912	799,401	483,160	323,030	140,000	69,367
Hardwood	4,546,585	335,588	192,294	166,781	324,732	546,697	954,795	1,070,829	516,670	246,432	191,767
Total	8,820,893	489,522	361,571	552,202	1,044,538	1,577,609	1,754,196	1,553,989	839,700	386,432	261,134

Table 19.--Average net annual growth of growing stock on timberland, by broad management class, species group, and stand-age class, Central Georgia, 1982-1988

Broad management class[a] and species group	All classes	No manageable stand	Stand-age class[a] (years)								
			0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81+
			Thousand cubic feet								
Pine plantation											
Softwood	84,909	244	11,012	45,933	19,792	7,928	--	--	--	--	--
Hardwood	2,172	--	286	732	1,059	95	--	--	--	--	--
Total	87,081	244	11,298	46,665	20,851	8,023	--	--	--	--	--
Natural pine											
Softwood	100,030	2,638	4,469	7,642	22,491	28,431	19,599	8,013	4,704	1,194	849
Hardwood	19,647	545	595	1,268	3,236	4,806	5,262	2,398	1,219	216	102
Total	119,677	3,183	5,064	8,910	25,727	33,237	24,861	10,411	5,923	1,410	951
Oak-pine											
Softwood	20,816	2,129	2,789	3,403	2,941	3,026	3,287	2,316	763	74	88
Hardwood	19,189	993	2,818	1,130	2,339	3,660	3,471	3,293	1,033	306	146
Total	40,005	3,122	5,607	4,533	5,280	6,686	6,758	5,609	1,796	380	234
Upland hardwood											
Softwood	7,964	1,320	640	1,225	1,140	791	1,440	977	376	41	14
Hardwood	67,844	7,818	4,595	4,192	7,644	9,288	14,639	12,605	4,549	1,664	850
Total	75,808	9,138	5,235	5,417	8,784	10,079	16,079	13,582	4,925	1,705	864
Lowland hardwood											
Softwood	3,726	144	47	13	129	313	205	534	809	909	623
Hardwood	48,521	4,637	886	1,474	3,141	4,740	9,115	11,744	6,049	3,452	3,283
Total	52,247	4,781	933	1,487	3,270	5,053	9,320	12,278	6,858	4,361	3,906
All types											
Softwood	217,445	6,475	18,957	58,216	46,493	40,489	24,531	11,840	6,652	2,218	1,574
Hardwood	157,373	13,993	9,180	8,796	17,419	22,589	32,487	30,040	12,850	5,638	4,381
Total	374,818	20,468	28,137	67,012	63,912	63,078	57,018	41,880	19,502	7,856	5,955

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

Table 20.--Average annual removals of growing stock on timberland, by broad management class, species group, and stand-age class, Central Georgia, 1982-1988

Broad management class[a] and species group	All classes	No manageable stand	Stand-age class[a] (years)								
			0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81+
			Thousand cubic feet								
Pine plantation											
Softwood	66,770	283	--	4,931	60,109	1,447	--	--	--	--	--
Hardwood	191	--	--	53	138	--	--	--	--	--	--
Total	66,961	283	--	4,984	60,247	1,447	--	--	--	--	--
Natural pine											
Softwood	162,256	8,355	2,381	11,854	41,180	53,198	34,124	5,174	3,844	181	1,965
Hardwood	12,945	715	394	594	3,304	4,985	2,460	184	309	--	--
Total	175,201	9,070	2,775	12,448	44,484	58,183	36,584	5,358	4,153	181	1,965
Oak-pine											
Softwood	25,369	1,979	1,862	4,103	5,786	5,673	4,349	1,323	294	--	--
Hardwood	12,758	1,256	391	1,788	3,550	2,897	1,147	1,202	527	--	--
Total	38,127	3,235	2,253	5,891	9,336	8,570	5,496	2,525	821	--	--
Upland hardwood											
Softwood	13,105	2,336	470	1,316	1,137	2,481	3,630	517	142	630	446
Hardwood	70,832	6,420	600	1,285	5,688	20,738	15,622	10,504	7,195	1,335	1,445
Total	83,937	8,756	1,070	2,601	6,825	23,219	19,252	11,021	7,337	1,965	1,891
Lowland hardwood											
Softwood	2,815	--	77	--	--	183	282	101	135	267	1,770
Hardwood	42,663	3,162	483	615	196	9,851	12,961	5,605	6,402	2,252	1,136
Total	45,478	3,162	560	615	196	10,034	13,243	5,706	6,537	2,519	2,906
All types											
Softwood	270,315	12,953	4,790	22,204	108,212	62,982	42,385	7,115	4,415	1,078	4,181
Hardwood	139,389	11,553	1,868	4,335	12,876	38,471	32,190	17,495	14,433	3,587	2,581
Total	409,704	24,506	6,658	26,539	121,088	101,453	74,575	24,610	18,848	4,665	6,762

[a]Classifications before timber removals.

Table 21.--Merchantable volume of live trees and growing stock on timberland, by forest-type and species groups, Central Georgia, 1989

Forest-type group	Live trees					Growing stock				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand cubic feet									
White pine-hemlock	--	--	--	--	--	--	--	--	--	--
Spruce-fir	--	--	--	--	--	--	--	--	--	--
Longleaf-slash pine	323,646	311,029	--	2,237	10,380	321,027	311,029	--	2,237	7,761
Loblolly-shortleaf pine	3,601,675	3,118,351	5,970	254,923	222,431	3,547,449	3,108,141	4,687	242,492	192,129
Oak-pine	1,033,062	471,290	2,283	254,631	304,858	978,504	468,732	2,283	239,194	268,295
Oak-hickory	2,348,017	204,195	1,117	799,590	1,343,115	2,141,312	203,473	1,117	741,436	1,195,286
Oak-gum-cypress	1,670,401	47,258	123,558	1,155,579	344,006	1,544,722	46,739	123,099	1,068,820	306,064
Elm-ash-cottonwood	316,640	5,008	--	187,275	124,357	287,879	5,008	--	170,799	112,072
Maple-beech-birch	--	--	--	--	--	--	--	--	--	--
All types	9,293,441	4,157,131	132,928	2,654,235	2,349,147	8,820,893	4,143,122	131,186	2,464,978	2,081,607

Table 22.--Area of timberland treated or disturbed annually and retained in timberland, by treatment or disturbance and ownership class, Central Georgia, 1982 to 1989

Treatment or disturbance	All ownerships	Ownership class			
		Public	Forest industry	Forest industry-leased	Other private
			Acres[a]		
Final harvest	188,437	3,808	65,619	6,858	112,152
Partial harvest[b]	52,981	3,329	6,288	--	43,364
Commercial thinning	32,822	1,702	6,117	--	25,003
Other stand improvement	3,363	765	678	--	1,920
Site preparation	95,138	2,550	48,191	4,602	39,795
Artificial regeneration[c]	105,893	2,601	46,780	5,032	51,480
Natural regeneration[c]	111,503	3,683	17,012	2,899	87,909
Other treatment	21,326	717	3,008	--	17,601
Natural disturbance	78,654	4,656	20,190	3,438	50,370

[a]Since some acres experience more than one treatment or disturbance, there are no column totals.

[b]Includes high grading and some selective cutting.

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

Table 23.--Area of timberland treated or disturbed annually and retained in timberland, by treatment or disturbance and broad management class, Central Georgia, 1982 to 1989

Treatment or disturbance	All classes	Broad management class[a]				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
			Acres[b]			
Final harvest	188,437	28,242	77,995	25,835	40,587	15,778
Partial harvest[c]	52,981	1,702	21,230	9,994	15,637	4,418
Commercial thinning	32,822	13,227	15,663	2,711	672	549
Other stand improvement	3,363	1,239	1,134	552	438	--
Site preparation	95,138	17,114	29,652	12,227	33,098	3,047
Other treatment	21,326	--	6,380	5,361	9,129	456
Natural disturbance	78,654	22,735	19,256	5,559	8,655	22,449

[a]Classification before treatment or disturbance.

[b]Since some acres experience more than one treatment or disturbance, there are no column totals.

[c]Includes high grading and some selective cutting.

Table 24.--Area of timberland regenerated annually, by type of regeneration and broad management class, Central Georgia, 1982 to 1989

Type of regeneration	All classes	Broad management class[a]				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
				Acres		
Artificial regeneration following harvest	60,133	48,544	--	6,777	4,812	--
Natural regeneration following harvest	62,063	--	9,622	17,275	31,488	3,678
Other artificial regeneration on forest land	27,975	22,388	--	5,005	582	--
Other natural regeneration on forest land	42,256	--	14,274	10,057	16,068	1,857
Artificial regeneration on nonforest land	17,785	17,785	--	--	--	--
Natural reversion of nonforest land	7,184	--	4,910	473	1,801	--
Total	217,396	88,717	28,806	39,587	54,751	5,535

[a]Classification after regeneration.

Table 25.--Area of timberland, by treatment opportunity and broad management classes, Central Georgia, 1989

Treatment opportunity class	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
				Acres		
Salvage	40,936	25,312	15,624	--	--	--
Harvest	213,061	--	83,087	17,865	38,899	73,210
Commercial thinning	225,877	112,989	98,510	--	4,302	10,076
Other stand improvement	823,789	80,735	213,972	201,278	280,072	47,732
Stand conversion	42,099	3,054	4,714	--	34,331	--
Regeneration	986,849	14,760	132,261	146,367	545,724	147,737
Stands in relatively good condition	4,716,212	1,212,360	1,293,596	626,000	1,112,347	471,909
Adverse sites[a]	149,236	--	8,021	--	14,301	126,914
All classes	7,198,059	1,449,210	1,849,785	991,510	2,029,976	877,578

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

Table 26.--Area of timberland, by treatment opportunity and ownership classes, Central Georgia, 1989

Treatment opportunity class	All ownerships	Ownership class			
		Public	Forest industry	Forest industry-leased	Other private
			Acres		
Salvage	40,936	--	18,356	--	22,580
Harvest	213,061	47,894	30,744	11,102	123,321
Commercial thinning	225,877	6,518	99,023	17,548	102,788
Other stand improvement	823,789	41,690	174,171	26,605	581,323
Stand conversion	42,099	--	7,898	--	34,201
Regeneration	986,849	36,358	182,296	9,923	758,272
Stands in relatively good condition	4,716,212	256,718	1,073,792	212,862	3,172,840
Adverse sites[a]	149,236	7,076	32,032	16,312	93,816
All classes	7,198,059	396,254	1,618,312	294,352	4,889,141

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

Table 27.--Merchantable volume of live trees and growing stock on timberland, by ownership class and species group, Central Georgia, 1989

Ownership class	Live trees					Growing stock				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand cubic feet									
National forest	131,789	89,218	--	17,005	25,566	129,197	89,218	--	15,754	24,225
Other public	657,390	391,665	--	162,033	103,692	643,786	391,263	--	158,673	93,850
Forest industry	1,710,540	901,920	57,057	373,398	378,165	1,645,969	900,706	56,286	349,431	339,546
Forest industry-leased	242,473	119,195	--	84,487	38,791	231,386	118,455	--	80,039	32,892
Other private	6,551,249	2,655,133	75,871	2,017,312	1,802,933	6,170,555	2,643,480	74,900	1,861,081	1,591,094
All ownerships	9,293,441	4,157,131	132,928	2,654,235	2,349,147	8,820,893	4,143,122	131,186	2,464,978	2,081,607

Table 28.--Volume of sawtimber on timberland, by ownership class and species group, Central Georgia, 1989

Ownership class	Small sawtimber[a]					Large sawtimber[b]				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand board feet									
National forest	246,899	193,040	--	13,420	40,439	215,134	174,388	--	17,635	23,111
Other public	1,109,600	812,537	--	192,453	104,610	1,428,649	1,073,665	--	240,207	114,777
Forest industry	2,578,643	1,831,026	83,790	365,104	298,723	2,633,195	1,012,067	156,531	692,634	771,963
Forest industry-leased	336,914	232,120	--	80,096	24,698	235,156	27,662	--	143,526	63,968
Other private	10,187,448	6,169,192	87,876	2,206,956	1,723,424	9,192,011	3,874,483	205,082	2,461,082	2,651,364
All ownerships	14,459,504	9,237,915	171,666	2,858,029	2,191,894	13,704,145	6,162,265	361,613	3,555,084	3,625,183

[a]Volume of sawtimber trees less than 15.0 inches at d.b.h.

[b]Volume of sawtimber trees 15.0 inches and larger at d.b.h.

Table 29.--Average net annual growth and removals of growing stock on timberland, by ownership class and species group, Central Georgia, 1982-1988

Ownership class	Net annual growth					Annual timber removals				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand cubic feet									
National forest	6,146	4,753	--	439	954	4,313	4,197	--	--	116
Other public	17,743	10,242	--	4,126	3,375	10,360	7,724	--	2,181	455
Forest industry	89,848	65,956	747	11,113	12,032	131,054	92,491	1,621	21,349	15,593
Forest industry-leased	15,370	11,879	--	2,263	1,228	9,085	6,852	123	691	1,419
Other private	245,711	121,783	2,085	59,229	62,614	254,892	156,752	555	48,662	48,923
All ownerships	374,818	214,613	2,832	77,170	80,203	409,704	268,016	2,299	72,883	66,506

Table 30.--Average net annual growth and removals of sawtimber on timberland, by ownership class and species group, Central Georgia, 1982-1988

Ownership class	Net annual growth					Annual timber removals				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand board feet									
National forest	16,001	12,734	--	465	2,802	17,333	16,854	--	--	479
Other public	87,477	60,046	--	15,240	12,191	42,198	32,903	--	8,165	1,130
Forest industry	299,850	212,657	4,604	38,018	44,571	422,745	303,637	7,673	66,959	44,476
Forest industry-leased	41,746	28,894	--	6,279	6,573	32,707	27,147	702	1,613	3,245
Other private	1,056,508	607,166	10,377	209,963	229,002	901,333	602,017	2,564	142,928	153,824
All ownerships	1,501,582	921,497	14,981	269,965	295,139	1,416,316	982,558	10,939	219,665	203,154

Table 31.--Volume of timber on timberland, by class of timber and species group, Central Georgia, 1989

Class of timber	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
			Thousand cubic feet		
Sawtimber trees					
Saw-log portion	5,232,283	2,840,118	101,801	1,202,206	1,088,158
Upper-stem portion[a]	743,320	286,808	10,015	245,490	201,007
Total	5,975,603	3,126,926	111,816	1,447,696	1,289,165
Poletimber trees	2,845,290	1,016,196	19,370	1,017,282	792,442
All growing-stock trees	8,820,893	4,143,122	131,186	2,464,978	2,081,607
Rough trees					
Sawtimber size	147,140	6,486	971	64,833	74,850
Poletimber size	242,070	7,523	312	76,456	157,779
Total	389,210	14,009	1,283	141,289	232,629
Rotten trees					
Sawtimber size	68,041	--	459	37,275	30,307
Poletimber size	15,297	--	--	10,693	4,604
Total	83,338	--	459	47,968	34,911
Salvable dead trees					
Sawtimber size	11,564	9,214	71	911	1,368
Poletimber size	8,942	6,677	--	1,188	1,077
Total	20,506	15,891	71	2,099	2,445
Total, all timber	9,313,947	4,173,022	132,999	2,656,334	2,351,592

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

Table 32.--Number of live trees on timberland, by species and diameter class, Central Georgia, 1989

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	17,634	5,714	2,297	1,946	1,805	2,110	1,358	1,082	824	249	198	51	--
Slash pine	81,862	30,035	29,143	9,588	5,962	3,446	2,718	760	151	59	--	--	--
Shortleaf pine	149,948	53,156	40,487	23,101	14,743	9,166	5,173	2,577	1,209	189	127	20	--
Loblolly pine	1,063,009	523,742	231,180	129,903	71,775	45,528	27,706	16,620	8,563	4,680	2,209	1,073	30
Pond pine	2,241	--	192	636	436	528	207	82	108	--	34	18	--
Virginia pine	222	--	222	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	931	645	--	--	--	109	32	54	60	20	--	11	--
Sand pine	10,711	4,969	3,892	1,850	--	--	--	--	--	--	--	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	4,267	467	693	659	936	371	193	195	187	186	116	256	8
Pondcypress	3,489	217	434	274	543	534	546	392	343	137	50	19	--
Cedars	18,866	14,249	3,186	786	296	154	111	26	58	--	--	--	--
Total softwoods	1,353,180	633,194	311,726	168,743	96,496	61,946	38,044	21,788	11,503	5,520	2,734	1,448	38
Hardwood													
Select white oaks	79,011	33,434	16,296	10,427	7,766	4,349	3,439	1,373	836	556	248	260	27
Select red oaks	14,927	7,872	1,109	2,162	1,356	664	485	370	345	215	179	170	--
Chestnut oak	4,466	2,638	465	528	528	198	68	30	--	--	11	--	--
Other white oaks	54,828	31,915	11,290	4,569	2,861	1,640	1,251	424	297	378	62	116	25
Other red oaks	610,860	427,724	85,501	37,130	25,195	14,623	8,203	5,414	3,052	1,632	923	1,227	236
Hickory	186,858	124,145	32,922	13,791	7,200	3,604	1,829	1,649	898	391	192	210	27
Yellow birch	--	--	--	--	--	--	--	--	--	--	--	--	--
Hard maple	28,306	22,441	3,798	1,128	563	219	62	52	--	31	--	12	--
Soft maple	194,770	137,289	31,539	11,458	6,484	3,159	2,167	1,310	731	310	143	170	10
Beech	8,697	5,937	1,224	362	457	102	91	135	87	63	99	130	10
Sweetgum	850,492	578,119	146,412	59,002	29,803	16,615	10,373	4,913	2,765	1,274	617	509	90
Tupelo and blackgum	195,500	108,224	34,394	19,744	12,862	7,501	6,137	3,180	1,754	988	347	309	60
Ash	51,476	28,818	12,293	3,088	2,670	1,431	1,317	858	541	218	117	121	4
Cottonwood	957	205	211	387	--	--	131	23	--	--	--	--	--
Basswood	721	444	--	--	--	126	32	119	--	--	--	--	--
Yellow-poplar	72,962	39,575	10,455	6,783	4,167	3,862	2,538	2,285	1,305	910	520	524	38
Bay and magnolia	58,391	38,384	9,987	4,712	2,305	1,417	673	440	198	196	50	12	17
Black cherry	104,121	82,785	15,754	3,878	1,001	545	117	24	--	17	--	--	--
Black walnut	1,869	874	478	157	271	59	--	--	19	--	11	--	--
Sycamore	2,487	1,146	466	116	160	216	36	107	45	36	65	94	--
Black locust	444	444	--	--	--	--	--	--	--	--	--	--	--
Elm	154,603	108,783	29,794	8,027	4,605	1,483	722	632	284	77	84	112	--
Other eastern hardwoods	675,797	506,485	117,925	34,419	10,368	3,466	1,520	895	289	223	95	107	5
Total hardwoods	3,352,543	2,287,681	562,313	221,868	120,622	65,279	41,191	24,233	13,446	7,515	3,763	4,083	549
All species	4,705,723	2,920,875	874,039	390,611	217,118	127,225	79,235	46,021	24,949	13,035	6,497	5,531	587

Table 33.--Number of growing-stock trees on timberland, by species and diameter class, Central Georgia, 1989

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	16,795	5,308	1,894	1,946	1,805	2,110	1,328	1,082	824	249	198	51	--
Slash pine	79,624	28,483	28,504	9,588	5,962	3,399	2,718	760	151	59	--	--	--
Shortleaf pine	141,497	46,442	39,153	22,759	14,743	9,105	5,173	2,577	1,209	189	127	20	--
Loblolly pine	1,011,870	482,200	224,584	127,499	71,455	45,480	27,517	16,620	8,523	4,680	2,209	1,073	30
Pond pine	2,241	--	192	636	436	528	207	82	108	--	34	18	--
Virginia pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	931	645	--	--	--	109	32	54	60	20	--	11	--
Sand pine	10,342	4,969	3,689	1,684	--	--	--	--	--	--	--	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	4,267	467	693	659	936	371	193	195	187	186	116	256	8
Pondcypress	3,462	217	434	274	543	534	546	365	343	137	50	19	--
Cedars	15,070	10,578	3,186	786	215	154	111	--	40	--	--	--	--
Total softwoods	1,286,099	579,309	302,329	165,831	96,095	61,790	37,825	21,735	11,445	5,520	2,734	1,448	38
Hardwood													
Select white oaks	66,422	23,964	14,198	9,892	7,597	4,258	3,368	1,269	836	556	248	231	5
Select red oaks	12,566	5,635	1,109	2,162	1,282	664	446	370	345	215	179	159	--
Chestnut oak	3,460	1,719	465	528	528	142	37	30	--	--	11	--	--
Other white oaks	38,113	19,223	8,323	4,055	2,783	1,593	1,112	326	235	287	62	100	14
Other red oaks	494,455	330,161	74,648	33,341	23,301	13,789	7,767	5,111	2,810	1,530	727	1,088	182
Hickory	141,955	84,990	28,048	13,395	6,812	3,604	1,829	1,649	898	376	141	191	22
Yellow birch	--	--	--	--	--	--	--	--	--	--	--	--	--
Hard maple	11,327	7,620	2,488	746	206	166	34	52	--	15	--	--	--
Soft maple	100,798	62,032	20,248	8,153	4,811	2,295	1,389	937	571	178	91	93	--
Beech	3,797	1,804	965	149	372	102	63	107	34	33	74	88	6
Sweetgum	651,421	414,171	120,466	53,091	28,084	15,934	10,077	4,722	2,668	1,145	575	445	43
Tupelo and blackgum	132,010	59,307	24,951	17,436	11,687	7,089	5,618	2,876	1,584	892	310	245	15
Ash	30,336	14,366	7,385	2,278	2,053	1,303	1,207	835	477	199	117	112	4
Cottonwood	746	205	--	387	--	--	131	23	--	--	--	--	--
Basswood	440	222	--	--	--	126	32	60	--	--	--	--	--
Yellow-poplar	65,009	33,320	9,996	6,012	3,944	3,817	2,538	2,228	1,262	878	509	480	25
Bay and magnolia	32,276	18,330	6,282	3,328	1,976	1,145	539	339	143	151	38	--	5
Black cherry	54,308	43,929	7,378	1,651	734	545	30	24	--	17	--	--	--
Black walnut	1,869	874	478	157	271	59	--	--	19	--	11	--	--
Sycamore	2,014	704	466	116	160	216	36	107	23	36	65	85	--
Black locust	444	444	--	--	--	--	--	--	--	--	--	--	--
Elm	88,643	51,370	23,671	6,676	3,892	1,319	647	574	266	63	70	95	--
Other eastern hardwoods	30,674	19,998	5,253	1,848	1,734	516	429	419	173	156	68	75	5
Total hardwoods	1,963,083	1,194,388	356,818	165,401	102,227	58,682	37,329	22,058	12,344	6,727	3,296	3,487	326
All species	3,249,182	1,773,697	659,147	331,232	198,322	120,472	75,154	43,793	23,789	12,247	6,030	4,935	364

Table 34.--Merchantable volume of live trees on timberland, by species and diameter class, Central Georgia, 1989

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	21.0-22.9	29.0 and larger
	Thousand cubic feet										
Softwood											
Longleaf pine	166,200	6,589	13,485	26,799	27,256	31,285	31,807	13,082	11,764	4,133	--
Slash pine	179,980	21,410	37,209	42,139	49,969	20,053	5,832	3,368	--	--	--
Shortleaf pine	561,592	65,923	105,827	124,229	113,085	80,137	51,792	10,580	8,234	1,785	--
Loblolly pine	3,211,591	319,331	444,164	542,907	544,005	485,313	351,600	258,866	151,726	108,539	5,140
Pond pine	24,882	1,780	3,298	6,366	3,543	1,974	4,205	--	2,244	1,472	--
Virginia pine	--	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	8,183	--	--	1,281	807	1,554	2,590	1,064	--	887	--
Sand pine	4,703	4,703	--	--	--	--	--	--	--	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	67,181	2,490	8,277	4,770	3,603	5,640	6,474	7,567	6,718	19,728	1,914
Pondcypress	57,058	972	4,159	7,083	10,001	10,207	13,572	6,830	2,799	1,435	--
Cedars	8,689	2,428	1,356	1,329	1,650	519	1,407	--	--	--	--
Total softwoods	4,290,059	425,626	617,775	756,903	753,919	636,682	469,279	301,357	183,485	137,979	7,054
Hardwood											
Select white oaks	341,974	29,467	52,472	51,986	65,027	36,389	32,668	29,242	17,036	23,520	4,167
Select red oaks	99,394	6,441	10,137	8,350	8,946	10,925	12,949	11,397	12,194	18,055	--
Chestnut oak	8,940	1,996	3,192	1,771	868	714	--	--	399	--	--
Other white oaks	118,682	11,572	16,865	17,515	19,292	10,060	8,587	16,932	3,572	10,479	3,808
Other red oaks	1,104,595	107,376	157,968	166,257	147,291	140,779	105,942	77,094	51,524	110,214	40,150
Hickory	292,943	33,685	43,828	41,529	35,802	46,426	34,880	20,501	11,548	20,455	4,289
Yellow birch	--	--	--	--	--	--	--	--	--	--	--
Hard maple	12,393	3,339	2,890	2,315	935	1,185	--	1,022	--	707	--
Soft maple	230,549	32,666	39,779	32,995	33,365	31,938	25,000	12,882	7,758	12,831	1,335
Beech	34,469	1,188	2,289	1,209	1,884	3,362	3,311	2,499	5,575	11,172	1,980
Sweetgum	1,160,422	145,456	186,763	200,476	206,152	147,995	111,555	65,885	39,953	44,256	11,931
Tupelo and blackgum	561,132	54,943	79,953	85,210	111,143	82,720	60,128	42,689	18,484	21,106	4,756
Ash	141,435	8,239	16,872	17,858	25,072	24,116	20,712	10,709	7,270	9,535	1,052
Cottonwood	5,301	1,587	--	--	2,941	773	--	--	--	--	--
Basswood	4,356	--	--	1,114	840	2,402	--	--	--	--	--
Yellow-poplar	401,572	20,479	26,578	48,629	51,367	65,366	51,859	48,077	34,597	49,563	5,057
Bay and magnolia	86,095	14,443	15,022	15,224	11,300	10,071	6,400	8,667	2,293	342	2,333
Black cherry	24,696	10,188	5,678	6,069	1,773	423	--	565	--	--	--
Black walnut	4,182	347	1,471	585	--	--	884	--	895	--	--
Sycamore	23,816	440	1,245	2,794	657	3,274	1,186	1,738	4,029	8,453	--
Black locust	--	--	--	--	--	--	--	--	--	--	--
Elm	127,026	17,807	29,487	18,285	14,111	16,328	10,793	4,248	5,373	10,594	--
Other eastern hardwoods	219,410	66,866	48,290	29,781	21,096	20,437	9,455	9,358	5,242	8,208	677
Total hardwoods	5,003,382	568,525	740,779	749,952	759,862	655,683	496,309	363,505	227,742	359,490	81,535
All species	9,293,441	994,151	1,358,554	1,506,855	1,513,781	1,292,365	965,588	664,862	411,227	497,469	88,589

Table 35.--Volume of growing stock on timberland, by species and diameter class, Central Georgia, 1989

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	21.0-22.9	29.0 and larger
	Thousand cubic feet										
Softwood											
Longleaf pine	165,798	6,589	13,485	26,799	26,854	31,285	31,807	13,082	11,764	4,133	--
Slash pine	179,522	21,410	37,209	41,681	49,969	20,053	5,832	3,368	--	--	--
Shortleaf pine	560,450	65,298	105,827	123,712	113,085	80,137	51,792	10,580	8,234	1,785	--
Loblolly pine	3,199,785	314,202	442,596	542,157	541,281	485,313	349,965	258,866	151,726	108,539	5,140
Pond pine	24,882	1,780	3,298	6,366	3,543	1,974	4,205	--	2,244	1,472	--
Virginia pine	--	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	8,183	--	--	1,281	807	1,554	2,590	1,064	--	887	--
Sand pine	4,502	4,502	--	--	--	--	--	--	--	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	67,181	2,490	8,277	4,770	3,603	5,640	6,474	7,567	6,718	19,728	1,914
Pondcypress	56,599	972	4,159	7,083	10,001	9,748	13,572	6,830	2,799	1,435	--
Cedars	7,406	2,428	1,044	1,329	1,650	--	955	--	--	--	--
Total softwoods	4,274,308	419,671	615,895	755,178	750,793	635,704	467,192	301,357	183,485	137,979	7,054
Hardwood											
Select white oaks	331,346	28,230	51,489	51,222	64,082	34,420	32,668	29,242	17,036	21,992	965
Select red oaks	97,870	6,441	9,924	8,350	8,319	10,925	12,949	11,397	12,194	17,371	--
Chestnut oak	8,249	1,996	3,192	1,451	497	714	--	--	399	--	--
Other white oaks	107,745	10,543	16,407	17,347	17,858	8,226	7,274	14,088	3,572	9,564	2,866
Other red oaks	1,040,110	98,317	150,020	160,052	142,411	135,307	100,343	73,973	43,692	100,710	35,285
Hickory	286,445	33,156	41,916	41,529	35,802	46,426	34,880	20,174	9,415	19,612	3,535
Yellow birch	--	--	--	--	--	--	--	--	--	--	--
Hard maple	7,736	2,477	975	1,740	525	1,185	--	834	--	--	--
Soft maple	177,664	25,197	31,845	26,865	24,270	25,303	21,346	8,610	5,820	8,408	--
Beech	25,465	530	1,997	1,209	1,304	2,642	1,433	1,676	4,459	9,190	1,025
Sweetgum	1,114,908	132,903	179,644	196,544	201,467	144,816	108,985	61,786	38,754	41,597	8,412
Tupelo and blackgum	525,748	50,016	74,967	82,514	104,371	77,860	56,898	40,545	17,836	19,081	1,660
Ash	131,179	6,482	13,686	16,784	23,880	23,320	19,532	10,175	7,270	8,998	1,052
Cottonwood	5,301	1,587	--	--	2,941	773	--	--	--	--	--
Basswood	3,563	--	--	1,114	840	1,609	--	--	--	--	--
Yellow-poplar	390,599	18,130	25,508	48,343	51,367	64,612	50,319	47,114	34,355	46,718	4,133
Bay and magnolia	69,537	10,836	13,282	12,900	9,467	8,418	4,922	7,324	1,798	--	590
Black cherry	17,783	5,352	4,605	6,069	769	423	--	565	--	--	--
Black walnut	4,182	347	1,471	585	--	--	884	--	895	--	--
Sycamore	22,925	440	1,245	2,794	657	3,274	886	1,738	4,029	7,862	--
Black locust	--	--	--	--	--	--	--	--	--	--	--
Elm	114,012	15,158	25,085	16,855	13,024	15,317	10,224	3,492	4,958	9,899	--
Other eastern hardwoods	64,218	4,274	9,626	6,161	7,829	11,278	6,523	7,099	3,916	6,835	677
Total hardwoods	4,546,585	452,412	656,884	700,428	711,680	616,848	470,066	339,832	210,398	327,837	60,200
All species	8,820,893	872,083	1,272,779	1,455,606	1,462,473	1,252,552	937,258	641,189	393,883	465,816	67,254

Table 36.--Volume of sawtimber on timberland, by species and diameter class, Central Georgia, 1989

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
	Thousand board feet								
Softwood									
Longleaf pine	772,162	107,989	129,485	168,846	184,429	79,533	74,621	27,259	--
Slash pine	542,060	156,356	226,840	104,663	33,495	20,706	--	--	--
Shortleaf pine	1,805,934	461,760	519,143	411,969	287,905	62,524	51,128	11,505	--
Loblolly pine	12,139,516	1,939,524	2,438,130	2,505,268	1,970,229	1,557,392	959,551	731,563	37,859
Pond pine	97,727	24,666	16,169	10,154	23,449	--	13,892	9,397	--
Virginia pine	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--
Spruce pine	42,781	5,114	3,859	7,980	14,316	6,067	--	5,445	--
Sand pine	--	--	--	--	--	--	--	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--
Baldcypress	283,954	14,257	13,633	25,266	31,097	38,436	36,217	112,343	12,705
Pondcypress	230,631	22,554	39,436	43,208	66,510	35,356	15,321	8,246	--
Cedars	18,694	5,505	7,807	--	5,382	--	--	--	--
Total softwoods	15,933,459	2,737,725	3,394,502	3,277,354	2,616,812	1,800,014	1,150,730	905,758	50,564
Hardwood									
Select white oaks	849,078	--	217,026	136,212	145,161	139,428	86,560	119,003	5,688
Select red oaks	331,140	--	27,603	42,513	56,210	53,754	58,122	92,938	--
Chestnut oak	6,257	--	1,636	2,703	--	--	1,918	--	--
Other white oaks	288,542	--	63,093	34,160	33,112	69,175	18,515	53,356	17,131
Other red oaks	2,980,994	--	534,625	582,324	470,234	369,668	231,116	571,613	221,414
Hickory	748,196	--	123,814	189,071	156,688	98,266	48,811	110,153	21,393
Yellow birch	--	--	--	--	--	--	--	--	--
Hard maple	10,360	--	1,860	4,636	--	3,864	--	--	--
Soft maple	379,804	--	79,126	99,329	90,360	39,038	28,446	43,505	--
Beech	87,554	--	4,827	10,000	5,622	6,655	18,017	38,093	4,340
Sweetgum	2,706,607	--	717,595	622,380	522,763	323,048	215,685	248,364	56,772
Tupelo and blackgum	1,285,871	--	337,711	302,881	248,514	191,443	90,161	104,971	10,190
Ash	389,656	--	77,328	89,310	84,756	47,906	36,155	47,770	6,431
Cottonwood	13,769	--	10,516	3,253	--	--	--	--	--
Basswood	9,191	--	3,095	6,096	--	--	--	--	--
Yellow-poplar	1,481,624	--	186,867	279,036	246,440	253,747	196,743	290,061	28,730
Bay and magnolia	129,392	--	31,408	32,224	20,580	33,453	8,233	--	3,494
Black cherry	7,347	--	2,913	1,697	--	2,737	--	--	--
Black walnut	7,131	--	--	--	3,418	--	3,713	--	--
Sycamore	88,904	--	1,956	12,731	3,649	7,933	19,894	42,741	--
Black locust	--	--	--	--	--	--	--	--	--
Elm	238,562	--	44,924	60,043	43,501	15,978	23,557	50,559	--
Other eastern hardwoods	190,211	--	26,996	44,405	27,705	32,693	20,033	34,994	3,385
Total hardwoods	12,230,190	--	2,494,919	2,555,004	2,158,713	1,688,786	1,105,679	1,848,121	378,968
All species	28,163,649	2,737,725	5,889,421	5,832,358	4,775,525	3,488,800	2,256,409	2,753,879	429,532

Table 37.--Volume of sawtimber on timberland, by species, size class, and tree grade, Central Georgia, 1989

Species	All size classes					Trees 15.0 inches d.b.h. and larger				
	All grades	Tree grade				All grades	Tree grade			
		1	2	3	4		1	2	3	4
	Thousand board feet									
Softwood										
Yellow pines[a]	15,400,180	2,797,765	3,356,729	9,245,686	--	6,162,265	1,638,500	1,509,089	3,014,676	--
Eastern white pine[b]	--	--	--	--	--	--	--	--	--	--
Spruce and fir[b]	--	--	--	--	--	--	--	--	--	--
Cypress[c]	514,585	172,886	178,453	148,953	14,293	356,231	172,886	121,323	55,627	6,395
Other eastern softwoods[b]	18,694	--	--	5,448	13,246	5,382	--	--	--	5,382
Total	15,933,459	2,970,651	3,535,182	9,400,087	27,539	6,523,878	1,811,386	1,630,412	3,070,303	11,777
Hardwood[c]										
Select white and red oaks	1,180,218	144,587	396,199	489,727	149,705	756,864	144,587	355,424	197,648	59,205
Other white and red oaks	3,275,793	348,722	775,416	1,443,571	708,084	2,057,252	348,722	645,112	751,477	311,941
Hickory	748,196	47,915	229,071	368,563	102,647	435,311	47,915	183,289	158,741	45,366
Yellow birch	--	--	--	--	--	--	--	--	--	--
Hard maple	10,360	--	--	1,860	8,500	3,864	--	--	--	3,864
Sweetgum	2,706,607	357,533	786,765	1,310,864	251,445	1,366,632	357,533	552,554	367,219	89,326
Ash, walnut, and black cherry	404,134	66,926	131,936	171,998	33,274	232,886	66,926	89,094	58,590	18,276
Yellow-poplar	1,481,624	303,351	536,508	546,268	95,497	1,015,721	303,351	407,400	235,666	69,304
Other eastern hardwoods	2,423,258	276,607	664,533	1,170,600	311,518	1,311,737	276,607	482,367	421,705	131,058
Total	12,230,190	1,545,641	3,520,428	5,503,451	1,660,670	7,180,267	1,545,641	2,715,240	2,191,046	728,340
All species	28,163,649	4,516,292	7,055,610	14,903,538	1,688,209	13,704,145	3,357,027	4,345,652	5,261,349	740,117

[a]For yellow pines, tree grade is based on "Southern Pine Tree Grades for Yard and Structural Lumber," Research Paper SE-40, published by the Southeastern Forest Experiment Station, Asheville, NC, 1968. Tree grade 4 does not apply to yellow pine.

[b]For other softwoods (excluding cypress), tree grade is based on "Tree Grades for Eastern White Pine," Research Paper NE-214, published by the Northeastern Forest Experiment Station, Broomall, PA, 1971.

[c]For hardwoods and cypress, tree grades 1, 2, and 3 are based on "Hardwood Tree Grades for Factory Lumber," Research Paper NE-333, published by the Northeastern Forest Experiment Station, Broomall, PA, 1976. Grade 4 trees are sawtimber trees not qualifying as tree Grades 1, 2, or 3. The butt log of these trees qualify as construction (tie and timber) logs based on "A Guide to Hardwood Log Grading (revised)," General Technical Report NE-1, published by the Northeastern Forest Experiment Station, Broomall, PA, 1971.

Table 38.--Cubic volume in the merchantable saw-log portion of sawtimber trees on timberland, by species and diameter class, Central Georgia, 1989

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
		Thousand cubic feet							
Softwood									
Longleaf pine	135,820	22,000	24,583	29,827	30,879	12,822	11,615	4,094	--
Slash pine	106,634	33,554	45,037	19,041	5,679	3,323	--	--	--
Shortleaf pine	349,772	99,478	103,252	76,314	50,381	10,428	8,152	1,767	--
Loblolly pine	2,222,064	420,382	486,073	459,193	339,164	254,519	150,191	107,454	5,088
Pond pine	18,188	5,282	3,239	1,885	4,102	--	2,222	1,458	--
Virginia pine	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--
Spruce pine	7,640	1,006	737	1,468	2,511	1,040	--	878	--
Sand pine	--	--	--	--	--	--	--	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--
Baldcypress	51,679	3,381	3,031	5,103	5,979	7,086	6,369	18,871	1,859
Pondcypress	46,638	5,517	8,805	8,949	12,785	6,506	2,689	1,387	--
Cedars	3,484	1,093	1,481	--	910	--	--	--	--
Total softwoods	2,941,919	591,693	676,238	601,780	452,390	295,724	181,238	135,909	6,947
Hardwood									
Select white oaks	166,204	--	45,311	28,106	28,642	26,550	15,828	20,835	932
Select red oaks	62,222	--	5,806	8,666	10,973	10,044	10,795	15,938	--
Chestnut oak	1,308	--	360	582	--	--	366	--	--
Other white oaks	53,654	--	12,728	6,773	6,353	12,753	3,296	9,012	2,739
Other red oaks	536,359	--	103,102	111,491	87,320	66,425	39,955	94,397	33,669
Hickory	143,344	--	25,938	38,287	30,386	18,205	8,681	18,467	3,380
Yellow birch	--	--	--	--	--	--	--	--	--
Hard maple	2,099	--	387	961	--	751	--	--	--
Soft maple	75,617	--	16,461	20,434	18,137	7,573	5,268	7,744	--
Beech	19,110	--	989	2,128	1,235	1,467	3,977	8,369	945
Sweetgum	499,771	--	140,806	119,943	96,648	57,097	36,695	40,252	8,330
Tupelo and blackgum	259,332	--	74,110	63,564	49,409	36,396	16,378	17,884	1,591
Ash	77,955	--	16,560	18,836	17,054	9,234	6,737	8,508	1,026
Cottonwood	2,752	--	2,113	639	--	--	--	--	--
Basswood	1,947	--	658	1,289	--	--	--	--	--
Yellow-poplar	259,340	--	36,263	52,941	44,547	43,607	32,551	45,341	4,090
Bay and magnolia	26,829	--	6,542	6,932	4,362	6,731	1,678	--	584
Black cherry	1,452	--	604	345	--	503	--	--	--
Black walnut	1,558	--	--	--	756	--	802	--	--
Sycamore	16,174	--	394	2,568	726	1,513	3,637	7,336	--
Black locust	--	--	--	--	--	--	--	--	--
Elm	46,686	--	9,223	12,286	8,662	3,067	4,422	9,026	--
Other eastern hardwoods	36,651	--	5,302	9,103	5,655	6,206	3,402	6,327	656
Total hardwoods	2,290,364	--	503,657	505,874	410,865	308,122	194,468	309,436	57,942
All species	5,232,283	591,693	1,179,895	1,107,654	863,255	603,846	375,706	445,345	64,889

Table 39.--Total volume of live trees on timberland, by species and diameter class, Central Georgia, 1989

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 cubic feet												
Softwood													
Longleaf pine	194,551	1,187	2,804	9,007	16,191	31,028	30,995	35,255	35,677	14,635	13,156	4,616	--
Slash pine	248,292	7,995	26,703	30,413	44,865	48,663	56,807	22,566	6,525	3,755	--	--	--
Shortleaf pine	720,137	12,405	44,899	89,855	127,478	44,149	129,052	90,774	58,398	11,892	9,236	1,999	--
Loblolly pine	4,139,079	113,232	237,240	456,887	541,564	33,291	622,534	550,032	396,368	290,798	170,070	121,334	5,729
Pond pine	29,233	--	225	2,345	3,944	7,402	4,073	2,254	4,784	--	2,540	1,666	--
Virginia pine	200	--	200	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	9,438	141	--	--	--	1,491	922	1,764	2,925	1,199	--	996	--
Sand pine	12,186	1,020	4,372	6,794	--	--	--	--	--	--	--	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	83,548	124	967	3,665	10,663	5,910	4,393	6,816	7,810	9,077	8,070	23,686	2,367
Pondcypress	73,982	27	521	1,598	5,757	9,285	12,826	13,010	17,082	8,573	3,495	1,808	--
Cedars	18,353	3,070	4,172	3,475	1,711	1,633	1,996	621	1,675	--	--	--	--
Total softwoods	5,528,999	139,201	322,103	604,039	752,173	882,852	863,598	723,092	531,244	339,929	206,567	156,105	8,096
Hardwood													
Select white oaks	466,627	7,581	22,107	43,601	68,583	65,900	81,365	45,305	40,423	36,070	20,998	29,091	5,603
Select red oaks	127,807	1,863	1,586	9,068	12,950	10,457	11,112	13,499	15,971	14,018	15,032	22,251	--
Chestnut oak	12,713	593	761	2,695	4,046	2,195	1,068	871	--	--	484	--	--
Other white oaks	174,790	7,048	14,397	17,856	22,428	22,498	24,411	12,576	10,703	20,901	4,430	12,890	4,652
Other red oaks	1,631,206	84,405	111,248	169,777	212,124	213,333	185,610	175,827	131,731	95,349	64,366	136,941	50,495
Hickory	436,987	24,266	39,305	52,313	57,643	52,169	43,989	56,424	42,240	24,712	14,083	24,596	5,247
Yellow birch	--	--	--	--	--	--	--	--	--	--	--	--	--
Hard maple	25,795	4,860	4,362	5,110	3,766	2,873	1,141	1,445	--	1,370	--	868	--
Soft maple	363,550	30,697	44,631	46,791	50,162	40,497	40,603	38,328	29,979	15,409	9,316	15,486	1,651
Beech	46,380	1,049	1,520	1,722	3,076	1,536	2,362	4,180	4,183	3,229	6,992	14,085	2,446
Sweetgum	1,704,480	120,016	177,362	216,644	231,928	237,512	238,952	169,809	127,300	75,128	45,490	50,407	13,932
Tupelo and blackgum	786,992	27,745	46,307	82,860	103,802	106,195	136,809	101,163	73,548	52,249	22,823	26,603	6,888
Ash	191,340	7,646	16,316	12,027	20,731	21,115	29,214	27,762	23,886	12,236	8,290	10,927	1,190
Cottonwood	6,797	19	309	2,117	--	--	3,453	899	--	--	--	--	--
Basswood	5,119	51	--	--	--	1,300	964	2,804	--	--	--	--	--
Yellow-poplar	486,526	9,519	15,547	27,951	31,865	56,079	58,436	73,962	58,499	54,106	38,867	55,860	5,835
Bay and magnolia	130,562	9,810	12,619	20,743	18,991	18,540	13,578	12,149	7,661	10,272	2,756	540	2,903
Black cherry	76,035	27,010	17,652	13,867	6,986	7,263	2,096	499	--	662	--	--	--
Black walnut	5,879	176	554	485	1,847	716	--	--	1,046	--	1,055	--	--
Sycamore	29,041	327	790	560	1,519	3,343	771	3,824	1,419	2,013	4,659	9,816	--
Black locust	39	39	--	--	--	--	--	--	--	--	--	--	--
Elm	216,271	21,604	37,038	26,043	36,944	22,140	16,804	19,276	12,679	4,987	6,350	12,406	--
Other eastern hardwoods	533,194	109,694	129,429	102,109	63,041	37,380	26,177	25,084	11,671	11,436	6,326	10,022	825
Total hardwoods	7,458,130	496,018	693,840	854,339	952,432	923,041	918,915	785,686	592,939	434,147	272,317	432,789	101,667
All species	12,987,129	635,219	1,015,943	1,458,378	1,704,605	1,805,893	1,782,513	1,508,778	1,124,183	774,076	478,884	588,894	109,763

Table 40.--Green weight of forest biomass on timberland, by species and diameter class, Central Georgia, 1989

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
	Hundred thousand pounds												
Softwood													
Longleaf pine	152,549	943	2,393	6,287	12,220	23,972	24,420	28,015	28,455	11,612	10,543	3,689	--
Slash pine	195,322	5,959	24,788	22,544	34,571	37,634	44,194	17,649	5,098	2,885	--	--	--
Shortleaf pine	493,103	6,853	27,308	54,388	87,011	101,587	92,248	65,139	41,878	8,551	6,699	1,441	--
Loblolly pine	2,957,151	55,374	139,989	323,165	399,049	464,467	456,634	403,833	287,700	210,997	123,956	87,808	4,179
Pond pine	20,710	--	126	1,648	2,728	5,282	2,939	1,631	3,394	--	1,786	1,176	--
Virginia pine	171	--	171	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	6,594	107	--	--	--	1,009	632	1,234	2,059	845	--	708	--
Sand pine	8,866	689	3,605	4,572	--	--	--	--	--	--	--	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	63,072	67	614	1,788	6,258	3,997	3,205	5,228	6,167	7,373	6,573	19,675	2,127
Pondcypress	50,368	5	330	715	3,117	5,753	8,576	9,085	12,369	6,356	2,658	1,404	--
Cedars	12,909	1,846	2,643	2,493	1,456	1,245	1,453	466	1,307	--	--	--	--
Total softwoods	3,960,815	71,843	201,967	417,600	546,410	644,946	634,301	532,280	388,427	248,619	152,215	115,901	6,306
Hardwood													
Select white oaks	374,374	5,954	16,413	30,548	53,691	53,163	66,206	37,508	33,582	30,040	17,552	24,765	4,952
Select red oaks	104,440	1,540	1,216	6,552	10,376	8,506	9,256	11,111	13,355	11,712	12,207	18,609	--
Chestnut oak	10,048	544	580	1,900	3,181	1,807	905	686	--	--	445	--	--
Other white oaks	141,250	5,065	10,118	12,041	17,579	18,092	20,250	10,606	9,429	18,294	3,834	11,552	4,390
Other red oaks	1,303,541	71,282	84,143	117,087	166,814	169,635	150,858	145,001	109,518	79,379	53,224	113,949	42,651
Hickory	353,687	20,963	34,418	37,029	44,457	40,759	35,222	46,291	35,054	20,863	12,189	21,656	4,786
Yellow birch	--	--	--	--	--	--	--	--	--	--	--	--	--
Hard maple	21,187	3,981	3,687	3,462	3,184	2,475	1,079	1,305	--	1,212	--	802	--
Soft maple	267,945	23,188	31,996	32,753	38,242	30,515	30,451	28,701	21,862	11,366	6,730	11,022	1,119
Beech	37,834	821	1,277	1,153	2,305	1,209	1,910	3,459	3,442	2,682	5,904	11,616	2,056
Sweetgum	1,214,115	79,687	117,835	139,534	165,415	170,988	175,113	126,070	95,936	57,412	35,191	39,494	11,440
Tupelo and blackgum	518,376	19,309	31,841	41,331	62,168	67,423	90,753	69,951	52,281	38,238	17,304	21,714	6,063
Ash	117,915	4,669	10,299	8,570	14,581	13,507	17,921	16,537	13,728	6,973	4,635	5,922	573
Cottonwood	4,446	9	206	1,250	--	--	2,354	627	--	--	--	--	--
Basswood	3,536	26	--	--	--	916	643	1,951	--	--	--	--	--
Yellow-poplar	345,212	7,010	10,312	16,489	21,701	39,086	41,468	53,106	42,257	39,508	28,522	41,250	4,503
Bay and magnolia	80,742	5,997	8,012	11,291	11,404	11,617	8,640	7,994	5,069	6,658	1,841	351	1,868
Black cherry	44,624	12,782	11,776	8,301	4,616	4,828	1,466	363	--	492	--	--	--
Black walnut	4,981	144	471	418	1,578	582	--	--	884	--	904	--	--
Sycamore	21,337	218	540	326	902	2,107	523	2,746	1,048	1,508	3,584	7,835	--
Black locust	20	20	--	--	--	--	--	--	--	--	--	--	--
Elm	141,732	15,643	26,011	15,760	23,169	13,568	10,630	12,762	8,357	3,260	4,158	8,414	--
Other eastern hardwoods	448,940	95,149	117,845	77,173	52,168	31,157	21,207	20,832	9,887	9,473	4,658	8,569	822
Total hardwoods	5,560,282	374,001	518,996	562,968	697,531	681,940	686,855	597,607	455,689	339,070	212,882	347,520	85,223
All species	9,521,097	445,844	720,963	980,568	1,243,941	1,326,886	1,321,156	1,129,887	844,116	587,689	365,097	463,421	91,529

Table 41.--Average net annual growth and removals of live timber and growing stock on timberland, by species, Central Georgia, 1982-1988

Species	Live timber[a]		Growing stock	
	Net annual growth	Annual timber removals	Net annual growth	Annual timber removals
	Thousand cubic feet			
Softwood				
Yellow pines	215,338	268,995	214,613	268,016
Eastern white pine	--	--	--	--
Spruce and fir	--	--	--	--
Cypress	2,415	1,871	2,415	1,871
Other eastern softwoods	431	428	417	428
Total softwoods	218,184	271,294	217,445	270,315
Hardwood				
Select white and red oaks	15,777	17,296	15,574	16,752
Other white and red oaks	49,717	40,756	48,690	38,800
Hickory	9,286	7,643	9,194	7,379
Yellow birch	--	--	--	--
Hard maple	446	134	383	134
Sweetgum	37,861	40,294	37,035	38,818
Ash, walnut, and black cherry	5,881	2,641	5,545	2,518
Yellow-poplar	15,039	16,495	14,871	16,322
Tupelo and blackgum	9,884	7,205	9,584	6,633
Bay and magnolia	1,278	1,377	1,139	1,316
Other eastern hardwoods	18,868	15,495	15,358	10,717
Total hardwoods	164,037	149,336	157,373	139,389
All species	382,221	420,630	374,818	409,704

[a]Merchantable portion only.

Table 42.--Average net annual growth and removals of sawtimber on timberland, by species, Central Georgia, 1982-1988

Species	Net annual growth	Annual timber removals
	Thousand board feet	
Softwood		
Yellow pines	921,497	982,558
Eastern white pine	--	--
Spruce and fir	--	--
Cypress	14,177	10,237
Other eastern softwoods	804	702
Total softwoods	936,478	993,497
Hardwood		
Select white and red oaks	61,110	44,640
Other white and red oaks	181,035	129,947
Hickory	29,922	20,245
Yellow birch	--	--
Hard maple	298	390
Sweetgum	126,830	103,715
Ash, walnut, and black cherry	18,905	4,762
Yellow-poplar	72,009	65,973
Tupelo and blackgum	34,090	19,688
Bay and magnolia	4,169	2,859
Other eastern hardwoods	36,736	30,600
Total hardwoods	565,104	422,819
All species	1,501,582	1,416,316

Table 43.--Average annual removals of growing stock on timberland, by species and diameter class, Central Georgia, 1982-1988

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
	Thousand cubic feet										
Softwood											
Yellow pines	268,016	22,180	41,949	53,462	54,459	40,923	21,712	18,461	10,140	4,422	308
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--
Cypress	1,871	--	--	--	97	--	--	506	600	513	155
Other eastern softwoods	428	235	70	--	--	--	123	--	--	--	--
Total softwoods	270,315	22,415	42,019	53,462	54,556	40,923	21,835	18,967	10,740	4,935	463
Hardwood											
Select white and red oaks	16,752	1,028	2,795	2,149	2,752	2,742	2,344	1,580	712	650	--
Other white and red oaks	38,800	2,394	3,154	5,422	5,508	6,962	4,450	2,135	2,000	5,392	1,383
Hickory	7,379	674	881	1,335	994	712	847	519	516	901	--
Yellow birch	--	--	--	--	--	--	--	--	--	--	--
Hard maple	134	40	--	--	--	--	94	--	--	--	--
Sweetgum	38,818	4,566	5,305	6,324	5,930	4,959	4,081	3,582	1,244	2,640	187
Ash, walnut, and black cherry	2,518	498	226	707	292	302	--	--	143	350	--
Yellow-poplar	16,322	550	955	1,243	2,969	2,240	2,618	2,095	2,141	1,351	160
Tupelo and blackgum	6,633	337	779	839	1,206	1,229	1,095	604	139	147	258
Bay and magnolia	1,316	246	247	83	199	244	195	102	--	--	--
Other eastern hardwoods	10,717	1,038	1,252	1,225	1,953	1,102	954	514	1,015	1,664	--
Total hardwoods	139,389	11,371	15,594	19,327	21,803	20,492	16,678	11,131	7,910	13,095	1,988
All species	409,704	33,786	57,613	72,789	76,359	61,415	38,513	30,098	18,650	18,030	2,451

Table 44.--Average annual mortality of live timber, growing stock, and sawtimber on timberland, by species, Central Georgia, 1982-1988

Species	Live timber[a]	Growing stock	Sawtimber
	Thousand cubic feet		Thousand board feet
Softwood			
Yellow pines	52,232	51,262	144,279
Eastern white pine	--	--	--
Spruce and fir	--	--	--
Cypress	228	228	846
Other eastern softwoods	50	--	--
Total softwoods	52,510	51,490	145,125
Hardwood			
Select white and red oaks	1,927	1,509	4,647
Other white and red oaks	19,055	15,196	40,566
Hickory	1,657	1,412	4,392
Yellow birch	--	--	--
Hard maple	189	--	--
Sweetgum	6,954	6,314	12,012
Ash, walnut, and black cherry	2,035	1,610	3,412
Yellow-poplar	1,974	1,832	3,574
Tupelo and blackgum	3,154	2,305	4,480
Bay and magnolia	1,125	1,040	1,126
Other eastern hardwoods	12,599	7,294	15,873
Total hardwoods	50,669	38,512	90,082
All species	103,179	90,002	235,207

[a]Merchantable portion only.

Table 45.--Change in number of live trees on timberland, by species group, survey completion date, and diameter class, Central Georgia

Species group and year	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 and larger
		Thousand trees							
Yellow pine									
1982	1,283,296	527,446	306,923	175,550	118,780	71,731	41,225	22,326	19,315
1989	1,326,558	618,261	307,413	167,024	94,721	60,887	37,194	21,175	19,883
Change	+43,262	+90,815	+490	-8,526	-24,059	-10,844	-4,031	-1,151	+568
Other softwood									
1982	24,749	12,585	4,522	2,418	1,400	1,087	736	693	1,308
1989	26,622	14,933	4,313	1,719	1,775	1,059	850	613	1,360
Change	+1,873	+2,348	-209	-699	+375	-28	+114	-80	+52
Hardwood									
1982	3,312,968	2,204,936	583,302	241,043	122,596	68,548	41,391	23,253	27,899
1989	3,352,543	2,287,681	562,313	221,868	120,622	65,279	41,191	24,233	29,356
Change	+39,575	+82,745	-20,989	-19,175	-1,974	-3,269	-200	+980	+1,457

Table 46.--Land area, by land use class, major forest type, and survey completion date, Central Georgia

Land use class	Survey completion date			Change 1982-1989
	1972	1982	1989	
		Acres		
Forest land				
Timberland:				
Pine and oak-pine types	4,715,685	4,227,775	4,290,505	+62,730
Hardwood types	2,606,166	2,792,910	2,907,554	+114,644
Total	7,321,851	7,020,685	7,198,059	+177,374
Reserved timberland	18,647	19,303	905	-18,398
Woodland	--	--	--	--
Total forest land	7,340,498	7,039,988	7,198,964	+158,976
Nonforest land				
Cropland	1,809,416	1,826,724	1,763,578	-63,146
Pasture and range	806,888	810,924	753,647	-57,277
Other	510,556	659,921	727,278	+67,357
Total	3,126,860	3,297,569	3,244,503	-53,066
All land[a]	10,467,358	10,337,557	10,443,467	+105,910

[a]Excludes all water areas.

Table 47.--Volume[a] of sawtimber, growing stock, and live timber on timberland, by species group, survey completion date, and diameter class, Central Georgia

Species group and year	All classes	Diameter class (inches at breast height)								
		5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0 and larger
					SAWTIMBER (in thousand board feet)					
Softwood										
1972	14,938,640	--	--	2,874,094	3,697,861	3,464,401	2,342,094	1,346,728	622,375	591,087
1982	16,313,910	--	--	3,112,858	3,737,050	3,429,619	2,614,995	1,829,092	840,055	750,241
1989	15,933,459	--	--	2,737,725	3,394,502	3,277,354	2,616,812	1,800,014	1,150,730	956,322
Hardwood										
1972	9,269,030	--	--	--	2,105,774	2,108,164	1,588,017	1,126,576	730,473	1,610,026
1982	11,279,111	--	--	--	2,384,336	2,431,606	1,988,478	1,531,781	952,739	1,990,171
1989	12,230,190	--	--	--	2,494,919	2,555,004	2,158,713	1,688,786	1,105,679	2,227,089
					GROWING STOCK (in thousand cubic feet)					
Softwood										
1972	4,663,283	658,839	792,548	810,733	845,613	696,019	430,910	232,610	103,469	92,542
1982	4,628,518	440,902	711,629	878,169	854,629	688,997	481,113	315,952	139,667	117,460
1989	4,274,308	419,671	615,895	755,178	750,793	635,704	467,192	301,357	183,485	145,033
Hardwood										
1972	3,844,608	457,106	565,063	629,173	633,815	533,525	357,829	235,206	143,179	289,712
1982	4,425,057	475,984	617,568	685,853	717,591	615,396	448,045	319,795	186,729	358,096
1989	4,546,585	452,412	656,884	700,428	711,680	616,848	470,066	339,832	210,398	388,037
					LIVE TIMBER[b] (in thousand cubic feet)					
Softwood										
1972	4,682,638	664,767	799,702	813,050	847,954	697,301	431,243	232,610	103,469	92,542
1982	4,645,190	445,476	717,286	880,532	857,049	690,232	481,535	315,952	139,668	117,460
1989	4,290,059	425,626	617,775	756,903	753,919	636,682	469,279	301,357	183,485	145,033
Hardwood										
1972	4,189,522	546,046	624,696	680,340	663,893	556,184	382,554	249,914	156,866	329,029
1982	4,816,607	568,175	683,532	741,808	751,701	641,400	478,953	339,758	204,588	406,692
1989	5,003,382	568,525	740,779	749,952	759,862	655,683	496,309	363,505	227,742	441,025

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

[b]Merchantable volume.

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Since 1982, area of timberland in Central Georgia has increased 2.5 percent and now totals 7.2 million acres. Nonindustrial private owners control 68 percent of the region's timberland. The annual rate of stand regeneration more than doubled, and averaged more than 217,000 acres each year. Number of live 2-inch softwood trees increased 17 percent. Volume of softwood growing stock fell by 8 percent to 4.3 billion cubic feet. Volume of hardwood growing stock increased by 3 percent to 4.5 billion cubic feet. Net annual growth of softwoods dropped 16 percent to 217 million cubic feet. Hardwood growth was down 8 percent to 157 million cubic feet. Softwood removals increased 4 percent, exceeding growth by 24 percent. Hardwood removals averaged 139 million cubic feet annually, with net growth exceeding removals by 13 percent. Mortality of softwood growing stock was down 13 percent to 51 million cubic feet, whereas mortality of hardwood growing stock increased by 28 percent to 38 million cubic feet.

KEYWORDS: Timberland, land use trends, timberland ownership, timber volume, timber growth, timber removals.

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