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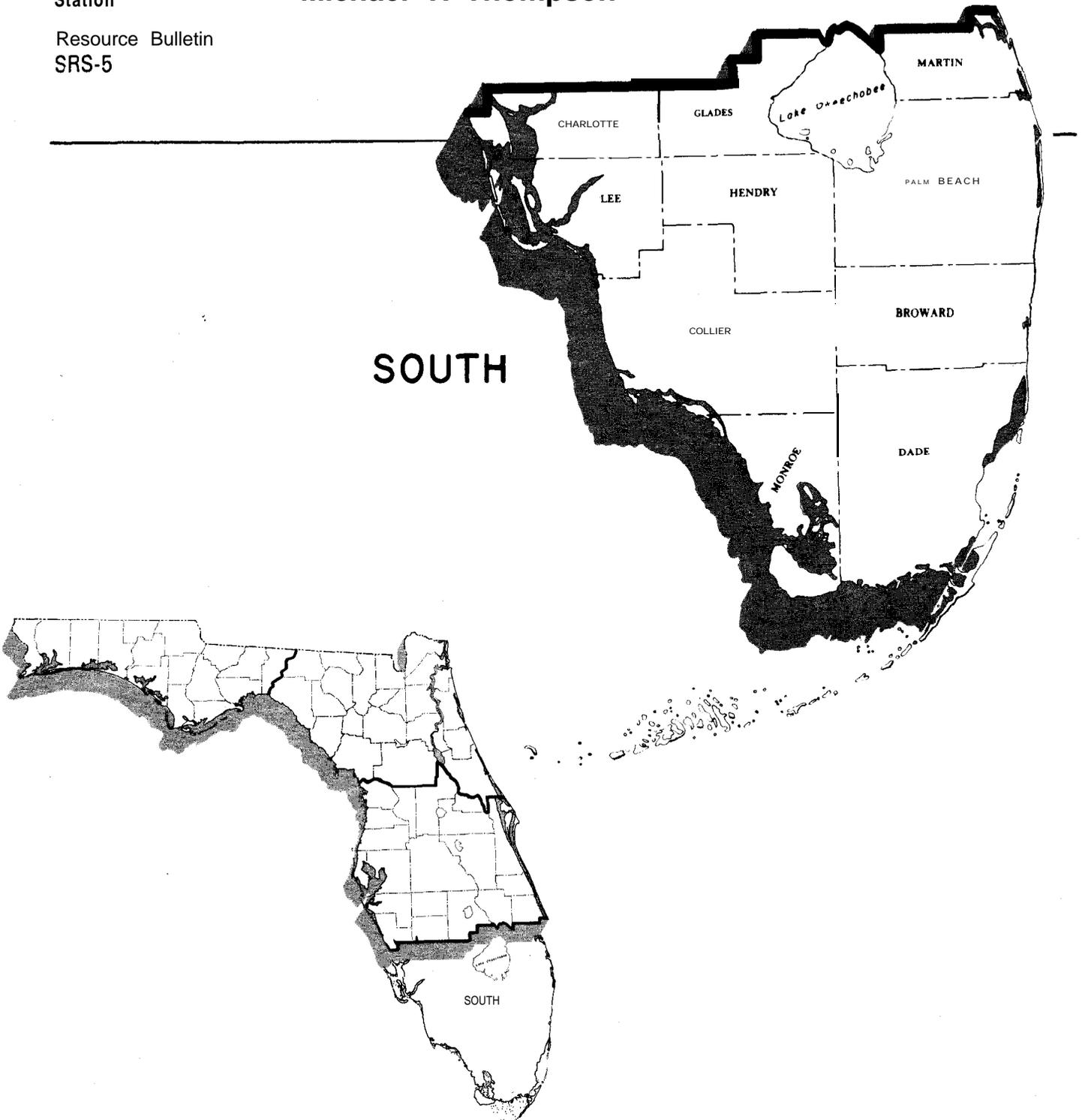


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# Forest Statistics for South Florida, 1995

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# **Forest Statistics for South Florida, 1995**

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## Foreword

This report highlights the principal findings of the seventh forest survey of South Florida. Field work began in September 1994 and was completed in November 1994. Six previous surveys, completed in 1936, 1949, 1959, 1970, 1980, and 1988 provide statistics for measuring changes and trends over the past 59 years. This report primarily emphasizes the changes and trends since 1988.

Periodic surveys of forest resources are authorized by the Forest and Rangeland Renewable Resources Research Act of 1978. These surveys are a continuing, nationwide undertaking by the Regional Experiment Stations of the USDA Forest Service. In the Southern United States, these surveys are conducted by two Forest Inventory and Analysis (FIA) Research Work Units at the Southern Research Station, Asheville, NC. The two FIA units, one located in Starkville, MS, and the other in Asheville, NC, are responsible for inventories of 13 Southern States and the Commonwealth of Puerto Rico. The primary objective of these surveys is to periodically inventory and evaluate all forest and related resources. These multiresource data help provide a basis for formulating forest policies and programs and for the orderly development and use of the resources. This report deals only with the extent and condition of forest land, associated timber volumes, and rates of timber growth, mortality, and removals.

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

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### Acknowledgments

The Southern Research Station gratefully acknowledges the cooperation and assistance provided by the Division of Forestry, Florida Department of Agriculture and Consumer Services 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.



## Contents

	<i>Page</i>
Introduction .....	1
Highlights .....	1
How the Inventory is Made .....	2
Statistical Reliability .....	3
Definitions .....	4
Conversion Factors .....	9
Index of Tables .....	10
Tables 1 -47 <sup>a</sup> .....	12

<sup>a</sup> All tables in this report are available in Microsoft® Excel workbook files. These files will be supplied, upon request, on 3½- or 5¼-inch diskettes.

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## Introduction

This report summarizes results from a 1995 inventory of the forest resources of South Florida. Current estimates of forest area, related attributes, and timber volumes are presented. Timber volumes reported in previous bulletins have been adjusted for valid comparisons with current assessments. Average annual rates of growth, removals, and mortality since the previous inventory in 1988 are summarized. The flora and physiography of South Florida are unique among conditions found in the South. Dense population patterns and other socioeconomic factors have resulted in rapid and sometimes dramatic changes in land use. All these factors greatly complicate inventory procedures in South Florida. To attain the accuracy levels achieved for most Survey Units would require a sampling intensity that is prohibitive in cost and time. The statistics presented in this report represent our best estimate at a reasonable expenditure of time and funds.

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## Highlights

### In 1995 in South Florida-

*\* area of timberland occupies less than 477,000 acres, or 6 percent of the total land area in this 10-county region.*

• *area of nonindustrial private forest (NIPF) land totals 439,000 acres. Nonindustrial private forest land ownerships control 92 percent of total timberland.*

• *area of timberland classified as a hardwood forest type totals 293,000 acres. Oak-gum-cypress is the predominant hardwood forest type. It occupies 288,000 acres, or 91 percent of total area classified as hardwood forest type. Pine forest types currently total 180,000 acres. Slash pine is the major pine type, accounting for almost 95 percent of this acreage. Oak-pine types account for 5 percent of total timberland area.*

• *natural agents such as fire, insects, disease, and weather were the primary disturbances to timberland in this region, damaging over 8,200 acres annually since 1988. Harvests and other cuttings occurred on nearly 5,000 acres annually, primarily on NIPF land. Regeneration succeeded on an average of 2,400 acres annually. Most regeneration occurred on NIPF land.*

• *volume of softwood growing stock totals 423 million cubic feet. Pond cypress remains the predominant species in the region at 287 million cubic feet. Volume of hardwood growing stock totals 34 million cubic feet. The total inventory of growing stock includes 1.4 billion board feet of sawtimber.*

• *net annual growth of growing stock averaged 9.2 million cubic feet. Net annual removals of growing stock averaged 13 million cubic feet. Softwoods accounted for 92 percent of removals.*

• *annual mortality of growing stock averaged under 3.1 million cubic feet. Softwood species accounted for 58 percent of the total.*

## How the Inventory is Made

Procedures used in the seventh inventory of the forest resources in South Florida included six basic steps.

1. Estimates of forest and nonforest areas were based on the ground classification of 2,158 sample clusters systematically distributed within the 1 O-county area. At each of the sample clusters, 18 points were classified as to land use.

2. Estimates of timber volume and forest classification were based on measurements recorded at 182 ground sample locations systematically distributed on timberland. The plot design at each location was based on a cluster of 10 points. In most cases, variable plots, established by using a basal-area factor of 37.5 square feet per acre, were systematically spaced within a single forest condition at 5 of the 10 cluster points. Trees less than 5 inches d.b.h. were tallied on a fixed-radius plot around each point center.

3. Equations prepared from detailed measurements collected on standing trees in this Survey Unit, and similar measurements taken throughout the Southeast, were used to compute the volume of individual tally trees. A mirror caliper and sectional aluminum poles were used to obtain the additional measurements required to construct volume equations. Forest biomass estimates were made from equations developed by the Utilization of Southern Timber Research Work Unit, Southern Research Station, Athens, GA.

4. Estimates of growth, removals, and mortality were determined from the remeasurement of 175 permanent sample plots established in the sixth survey.

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

8. 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.

## Statistical Reliability

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

Item	Sample estimate and confidence interval	Sampling error (percent)
Timberland (1, 000 acres)	476.7 ± 21.1	4.43
Growing stock (M ft <sup>3</sup> )		
Inventory	456.8 ± 53.5	11.72
Net annual growth	9.2 ± 1.7	18.16
Annual removals	13.0 ± 3.1	23.87
Annual mortality	5.3 ± 1.2	23.42
Sawtimber (M fbm)		
Inventory	1,394.1 ± 206.7	14.83
Net annual growth	39.5 ± 6.7	16.85
Annual removals	40.1 ± 11.6	28.94
Annual mortality	14.6 ± 3.9	27.03

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

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

where

$SE_s$  = sampling error for subdivision of Survey Unit or State total,

$SE_t$  = sampling error for Survey Unit or State total,

$X_s$  = sum of values for the variable of interest (area or volume) for subdivision of Survey Unit or State,

$X_t$  = total area or volume for Survey Unit or State.

For example, the estimate of sampling error for growing-stock volume on public timberland is computed as:

$$SE_s = 11.72 \frac{\sqrt{458.8}}{\sqrt{23.8}} = 51.3$$

Thus, the sampling error is 51.3 percent, and the resulting confidence interval (two times out of three) for growing-stock inventory on public timberland is 23.8 ± 12.2 million cubic feet.

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

Sampling errors for county and unit totals, in terms of one standard error, South Florida, 1995

County	Timberland area	Cubic-foot volume of growing stock		
		Inventory	Growth	Removals
<i>Sampling error<sup>a</sup></i>				
Broward	—	—	—	—
Charlotte	22.20	40.62	56.14	103.71
Collier	3.05	14.78	42.83	44.92
Dade	—	—	—	—
Glades	12.65	37.68	30.44	38.08
Hendry	14.60	34.83	37.72	46.06
Lee	15.41	35.79	46.89	72.91
Martin	19.19	32.02	49.41	—
Monroe	—	—	—	—
Palm Beach	—	—	—	—
<b>Total</b>	<b>4.43</b>	<b>11.72</b>	<b>18.16</b>	<b>23.87</b>

<sup>a</sup> By random-sampling, formula (in percent).

## Definitions

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

**Biomass.** The aboveground 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.

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

**Commercial forest land.** (see: Timberland).

**Commercial species.** Tree species currently or potentially suitable for industrial wood products. Noncommercial species 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 in inches (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 5.0-6.9 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 primary wood-using plants.

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

**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 5 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 tropicals.** 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 1 P-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.

**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, sweet-bay, 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, honey-locust, holly, black walnut, mulberry, and all commercial oaks.

**Idle farmland.** Cropland, orchard, improved pasture, and farm sites not tended within the past 2 years, and currently less than 18.7 percent stocked with live trees.

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

**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.

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

**Live trees.** All 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.

**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 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.

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

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

**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 8 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/Cinch rule).

**Seedlings.** Trees less than 1.0 inch in d.b.h. Only seedlings of a commercial species that are not overtopped and are more than 6 inches tall for softwoods and 1 foot tall for hardwoods are counted.

**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.

**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 live trees in the stand.

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

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

*Sapling-seedling stands.* Stands at least 16.7 percent stocked with live 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.

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

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

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

**Timber products.** Roundwood products and byproducts.

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

**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.

## CONVERSION FACTORS

Cubic feet of wood per average cord  
(excluding bark)

D.b.h. class	All species	Pine	Other softwood	Hardwood
6	65.3	61 .0	68.2	60.0
8	73.0	68.1	76.0	68.4
10	77.9	73.1	81.4	73.4
12	81.6	76.7	85.2	76.4
14	84.3	79.4	88.2	78.4
16	85.5	81.6	90.4	79.8
18	89.2	83.3	92.3	80.8
20	89.1	84.8	93.8	81.5
22	90.1	86.0	95.1	82.1
24 +	94.0	87.0	97.4	83.2
Average	78.7	72.8	82.2	74.6

### 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

## Index of Tables'

### County Tables

1. Area, by county and land class
2. Area of timberland, by county and ownership class
3. Area of timberland, by county and forest-type group
4. Area of timberland, by county and stand-size class
5. Area of timberland, by county and site class
6. Area of timberland, by county and stocking class of growing-stock trees
7. Volume of growing stock and sawtimber on timberland, by county and species group
8. Average net annual growth of growing stock and sawtimber on timberland, by county and species group
9. Average annual removals of growing stock and sawtimber on timberland, by county and species group
16. Area of timberland, by stand-age and broad management classes, other private ownerships
17. Area of timberland, by broad management and stand-volume classes
18. Volume of growing stock on timberland, by broad management class, species group, and stand-age class
19. Average net annual growth of growing stock on timberland, by broad management class, species group, and stand-age class
20. Average annual removals of growing stock on timberland, by broad management class, species group, and stand-age class
21. Merchantable volume of live trees and growing stock on timberland, by forest-type and species groups

### Unit Tables

10. Area of timberland, by forest type and ownership class
11. Area of timberland, by ownership and stocking classes of growing-stock trees
12. Area of timberland, by forest type and stand-size class
13. Area of timberland, by stand-age and broad management classes, all ownerships
14. Area of timberland, by stand-age and broad management classes, public ownerships
15. Area of timberland, by stand-age and broad management classes, forest industry
22. Area of timberland treated or disturbed annually and retained in timberland, by treatment or disturbance and ownership class
23. Area of timberland treated or disturbed annually and retained in timberland, by treatment or disturbance and broad management class
24. Area of timberland regenerated annually, by type of regeneration and broad management class
25. Area of timberland, by treatment opportunity and broad management classes
26. Area of timberland, by treatment opportunity and ownership classes
27. Merchantable volume of live trees and growing stock on timberland, by ownership class and species group
28. Volume of sawtimber on timberland, by ownership class and species group
29. Average net annual growth and removals of growing stock on timberland, by ownership class and species group

- 30. Average net annual growth and removals of sawtimber on timberland, by ownership class and species group
- 31. Volume of timber on timberland, by class of timber and species group
- 32. Number of live trees on timberland, by species and diameter class
- 33. Number of growing-stock trees on timberland, by species and diameter class
- 34. Merchantable volume of live trees on timberland, by species and diameter class
- 35. Volume of growing stock on timberland, by species and diameter class
- 36. Volume of sawtimber on timberland, by species and diameter class
- 37. Volume of sawtimber on timberland, by species, size class, and tree grade
- 38. Cubic volume in the merchantable saw-log portion of sawtimber trees on timberland, by species and diameter class
- 39. Total volume of live trees on timberland, by species and diameter class
- 40. Green weight of forest biomass on timberland, by species and diameter class
- 41. Average net annual growth and removals of live timber and growing stock on timberland, by species
- 42. Average net annual growth and removals of sawtimber on timberland, by species
- 43. Average annual removals of growing stock on timberland, by species and diameter class
- 44. Average annual mortality of live timber, growing stock, and sawtimber on timberland, by species
- 45. Change in number of live trees on timberland, by species group, survey completion date, and diameter class
- 46. Land area, by land use class, major forest type, and survey completion date
- 47. Volume of sawtimber, growing stock, and live timber on timberland, by species group, survey completion date, and diameter class

<sup>a</sup> Tables I-I 2, 27, 29-33, 35-38, 41, 42, and 44 are common to all Forest Inventory and Analysis forest resource statistical reports of the Eastern United States.

**Table 1 -Area, by county and land class, South Florida, 1995**

County	All land <sup>a</sup>	Forest land				Nonforest land <sup>b</sup>
		Total	Timberland	Woodland	Reserved timberland	
<i>Acres</i>						
Broward	773,669	21,101		21,101		752,566
Charlotte	443,949	50,668	30,289	20,379		393,281
Collier	<b>1,296,288</b>	602,655	190,458	263,870	148,327	693,633
Dade	<b>1,244,454</b>	160,640		127,764	32,876	<b>1,083,814</b>
Glades	495,040	103,368	91,648	11,720	-	391,672
<b>Hendry</b>	737,728	71,626	62,831	8,795		666,102
Lee	514,304	118,714	60,872	57,842		395,590
Martin	355,629	51,434	40,647	7,407	3,380	304,195
Monroe	638,253	364,908	-	275,857	89,051	273,345
Palm Beach	<b>1,301,971</b>	122,420	-	122,420		<b>1,179,551</b>
<b>Total</b>	<b>7,801,305</b>	<b>1,667,534</b>	476,745	917,155	273,634	<b>6,133,771</b>

<sup>a</sup> From the U.S. Bureau of the Census, 1990.

<sup>b</sup> Includes 91,426 acres of water according to Forest Inventory and Analysis standards of area classification, but defined by the Bureau of Census as land.

**Table Z-Area of timberland, by county and ownership class, South Florida, 1995**

County	All ownerships	Ownership class							
		National forest	Miscellaneous Federal	State	County and municipal	Forest industry <sup>a</sup>	Other private		
<i>Acres</i>									
Broward	-	-	-	-	-	-	-	-	-
Charlotte	30,289	-	-	7,114	200	-	1,532	16,646	4,595
Collier	190,458	-	-	8,851	200	-	22,327	19,536	139,544
Dade		-	-			-			
Glades	91,648	-	-	-	60	-	2,862	88,726	-
<b>Hendry</b>	62,831	-	-	459		-		41,581	20,791
Lee	60,872	-	-	4,800	4,100	-		10,941	41,031
Martin	40,647	-	-	11,854	300	-		14,247	14,246
Monroe	-	-	-	-	-	-	-	-	-
Palm Beach	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>476,745</b>	<b>-</b>	<b>-</b>	<b>33,078</b>	<b>4,860</b>	<b>-</b>	<b>26,721</b>	<b>191,879</b>	<b>220,207</b>

<sup>a</sup> Includes 0 acres of other private land under long-term lease.

**Table 3-Area of timberland, by county and forest-type group, South Florida, 1995**

County	All type groups	Forest-type group					Elm-ash-cottonwood
		Longleaf-slash	Loblolly-shortleaf	Oak-pine	Oak-hickory	Oak-gum-cypress	
<i>Acres</i>							
Broward	—	—	—	—	—	—	—
Charlotte	30,289	13,985	—	—	—	16,304	—
Collier	190,458	28,107	—	8,372	10,008	143,971	—
Dade	—	—	—	—	—	—	—
Glades	91,648	46,853	—	2,862	5,726	37,207	—
Hendry	62,831	12,934	—	4,158	4,158	41,581	—
Lee	60,872	29,755	—	5,470	2,736	22,911	—
Martin	40,647	26,400	2,850	2,850	2,849	5,688	—
Monroe	—	—	—	—	—	—	—
Palm Beach	—	—	—	—	—	—	—
<b>Total</b>	<b>476,745</b>	<b>157,034</b>	<b>2,850</b>	<b>23,712</b>	<b>25,477</b>	<b>267,672</b>	

**Table 4-Area of timberland, by county and stand-size class, South Florida, 1995**

County	All stands	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling-seedling	
<i>Acres</i>					
Broward	—	—	—	—	—
Charlotte	30,289	13,786	10,377	1,532	4,594
Collier	190,458	85,361	63,235	27,907	13,955
Dade	—	—	—	—	—
Glades	91,648	34,347	17,232	20,034	20,035
Hendry	62,831	33,264	17,092	8,317	4,158
Lee	60,872	9,570	29,419	19,148	2,735
Martin	40,647	20,172	17,625	2,850	—
Monroe	—	—	—	—	—
Palm Beach	—	—	—	—	—
<b>Total</b>	<b>476,745</b>	<b>196,500</b>	<b>154,980</b>	<b>79,788</b>	<b>45,477</b>

**Table 5-Area of timberland, by county and site class, South Florida, 1995**

County	All classes	Site class (cubic feet per acre per year)				
		> 164	120-164	85-119	50-84	20-49
<i>Acres</i>						
Broward	-	-	-	-	-	-
Charlotte	30,289	-	-	1,532	13,784	14,973
Collier	190,458	-	-	2,791	69,769	117,898
Dade	-	-	-	-	-	-
Glades	91,648	-	-	-	54,379	37,269
Hendry	62,831	-	-	-	33,265	29,566
Lee	60,872	-	-	-	10,942	49,930
Martin	40,647	-	-	-	14,475	26,172
Monroe	-	-	-	-	-	-
Palm Beach	-	-	-	-	-	-
<b>Total</b>	<b>476,745</b>	<b>-</b>	<b>-</b>	<b>4,323</b>	<b>196,614</b>	<b>275,808</b>

**Table 6-Area of timberland, by county and stocking class of growing-stock trees, South Florida, 1995**

County	All classes	Stocking class (percent) <sup>a</sup>				
		> 130	100-130	60-99	16.7-59	< 16.7
<i>Acres</i>						
Broward	-	-	-	-	-	-
Charlotte	30,289	3,063	4,596	8,646	3,264	10,720
Collier	190,458	16,745	25,118	33,490	68,818	46,287
Dade	-	-	-	-	-	-
Glades	91,648	2,862	14,310	17,172	20,094	37,210
Hendry	62,831	12,474	12,475	8,317	17,091	12,474
Lee	60,872	-	10,941	10,608	33,853	5,470
Martin	40,647	-	2,850	11,625	20,473	5,699
Monroe	-	-	-	-	-	-
Palm Beach	-	-	-	-	-	-
<b>Total</b>	<b>476,745</b>	<b>35,144</b>	<b>70,290</b>	<b>89,858</b>	<b>163,593</b>	<b>117,860</b>

<sup>a</sup> See stocking standards under "stocking" in definitions.

Table 7—Volume of growing stock and sawtimber on timberland, by county and species group, South Florida, 1996

County	Growing stock					Sawtimber				
	All species	Pine	Other softwood	son hardwood	Hard hardwood	All species	Pine	Other softwood	son hardwood	Hard hardwood
	<i>Thousand cubic feet</i>					<i>Thousand board feet</i>				
Broward	—	—	—	—	—	—	—	—	—	—
Charlotte	31,223	13,664	18,828	—	733	74,487	37,823	33,738	—	2,928
Collier	191,337	38,383	138,511	11,387	5,091	597,393	121,926	428,028	23,130	18,299
Dade	—	—	—	—	—	—	—	—	—	—
Glades	52,991	13,911	32,821	4,856	1,801	191,785	46,219	128,549	10,051	8,988
Hendry	102,080	4,742	89,080	2,824	5,854	385,354	19,749	309,883	11,962	23,781
Lee	47,715	17,724	29,282	—	729	87,357	28,010	41,347	—	—
Martin	31,501	28,278	2,347	—	878	107,767	104,390	—	—	3,377
Monroe	—	—	—	—	—	—	—	—	—	—
Palm Beach	—	—	—	—	—	—	—	—	—	—
<b>Total</b>	<b>456,947</b>	<b>114,980</b>	<b>308,432</b>	<b>18,649</b>	<b>14,996</b>	<b>1,394,133</b>	<b>358,118</b>	<b>937,523</b>	<b>46,143</b>	<b>55,351</b>

Table I—Average net annual growth of growing stock and sawtimber on timberland, by county and species group, South Florida, 1988-1994

County	Growing stock					Sawtimber				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	<i>Thousand cubic feet</i>					<i>Thousand board feet</i>				
Broward	—	—	—	—	—	—	—	—	—	—
Charlotte	800	202	348	6	46	3,115	2,258	643	—	214
Collier	3,122	1,511	2,407	-579	-217	14,594	6,641	12,646	-2,692	-2,001
Dade	—	—	—	—	—	—	—	—	—	—
Glades	1,365	894	340	56	75	7,550	4,407	1,955	632	556
Hendry	1,890	301	1,884	-118	43	9,046	1,849	7,294	-519	422
Lee	1,287	1,084	101	—	82	4,011	3,082	949	—	—
Martin	930	611	318	—	3	1,199	1,181	—	—	18
Monroe	—	—	—	—	—	—	—	—	—	—
Palm Beach	—	—	—	—	—	—	—	—	—	—
<b>Total</b>	<b>9,174</b>	<b>4,803</b>	<b>5,174</b>	<b>-835</b>	<b>32</b>	<b>39,515</b>	<b>19,398</b>	<b>23,487</b>	<b>-2,579</b>	<b>-791</b>

Table O-Average annual removals of growing stock and rawtimber on timberland, by county and species group, South Florida, 1988-1994

County	Growing stock					Sewtimber				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	soft hardwood	Hard hardwood
	<i>Thousand cubic feet</i>					<i>Thousand board feet</i>				
Sroward	-		-			-	-		-	
Charlotte	99			35	64	366		-		366
Collier	5,238	434	3,896	454	454	17,605	2,018	11,994	2,191	1,402
Dade					-			-		-
Glades	3,528	3,434	84			10,909	10,508	401		
Hendry	3,275	2,727	485		53	9,711	8,931	780		
Lee	810	810				1,552	1,552			
Martin										
Monroe	-				-					
Palm Beach					-		-	-	-	
<b>Total</b>	<b>12,950</b>	<b>7,405</b>	<b>4,485</b>	<b>488</b>	<b>571</b>	<b>40,143</b>	<b>23,009</b>	<b>13,175</b>	<b>2,191</b>	<b>1,768</b>

**Table 10-Area of timberland, by forest type and ownership class, South Florida, 1995**

Forest type	Ownership class					
	All ownerships	National forest	Other public	Forest industry	Forest industry- leased	Other private
<b>Acres</b>						
Softwood types						
<b>Longleaf</b> pine	5,724	—	—	—	—	5,724
Slash pine	151,310	—	15,473	—	—	135,837
<b>Loblolly</b> pine	—	—	—	—	—	—
Shortleaf pine	—	—	—	—	—	—
Virginia pine	—	—	—	—	—	—
Sand pine	2,850	—	—	—	—	2,850
Eastern <b>redcedar</b>	—	—	—	—	—	—
Pond pine	—	—	—	—	—	—
Spruce pine	—	—	—	—	—	—
Pitch pine	—	—	—	—	—	—
Table Mountain pine	—	—	—	—	—	—
<b>Total</b>	<b>159,884</b>	<b>—</b>	<b>15,473</b>	<b>—</b>	<b>—</b>	<b>144,411</b>
Hardwood types						
Oak-pine	23,712	—	—	—	—	23,712
Oak-hickory	22,686	—	4,426	—	—	18,260
Chestnut oak	—	—	—	—	—	—
Southern scrub oak	2,791	—	—	—	—	2,791
Oak-gum-cypress	267,672	—	18,039	—	—	249,633
Elm-ash-cottonwood	—	—	—	—	—	—
<b>Total</b>	<b>316,861</b>	<b>—</b>	<b>22,465</b>	<b>—</b>	<b>—</b>	<b>294,396</b>
<b>All types</b>	<b>476,745</b>	<b>—</b>	<b>37,938</b>	<b>—</b>	<b>—</b>	<b>438,807</b>

**Table 11 -Area of timberland, by ownership and stocking classes of growing-stock trees, South Florida. 1995**

Ownership class	All classes	Stocking class (percent) <sup>a</sup>				
		> 130	100-1 30	60-99	16.7-59	< 16.7
<b>Acres</b>						
National forest		—	—	—	—	—
Other public	37,938	—	—	15,441	18,072	4,425
Forest industry		—	—	—	—	—
Forest industry-leased		—	—	—	—	—
Other private	438,807	35,144	70,290	74,417	145,521	113,435
<b>All ownerships</b>	<b>476,745</b>	<b>35,144</b>	<b>70,290</b>	<b>89,858</b>	<b>163,593</b>	<b>117,860</b>

<sup>a</sup> See stocking standards under "stocking" in definitions.

**Table 12—Area of timberland, by forest type and stand-size class, South Florida, 1995**

Forest type	All stands	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling-seedling	
Acres					
<b>Softwood types</b>					
Longleaf pine	5,724		5,724	—	—
Slash pine	151,310	42,959	51,555	35,156	21,640
Loblolly pine	—		—	—	—
Shortleaf pine				—	—
Virginia pine		—	—	—	—
Sand pine	2,850	—	2,850	—	—
Eastern redcedar		—	—	—	—
Pond pine		—	—	—	—
Spruce pine			—	—	—
Pitch pine	—	—	—	—	—
Table Mountain pine					
Total	159,884	42,959	60,129	35,156	21,640
<b>Hardwood types</b>					
Oak-pine	23,712	8,444	2,790	12,478	
Oak-hickory	22,686	12,733	9,953	—	
Chestnut oak	—		—	—	
Southern scrub oak	2,791	—	—	2,791	—
Oak-gum-cypress	267,672	132,364	82,108	29,363	23,837
Elm-ash-cottonwood	—	—	—	—	—
Total	316,861	153,541	94,851	44,632	23,837
<b>All types</b>	476,745	196,500	154,980	79,788	45,477

**Table 13—Area of timberland, by stand-age and broad management classes, all ownerships, South Florida, 1995**

Stand-age class (years)	All classes	Broad management class				Lowland hardwood
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	
Acres						
0-10	17,046	14,310	2,736	—	—	—
11-20	15,674		12,812	—	—	2,862
21-30	36,715	4,393	14,079	—	—	18,243
31-40	48,151	2,862	42,498	—	—	2,791
41-50	22,133		14,949	2,790	—	4,394
51-60	12,825	—	5,640	—	—	7,185
61-70	30,833	—	—	—	4,158	26,675
71-80	9,684	—	—	—	—	9,684
81+	68,266	—	—	2,791	—	65,475
No manageable stand	215,418	2,862	42,743	18,131	21,319	130,363
All classes	476,745	24,427	135,457	23,712	25,477	267,672

**Table 14—Area of timberland, by stand-age and broad management classes, public ownerships, South Florida, 1995**

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
<i>Acres</i>						
0-10	—	—	—	—	—	—
11-20	—	—	—	—	—	—
21-30	—	—	—	—	—	—
31-40	11,854	—	11,854	—	—	—
41-50	3,619	—	3,619	—	—	—
51-60	—	—	—	—	—	—
61-70	9,514	—	—	—	—	9,514
71-80	—	—	—	—	—	—
81 +	—	—	—	—	—	—
No manageable stand	12,951	—	—	—	4,426	8,525
<b>All classes</b>	<b>37,938</b>	<b>—</b>	<b>15,473</b>	<b>—</b>	<b>4,426</b>	<b>18,039</b>

**Table 15—Area of timberland, by stand-age and broad management classes, forest industry,<sup>a</sup> South Florida, 1995**

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
<i>Acres</i>						
0-10	—	—	—	—	—	—
11-20	—	—	—	—	—	—
21-30	—	—	—	—	—	—
31-40	—	—	—	—	—	—
41-50	[No Forest Industry Timberland was Sampled in this Survey Unit]					
51-60	—	—	—	—	—	—
61-70	—	—	—	—	—	—
71-80	—	—	—	—	—	—
81 +	—	—	—	—	—	—
No manageable stand	—	—	—	—	—	—
<b>All classes</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>

<sup>a</sup> Includes 0 acres of other private land under long-term lease.

**Table 16—Area of timberland, by stand-age and broad management classes, other private ownerships,8 South Florida, 1995**

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
Acres						
0-10	17,046	14,310	2,736		—	
11-20	15,674	—	12,812	—		2,862
21-30	36,715	4,393	14,079		—	18,243
31-40	36,297	2,862	30,644	—	—	2,791
41-50	19,514	—	11,330	2,790	—	4,394
51-60	12,825		5,640	—	—	7,185
61-70	21,319	—		—	4,158	17,161
71-80	9,684		—		—	9,684
81 +	68,266	—	—	2,791	—	65,475
No manageable stand	202,467	2,862	42,743	18,131	16,893	121,838
All classes	438,807	24,427	119,984	23,712	21,051	249,633

<sup>a</sup> Excludes 0 acres of other private land under long-term lease to forest industry.

**Table 17 -Area of timberland, by broad management and stand-volume classes, South Florida, 1995**

Broad management class	All classes	Stand-volume class (cubic feet of growing stock per acre)				
		0-499	500-999	1000-1499	1500-1 999	2000 +
Acres						
Pine plantation	24,427	17,172	2,862	2,862	—	1,531
Natural pine	135,457	58,106	47,387	14,188	11,453	4,323
Oak-pine	23,712	18,131	5,581	—		—
Upland hardwood	25,477	14,102	7,217	4,158	—	
Lowland hardwood	267,672	105,556	47,465	32,241	16,817	65,593
All classes	476,745	2 13,067	110,512	53,449	28,270	7 1,447

Table 18—Volume of growing stock on timberland, by broad management class, species group, and stand-age class, South Florida, 1995

Broad management class and species group	All classes	No manageable stand	Stand-age class (years)								
			O-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81 +
<i>Thousand cubic feet</i>											
<b>tine plantation</b>											
Softwood	10,631	839	—	—	6,749	3,043	—	—	—	—	—
Hardwood	—	—	—	—	—	—	—	—	—	—	—
<b>Total</b>	<b>10,631</b>	<b>838</b>	<b>—</b>	<b>—</b>	<b>6,749</b>	<b>3,043</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>Natural pine</b>											
Softwood	88,087	7,165	—	11,863	8,398	43,948	10,079	7,634	—	—	—
Hardwood	—	—	—	—	—	—	—	—	—	—	—
<b>Total</b>	<b>89,087</b>	<b>7,165</b>	<b>—</b>	<b>11,863</b>	<b>8,388</b>	<b>43,848</b>	<b>10,079</b>	<b>7,634</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>Oak-pine</b>											
Softwood	7,547	3,754	—	—	—	—	2,513	—	—	—	1,280
Hardwood	291	291	—	—	—	—	—	—	—	—	—
<b>Total</b>	<b>7,838</b>	<b>4,045</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>2,513</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>1,280</b>
<b>Upland hardwood</b>											
Softwood	2,363	2,363	—	—	—	—	—	—	—	—	—
Hardwood	9,362	4,760	—	—	—	—	—	—	4,602	—	—
<b>Total</b>	<b>11,725</b>	<b>7,123</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>4,602</b>	<b>—</b>	<b>—</b>
<b>Lowland hardwood</b>											
Softwood	313,684	23,452	—	—	7,851	2,190	2,673	22,300	43,432	39,315	172.47 1
Hardwood	23,882	10,318	—	258	1,120	—	3,141	1,042	4,442	340	3,221
<b>Total</b>	<b>337,566</b>	<b>33,770</b>	<b>—</b>	<b>258</b>	<b>8,971</b>	<b>2,190</b>	<b>5,814</b>	<b>23,342</b>	<b>47,874</b>	<b>39,655</b>	<b>175,692</b>
<b>All types</b>											
Softwood	423,312	37,573	—	11,863	22,998	49,181	15,265	28,934	43,432	39,315	173,751
Hardwood	33,535	15,369	—	258	1,120	—	3,141	1,042	9,044	340	3,221
<b>Total</b>	<b>456,847</b>	<b>52,942</b>	<b>—</b>	<b>12,121</b>	<b>24,118</b>	<b>49,181</b>	<b>18,406</b>	<b>30,976</b>	<b>52,476</b>	<b>39,655</b>	<b>176,972</b>

Table 19—Average net annual growth of growing stock on timberland, by broad management class, species group, and stand-age class, South Florida, 1988-1994

Broad management class <sup>a</sup> and species group	All classes	No manageable stand	Stand-age class (years) <sup>a</sup>								
			0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81+
<i>Thousand cubic feet</i>											
tine plantation											
Softwood	545	—	—	95	450	—	—	—	—	—	—
Hardwood	—	—	—	—	—	—	—	—	—	—	—
Total	545	—	—	95	450	—	—	—	—	—	—
Natural pine											
Softwood	3,521	609	213	448	1,323	573	222	133	—	—	—
Hardwood	55	—	—	—	—	8	—	47	—	—	—
Total	3,576	609	213	448	1,323	581	222	180	—	—	—
Oak-pine											
Softwood	492	115	—	—	73	—	304	—	—	—	—
Hardwood	—	—	—	—	—	—	—	—	—	—	—
Total	492	115	—	—	73	—	304	—	—	—	—
Upland hardwood											
Softwood	—	—	—	—	—	—	—	—	—	—	—
Hardwood	119	65	—	—	—	—	—	34	—	—	—
Total	119	65	—	—	—	—	—	34	—	—	—
Lowland hardwood											
Softwood	5,219	384	—	8	316	119	157	505	946	1,075	1,709
Hardwood	-777	16	—	35	—	29	351	32	-398	-745	-97
Total	4,442	400	—	43	316	148	508	537	548	330	1,612
All types											
Softwood	9,777	1,108	213	551	2,162	692	683	638	946	1,075	1,709
Hardwood	-603	101	—	35	—	37	351	113	-398	-745	-97
Total	9,174	1,209	213	586	2,162	729	1,034	751	548	330	1,612

<sup>a</sup> Classifications at the beginning of the remeasurement period.

Table 20-Average annual removals of growing stock on timberland, by broad management class, species group, and stand-age class, South Florida, 1988-I 994

Broad management class <sup>a</sup> and species group	All classes	No manageable stand	Stand-age class (years) <sup>a</sup>								
			0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81+
<i>Thousand cubic feet</i>											
<b>Fine plantation</b>											
Softwood	1,710	-	-	282	1,428	-	-	-	-	-	-
Hardwood	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>1,710</b>	<b>-</b>	<b>-</b>	<b>282</b>	<b>1,428</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Natural pine</b>											
Softwood	4,988	772	-	-	-	2,736	461	1,019	-	-	-
Hardwood	53	-	-	-	-	53	-	-	-	-	-
<b>Total</b>	<b>5,041</b>	<b>772</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,789</b>	<b>461</b>	<b>1,019</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Oak-pine</b>											
Softwood	430	430	-	-	-	-	-	-	-	-	-
Hardwood	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>430</b>	<b>430</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Upland hardwood</b>											
Softwood	-	-	-	-	-	-	-	-	-	-	-
Hardwood	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Lowland hardwood</b>											
Softwood	4,762	455	-	-	-	-	54	94	1,558	370	2,231
Hardwood	1,007	471	-	-	-	-	-	-	-	536	-
<b>Total</b>	<b>5,769</b>	<b>926</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>54</b>	<b>94</b>	<b>1,558</b>	<b>906</b>	<b>2,231</b>
<b>All types</b>											
Softwood	11,890	1,657	-	282	1,428	2,736	515	1,113	1,558	370	2,231
Hardwood	1,060	471	-	-	-	53	-	-	-	536	-
<b>Total</b>	<b>12,950</b>	<b>2,128</b>	<b>-</b>	<b>282</b>	<b>1,428</b>	<b>2,789</b>	<b>515</b>	<b>1,113</b>	<b>1,558</b>	<b>906</b>	<b>2,231</b>

<sup>a</sup> Classifications at the beginning of the remeasurement period.

Table 21 -Merchantable volume of live trees and growing stock on timberland, by forest-type and species groups, South Florida, 1995

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
	<i>Thousand cubic feet</i>									
Longleaf-slash pine	104,109	94,516	6,550	-	3,043	88,442	93,887	4,755	-	
Loblolly-shortleaf pine	1,278	1,276		-		1,276	1,276			
Oak-pine	10,301	5,079	2,773	-	2,449	7,838	4,774	2,773		291
Oak-hickory	25,454	1,034	1,329	1,652	21,438	11,725	1,034	1,329	1,652	7,710
Oak-gum-cypress	384,098	14,387	316,634	26,328	26,748	337,566	14,109	288,575	16,887	6,885
Elm-ash-cottonwood	-									
All types	525,238	116,292	327,286	27,880	53,680	456,847	114,880	308,432	18,648	14,888

Table 22-Area of timberland treated or disturbed annually and retained in timberland, by treatment or disturbance and ownership class, South Florida, 1988 to 1995

Treatment or disturbance	Ownership class			
	All ownerships	Public	Forest industry	Forest industry-leased Other private
	<i>Acres<sup>a</sup></i>			
Final harvest	4,948	-	-	4,948
Partial harvest <sup>b</sup>	-	-	-	-
Commercial thinning	798	-	-	796
Other stand improvement	-	-	-	-
Site preparation	1,194	-	-	1,194
Artificial regeneration <sup>c</sup>	1,990	-	-	1,990
Natural regeneration <sup>c</sup>	397	-	-	397
Other treatment	1,182	-	-	1,162
Natural disturbance	8,238	-	-	8,238

<sup>a</sup> Since some acres experience more than one treatment or disturbance, there are no column totals.

<sup>b</sup> includes high-grading and some selective cutting.

<sup>c</sup> includes establishment of trees for timber production on forest and nonforest land.

Table 23-Area of timberland treated or disturbed annually and retained in timberland, by treatment or disturbance and broad management class, South Florida, 1988 to 1995

Treatment or disturbance	All classes	Broad management class <sup>a</sup>				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
<i>Acres<sup>b</sup></i>						
Final harvest	4,948	1,990	1,780	—	—	1,178
Partial harvest <sup>c</sup>	—	—	—	—	—	—
Commercial thinning	796	796	—	—	—	—
Other stand improvement	—	—	—	—	—	—
Site preparation	1,194	796	398	—	—	—
Other treatment	1,162	—	398	382	—	382
Natural disturbance	8,238	1,194	1,826	396	—	4,822

<sup>a</sup> Classification before treatment or disturbance.

<sup>b</sup> Since some acres experience more than one treatment or disturbance, there are no column totals.

<sup>c</sup> Includes high-grading and some selective cutting.

Table 24-Area of timberland regenerated annually, by type of regeneration and broad management class, South Florida, 1988 to 1995

Type of regeneration	All classes	Broad management class <sup>a</sup>				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
<i>Acres</i>						
Artificial regeneration following harvest	796	796	—	—	—	—
Natural regeneration following harvest	—	—	—	—	—	—
Other artificial regeneration on forest land	398	398	—	—	—	—
Other natural regeneration on forest land	397	—	397	—	—	—
Artificial regeneration on nonforest land	796	796	—	—	—	—
Natural reversion of nonforest land	—	—	—	—	—	—
<b>Total</b>	<b>2,387</b>	<b>1,990</b>	<b>397</b>	<b>—</b>	<b>—</b>	<b>—</b>

<sup>a</sup> Classification after regeneration.

Table 25-Area of timberland, by treatment opportunity and broad management classes, South Florida, 1995

Treatment opportunity class	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
<i>Acres</i>						
Salvage	2,862	2,862	—	—	—	—
Harvest	57,032	—	—	2,791	—	54,241
Commercial thinning	—	—	—	—	—	—
Other stand improvement	5,582	—	2,791	—	—	2,791
Stand conversion	—	—	—	—	—	—
Regeneration	204,369	2,862	42,743	18,131	21,319	119,314
Stand in relatively good condition	159,085	18,703	87,074	2,790	4,158	46,360
Adverse sites <sup>a</sup>	47,815	—	2,849	—	—	44,966
<b>All classes</b>	<b>476,745</b>	<b>24,427</b>	<b>135,457</b>	<b>23,712</b>	<b>25,477</b>	<b>267,672</b>

<sup>a</sup> Areas where management opportunities are severely limited because of steep slopes or poor drainage.

Table 26-Area of timberland, by treatment opportunity and ownership classes, South Florida, 1995

Treatment opportunity class	All ownerships	Ownership class			
		Public	Forest industry	Forest industry-leased	Other private
<i>Acres</i>					
Salvage	2,862	—	—	—	2,862
Harvest	57,032	—	—	—	57,032
Commercial thinning	—	—	—	—	—
Other stand improvement	5,582	—	—	—	5,582
Stand conversion	—	—	—	—	—
Regeneration	204,369	8,851	—	—	195,518
Stand in relatively good condition	159,085	15,473	—	—	143,612
Adverse sites <sup>a</sup>	47,815	13,614	—	—	34,201
<b>All classes</b>	<b>476,745</b>	<b>37,938</b>	<b>—</b>	<b>—</b>	<b>438,807</b>

<sup>a</sup> Areas where management opportunities are severely limited because of steep slopes or poor drainage.

**Table 27—Merchantable volume of live trees and growing stock on timberland, by ownership class and species group, South Florida, 1995**

Ownership class	Live trees					Growing stock				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
<i>Thousand cubic feet</i>										
National forest										
Other public	27,476	12,026	12,683	-	2,767	23,754	12,026	10,058	-	1,670
Forest industry										
Forest industry-leased	-	-	-	-	-	-	-	-	-	-
Other private	497,762	104,266	314,603	27,980	50,913	433,093	102,854	298,374	18,649	13,216
All ownerships	525,238	116,292	327,286	27,980	53,680	456,847	114,880	308,432	18,649	14,886

**Table 28—Volume of sawtimber on timberland, by ownership class and species group, South Florida, 1995**

Ownership class	Small sawtimber <sup>a</sup>					Large sawtimber <sup>b</sup>				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
<i>Thousand board feet</i>										
National forest										
Other public	46,025	33,537	9,823	-	2,665	12,135	10,090	-		2,045
Forest industry										
Forest industry-leased										
Other private	744,661	205,676	495,581	26,171	17,233	591,312	106,813	432,119	18,972	33,408
All ownerships	790,686	239,213	505,404	26,171	19,898	603,447	116,903	432,119	18,972	35,453

<sup>a</sup> Volume of sawtimber trees less than 15.0 inches at d.b.h.

<sup>b</sup> Volume of sawtimber trees 15.0 inches and larger at d.b.h.

**Table 29—Average net annual growth and removals of growing stock on timberland, by ownership class and species group, South Florida, 1988-1994**

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
<i>Thousand cubic feet</i>										
National forest										
Other public	338	30	200	37	71	3,258	169	2,181	454	454
Forest industry										
Forest industry-leased										
Other private	6,836	4,573	4,974	672	39	9,692	7,236	2,304	35	117
All ownerships	9,174	4,603	5,174	635	32	12,950	7,405	4,465	489	571

Table 30-Average net annual growth and removals of sawtimber on timberland, by ownership class and species group, South Florida, 1988-1 984

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
<i>Thousand board feet</i>										
National forest			-	-						
Other public Forest industry	1,554	204	967	222	161	12,496	900	6,005	2,191	1,402
Forest industry-leased	-		-			-		-		
Other private	37,961	19,194	22,520	2,801	952	27,645	22,109	5,170		366
All ownerships	38,515	19,398	23,487	2,579	791	40,143	23,009	13,175	2,191	1,768

Table 31 -Volume of timber on timberland, by class of timber and species group, South Florida, 1995

Class of timber	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
<i>Thousand cubic feet</i>					
<b>Sawtimber trees</b>					
Saw-log portion	276,264	66,622	190,423	9,069	10,130
Upper-stem portion <sup>a</sup>	37,667	8,027	25,377	2,538	1,745
Total	313,951	74,649	215,800	11,627	11,875
Poletimber trees	142,896	40,231	92,632	7,022	3,011
All growing-stock trees	456,847	114,880	308,432	18,649	14,886
<b>Rough trees</b>					
Sawtimber size	33,681	337	5,757	5,415	22,172
Poletimber size	31,380	1,075	10,787	3,489	16,029
Total	65,061	1,412	16,544	8,904	38,201
<b>Rotten trees</b>					
Sawtimber size	2,489		1,760	136	593
Poletimber size	841	-	550	291	-
Total	3,330	-	2,310	427	593
<b>Salvable dead trees</b>					
Sawtimber size	-	-	-	-	-
Poletimber size	-	-	-	-	-
Total	-	-	-	-	-
<b>Total, all timber</b>	<b>525,238</b>	<b>116,292</b>	<b>327,286</b>	<b>27,980</b>	<b>53,680</b>

<sup>a</sup> Includes cull sections in the saw-log portion.

Table 32-Number of live trees on timberland, by species and diameter class, South Florida, 1995

Species	All classes	Diameter class (inches at breast height)											
		1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger
<i>Thousand trees</i>													
<b>Softwood</b>													
Longleaf pine	635	-	172	257	117	39	27	23	-	-	-	-	-
Slash pine	31,669	12,020	5,956	4,629	4,455	2,549	909	658	318	-	78	74	23
Shortleaf pine	-	-	-	-	-	-	-	-	-	-	-	-	-
Loblolly pine	-	-	-	-	-	-	-	-	-	-	-	-	-
Pond pine	220	-	-	116	57	47	-	-	-	-	-	-	-
Virginia pine	-	-	-	-	-	-	-	-	-	-	-	-	-
Pitch pine	-	-	-	-	-	-	-	-	-	-	-	-	-
Table Mountain pine	-	-	-	-	-	-	-	-	-	-	-	-	-
Spruce pine	-	-	-	-	-	-	-	-	-	-	-	-	-
Sand pine	383	203	-	101	62	-	-	-	17	-	-	-	-
Eastern white pine	-	-	-	-	-	-	-	-	-	-	-	-	-
Eastern hemlock	-	-	-	-	-	-	-	-	-	-	-	-	-
Spruce and fir	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Baldcypress</b>	7,425	2,053	1,885	945	781	749	428	353	107	-	51	20	53
<b>Pondcypress</b>	91,128	35,525	23,737	12,397	9,002	4,947	2,269	1,606	694	33	453	201	264
Cedars	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total softwoods</b>	<b>131,460</b>	<b>49,801</b>	<b>31,750</b>	<b>18,445</b>	<b>14,474</b>	<b>8,331</b>	<b>3,633</b>	<b>2,640</b>	<b>1,136</b>	<b>33</b>	<b>582</b>	<b>295</b>	<b>340</b>
<b>Hardwood</b>													
<b>Select white oaks</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
Select red oaks	-	-	-	-	-	-	-	-	-	-	-	-	-
Chestnut oak	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Other white oaks</b>	4,834	1,040	1,552	899	273	377	195	142	235	3	57	45	16
<b>Other red oaks</b>	1,867	514	171	120	264	99	236	237	96	11	26	33	60
Hickory	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow birch	-	-	-	-	-	-	-	-	-	-	-	-	-
Hard maple	-	-	-	-	-	-	-	-	-	-	-	-	-
Soft maple	6,103	2,566	1,710	485	258	430	255	210	120	-	48	-	21
Beach	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Sweetgum</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
Tupelo and blackgum	82	-	-	-	-	-	62	20	-	-	-	-	-
Ash	4,767	2,110	2,030	564	-	63	-	-	-	-	-	-	-
Cottonwood	-	-	-	-	-	-	-	-	-	-	-	-	-
Basswood	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow-poplar	-	-	-	-	-	-	-	-	-	-	-	-	-
Bay and magnolia	6,197	4,128	1,376	298	242	42	89	22	-	-	-	-	-
Black cherry	-	-	-	-	-	-	-	-	-	-	-	-	-
Black walnut	-	-	-	-	-	-	-	-	-	-	-	-	-
Sycamore	-	-	-	-	-	-	-	-	-	-	-	-	-
Black locust	-	-	-	-	-	-	-	-	-	-	-	-	-
Elm	98	-	-	-	52	46	-	-	-	-	-	-	-
<b>Other Eastern hardwoods</b>	54,830	45,943	6,608	1,328	516	361	-	41	15	-	11	-	7
<b>Total hardwoods</b>	<b>78,778</b>	<b>56,301</b>	<b>13,447</b>	<b>3,694</b>	<b>1,605</b>	<b>1,418</b>	<b>837</b>	<b>672</b>	<b>466</b>	<b>14</b>	<b>142</b>	<b>78</b>	<b>104</b>
<b>All species</b>	<b>210,238</b>	<b>106,102</b>	<b>45,197</b>	<b>22,139</b>	<b>16,079</b>	<b>9,749</b>	<b>4,470</b>	<b>3,312</b>	<b>1,602</b>	<b>47</b>	<b>724</b>	<b>373</b>	<b>444</b>

Table 33—Number of growing-stock trees on timberland, by species and diameter class, South Florida, 1995

Species	All classes	Diameter class (inches at breast height)											
		1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger
Thousand trees													
<b>softwood</b>													
Longleaf pine	635	—	172	257	117	39	27	23	—	—	—	—	—
Slash pine	30,695	11,846	5,443	4,518	4,329	2,499	909	658	318	78	74	23	—
Shortleaf pine	—	—	—	—	—	—	—	—	—	—	—	—	—
Loblolly pine	—	—	—	—	—	—	—	—	—	—	—	—	—
Pond pine	220	—	—	116	57	47	—	—	—	—	—	—	—
Virginia pine	—	—	—	—	—	—	—	—	—	—	—	—	—
Pitch pine	—	—	—	—	—	—	—	—	—	—	—	—	—
Table Mountain pine	—	—	—	—	—	—	—	—	—	—	—	—	—
Spruce pine	—	—	—	—	—	—	—	—	—	—	—	—	—
Sand pine	383	203	—	101	62	—	—	—	17	—	—	—	—
Eastern white pine	—	—	—	—	—	—	—	—	—	—	—	—	—
Eastern hemlock	—	—	—	—	—	—	—	—	—	—	—	—	—
Spruce and fir	—	—	—	—	—	—	—	—	—	—	—	—	—
Baldcypress	6,771	1,539	1,885	945	641	749	428	353	107	51	20	53	—
Pondcypress	74,806	27,141	19,131	11,006	7,794	4,476	2,108	1,521	694	440	201	264	30
Cedars	—	—	—	—	—	—	—	—	—	—	—	—	—
<b>Total softwoods</b>	<b>113,510</b>	<b>40,729</b>	<b>26,631</b>	<b>16,943</b>	<b>13,000</b>	<b>7,810</b>	<b>3,472</b>	<b>2,555</b>	<b>1,136</b>	<b>569</b>	<b>295</b>	<b>340</b>	<b>30</b>
<b>Hardwood</b>													
Select white oaks	—	—	—	—	—	—	—	—	—	—	—	—	—
Select red oaks	—	—	—	—	—	—	—	—	—	—	—	—	—
Chestnut oak	—	—	—	—	—	—	—	—	—	—	—	—	—
Other white oaks	1,229	344	516	183	—	68	32	19	58	—	9	—	—
Other red oaks	891	171	—	120	184	36	154	112	51	13	19	31	—
Hickory	—	—	—	—	—	—	—	—	—	—	—	—	—
Yellow birch	—	—	—	—	—	—	—	—	—	—	—	—	—
Hard maple	—	—	—	—	—	—	—	—	—	—	—	—	—
Soft maple	3,477	1,026	1,368	340	189	228	138	79	58	30	—	21	—
Beech	—	—	—	—	—	—	—	—	—	—	—	—	—
Sweetgum	—	—	—	—	—	—	—	—	—	—	—	—	—
Tupelo and blackgum	82	—	—	—	—	—	62	20	—	—	—	—	—
Ash	823	—	673	150	—	—	—	—	—	—	—	—	—
Cottonwood	—	—	—	—	—	—	—	—	—	—	—	—	—
Basswood	—	—	—	—	—	—	—	—	—	—	—	—	—
Yellow-poplar	—	—	—	—	—	—	—	—	—	—	—	—	—
Bay and magnolia	4,358	2,924	860	298	123	42	89	22	—	—	—	—	—
Black cherry	—	—	—	—	—	—	—	—	—	—	—	—	—
Black walnut	—	—	—	—	—	—	—	—	—	—	—	—	—
Sycamore	—	—	—	—	—	—	—	—	—	—	—	—	—
Black locust	—	—	—	—	—	—	—	—	—	—	—	—	—
Elm	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Eastern hardwoods	—	—	—	—	—	—	—	—	—	—	—	—	—
<b>Total hardwoods</b>	<b>10,860</b>	<b>4,465</b>	<b>3,417</b>	<b>1,091</b>	<b>496</b>	<b>374</b>	<b>475</b>	<b>252</b>	<b>167</b>	<b>43</b>	<b>28</b>	<b>52</b>	<b>—</b>
<b>All species</b>	<b>124,370</b>	<b>45,194</b>	<b>30,048</b>	<b>18,034</b>	<b>13,496</b>	<b>8,184</b>	<b>3,947</b>	<b>2,807</b>	<b>1,303</b>	<b>612</b>	<b>323</b>	<b>392</b>	<b>30</b>

Table 34—Merchantable volume of live trees on timberland, by species and diameter class, South Florida, 1995

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
<i>Thousand cubic feet</i>											
<b>Softwood</b>											
Longleaf pine	2,521	685	747	286	344	459	—	—	—	—	—
Slash pine	111,629	12,321	26,198	25,118	14,179	14,882	9,773	3,289	4,018	1,851	—
Shortleaf pine	—	—	—	—	—	—	—	—	—	—	—
Loblolly pine	—	—	—	—	—	—	—	—	—	—	—
Pond pine	908	178	371	359	—	—	—	—	—	—	—
Virginia pine	—	—	—	—	—	—	—	—	—	—	—
Pitch pine	—	—	—	—	—	—	—	—	—	—	—
Table Mountain pine	—	—	—	—	—	—	—	—	—	—	—
Spruce pine	—	—	—	—	—	—	—	—	—	—	—
Sand pine	1,234	348	458	—	—	—	428	—	—	—	—
Eastern white pine	—	—	—	—	—	—	—	—	—	—	—
Eastern hemlock	—	—	—	—	—	—	—	—	—	—	—
Spruce and fir	—	—	—	—	—	—	—	—	—	—	—
Baldcypress	41,698	3,479	5,095	8,149	6,545	8,114	3,318	2,098	1,174	3,726	—
Pondcypress	285,588	37,290	58,105	50,440	33,731	35,199	20,294	18,291	9,150	18,466	4,622
Cedars	—	—	—	—	—	—	—	—	—	—	—
<b>Total softwoods</b>	<b>443,578</b>	<b>54,301</b>	<b>90,974</b>	<b>84,352</b>	<b>54,799</b>	<b>58,654</b>	<b>33,813</b>	<b>23,678</b>	<b>14,342</b>	<b>24,043</b>	<b>4,622</b>
<b>Hardwood</b>											
Select white oaks	—	—	—	—	—	—	—	—	—	—	—
Select red oaks	—	—	—	—	—	—	—	—	—	—	—
Chestnut oak	—	—	—	—	—	—	—	—	—	—	—
Other white oaks	21,303	2,510	1,460	2,830	2,502	2,131	5,212	1,498	1,838	906	—
Other red oaks	20,487	167	1,437	895	3,363	4,309	2,768	807	1,429	3,989	—
Hickory	—	—	—	—	—	—	—	—	—	—	—
Yellow birch	—	—	—	—	—	—	—	—	—	—	—
Hard maple	—	—	—	—	—	—	—	—	—	—	—
Soft maple	22,176	1,545	1,574	4,813	3,842	4,384	3,089	1,691	—	1,238	—
Beech	—	—	—	—	—	—	—	—	—	—	—
Sweetgum	—	—	—	—	—	—	—	—	—	—	—
Tupelo and blackgum	1,246	—	—	—	733	513	—	—	—	—	—
Ash	1,496	1,214	—	282	—	—	—	—	—	—	—
Cottonwood	—	—	—	—	—	—	—	—	—	—	—
Basswood	—	—	—	—	—	—	—	—	—	—	—
Yellow-poplar	—	—	—	—	—	—	—	—	—	—	—
Bay and magnolia	3,921	588	1,184	461	1,272	416	—	—	—	—	—
Black cherry	—	—	—	—	—	—	—	—	—	—	—
Black walnut	—	—	—	—	—	—	—	—	—	—	—
Sycamore	—	—	—	—	—	—	—	—	—	—	—
Black locust	—	—	—	—	—	—	—	—	—	—	—
Elm	637	—	304	333	—	—	—	—	—	—	—
Other Eastern hardwoods	10,394	2,648	2,423	3,174	—	882	388	394	—	485	—
<b>Total hardwoods</b>	<b>81,660</b>	<b>8,672</b>	<b>8,382</b>	<b>12,788</b>	<b>11,712</b>	<b>12,635</b>	<b>11,457</b>	<b>4,390</b>	<b>3,267</b>	<b>6,618</b>	<b>1,739</b>
<b>All species</b>	<b>525,238</b>	<b>62,973</b>	<b>99,356</b>	<b>97,140</b>	<b>66,511</b>	<b>71,289</b>	<b>45,270</b>	<b>28,068</b>	<b>17,609</b>	<b>30,661</b>	<b>6,361</b>

Table 35—Volume of growing stock on timberland, by species and diameter class, South Florida, 1995

Species	All classes	Diameter class inches at breast height)									
		5.0-6.8	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.6-16.9	17.0-18.9	19.0-20.9	21.0-28.9	28.0 and larger
Thousand cubic feet											
<b>Softwood</b>											
Longleaf pine	2,521	685	747	286	344	459	—	—	—	—	—
Slash pine	110,217	12,043	25,401	24,781	14,179	14,882	9,773	3,289	4,018	1,851	—
Shortleaf pine	—	—	—	—	—	—	—	—	—	—	—
Loblolly pine	—	—	—	—	—	—	—	—	—	—	—
Pond pine	908	178	371	359	—	—	—	—	—	—	—
Virginia pine	—	—	—	—	—	—	—	—	—	—	—
Pitch pine	—	—	—	—	—	—	—	—	—	—	—
Table Mountain pine	—	—	—	—	—	—	—	—	—	—	—
Spruce pine	—	—	—	—	—	—	—	—	—	—	—
Sand pine	1,234	348	458	—	—	—	428	—	—	—	—
Eastern white pine	—	—	—	—	—	—	—	—	—	—	—
Eastern hemlock	—	—	—	—	—	—	—	—	—	—	—
Spruce and fir	—	—	—	—	—	—	—	—	—	—	—
Baldcypress	41,177	3,478	4,574	8,149	6,545	8,114	3,318	2,098	1,174	3,726	—
Pondcypress	267,255	33,664	50,815	46,460	31,740	34,144	20,294	17,934	9,150	18,466	4,488
Cedars	—	—	—	—	—	—	—	—	—	—	—
<b>Total softwoods</b>	<b>423,312</b>	<b>50,397</b>	<b>82,466</b>	<b>80,035</b>	<b>52,808</b>	<b>57,588</b>	<b>33,813</b>	<b>23,321</b>	<b>14,342</b>	<b>24,043</b>	<b>4,488</b>
<b>Hardwood</b>											
Select white oaks	—	—	—	—	—	—	—	—	—	—	—
Select red oaks	—	—	—	—	—	—	—	—	—	—	—
Chestnut oak	—	—	—	—	—	—	—	—	—	—	—
Other white oaks	3,604	729	—	333	475	327	1,272	—	468	—	—
Other red oaks	11,098	167	1,184	414	2,267	1,880	1,718	412	744	2,312	—
Hickory	—	—	—	—	—	—	—	—	—	—	—
Yellow birch	—	—	—	—	—	—	—	—	—	—	—
Hard maple	—	—	—	—	—	—	—	—	—	—	—
Soft maple	13,991	1,327	1,124	2,847	2,430	2,118	1,600	1,306	—	1,238	—
Beech	—	—	—	—	—	—	—	—	—	—	—
Sweetgum	—	—	—	—	—	—	—	—	—	—	—
Tupelo and blackgum	1,246	—	—	—	733	513	—	—	—	—	—
Ash	184	184	—	—	—	—	—	—	—	—	—
Cottonwood	—	—	—	—	—	—	—	—	—	—	—
Basswood	—	—	—	—	—	—	—	—	—	—	—
Yellow-poplar	—	—	—	—	—	—	—	—	—	—	—
Bay and magnolia	3,412	588	675	461	1,272	416	—	—	—	—	—
Black cherry	—	—	—	—	—	—	—	—	—	—	—
Black walnut	—	—	—	—	—	—	—	—	—	—	—
Sycamore	—	—	—	—	—	—	—	—	—	—	—
Black locust	—	—	—	—	—	—	—	—	—	—	—
Elm	—	—	—	—	—	—	—	—	—	—	—
Other Eastern hardwoods	—	—	—	—	—	—	—	—	—	—	—
<b>Total hardwoods</b>	<b>33,535</b>	<b>2,885</b>	<b>2,983</b>	<b>4,055</b>	<b>7,177</b>	<b>5,255</b>	<b>4,580</b>	<b>1,718</b>	<b>1,212</b>	<b>3,550</b>	<b>—</b>
<b>All species</b>	<b>456,847</b>	<b>53,392</b>	<b>85,449</b>	<b>84,090</b>	<b>59,985</b>	<b>62,854</b>	<b>38,403</b>	<b>25,039</b>	<b>15,554</b>	<b>27,593</b>	<b>4,488</b>

**Table 36—Volume of sawtimber on timberland, by species and diameter class, South Florida, 1995**

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
<i>Thousand board feet</i>									
<b>Softwood</b>									
Longleaf pine	5,193	1,164	1,673	2,356	-	-	-	-	-
Slash pine	347,221	89,662	65,436	77,720	56,109	20,156	25,725	12,413	-
Shortleaf pine	-	-	-	-	-	-	-	-	-
Loblolly pine	-	-	-	-	-	-	-	-	-
Pond pine	1,202	1,202	-	-	-	-	-	-	-
Virginia pine	-	-	-	-	-	-	-	-	-
Pitch pine	-	-	-	-	-	-	-	-	-
Table Mountain pine	-	-	-	-	-	-	-	-	-
Spruce pine	-	-	-	-	-	-	-	-	-
Sand pine	2,500	-	-	2,500	-	-	-	-	-
Eastern white pine	-	-	-	-	-	-	-	-	-
Eastern hemlock	-	-	-	-	-	-	-	-	-
Spruce and fir	-	-	-	-	-	-	-	-	-
<b>Baldcypress</b>	137,857	23,896	24,548	35,096	15,980	10,687	6,295	21,355	-
Pondcypress	799,666	146,751	123,197	151,916	98,766	93,249	49,747	107,393	28,647
Cedars	-	-	-	-	-	-	-	-	-
<b>Total softwoods</b>	<b>1,293,639</b>	<b>262,675</b>	<b>214,854</b>	<b>267,088</b>	<b>173,355</b>	<b>124,092</b>	<b>81,767</b>	<b>141,161</b>	<b>28,647</b>
<b>Hardwood</b>									
Select white oaks	-	-	-	-	-	-	-	-	-
Select red oaks	-	-	-	-	-	-	-	-	-
Chestnut oak	-	-	-	-	-	-	-	-	-
Other white oaks	10,713	-	1,654	1,313	5,480	-	2,266	-	-
<b>Other red oaks</b>	<b>44,638</b>	-	<b>8,841</b>	<b>8,090</b>	<b>8,318</b>	<b>2,045</b>	<b>4,013</b>	<b>13,331</b>	-
Hickory	-	-	-	-	-	-	-	-	-
Yellow birch	-	-	-	-	-	-	-	-	-
Hard maple	-	-	-	-	-	-	-	-	-
Soft maple	35,092	-	7,935	8,185	6,870	5,919	-	6,183	-
Beech	-	-	-	-	-	-	-	-	-
<b>Sweetgum</b>	-	-	-	-	-	-	-	-	-
Tupelo and blackgum	4,352	-	2,286	2,066	-	-	-	-	-
Ash	-	-	-	-	-	-	-	-	-
Cottonwood	-	-	-	-	-	-	-	-	-
<b>Basswood</b>	-	-	-	-	-	-	-	-	-
Yellow-poplar	-	-	-	-	-	-	-	-	-
Bay and magnolia	5,699	-	4,129	1,570	-	-	-	-	-
Black cherry	-	-	-	-	-	-	-	-	-
Black walnut	-	-	-	-	-	-	-	-	-
Sycamore	-	-	-	-	-	-	-	-	-
Black locust	-	-	-	-	-	-	-	-	-
Elm	-	-	-	-	-	-	-	-	-
Other Eastern hardwoods	-	-	-	-	-	-	-	-	-
<b>Total hardwoods</b>	<b>100,494</b>	<b>-</b>	<b>24,845</b>	<b>21,224</b>	<b>20,668</b>	<b>7,964</b>	<b>6,279</b>	<b>19,514</b>	<b>-</b>
<b>All species</b>	<b>1,394,133</b>	<b>262,675</b>	<b>239,699</b>	<b>288,312</b>	<b>194,023</b>	<b>132,056</b>	<b>88,046</b>	<b>160,675</b>	<b>28,647</b>

Table 37-Volume of sawtimber on timberland, by species, size class, and tree grade, South Florida, 1995

Species	All size classes					Trees 15.0 inches d.b.h. and larger				
	All grades	Tree grade				All grades	Tree grade			
		1	2	3	4		1	2	3	4
<i>Thousand board feet</i>										
<b>Softwood</b>										
Yellow pines <sup>a</sup>	356,116	66,695	55,386	234,035	—	116,903	45,371	17,521	54,011	—
Eastern white pine <sup>b</sup>	—	—	—	—	—	—	—	—	—	—
Spruce and fir <sup>b</sup>	—	—	—	—	—	—	—	—	—	—
Cypress <sup>c</sup>	937,523	220,498	212,604	498,589	5,832	432,119	220,498	121,478	90,143	—
Other Eastern softwoods <sup>b</sup>	—	—	—	—	—	—	—	—	—	—
<b>Total</b>	<b>1,293,639</b>	<b>287,193</b>	<b>267,990</b>	<b>732,624</b>	<b>5,832</b>	<b>549,022</b>	<b>265,869</b>	<b>138,999</b>	<b>144,154</b>	<b>—</b>
<b>Hardwood<sup>c</sup></b>										
Select white and red oaks	—	—	—	—	—	—	—	—	—	—
Other white and red oaks	55,351	13,753	12,482	27,497	1,619	35,453	13,753	12,482	9,218	—
Hickory	—	—	—	—	—	—	—	—	—	—
Yellow birch	—	—	—	—	—	—	—	—	—	—
Hard maple	—	—	—	—	—	—	—	—	—	—
Sweetgum	—	—	—	—	—	—	—	—	—	—
Ash, walnut, and black cherry	—	—	—	—	—	—	—	—	—	—
Yellow-poplar	—	—	—	—	—	—	—	—	—	—
Other Eastern hardwoods	45,143	—	6,401	36,055	2,687	18,972	—	6,401	9,884	2,687
<b>Total</b>	<b>100,494</b>	<b>13,753</b>	<b>18,883</b>	<b>63,552</b>	<b>4,306</b>	<b>54,425</b>	<b>13,753</b>	<b>18,883</b>	<b>19,102</b>	<b>2,687</b>
<b>All species</b>	<b>1,394,133</b>	<b>300,946</b>	<b>286,873</b>	<b>796,176</b>	<b>10,138</b>	<b>603,447</b>	<b>279,622</b>	<b>157,882</b>	<b>163,256</b>	<b>2,687</b>

<sup>a</sup> For yellow pines, tree grade is based on "Southern Pine Tree Grades for Yard and Structural Lumber," Research Paper SE-40, published by the Southeastern Forest Experiment Station, Asheville, NC, 1966. Tree grade 4 does not apply to yellow pine.

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

<sup>c</sup> For hardwoods and cypress, tree grades 1, 2, and 3 are based on "Hardwood Tree Grades for Factory Lumber," Research Paper NE-333, published by the Northeastern Forest Experiment Station, Radnor, 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, Radnor, PA, 1971.

**Table 38—Cubic volume in the merchantable saw-log portion of sawtimber trees on timberland, by species and diameter class, South Florida, 1995**

Species	Diameter class (inches at breast height)								
	All classes	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
<i>Thousand cubic feet</i>									
<b>Softwood</b>									
<b>Longleaf pine</b>	985	238	316	431	—	—	—	—	—
Slash pine	64,956	19,391	12,868	14,133	9,513	3,243	3,978	1,832	—
Shortleaf pine	—	—	—	—	—	—	—	—	—
<b>Loblolly pine</b>	—	—	—	—	—	—	—	—	—
Pond pine	263	263	—	—	—	—	—	—	—
Virginia pine	—	—	—	—	—	—	—	—	—
Pitch pine	—	—	—	—	—	—	—	—	—
Table Mountain pine	—	—	—	—	—	—	—	—	—
Spruce pine	—	—	—	—	—	—	—	—	—
Sand pine	416	—	—	—	416	—	—	—	—
Eastern white pine	—	—	—	—	—	—	—	—	—
Eastern hemlock	—	—	—	—	—	—	—	—	—
Spruce and fir	—	—	—	—	—	—	—	—	—
Baldcypress	28,113	5,673	5,481	7,248	3,067	1,965	1,112	3,567	—
Pondcypress	162,310	35,952	27,750	31,373	19,091	17,094	8,786	17,880	4,384
Cedars	—	—	—	—	—	—	—	—	—
<b>Total softwoods</b>	<b>257,045</b>	<b>61,517</b>	<b>46,415</b>	<b>53,185</b>	<b>32,087</b>	<b>22,302</b>	<b>13,876</b>	<b>23,279</b>	<b>4,384</b>
<b>Hardwood</b>									
Select white oaks	—	—	—	—	—	—	—	—	—
Select red oaks	—	—	—	—	—	—	—	—	—
Chestnut oak	—	—	—	—	—	—	—	—	—
Other white oaks	2,168	—	355	274	1,111	—	428	—	—
Other red oaks	7,962	—	1,708	1,541	1,510	366	682	2,155	—
Hickory	—	—	—	—	—	—	—	—	—
Yellow birch	—	—	—	—	—	—	—	—	—
Hard maple	—	—	—	—	—	—	—	—	—
Soft maple	7,066	—	1,658	1,698	1,371	1,149	—	1,130	—
Beech	—	—	—	—	—	—	—	—	—
<b>Sweetgum</b>	—	—	—	—	—	—	—	—	—
Tupelo and blackgum	908	—	486	422	—	—	—	—	—
Ash	—	—	—	—	—	—	—	—	—
Cononwood	—	—	—	—	—	—	—	—	—
Basswood	—	—	—	—	—	—	—	—	—
Yellow-poplar	—	—	—	—	—	—	—	—	—
<b>Bay and magnolia</b>	1,175	—	843	332	—	—	—	—	—
Black cherry	—	—	—	—	—	—	—	—	—
Black walnut	—	—	—	—	—	—	—	—	—
Sycamore	—	—	—	—	—	—	—	—	—
Black locust	—	—	—	—	—	—	—	—	—
Elm	—	—	—	—	—	—	—	—	—
Other Eastern hardwoods	—	—	—	—	—	—	—	—	—
<b>Total hardwoods</b>	<b>19,219</b>	<b>—</b>	<b>5,050</b>	<b>4,267</b>	<b>3,992</b>	<b>1,515</b>	<b>1,110</b>	<b>3,285</b>	<b>—</b>
<b>All species</b>	<b>276,264</b>	<b>61,517</b>	<b>51,465</b>	<b>57,452</b>	<b>36,079</b>	<b>23,817</b>	<b>14,986</b>	<b>26,564</b>	<b>4,384</b>

Table 39-Total volume of live trees on timberland, by species and diameter class, South Florida, 1995

Species	Diameter class (inches at breast height)												
	All classes	1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger
<i>Thousand cubic feet</i>													
<b>Softwood</b>													
Longleaf pine	3,220	-	70	1,017	893	331	390	519	-	-	-	-	-
Slash pine	142,500	3,057	7,616	17,070	31,684	29,099	16,096	16,745	10,937	3,666	4,473	2,057	-
Shortleaf pine	-	-	-	-	-	-	-	-	-	-	-	-	-
Loblolly pine	-	-	-	-	-	-	-	-	-	-	-	-	-
Pond pine	1,109	-	-	243	443	423	-	-	-	-	-	-	-
Virginia pine	-	-	-	-	-	-	-	-	-	-	-	-	-
Pitch pine	-	-	-	-	-	-	-	-	-	-	-	-	-
Table Mountain pine	-	-	-	-	-	-	-	-	-	-	-	-	-
Spruce pine	-	-	-	-	-	-	-	-	-	-	-	-	-
Sand pine	1,568	83	-	454	548	-	-	-	483	-	-	-	-
Eastern white pine	-	-	-	-	-	-	-	-	-	-	-	-	-
Eastern hemlock	-	-	-	-	-	-	-	-	-	-	-	-	-
Spruce and fir	-	-	-	-	-	-	-	-	-	-	-	-	-
Baldcypress	55,763	647	3,063	5,196	6,544	10,123	7,991	9,821	4,004	2,517	1,406	4,451	-
Pondcypress	434,217	11,975	34,730	63,304	80,468	66,450	43,489	44,828	25,612	22,990	11,444	23,102	5,825
Cedars	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total softwoods</b>	<b>638,377</b>	<b>15,762</b>	<b>45,479</b>	<b>87,284</b>	<b>120,580</b>	<b>106,426</b>	<b>67,966</b>	<b>71,913</b>	<b>41,036</b>	<b>29,173</b>	<b>17,323</b>	<b>29,610</b>	<b>5,825</b>
<b>Hardwood</b>													
Select white oaks	-	-	-	-	-	-	-	-	-	-	-	-	-
Select red oaks	-	-	-	-	-	-	-	-	-	-	-	-	-
Chestnut oak	-	-	-	-	-	-	-	-	-	-	-	-	-
Other white oaks	29,516	263	1,849	4,040	2,001	3,627	3,127	2,626	6,352	1,818	2,224	1,090	499
Other red oaks	26,496	104	414	261	1,908	1,148	4,254	5,475	3,477	1,007	1,788	4,974	1,686
Hickory	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow birch	-	-	-	-	-	-	-	-	-	-	-	-	-
Hard maple	-	-	-	-	-	-	-	-	-	-	-	-	-
Soft maple	31,150	571	3,237	2,281	1,989	5,885	4,651	5,346	3,695	2,027	-	1,468	-
Beech	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Sweetgum</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Tupelo and blackgum	1,516	-	-	-	-	-	896	620	-	-	-	-	-
Ash	5,572	602	2,957	1,674	-	339	-	-	-	-	-	-	-
Cottonwood	-	-	-	-	-	-	-	-	-	-	-	-	-
Basswood	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow-poplar	-	-	-	-	-	-	-	-	-	-	-	-	-
Bay and magnolia	8,013	1,044	1,908	993	1,495	560	1,523	490	-	-	-	-	-
Black cherry	-	-	-	-	-	-	-	-	-	-	-	-	-
Black walnut	-	-	-	-	-	-	-	-	-	-	-	-	-
Sycamore	-	-	-	-	-	-	-	-	-	-	-	-	-
Black locust	-	-	-	-	-	-	-	-	-	-	-	-	-
Elm	787	-	-	-	374	413	-	-	-	-	-	-	-
Other Eastern hardwoods	32,370	11,225	7,752	4,063	3,066	3,816	-	1,011	442	447	-	548	-
<b>Total hardwoods</b>	<b>135,420</b>	<b>13,809</b>	<b>18,117</b>	<b>13,312</b>	<b>10,833</b>	<b>15,788</b>	<b>14,451</b>	<b>15,568</b>	<b>13,966</b>	<b>5,299</b>	<b>4,012</b>	<b>8,080</b>	<b>2,185</b>
<b>All species</b>	<b>773,797</b>	<b>29,571</b>	<b>63,596</b>	<b>100,596</b>	<b>131,413</b>	<b>122,214</b>	<b>82,417</b>	<b>87,481</b>	<b>55,002</b>	<b>34,472</b>	<b>21,335</b>	<b>37,690</b>	<b>8,010</b>

**Table 40—Green weight of forest biomass on timberland, by species and diameter class. South Florida, 1995**

Species	All classes	Diameter class (inches at breast height)											
		1.0-2.8	3.0-4.8	5.0-6.8	7.0-8.8	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.8	29.0 and larger
<i>Hundred thousand pounds</i>													
<b>Softwood</b>													
Longleaf pine	2,444	—	63	658	702	275	326	420	—	—	—	—	—
Slash pine	112,391	2,219	7,023	12,547	24,556	22,886	12,883	13,358	8,768	2,926	3,522	1,602	—
Shortleaf pine	—	—	—	—	—	—	—	—	—	—	—	—	—
Loblolly pine	—	—	—	—	—	—	—	—	—	—	—	—	—
Pond pine	828	—	—	196	323	310	—	—	—	—	—	—	—
Virginia pine	—	—	—	—	—	—	—	—	—	—	—	—	—
Pitch pine	—	—	—	—	—	—	—	—	—	—	—	—	—
Table Mountain pine	—	—	—	—	—	—	—	—	—	—	—	—	—
Spruce pine	—	—	—	—	—	—	—	—	—	—	—	—	—
Sand pine	1,161	68	—	330	383	—	—	—	370	—	—	—	—
Eastern white pine	—	—	—	—	—	—	—	—	—	—	—	—	—
Eastern hemlock	—	—	—	—	—	—	—	—	—	—	—	—	—
Spruce and fir	—	—	—	—	—	—	—	—	—	—	—	—	—
Baldcypress	38,720	362	1,932	2,515	4,182	6,938	5,968	7,611	3,225	2,047	1,147	3,792	—
Pondcypress	268,678	6,678	21,833	27,520	44,372	40,598	28,836	31,416	18,597	17,148	8,741	18,130	4,805
Cedars	—	—	—	—	—	—	—	—	—	—	—	—	—
<b>Total softwoods</b>	<b>425,223</b>	<b>9,328</b>	<b>30,851</b>	<b>43,766</b>	<b>74,528</b>	<b>71,109</b>	<b>48,013</b>	<b>52,807</b>	<b>30,961</b>	<b>22,121</b>	<b>13,410</b>	<b>23,524</b>	<b>4,805</b>
<b>Hardwood</b>													
Select white oaks	—	—	—	—	—	—	—	—	—	—	—	—	—
Select red oaks	—	—	—	—	—	—	—	—	—	—	—	—	—
Chestnut oak	—	—	—	—	—	—	—	—	—	—	—	—	—
Other white oaks	26,223	202	1,383	2,523	1,524	3,206	2,798	2,534	6,346	1,881	2,194	1,100	531
Other red oaks	22,810	87	291	264	1,689	1,024	3,680	4,784	2,863	880	1,555	4,212	1,371
Hickory	—	—	—	—	—	—	—	—	—	—	—	—	—
Yellow birch	—	—	—	—	—	—	—	—	—	—	—	—	—
Hard maple	—	—	—	—	—	—	—	—	—	—	—	—	—
Soft maple	23,408	434	2,265	1,442	1,508	4,378	3,617	4,071	3,008	1,577	—	1,108	—
Beech	—	—	—	—	—	—	—	—	—	—	—	—	—
Sweetgum	—	—	—	—	—	—	—	—	—	—	—	—	—
Tupelo and blackgum	1,023	—	—	—	—	—	588	425	—	—	—	—	—
Ash	4,038	378	1,848	1,487	—	326	—	—	—	—	—	—	—
Cottonwood	—	—	—	—	—	—	—	—	—	—	—	—	—
Basswood	—	—	—	—	—	—	—	—	—	—	—	—	—
Yellow-poplar	—	—	—	—	—	—	—	—	—	—	—	—	—
Bay and magnolia	4,808	656	1,128	452	987	348	998	338	—	—	—	—	—
Black cherry	—	—	—	—	—	—	—	—	—	—	—	—	—
Black walnut	—	—	—	—	—	—	—	—	—	—	—	—	—
Sycamore	—	—	—	—	—	—	—	—	—	—	—	—	—
Black locust	—	—	—	—	—	—	—	—	—	—	—	—	—
Elm	555	—	—	—	274	281	—	—	—	—	—	—	—
Other Eastern hardwoods	25,387	9,517	6,326	3,001	2,288	2,756	—	641	282	277	—	288	—
<b>Total hardwoods</b>	<b>108,353</b>	<b>11,284</b>	<b>13,241</b>	<b>8,168</b>	<b>8,270</b>	<b>12,320</b>	<b>11,692</b>	<b>12,793</b>	<b>12,599</b>	<b>4,615</b>	<b>3,749</b>	<b>6,718</b>	<b>1,902</b>
<b>All species</b>	<b>533,576</b>	<b>20,612</b>	<b>44,082</b>	<b>52,835</b>	<b>82,788</b>	<b>83,429</b>	<b>58,705</b>	<b>65,600</b>	<b>43,560</b>	<b>26,736</b>	<b>17,159</b>	<b>30,243</b>	<b>6,707</b>

Table 41 -Average net annual growth and removals of live timber and growing stock on timberland, by species, South Florida, 1988-I 994

Species	Live timber <sup>a</sup>		Growing stock	
	Net annual growth	Annual timber removals	Net annual growth	Annual timber removals
<i>Thousand cubic feet</i>				
<b>Softwood</b>				
Yellow pines	4,650	7,464	4,603	7,405
Eastern white pine		-	-	-
Spruce and fir		-	-	-
Cypress	4,960	4,710	5,174	4,465
Other Eastern softwoods		-	-	-
<b>Total softwoods</b>	<b>9,610</b>	<b>12,174</b>	<b>9,777</b>	<b>11,890</b>
<b>Hardwood</b>				
Select white and red oaks		-	-	-
Other white and red oaks	793	875	12	391
Hickory	-	-	-	-
Yellow birch	-	-	-	-
Hard maple		-	-	-
Sweetgum		-		-
Ash, walnut, and black cherry	-10	92	-	-
Yellow-poplar		-	-	-
Tupelo and blackgum	35	78	31	35
Bay and magnolia	35	-	31	-
Other Eastern hardwoods	140	965	-677	634
<b>Total hardwoods</b>	<b>993</b>	<b>2,010</b>	<b>-603</b>	<b>1,060</b>
<b>All species</b>	<b>10,603</b>	<b>14,184</b>	<b>9,174</b>	<b>12,950</b>

<sup>a</sup> Merchantable portion only.

**Table 42-Average net annual growth and removals of sawtimber on timberland, by species, South Florida, 1988-1994**

Species	Net annual growth	Annual timber removals
<i>Thousand board feet</i>		
<b>Softwood</b>		
Yellow pines	19,398	23,009
Eastern white pine	—	—
Spruce and fir	—	—
Cypress	23,487	13,175
Other Eastern softwoods	—	—
Total softwoods	42,885	36,184
<b>Hardwood</b>		
Select white and red oaks	—	—
Other white and red oaks	-791	1,768
Hickory	—	—
Yellow birch	—	—
Hard maple	—	—
Sweetgum	—	—
Ash, walnut, and black cherry	—	—
Yellow-poplar	—	—
Tupelo and blackgum	228	—
Bay and magnolia	404	—
Other Eastern hardwoods	-3,211	2,191
Total hardwoods	-3,370	3,959
<b>All species</b>	<b>39,515</b>	<b>40,143</b>

**Table 43-Average annual removals of growing stock on timberland, by species and diameter class, South Florida, 1998-I 994**

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
<i>Thousand cubic feet</i>											
<b>Softwood</b>											
Yellow pines	7,405	570	1,615	2,513	1,398	857	503	149	-	-	-
Eastern white pine	-	-	-	-	-	-	-	-	-	-	-
Spruce and fir	-	-	-	-	-	-	-	-	-	-	-
Cypress	4,485	309	905	1,000	881	693	460	227	-	-	-
Other Eastern softwoods	-	-	-	-	-	-	-	-	-	-	-
<b>Total softwoods</b>	<b>11,890</b>	<b>879</b>	<b>2,520</b>	<b>3,513</b>	<b>2,289</b>	<b>1,350</b>	<b>963</b>	<b>376</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Hardwood</b>											
Select white and red oaks	-	-	-	-	-	-	-	-	-	-	-
Other white and red oaks	391	-	117	-	-	-	76	-	-	114	84
Hickory	-	-	-	-	-	-	-	-	-	-	-
Yellow birch	-	-	-	-	-	-	-	-	-	-	-
Hard maple	-	-	-	-	-	-	-	-	-	-	-
<b>Sweetgum</b>	-	-	-	-	-	-	-	-	-	-	-
Ash, walnut, and black cherry	-	-	-	-	-	-	-	-	-	-	-
Yellow-poplar	-	-	-	-	-	-	-	-	-	-	-
Tupelo and blackgum	35	-	35	-	-	-	-	-	-	-	-
Bay and magnolia	-	-	-	-	-	-	-	-	-	-	-
Other Eastern hardwoods	634	119	61	-	-	155	148	82	69	-	-
<b>Total hardwoods</b>	<b>1,060</b>	<b>119</b>	<b>213</b>	<b>-</b>	<b>-</b>	<b>155</b>	<b>224</b>	<b>82</b>	<b>69</b>	<b>114</b>	<b>84</b>
<b>All species</b>	<b>12,950</b>	<b>998</b>	<b>2,733</b>	<b>3,513</b>	<b>2,289</b>	<b>1,505</b>	<b>1,187</b>	<b>458</b>	<b>89</b>	<b>114</b>	<b>84</b>

**Table 44-Average annual mortality of live timber, growing stock, and sawtimber on timberland, by species, South Florida, 1988-I 994**

Species	Live timber <sup>a</sup>	Growing stock	Sawtimber
	<i>Thousand cubic feet</i>		<i>Thousand board feet</i>
<b>Softwood</b>			
Yellow pines	1,343	1,343	3,253
Eastern white pine	-	-	-
Spruce and fir	-	-	-
Cypress	2,269	1,706	2,120
Other Eastern softwoods	-	-	-
<b>Total softwoods</b>	<b>3,612</b>	<b>3,049</b>	<b>5,373</b>
<b>Hardwood</b>			
Select white and red oaks	-	-	-
Other white and red oaks	771	736	3,714
Hickory	-	-	-
Yellow birch	-	-	-
Hard maple	-	-	-
<b>Sweetgum</b>	-	-	-
Ash, walnut, and black cherry	61	31	-
Yellow-poplar	-	-	-
Tupelo and blackgum	-	-	-
Bay and magnolia	-	-	-
Other Eastern hardwoods	1,821	1,443	5,484
<b>Total hardwoods</b>	<b>2,653</b>	<b>2,210</b>	<b>9,198</b>
<b>All species</b>	<b>6,265</b>	<b>5,259</b>	<b>14,571</b>

<sup>a</sup> Merchantable portion only.

**Table 45-Change in number of live trees on timberland, by species group, survey completion date, and diameter class, South Florida**

Species group and year	All classes	Diameter class (inches at breast height)							
		1.0-2.9	3.0-4.9	5.0-6.9	7.0-6.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0 and larger
Thousand trees									
<b>Yellow pine</b>									
1988	47,226	13,165	8,825	10,091	8,417	4,117	1,500	620	491
1995	32,907	12,223	6,128	5,103	4,691	2,635	936	681	510
Change	-14,319	-942	-2,697	-4,988	-3,726	-1,482	-564	61	19
<b>Other softwood</b>									
1988	147,695	63,390	34,046	18,076	15,045	8,394	3,654	2,650	2,440
1995	98,553	37,578	25,622	13,342	9,783	5,696	2,697	1,959	1,876
Change	-49,142	-25,812	-8,424	-4,734	-5,262	-2,698	-957	-691	-564
<b>Hardwood</b>									
1988	103,541	69,298	20,487	6,440	2,300	1,859	1,449	566	1,142
1995	78,778	56,301	13,447	3,694	1,605	1,418	837	672	804
Change	-24,763	-12,997	-7,040	-2,746	-695	-441	-612	106	-338

**Table 46-Land area, by land use class, major forest type, and survey completion date, South Florida**

Land use class	Survey completion date			Change 1988-1995
	1980	1988	1995	
<b>Acres</b>				
<b>Forest land</b>				
Timberland				
Pine and oak-pine types	339,500	287,331	183,598	-83,735
Hardwood types	494,471	391,369	293,149	-98,220
Total	833,971	658,700	476,745	-181,955
Reserved timberland	264,885	291,839	273,634	<b>-18,205</b>
Woodland	948,754	<b>1,033,458</b>	917,155	-116,303
Total forest land	<b>2,047,590</b>	<b>1,983,997</b>	<b>1,667,534</b>	-316,463
<b>Nonforest land</b>				
<b>Cropland</b>	926,660	<b>1,089,536</b>	<b>1,203,851</b>	114,315
Pasture and range	<b>1,910,185</b>	<b>1,513,037</b>	<b>1,340,676</b>	-172,361
Other	<b>2,790,444</b>	<b>3,176,349</b>	<b>3,600,496</b>	424,147
Total	<b>5,627,289</b>	<b>5,778,922</b>	<b>6,094,217</b>	315,295
<b>All land<sup>a</sup></b>	<b>7,674,879</b>	<b>7,762,919</b>	<b>7,761,751</b>	-1,168

<sup>a</sup> Excludes all water areas.

**Table 47-Volume of sawtimber, growing stock, and live timber on timberland, by species group, survey completion date, and diameter class, South Florida**

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
<b>SAWTIMBER (in thousand board feet)</b>										
<b>Softwood</b>										
1980	972,597	—	—	232,377	227,543	191,890	113,790	92,742	50,770	63,485
1988	1,245,866	—	—	300,654	236,622	241,402	159,426	122,138	71,949	113,675
1995	1,293,639	—	—	262,675	214,854	267,088	173,355	124,092	81,767	169,808
<b>Hardwood</b>										
1980	101,426	—	—	—	22,427	30,292	7,602	11,577	8,156	21,372
1988	152,902	—	—	—	42,509	16,973	39,593	12,345	10,629	30,853
1995	100,494	—	—	—	24,845	21,224	20,668	7,964	6,279	19,514
<b>GROWING STOCK (in thousand cubic feet)</b>										
<b>Softwood</b>										
1980	369,109	54,089	81,024	73,594	57,759	41,760	23,070	17,695	9,329	10,789
1988	438,826	55,615	96,896	90,454	57,403	52,225	31,600	22,862	12,601	19,170
1995	423,312	50,397	82,466	80,035	52,808	57,599	33,813	23,321	14,342	28,531
<b>Hardwood</b>										
1980	35,267	2,090	4,521	5,980	6,266	7,422	1,571	2,323	1,495	3,599
1988	45,419	2,940	4,086	6,185	11,040	3,831	8,160	2,355	1,869	4,953
1995	33,535	2,995	2,983	4,055	7,177	5,255	4,590	1,718	1,212	3,550
<b>LIVE TIMBER<sup>a</sup> (in thousand cubic feet)</b>										
<b>Softwood</b>										
1980	396,133	62,756	88,502	79,891	60,008	42,508	24,109	17,695	9,329	11,335
1988	459,846	60,833	104,461	94,562	58,984	53,635	31,769	23,327	12,601	19,674
1995	443,578	54,301	90,974	84,352	54,799	58,654	33,813	23,678	14,342	28,665
<b>Hardwood</b>										
1980	68,596	8,408	9,678	10,041	11,290	11,638	4,027	4,166	2,990	6,358
1988	81,351	11,023	8,284	11,175	14,588	7,630	12,022	4,656	3,477	8,496
1995	81,660	8,672	8,382	12,788	11,712	12,635	11,457	4,390	3,267	8,357

<sup>a</sup> Merchantable volume.



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Area of timberland now occupies less than 477,000 acres, or 6 percent of the total land area in South Florida. Area of nonindustrial private forest land totals 439,000 acres. Oak-gum-cypress is the predominant hardwood forest type. Volume of softwood growing stock totals 423 million cubic feet and volume of hardwood growing stock totals 34 million cubic feet. Net annual growth of growing stock averaged 9.2 million cubic feet. Net annual removals of growing stock averaged 13 million cubic feet.

**KEYWORDS:** Timberland, forest ownership, timber volumes, timber growth, timber removals.



## Southern Research Station

Established 1921

The Southern Research Station, headquartered in Asheville, North Carolina, is one of the seven regional Stations and the Forest Products Laboratory that make up the Forest Service research organization.

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To acquire the knowledge, develop the technology, and disseminate the research findings required to manage the Southern forest resources in ways that satisfy demands of goods and services while maintaining a quality environment.