United States
Department of
Agriculture

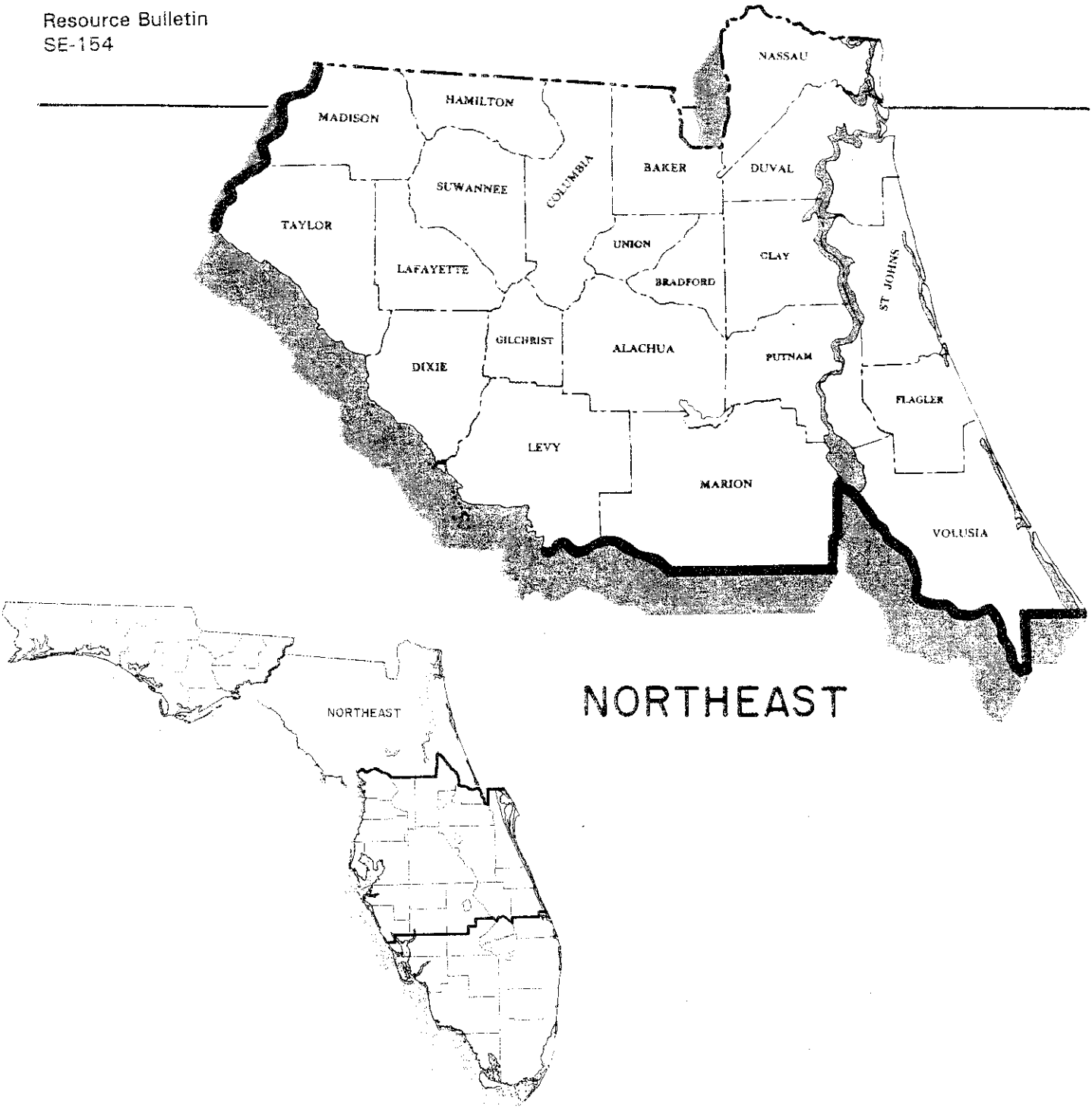
Forest Service

Southern Research
Station

Resource Bulletin
SE-154

Forest Statistics for Northeast Florida, 1995

Raymond M. Sheffield



September 1995
Southern Research Station
P.O. Box 2680
Asheville, NC 28802

Forest Statistics for Northeast Florida, 1995

Raymond M. Sheffield, Resource Analyst
Forest Inventory and Analysis
Asheville, North Carolina

Foreword

This report highlights the principal findings of the seventh forest survey of Northeast Florida. Field work began in April 1994 and was completed in May 1995. Six previous surveys, completed in 1934, 1949, 1959, 1970, 1980, and 1987 provide statistics for measuring changes and trends over the past 61 years. The primary emphasis in this report is on the changes and trends since 1987.

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 concerning any aspect of this survey may be obtained from:

Forest Inventory and Analysis
Southern Research Station
P.O. Box 2680
Asheville, NC 28802
Phone: 704-257-4350

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. The following members of the FIA staff collected the field data:

Rachael Buchanan
Robert Clark
Sarah Combs
Jack Hampton
Ben Koontz
Dave Lambert
James McCall
Bill Moody
Mike Norris
Michael O'Quinn
Terry Riley
Byron Rominger
Edward Scott
John Simpson
Greg Smith
Warren Tucker
James Twaroski

Contents

[a] 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.

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

Introduction

This report summarizes results from a 1995 inventory of the forest resources of Northeast Florida. Current estimates of forest area, related attributes, and timber volumes are presented and compared with earlier estimates. 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 1987 are summarized.

Highlights

Since 1987 in Northeast Florida—

• *area of timberland dropped by 105,000 acres to less than 6.6 million acres.* This reduction is less than historical rates of timberland loss for the region. Almost 175,000 acres of timberland were added since 1987 as a result of planting and natural reversion of agricultural land. The diversion of 280,000 acres of timberland to other land uses more than offsets these gains. Urban and related land uses accounted for 53 percent of the timberland losses; agricultural uses accounted for 28 percent, and water about 3 percent. More than 44,000 acres of former timberland were reclassified as reserved timberland and were withdrawn from timber harvesting.

• *timberland acreage controlled by forest industries has dropped, while that under public ownership has risen*. Forest industry now owns or leases less than 2.9 million acres, 13 percent less area than in 1987. Almost 44 percent of the timberland in this region is under forest industry control. Timberland acreage managed by public agencies increased by 44 percent during the period and now totals nearly 0.9 million acres, 13 percent of the total. Nonindustrial private forest (NIPF) ownership of timberland was relatively stable, rising by 2 percent to more than 2.8 million acres. Within the NIPF group, farmers own less than 0.4 million acres; other individuals nearly 1.6 million acres; and other corporate owners 0.9 million acres.

• *timberland acreage classified as a pine or hardwood forest type dropped by small amounts, while more acreage was classified as oak-pine (pine-hardwood).* At more than 3.5 million acres, pine forests account for more acreage in this region than any other major forest type category. Collectively, pine forest acreage declined by 3 percent during the past 8 years. Slash pine forests cover 2.8 million acres, far more than any other pine forest type. Timberland classed as a hardwood forest type total 2.4 million acres, dropping 4 percent since 1987. Mixed pine-hardwood or oak-pine forests occupy 0.6 million acres, increasing by 22 percent.

• *area in pine plantations continued to rise and now totals 2.5 million acres, almost 2 out of every 5 acres of timberland in the region.* The recent increase in plantation acreage was modest (6 percent) compared to those measured in the 1970's and 1980's. Plantations are increasingly harvested and replanted in this region.

• *area harvested annually and retained in timberland averaged 133,000 acres.* More than three-fourths of these final harvests took place in pine stands, with pine plantations accounting for 52 percent and natural pine stands 26 percent. Almost two-thirds of the final harvest activity occurred on timberland owned or leased by forest industry; NIPF forests accounted for 29 percent of the harvests, and public lands the remaining 7 percent. In addition to final harvests, partial harvests, commercial thinning, and other miscellaneous cutting activity occurred on 27,000 acres of timberland each year.

• *rates of forest regeneration have continued at high levels, averaging 144,000 acres annually.* Thus, regeneration has kept pace with or exceeded harvesting rates for all forest stand types combined. Artificial means of regenerating stands dominate, averaging 113,000 acres annually. More than 60 percent of the planting activity occurred on forest industry; 33 percent on NIPF; and 7 percent on public forests.

• *volume of softwood growing stock increased by 4 percent, rising from 4.1 to 4.2 billion cubic feet.* Softwood volume changes by ownership paralleled changes in timberland acreage by ownership, with declines in softwood volume on forest industry and increases on public and NIPF forests. Volume of softwood growing stock jumped by 48 percent on public land to 0.8 billion cubic feet and rose by 13 percent on NIPF to 1.6 billion cubic feet. In contrast, the inventory of softwood growing stock on forest industry land dropped by 14 percent to 1.8 billion cubic feet. Softwood species registering gains in volume included slash pine with a 9-percent increase to 2.4 billion cubic feet, loblolly pine with a 28-percent gain to 401 million cubic feet, and sand pine, up 13 percent to 246 million cubic feet. A decline in volume was measured for cypress, down by 8 percent to 874 million cubic feet, and for longleaf pine, down by 18 percent to 254 million cubic feet. The softwood volume gain occurred across most tree diameter classes. More than 40 percent of the softwood growing stock is located in pine plantations, 28 percent is in natural pine stands, 22 percent is in lowland hardwood stands, and the remainder is in upland hardwood and oak-pine stands. The current inventory of softwood growing stock includes 11.3 billion board feet of sawtimber, an increase of 7 percent.

• *volume of hardwood growing stock increased by 11 percent to 2.6 billion cubic feet.* By ownership, hardwood volume changes were similar to those for softwood volume, partially because of the shifts in acres by ownership. The inventory of hardwood growing stock more than doubled on public forests and now totals 382 million cubic feet. It also rose on NIPF land from less than 1.2 to 1.3 billion cubic feet. On forest industry, hardwood inventories dropped by 9 percent to 889 million cubic feet. Collectively, oak species account for one-third of the hardwood inventory, and increased by 19 percent since 1987. Other major hardwood species that increased in volume included soft maples (up 25 percent to 190 million cubic feet), sweetgum (up 17 percent to 282 million cubic feet), and bay and magnolia (up 21 percent to 320 million cubic feet). Species that lost volume during the period included tupelo and blackgum (down 2 percent to 612 million cubic feet) and ash (down 8 percent to 147 million cubic feet). Hardwood volume increased across the range of tree sizes. The inventory of hardwood growing stock includes 7.1 billion board feet of sawtimber, an increase of 15 percent.

• *net annual growth of softwood growing stock increased from 266 to 293 million cubic feet.* The increase was driven by increased ingrowth into volume-size classes as well as increased rates of survivor growth. Such changes were characteristic of developing pine plantations in the region where net growth rose from 164 to 202 million cubic feet annually. More than 53 percent of the softwood growth occurred on timberland currently classified as forest industry; 36 percent on NIPF forests; and 10 percent on public forests. Across all ownerships, softwood net annual growth outpaced annual softwood removals by 9 percent. On forest industry land, softwood removals exceeded net growth by 3 percent. On public forests and NIPF land, net growth exceeded removals by 30 and 25 percent, respectively. Net annual growth of hardwood growing stock increased by 27 percent to 77 million cubic feet. Hardwood growth increased on public and NIPF forests and was essentially unchanged on forest industry. Net annual growth of hardwoods exceeded the level of hardwood removals by 83 percent.

• *annual removals of softwood growing stock dropped from 290 to 270 million cubic feet.* Despite the reduction, this region supports one of the highest rates of softwood removal in the South. All the reduction in softwood cutting occurred on NIPF forests, where removals dropped from 117 to 85 million cubic feet annually. On forest industry and public forests, softwood removals increased by 7 and 4 percent, respectively. Forest industry supplies the majority (60 percent) of softwood removals in the region, followed by NIPF (32 percent) and public (8 percent). Pine plantations supplied 54 percent of the softwood cut during the last 8 years. The average size of softwood trees cut is relatively small; 70 percent of the volume removed came from the 6-, 8-, and 10-inch diameter classes. In contrast to softwoods, hardwood removals rose by 6 percent. Removal of hardwood growing stock averaged 42 million cubic feet annually. The distribution of hardwood removals was similar to that for softwood with forest industry supplying more than one half the total.

• *annual mortality of softwood growing stock has remained at 26 million cubic feet annually; hardwood mortality dropped from 27 to 21 million cubic feet annually.* Mortality had relatively small impacts on softwood growth, reducing potential net growth for the period by 8 percent; for hardwoods, mortality reduced growth levels by 21 percent. The leading causes of tree mortality for softwoods were weather, fire, and disease. Weather and disease were the leading identifiable causes for hardwood mortality.

How the Inventory is Made

Procedures used in the seventh inventory of the forest resources in Northeast Florida included several basic steps.

1. Initial estimates of forest and nonforest areas were based on the classification of 48,346 sample clusters systematically spaced on the latest aerial photographs available. A subsample of 3,696 of the 16-point clusters was ground checked, and a linear regression was fitted to the data to develop the relationship between the photo and ground classification of the subsample. This procedure provides a means for adjusting the initial estimates of area for change in land use since date of photography and for photo misclassification.

2. Estimates of timber volume and forest classification were based on measurements recorded at 2,447 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. Felled trees were measured at 32 active cutting operations. These data will supplement the standing-tree volume data and be used to generate utilization factors for product and species groups.

5. Estimates of growth, removals, and mortality were determined from the remeasurement of 2,503 permanent sample plots established in the sixth survey.

6. 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.

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

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)*	6,557.1 ± 23.6	0.36
Growing stock *(M ft³)*		
Inventory	6,789.2 ± 160.2	2.36
Net annual growth	370.3 ± 8.4	2.28
Annual removals	311.8 ± 5.0	4.82
Annual mortality	46.7 ± 3.5	7.43
Sawtimber *(M fbm)*		
Inventory	18,342.9 ± 594.3	3.24
Net annual growth	995.0 ± 31.9	3.21
Annual removals	777.0 ± 45.5	5.86
Annual mortality	135.9 ± 14.8	10.86

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:

$$SE_s = 2.36 \frac{\sqrt{6,789.2}}{\sqrt{1,225.0}} = 5.56$$

Thus, the sampling error is 5.56 percent, and the resulting confidence interval (two times out of three) for growing-stock inventory on public timberland is 1,225.0 ± 68.1 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 that 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, Northeast Florida, 1995

County	Timberland area	Cubic-foot volume of growing stock		
		Inventory	Growth	Removals
		Sampling error[a]		
Alachua	2.15	10.67	9.24	21.30
Baker	0.78	10.38	7.97	21.97
Bradford	1.68	16.32	13.83	40.41
Clay	2.36	10.92	10.33	24.59
Columbia	1.31	9.17	9.17	21.02
Dixie	0.68	8.08	7.27	17.54
Duval	2.71	10.56	10.08	32.48
Flagler	1.21	11.96	9.09	21.21
Gilchrist	3.25	17.24	17.69	37.24
Hamilton	2.32	11.72	11.77	24.32
Lafayette	1.31	12.77	11.12	18.61
Levy	1.49	8.24	8.57	18.96
Madison	1.98	13.53	12.08	20.58
Marion	1.40	8.12	7.97	18.24
Nassau	0.97	10.17	8.72	20.12
Putnam	1.66	12.24	12.83	23.46
St. Johns	1.96	10.98	10.81	21.48
Suwannee	3.02	11.93	11.66	32.91
Taylor	0.68	10.18	7.77	13.05
Union	2.33	16.37	14.54	39.66
Volusia	1.45	8.51	15.51	22.93
Total	0.36	2.36	2.28	4.82

[a] 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 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 25 to 50 percent, in which case the stand would be classified oak-pine. (Common associates include yellow-poplar, elm, maple, and black walnut.)

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

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

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

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

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 that are monocotyledonous), usually broadleaf and deciduous.

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

Hard hardwoods. Hard-textured hardwoods such as sugar maple, birch, hickory, dogwood, persimmon (forest grown), black locust, beech, ash, 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 16.7 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 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 that normally do not develop into trees suitable for industrial wood products.

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

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, grass-like plants, forbs, or shrubs valuable for forage, not qualifying as timberland and not developed for another land use. Rangeland includes natural grassland and savannah.

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

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

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

Roundwood (roundwood logs). Logs, bolts, or other round sections cut from trees for industrial or consumer uses.

Roundwood chipped. Any timber cut primarily for pulpwood, delivered to nonpulpmills, chipped, and then sold to pulpmills as residues, including chipped tops, jump sections, whole trees, and pulpwood sticks.

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

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

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

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

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

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

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

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

Seedlings. Trees less than 1.0 inch d.b.h. Only seedlings 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 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 the existing condition of the stand being sampled for timber production.

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	61.3	61.0	68.2	60.0
8	69.0	68.1	76.0	68.4
10	74.3	73.1	81.4	73.4
12	77.7	76.7	85.2	76.4
14	80.2	79.4	88.2	78.4
16	81.7	81.6	90.4	79.8
18	82.7	83.3	92.3	80.8
20	83.7	84.8	93.8	81.5
22	84.3	86.0	95.1	82.1
24+	84.2	87.6	98.5	83.3
Average	73.6	71.0	81.9	74.2

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 aboveground 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[a]

County Tables

Unit Tables

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

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

Table 1—Area, by county and land class, Northeast Florida, 1995

County	All land[a]	Forest land				Nonforest land[b]
		Total	Timberland	Woodland	Reserved timberland	
	Acres					
Alachua	559,552	293,200	277,455	—	15,745	266,352
Baker	374,560	341,420	326,523	—	14,897	33,140
Bradford	187,616	135,197	135,197	—	—	52,419
Clay	384,730	289,846	288,246	—	1,600	94,884
Columbia	510,182	367,717	357,483	1,096	9,138	142,465
Dixie	450,598	387,066	385,712	—	1,354	63,532
Duval	495,264	232,570	229,614	1,359	1,597	262,694
Flagler	310,413	241,116	237,592	1,345	2,179	69,297
Gilchrist	223,270	134,671	134,671	—	—	88,599
Hamilton	329,523	242,409	240,094	—	2,315	87,114
Lafayette	347,411	297,321	297,321	—	—	50,090
Levy	715,802	476,562	462,794	895	12,873	239,240
Madison	442,854	326,403	326,368	—	35	116,451
Marion	1,010,554	588,149	568,275	302	19,572	422,405
Nassau	417,037	324,825	323,374	512	939	92,212
Putnam	462,189	350,717	347,781	—	2,936	111,472
St. Johns	389,786	250,842	245,326	2,672	2,844	138,944
Suwannee	440,115	233,667	231,514	—	2,153	206,448
Taylor	666,848	582,767	579,435	3,332	—	84,081
Union	153,792	121,390	121,390	—	—	32,402
Volusia	707,763	461,469	440,936	8,425	12,108	246,294
Total	9,579,859	6,679,324	6,557,101	19,938	102,285	2,900,535

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

[b] Includes 12,482 acres of water according to Forest Inventory and Analysis standards of area classification, but defined by the Bureau of Census as land.

Table 2—Area of timberland, by county and ownership class, Northeast Florida, 1995

County	All ownerships	Ownership class							
		National forest	Miscellaneous Federal	State	County an municipal	Forest industry[a]	Other private		
							Farmer	Corporate	Individual
	Acres								
Alachua	277,455	—	17	4,302	668	112,646	33,511	20,622	105,689
Baker	326,523	86,832	3,678	186	40	194,779	5,468	10,935	24,605
Bradford	135,197	—	—	15,475	950	79,841	7,300	2,433	29,198
Clay	288,246	—	640	69,944	894	69,306	4,915	86,020	56,527
Columbia	357,483	80,091	—	5,093	412	142,382	34,689	34,689	60,127
Dixie	385,712	—	17,130	4,820	210	280,636	3,769	22,613	56,534
Duval	229,614	—	16,774	4,345	7,730	41,420	—	86,424	72,921
Flagler	237,592	—	—	1,000	650	163,806	22,387	29,849	19,900
Gilchrist	134,671	—	—	—	280	26,395	25,825	35,216	46,955
Hamilton	240,094	—	—	12,971	121	111,263	21,258	33,068	61,413
Lafayette	297,321	—	—	2,431	336	206,637	9,095	12,126	66,696
Levy	462,794	—	15,944	46,710	572	171,568	24,141	107,294	96,565
Madison	326,368	—	728	6,867	10	121,465	53,809	10,249	133,240
Marion	568,275	245,609	—	35,087	2,230	68,096	15,246	49,549	152,458
Nassau	323,374	—	5	5,840	599	209,466	15,352	17,911	74,201
Putnam	347,781	19,914	5,100	23,533	317	101,440	7,694	64,116	125,667
St. Johns	245,326	—	—	4,616	138	136,287	6,801	38,540	58,944
Suwannee	231,514	—	—	4,980	691	12,697	28,946	28,946	155,254
Taylor	579,435	—	—	54,618	180	487,368	2,130	3,194	31,945
Union	121,390	—	—	3,810	126	75,540	9,314	6,986	25,614
Volusia	440,936	—	2,844	26,326	12,262	41,798	23,265	215,205	119,236
Total	6,557,101	432,446	62,860	332,954	29,416	2,854,836	354,915	915,985	1,573,689

[a] Includes 549,545 acres of other private land under long-term lease.

Table 3—Area of timberland, by county and forest-type group, Northeast Florida, 1995

County	All type groups	Forest-type group					
		Longleaf–slash	Loblolly–shortleaf	Oak–pine	Oak–hickory	Oak–gum–cypress	Elm–ash–cottonwood
				Acres			
Alachua	277,455	131,836	16,709	18,904	72,826	37,180	–
Baker	326,523	219,110	6,411	12,321	2,734	85,947	–
Bradford	135,197	85,742	7,909	9,422	9,712	22,412	–
Clay	288,246	149,549	17,022	21,102	49,370	51,203	–
Columbia	357,483	174,896	20,950	19,274	54,198	88,165	–
Dixie	385,712	158,165	9,846	13,617	41,546	162,538	–
Duval	229,614	99,356	26,239	34,002	31,643	38,374	–
Flagler	237,592	138,542	9,254	19,150	16,122	54,524	–
Gilchrist	134,671	73,021	–	16,434	31,477	13,739	–
Hamilton	240,094	106,258	11,768	31,467	31,708	58,893	–
Lafayette	297,321	141,709	9,266	34,462	32,562	79,322	–
Levy	462,794	152,206	60,441	41,250	88,709	117,421	2,767
Madison	326,368	112,023	34,158	20,776	59,357	97,492	2,562
Marion	568,275	95,461	200,928	76,925	134,427	60,534	–
Nassau	323,374	152,879	22,252	30,289	29,937	88,017	–
Putnam	347,781	157,789	42,705	37,044	57,379	49,677	3,187
St. Johns	245,326	120,436	17,057	32,576	6,801	68,456	–
Suwannee	231,514	113,556	10,527	17,871	71,099	18,461	–
Taylor	579,435	318,311	30,784	23,997	37,995	159,673	8,675
Union	121,390	84,214	4,657	4,902	2,328	25,289	–
Volusia	440,936	182,312	23,264	66,625	34,150	131,676	2,909
Total	6,557,101	2,967,371	582,147	582,410	896,080	1,508,993	20,100

Table 4—Area of timberland, by county and stand-size class, Northeast Florida, 1995

County	All stands	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling-seedling	
			Acres		
Alachua	277,455	88,921	89,716	93,582	5,236
Baker	326,523	79,872	104,739	123,394	18,518
Bradford	135,197	29,112	52,190	51,462	2,433
Clay	288,246	86,425	101,929	97,434	2,458
Columbia	357,483	94,055	125,078	135,903	2,447
Dixie	385,712	138,595	156,640	78,929	11,548
Duval	229,614	88,688	64,762	71,530	4,634
Flagler	237,592	83,417	78,057	70,600	5,518
Gilchrist	134,671	24,000	58,494	52,177	–
Hamilton	240,094	36,158	103,239	95,488	5,209
Lafayette	297,321	64,566	57,558	155,893	19,304
Levy	462,794	170,964	150,727	130,430	10,673
Madison	326,368	69,881	106,069	128,488	21,930
Marion	568,275	192,209	136,052	225,124	14,890
Nassau	323,374	89,372	106,526	113,251	14,225
Putnam	347,781	90,291	103,981	140,063	13,446
St. Johns	245,326	67,770	84,641	90,259	2,656
Suwannee	231,514	62,604	89,370	79,540	–
Taylor	579,435	109,636	163,690	284,482	21,627
Union	121,390	29,910	42,946	44,724	3,810
Volusia	440,936	162,760	122,963	125,974	29,239
Total	6,557,101	1,859,206	2,099,367	2,388,727	209,801

Table 5—Area of timberland, by county and site class, Northeast Florida, 1995

County	All classes	Site class (cubic feet per acre per year)				
		>164	120–164	85–119	50–84	20–49
				Acres		
Alachua	277,455	—	10,439	101,707	144,968	20,341
Baker	326,523	—	10,452	60,381	227,800	27,890
Bradford	135,197	—	901	19,427	102,189	12,680
Clay	288,246	—	4,870	44,920	178,306	60,150
Columbia	357,483	—	7,432	92,062	225,690	32,299
Dixie	385,712	—	4,923	53,610	264,599	62,580
Duval	229,614	1,932	6,056	36,764	130,758	54,104
Flagler	237,592	—	—	29,398	170,733	37,461
Gilchrist	134,671	—	3,306	16,148	82,350	32,867
Hamilton	240,094	—	—	36,553	186,587	16,954
Lafayette	297,321	—	3,032	24,744	224,384	45,161
Levy	462,794	—	10,727	86,037	256,068	109,962
Madison	326,368	—	—	68,026	225,437	32,905
Marion	568,275	2,064	17,509	112,920	286,686	149,096
Nassau	323,374	—	8,389	52,012	198,769	64,204
Putnam	347,781	—	—	78,797	186,809	82,175
St. Johns	245,326	2,267	—	30,695	186,976	25,388
Suwannee	231,514	—	2,631	50,044	144,910	33,929
Taylor	579,435	—	2,971	63,016	368,137	145,311
Union	121,390	—	—	24,889	84,366	12,135
Volusia	440,936	2,908	5,816	45,708	298,374	88,130
Total	6,557,101	9,171	99,454	1,127,858	4,174,896	1,145,722

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

County	All classes	Stocking class (percent)[a]				
		>130	100–130	60–99	16.7–59	<16.7
				Acres		
Alachua	277,455	23,457	81,757	94,588	59,527	18,126
Baker	326,523	31,270	127,893	108,801	33,687	24,872
Bradford	135,197	19,088	41,339	42,646	27,889	4,235
Clay	288,246	8,952	55,582	128,547	60,987	34,178
Columbia	357,483	19,845	122,011	144,088	64,110	7,429
Dixie	385,712	4,924	90,265	155,651	104,786	30,086
Duval	229,614	10,928	83,663	87,741	31,844	15,438
Flagler	237,592	14,579	68,460	98,839	45,166	10,548
Gilchrist	134,671	2,348	38,803	43,260	43,216	7,044
Hamilton	240,094	20,244	80,901	92,307	33,861	12,781
Lafayette	297,321	5,424	72,142	104,235	74,520	41,000
Levy	462,794	34,941	90,531	172,671	110,893	53,758
Madison	326,368	21,056	49,671	121,154	94,201	40,286
Marion	568,275	8,317	108,248	196,976	174,445	80,289
Nassau	323,374	29,156	102,899	130,378	40,886	20,055
Putnam	347,781	14,967	63,915	109,692	100,517	58,690
St. Johns	245,326	17,093	69,945	113,386	37,712	7,190
Suwannee	231,514	2,631	73,132	100,489	42,103	13,159
Taylor	579,435	9,738	142,765	220,784	144,839	61,309
Union	121,390	10,297	42,421	50,398	14,464	3,810
Volusia	440,936	24,551	103,914	141,384	110,576	60,511
Total	6,557,101	333,806	1,710,257	2,458,015	1,450,229	604,794

[a] See stocking standards under "stocking" in definitions.

Table 7—Volume of growing stock and sawtimber on timberland, by county and species group, Northeast Florida, 1995

County	Growing stock					Sawtimber				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand cubic feet					*Thousand board feet*				
Alachua	308,656	149,938	40,370	46,796	71,552	817,086	267,018	155,342	121,203	273,523
Baker	381,312	236,892	62,373	78,086	3,961	1,051,663	681,372	189,709	171,136	9,446
Bradford	126,652	84,016	7,979	20,201	14,456	265,107	164,248	17,720	24,474	58,665
Clay	293,876	173,164	12,653	57,541	50,518	789,405	464,342	46,266	120,606	158,191
Columbia	393,030	206,880	50,195	94,692	41,263	1,069,516	643,743	163,235	147,093	115,445
Dixie	434,851	173,362	79,456	88,372	93,661	1,040,543	348,482	223,128	193,695	275,238
Duval	323,561	175,058	14,873	84,688	48,942	1,009,843	556,677	50,288	220,930	181,948
Flagler	307,061	154,067	77,335	51,680	23,979	906,656	430,800	227,515	141,760	106,581
Gilchrist	116,283	74,812	17,628	5,159	18,684	224,520	107,459	49,730	4,697	62,634
Hamilton	251,721	114,103	24,201	57,233	56,184	561,533	207,276	50,824	97,697	205,736
Lafayette	206,356	75,648	37,394	44,067	49,247	535,347	195,078	100,784	65,639	173,846
Levy	575,560	276,856	93,656	100,797	104,251	1,630,876	746,028	271,726	251,223	361,899
Madison	268,875	75,245	49,479	101,565	42,586	731,843	192,993	160,342	236,254	142,254
Marion	554,956	336,764	21,978	79,971	116,243	1,692,959	983,457	68,459	224,740	416,303
Nassau	396,025	187,438	38,005	123,437	47,145	1,017,394	519,602	119,519	235,045	143,228
Putnam	304,588	172,368	11,535	76,682	44,003	811,329	421,372	40,763	219,233	129,961
St. Johns	279,320	142,177	23,541	76,488	37,114	676,832	337,101	82,631	141,098	116,002
Suwannee	220,560	101,993	–	28,712	89,855	705,620	263,984	–	102,934	338,702
Taylor	399,108	150,826	75,298	98,472	74,512	1,017,314	298,284	223,809	242,314	252,907
Union	138,009	68,430	19,210	43,527	6,842	325,512	143,339	59,390	102,826	19,957
Volusia	508,808	210,603	127,646	116,112	54,447	1,461,960	702,904	286,510	276,964	195,582
Total	6,789,168	3,340,640	884,805	1,474,278	1,089,445	18,342,858	8,675,559	2,587,690	3,341,561	3,738,048

Table 8—Average net annual growth of growing stock and sawtimber on timberland, by county and species group, Northeast Florida, 1987-1994

County	Growing stock					Sawtimber				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand cubic feet					*Thousand board feet*				
Alachua	23,261	17,827	537	1,334	3,563	67,261	44,340	2,954	5,257	14,710
Baker	19,397	17,076	642	1,350	329	43,580	38,548	2,843	1,783	406
Bradford	7,596	6,298	240	524	534	16,046	11,978	915	1,194	1,959
Clay	16,286	12,456	168	2,087	1,575	48,000	36,808	842	4,342	6,008
Columbia	18,368	13,008	524	3,568	1,268	46,188	35,669	2,257	4,523	3,739
Dixie	26,298	16,970	2,362	3,274	3,692	75,600	42,969	9,109	8,192	15,330
Duval	18,629	13,320	190	3,400	1,719	61,297	41,241	1,044	10,243	8,769
Flagler	17,673	13,787	1,893	1,294	699	55,009	38,464	7,743	5,486	3,316
Gilchrist	9,610	8,349	164	280	817	17,120	13,988	894	-226	2,464
Hamilton	14,591	11,169	290	1,489	1,643	23,195	13,588	1,293	2,149	6,165
Lafayette	13,043	9,776	355	1,505	1,407	31,597	24,981	2,109	1,297	3,210
Levy	27,646	20,522	1,859	2,176	3,089	84,793	59,613	8,114	5,640	11,426
Madison	12,754	8,054	186	2,850	1,664	33,761	17,702	2,855	7,594	5,610
Marion	24,848	18,984	170	1,671	4,023	83,759	60,357	1,109	7,980	14,313
Nassau	23,255	18,229	216	3,223	1,587	61,003	47,451	2,294	5,737	5,521
Putnam	13,014	11,250	149	835	780	39,217	34,071	963	971	3,212
St. Johns	19,442	15,102	534	2,656	1,150	51,451	36,374	2,165	8,648	4,264
Suwannee	11,990	8,625	–	382	2,983	27,699	16,754	–	1,271	9,674
Taylor	28,996	22,639	1,423	2,309	2,625	62,638	37,584	6,399	6,945	11,710
Union	6,714	5,514	443	541	216	16,203	11,818	1,595	1,796	994
Volusia	16,864	9,920	2,067	3,693	1,184	49,534	25,276	8,687	9,364	6,207
Total	370,275	278,875	14,412	40,441	36,547	994,951	689,574	66,184	100,186	139,007

Table 9—Average annual removals of growing stock and sawtimber on timberland, by county and species group, Northeast Florida, 1987-1994

County	Growing stock					Sawtimber				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand cubic feet					*Thousand board feet*				
Alachua	18,281	14,534	741	634	2,372	49,275	34,149	3,187	2,344	9,595
Baker	19,337	18,581	694	28	34	42,600	41,604	996	–	–
Bradford	3,338	3,189	68	–	81	4,656	4,241	–	–	415
Clay	13,134	11,760	113	775	486	36,356	33,406	387	1,393	1,170
Columbia	16,444	14,141	620	1,304	379	48,924	43,334	2,197	2,311	1,082
Dixie	23,659	13,769	4,001	3,134	2,755	67,665	36,780	12,056	11,389	7,440
Duval	8,979	5,099	90	1,749	2,041	28,252	16,518	–	4,926	6,808
Flagler	15,892	11,816	3,705	371	–	29,202	18,644	9,974	584	–
Gilchrist	4,885	4,885	–	–	–	12,954	12,954	–	–	–
Hamilton	13,609	10,499	1,080	1,680	350	28,198	21,342	2,790	3,288	778
Lafayette	17,321	15,214	1,209	490	408	36,884	31,408	2,663	860	1,953
Levy	17,889	13,612	1,328	868	2,081	45,890	36,147	2,862	1,752	5,129
Madison	17,010	11,173	1,526	3,630	681	47,294	32,418	5,599	8,697	580
Marion	20,506	20,181	–	33	292	47,005	46,522	–	–	483
Nassau	19,957	18,085	118	564	1,190	52,340	48,400	305	219	3,416
Putnam	12,494	9,927	72	1,851	644	36,210	27,607	329	5,583	2,691
St. Johns	16,599	13,060	1,084	1,380	1,075	42,662	33,226	2,138	3,525	3,773
Suwannee	3,525	2,368	–	67	1,090	6,758	4,527	–	282	1,949
Taylor	33,044	24,585	1,569	2,717	4,173	72,363	46,805	5,931	7,566	12,061
Union	3,713	3,469	114	130	–	8,799	8,155	452	192	–
Volusia	12,153	9,214	2,414	478	47	32,666	25,198	6,874	594	–
Total	311,769	249,161	20,546	21,883	20,179	776,953	603,385	58,740	55,505	59,323

Table 10—Area of timberland, by forest type and ownership class, Northeast Florida, 1995

Forest type	All ownerships	Ownership class				
		National forest	Other public	Forest industry	Forest industry-leased	Other private
				Acres		
Softwood types						
Longleaf pine	190,946	48,042	21,490	30,950	—	90,464
Slash pine	2,776,425	92,775	136,529	1,236,635	322,936	987,550
Loblolly pine	282,160	—	6,412	100,630	16,295	158,823
Shortleaf pine	—	—	—	—	—	—
Virginia pine	—	—	—	—	—	—
Sand pine	264,419	168,883	13,803	34,617	—	47,116
Eastern redcedar	—	—	—	—	—	—
Pond pine	35,568	2,064	7,861	12,103	—	13,540
Spruce pine	—	—	—	—	—	—
Pitch pine	—	—	—	—	—	—
Table Mountain pine	—	—	—	—	—	—
Total	3,549,518	311,764	186,095	1,414,935	339,231	1,297,493
Hardwood types						
Oak–pine	582,410	31,726	22,191	147,227	39,281	341,985
Oak–hickory	644,987	6,192	25,331	108,937	32,462	472,065
Chestnut oak	—	—	—	—	—	—
Southern scrub oak	251,093	23,129	24,279	18,669	7,851	177,165
Oak–gum–cypress	1,508,993	59,635	164,603	603,625	130,720	550,410
Elm–ash–cottonwood	20,100	—	2,731	11,898	—	5,471
Total	3,007,583	120,682	239,135	890,356	210,314	1,547,096
All types	6,557,101	432,446	425,230	2,305,291	549,545	2,844,589

Table 11—Area of timberland, by ownership and stocking classes of growing-stock trees, Northeast Florida, 1995

Ownership class	All classes	Stocking class (percent)[a]				
		>130	100–130	60–99	16.7–59	<16.7
				Acres		
National forest	432,446	18,545	107,053	159,966	95,994	50,888
Other public	425,230	31,312	96,700	147,251	111,039	38,928
Forest industry	2,305,291	155,639	597,454	923,245	447,040	181,913
Forest industry-leased	549,545	24,972	216,349	220,133	57,215	30,876
Other private	2,844,589	103,338	692,701	1,007,420	738,941	302,189
All ownerships	6,557,101	333,806	1,710,257	2,458,015	1,450,229	604,794

[a] See stocking standards under "stocking" in definitions.

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

Forest type	All stands	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling-seedling	
		Acres			
Softwood types					
Longleaf pine	190,946	83,751	30,012	69,593	7,590
Slash pine	2,776,425	418,690	1,129,666	1,117,357	110,712
Loblolly pine	282,160	81,173	96,899	104,088	—
Shortleaf pine	—	—	—	—	—
Virginia pine	—	—	—	—	—
Sand pine	264,419	41,760	100,670	112,389	9,600
Eastern redcedar	—	—	—	—	—
Pond pine	35,568	24,258	5,880	2,458	2,972
Spruce pine	—	—	—	—	—
Pitch pine	—	—	—	—	—
Table Mountain pine	—	—	—	—	—
Total	3,549,518	649,632	1,363,127	1,405,885	130,874
Hardwood types					
Oak–pine	582,410	189,110	119,471	263,792	10,037
Oak–hickory	644,987	303,781	141,738	190,126	9,342
Chestnut oak	—	—	—	—	—
Southern scrub oak	251,093	15,100	29,628	201,056	5,309
Oak–gum–cypress	1,508,993	698,674	440,110	315,970	54,239
Elm–ash–cottonwood	20,100	2,909	5,293	11,898	—
Total	3,007,583	1,209,574	736,240	982,842	78,927
All types	6,557,101	1,859,206	2,099,367	2,388,727	209,801

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

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood
		Acres				
0-10	1,400,163	1,012,639	110,279	133,027	64,790	79,428
11-20	1,107,820	846,576	101,510	55,051	54,911	49,772
21-30	645,125	463,717	72,604	15,168	34,955	58,681
31-40	390,843	146,105	104,702	27,563	20,937	91,536
41-50	358,284	5,552	139,748	30,462	32,691	149,831
51-60	403,015	2,064	82,585	52,530	45,022	220,814
61-70	244,058	—	63,047	13,100	18,120	149,791
71-80	181,864	—	22,141	13,039	31,545	115,139
81+	221,593	—	9,446	16,227	44,865	151,055
No manageable stand	1,604,336	31,136	335,667	226,243	548,244	463,046
All classes	6,557,101	2,507,789	1,041,729	582,410	896,080	1,529,093

Table 14—Area of timberland, by stand-age and broad management classes, public ownership, Northeast Florida, 1995

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood
			Acres			
0-10	86,324	56,654	8,643	12,786	–	8,241
11-20	106,881	90,135	10,403	–	2,064	4,279
21-30	67,430	51,991	6,913	2,173	3,190	3,163
31-40	78,030	23,637	31,285	2,595	–	20,513
41-50	68,027	–	47,496	2,118	–	18,413
51-60	67,602	2,064	39,879	1,548	–	24,111
61-70	78,528	–	46,659	2,063	2,730	27,076
71-80	27,207	–	14,201	–	–	13,006
81 +	57,781	–	9,446	2,595	4,975	40,765
No manageable stand	219,866	8,330	50,123	28,039	65,972	67,402
All classes	857,676	232,811	265,048	53,917	78,931	226,969

Table 15—Area of timberland, by stand-age and broad management classes, forest industry,[a] Northeast Florida, 1995

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood
			Acres			
0-10	744,136	611,970	24,237	44,079	21,808	42,042
11-20	598,106	503,216	18,635	36,210	14,534	25,511
21-30	365,596	321,168	7,772	2,767	2,315	31,574
31-40	137,088	71,668	16,505	7,758	5,672	35,485
41-50	149,483	5,552	37,009	16,267	5,027	85,628
51-60	131,307	–	8,260	25,066	2,641	95,340
61-70	97,295	–	8,258	5,305	10,450	73,282
71-80	57,540	–	5,376	–	10,649	41,515
81 +	62,782	–	–	5,743	3,031	54,008
No manageable stand	511,503	16,474	98,066	43,313	91,792	261,858
All classes	2,854,836	1,530,048	224,118	186,508	167,919	746,243

[a] Includes 549,545 acres of other private land under long-term lease.

Table 16—Area of timberland, by stand-age and broad management classes, other private ownerships,[a] Northeast Florida, 1995

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood
			Acres			
0-10	569,703	344,015	77,399	76,162	42,982	29,145
11-20	402,833	253,225	72,472	18,841	38,313	19,982
21-30	212,099	90,558	57,919	10,228	29,450	23,944
31-40	175,725	50,800	56,912	17,210	15,265	35,538
41-50	140,774	—	55,243	12,077	27,664	45,790
51-60	204,106	—	34,446	25,916	42,381	101,363
61-70	68,235	—	8,130	5,732	4,940	49,433
71-80	97,117	—	2,564	13,039	20,896	60,618
81+	101,030	—	—	7,889	36,859	56,282
No manageable stand	872,967	6,332	187,478	154,891	390,480	133,786
All classes	2,844,589	744,930	552,563	341,985	649,230	555,881

[a] Excludes 549,545 acres of other private land under long-term lease to forest industry.

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

Broad management class	All classes	Stand-volume class (cubic feet of growing stock per acre)				
		0-499	500-999	1000-1499	1500-1999	2000+
			Acres			
Pine plantation	2,507,789	1,320,762	441,288	321,465	214,094	210,180
Natural pine	1,041,729	437,689	139,700	125,783	111,934	226,623
Oak–pine	582,410	293,739	118,146	51,575	21,114	97,836
Upland hardwood	896,080	500,731	140,548	68,056	81,686	105,059
Lowland hardwood	1,529,093	392,023	237,705	151,280	166,876	581,209
All classes	6,557,101	2,944,944	1,077,387	718,159	595,704	1,220,907

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

Broad management class and species group	All classes	No manageable stand	Stand-age class (years)								
			0–10	11–20	21–30	31–40	41–50	51–60	61–70	71–80	81+
			Thousand cubic feet								
Pine plantation											
Softwood	1,710,459	8,034	75,220	660,588	714,083	244,653	3,147	4,734	—	—	—
Hardwood	34,618	—	4,413	11,559	14,577	4,069	—	—	—	—	—
Total	1,745,077	8,034	79,633	672,147	728,660	248,722	3,147	4,734	—	—	—
Natural pine											
Softwood	1,173,159	97,362	24,702	55,105	85,010	183,128	294,580	197,884	153,196	51,070	31,122
Hardwood	84,707	3,119	766	6,501	9,804	9,166	20,117	19,246	11,569	489	3,930
Total	1,257,866	100,481	25,468	61,606	94,814	192,294	314,697	217,130	164,765	51,559	35,052
Oak–pine											
Softwood	336,671	74,860	15,174	18,941	11,198	24,364	35,121	86,941	15,128	22,073	32,871
Hardwood	211,557	22,179	11,375	5,829	8,603	10,406	31,858	61,969	20,354	20,485	18,499
Total	548,228	97,039	26,549	24,770	19,801	34,770	66,979	148,910	35,482	42,558	51,370
Upland hardwood											
Softwood	56,349	23,802	1,640	5,314	6,834	4,600	2,390	6,298	—	4,171	1,300
Hardwood	560,891	141,214	7,154	18,183	41,540	21,290	59,477	84,619	33,429	48,833	105,152
Total	617,240	165,016	8,794	23,497	48,374	25,890	61,867	90,917	33,429	53,004	106,452
Lowland hardwood											
Softwood	948,807	71,726	11,011	5,211	21,033	51,574	79,379	154,506	167,480	130,173	256,714
Hardwood	1,671,950	145,777	14,128	13,074	41,318	85,174	190,005	393,466	261,462	223,140	304,406
Total	2,620,757	217,503	25,139	18,285	62,351	136,748	269,384	547,972	428,942	353,313	561,120
All types											
Softwood	4,225,445	275,784	127,747	745,159	838,158	508,319	414,617	450,363	335,804	207,487	322,007
Hardwood	2,563,723	312,289	37,836	55,146	115,842	130,105	301,457	559,300	326,814	292,947	431,987
Total	6,789,168	588,073	165,583	800,305	954,000	638,424	716,074	1,009,663	662,618	500,434	753,994

Table 19—Average net annual growth of growing stock on timberland, by broad management class, species group, and stand-age class, Northeast Florida, 1987-1994

Broad management class[a] and species group	All classes	No manageable stand	Stand-age class (years)								
			0–10	11–20	21–30	31–40	41–50	51–60	61–70	71–80	81+
			Thousand cubic feet								
Pine plantation											
Softwood	202,362	3,513	72,059	77,572	45,251	3,564	192	211	—	—	—
Hardwood	3,124	—	590	855	1,530	149	—	—	—	—	—
Total	205,486	3,513	72,649	78,427	46,781	3,713	192	211	—	—	—
Natural pine											
Softwood	52,569	8,531	3,178	6,145	10,521	12,414	7,408	3,431	-85	547	479
Hardwood	4,812	391	96	666	674	1,091	1,170	391	183	31	119
Total	57,381	8,922	3,274	6,811	11,195	13,505	8,578	3,822	98	578	598
Oak–pine											
Softwood	12,821	2,685	2,895	2,035	974	577	2,348	573	552	75	107
Hardwood	7,405	1,344	662	443	611	1,052	2,194	304	604	140	51
Total	20,226	4,029	3,557	2,478	1,585	1,629	4,542	877	1,156	215	158
Upland hardwood											
Softwood	3,585	1,533	642	501	370	41	67	242	232	—	-43
Hardwood	17,735	6,169	728	1,765	1,222	1,244	1,924	1,448	1,766	206	1,263
Total	21,320	7,702	1,370	2,266	1,592	1,285	1,991	1,690	1,998	206	1,220
Lowland hardwood											
Softwood	21,950	3,272	1,114	820	1,087	1,390	3,556	3,596	2,479	2,211	2,425
Hardwood	43,912	6,150	1,611	2,060	2,837	5,413	8,611	5,805	4,781	3,746	2,898
Total	65,862	9,422	2,725	2,880	3,924	6,803	12,167	9,401	7,260	5,957	5,323
All types											
Softwood	293,287	19,534	79,888	87,073	58,203	17,986	13,571	8,053	3,178	2,833	2,968
Hardwood	76,988	14,054	3,687	5,789	6,874	8,949	13,899	7,948	7,334	4,123	4,331
Total	370,275	33,588	83,575	92,862	65,077	26,935	27,470	16,001	10,512	6,956	7,299

[a] 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, Northeast Florida, 1987-1994

Broad management class[a] and species group	All classes	No manageable stand	Stand-age class (years)								
			0–10	11–20	21–30	31–40	41–50	51–60	61–70	71–80	81+
			Thousand cubic feet								
Pine plantation											
Softwood	146,719	245	1,315	39,770	91,089	13,375	—	925	—	—	—
Hardwood	950	—	44	232	626	48	—	—	—	—	—
Total	147,669	245	1,359	40,002	91,715	13,423	—	925	—	—	—
Natural pine											
Softwood	83,918	9,095	1,792	2,078	10,910	27,108	21,206	6,907	3,010	1,161	651
Hardwood	1,757	57	—	39	83	591	776	41	134	36	—
Total	85,675	9,152	1,792	2,117	10,993	27,699	21,982	6,948	3,144	1,197	651
Oak–pine											
Softwood	14,743	2,387	507	385	1,507	1,640	5,875	1,479	840	123	—
Hardwood	2,619	368	63	44	82	301	1,425	—	336	—	—
Total	17,362	2,755	570	429	1,589	1,941	7,300	1,479	1,176	123	—
Upland hardwood											
Softwood	2,274	1,024	139	76	177	278	169	—	324	—	87
Hardwood	6,958	1,989	—	85	436	1,617	1,092	434	351	—	954
Total	9,232	3,013	139	161	613	1,895	1,261	434	675	—	1,041
Lowland hardwood											
Softwood	22,053	1,449	—	246	590	2,831	2,780	4,969	2,868	2,383	3,937
Hardwood	29,778	3,325	103	—	165	4,666	6,692	5,449	3,538	2,840	3,000
Total	51,831	4,774	103	246	755	7,497	9,472	10,418	6,406	5,223	6,937
All types											
Softwood	269,707	14,200	3,753	42,555	104,273	45,232	30,030	14,280	7,042	3,667	4,675
Hardwood	42,062	5,739	210	400	1,392	7,223	9,985	5,924	4,359	2,876	3,954
Total	311,769	19,939	3,963	42,955	105,665	52,455	40,015	20,204	11,401	6,543	8,629

[a] 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, Northeast 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
	Thousand cubic feet									
Longleaf–slash pine	2,453,391	2,311,664	30,037	54,128	57,562	2,421,436	2,307,828	29,519	50,905	33,184
Loblolly–shortleaf pine	598,628	547,943	959	16,784	32,942	581,507	545,312	959	15,584	19,652
Oak–pine	619,426	283,044	57,812	135,025	143,545	548,228	280,858	55,813	123,593	87,964
Oak–hickory	837,386	53,306	4,364	109,874	669,842	617,240	52,432	3,917	98,708	462,183
Oak–gum–cypress	2,862,479	155,109	806,463	1,290,936	609,971	2,604,050	154,210	793,918	1,174,811	481,111
Elm–ash–cottonwood	18,638	—	679	11,898	6,061	16,707	—	679	10,677	5,351
All types	7,389,948	3,351,066	900,314	1,618,645	1,519,923	6,789,168	3,340,640	884,805	1,474,278	1,089,445

Table 22—Area of timberland treated or disturbed annually and retained in timberland, by treatment or disturbance and ownership class, Northeast Florida, 1987 to 1995

Treatment or disturbance	All ownerships	Ownership class			
		Public	Forest industry	Forest industry-leased	Other private
		Acres[a]			
Final harvest	133,205	8,802	68,852	16,867	38,684
Partial harvest[b]	8,285	—	2,845	1,728	3,712
Commercial thinning	15,581	1,724	7,240	838	5,779
Other stand improvement	3,491	279	1,123	—	2,089
Site preparation	102,506	8,372	56,553	13,737	23,844
Artificial regeneration[c]	112,801	7,535	56,041	11,933	37,292
Natural regeneration[c]	30,900	710	7,457	1,597	21,136
Other treatment	36,766	3,571	8,451	1,514	23,230
Natural disturbance	42,963	4,613	9,531	3,533	25,286

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

[b] Includes high-grading and some selective cutting.

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

Table 23—Area of timberland treated or disturbed annually and retained in timberland, by treatment or disturbance and broad management class, Northeast Florida, 1987 to 1995

Treatment or disturbance	All classes	Broad management class[a]				
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood
			Acres[b]			
Final harvest	133,205	69,392	35,048	6,302	1,740	20,723
Partial harvest[c]	8,285	381	1,379	319	1,670	4,536
Commercial thinning	15,581	12,660	1,902	375	–	644
Other stand improvement	3,491	1,781	652	729	329	–
Site preparation	102,506	56,992	27,218	3,779	8,760	5,757
Other treatment	36,766	1,483	13,033	5,644	7,740	8,866
Natural disturbance	42,963	18,290	5,365	2,072	7,022	10,214

[a] Classification before treatment or disturbance.

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

[c] Includes high-grading and some selective cutting.

Table 24—Area of timberland regenerated annually, by type of regeneration and broad management class, Northeast Florida, 1987 to 1995

Type of regeneration	All classes	Broad management class[a]				
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood
			Acres			
Artificial regeneration following harvest	68,814	65,058	–	2,447	720	589
Natural regeneration following harvest	14,257	–	3,228	1,410	4,004	5,615
Other artificial regeneration on forest land	29,451	25,484	–	3,967	–	–
Other natural regeneration on forest land	11,328	–	6,246	2,019	1,011	2,052
Artificial regeneration on nonforest land	14,536	13,125	–	1,411	–	–
Natural reversion of nonforest land	5,315	–	2,763	667	1,370	515
Total	143,701	103,667	12,237	11,921	7,105	8,771

[a] Classification after regeneration.

Table 25—Area of timberland, by treatment opportunity and broad management classes, Northeast Florida, 1995

Treatment opportunity class	All classes	Broad management class				
		Pine plantation	Natural pine	Oak–pine	Upland hardwood	Lowland hardwood
			Acres			
Salvage	15,673	5,128	—	2,362	—	8,183
Harvest	188,100	—	23,236	21,337	45,602	97,925
Commercial thinning	330,237	292,032	19,253	2,916	—	16,036
Other stand improvement	295,539	67,687	58,743	40,454	42,093	86,562
Stand conversion	28,477	—	—	9,704	8,698	10,075
Regeneration	1,490,989	31,136	330,026	220,473	548,244	361,110
Stand in relatively good condition	3,799,574	2,111,806	599,280	271,709	251,443	565,336
Adverse sites[a]	408,512	—	11,191	13,455	—	383,866
All classes	6,557,101	2,507,789	1,041,729	582,410	896,080	1,529,093

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

Table 26—Area of timberland, by treatment opportunity and ownership classes, Northeast Florida, 1995

Treatment opportunity class	All ownerships	Ownership class			
		Public	Forest industry	Forest industry-leased	Other private
			Acres		
Salvage	15,673	—	8,384	—	7,289
Harvest	188,100	34,018	39,182	2,847	112,053
Commercial thinning	330,237	23,338	124,693	51,694	130,512
Other stand improvement	295,539	40,817	68,016	26,727	159,979
Stand conversion	28,477	3,612	11,110	—	13,755
Regeneration	1,490,989	191,003	396,529	57,409	846,048
Stand in relatively good condition	3,799,574	461,058	1,506,154	380,785	1,451,577
Adverse sites[a]	408,512	103,830	151,223	30,083	123,376
All classes	6,557,101	857,676	2,305,291	549,545	2,844,589

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

Table 27—Merchantable volume of live trees and growing stock on timberland, by ownership class and species group, Northeast 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
	Thousand cubic feet									
National forest	604,789	430,759	53,657	89,284	31,089	582,869	430,759	53,401	79,114	19,595
Other public	705,131	245,894	118,348	181,496	159,393	642,154	245,701	113,572	167,553	115,328
Forest industry	2,341,449	1,160,625	322,791	535,731	322,302	2,197,226	1,156,393	318,717	485,583	236,533
Forest industry-leased	482,007	235,438	56,644	127,955	61,970	458,028	234,804	56,181	117,363	49,680
Other private	3,256,572	1,278,350	348,874	684,179	945,169	2,908,891	1,272,983	342,934	624,665	668,309
All ownerships	7,389,948	3,351,066	900,314	1,618,645	1,519,923	6,789,168	3,340,640	884,805	1,474,278	1,089,445

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

Ownership class	Small sawtimber[a]					Large sawtimber[b]				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand cubic feet									
National forest	1,220,955	1,030,862	98,976	69,291	21,826	573,636	347,496	88,103	104,100	33,937
Other public	1,120,689	588,165	222,225	207,158	103,141	870,580	251,694	149,116	195,556	274,214
Forest industry	3,319,502	1,913,701	636,056	520,774	248,971	1,785,262	548,108	220,594	501,669	514,891
Forest industry-leased	548,457	270,279	111,729	120,873	45,576	453,913	196,753	35,332	93,755	128,073
Other private	4,015,931	2,102,134	646,322	652,375	615,100	4,433,933	1,426,367	379,237	876,010	1,752,319
All ownerships	10,225,534	5,905,141	1,715,308	1,570,471	1,034,614	8,117,324	2,770,418	872,382	1,771,090	2,703,434

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

Table 29—Average net annual growth and removals of growing stock on timberland, by ownership class and species group, Northeast Florida, 1987-1994

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
	Thousand cubic feet									
National forest	18,632	15,962	456	1,716	498	13,417	13,417	—	—	—
Other public	21,664	11,834	1,857	5,003	2,970	13,472	9,699	—	455	3,318
Forest industry	150,040	122,820	4,672	13,991	8,557	149,682	118,277	10,786	10,803	9,816
Forest industry-leased	34,756	28,413	755	4,012	1,576	35,080	29,753	2,571	2,503	253
Other private	145,183	99,846	6,672	15,719	22,946	100,118	78,015	7,189	8,122	6,792
All ownerships	370,275	278,875	14,412	40,441	36,547	311,769	249,161	20,546	21,883	20,179

Table 30—Average net annual growth and removals of sawtimber on timberland, by ownership class and species group, Northeast Florida, 1987-1994

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
	Thousand board feet									
National forest	56,039	48,762	2,183	3,364	1,730	30,933	30,933	–	–	–
Other public	76,640	39,253	9,321	14,533	13,533	47,104	34,136	–	1,521	11,447
Forest industry	379,037	297,408	24,275	28,110	29,244	343,732	254,258	34,172	28,930	26,372
Forest industry-leased	72,523	52,767	3,476	11,071	5,209	55,820	45,301	5,561	4,541	417
Other private	410,712	251,384	26,929	43,108	89,291	299,364	238,757	19,007	20,513	21,087
All ownerships	994,951	689,574	66,184	100,186	139,007	776,953	603,385	58,740	55,505	59,323

Table 31—Volume of timber on timberland, by class of timber and species group, Northeast Florida, 1995

Class of timber	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand cubic feet				
Sawtimber trees					
Saw-log portion	3,499,369	1,623,018	544,773	653,997	677,581
Upper-stem portion[a]	517,725	192,148	81,907	137,731	105,939
Total	4,017,094	1,815,166	626,680	791,728	783,520
Poletimber trees	2,772,074	1,525,474	258,125	682,550	305,925
All growing-stock trees	6,789,168	3,340,640	884,805	1,474,278	1,089,445
Rough trees					
Sawtimber size	274,247	4,497	5,030	41,688	223,032
Poletimber size	246,943	5,293	3,066	76,413	162,171
Total	521,190	9,790	8,096	118,101	385,203
Rotten trees					
Sawtimber size	69,387	193	6,580	20,990	41,624
Poletimber size	10,203	443	833	5,276	3,651
Total	79,590	636	7,413	26,266	45,275
Salvable dead trees					
Sawtimber size	4,653	2,815	294	983	561
Poletimber size	3,040	1,707	405	558	370
Total	7,693	4,522	699	1,541	931
Total, all timber	7,397,641	3,355,588	901,013	1,620,186	1,520,854

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

Table 32—Number of live trees on timberland, by species and diameter class, Northeast 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							
Softwood													
Longleaf pine	40,739	15,485	7,982	5,021	2,897	3,193	2,995	1,885	794	329	105	53	–
Slash pine	1,020,578	303,099	319,422	229,478	106,120	37,840	14,639	5,521	2,783	1,069	430	177	–
Shortleaf pine	161	–	161	–	–	–	–	–	–	–	–	–	–
Loblolly pine	111,553	40,147	30,702	20,173	9,103	4,426	2,797	1,742	1,048	525	418	457	15
Pond pine	9,733	3,073	1,764	1,089	1,139	864	794	649	233	85	28	15	–
Virginia pine	–	–	–	–	–	–	–	–	–	–	–	–	–
Pitch pine	–	–	–	–	–	–	–	–	–	–	–	–	–
Table Mountain pine	–	–	–	–	–	–	–	–	–	–	–	–	–
Spruce pine	775	330	165	–	106	74	29	18	16	–	18	19	–
Sand pine	173,482	90,374	49,526	19,702	8,828	2,916	1,280	582	180	56	38	–	–
Eastern white pine	–	–	–	–	–	–	–	–	–	–	–	–	–
Eastern hemlock	–	–	–	–	–	–	–	–	–	–	–	–	–
Spruce and fir	–	–	–	–	–	–	–	–	–	–	–	–	–
Baldcypress	26,666	7,159	7,098	3,411	3,327	2,470	1,114	1,144	399	237	164	127	16
Pondcypress	259,354	132,281	56,009	27,341	17,798	12,442	6,847	3,732	1,681	675	306	232	10
Cedars	4,842	1,472	1,309	938	721	250	76	38	15	23	–	–	–
Total softwoods	1,647,883	593,420	474,138	307,153	150,039	64,475	30,571	15,311	7,149	2,999	1,507	1,080	41
Hardwood													
Select white oaks	2,381	1,472	325	406	–	40	89	21	–	–	10	15	3
Select red oaks	248	165	–	–	67	–	–	16	–	–	–	–	–
Chestnut oak	–	–	–	–	–	–	–	–	–	–	–	–	–
Other white oaks	86,719	48,290	17,258	6,697	3,648	2,604	1,763	1,287	1,377	891	746	1,560	598
Other red oaks	366,673	246,314	61,433	24,582	11,918	7,957	5,835	3,449	1,966	1,390	755	865	209
Hickory	13,503	8,034	1,280	1,848	589	482	374	394	173	123	56	143	7
Yellow birch	–	–	–	–	–	–	–	–	–	–	–	–	–
Hard maple	2,506	1,628	330	122	230	44	85	58	–	–	9	–	–
Soft maple	146,604	94,434	27,505	10,430	6,569	3,314	1,756	1,236	656	311	219	162	12
Beech	84	–	–	–	–	39	–	18	–	–	8	19	–
Sweetgum	138,544	79,640	30,846	12,469	5,906	3,950	2,401	1,754	786	429	187	164	12
Tupelo and blackgum	304,384	155,385	74,345	33,633	18,111	10,488	5,921	3,279	1,834	772	280	302	34
Ash	120,264	75,127	25,538	9,152	3,933	2,763	1,792	893	558	270	165	69	4
Cottonwood	159	159	–	–	–	–	–	–	–	–	–	–	–
Basswood	5,175	2,911	1,303	328	297	107	50	56	62	36	10	15	–
Yellow-poplar	2,443	1,369	509	400	–	–	111	42	–	–	–	12	–
Bay and magnolia	255,630	153,314	56,445	24,417	9,974	5,288	2,671	1,774	754	560	158	252	23
Black cherry	15,361	9,986	3,520	908	658	169	24	56	40	–	–	–	–
Black walnut	–	–	–	–	–	–	–	–	–	–	–	–	–
Sycamore	–	–	–	–	–	–	–	–	–	–	–	–	–
Black locust	–	–	–	–	–	–	–	–	–	–	–	–	–
Elm	19,331	9,977	5,386	1,690	1,002	535	237	296	88	58	19	43	–
Other Eastern hardwoods	415,264	318,393	65,390	17,148	7,275	4,135	1,533	890	277	146	57	20	–
Total hardwoods	1,895,273	1,206,598	371,413	144,230	70,177	41,915	24,642	15,519	8,571	4,986	2,679	3,641	902
All species	3,543,156	1,800,018	845,551	451,383	220,216	106,390	55,213	30,830	15,720	7,985	4,186	4,721	943

Table 33—Number of growing-stock trees on timberland, by species and diameter class, Northeast 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							
Softwood													
Longleaf pine	40,145	15,009	7,982	4,926	2,897	3,193	2,972	1,885	794	329	105	53	–
Slash pine	1,008,310	293,931	317,633	228,488	106,000	37,690	14,639	5,482	2,783	1,057	430	177	–
Shortleaf pine	161	–	161	–	–	–	–	–	–	–	–	–	–
Loblolly pine	108,075	38,230	30,066	19,469	8,959	4,385	2,767	1,742	1,048	525	418	451	15
Pond pine	9,413	2,914	1,603	1,089	1,139	864	794	649	233	85	28	15	–
Virginia pine	–	–	–	–	–	–	–	–	–	–	–	–	–
Pitch pine	–	–	–	–	–	–	–	–	–	–	–	–	–
Table Mountain pine	–	–	–	–	–	–	–	–	–	–	–	–	–
Spruce pine	775	330	165	–	106	74	29	18	16	–	18	19	–
Sand pine	168,734	86,554	48,890	19,477	8,778	2,916	1,280	565	180	56	38	–	–
Eastern white pine	–	–	–	–	–	–	–	–	–	–	–	–	–
Eastern hemlock	–	–	–	–	–	–	–	–	–	–	–	–	–
Spruce and fir	–	–	–	–	–	–	–	–	–	–	–	–	–
Baldcypress	23,912	5,212	6,450	3,411	3,267	2,470	1,091	1,103	399	237	164	104	4
Pondcypress	239,646	117,562	52,434	26,520	17,518	12,335	6,794	3,712	1,639	640	286	203	3
Cedars	4,015	1,307	978	856	594	177	27	38	15	23	–	–	–
Total softwoods	1,603,186	561,049	466,362	304,236	149,258	64,104	30,393	15,194	7,107	2,952	1,487	1,022	22
Hardwood													
Select white oaks	1,454	638	325	313	–	40	89	21	–	–	10	15	3
Select red oaks	83	–	–	–	67	–	–	16	–	–	–	–	–
Chestnut oak	–	–	–	–	–	–	–	–	–	–	–	–	–
Other white oaks	18,512	6,592	4,208	1,753	1,487	743	492	551	656	432	362	897	339
Other red oaks	222,910	127,893	46,458	19,443	9,639	7,030	5,033	3,065	1,695	1,143	651	711	149
Hickory	6,331	1,935	791	1,514	469	446	347	355	158	123	56	130	7
Yellow birch	–	–	–	–	–	–	–	–	–	–	–	–	–
Hard maple	380	–	–	–	230	44	57	40	–	–	9	–	–
Soft maple	65,248	31,688	15,179	7,160	4,883	2,869	1,362	1,013	568	240	182	101	3
Beech	80	–	–	–	–	39	–	18	–	–	8	15	–
Sweetgum	97,077	45,897	24,695	11,639	5,657	3,750	2,323	1,658	728	406	187	134	3
Tupelo and blackgum	184,302	60,843	56,393	29,880	16,290	9,597	5,295	3,082	1,707	703	240	246	26
Ash	47,277	22,231	10,824	6,001	2,965	2,332	1,448	680	440	224	83	49	–
Cottonwood	–	–	–	–	–	–	–	–	–	–	–	–	–
Basswood	2,809	1,616	644	125	177	65	50	36	47	24	10	15	–
Yellow-poplar	2,101	1,032	509	400	–	–	111	42	–	–	–	7	–
Bay and magnolia	170,797	90,815	40,289	21,348	8,747	3,993	2,372	1,653	695	515	129	218	23
Black cherry	8,858	4,615	2,560	800	594	169	24	56	40	–	–	–	–
Black walnut	–	–	–	–	–	–	–	–	–	–	–	–	–
Sycamore	–	–	–	–	–	–	–	–	–	–	–	–	–
Black locust	–	–	–	–	–	–	–	–	–	–	–	–	–
Elm	7,980	2,117	2,602	1,200	949	501	127	276	88	58	19	43	–
Other Eastern hardwoods	10,174	4,199	3,230	1,527	518	318	188	121	45	11	17	–	–
Total hardwoods	846,373	402,111	208,707	103,103	52,672	31,936	19,318	12,683	6,867	3,879	1,963	2,581	553
All species	2,449,559	963,160	675,069	407,339	201,930	96,040	49,711	27,877	13,974	6,831	3,450	3,603	575

Table 34—Merchantable volume of live trees on timberland, by species and diameter class, Northeast 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
					Thousand cubic feet						
Softwood											
Longleaf pine	254,567	12,357	18,583	45,972	62,757	56,409	30,312	17,011	6,518	4,648	–
Slash pine	2,372,952	575,771	671,799	455,495	287,969	164,950	112,457	57,914	29,891	16,706	–
Shortleaf pine	–	–	–	–	–	–	–	–	–	–	–
Loblolly pine	404,350	46,929	48,214	52,344	54,802	51,074	42,918	28,274	30,215	46,339	3,241
Pond pine	65,431	3,245	6,846	9,752	13,417	16,856	8,864	3,392	1,817	1,242	–
Virginia pine	–	–	–	–	–	–	–	–	–	–	–
Pitch pine	–	–	–	–	–	–	–	–	–	–	–
Table Mountain pine	–	–	–	–	–	–	–	–	–	–	–
Spruce pine	6,692	–	778	866	462	677	526	–	1,299	2,084	–
Sand pine	247,074	70,658	76,030	42,173	28,532	17,142	7,018	3,118	2,403	–	–
Eastern white pine	–	–	–	–	–	–	–	–	–	–	–
Eastern hemlock	–	–	–	–	–	–	–	–	–	–	–
Spruce and fir	–	–	–	–	–	–	–	–	–	–	–
Baldcypress	162,870	11,913	21,707	29,190	20,704	31,177	15,075	11,303	9,211	9,164	3,426
Pondcypress	725,094	93,606	128,208	150,616	126,775	98,672	61,257	30,363	17,142	17,199	1,256
Cedars	12,350	2,791	3,799	2,198	1,005	943	435	1,179	–	–	–
Total softwoods	4,251,380	817,270	975,964	788,606	596,423	437,900	278,862	152,554	98,496	97,382	7,923
Hardwood											
Select white oaks	5,692	1,160	–	406	1,151	508	–	–	455	1,274	738
Select red oaks	963	–	375	–	–	588	–	–	–	–	–
Chestnut oak	–	–	–	–	–	–	–	–	–	–	–
Other white oaks	425,372	14,327	17,309	22,266	22,517	24,965	37,510	30,233	33,866	115,600	106,779
Other red oaks	701,501	69,175	71,896	89,571	101,672	88,084	67,990	62,829	43,801	73,531	32,952
Hickory	62,338	4,257	3,370	5,590	6,674	10,810	6,546	6,509	3,902	13,391	1,289
Yellow birch	–	–	–	–	–	–	–	–	–	–	–
Hard maple	5,342	225	1,284	361	1,337	1,510	–	–	625	–	–
Soft maple	228,560	28,366	39,254	35,617	31,090	31,155	24,225	13,438	13,450	11,087	878
Beech	2,972	–	–	584	–	497	–	–	531	1,360	–
Sweetgum	294,406	32,542	35,372	48,825	47,166	49,377	30,593	22,441	12,557	14,204	1,329
Tupelo and blackgum	656,095	93,800	108,636	116,289	104,973	85,447	66,805	35,890	14,906	23,728	5,621
Ash	176,933	23,026	23,353	33,421	31,646	21,717	19,514	11,915	7,130	5,046	165
Cottonwood	–	–	–	–	–	–	–	–	–	–	–
Basswood	11,795	991	1,749	1,409	925	1,339	2,071	1,389	567	1,355	–
Yellow-poplar	5,194	1,033	–	–	1,940	1,174	–	–	–	1,047	–
Bay and magnolia	356,605	67,101	60,870	56,407	44,107	44,606	24,776	25,441	8,564	21,273	3,460
Black cherry	11,169	2,183	3,810	2,017	418	1,436	1,305	–	–	–	–
Black walnut	–	–	–	–	–	–	–	–	–	–	–
Sycamore	–	–	–	–	–	–	–	–	–	–	–
Black locust	–	–	–	–	–	–	–	–	–	–	–
Elm	38,918	4,857	5,751	6,223	3,917	6,887	3,717	2,640	976	3,950	–
Other Eastern hardwoods	154,713	34,809	32,547	33,572	21,152	16,948	7,075	5,104	2,684	822	–
Total hardwoods	3,138,568	377,852	405,576	452,558	420,685	387,048	292,127	217,829	144,014	287,668	153,211
All species	7,389,948	1,195,122	1,381,540	1,241,164	1,017,108	824,948	570,989	370,383	242,510	385,050	161,134

Table 35—Volume of growing stock on timberland, by species and diameter class, Northeast 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
					Thousand cubic feet						
Softwood											
Longleaf pine	253,931	11,914	18,583	45,972	62,564	56,409	30,312	17,011	6,518	4,648	–
Slash pine	2,368,145	574,158	671,148	454,271	287,969	164,214	112,457	57,331	29,891	16,706	–
Shortleaf pine	–	–	–	–	–	–	–	–	–	–	–
Loblolly pine	400,613	45,585	47,455	51,775	54,248	51,074	42,918	28,274	30,215	45,828	3,241
Pond pine	65,431	3,245	6,846	9,752	13,417	16,856	8,864	3,392	1,817	1,242	–
Virginia pine	–	–	–	–	–	–	–	–	–	–	–
Pitch pine	–	–	–	–	–	–	–	–	–	–	–
Table Mountain pine	–	–	–	–	–	–	–	–	–	–	–
Spruce pine	6,692	–	778	866	462	677	526	–	1,299	2,084	–
Sand pine	245,828	70,054	75,708	42,173	28,532	16,822	7,018	3,118	2,403	–	–
Eastern white pine	–	–	–	–	–	–	–	–	–	–	–
Eastern hemlock	–	–	–	–	–	–	–	–	–	–	–
Spruce and fir	–	–	–	–	–	–	–	–	–	–	–
Baldcypress	158,459	11,913	21,510	29,190	20,466	30,540	15,075	11,303	9,211	8,131	1,120
Pondcypress	715,856	91,770	127,171	149,826	126,065	98,526	59,854	29,582	16,636	15,923	503
Cedars	10,490	2,508	3,253	1,751	421	943	435	1,179	–	–	–
Total softwoods	4,225,445	811,147	972,452	785,576	594,144	436,061	277,459	151,190	97,990	94,562	4,864
Hardwood											
Select white oaks	5,474	942	–	406	1,151	508	–	–	455	1,274	738
Select red oaks	963	–	375	–	–	588	–	–	–	–	–
Chestnut oak	–	–	–	–	–	–	–	–	–	–	–
Other white oaks	233,860	4,228	7,932	7,498	6,760	11,763	19,447	16,406	18,509	73,691	67,626
Other red oaks	625,453	57,509	62,042	81,488	92,821	82,170	61,745	55,775	39,154	65,212	27,537
Hickory	58,268	3,675	2,849	5,155	6,149	9,811	6,173	6,509	3,902	12,756	1,289
Yellow birch	–	–	–	–	–	–	–	–	–	–	–
Hard maple	4,555	–	1,284	361	1,110	1,175	–	–	625	–	–
Soft maple	190,245	20,472	30,607	33,030	26,065	26,969	21,559	11,240	11,811	8,038	454
Beech	2,607	–	–	584	–	497	–	–	531	995	–
Sweetgum	281,785	30,704	34,109	46,916	45,975	47,507	28,727	21,595	12,557	13,000	695
Tupelo and blackgum	612,524	84,616	100,576	109,530	98,322	82,030	63,701	33,847	13,686	21,241	4,975
Ash	147,085	16,482	18,762	29,700	27,800	18,533	16,129	10,732	4,844	4,103	–
Cottonwood	–	–	–	–	–	–	–	–	–	–	–
Basswood	9,555	363	1,302	1,089	925	1,033	1,610	1,311	567	1,355	–
Yellow-poplar	4,725	1,033	–	–	1,940	1,174	–	–	–	578	–
Bay and magnolia	320,090	59,715	54,593	45,878	39,776	42,460	23,068	23,981	7,605	19,554	3,460
Black cherry	10,560	1,953	3,431	2,017	418	1,436	1,305	–	–	–	–
Black walnut	–	–	–	–	–	–	–	–	–	–	–
Sycamore	–	–	–	–	–	–	–	–	–	–	–
Black locust	–	–	–	–	–	–	–	–	–	–	–
Elm	34,798	3,450	5,444	5,686	2,250	6,685	3,717	2,640	976	3,950	–
Other Eastern hardwoods	21,176	3,928	3,638	3,123	3,669	3,091	1,831	629	1,267	–	–
Total hardwoods	2,563,723	289,070	326,944	372,461	355,131	337,430	249,012	184,665	116,489	225,747	106,774
All species	6,789,168	1,100,217	1,299,396	1,158,037	949,275	773,491	526,471	335,855	214,479	320,309	111,638

Table 36—Volume of sawtimber on timberland, by species and diameter class, Northeast 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
				Thousand board feet					
Softwood									
Longleaf pine	1,142,625	189,692	301,659	301,074	174,752	103,677	41,200	30,571	–
Slash pine	5,137,132	1,658,029	1,320,036	861,546	643,266	349,401	191,921	112,933	–
Shortleaf pine	–	–	–	–	–	–	–	–	–
Loblolly pine	1,629,798	184,492	245,506	264,284	240,443	170,011	192,132	309,302	23,628
Pond pine	274,351	37,885	60,999	86,641	49,540	19,963	11,295	8,028	–
Virginia pine	–	–	–	–	–	–	–	–	–
Pitch pine	–	–	–	–	–	–	–	–	–
Table Mountain pine	–	–	–	–	–	–	–	–	–
Spruce pine	–	–	–	–	–	–	–	–	–
Sand pine	33,225	3,574	2,117	3,516	2,839	–	7,860	13,319	–
Eastern white pine	458,428	163,002	132,665	88,424	40,056	19,071	15,210	–	–
Eastern hemlock	–	–	–	–	–	–	–	–	–
Spruce and fir	–	–	–	–	–	–	–	–	–
Baldcypress	–	–	–	–	–	–	–	–	–
Pondcypress	532,921	87,524	78,348	132,872	72,274	58,283	49,412	46,531	7,677
Cedars	2,031,140	470,524	494,284	437,489	291,327	153,066	90,251	91,023	3,176
	23,629	7,468	1,993	4,806	2,372	6,990	–	–	–
Total softwoods	11,263,249	2,802,190	2,637,607	2,180,652	1,516,869	880,462	599,281	611,707	34,481
Hardwood									
Select white oaks	20,535	–	3,652	2,015	–	–	2,446	7,449	4,973
Select red oaks	2,628	–	–	2,628	–	–	–	–	–
Chestnut oak	–	–	–	–	–	–	–	–	–
Other white oaks	1,076,159	–	23,306	45,676	82,896	74,477	88,218	379,729	381,857
Other red oaks	2,046,801	–	354,681	356,474	294,710	283,856	209,073	374,244	173,763
Hickory	220,048	–	20,864	40,202	28,151	32,080	20,262	70,626	7,863
Yellow birch	–	–	–	–	–	–	–	–	–
Hard maple	11,340	–	3,694	4,610	–	–	3,036	–	–
Soft maple	430,127	–	85,430	102,443	91,136	50,736	56,674	41,090	2,618
Beech	8,109	–	–	1,885	–	–	2,158	4,066	–
Sweetgum	769,104	–	163,030	202,346	138,101	112,932	69,538	78,445	4,712
Tupelo and blackgum	1,314,775	–	326,654	323,462	282,831	163,302	69,884	117,643	30,999
Ash	326,333	–	89,997	70,360	69,853	49,990	24,248	21,885	–
Cottonwood	–	–	–	–	–	–	–	–	–
Basswood	30,191	–	3,205	4,181	6,913	6,116	2,757	7,019	–
Yellow-poplar	15,297	–	6,808	4,910	–	–	–	3,579	–
Bay and magnolia	666,177	–	131,047	165,589	98,371	111,978	37,160	102,654	19,378
Black cherry	13,460	–	1,494	5,929	6,037	–	–	–	–
Black walnut	–	–	–	–	–	–	–	–	–
Sycamore	–	–	–	–	–	–	–	–	–
Black locust	–	–	–	–	–	–	–	–	–
Elm	86,439	–	7,856	26,015	15,956	12,078	4,654	19,880	–
Other Eastern hardwoods	42,086	–	12,501	12,141	7,984	2,921	6,539	–	–
Total hardwoods	7,079,609	–	1,234,219	1,370,866	1,122,939	900,466	596,647	1,228,309	626,163
All species	18,342,858	2,802,190	3,871,826	3,551,518	2,639,808	1,780,928	1,195,928	1,840,016	660,644

Table 37—Volume of sawtimber on timberland, by species, size class, and tree grade, Northeast 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
	Thousand board feet									
Softwood										
Yellow pines[a]	8,675,559	2,299,214	2,038,300	4,338,045	—	2,770,418	1,252,844	659,506	858,068	—
Eastern white pine[b]	—	—	—	—	—	—	—	—	—	—
Spruce and fir[b]	—	—	—	—	—	—	—	—	—	—
Cypress[c]	2,564,061	414,866	753,282	1,387,832	8,081	863,020	414,866	348,497	97,083	2,574
Other Eastern softwoods[b]	23,629	—	10,834	9,792	3,003	9,362	—	6,028	3,334	—
Total	11,263,249	2,714,080	2,802,416	5,735,669	11,084	3,642,800	1,667,710	1,014,031	958,485	2,574
Hardwood[c]										
Select white and red oaks	23,163	2,446	12,422	7,277	1,018	14,868	2,446	12,422	—	—
Other white and red oaks	3,122,960	397,891	792,359	1,673,715	258,995	2,342,823	397,891	713,519	1,081,943	149,470
Hickory	220,048	37,752	71,095	108,810	2,391	158,982	37,752	54,737	64,102	2,391
Yellow birch	—	—	—	—	—	—	—	—	—	—
Hard maple	11,340	—	5,311	3,694	2,335	3,036	—	3,036	—	—
Sweetgum	769,104	90,462	304,714	346,890	27,038	403,728	90,462	212,303	85,802	15,161
Ash, walnut, and black cherry	339,793	17,062	84,613	221,594	16,524	172,013	17,062	63,143	81,578	10,230
Yellow-poplar	15,297	—	6,086	7,595	1,616	3,579	—	3,579	—	—
Other Eastern hardwoods	2,577,904	260,365	763,827	1,441,679	112,033	1,375,495	260,365	542,423	500,169	72,538
Total	7,079,609	805,978	2,040,427	3,811,254	421,950	4,474,524	805,978	1,605,162	1,813,594	249,790
All species	18,342,858	3,520,058	4,842,843	9,546,923	433,034	8,117,324	2,473,688	2,619,193	2,772,079	252,364

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

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

[c] For hardwoods and cypress, tree grades 1, 2, and 3 are based on "Hardwood Tree Grades for Factory Lumber," Research Paper NE-333, published by the Northeastern Forest Experiment Station, 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*, Northeast 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
				Thousand cubic feet					
Softwood									
Longleaf pine	206,479	38,476	57,286	53,609	29,395	16,680	6,429	4,604	–
Slash pine	986,680	357,859	260,661	156,153	109,380	56,490	29,598	16,539	–
Shortleaf pine	–	–	–	–	–	–	–	–	–
Loblolly pine	285,096	40,077	48,822	48,362	41,553	27,797	29,913	45,363	3,209
Pond pine	51,456	8,106	12,240	16,090	8,647	3,344	1,799	1,230	–
Virginia pine	–	–	–	–	–	–	–	–	–
Pitch pine	–	–	–	–	–	–	–	–	–
Table Mountain pine	–	–	–	–	–	–	–	–	–
Spruce pine	5,614	705	411	642	506	–	1,287	2,063	–
Sand pine	87,693	33,875	25,734	15,893	6,775	3,051	2,365	–	–
Eastern white pine	–	–	–	–	–	–	–	–	–
Eastern hemlock	–	–	–	–	–	–	–	–	–
Spruce and fir	–	–	–	–	–	–	–	–	–
Baldcypress	107,541	20,727	17,327	27,346	13,919	10,622	8,726	7,783	1,091
Pondcypress	432,930	115,439	110,704	90,488	56,293	28,164	15,965	15,386	491
Cedars	4,302	1,477	378	891	419	1,137	–	–	–
Total softwoods	2,167,791	616,741	533,563	409,474	266,887	147,285	96,082	92,968	4,791
Hardwood									
Select white oaks	3,522	–	735	397	–	–	427	1,233	730
Select red oaks	496	–	–	496	–	–	–	–	–
Chestnut oak	–	–	–	–	–	–	–	–	–
Other white oaks	195,297	–	4,965	9,602	16,861	14,655	16,828	68,466	63,920
Other red oaks	362,006	–	68,113	67,574	53,753	49,975	35,779	60,693	26,119
Hickory	40,614	–	4,367	8,125	5,419	5,899	3,600	11,970	1,234
Yellow birch	–	–	–	–	–	–	–	–	–
Hard maple	2,281	–	752	955	–	–	574	–	–
Soft maple	85,865	–	17,889	21,357	18,315	9,865	10,633	7,378	428
Beech	1,775	–	–	403	–	–	476	896	–
Sweetgum	141,699	–	31,970	39,085	25,509	19,962	11,872	12,613	688
Tupelo and blackgum	260,811	–	70,440	67,104	55,489	30,504	12,568	19,929	4,777
Ash	66,287	–	19,268	14,873	14,069	9,695	4,498	3,884	–
Cottonwood	–	–	–	–	–	–	–	–	–
Basswood	5,929	–	682	868	1,401	1,186	521	1,271	–
Yellow-poplar	2,824	–	1,322	941	–	–	–	561	–
Bay and magnolia	134,483	–	27,372	35,027	20,361	22,149	7,194	18,964	3,416
Black cherry	2,642	–	315	1,187	1,140	–	–	–	–
Black walnut	–	–	–	–	–	–	–	–	–
Sycamore	–	–	–	–	–	–	–	–	–
Black locust	–	–	–	–	–	–	–	–	–
Elm	16,895	–	1,620	5,334	3,162	2,319	872	3,588	–
Other Eastern hardwoods	8,152	–	2,495	2,407	1,569	567	1,114	–	–
Total hardwoods	1,331,578	–	252,305	275,735	217,048	166,776	106,956	211,446	101,312
All species	3,499,369	616,741	785,868	685,209	483,935	314,061	203,038	304,414	106,103

Table 39—Total volume of live trees on timberland, by species and diameter class, Northeast 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 cubic feet							
Softwood													
Longleaf pine	305,627	3,225	9,010	17,368	22,462	53,077	71,380	63,626	34,005	19,022	7,273	5,179	–
Slash pine	3,336,623	79,541	351,007	811,032	812,762	527,277	327,084	185,575	125,864	64,626	33,270	18,585	–
Shortleaf pine	70	–	70	–	–	–	–	–	–	–	–	–	–
Loblolly pine	518,494	9,915	30,815	67,506	59,129	61,092	62,705	57,886	48,404	31,766	33,858	51,804	3,614
Pond pine	78,627	688	2,088	4,179	8,252	11,339	15,425	19,260	10,078	3,846	2,068	1,404	–
Virginia pine	–	–	–	–	–	–	–	–	–	–	–	–	–
Pitch pine	–	–	–	–	–	–	–	–	–	–	–	–	–
Table Mountain pine	–	–	–	–	–	–	–	–	–	–	–	–	–
Spruce pine	7,739	38	85	–	926	1,003	529	768	595	–	1,460	2,335	–
Sand pine	407,306	27,838	66,289	103,528	93,748	49,458	32,796	19,514	7,929	3,508	2,698	–	–
Eastern white pine	–	–	–	–	–	–	–	–	–	–	–	–	–
Eastern hemlock	–	–	–	–	–	–	–	–	–	–	–	–	–
Spruce and fir	–	–	–	–	–	–	–	–	–	–	–	–	–
Baldcypress	216,687	2,121	10,970	17,600	28,112	36,194	25,257	37,734	18,138	13,564	11,032	11,124	4,841
Pondcypress	1,111,825	40,407	91,084	156,296	177,528	197,984	162,776	125,288	77,228	38,349	21,550	21,659	1,676
Cedars	17,834	388	1,545	4,111	4,875	2,698	1,215	1,096	505	1,401	–	–	–
Total softwoods	6,000,832	164,161	562,963	1,181,620	1,207,794	940,122	699,167	510,747	322,746	176,082	113,209	112,090	10,131
Hardwood													
Select white oaks	7,936	279	359	1,636	–	516	1,448	636	–	–	566	1,582	914
Select red oaks	1,267	53	–	–	489	–	–	725	–	–	–	–	–
Chestnut oak	–	–	–	–	–	–	–	–	–	–	–	–	–
Other white oaks	565,165	11,719	21,035	25,486	23,853	28,613	28,183	30,850	45,886	37,116	41,396	140,610	130,418
Other red oaks	1,052,530	55,730	82,619	107,112	96,569	115,762	129,135	111,187	85,564	79,021	54,805	92,835	42,191
Hickory	81,172	1,725	1,665	6,764	4,440	7,007	8,206	13,138	7,922	7,841	4,694	16,175	1,595
Yellow birch	–	–	–	–	–	–	–	–	–	–	–	–	–
Hard maple	7,395	347	331	354	1,642	451	1,671	1,852	–	–	747	–	–
Soft maple	349,374	23,806	40,545	40,681	49,766	43,649	37,715	37,479	28,969	16,122	16,085	13,380	1,177
Beech	3,731	–	–	–	–	741	–	615	–	–	652	1,723	–
Sweetgum	409,781	18,664	37,639	47,701	44,054	57,734	54,662	56,728	34,926	25,558	14,224	16,232	1,659
Tupelo and blackgum	1,001,684	50,269	112,110	140,897	141,163	144,818	129,291	104,316	81,190	43,615	18,209	28,940	6,866
Ash	269,236	20,893	33,362	33,250	28,952	39,618	36,994	25,308	22,520	13,725	8,479	5,883	252
Cottonwood	19	19	–	–	–	–	–	–	–	–	–	–	–
Basswood	16,013	852	1,318	1,294	2,086	1,646	1,064	1,555	2,372	1,628	646	1,552	–
Yellow-poplar	7,365	561	599	1,460	–	–	2,216	1,328	–	–	–	1,201	–
Bay and magnolia	570,128	37,765	84,328	99,182	76,918	68,401	52,640	52,735	29,139	29,866	10,109	25,017	4,028
Black cherry	22,671	3,769	5,109	2,981	4,693	2,405	494	1,690	1,530	–	–	–	–
Black walnut	–	–	–	–	–	–	–	–	–	–	–	–	–
Sycamore	–	–	–	–	–	–	–	–	–	–	–	–	–
Black locust	–	–	–	–	–	–	–	–	–	–	–	–	–
Elm	57,600	2,445	7,625	6,796	7,204	7,492	4,688	8,125	4,359	3,089	1,152	4,625	–
Other Eastern hardwoods	336,883	65,566	67,264	51,902	42,542	42,556	26,481	20,985	8,872	6,359	3,259	1,097	–
Total hardwoods	4,759,950	294,462	495,908	567,496	524,371	561,409	514,888	469,252	353,249	263,940	175,023	350,852	189,100
All species	10,760,782	458,623	1,058,871	1,749,116	1,732,165	1,501,531	1,214,055	979,999	675,995	440,022	288,232	462,942	199,231

Table 40—Green weight of forest biomass on timberland, by species and diameter class, Northeast 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
						Hundred thousand pounds							
Softwood													
Longleaf pine	238,891	2,562	7,712	12,428	17,146	40,804	55,934	50,179	27,092	15,129	5,805	4,100	–
Slash pine	2,582,497	58,749	325,175	589,144	620,028	405,826	253,091	143,355	97,325	49,858	25,660	14,286	–
Shortleaf pine	43	–	43	–	–	–	–	–	–	–	–	–	–
Loblolly pine	372,551	5,113	18,223	48,351	44,679	44,801	46,079	42,516	35,033	23,103	24,572	37,515	2,566
Pond pine	55,866	382	1,167	2,999	5,851	8,162	11,091	13,797	7,180	2,786	1,455	996	–
Virginia pine	–	–	–	–	–	–	–	–	–	–	–	–	–
Pitch pine	–	–	–	–	–	–	–	–	–	–	–	–	–
Table Mountain pine	–	–	–	–	–	–	–	–	–	–	–	–	–
Spruce pine	5,435	16	78	–	625	694	374	527	427	–	1,036	1,658	–
Sand pine	273,540	21,397	54,096	60,987	59,455	32,827	21,973	13,234	5,401	2,362	1,808	–	–
Eastern white pine	–	–	–	–	–	–	–	–	–	–	–	–	–
Eastern hemlock	–	–	–	–	–	–	–	–	–	–	–	–	–
Spruce and fir	–	–	–	–	–	–	–	–	–	–	–	–	–
Baldcypress	153,806	1,182	6,906	8,844	17,240	24,843	18,554	28,544	14,109	10,918	8,994	9,280	4,392
Pondcypress	680,519	21,654	57,058	68,542	97,028	121,570	108,475	87,449	55,891	28,465	16,265	16,750	1,372
Cedars	13,014	242	986	2,851	3,655	2,055	936	902	428	959	–	–	–
Total softwoods	4,376,162	111,297	471,444	794,146	865,707	681,582	516,507	380,503	242,886	133,580	85,595	84,585	8,330
Hardwood													
Select white oaks	6,579	227	288	1,098	–	427	1,283	542	–	–	524	1,386	804
Select red oaks	1,042	46	–	–	369	–	–	627	–	–	–	–	–
Chestnut oak	–	–	–	–	–	–	–	–	–	–	–	–	–
Other white oaks	517,731	8,876	15,550	14,162	18,470	24,150	25,419	28,167	43,039	35,451	39,354	136,009	129,084
Other red oaks	840,121	49,291	62,256	80,645	79,465	93,371	104,458	89,479	69,030	63,450	43,914	72,430	32,332
Hickory	67,076	1,512	1,451	4,732	3,473	5,522	6,628	10,860	6,686	6,697	3,996	14,086	1,433
Yellow birch	–	–	–	–	–	–	–	–	–	–	–	–	–
Hard maple	6,389	285	286	265	1,439	393	1,422	1,626	–	–	673	–	–
Soft maple	255,361	18,090	28,881	28,917	37,798	32,554	27,536	27,395	20,784	11,594	11,286	9,694	832
Beech	3,125	–	–	–	–	522	–	513	–	–	569	1,521	–
Sweetgum	295,352	12,584	25,002	30,932	31,522	41,584	40,117	42,408	26,562	19,571	10,924	12,781	1,365
Tupelo and blackgum	640,135	33,508	74,273	71,225	84,894	92,007	85,122	71,466	56,600	31,172	13,335	21,317	5,216
Ash	171,968	12,933	21,073	24,730	20,402	25,295	23,010	15,267	13,258	7,883	4,824	3,167	126
Cottonwood	10	10	–	–	–	–	–	–	–	–	–	–	–
Basswood	10,972	586	931	747	1,413	1,076	739	1,103	1,695	1,136	470	1,076	–
Yellow-poplar	5,069	406	407	819	–	–	1,593	943	–	–	–	901	–
Bay and magnolia	350,854	24,072	49,013	52,439	46,944	43,195	33,966	34,710	19,530	20,169	6,863	17,130	2,823
Black cherry	14,448	1,953	3,413	1,793	3,053	1,616	341	1,175	1,104	–	–	–	–
Black walnut	–	–	–	–	–	–	–	–	–	–	–	–	–
Sycamore	–	–	–	–	–	–	–	–	–	–	–	–	–
Black locust	–	–	–	–	–	–	–	–	–	–	–	–	–
Elm	38,183	1,795	5,296	4,079	4,707	4,838	3,097	5,550	2,811	2,126	803	3,081	–
Other Eastern hardwoods	291,019	55,211	61,470	43,560	37,295	38,333	22,394	17,755	6,840	5,046	2,349	766	–
Total hardwoods	3,515,434	221,385	349,590	360,143	371,244	404,883	377,125	349,586	267,939	204,295	139,884	295,345	174,015
All species	7,891,596	332,682	821,034	1,154,289	1,236,951	1,086,465	893,632	730,089	510,825	337,875	225,479	379,930	182,345

Table 41—Average net annual growth and removals of live timber and growing stock on timberland, by species, Northeast Florida, 1987-1994

Species	Live timber[a]		Growing stock	
	Net annual growth	Annual timber removals	Net annual growth	Annual timber removals
	Thousand cubic feet			
Softwood				
Yellow pines	279,432	249,825	278,875	249,161
Eastern white pine	—	—	—	—
Spruce and fir	—	—	—	—
Cypress	13,863	20,849	13,756	20,411
Other Eastern softwoods	683	135	656	135
Total softwoods	293,978	270,809	293,287	269,707
Hardwood				
Select white and red oaks	316	347	316	347
Other white and red oaks	37,719	21,417	32,448	17,392
Hickory	1,686	1,428	1,668	1,428
Yellow birch	—	—	—	—
Hard maple	163	316	114	220
Sweetgum	8,296	5,100	8,137	4,609
Ash, walnut, and black cherry	2,453	1,103	2,444	954
Yellow-poplar	164	229	158	229
Tupelo and blackgum	12,554	10,319	12,387	9,147
Bay and magnolia	11,482	4,738	10,730	4,195
Other Eastern hardwoods	10,876	6,905	8,586	3,541
Total hardwoods	85,709	51,902	76,988	42,062
All species	379,687	322,711	370,275	311,769

[a] Merchantable portion only.

Table 42—Average net annual growth and removals of sawtimber on timberland, by species, Northeast Florida, 1987-1994

Species	Net annual growth	Annual timber removals
	Thousand board feet	
Softwood		
Yellow pines	689,574	603,385
Eastern white pine	—	—
Spruce and fir	—	—
Cypress	64,842	58,353
Other Eastern softwoods	1,342	387
Total softwoods	755,758	662,125
Hardwood		
Select white and red oaks	1,445	1,066
Other white and red oaks	123,630	51,525
Hickory	7,080	5,261
Yellow birch	—	—
Hard maple	592	605
Sweetgum	29,384	15,078
Ash, walnut, and black cherry	6,209	799
Yellow-poplar	-235	999
Tupelo and blackgum	29,136	19,155
Bay and magnolia	20,905	10,016
Other Eastern hardwoods	21,047	10,324
Total hardwoods	239,193	114,828
All species	994,951	776,953

Table 43—Average annual removals of growing stock on timberland, by species and diameter class, Northeast Florida, 1987-1994

Species	All classes	Diameter class (inches at breast height) 5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger
					Thousand cubic feet						
Softwood											
Yellow pines	249,161	36,850	77,009	63,864	32,533	18,812	9,318	4,680	2,476	3,619	—
Eastern white pine	—	—	—	—	—	—	—	—	—	—	—
Spruce and fir	—	—	—	—	—	—	—	—	—	—	—
Cypress	20,411	2,472	3,722	3,946	3,669	3,110	2,009	428	481	413	161
Other Eastern softwoods	135	—	67	—	—	—	68	—	—	—	—
Total softwoods	269,707	39,322	80,798	67,810	36,202	21,922	11,395	5,108	2,957	4,032	161
Hardwood											
Select white and red oaks	347	—	—	112	—	137	—	—	—	98	—
Other white and red oaks	17,392	1,631	2,474	2,325	2,638	2,162	1,813	1,403	755	1,860	331
Hickory	1,428	77	86	118	46	540	149	76	—	336	—
Yellow birch	—	—	—	—	—	—	—	—	—	—	—
Hard maple	220	—	—	77	67	—	—	—	—	76	—
Sweetgum	4,609	216	391	685	653	1,067	824	701	—	72	—
Ash, walnut, and black cherry	954	307	177	264	67	139	—	—	—	—	—
Yellow-poplar	229	63	—	—	—	—	—	—	—	166	—
Tupelo and blackgum	9,147	1,299	1,903	1,583	1,053	960	652	299	206	1,192	—
Bay and magnolia	4,195	666	254	815	521	815	531	363	74	156	—
Other Eastern hardwoods	3,541	312	520	250	422	873	124	798	150	92	—
Total hardwoods	42,062	4,571	5,805	6,229	5,467	6,693	4,093	3,640	1,185	4,048	331
All species	311,769	43,893	86,603	74,039	41,669	28,615	15,488	8,748	4,142	8,080	492

Table 44—Average annual mortality of live timber, growing stock, and sawtimber on timberland, by species, Northeast Florida, 1987-1994

Species	Live timber[a]	Growing stock	Sawtimber
	Thousand cubic feet		*Thousand board feet*
Softwood			
Yellow pines	22,637	22,276	69,828
Eastern white pine	—	—	—
Spruce and fir	—	—	—
Cypress	3,600	3,444	5,802
Other Eastern softwoods	24	—	—
Total softwoods	26,261	25,720	75,630
Hardwood			
Select white and red oaks	—	—	—
Other white and red oaks	8,724	5,447	17,785
Hickory	252	157	272
Yellow birch	—	—	—
Hard maple	—	—	—
Sweetgum	2,399	2,146	5,395
Ash, walnut, and black cherry	3,008	2,125	4,992
Yellow-poplar	180	180	1,046
Tupelo and blackgum	4,168	3,258	8,641
Bay and magnolia	5,881	5,089	15,064
Other Eastern hardwoods	8,236	2,549	7,075
Total hardwoods	32,848	20,951	60,270
All species	59,109	46,671	135,900

[a] Merchantable portion only.

Table 45—Change in number of live trees on timberland, by species group, survey completion date and diameter class, Northeast 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	7.0–8.9	9.0–10.9	11.0–12.9	13.0–14.9	15.0 and larger
				Thousand trees					
Yellow pine									
1987	1,159,928	380,201	331,597	231,079	127,582	47,992	23,210	10,377	7,890
1995	1,357,021	452,508	409,722	275,463	128,193	49,313	22,534	10,397	8,891
Change	197,093	72,307	78,125	44,384	611	1,321	-676	20	1,001
Other softwood									
1987	348,280	171,976	74,502	42,136	25,065	15,250	9,305	5,418	4,628
1995	290,862	140,912	64,416	31,690	21,846	15,162	8,037	4,914	3,885
Change	-57,418	-31,064	-10,086	-10,446	-3,219	-88	-1,268	-504	-743
Hardwood									
1987	1,918,729	1,230,855	369,674	142,823	73,576	42,337	24,540	13,938	20,986
1995	1,895,273	1,206,598	371,413	144,230	70,177	41,915	24,642	15,519	20,779
Change	-23,456	-24,257	1,739	1,407	-3,399	-422	102	1,581	-207

Table 46—Land area, by land use class, major forest type, and survey completion date, Northeast Florida

Land use class	Survey completion date 1980	1987	1995	Change 1987-1995
			Acres	
Forest land				
Timberland				
Pine and oak-pine types	4,261,470	4,133,280	4,131,928	-1,352
Hardwood types	2,583,000	2,528,829	2,425,173	-103,656
Total	6,844,470	6,662,109	6,557,101	-105,008
Reserved timberland	44,283	57,946	102,285	44,339
Woodland	25,862	25,862	19,938	-5,924
Total forest land	6,914,615	6,745,917	6,679,324	-66,593
Nonforest land				
Cropland	808,616	735,590	530,429	-205,161
Pasture and range	880,175	829,324	823,962	-5,362
Other	1,061,207	1,299,934	1,533,662	233,728
Total	2,749,998	2,864,848	2,888,053	23,205
All land[a]	9,664,613	9,610,765	9,567,377	-43,388

[a] 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, Northeast 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
					SAWTIMBER (in thousand board feet)					
Softwood										
1980	10,508,774	—	—	2,713,671	2,830,000	2,015,382	1,249,556	770,902	433,127	496,136
1987	10,566,490	—	—	2,595,425	2,612,231	2,043,484	1,309,011	841,092	486,996	678,251
1995	11,263,249	—	—	2,802,190	2,637,607	2,180,652	1,516,869	880,462	599,281	646,188
Hardwood										
1980	5,573,873	—	—	—	993,196	1,145,977	840,865	681,892	484,910	1,427,033
1987	6,153,895	—	—	—	1,064,621	1,068,311	1,008,970	759,436	551,326	1,701,231
1995	7,079,609	—	—	—	1,234,219	1,370,866	1,122,939	900,466	596,647	1,854,472
					GROWING STOCK (in thousand cubic feet)					
Softwood										
1980	4,236,134	841,047	958,198	792,412	672,067	427,495	242,704	142,202	77,421	82,588
1987	4,051,837	726,614	967,487	742,818	604,812	421,113	247,722	149,434	82,271	109,566
1995	4,225,445	811,147	972,452	785,576	594,144	436,061	277,459	151,190	97,990	99,426
Hardwood										
1980	2,146,445	222,278	278,017	318,219	317,031	305,057	200,369	149,832	99,972	255,670
1987	2,304,715	250,676	304,808	331,509	317,421	273,506	233,437	163,450	113,141	316,767
1995	2,563,723	289,070	326,944	372,461	355,131	337,430	249,012	184,665	116,489	332,521
					LIVE TIMBER[a] (in thousand cubic feet)					
Softwood										
1980	4,274,707	850,481	967,507	797,781	675,731	429,946	244,678	142,830	78,216	87,537
1987	4,085,225	733,020	972,921	748,733	608,801	422,576	249,335	150,860	83,536	115,443
1995	4,251,380	817,270	975,964	788,606	596,423	437,900	278,862	152,554	98,496	105,305
Hardwood										
1980	2,765,830	330,273	380,222	408,313	396,614	358,839	245,300	179,223	127,373	339,673
1987	2,906,698	345,226	399,319	417,246	392,775	323,846	273,837	195,852	137,275	421,322
1995	3,138,568	377,852	405,576	452,558	420,685	387,048	292,127	217,829	144,014	440,879

[a] Merchantable volume.

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

Sheffield, Raymond M. 1995. Forest statistics for Northeast Florida, 1995. Resour. Bull. SE-154. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 45 p.

Since 1987, area of timberland in Northeast Florida has dropped to 6.6 million acres, a reduction of less than 2 percent. The distribution of timberland area by ownership shifted since 1987—more timberland is in public and nonindustrial private ownership and less in forest industry. Timber volumes have increased in the region—up 4 percent for softwood species and by 11 percent for hardwood species. Net annual growth for softwoods increased by 10 percent and exceeds removal levels by a small margin. Net growth of hardwoods also increased and exceeds hardwood removals by a large margin.

KEYWORDS: Timberland, forest ownership, timber volume, timber growth, timber removals.

Sheffield, Raymond M. 1995. Forest statistics for Northeast Florida, 1995. Resour. Bull. SE-154. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 45 p.

Since 1987, area of timberland in Northeast Florida has dropped to 6.6 million acres, a reduction of less than 2 percent. The distribution of timberland area by ownership shifted since 1987—more timberland is in public and nonindustrial private ownership and less in forest industry. Timber volumes have increased in the region—up 4 percent for softwood species and by 11 percent for hardwood species. Net annual growth for softwoods increased by 10 percent and exceeds removal levels by a small margin. Net growth of hardwoods also increased and exceeds hardwood removals by a large margin.

KEYWORDS: Timberland, forest ownership, timber volume, 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.

RESEARCH MISSION:

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.