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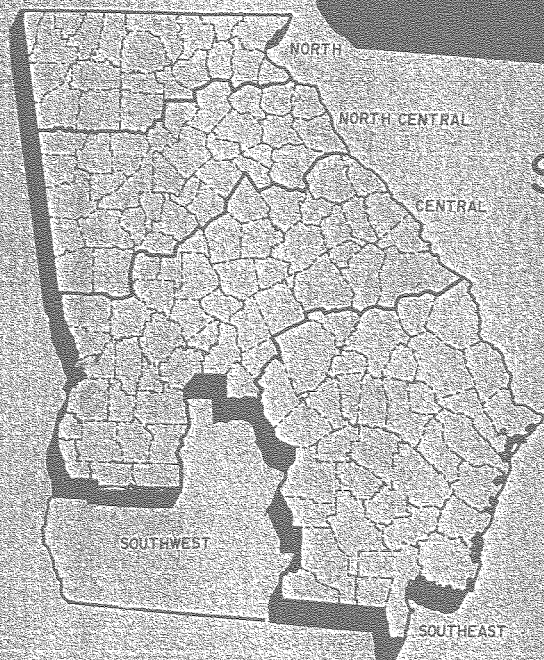
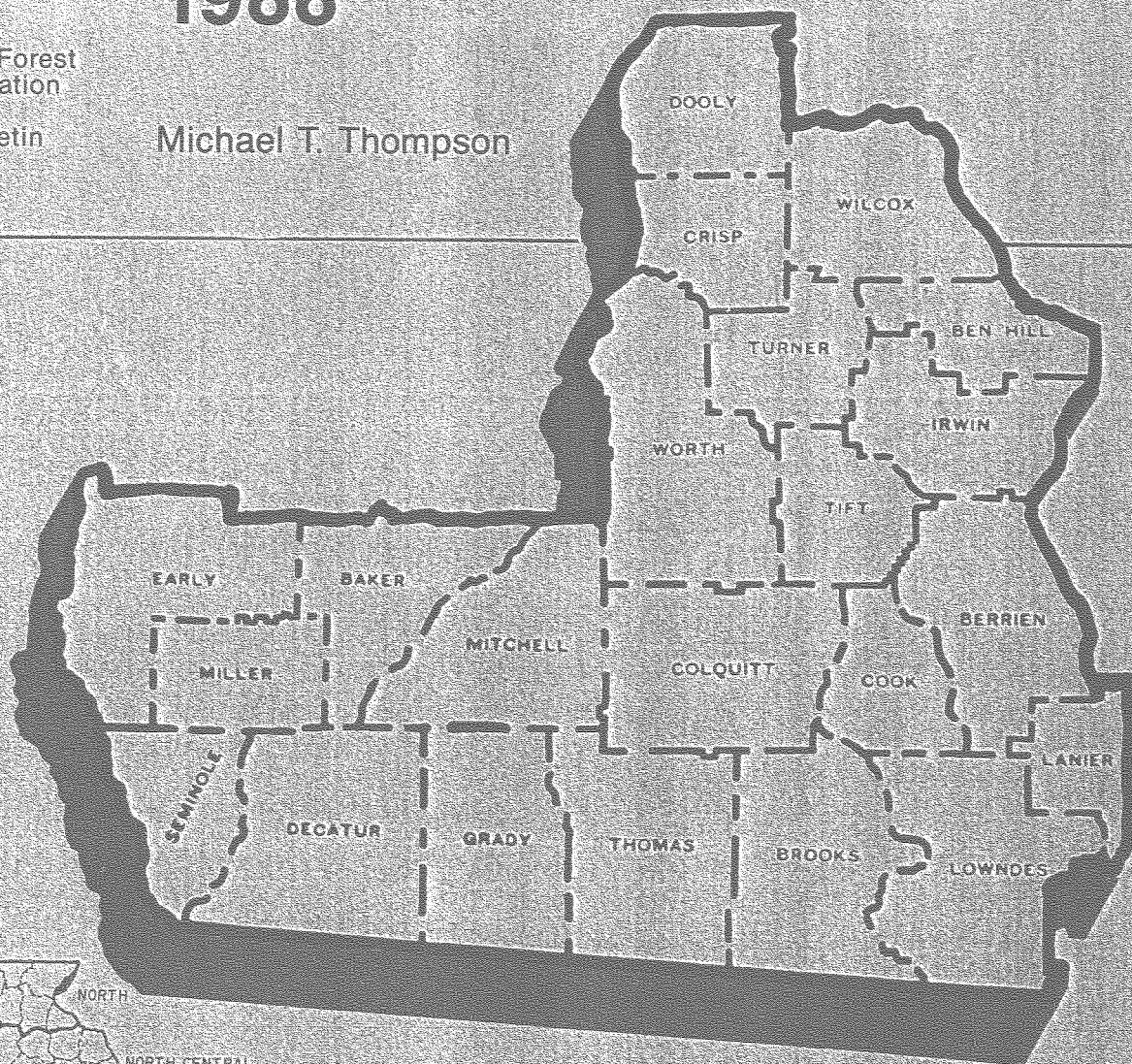


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Forest Statistics for Southwest Georgia, 1988

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Southeastern Forest Experiment Station

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**Forest Statistics
for Southwest Georgia,
1988**

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Foreword

This report highlights the principal findings of the sixth forest survey in Southwest Georgia. Field work began in October 1987 and was completed in January 1988. Five previous surveys, completed in 1934, 1951, 1960, 1971, and 1981, provide statistics for measuring changes and trends over the past 54 years. The primary emphasis in this report is on the changes and trends since 1981. 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 22-county area covered by this report is one of five survey units in Georgia. A comparable report for the other four 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.



Joe P. McClure
Project Leader

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Since 1981 in Southwest Georgia--

- area of timberland declined less than 1 percent, and now totals 2.6 million acres. This small net decline masks land use changes on almost 0.4 million acres. More than 195,000 acres were diverted to other land uses, while about 192,000 acres were added to the timberland base. Forest clearing for agriculture accounted for three-fourths of the diversions; the remaining 25 percent went to urban and related land uses. Tree planting and natural reversion on agricultural lands make up 96 percent of the additions. The remainder came from reclassification of State-owned reserved forest land to timberland status. Timberland occupies 47 percent of the total land area in this 22-county region.

- area of nonindustrial private forest (NIPF) land has declined by slightly over 1 percent to 2.2 million acres. Within the NIPF category, all of the loss occurred on farmer-owned land, which dropped 25 percent to 1.1 million acres. Although forest diversions to agricultural uses accounted for some of this reduction, most of the decline was due to a shift in ownership to other individuals, and to the incorporation of farm ownerships. Other individuals increased their timberland holdings 47 percent to 0.9 million acres, and other corporate land increased 40 percent to 0.2 million acres. Altogether, NIPF owners hold 84 percent of the region's timberland.

Acreage controlled by forest industry, including 96,000 acres under lease, increased 5 percent to 384,000 acres. Only 1 percent of the timberland is publicly owned--about the same proportion as in 1981.

- area in pine forest types has increased 2 percent to 1.2 million acres. The establishment of new pine stands on cutover timberland and on agricultural land more than offset the loss of pine stands due to harvesting and land clearing. The area in pine plantations has increased 48 percent to almost 0.5 million acres, whereas area in natural pine is down 16 percent to 0.7 million acres. Slash pine remained the predominant forest type, dropping only 1 percent to 0.7 million acres. Longleaf pine declined 4 percent to 205,000 acres. In contrast, loblolly pine--the only pine type to increase--rose 34 percent to 280,000 acres. This trend reflects the increased use of loblolly pine for new plantation establishment. Oak-pine types decreased 8 percent to 296,000 acres. The major hardwood forest type of oak-gum-cypress sank 9 percent to 0.6 million acres, while oak-hickory types were up 18 percent to 0.5 million acres.

- area harvested and retained in timberland averaged 63,000 acres annually. About 61 percent, or 38,000 acres, of the annual harvest occurred on pine

stands, whereas 24 percent took place on hardwood types, and 15 percent came from oak-pine types. Of the area harvested, 81 percent was on NIPF land, while most of the remainder was on forest industry land. Partial harvests and other intermediate cuttings occurred on 37,000 acres each year. Natural disturbances such as fire, insects, disease, and weather damaged some 34,000 acres annually.

- annual rate of stand regeneration averaged nearly 65,000 acres. New pine stands were established each year on 38,000 acres--an area equal to the acreage of pine harvested. Planting activities accounted for over half the total regeneration. Nearly three-fourths of all artificial regeneration occurred on NIPF ownership. Annual rate of planting on lands under NIPF control increased from 3,000 to 25,000 acres per year. This large increase can be partially attributed to the annual addition of some 14,000 acres of new plantations on nonforest lands. Annual rate of planting on forest industry lands rose 49 percent to more than 9,000 acres. Natural regeneration occurred on 30,000 acres each year, resulting mostly in new oak-pine and hardwood stands. Over nine-tenths of all natural regeneration was on NIPF lands.

- average basal area of live trees 5.0 inches d.b.h. and larger has decreased from 66 to 62 square feet per acre. Basal area showed declines in pine and oak-pine types, but an increase in both the oak-gum-cypress and oak-hickory types. Average net merchantable volume per acre of softwoods has declined 4 percent to 765 cubic feet, while hardwoods increased 5 percent to 626 cubic feet. Acreage in stands classified as fully stocked decreased by 5 percent, whereas medium stocked stands increased by slightly more than 3 percent. Areas poorly stocked or nonstocked stayed about the same and occupy close to one-fourth of the timberland in the region.

- number of live 2- and 4-inch softwood trees has declined by 11 and 24 percent, respectively. Decreases occurred in number of softwood stems from the 2- through the 14-inch class, with the greatest drop of 6 percent occurring in the 6-inch class. Losses in the smaller diameter classes were rather moderate on forest industry land, with more severe losses occurring on NIPF lands. Due to a large buildup of pine seedlings in newly regenerated plantations and natural pine stands, future trends towards increased numbers of softwood saplings should be expected. Numbers of hardwoods showed more modest changes than softwoods across all diameter classes. Except for the 6-inch class, declines in hardwood stems extended through all diameter classes below 16 inches.

- volume of softwood growing stock is down 4 percent to 2.0 billion cubic feet. Slash pine--the predominant species in terms of softwood growing stock--declined by 8 percent to 951 million cubic feet. The second most abundant softwood was loblolly pine, which also decreased by 5 percent to 394 million cubic feet. Third was longleaf pine, showing a drop of 2 percent to 314 million cubic feet. The only softwood species group to increase in volume was cypress. About 16 percent of the total softwood volume was contained in pine plantations. By ownership, softwood volume decreased 8 percent on NIPF lands to 1.7 billion cubic feet but increased on forest industry and public lands by 19 and 28 percent, respectively. Most of the net decline in volume can be attributed to a combined 11 percent decrease in the 6- through 10-inch diameter classes. Volume of softwood sawtimber rose 4 percent to 7.7 billion board feet.

• volume of hardwood growing stock is up 6 percent to 1.4 billion cubic feet. Tupelo and blackgum--the major hardwood species group in the region--rose 9 percent to 460 million cubic feet. Next in abundance, the other red oak group was up 25 percent to 428 million cubic feet. These two species groups accounted for 71 percent of the total gain in hardwood volume. Almost nine-tenths of the hardwood volume was on NIPF land, increasing by 4 percent. Volume of hardwoods also increased on forest industry and public lands. Gains in volume extended across all diameter classes except for the 8-inch class, which declined 8 percent. Substantial increases of 29 and 26 percent took place in the respective 18- and 20-inch classes. Volume of hardwood sawtimber rose 10 percent to 3.9 billion board feet.

• net annual growth of softwood growing stock declined 64 million cubic feet to 102 million cubic feet, a drop of 38 percent. Over nine-tenths of the decline occurred on NIPF lands, where net annual growth dropped by 44 percent. Softwood net growth also showed decreases on forest industry and public lands of 7 and 51 percent, respectively. One of the factors affecting softwood growth reduction is the proportion of pine stands in the 11- to 30-year age group, a period which contributes heavily to both ingrowth and survivor growth. In 1981, over 40 percent of all pine stands were between 11 and 30 years of age. Now only one-fifth of all pine stands occurs in these age categories. Recent increases in regenerated acreage should improve the outlook for softwood growth in the future. Pine plantations accounted for nearly one-third of the total softwood net growth. Net annual growth of hardwood growing stock declined by 31 percent to 41 million cubic feet. About 93 percent of the decline occurred on NIPF land. Combined net growth per acre for hardwoods and softwoods averaged 54 cubic feet, compared with 86 cubic feet in the previous period.

• annual mortality of softwood growing stock currently averages 13 million cubic feet. Whereas softwood mortality was down by 37 percent since 1980, annual mortality of hardwood growing stock increased by an equal rate to 17 million cubic feet. Declines in softwood mortality and increases in hardwood mortality occurred in all ownership classes. Softwood mortality reduced gross growth by 11 percent. Hardwood mortality reduced gross growth by 30 percent in this latest survey, compared with 18 percent in 1980. Annual mortality of growing stock included 40 million board feet for softwoods and 50 million board feet for hardwood sawtimber.

• annual removals of softwood growing stock currently average 113 million cubic feet, down 13 percent. By ownership, proportional volume of softwood removals from NIPF, forest industry, and public lands were 75, 23, and 2 percent, respectively. Softwood removals decreased 23 percent on NIPF land, while showing increases on forest industry and public lands. Pine plantations supplied one-third of all softwood removals. All ownerships combined, removals of softwoods exceeded net growth by 11 percent. Hardwood growing-stock removals now total 30 million cubic feet per year, increasing from the previous level by about 1 percent. Land controlled by NIPF owners accounts for nine-tenths of hardwood removals, while forest industry land contributed the remainder. Hardwood net growth currently exceeds removals by 36 percent in all owner categories--in contrast to a 98 percent surplus of growth in 1980. Together, hardwood and softwood removals include 511 million board feet of sawtimber.

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 non-forest areas were based on the classification of 13,581 sample clusters systematically spaced on the latest aerial photographs available. A subsample of 2,082 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 950 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 plot center.

3. Equations prepared from detailed measurements collected on standing trees in this Unit, and similar measurements taken through 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 six 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 971 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):

Per million acres of timberland	~~6.80~~ 1.30
Per billion cubic feet of growing stock	6.05
Per billion cubic feet of net annual growth	1.20
Per billion cubic feet of annual removals	2.83

Sampling errors for county and unit totals,^a in terms of one standard error, Southwest Georgia, 1988

County	Timberland area	Cubic-foot volume of growing stock		
		Inventory	Growth	Removals
		Sampling error ^b		
Baker	3.72	15.49	15.89	37.67
Ben Hill	3.87	22.08	20.62	26.58
Berrien	2.48	11.06	10.43	20.90
Brooks	3.21	15.59	12.66	45.36
Colquitt	3.78	13.61	13.07	29.61
Cook	4.14	17.74	16.90	28.65
Crisp	4.74	22.36	23.70	34.59
Decatur	2.72	11.47	11.14	34.49
Dooly	3.60	19.22	18.62	34.80
Early	3.57	15.50	14.03	25.34
Grady	2.73	11.36	13.51	25.44
Irwin	3.90	14.44	14.43	37.65
Lanier	2.80	15.28	15.41	53.23
Lowndes	2.70	10.38	9.20	40.97
Miller	7.07	24.17	25.78	38.54
Mitchell	5.92	22.05	19.82	41.11
Seminole	5.90	32.24	24.77	62.74
Thomas	2.60	8.62	9.55	29.27
Tift	4.29	21.88	18.64	39.00
Turner	4.21	25.79	20.10	42.42
Wilcox	3.30	18.12	15.16	23.38
Worth	3.02	11.23	11.31	27.83
Total	.78	3.28	3.17	7.26

^aSampling 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.

^bBy 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 nonpulp mills, chipped, and then sold to pulp mills as residues, including chipped tops, jump sections, whole trees, and pulpwood sticks.

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

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

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

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

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

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

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

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

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

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

Class 1. 165 or more cubic feet per acre.

Class 2. 120 to 164 cubic feet per acre.

Class 3. 85 to 119 cubic feet per acre.

Class 4. 50 to 84 cubic feet per acre.

Class 5. 20 to 49 cubic feet per acre.

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

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

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

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

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

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

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

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

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

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

Fully stocked. 100 percent or more stocking.

Medium stocked. 60 to 99 percent stocking.

Poorly stocked. Less than 60 percent stocking.

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

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	61.0	61.0	68.2	60.0
8	68.7	68.1	76.0	68.4
10	73.8	73.1	81.4	73.4
12	77.0	76.4	85.2	76.4
14	79.5	79.4	88.2	78.4
16	81.5	81.6	90.4	79.8
18	82.5	83.3	92.3	80.8
20	83.7	84.8	93.8	81.5
22	84.3	86.0	95.1	82.1
24+	84.8	87.6	98.0	83.1
Average	75.2	75.0	83.4	74.3

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, Southwest Georgia, 1988

County	All land ^a	Forest land			Nonforest land ^b	
		Total	Timberland	Woodland		Reserved timberland
<u>Acres</u>						
Baker	222,150	107,757	107,757	--	--	114,393
Ben Hill	162,400	102,631	102,631	--	--	59,769
Berrien	291,648	164,479	164,479	--	--	127,169
Brooks	314,329	149,745	149,745	--	--	164,584
Colquitt	356,179	137,772	137,772	--	--	218,407
Cook	148,864	62,769	62,769	--	--	86,095
Crisp	176,019	66,557	66,554	--	3	109,462
Decatur	374,906	196,893	196,893	--	--	178,013
Dooly	253,946	100,970	100,945	--	25	152,976
Early	330,291	165,154	165,154	--	--	165,137
Grady	293,747	146,824	146,824	--	--	146,923
Irwin	231,827	101,003	101,003	--	--	130,824
Lanier	123,968	81,878	81,878	--	--	42,090
Lowndes	324,333	201,628	201,628	--	--	122,705
Miller	181,504	62,493	62,493	--	--	119,011
Mitchell	327,910	113,564	113,564	--	--	214,346
Seminole	144,211	42,801	42,801	--	--	101,410
Thomas	352,371	178,749	178,749	--	--	173,622
Tift	171,802	53,727	53,727	--	--	118,075
Turner	184,992	84,410	84,410	--	--	100,582
Wilcox	244,442	146,141	146,141	--	--	98,301
Worth	368,026	165,151	165,151	--	--	202,875
Total	5,579,865	2,633,096	2,633,068	--	28	2,946,769

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

^bIncludes 64,585 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, Southwest Georgia, 1988

County	All ownerships	Ownership class							
		National forest	Miscellaneous Federal	State	County and municipal	Forest industry ^a	Other private		
							Farmer	Corporate	Individual
Acres									
Baker	107,757	---	---	---	5	16,215	20,024	8,582	62,931
Ben Hill	102,631	---	---	80	230	26,475	37,923	5,834	32,089
Berrien	164,479	---	551	1,475	163	20,526	70,882	5,063	65,819
Brooks-	149,745	---	---	30	380	25,806	63,137	21,961	38,431
Colquitt	137,772	---	---	733	388	4,314	79,954	19,299	33,084
Cook	62,769	---	---	471	233	5,752	39,888	4,693	11,732
Crisp	66,554	---	---	1,283	476	4,331	57,835	---	2,629
Decatur	196,893	---	6,790	89	174	35,050	54,632	15,175	84,983
Dooly	100,945	4,106	---	---	64	12,335	57,573	7,676	19,191
Early	165,154	---	363	1,387	29	22,475	77,639	8,627	54,634
Grady	146,824	---	---	2,800	166	12,779	71,239	2,850	56,990
Irwin	101,003	---	---	---	55	10,277	64,003	2,667	24,001
Lanier	81,878	---	9,230	---	15	20,254	21,825	10,912	19,642
Lowndes	201,628	---	1,749	140	561	67,190	45,792	10,775	75,421
Miller	62,493	---	---	---	30	15,874	30,283	4,659	11,647
Mitchell	113,564	---	---	---	10	5,356	69,127	21,039	18,032
Seminole	42,801	---	3,561	561	56	3,502	14,634	5,854	14,633
Thomas	178,749	---	---	20	485	7,114	55,110	43,508	72,512
Tift	53,727	---	---	480	245	---	16,737	2,790	33,475
Turner	84,410	---	---	---	70	11,203	24,379	---	48,758
Wilcox	146,141	---	---	82	24	25,846	63,099	6,009	51,081
Worth	165,151	---	---	19	92	31,747	78,408	5,227	49,658
Total	2,633,068	4,106	22,244	9,650	3,951	384,421	1,114,123	213,200	881,373

^aIncludes 95,603 acres of other private land under long-term lease.

Table 3.--Area of timberland, by county and forest-type group, Southwest Georgia, 1988

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					
Baker	107,757	---	---	30,519	8,579	17,162	25,750	25,747	---	---
Ben Hill	102,631	---	---	60,419	13,562	2,917	14,065	11,668	---	---
Berrien	164,479	---	---	63,508	14,687	17,720	12,822	55,742	---	---
Brooks	149,745	---	---	30,955	13,726	16,471	39,719	48,874	---	---
Colquitt	137,772	---	---	68,925	16,075	19,299	3,145	27,571	2,757	---
Cook	62,769	---	---	14,078	7,666	11,732	3,050	26,243	---	---
Crisp	66,554	---	---	12,455	3,912	13,145	5,258	31,784	---	---
Decatur	196,893	---	---	74,203	39,616	22,592	41,912	18,570	---	---
Dooly	100,945	---	---	24,228	11,514	3,839	38,446	22,918	---	---
Early	165,154	---	---	28,955	29,691	11,038	49,924	45,546	---	---
Grady	146,824	---	---	22,058	24,202	16,361	52,861	28,492	2,850	---
Irwin	101,003	---	---	42,702	10,456	16,000	10,722	21,123	---	---
Lanier	81,878	---	---	26,724	10,461	15,897	6,563	22,233	---	---
Lowndes	201,628	---	---	71,318	4,809	38,245	36,229	51,027	---	---
Miller	62,493	---	---	11,964	5,922	4,659	23,642	16,306	---	---
Mitchell	113,564	---	---	69,125	12,022	9,017	17,388	6,012	---	---
Seminole	42,801	---	---	14,635	2,927	---	9,397	15,842	---	---
Thomas	178,749	---	---	61,313	17,402	26,103	47,314	26,617	---	---
Tift	53,727	---	---	14,193	8,850	13,946	5,580	11,158	---	---
Turner	84,410	---	---	51,592	3,258	3,483	7,036	19,041	---	---
Wilcox	146,141	---	---	60,886	9,876	9,013	14,378	51,988	---	---
Worth	165,151	---	---	72,757	35,669	7,840	17,521	31,364	---	---
Total	2,633,068	---	---	927,512	304,882	296,479	482,722	615,866	5,607	---

Table 4.--Area of timberland, by county and stand-size class, Southwest Georgia, 1988

County	All stands	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling- seedling	
Acres					
Baker	107,757	58,164	10,491	34,333	4,769
Ben Hill	102,631	21,463	31,132	34,407	15,629
Berrien	164,479	64,008	45,867	44,477	10,127
Brooks	149,745	65,795	31,413	49,792	2,745
Colquitt	137,772	58,630	31,885	41,743	5,514
Cook	62,769	26,281	12,164	21,545	2,779
Crisp	66,554	33,921	10,514	19,490	2,629
Decatur	196,893	88,625	57,684	47,549	3,035
Dooly	100,945	42,487	26,756	31,702	--
Early	165,154	40,808	56,308	65,163	2,875
Grady	146,824	70,818	33,464	36,844	5,698
Irwin	101,003	56,003	18,913	20,754	5,333
Lanier	81,878	19,371	38,846	21,479	2,182
Lowndes	201,628	80,207	69,794	51,627	--
Miller	62,493	16,306	9,318	32,210	4,659
Mitchell	113,564	33,061	12,021	65,476	3,006
Seminole	42,801	19,901	5,854	11,192	5,854
Thomas	178,749	119,341	21,216	38,192	--
Tift	53,727	31,164	2,790	16,983	2,790
Turner	84,410	41,792	14,910	24,226	3,482
Wilcox	146,141	54,168	30,840	44,564	16,569
Worth	165,151	80,076	35,400	40,105	9,570
Total	2,633,068	1,122,390	607,580	793,853	109,245

Table 5.--Area of timberland, by county and site class, Southwest Georgia, 1988

County	All classes	Site class (cubic feet per acre per year)				
		>164	120-164	85-119	50-84	20-49
<u>Acres</u>						
Baker	107,757	--	--	39,098	62,938	5,721
Ben Hill	102,631	--	11,668	10,839	77,127	2,997
Berrien	164,479	--	2,531	38,948	92,321	30,679
Brooks	149,745	--	8,236	53,489	72,543	15,477
Colquitt	137,772	--	8,271	42,088	76,384	11,029
Cook	62,769	--	2,347	9,386	45,910	5,126
Crisp	66,554	--	5,258	22,315	35,261	3,720
Decatur	196,893	--	8,261	51,754	130,808	6,070
Dooly	100,945	--	--	50,053	47,054	3,838
Early	165,154	--	2,137	30,433	118,208	14,376
Grady	146,824	--	5,700	56,921	84,203	--
Irwin	101,003	--	7,789	26,457	58,757	8,000
Lanier	81,878	--	2,182	8,550	57,550	13,596
Lowndes	201,628	--	2,694	57,525	130,859	10,550
Miller	62,493	--	7,305	17,569	23,325	14,294
Mitchell	113,564	3,006	--	68,472	36,074	6,012
Seminole	42,801	--	1,780	11,707	17,607	11,707
Thomas	178,749	--	17,403	67,223	88,323	5,800
Tift	53,727	--	2,789	17,218	33,720	--
Turner	84,410	--	--	19,041	58,404	6,965
Wilcox	146,141	--	3,005	59,457	72,412	11,267
Worth	165,151	--	--	42,046	110,037	13,068
Total	2,633,068	3,006	99,356	800,589	1,529,825	200,292

Table 6.--Area of timberland, by county and stocking class of growing-stock trees, Southwest Georgia, 1988

County	All classes	Stocking class (percent) ^a				
		>130	100-130	60-99	16.7-59	<16.7
<u>Acres</u>						
Baker	107,757	4,769	16,207	56,270	25,742	4,769
Ben Hill	102,631	11,228	33,153	30,659	11,962	15,629
Berrien	164,479	19,197	51,905	73,125	10,125	10,127
Brooks	149,745	5,490	42,081	74,267	25,162	2,745
Colquitt	137,772	5,514	41,356	66,089	19,299	5,514
Cook	62,769	2,346	24,368	23,892	9,384	2,779
Crisp	66,554	7,887	8,740	22,552	24,746	2,629
Decatur	196,893	8,260	60,464	94,782	30,352	3,035
Dooly	100,945	3,838	23,961	36,660	36,486	--
Early	165,154	8,627	56,122	78,139	19,391	2,875
Grady	146,824	--	34,864	60,007	46,255	5,698
Irwin	101,003	11,125	34,245	34,511	15,789	5,333
Lanier	81,878	6,456	30,906	37,970	4,364	2,182
Lowndes	201,628	8,082	62,442	94,755	36,349	--
Miller	62,493	--	16,306	18,982	22,546	4,659
Mitchell	113,564	9,016	42,076	36,076	23,390	3,006
Seminole	42,801	--	13,477	17,618	5,852	5,854
Thomas	178,749	--	29,025	85,403	64,321	--
Tift	53,727	2,789	25,105	20,253	2,790	2,790
Turner	84,410	3,483	34,178	29,336	13,931	3,482
Wilcox	146,141	5,302	28,625	65,486	30,159	16,569
Worth	165,151	4,034	45,835	71,735	33,977	9,570
Total	2,633,068	127,443	755,441	1,128,567	512,372	109,245

^aSee stocking standards on page 12.

Table 7.--Volume of growing stock and sawtimber on timberland, by county and species group, Southwest Georgia, 1988

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				
Baker	124,121	50,111	11,552	9,478	52,980	502,933	235,102	32,889	32,197	202,745
Ben Hill	98,618	78,469	4,170	11,648	4,331	292,236	244,117	10,302	28,390	9,427
Berrien	227,931	128,544	31,209	51,648	16,530	654,528	465,456	69,716	79,060	40,296
Brooks	200,259	66,625	25,875	70,775	36,984	673,082	269,373	78,891	204,148	120,670
Colquitt	175,485	111,247	8,940	40,400	14,898	560,543	419,467	3,458	79,469	58,149
Cook	97,075	42,649	4,405	29,613	20,408	314,380	179,684	12,222	57,240	65,234
Crisp	86,251	38,080	3,123	21,778	23,270	293,879	155,712	12,613	50,190	75,364
Decatur	285,867	180,332	10,811	53,699	41,025	1,066,182	750,002	56,971	139,484	119,725
Dooley	117,703	44,688	18,620	33,289	21,106	418,070	182,545	87,765	88,260	59,500
Early	189,728	55,211	11,122	64,825	58,570	554,984	157,488	27,297	177,029	193,170
Grady	181,307	88,566	---	39,288	53,453	678,432	379,695	---	113,943	184,794
Irwin	182,376	116,252	16,063	41,208	8,853	628,005	436,924	61,615	109,147	20,319
Lanier	97,071	56,426	15,823	23,010	1,812	265,645	173,598	49,946	40,254	1,847
Lowndes	262,443	103,942	17,177	88,900	52,424	781,787	331,446	60,426	209,783	180,132
Miller	54,955	17,230	6,355	17,836	13,534	193,730	75,089	13,946	50,384	54,331
Mitchell	112,589	72,170	4,831	21,347	14,241	406,330	293,677	19,959	56,180	36,514
Seminole	48,499	22,576	3,492	11,877	10,554	183,831	106,076	17,776	23,708	36,271
Thomas	252,439	159,479	---	39,393	53,567	1,134,823	834,989	---	108,989	190,845
Tift	95,082	41,444	5,820	41,290	6,528	299,469	180,042	19,329	78,787	21,311
Turner	116,023	65,453	30,045	15,603	4,922	409,120	230,893	119,090	47,622	11,515
Wilcox	158,294	66,765	13,727	47,311	30,491	524,961	225,722	56,545	127,691	115,003
Worth	218,214	145,772	6,701	41,901	23,840	714,648	494,832	25,182	125,976	68,658
Total	3,382,330	1,752,031	249,861	816,117	564,321	11,551,598	6,821,909	835,938	2,027,931	1,865,820

^aFactors 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, Southwest Georgia, 1981-1987

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										
Baker	4,509	2,545	239	271	1,454	22,007	14,106	563	837	6,501
Ben Hill	6,225	5,433	113	418	261	21,668	20,176	313	544	635
Berrien	8,721	5,613	976	1,343	789	31,972	24,246	2,202	3,616	1,908
Brooks	6,497	3,344	400	1,246	1,507	22,778	13,006	1,418	4,432	3,922
Colquitt	9,109	6,824	478	1,129	678	35,345	31,328	159	2,089	1,769
Cook	3,787	2,051	126	887	723	22,522	14,589	367	2,164	5,402
Crisp	2,725	1,519	30	662	514	15,341	9,950	162	2,236	2,993
Decatur	13,014	9,786	344	1,344	1,540	47,200	37,286	1,894	3,358	4,662
Dooly	4,283	2,264	262	841	916	23,011	16,689	1,342	2,631	2,349
Early	8,702	5,057	166	1,481	1,998	25,245	12,224	582	6,183	6,256
Grady	7,525	4,601	—	1,129	1,795	30,601	19,255	—	4,091	7,255
Irwin	7,637	5,803	269	1,158	407	39,074	34,007	1,232	2,819	1,016
Lanier	4,606	3,786	179	501	140	15,279	12,336	981	1,941	21
Lowndes	11,280	7,056	254	2,202	1,768	39,714	26,586	1,026	6,071	6,031
Miller	1,877	839	248	397	393	10,252	6,575	860	1,022	1,795
Mitchell	5,521	4,259	122	506	634	29,001	23,704	710	1,477	3,110
Seminole	1,832	850	63	620	299	5,994	2,958	331	1,475	1,230
Thomas	8,864	6,049	—	1,149	1,666	46,590	33,686	—	4,696	8,208
Tift	3,403	1,998	126	1,024	255	16,240	10,660	610	3,948	1,022
Turner	5,090	4,199	336	314	241	20,661	17,322	1,649	1,031	659
Wilcox	6,714	4,587	278	948	901	29,149	19,923	1,363	3,648	4,215
Worth	11,231	8,773	162	1,177	1,119	48,946	36,530	602	5,828	5,986
Total	143,152	97,236	5,171	20,747	19,998	598,590	437,142	18,366	66,137	76,945

Table 9.--Average annual removals of growing stock and sawtimber on timberland, by county and species group, Southwest Georgia, 1981-1987

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										
Baker	6,350	4,858	—	—	1,492	23,610	17,546	—	—	6,064
Ben Hill	8,250	6,838	238	700	474	27,925	22,723	590	2,982	1,630
Berrien	10,942	8,971	446	1,457	68	38,246	33,082	1,733	3,116	315
Brooks	5,570	4,677	—	213	680	24,874	22,845	—	618	1,411
Colquitt	8,875	8,434	—	188	253	27,586	26,561	—	—	1,025
Cook	3,566	2,932	194	187	253	13,735	11,645	770	330	990
Crisp	8,001	7,617	—	307	77	27,940	27,265	—	222	453
Decatur	4,172	3,452	—	236	484	16,418	13,939	—	619	1,860
Dooly	5,115	2,163	—	1,558	1,394	19,626	8,692	—	6,805	4,129
Early	8,864	4,980	95	1,281	2,508	23,097	13,134	—	3,624	6,339
Grady	11,843	7,347	—	1,642	2,854	58,525	39,086	—	6,995	12,444
Irwin	6,386	5,330	—	1,056	—	25,639	22,584	—	3,055	—
Lanier	1,448	1,197	—	125	126	4,206	3,890	—	—	316
Lowndes	3,969	2,223	445	977	324	13,282	7,537	1,927	2,797	1,021
Miller	3,900	2,097	—	226	1,577	15,498	8,357	—	370	6,771
Mitchell	6,045	4,777	—	123	1,145	13,298	9,267	—	501	3,530
Seminole	465	293	—	172	—	2,304	1,744	—	560	—
Thomas	4,884	4,035	—	471	378	21,843	20,515	—	531	797
Tift	6,681	6,463	—	155	63	25,416	25,204	—	212	—
Turner	6,932	5,546	—	1,045	341	26,051	23,689	—	1,656	706
Wilcox	13,573	10,120	563	1,791	1,099	34,119	21,775	3,372	5,538	3,434
Worth	7,482	6,926	—	119	437	27,758	25,719	—	567	1,472
Total	143,313	111,276	1,981	14,029	16,027	510,996	406,799	8,392	41,098	54,707

Unit Tables

Table 10.--Area of timberland, by forest type and ownership class, Southwest Georgia, 1988

Forest type	All ownerships	Ownership class				
		National forest	Other public	Forest industry	Forest industry- leased	Other private
<u>Acres</u>						
Softwood types						
White pine-hemlock	--	--	--	--	--	--
Spruce-fir	--	--	--	--	--	--
Longleaf pine	205,264	--	3,395	18,483	3,482	179,904
Slash pine	722,248	4,106	1,958	126,996	23,884	565,304
Loblolly pine	280,467	--	4,771	42,814	28,973	203,909
Shortleaf pine	12,534	--	--	6,572	--	5,962
Virginia pine	--	--	--	--	--	--
Sand pine	--	--	--	--	--	--
Eastern redcedar	--	--	--	--	--	--
Pond pine	11,881	--	--	--	8,875	3,006
Spruce pine	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--
Total	1,232,394	4,106	10,124	194,865	65,214	958,085
Hardwood types						
Oak-pine	296,479	--	--	23,345	5,216	267,918
Oak-hickory	466,424	--	7,872	28,800	7,445	422,307
Chestnut oak	--	--	--	--	--	--
Southern scrub oak	16,298	--	--	2,252	--	14,046
Oak-gum-cypress	615,866	--	17,849	39,556	17,728	540,733
Elm-ash-cottonwood	5,607	--	--	--	--	5,607
Maple-beech-birch	--	--	--	--	--	--
Total	1,400,674	--	25,721	93,953	30,389	1,250,611
All types	2,633,068	4,106	35,845	288,818	95,603	2,208,696

Table 11.--Area of timberland, by ownership and stocking classes of growing-stock trees, Southwest Georgia, 1988

Ownership class	All classes	Stocking class (percent) ^a				
		>130	100-130	60-99	16.7-59	<16.7
<u>Acres</u>						
National forest	4,106	--	--	2,053	2,053	--
Other public	35,845	1,475	12,252	19,385	2,733	--
Forest industry	288,818	7,611	110,096	124,028	39,101	7,982
Forest industry-leased	95,603	11,065	39,132	27,353	11,412	6,641
Other private	2,208,696	107,292	593,961	955,748	457,073	94,622
All ownerships	2,633,068	127,443	755,441	1,128,567	512,372	109,245

^aSee stocking standards on page 12.

Table 12.--Area of timberland, by forest type and stand-size class,
Southwest Georgia, 1988

Forest type	All stands	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling- seedling	
<u>Acres</u>					
Softwood types					
White pine-hemlock	--	--	--	--	--
Spruce-fir	--	--	--	--	--
Longleaf pine	205,264	153,144	16,100	15,981	20,039
Slash pine	722,248	264,990	212,163	229,514	15,581
Loblolly pine	280,467	126,353	18,174	130,532	5,408
Shortleaf pine	12,534	12,534	--	--	--
Virginia pine	--	--	--	--	--
Sand pine	--	--	--	--	--
Eastern redcedar	--	--	--	--	--
Pond pine	11,881	2,190	6,685	3,006	--
Spruce pine	--	--	--	--	--
Pitch pine	--	--	--	--	--
Table Mountain pine	--	--	--	--	--
Total	1,232,394	559,211	253,122	379,033	41,028
Hardwood types					
Oak-pine	296,479	130,138	53,842	109,754	2,745
Oak-hickory	466,424	115,921	115,815	208,126	26,562
Chestnut oak	--	--	--	--	--
Southern scrub oak	16,298	--	--	--	16,298
Oak-gum-cypress	615,866	314,270	184,801	94,183	22,612
Elm-ash-cottonwood	5,607	2,850	--	2,757	--
Maple-beech-birch	--	--	--	--	--
Total	1,400,674	563,179	354,458	414,820	68,217
All types	2,633,068	1,122,390	607,580	793,853	109,245

Table 13.--Area of timberland, by stand-age and broad management classes, all ownerships, Southwest Georgia, 1988

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
		<u>Acres</u>				
0-10	535,099	263,803	51,699	53,908	127,557	38,132
11-20	190,098	68,344	18,384	32,614	38,968	31,788
21-30	246,147	91,094	68,943	24,938	17,508	43,664
31-40	405,842	47,596	225,241	38,564	31,761	62,680
41-50	240,523	5,117	98,618	28,085	23,469	85,234
51-60	225,193	2,850	72,419	27,255	29,729	92,940
61-70	112,332	--	30,582	11,962	5,607	64,181
71-80	40,211	--	5,658	5,082	11,022	18,449
81+	56,904	--	--	5,530	2,901	48,473
No manageable stand	580,719	19,044	163,002	68,541	194,200	135,932
All classes	2,633,068	497,848	734,546	296,479	482,722	621,473

Table 14.--Area of timberland, by stand-age and broad management classes, public ownerships, Southwest Georgia, 1988

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
				<u>Acres</u>		
0-10	6,862	875	1,883	--	3,230	874
11-20	--	--	--	--	--	--
21-30	1,781	--	--	--	--	1,781
31-40	7,944	2,053	2,496	--	--	3,395
41-50	19,073	--	4,870	--	4,422	9,781
51-60	1,780	--	--	--	--	1,780
61-70	--	--	--	--	--	--
71-80	--	--	--	--	--	--
81+	--	--	--	--	--	--
No manageable stand	2,511	--	2,053	--	220	238
All classes	39,951	2,928	11,302	--	7,872	17,849

Table 15.--Area of timberland, by stand-age and broad management classes, forest industry,^a Southwest Georgia, 1988

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
<u>Acres</u>						
0-10	100,911	78,242	8,717	5,212	5,238	3,502
11-20	57,619	45,578	4,770	2,191	2,800	2,280
21-30	66,534	51,273	4,726	5,604	3,302	1,629
31-40	34,487	4,893	17,381	--	5,813	6,400
41-50	27,280	2,190	15,967	5,601	--	3,522
51-60	18,874	--	4,380	2,480	--	12,014
61-70	16,614	--	8,002	2,191	--	6,421
71-80	1,908	--	--	--	--	1,908
81+	1,908	--	--	--	--	1,908
No manageable stand	58,286	--	13,960	5,282	21,344	17,700
All classes	384,421	182,176	77,903	28,561	38,497	57,284

^aIncludes 95,603 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 Southwest Georgia, 1988

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
				Acres		
0-10	427,326	184,686	41,099	48,696	119,089	33,756
11-20	132,479	22,766	13,614	30,423	36,168	29,508
21-30	177,832	39,821	64,217	19,334	14,206	40,254
31-40	363,411	40,650	205,364	38,564	25,948	52,885
41-50	194,170	2,927	77,781	22,484	19,047	71,931
51-60	204,539	2,850	68,039	24,775	29,729	79,146
61-70	95,718	--	22,580	9,771	5,607	57,760
71-80	38,303	--	5,658	5,082	11,022	16,541
81+	54,996	--	--	5,530	2,901	46,565
No manageable stand	519,922	19,044	146,989	63,259	172,636	117,994
All classes	2,208,696	312,744	645,341	267,918	436,353	546,340

^aExcludes 95,603 acres of other private land under long-term lease to forest industry.

Table 17.--Area of timberland, by broad management and stand-volume classes, Southwest Georgia, 1988

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	497,848	309,166	54,003	41,391	52,065	41,223
Natural pine	734,546	123,457	117,355	114,514	132,113	247,107
Oak-pine	296,479	92,614	74,396	34,511	41,567	53,391
Upland hardwood	482,722	258,366	93,141	70,916	24,077	36,222
Lowland hardwood	621,473	116,691	100,113	87,994	68,764	247,911
All classes	2,633,068	900,294	439,008	349,326	318,586	625,854

Table 18.--Volume of growing stock on timberland, by broad management class, species group, and stand-age class, Southwest Georgia, 1988

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	318,891	4,481	4,121	50,318	140,950	91,736	22,779	4,506	---	---	---
Hardwood	9,440	---	635	719	3,490	4,282	---	314	---	---	---
Total	328,331	4,481	4,756	51,037	144,440	96,018	22,779	4,820	---	---	---
Natural pine											
Softwood	1,125,258	94,525	18,173	15,021	128,843	397,678	224,376	157,722	75,176	13,744	---
Hardwood	89,825	5,379	1,172	3,674	3,184	34,766	17,528	15,803	5,686	2,633	---
Total	1,215,083	99,904	19,345	18,695	132,027	432,444	241,904	173,525	80,862	16,377	---
Oak-pine											
Softwood	211,777	32,259	13,324	14,729	15,504	27,730	38,058	32,055	23,792	8,027	6,299
Hardwood	148,427	14,989	4,494	2,398	10,950	21,203	31,725	27,756	22,326	6,921	5,665
Total	360,204	47,248	17,818	17,127	26,454	48,933	69,783	59,811	46,118	14,948	11,964
Upland hardwood											
Softwood	52,433	12,009	13,752	5,758	3,412	5,757	6,456	2,645	1,719	925	---
Hardwood	276,009	64,394	18,930	15,828	9,873	32,799	37,167	54,695	10,482	27,668	4,173
Total	328,442	76,403	32,682	21,586	13,285	38,556	43,623	57,340	12,201	28,593	4,173
Lowland hardwood											
Softwood	293,533	15,022	904	6,096	14,027	23,622	45,115	41,093	34,056	14,001	99,597
Hardwood	856,737	63,849	8,939	14,771	39,382	100,414	114,319	196,522	144,645	68,733	105,163
Total	1,150,270	78,871	9,843	20,867	53,409	124,036	159,434	237,615	178,701	82,734	204,760
All types											
Softwood	2,001,892	158,296	50,274	91,922	302,736	546,523	336,784	238,021	134,743	36,697	105,896
Hardwood	1,380,438	148,611	34,170	37,390	66,879	193,464	200,739	295,090	183,139	105,955	115,001
Total	3,382,330	306,907	84,444	129,312	369,615	739,987	537,523	533,111	317,882	142,652	220,897

Table 19. --Average net annual growth of growing stock on timberland, by broad management class, species group, and stand-age class, Southwest Georgia, 1981-1987

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	30,577	284	3,094	10,598	10,868	5,099	538	96	---	---	---
Hardwood	806	---	10	126	286	365	---	19	---	---	---
Total	31,383	284	3,104	10,724	11,154	5,464	538	115	---	---	---
Natural pine											
Softwood	51,376	3,777	1,491	1,212	8,366	21,352	8,367	4,583	1,948	280	---
Hardwood	3,724	173	40	187	401	1,609	662	444	194	14	---
Total	55,100	3,950	1,531	1,399	8,767	22,961	9,029	5,027	2,142	294	---
Oak-pine											
Softwood	10,102	1,862	856	1,209	933	1,436	1,466	1,233	756	292	59
Hardwood	5,363	665	236	162	542	1,322	923	792	488	94	139
Total	15,465	2,527	1,092	1,371	1,475	2,758	2,389	2,025	1,244	386	198
Upland hardwood											
Softwood	2,414	509	685	334	206	290	259	54	61	16	---
Hardwood	9,239	2,175	848	941	589	1,383	1,018	1,401	258	532	94
Total	11,653	2,684	1,533	1,275	795	1,673	1,277	1,455	319	548	94
Lowland hardwood											
Softwood	7,938	710	61	384	667	676	1,650	1,184	741	230	1,635
Hardwood	21,613	2,320	620	1,174	1,913	2,788	3,018	4,507	2,528	1,091	1,654
Total	29,551	3,030	681	1,558	2,580	3,464	4,668	5,691	3,269	1,321	3,289
All types											
Softwood	102,407	7,142	6,187	13,737	21,040	28,853	12,280	7,150	3,506	818	1,694
Hardwood	40,745	5,333	1,754	2,590	3,731	7,467	5,621	7,163	3,468	1,731	1,887
Total	143,152	12,475	7,941	16,327	24,771	36,320	17,901	14,313	6,974	2,549	3,581

^aClassifications 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, Southwest Georgia, 1981-1987

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	38,025	749	144	8,734	20,723	7,152	523	---	---	---	---	---
Hardwood	108	---	80	---	28	---	---	---	---	---	---	---
Total	38,133	749	224	8,734	20,751	7,152	523	---	---	---	---	---
Natural pine												
Softwood	57,230	5,072	199	1,679	22,561	9,596	10,799	5,947	1,193	---	---	184
Hardwood	2,578	---	---	57	287	624	956	654	---	---	---	---
Total	59,808	5,072	199	1,736	22,848	10,220	11,755	6,601	1,193	---	---	184
Oak-pine												
Softwood	10,860	1,732	493	915	2,427	1,363	1,694	2,236	---	---	---	---
Hardwood	2,880	108	---	181	913	200	1,209	269	---	---	---	---
Total	13,740	1,840	493	1,096	3,340	1,563	2,903	2,505	---	---	---	---
Upland hardwood												
Softwood	2,056	352	94	415	---	76	412	119	---	---	484	104
Hardwood	9,153	1,867	116	576	362	1,615	1,242	556	765	1,785	269	269
Total	11,209	2,219	210	991	362	1,691	1,654	675	765	2,269	373	373
Lowland hardwood												
Softwood	5,086	412	---	206	493	787	1,113	1,039	328	136	572	572
Hardwood	15,337	1,249	267	168	933	3,174	3,897	3,750	439	405	1,055	1,055
Total	20,423	1,661	267	374	1,426	3,961	5,010	4,789	767	541	1,627	1,627
All types												
Softwood	113,257	8,317	930	11,949	46,204	18,974	14,541	9,341	1,521	620	860	860
Hardwood	30,056	3,224	463	982	2,523	5,613	7,304	5,229	1,204	2,190	1,324	1,324
Total	143,313	11,541	1,393	12,931	48,727	24,587	21,845	14,570	2,725	2,810	2,184	2,184

^a Classifications before timber removals.

Table 21.--Merchantable volume of live trees and growing stock on timberland, by forest-type and species groups, Southwest Georgia, 1988

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	1,183,798	1,101,709	6,752	32,290	43,047	1,162,489	1,100,631	6,752	26,080	29,026
Loblolly-shortleaf pine	391,477	339,000	240	25,122	27,115	380,925	336,526	240	22,028	22,131
Oak-pine	392,178	196,747	16,943	87,484	91,004	360,204	195,686	16,091	72,469	75,958
Oak-hickory	399,180	51,274	1,552	89,219	257,135	328,442	51,056	1,377	76,830	199,179
Oak-gum-cypress	1,293,888	67,633	232,475	718,077	275,703	1,147,346	67,633	225,401	617,522	236,790
Elm-ash-cottonwood	3,286	499	--	1,188	1,599	2,924	499	--	1,188	1,237
Maple-beech-birch	--	--	--	--	--	--	--	--	--	--
All types	3,663,807	1,756,862	257,962	953,380	695,603	3,382,330	1,752,031	249,861	816,117	564,321

Table 22.--Area of timberland treated or disturbed annually and retained in timberland, by treatment or disturbance and ownership class, Southwest Georgia, 1981 to 1988

Treatment or disturbance	All ownerships	Ownership class			
		Public	Forest industry	Forest industry-- leased	Other private
<u>Acres^a</u>					
Final harvest	62,672	97	8,958	3,129	50,488
Partial harvest ^b	18,957	--	797	226	17,934
Commercial thinning	10,969	--	1,552	330	9,087
Other stand improvement	3,480	--	--	--	3,480
Site preparation	25,866	--	8,562	2,586	14,718
Artificial regeneration ^c	34,650	120	7,492	1,988	25,050
Natural regeneration ^c	29,919	510	1,292	425	27,692
Other treatment	3,752	--	--	--	3,752
Natural disturbance	34,145	585	6,266	1,905	25,389

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

^bIncludes high grading and some selective cutting.

^cIncludes 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, Southwest Georgia, 1981 to 1988

Treatment or disturbance	All classes	Broad management class ^a				
		Pine plantation	Natural pine	Oak- pine	Upland hardwood	Lowland hardwood
<u>Acres^b</u>						
Final harvest	62,672	11,403	26,864	9,574	8,082	6,749
Partial harvest ^c	18,957	197	8,710	2,216	1,699	6,135
Commercial thinning	10,969	6,955	3,624	390	--	--
Other stand improvement	3,480	1,179	1,911	--	390	--
Site preparation	25,866	8,120	9,271	3,442	2,996	2,037
Other treatment	3,752	369	1,439	--	1,581	363
Natural disturbance	34,145	11,069	5,152	2,472	7,749	7,703

^aClassification before treatment or disturbance.

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

^cIncludes high grading and some selective cutting.

Table 24.--Area of timberland regenerated annually, by type of regeneration and broad management class, Southwest Georgia, 1981 to 1988

Type of regeneration	All classes	Broad management class ^a				
		Pine plantation	Natural pine	Oak- pine	Upland hardwood	Lowland hardwood
<u>Acres</u>						
Artificial regeneration following harvest	16,362	14,932	--	1,430	--	--
Natural regeneration following harvest	13,684	--	1,928	2,115	6,147	3,494
Other artificial regen- eration on forest land	3,247	3,247	--	--	--	--
Other natural regen- eration on forest land	10,820	--	1,126	2,282	7,049	363
Artificial regeneration on nonforest land	15,041	15,041	--	--	--	--
Natural reversion of nonforest land	5,415	--	2,009	746	1,816	844
Total	64,569	33,220	5,063	6,573	15,012	4,701

^aClassification after regeneration.

Table 25.--Area of timberland, by treatment opportunity and broad management classes, Southwest Georgia, 1988

Treatment opportunity class	All classes	Broad management class				
		Pine plantation	Natural pine	Oak- pine	Upland hardwood	Lowland hardwood
<u>Acres</u>						
Salvage	10,451	7,706	--	--	--	2,745
Harvest	83,067	--	10,146	7,721	8,259	56,941
Commercial thinning	43,120	13,952	23,547	--	--	5,621
Other stand improvement	190,262	--	26,961	51,469	67,600	44,232
Stand conversion	41,537	3,035	--	4,995	20,261	13,246
Regeneration	580,481	19,044	163,002	68,541	194,200	135,694
Stands in relatively good condition	1,625,112	454,111	507,855	163,753	192,402	306,991
Adverse sites ^a	59,038	--	3,035	--	--	56,003
All classes	2,633,068	497,848	734,546	296,479	482,722	621,473

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

Table 26.--Area of timberland, by treatment opportunity and ownership classes, Southwest Georgia, 1988

Treatment opportunity class	All ownerships	Ownership class			
		Public	Forest industry	Forest industry-leased	Other private
<u>Acres</u>					
Salvage	10,451	--	2,137	--	8,314
Harvest	83,067	--	8,198	--	74,869
Commercial thinning	43,120	--	6,067	6,112	30,941
Other stand improvement	190,262	3,230	10,352	1,241	175,439
Stand conversion	41,537	--	4,991	2,804	33,742
Regeneration	580,481	2,273	40,233	18,053	519,922
Stands in relatively good condition	1,625,112	24,429	216,840	67,393	1,316,450
Adverse sites ^a	59,038	10,019	--	--	49,019
All classes	2,633,068	39,951	288,818	95,603	2,208,696

^aAreas 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, Southwest Georgia, 1988

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	10,158	9,210	--	948	--	9,744	9,210	--	534	--
Other public	50,293	21,208	2,023	8,166	18,896	47,292	21,208	2,023	7,725	16,336
Forest industry	391,048	258,483	12,610	63,342	56,613	371,763	258,483	12,049	53,198	48,033
Forest industry-leased	62,768	45,571	--	12,919	4,278	59,695	45,571	--	10,589	3,535
Other private	3,149,540	1,422,390	243,329	868,005	615,816	2,893,836	1,417,559	235,789	744,071	496,417
All ownerships	3,663,807	1,756,862	257,962	953,380	695,603	3,382,330	1,752,031	249,861	816,117	564,321

Table 28.--Volume of sawtimber on timberland, by ownership class and species group, Southwest Georgia, 1988

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	19,148	17,200	--	1,948	--	23,474	23,474	--	--	--
Other public	82,798	53,447	988	5,534	22,829	83,188	34,054	6,363	10,373	32,398
Forest industry	666,373	552,294	15,102	46,963	52,014	501,697	276,703	33,125	95,417	96,452
Forest industry-leased	66,046	55,724	--	7,650	2,672	44,036	18,288	--	18,306	7,442
Other private	5,085,717	3,318,040	426,503	850,790	490,384	4,979,121	2,472,685	353,857	990,950	1,161,629
All ownerships	5,920,082	3,996,705	442,593	912,885	567,899	5,631,516	2,825,204	393,345	1,115,046	1,297,921

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

Table 29.---Average net annual growth and removals of growing stock on timberland, by ownership class and species group, Southwest Georgia, 1981-1987

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	380	370	--	10	--	--	--	--	--	--
Other public	1,406	586	26	289	505	--	2,760	--	--	--
Forest industry	21,727	18,734	168	1,094	1,731	23,437	22,265	--	32	1,140
Forest industry-leased	5,875	5,425	--	316	134	5,535	3,422	--	1,162	951
Other private	113,764	72,121	4,977	19,038	17,628	111,581	82,829	1,981	12,835	13,936
All ownerships	143,152	97,236	5,171	20,747	19,998	143,313	111,276	1,981	14,029	16,027

Table 30.---Average net annual growth and removals of sawtimber on timberland, by ownership class and species group, Southwest Georgia, 1981-1987

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	2,542	2,486	--	56	--	--	--	--	--	--
Other public	5,445	2,734	164	671	1,876	10,313	10,313	--	--	--
Forest industry	64,774	56,066	743	3,071	4,894	68,913	65,413	--	--	3,500
Forest industry-leased	12,317	11,194	--	765	358	10,381	4,647	--	2,225	3,509
Other private	513,512	364,662	17,459	61,574	69,817	421,389	326,426	8,392	38,873	47,698
All ownerships	598,590	437,142	18,366	66,137	76,945	510,996	406,799	8,392	41,098	54,707

Table 31.--Volume of timber on timberland, by class of timber and species group, Southwest Georgia, 1988

Class of timber	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
- - - - - <u>Thousand cubic feet</u> - - - - -					
Sawtimber trees					
Saw-log portion	2,134,849	1,237,390	171,028	392,502	333,929
Upper-stem portion ^a	267,435	111,206	22,069	80,139	54,021
Total	2,402,284	1,348,596	193,097	472,641	387,950
Poletimber trees	980,046	403,435	56,764	343,476	176,371
All growing-stock trees	3,382,330	1,752,031	249,861	816,117	564,321
Rough trees					
Sawtimber size	141,261	2,840	2,470	53,622	82,329
Poletimber size	105,686	1,991	1,259	65,730	36,706
Total	246,947	4,831	3,729	119,352	119,035
Rotten trees					
Sawtimber size	30,438	--	3,943	14,468	12,027
Poletimber size	4,092	--	429	3,443	220
Total	34,530	--	4,372	17,911	12,247
Salvable dead trees					
Sawtimber size	6,374	4,470	142	564	1,198
Poletimber size	4,036	2,768	178	579	511
Total	10,410	7,238	320	1,143	1,709
Total, all timber	3,674,217	1,764,100	258,282	954,523	697,312

^aIncludes cull sections in the saw-log portion.

Table 32.--Number of live trees on timberland, by species and diameter class, Southwest Georgia, 1988

Species	All classes	Diameter class (inches at breast height)												21.0- 29.0 and larger
		1.0- 2.9	3.0- 4.9	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9			
Thousand trees														
Softwood														
Longleaf pine	27,372	4,136	3,990	3,962	4,256	3,825	3,337	2,129	1,065	426	152	94	--	--
Slash pine	200,115	53,558	49,019	40,243	26,332	15,001	8,573	4,371	1,744	698	321	255	--	--
Shortleaf pine	5,465	673	1,350	1,427	840	377	233	264	139	110	47	5	--	--
Loblolly pine	67,278	25,232	18,631	7,842	4,069	3,539	2,862	1,837	1,515	910	360	463	18	--
Pond pine	4,536	977	475	1,175	795	440	321	167	88	50	19	29	--	--
Virginia pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	1,834	1,212	--	235	133	41	25	38	31	63	--	52	4	--
Sand pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	1,812	159	488	118	49	150	249	115	208	109	70	79	18	--
Pondcypress	64,767	31,206	11,189	9,534	4,557	3,761	1,874	1,296	831	245	174	97	3	--
Cedars	580	350	--	141	--	--	46	43	--	--	--	--	--	--
Total softwoods	373,759	117,503	85,142	64,677	41,031	27,134	17,520	10,260	5,621	2,611	1,143	1,074	43	--
Hardwood														
Select white oaks	7,451	3,863	1,166	834	497	434	255	232	75	22	50	18	5	--
Select red oaks	628	510	--	--	73	--	--	--	17	24	--	--	4	--
Chestnut oak	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other white oaks	28,932	17,628	5,648	1,534	1,054	639	731	397	448	300	78	375	100	--
Other red oaks	234,435	161,614	34,108	16,726	8,023	4,930	3,543	1,930	1,393	806	483	751	128	--
Hickory	12,884	8,208	2,495	595	532	471	240	179	41	38	39	42	4	--
Yellow birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hard maple	1,017	505	168	--	240	79	25	--	--	--	--	--	--	--
Soft maple	146,378	111,457	20,089	7,753	3,666	1,441	711	532	403	155	87	79	5	--
Beech	886	347	--	378	--	38	56	--	--	48	19	--	--	--
Sweetgum	73,965	47,578	12,621	7,023	3,212	1,202	1,147	617	271	160	86	48	--	--
Tupelo and blackgum	265,974	148,935	59,304	26,382	11,743	8,070	5,114	3,125	1,634	986	265	397	19	--
Ash	8,490	6,392	664	293	314	359	208	79	63	37	47	34	--	--
Cottonwood	144	--	--	113	--	--	31	--	--	--	--	--	--	--
Basswood	80	--	--	--	--	80	--	--	--	--	--	--	--	--
Yellow-poplar	11,864	4,845	2,459	1,790	786	616	439	349	185	177	106	108	4	--
Bay and magnolia	46,263	28,006	8,749	3,896	2,634	1,143	776	513	219	129	98	92	8	--
Black cherry	24,540	18,709	3,703	1,255	419	285	106	58	--	--	--	5	--	--
Black walnut	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sycamore	64	--	--	--	53	--	--	--	--	--	11	--	--	--
Black locust	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm	3,636	1,627	393	770	543	155	71	42	14	13	--	8	--	--
Other eastern hardwoods	118,492	92,426	17,529	5,920	1,308	460	422	142	166	46	29	41	3	--
Total hardwoods	986,123	652,650	169,096	75,262	35,097	20,402	13,875	8,195	4,929	2,941	1,398	1,998	280	--
All species	1,359,882	770,153	254,238	139,939	76,128	47,536	31,395	18,455	10,550	5,552	2,541	3,072	323	--

Table 33.---Number of growing-stock trees on timberland, by species and diameter class, Southwest Georgia, 1988

Species	All classes	Diameter class (inches at breast height)														29.0 and larger
		Thousand trees														
		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	21.0-22.9	23.0-24.9			
Softwood																
Longleaf pine	26,866	3,796	3,824	3,962	4,256	3,825	3,337	2,129	1,065	426	152	94	--			
Slash pine	195,616	50,267	48,030	40,024	26,332	15,001	8,573	4,371	1,744	698	321	255	--			
Shortleaf pine	5,133	673	1,018	1,427	840	377	233	264	139	110	47	5	--			
Loblolly pine	65,421	23,888	18,469	7,761	3,930	3,459	2,862	1,798	1,515	910	348	463	18			
Pond pine	3,684	342	475	958	795	440	321	167	88	50	19	29	--			
Virginia pine	--	--	--	--	--	--	--	--	--	--	--	--	--			
Pitch pine	--	--	--	--	--	--	--	--	--	--	--	--	--			
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--	--	--			
Spruce pine	1,482	860	--	235	133	41	25	38	31	63	--	52	4			
Sand pine	--	--	--	--	--	--	--	--	--	--	--	--	--			
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--	--	--			
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--			
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--	--	--			
Baldcypress	1,688	159	488	--	49	150	249	115	208	109	70	79	12			
Pondcypress	60,337	27,838	10,875	9,243	4,410	3,616	1,849	1,241	801	233	165	66	--			
Cedars	439	350	--	--	--	--	46	43	--	--	--	--	--			
Total softwoods	360,666	108,173	83,179	63,610	40,745	26,909	17,495	10,166	5,591	2,599	1,122	1,043	34			
Hardwood																
Select white oaks	5,215	2,340	497	834	497	434	233	232	75	22	28	18	5			
Select red oaks	628	510	--	--	73	--	--	--	17	24	--	--	4			
Chestnut oak	--	--	--	--	--	--	--	--	--	--	--	--	--			
Other white oaks	12,263	7,501	2,306	872	335	389	303	146	205	104	19	47	36			
Other red oaks	183,284	118,912	29,190	15,384	7,385	4,299	3,251	1,735	1,240	738	416	652	82			
Hickory	7,919	3,714	2,165	595	472	390	240	179	41	38	39	42	4			
Yellow birch	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hard maple	594	337	--	--	178	79	--	--	--	--	--	--	--			
Soft maple	58,376	37,359	12,262	4,715	1,999	917	469	265	238	60	47	45	--			
Beech	539	--	--	378	--	38	56	--	--	48	19	--	--			
Sweetgum	54,252	31,791	9,927	6,170	2,876	1,202	1,147	617	254	148	86	34	--			
Tupelo and blackgum	170,726	74,745	48,190	21,925	9,494	6,590	4,355	2,737	1,375	821	205	278	11			
Ash	4,196	2,615	502	80	250	359	180	79	46	25	37	23	--			
Cottonwood	144	--	--	113	--	--	31	--	--	--	--	--	--			
Basswood	80	--	--	--	--	80	--	--	--	--	--	--	--			
Yellow-poplar	10,710	4,226	2,128	1,676	716	616	439	349	185	177	106	88	4			
Bay and magnolia	32,027	17,865	6,744	3,191	1,904	860	663	356	160	129	88	67	--			
Black cherry	13,434	9,142	2,423	1,164	370	196	81	58	--	--	--	--	--			
Black walnut	--	--	--	--	--	--	--	--	--	--	--	--	--			
Sycamore	64	--	--	--	53	--	--	--	--	--	11	--	--			
Black locust	--	--	--	--	--	--	--	--	--	--	--	--	--			
Elm	--	--	--	--	--	--	--	--	--	--	--	--	--			
Other eastern hardwoods	2,606	910	224	770	425	155	45	42	14	13	--	8	--			
Total hardwoods	14,919	11,337	2,181	1,066	120	83	30	33	45	11	--	13	--			
All species	571,976	323,304	118,739	58,933	27,147	16,687	11,523	6,828	3,895	2,358	1,101	1,315	146			
	932,642	431,477	201,918	122,543	67,892	43,596	29,018	16,994	9,486	4,957	2,223	2,358	180			

Table 34.—Merchantable volume of live trees on timberland, by species and diameter class, Southwest Georgia, 1988

Species	All classes	Diameter class (inches at breast height)											19.0- 20.9	21.0- 28.9	29.0 and larger
		5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9							
		Thousand cubic feet													
Softwood															
Longleaf pine	314,388	12,031	32,575	51,335	69,127	65,350	43,335	21,077	9,775	9,783	---	---			
Slash pine	951,766	111,738	183,409	196,369	177,650	130,378	69,748	38,325	21,282	22,867	---	---			
Shortleaf pine	47,251	3,004	6,147	5,590	5,820	9,677	5,939	6,415	3,812	847	---	---			
Loblolly pine	398,062	21,490	26,266	47,569	58,239	52,669	64,975	49,075	26,039	48,036	3,704	---			
Pond pine	31,051	2,904	4,555	4,823	5,922	3,846	3,226	2,212	1,134	2,429	---	---			
Virginia pine	---	---	---	---	---	---	---	---	---	---	---	---			
Pitch pine	---	---	---	---	---	---	---	---	---	---	---	---			
Table Mountain pine	---	---	---	---	---	---	---	---	---	---	---	---			
Spruce pine	14,344	632	675	496	261	1,340	1,251	3,229	---	5,443	1,017	---			
Sand pine	---	---	---	---	---	---	---	---	---	---	---	---			
Eastern white pine	---	---	---	---	---	---	---	---	---	---	---	---			
Eastern hemlock	---	---	---	---	---	---	---	---	---	---	---	---			
Spruce and fir	---	---	---	---	---	---	---	---	---	---	---	---			
Baldcypress	36,660	241	177	1,893	4,963	2,810	7,693	4,857	3,767	6,761	3,498	---			
Pondcypress	219,276	29,461	28,398	44,804	32,162	31,309	28,284	9,985	8,569	6,043	261	---			
Cedars	2,026	175	---	---	856	995	---	---	---	---	---	---			
Total softwoods	2,014,824	181,676	282,202	352,879	355,000	298,374	224,451	135,175	74,378	102,209	8,480	---			
Hardwood															
Select white oaks	32,170	2,922	3,194	4,742	5,384	6,017	2,807	1,218	2,716	2,364	806	---			
Select red oaks	4,091	---	306	---	---	---	561	1,474	---	---	1,750	---			
Chestnut oak	---	---	---	---	---	---	---	---	---	---	---	---			
Other white oaks	94,189	3,232	4,741	5,568	9,756	8,197	11,839	10,569	3,293	23,679	13,315	---			
Other red oaks	467,109	46,129	48,074	55,053	62,628	50,171	48,690	37,352	27,882	69,754	21,376	---			
Hickory	30,429	1,278	3,020	5,277	4,453	4,856	1,853	1,930	2,792	4,222	748	---			
Yellow birch	---	---	---	---	---	---	---	---	---	---	---	---			
Hard maple	2,342	---	1,213	734	395	---	---	---	---	---	---	---			
Soft maple	110,326	21,806	22,132	13,423	12,022	12,070	13,024	4,993	4,516	5,852	488	---			
Beech	6,425	795	---	376	1,005	---	---	2,792	1,457	---	---	---			
Sweetgum	120,056	15,435	19,647	15,238	22,123	17,904	10,445	8,644	6,241	4,379	---	---			
Tupelo and blackgum	528,946	69,070	72,465	87,979	87,981	75,070	52,817	41,562	13,163	26,902	1,937	---			
Ash	24,413	668	1,890	4,968	3,831	2,298	2,345	1,413	3,151	3,849	---	---			
Cottonwood	678	229	---	---	449	---	---	---	---	---	---	---			
Basswood	862	---	---	862	---	---	---	---	---	---	---	---			
Yellow-poplar	71,184	4,937	5,005	7,520	9,240	9,681	7,426	9,692	7,193	9,823	667	---			
Bay and magnolia	94,956	11,278	17,549	11,269	15,246	12,709	8,204	5,724	4,987	7,121	869	---			
Black cherry	12,602	3,056	2,831	2,871	1,608	1,819	---	---	---	417	---	---			
Black walnut	---	---	---	---	---	---	---	---	---	---	---	---			
Sycamore	1,066	---	386	---	---	---	---	---	---	---	---	---			
Black locust	---	---	---	---	---	---	---	---	680	---	---	---			
Elm	10,366	1,371	2,973	1,634	1,417	1,270	466	585	---	650	---	---			
Other eastern hardwoods	36,773	10,772	6,393	3,635	4,808	2,631	3,335	1,458	616	2,893	232	---			
Total hardwoods	1,648,983	192,978	211,819	221,149	242,346	204,693	163,812	129,406	78,687	161,905	42,188	---			
All species	3,663,807	374,654	494,021	574,028	597,346	503,067	388,263	264,581	153,065	264,114	50,668	---			

Table 35.--Volume of growing stock on timberland, by species and diameter class, Southwest Georgia, 1988

Species	All classes	Diameter class (inches at breast height)											19.0- 20.9	21.0- 28.9	29.0 and larger	
		5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9								
		Thousand cubic feet														
Softwood																
Longleaf pine	314,388	12,031	32,575	51,335	69,127	65,350	43,335	21,077	9,775	9,783	---	---				
Slash pine	951,200	111,172	183,409	196,369	177,650	130,378	69,748	38,325	21,282	22,867	---	---				
Shortleaf pine	47,251	3,004	6,147	5,590	5,820	9,677	5,939	6,415	3,812	847	---	---				
Loblolly pine	394,251	21,027	25,758	46,562	58,239	51,622	64,975	49,075	25,253	48,036	3,704	---				
Pond pine	30,597	2,450	4,555	4,823	5,922	3,846	3,226	2,212	1,134	2,429	---	---				
Virginia pine	---	---	---	---	---	---	---	---	---	---	---	---				
Pitch pine	---	---	---	---	---	---	---	---	---	---	---	---				
Table Mountain pine	---	---	---	---	---	---	---	---	---	---	---	---				
Spruce pine	14,344	632	675	496	261	1,340	1,251	3,229	---	5,443	1,017	---				
Sand pine	---	---	---	---	---	---	---	---	---	---	---	---				
Eastern white pine	---	---	---	---	---	---	---	---	---	---	---	---				
Eastern hemlock	---	---	---	---	---	---	---	---	---	---	---	---				
Spruce and fir	---	---	---	---	---	---	---	---	---	---	---	---				
Baldcypress	35,212	---	177	1,893	4,963	2,810	7,693	4,857	3,767	6,761	2,291	---				
Pondcypress	212,798	28,618	27,969	43,294	31,924	30,399	27,599	9,764	8,229	5,002	---	---				
Cedars	1,851	---	---	---	---	995	---	---	---	---	---	---				
Total softwoods	2,001,892	178,934	281,265	350,362	354,762	296,417	223,766	134,954	73,252	101,168	7,012	---				
Hardwood																
Select white oaks	31,158	2,922	3,194	4,742	4,969	6,017	2,807	1,218	2,119	2,364	806	---				
Select red oaks	4,091	---	306	---	---	---	561	1,474	---	---	1,750	---				
Chestnut oak	---	---	---	---	---	---	---	---	---	---	---	---				
Other white oaks	34,894	1,880	1,607	3,263	4,532	3,638	5,776	4,170	1,133	3,721	5,174	---				
Other red oaks	428,194	43,173	45,369	48,776	59,232	46,578	44,882	34,944	25,863	63,649	15,728	---				
Hickory	29,402	1,278	2,766	4,504	4,453	4,856	1,853	1,930	2,792	4,222	748	---				
Yellow birch	---	---	---	---	---	---	---	---	---	---	---	---				
Hard maple	1,703	---	969	734	---	---	---	---	---	---	---	---				
Soft maple	69,802	13,751	13,053	9,664	8,295	6,482	9,114	2,655	3,051	3,737	---	---				
Beech	6,425	795	---	376	1,005	---	---	2,792	1,457	---	---	---				
Sweetgum	115,536	13,701	18,152	15,238	22,123	17,904	10,184	8,341	6,241	3,652	---	---				
Tupelo and blackgum	459,761	59,194	60,675	75,078	77,916	68,155	46,645	37,759	11,363	21,530	1,446	---				
Ash	21,277	196	1,626	4,968	3,541	2,298	2,033	1,100	2,549	2,966	---	---				
Cottonwood	678	229	---	---	449	---	---	---	---	---	---	---				
Basswood	862	---	---	862	---	---	---	---	---	---	---	---				
Yellow-poplar	69,717	4,793	4,842	7,520	9,240	9,681	7,426	9,692	7,193	8,663	667	---				
Bay and magnolia	76,597	9,457	13,450	9,191	13,197	9,054	6,134	5,724	4,614	5,776	---	---				
Black cherry	10,780	2,752	2,572	2,200	1,437	1,819	---	---	---	---	---	---				
Black walnut	---	---	---	---	---	---	---	---	---	---	---	---				
Sycamore	1,066	---	386	---	---	---	---	---	680	---	---	---				
Black locust	---	---	---	---	---	---	---	---	---	---	---	---				
Elm	9,253	1,371	2,301	1,634	976	1,270	466	585	---	650	---	---				
Other eastern hardwoods	9,242	2,622	661	1,054	396	1,099	1,530	497	---	1,383	---	---				
Total hardwoods	1,380,438	158,114	171,929	189,804	211,761	178,851	139,411	112,881	69,055	122,313	26,319	---				
All species	3,382,330	337,048	453,194	540,166	566,523	475,268	363,177	247,835	142,307	223,481	33,331	---				

Table 36.—Volume of sawtimber on timberland, by species and diameter class, Southwest Georgia, 1988

Species	All classes	Diameter class (inches at breast height)										21.0- 28.9	29.0 and larger		
		9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	Thousand board feet							
Softwood															
Longleaf pine	1,401,918	210,650	332,695	351,796	250,583	128,373	61,799				66,022	---			
Slash pine	3,153,089	731,501	816,135	681,918	398,458	233,887	136,143				155,047	---			
Shortleaf pine	200,168	21,605	27,301	50,048	33,374	38,149	23,859				5,832	---			
Loblolly pine	1,870,737	170,049	261,359	266,506	368,455	295,368	159,675				322,405	26,920			
Pond pine	118,841	17,963	27,450	19,474	18,248	12,867	7,044				15,795	---			
Virginia pine	---	---	---	---	---	---	---				---	---			
Pitch pine	---	---	---	---	---	---	---				---	---			
Table Mountain pine	---	---	---	---	---	---	---				---	---			
Spruce pine	77,156	1,959	1,242	7,054	6,984	18,695	---				34,368	6,854			
Sand pine	---	---	---	---	---	---	---				---	---			
Eastern white pine	---	---	---	---	---	---	---				---	---			
Eastern hemlock	---	---	---	---	---	---	---				---	---			
Spruce and fir	---	---	---	---	---	---	---				---	---			
Baldcypress	172,856	5,788	19,314	12,207	36,524	24,669	20,374				39,236	14,744			
Pondcypress	653,685	135,928	125,051	134,908	133,750	50,656	44,452				28,940	---			
Cedars	9,397	---	4,286	5,111	---	---	---				---	---			
Total softwoods	7,657,847	1,295,443	1,614,833	1,529,022	1,246,376	802,664	453,346				667,645	48,518			
Hardwood															
Select white oaks	89,400	---	17,145	24,323	12,747	6,053	10,996				13,445	4,691			
Select red oaks	22,769	---	---	---	2,277	7,706	---				---	12,786			
Chestnut oak	---	---	---	---	---	---	---				---	---			
Other white oaks	130,645	---	16,117	15,037	25,242	19,846	5,670				19,784	28,949			
Other red oaks	1,425,995	---	227,153	203,697	214,594	177,461	137,926				366,164	99,000			
Hickory	95,029	---	15,291	19,445	8,625	9,258	14,388				23,422	4,600			
Yellow birch	---	---	---	---	---	---	---				---	---			
Hard maple	---	---	---	---	---	---	---				---	---			
Soft maple	136,827	---	27,352	24,649	38,929	12,066	14,717				19,114	---			
Beech	20,679	---	3,664	---	---	11,111	5,904				---	---			
Sweetgum	306,418	---	80,073	76,644	48,932	43,754	34,895				22,119	---			
Tupelo and blackgum	1,099,108	---	258,674	267,763	206,415	181,033	57,849				118,290	9,084			
Ash	63,885	---	11,595	8,818	8,804	5,063	12,838				16,767	---			
Cottonwood	1,447	---	1,447	---	---	---	---				---	---			
Basswood	---	---	---	---	---	---	---				---	---			
Yellow-poplar	264,359	---	33,782	41,926	36,500	52,227	41,229				54,055	4,640			
Bay and magnolia	183,456	---	44,604	34,620	26,422	26,451	21,725				29,634	---			
Black cherry	12,639	---	4,978	7,661	---	---	---				---	---			
Black walnut	---	---	---	---	---	---	---				---	---			
Sycamore	3,292	---	---	---	---	---	3,292				---	---			
Black locust	---	---	---	---	---	---	---				---	---			
Elm	---	---	---	---	---	---	---				---	---			
Other eastern hardwoods	16,543	---	3,548	5,164	2,042	2,613	---				3,176	---			
	21,260	---	1,276	4,338	6,244	2,148	---				7,254	---			
Total hardwoods	3,893,751	---	746,699	734,085	637,773	556,790	361,430				693,224	163,750			
All species	11,551,598	1,295,443	2,361,532	2,263,107	1,884,149	1,359,454	814,776				1,360,869	212,268			

Table 37.--Volume of sawtimber on timberland, by species, size class, and tree grade, Southwest Georgia, 1988

Species	All size classes				Trees 15.0 inches d.b.h. and larger			
	Tree grade		All grades		Tree grade			
	1	2	3	4	1	2	3	4
Softwood								
	Thousand board feet							
Yellow pines ^a	6,821,909	1,878,877	1,498,362	3,444,670	---	2,825,204	1,210,262	660,764
Eastern white pine ^b	---	---	---	---	---	---	---	954,178
Spruce and fir ^b	---	---	---	---	---	---	---	---
Cypress ^c	826,541	106,855	309,875	398,738	11,073	393,345	106,855	221,472
Other eastern softwoods ^b	9,397	---	2,591	4,286	2,520	---	---	62,411
Total	7,657,847	1,985,732	1,810,828	3,847,694	13,593	3,218,549	1,317,117	882,236
								1,016,589
								2,607
Hardwood^c								
Select white and red oaks	112,169	37,160	20,668	39,810	14,531	70,701	37,160	14,523
Other white and red oaks	1,556,640	260,047	413,335	626,620	256,638	1,094,636	260,047	343,821
Hickory	95,029	27,312	30,104	25,627	11,986	60,293	27,312	23,571
Yellow birch	---	---	---	---	---	---	---	---
Hard maple	---	---	---	---	---	---	---	---
Sweetgum	306,418	30,199	79,477	171,498	25,244	149,701	30,199	52,159
Ash, walnut, and black cherry	76,524	---	38,124	36,612	1,788	43,472	---	31,154
Yellow-poplar	264,359	79,465	98,006	74,805	12,083	188,651	79,465	12,318
Other eastern hardwoods	1,482,612	151,573	482,311	709,361	139,367	805,513	151,573	71,286
								27,743
								248,897
								60,368
Total	3,893,751	585,756	1,162,025	1,684,333	461,637	2,412,967	585,756	881,189
								707,315
								238,707
All species								
	11,551,598	2,571,488	2,972,853	5,532,027	475,230	5,631,516	1,902,873	1,763,425
								1,723,904
								241,314

^aFor 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.

^bFor 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.

^cFor 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, Southwest Georgia, 1988

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	250,302	42,756	63,242	62,259	42,051	20,667	9,643	9,684	—
Slash pine	591,299	157,174	160,956	123,867	67,824	37,775	21,067	22,636	—
Shortleaf pine	35,961	4,628	5,367	9,233	5,793	6,328	3,773	839	—
Loblolly pine	325,309	36,693	52,218	48,843	63,083	48,252	24,994	47,558	3,668
Pond pine	21,838	3,880	5,445	3,654	3,155	2,177	1,122	2,405	—
Virginia pine	—	—	—	—	—	—	—	—	—
Pitch pine	—	—	—	—	—	—	—	—	—
Table Mountain pine	—	—	—	—	—	—	—	—	—
Spruce pine	12,681	385	238	1,279	1,216	3,167	—	5,389	1,007
Sand pine	—	—	—	—	—	—	—	—	—
Eastern white pine	—	—	—	—	—	—	—	—	—
Eastern hemlock	—	—	—	—	—	—	—	—	—
Spruce and fir	—	—	—	—	—	—	—	—	—
Baldcypress	32,036	1,369	4,241	2,514	7,084	4,550	3,574	6,483	2,221
Pondcypress	137,281	33,375	28,021	27,910	25,941	9,301	7,891	4,842	—
Cedars	1,711	—	787	924	—	—	—	—	—
Total softwoods	1,408,418	280,260	320,515	280,483	216,147	132,217	72,064	99,836	6,896
Hardwood									
Select white oaks	17,139	—	3,607	4,925	2,465	1,116	1,980	2,269	777
Select red oaks	3,542	—	—	—	464	1,346	—	—	1,732
Chestnut oak	—	—	—	—	—	—	—	—	—
Other white oaks	24,509	—	3,290	3,044	5,012	3,762	1,039	3,477	4,885
Other red oaks	250,512	—	43,652	38,460	39,104	31,303	23,673	59,393	14,927
Hickory	17,788	—	3,202	3,961	1,642	1,732	2,568	3,966	717
Yellow birch	—	—	—	—	—	—	—	—	—
Hard maple	—	—	—	—	—	—	—	—	—
Soft maple	27,162	—	5,720	5,137	7,786	2,338	2,750	3,431	—
Beech	4,476	—	722	—	—	2,451	1,303	—	—
Sweetgum	56,752	—	15,740	14,786	9,039	7,720	5,919	3,548	—
Tupelo and blackgum	217,917	—	55,749	55,637	40,582	33,950	10,434	20,178	1,387
Ash	12,327	—	2,485	1,858	1,774	989	2,373	2,848	—
Cottonwood	287	—	287	—	—	—	—	—	—
Basswood	—	—	—	—	—	—	—	—	—
Yellow-poplar	45,940	—	6,541	7,946	6,586	8,971	6,816	8,420	660
Bay and magnolia	37,424	—	9,385	7,415	5,449	5,268	4,332	5,575	—
Black cherry	2,573	—	1,052	1,521	—	—	—	—	—
Black walnut	—	—	—	—	—	—	—	—	—
Sycamore	609	—	—	—	—	—	609	—	—
Black locust	—	—	—	—	—	—	—	—	—
Elm	3,276	—	735	1,047	401	508	—	585	—
Other eastern hardwoods	4,198	—	263	915	1,320	449	—	1,251	—
Total hardwoods	726,431	—	152,430	146,652	121,624	101,903	63,796	114,941	25,085
All species	2,134,849	280,260	472,945	427,135	337,771	234,120	135,860	214,777	31,981

Table 39.---Total volume of live trees on timberland, by species and diameter class, Southwest Georgia, 1988

Species	All classes	Diameter class (inches at breast height)												19.0- 20.9	21.0- 28.9	29.0 and larger	
		1.0- 2.9	3.0- 4.9	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9							
		Thousand cubic feet															
Softwood																	
Longleaf pine	368,042	1,178	5,514	16,656	39,100	59,320	78,633	73,660	48,608	23,573	10,910	10,890	---	---	---		
Slash pine	1,194,876	14,819	58,565	154,879	221,282	226,916	201,751	146,719	78,097	42,755	23,688	25,405	---	---	---		
Shortleaf pine	56,100	158	1,285	4,119	7,363	6,465	6,630	10,956	6,692	7,211	4,274	947	---	---	---		
Loblolly pine	482,550	5,359	17,629	30,299	32,049	55,392	66,678	59,705	73,243	55,177	29,182	53,707	4,130	---	---		
Pond pine	37,210	184	559	3,937	5,501	5,624	6,807	4,392	3,665	2,512	1,284	2,745	---	---	---		
Virginia pine	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
Pitch pine	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
Table Mountain pine	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
Spruce pine	16,684	282	---	899	820	578	298	1,519	1,411	3,635	---	---	---	---	---		
Sand pine	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
Eastern white pine	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
Eastern hemlock	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
Spruce and fir	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
Baldcypress	45,201	66	516	386	223	2,354	6,040	3,405	9,308	5,841	4,509	8,079	4,474	---	---		
Pondcypress	323,411	10,498	16,551	49,225	39,613	58,910	41,372	39,839	35,780	12,581	10,805	7,850	387	---	---		
Cedars	2,580	59	---	298	---	---	1,030	1,193	---	---	---	---	---	---	---		
Total softwoods	2,526,654	32,603	100,619	260,698	345,951	415,559	409,239	341,388	256,804	153,285	84,652	115,727	10,129	---	---		
Hardwood																	
Select white oaks	42,837	899	1,116	4,087	4,175	6,010	6,725	7,491	3,483	1,507	3,444	2,911	989	---	---		
Select red oaks	5,135	95	---	---	393	---	---	---	692	1,813	---	---	2,142	---	---		
Chestnut oak	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
Other white oaks	129,322	3,906	7,405	5,305	6,454	7,123	12,264	10,126	14,591	12,926	4,048	28,919	16,255	---	---		
Other red oaks	688,490	34,801	47,261	72,022	64,653	70,959	79,342	62,890	60,908	46,581	34,828	86,982	27,263	---	---		
Hickory	42,213	1,446	2,870	2,061	3,960	6,629	5,474	5,907	2,235	2,323	3,350	5,058	900	---	---		
Yellow birch	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
Hard maple	3,268	89	231	---	1,557	907	484	---	---	---	---	---	---	---	---		
Soft maple	195,808	25,418	30,728	31,028	28,014	16,540	14,518	14,615	15,690	6,158	5,477	7,023	599	---	---		
Beech	8,323	78	---	1,281	---	476	1,264	---	---	3,435	1,789	---	---	---	---		
Sweetgum	171,316	10,662	15,430	22,848	24,401	18,001	25,621	20,525	11,926	9,830	7,062	5,010	---	---	---		
Tupelo and blackgum	803,288	46,400	83,901	103,438	93,845	109,648	107,951	91,446	64,463	50,513	16,112	33,095	2,476	---	---		
Ash	31,250	1,601	1,103	904	2,323	5,870	4,436	2,642	2,715	1,654	3,591	4,411	---	---	---		
Cottonwood	857	---	---	328	---	---	529	---	---	---	---	---	---	---	---		
Basswood	1,017	---	---	---	---	1,017	---	---	---	---	---	---	---	---	---		
Yellow-poplar	86,373	872	3,563	6,671	5,972	8,670	10,507	10,962	8,360	10,884	8,069	11,098	745	---	---		
Bay and magnolia	137,078	6,972	12,715	16,323	22,034	13,758	18,180	15,169	9,702	6,723	5,970	8,441	1,091	---	---		
Black cherry	26,832	5,967	5,203	4,202	3,464	3,440	1,926	2,140	---	---	---	490	---	---	---		
Black walnut	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
Sycamore	1,253	---	---	---	466	---	---	---	---	---	787	---	---	---	---		
Black locust	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
Elm	14,159	430	728	2,115	3,749	1,975	1,679	1,495	546	684	---	758	---	---	---		
Other eastern hardwoods	90,963	19,740	21,398	16,561	8,294	4,702	6,142	3,344	4,163	1,865	812	3,625	317	---	---		
Total hardwoods	2,479,782	159,376	233,652	289,174	273,754	275,725	297,042	248,752	199,474	156,896	95,339	197,821	52,777	---	---		
All species	5,006,436	191,979	334,271	549,872	619,705	691,284	706,281	590,140	456,278	310,181	179,991	313,548	62,906	---	---		

Table 40.—Green weight of forest biomass on timberland, by species and diameter class, Southwest Georgia, 1988

Species	All classes	Diameter class (inches at breast height)												19.0-20.9	21.0-28.9	29.0 and larger
		1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9						
Hundred thousand pounds																
Softwood																
Longleaf pine	287,056	1,004	4,643	11,574	29,453	45,915	61,637	58,110	38,542	18,860	8,672	8,646	---	---	---	---
Slash pine	917,776	11,151	54,141	112,103	166,939	173,611	155,195	113,297	60,382	32,947	18,317	19,693	---	---	---	---
Shortleaf pine	39,313	88	784	2,586	5,078	4,559	4,722	7,752	4,826	5,185	3,058	675	---	---	---	---
Loblolly pine	345,907	2,607	10,421	21,149	23,294	40,061	48,561	43,947	53,028	40,138	21,097	38,699	2,905	---	---	---
Pond pine	26,421	101	313	2,721	3,919	4,008	4,876	3,173	2,657	1,787	917	1,949	---	---	---	---
Virginia pine	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Pitch pine	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Table Mountain pine	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Spruce pine	11,633	227	---	473	545	388	235	1,060	1,009	2,599	---	4,310	787	---	---	---
Sand pine	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Eastern white pine	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Eastern hemlock	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Spruce and fir	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Baldcypress	35,761	40	331	181	192	1,607	4,439	2,620	7,166	4,664	3,741	6,808	3,972	---	---	---
Pondcypress	201,044	5,831	10,405	21,746	21,673	36,188	27,557	27,822	25,843	9,349	8,170	6,138	322	---	---	---
Cedars	1,870	34	---	257	---	---	743	836	---	---	---	---	---	---	---	---
Total softwoods	1,866,781	21,083	81,038	172,790	251,093	306,337	307,965	258,617	193,453	115,529	63,972	86,918	7,986	---	---	---
Hardwood																
Select white oaks	35,017	713	868	3,088	3,299	4,900	5,405	6,333	2,940	1,273	2,920	2,437	841	---	---	---
Select red oaks	4,581	81	---	---	328	---	---	---	572	1,584	---	---	2,016	---	---	---
Chestnut oak	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Other white oaks	117,780	2,891	5,450	3,463	5,180	6,149	10,819	9,246	13,488	12,217	3,848	28,541	16,488	---	---	---
Other red oaks	550,666	30,042	35,323	53,262	52,565	57,182	64,383	51,282	49,784	37,725	28,370	69,187	21,561	---	---	---
Hickory	34,701	1,219	2,531	1,440	3,159	5,206	4,421	4,825	1,867	1,958	2,834	4,422	819	---	---	---
Yellow birch	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Hard maple	2,936	70	195	---	1,395	825	451	---	---	---	---	---	---	---	---	---
Soft maple	144,359	19,243	21,817	22,095	21,132	12,660	10,829	10,961	11,560	4,661	3,933	5,051	417	---	---	---
Beech	6,427	67	758	758	421	421	1,015	---	---	2,736	1,430	---	---	---	---	---
Sweetgum	123,685	7,161	10,231	15,622	17,423	12,930	19,045	15,385	9,065	7,468	5,444	3,911	---	---	---	---
Tupelo and blackgum	523,696	31,383	56,358	53,295	57,100	69,655	71,398	63,228	45,587	36,416	11,904	25,266	2,106	---	---	---
Ash	18,799	967	685	808	1,668	3,581	2,790	1,575	1,535	967	1,984	2,239	---	---	---	---
Cottonwood	571	---	---	204	---	---	367	---	---	---	---	---	---	---	---	---
Basswood	675	---	---	---	---	675	---	---	---	---	---	---	---	---	---	---
Yellow-poplar	61,397	642	2,371	4,099	4,099	6,087	7,414	7,912	6,082	7,921	5,909	8,289	572	---	---	---
Bay and magnolia	85,613	4,240	7,919	8,962	13,556	8,636	11,478	9,821	6,233	4,431	3,954	5,672	711	---	---	---
Black cherry	16,494	2,767	3,484	2,503	2,239	2,313	1,334	1,463	---	---	---	391	---	---	---	---
Black walnut	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sycamore	893	---	---	---	303	---	---	---	---	---	590	---	---	---	---	---
Black locust	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Elm	9,221	317	498	1,265	2,393	1,290	1,110	990	389	461	---	508	---	---	---	---
Other eastern hardwoods	72,180	16,559	17,944	12,310	7,142	3,609	4,476	2,382	3,316	1,456	513	2,319	154	---	---	---
Total hardwoods	1,809,691	118,362	165,674	183,174	192,981	196,119	216,735	185,403	152,418	121,274	73,633	158,233	45,685	---	---	---
All species	3,676,472	139,445	246,712	355,964	444,074	502,456	524,700	444,020	345,871	236,803	137,605	245,151	53,671	---	---	---

Table 41.--Average net annual growth and removals of live timber and growing stock on timberland, by species, Southwest Georgia, 1981-1987

Species	Live timber ^a		Growing stock	
	Net annual growth	Annual timber removals	Net annual growth	Annual timber removals
	Thousand cubic feet			
Softwood				
Yellow pines	97,350	111,707	97,236	111,276
Eastern white pine	--	--	--	--
Spruce and fir	--	--	--	--
Cypress	5,128	2,020	5,098	1,981
Other eastern softwoods	80	--	73	--
Total softwoods	102,558	113,727	102,407	113,257
Hardwood				
Select white and red oaks	714	832	696	791
Other white and red oaks	18,879	15,942	17,970	13,872
Hickory	586	1,065	575	998
Yellow birch	--	--	--	--
Hard maple	36	--	32	--
Sweetgum	3,926	2,391	3,848	2,261
Ash, walnut, and black cherry	1,236	259	1,172	259
Yellow-poplar	2,953	3,619	2,929	3,619
Tupelo and blackgum	8,244	5,142	7,864	4,551
Bay and magnolia	2,026	1,129	1,890	1,129
Other eastern hardwoods	4,673	3,776	3,769	2,576
Total hardwoods	43,273	34,155	40,745	30,056
All species	145,831	147,882	143,152	143,313

^aMerchantable portion only.

Table 42.--Average net annual growth and removals of sawtimber on timberland, by species, Southwest Georgia, 1981-1987

Species	Net annual growth	Annual timber removals
	Thousand board feet	
Softwood		
Yellow pines	437,142	406,799
Eastern white pine	--	--
Spruce and fir	--	--
Cypress	17,957	8,392
Other eastern softwoods	409	--
Total softwoods	455,508	415,191
Hardwood		
Select white and red oaks	4,057	3,109
Other white and red oaks	67,468	48,171
Hickory	2,195	2,982
Yellow birch	--	--
Hard maple	111	--
Sweetgum	12,527	7,002
Ash, walnut, and black cherry	4,298	--
Yellow-poplar	14,062	13,415
Tupelo and blackgum	26,219	11,877
Bay and magnolia	4,842	2,736
Other eastern hardwoods	7,303	6,513
Total hardwoods	143,082	95,805
All species	598,590	510,996

Table 43.--Average annual removals of growing stock on timberland, by species and diameter class, Southwest Georgia, 1981-1987

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	111,276	8,349	20,750	21,692	19,963	15,138	11,664	6,265	2,649	4,465	341		
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--		
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--		
Cypress	1,981	170	136	134	238	447	209	71	79	--	497		
Other eastern softwoods	--	--	--	--	--	--	--	--	--	--	--		
Total softwoods	113,257	8,519	20,886	21,826	20,201	15,585	11,873	6,336	2,728	4,465	838		
Hardwood													
Select white and red oaks	791	46	--	--	148	421	86	--	--	90	--		
Other white and red oaks	13,872	1,028	1,714	1,614	1,850	1,025	1,161	1,431	267	2,536	1,246		
Hickory	998	84	98	154	88	321	--	87	166	--	--		
Yellow birch	--	--	--	--	--	--	--	--	--	--	--		
Hard maple	--	--	--	--	--	--	--	--	--	--	--		
Sweetgum	2,261	141	173	303	670	556	90	214	--	114	--		
Ash, walnut, and black cherry	259	--	--	259	--	--	--	--	--	--	--		
Yellow-poplar	3,619	171	300	421	572	162	961	654	187	191	--		
Tupelo and blackgum	4,551	496	435	826	750	612	730	311	224	167	--		
Bay and magnolia	1,129	101	62	235	437	74	156	64	--	--	--		
Other eastern hardwoods	2,576	406	221	449	203	361	210	239	117	370	--		
Total hardwoods	30,056	2,473	3,003	4,261	4,718	3,532	3,394	3,000	961	3,468	1,246		
All species	143,313	10,992	23,889	26,087	24,919	19,117	15,267	9,336	3,689	7,933	2,084		

Table 44.--Average annual mortality of live timber, growing stock, and sawtimber on timberland, by species, Southwest Georgia, 1981-1987

Species	Live timber ^a	Growing stock	Sawtimber
	<u>Thousand cubic feet</u>		<u>Thousand board feet</u>
Softwood			
Yellow pines	12,596	12,225	39,466
Eastern white pine	--	--	--
Spruce and fir	--	--	--
Cypress	500	439	787
Other eastern softwoods	102	102	--
Total softwoods	13,198	12,766	40,253
Hardwood			
Select white and red oaks	453	370	1,808
Other white and red oaks	12,003	9,511	32,579
Hickory	337	337	1,485
Yellow birch	--	--	--
Hard maple	119	119	221
Sweetgum	2,472	2,174	3,888
Ash, walnut, and black cherry	109	52	--
Yellow-poplar	805	653	1,822
Tupelo and blackgum	3,202	2,014	5,071
Bay and magnolia	1,511	1,171	1,627
Other eastern hardwoods	2,971	992	1,953
Total hardwoods	23,982	17,393	50,454
All species	37,180	30,159	90,707

^aMerchantable portion only.

Table 45.--Change in number of live trees on timberland, by species group, survey completion date, and diameter class, Southwest 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											
1981	379,848	94,586	98,278	75,337	48,402	29,117	16,800	8,919	8,409		
1988	306,600	85,788	73,465	54,884	36,425	23,223	15,351	8,806	8,658		
Change	-73,248	-8,798	-24,813	-20,453	-11,977	-5,894	-1,449	-113	+249		
Other softwood											
1981	75,172	36,880	13,728	11,124	4,485	3,843	2,339	1,510	1,263		
1988	67,159	31,715	11,677	9,793	4,606	3,911	2,169	1,454	1,834		
Change	-8,013	-5,165	-2,051	-1,331	+121	+68	-170	-56	+571		
Hardwood											
1981	1,080,208	717,584	196,421	72,949	38,107	21,049	14,360	8,615	11,123		
1988	986,123	652,650	169,096	75,262	35,097	20,402	13,875	8,195	11,546		
Change	-94,085	-64,934	-27,325	+2,313	-3,010	-647	-485	-420	+423		

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

Land use class	Survey completion date			Change 1981-1988
	1971	1981	1988	
	<u>Acres</u>			
Forest land				
Timberland:				
Pine and oak-pine types	1,789,378	1,533,475	1,528,873	-4,602
Hardwood types	1,094,453	1,102,845	1,104,195	+1,350
Total	2,883,831	2,636,320	2,633,068	-3,252
Reserved timberland	5,500	6,877	28	-6,849
Woodland	7,309	--	--	--
Total forest land	2,896,640	2,643,197	2,633,096	-10,101
Nonforest land				
Cropland	1,917,014	2,224,066	2,144,267	-79,799
Pasture and range	445,694	387,249	351,397	-35,852
Other	337,769	342,605	386,520	+43,915
Total	2,700,477	2,953,920	2,882,184	-71,736
All land^a	5,597,117	5,597,117	5,515,280	-81,837

^aExcludes 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, Southwest 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										
1971	6,118,077	--	--	1,107,432	1,434,643	1,393,698	949,423	579,076	285,617	368,188
1981	7,363,831	--	--	1,389,795	1,649,213	1,479,708	1,162,122	701,348	422,009	559,636
1988	7,657,847	--	--	1,295,443	1,614,833	1,529,022	1,246,376	802,664	453,346	716,163
Hardwood										
1971	2,893,442	--	--	--	576,389	573,927	496,708	333,630	282,712	630,076
1981	3,549,501	--	--	--	694,424	707,255	604,834	437,343	290,848	814,797
1988	3,893,751	--	--	--	746,699	734,085	637,773	556,790	361,430	856,974
GROWING STOCK (in thousand cubic feet)										
Softwood										
1971	1,816,187	245,036	268,568	311,018	326,351	281,720	176,606	101,145	47,876	57,867
1981	2,084,730	214,683	308,137	390,282	375,184	299,091	216,165	122,499	70,739	87,950
1988	2,001,892	178,934	281,265	350,362	354,762	296,417	223,766	134,954	73,252	108,180
Hardwood										
1971	1,088,765	109,563	161,384	173,202	169,542	140,390	107,642	66,728	53,223	107,091
1981	1,301,438	139,491	187,624	185,293	204,279	172,989	131,067	87,462	54,755	138,478
1988	1,380,438	158,114	171,929	189,804	211,761	178,851	139,411	112,881	69,055	148,632
LIVE TIMBER ^b (in thousand cubic feet)										
Softwood										
1971	1,828,321	245,983	270,368	312,219	328,347	284,229	177,912	101,785	48,022	59,456
1981	2,100,023	216,185	310,367	391,957	377,397	301,771	217,779	123,283	70,966	90,318
1988	2,014,824	181,676	282,202	352,879	355,000	298,374	224,451	135,175	74,378	110,689
Hardwood										
1971	1,309,305	144,295	197,860	196,059	191,652	163,198	126,018	79,201	64,176	146,846
1981	1,568,627	183,642	230,026	209,909	230,874	201,080	153,449	103,779	66,003	189,865
1988	1,648,983	192,978	211,819	221,149	242,346	204,693	163,812	129,406	78,687	204,093

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

^bMerchantable volume.

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Since 1981, area of timberland in Southwest Georgia has declined less than 1 percent and now totals 2.6 million acres. Nonindustrial private owners control 84 percent of the region's timberland. New pine stands were established annually on 38,000 acres, an area equal to the acreage of pine harvested. Number of softwood stems declined in all diameter classes through the 14-inch class. Volume of softwood growing stock is down 4 percent to 2.0 billion cubic feet. Volume of hardwood growing stock increased 6 percent to 1.4 billion cubic feet. Net annual growth of softwoods dropped from 166 million cubic feet to 102 million cubic feet. Hardwood growth was down 31 percent to 41 million cubic feet. Softwood removals declined 13 percent, exceeding net growth by 11 percent. Hardwood removals averaged 30 million cubic feet annually, with net growth exceeding removals by 35 percent. Mortality of softwood growing stock was down 31 percent to 13 million cubic feet, while mortality of hardwood growing stock increased by an equal rate to 17 million cubic feet.

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

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