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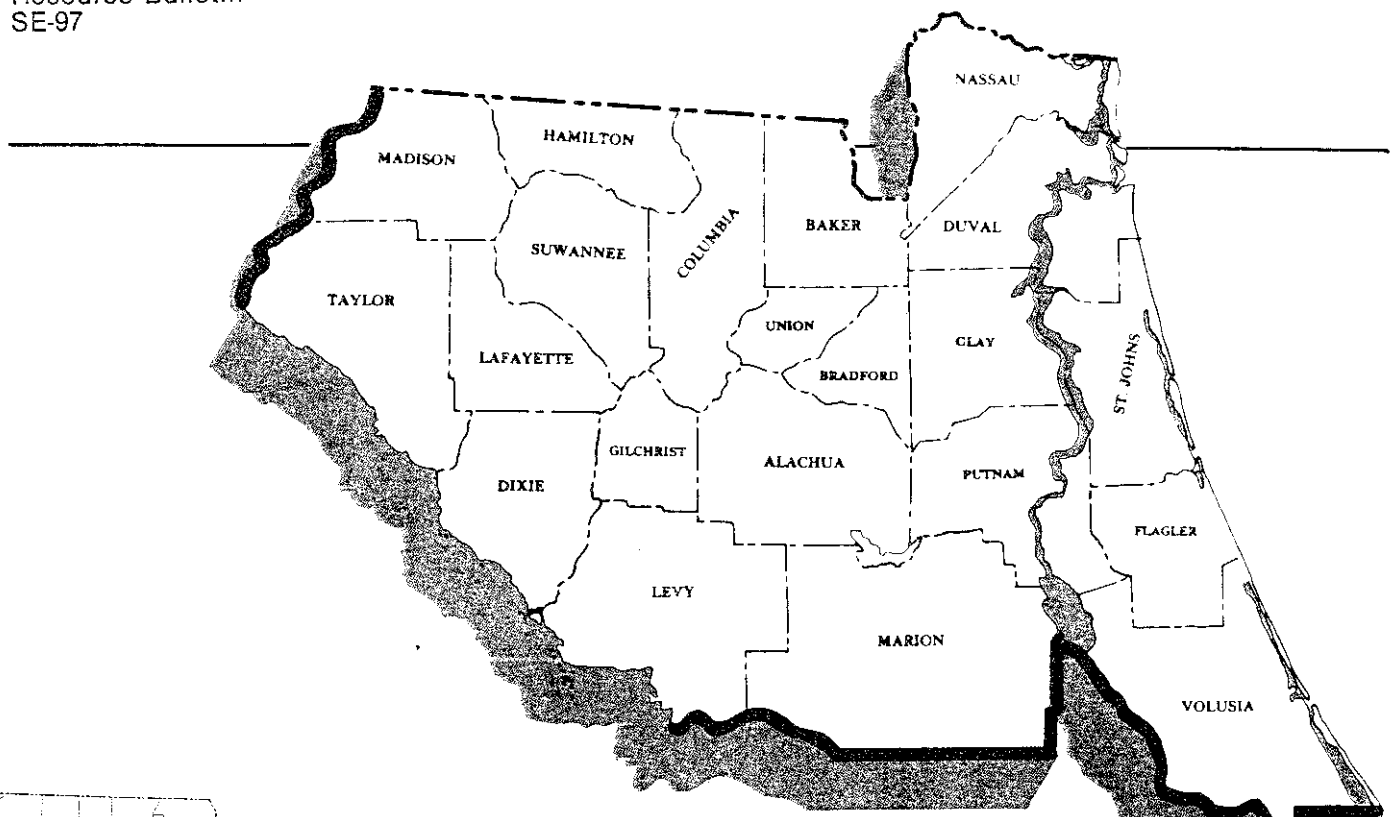
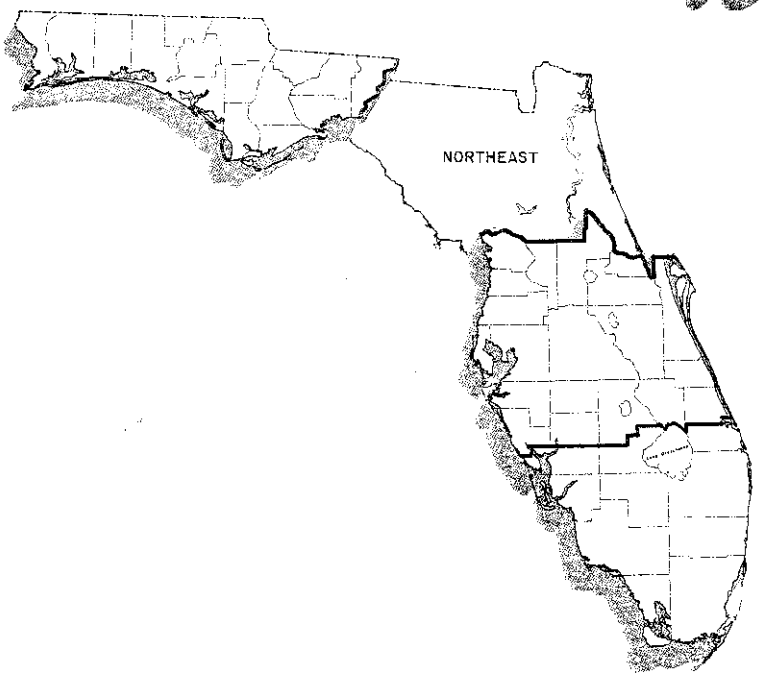
Forest Statistics for Northeast Florida, 1987

Mark J. Brown





NORTHEAST

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Southeastern Forest Experiment Station
P.O. Box 2680
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Forest Statistics for Northeast Florida, 1987

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Foreword

This report highlights the principal findings of the sixth forest survey of Northeast Florida. Field work began in January 1987 and was completed in July 1987. Five previous surveys, completed in 1934, 1949, 1959, 1970, and 1980, provide statistics for measuring changes and trends over the past 53 years. The primary emphasis in this report is on the changes and trends since 1980. Previously reported figures have been adjusted to provide the best estimate of change.

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

The 21-county area covered by this report is one of four Survey Units in Florida. A similar report, USDA Forest Service Resource Bulletin SE-96, has been issued for Northwest Florida. A comparable report for the Central and South units will be issued as the statewide inventory progresses. When completed, the inventory will provide updated statistics on the timber resource for all of Florida.

The Southeastern 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 piblic agencies, forest industry, and other private landowners in providing information and access to the sample locations.

Joe P. McClure

JOE P. McCLURE
Project Leader

Contents

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

Since 1980 in Northeast Florida--

• area of timberland declined by 182,000 acres, or almost 3 percent. Timberland now totals almost 6.7 million acres, or 69 percent of the land area in this 21-county region. Some 391,000 acres were diverted to other land uses, and another 209,000 acres were added to the timberland base from nonforest sources. Urban and related land uses were the main causes of timberland diversion, accounting for 52 percent of the acreage lost. Agricultural uses made up another 41 percent of the diverted timberland. The remainder went to a reserved timberland status.

• area of nonindustrial private forest (NIPF) land declined about 5 percent to 2.8 million acres. Within the NIPF group, farmer-owned land dropped by 41 percent to 389,000 acres, other corporate land increased 2 percent to 881,000 acres, and area owned by other individuals increased by 8 percent to 1.5 million acres. Despite some acres changing to a reserved status, public lands increased by 1 percent overall to 595,000 acres, largely due to an increase in State-owned land. Forest industry lands decreased by almost 2 percent to less than 3.3 million acres, but they still control almost one-half of the timberland.

• area classed as a pine forest type changed little, dropping 1 percent to less than 3.7 million acres. The area in pine plantations has increased from 1.9 to 2.4 million acres, whereas the area in natural pine stands is down from 1.8 to 1.3 million acres. Here, the ratio of pine plantations to natural pine stands is the highest in the Southeast. Slash pine type remains the predominant forest type and increased more than 2 percent to 2.9 million acres. Loblolly pine type increased almost 21 percent to 228,000 acres. Longleaf pine type underwent the largest softwood-type acreage decrease, dropping 26 percent to 234,000 acres. Sand pine declined 6 percent to 267,000 acres, and pond pine type fell 46 percent to 62,000 acres. Oak-pine and the hardwood forest types of oak-hickory and scrub oak lost acreage, whereas the predominant hardwood type of oak-gum-cypress increased 1 percent to more than 1.6 million acres.

• total area undergoing a final harvest and retained in timberland averaged 159,000 acres annually. The areas of pine plantations and natural pine stands harvested annually each totaled 62,000 acres. Together, pine stands accounted for 78 percent of the acreage harvested annually. About 57 percent of the annual harvest occurred on forest industry land, almost 35 percent on NIPF land, and 8 percent on publicly owned land. In addition to final harvests, partial harvests and other intermediate cutting occurred on an average of 39,000 acres each year. Fire, insects, disease, weather, and other natural agents damaged 42,000 acres annually.

• area of timberland regenerated both artificially and naturally averaged almost 145,000 acres annually. New pine stands were established on about 121,000 of these acres--equivalent to 98 percent of the area of pine stands harvested. More than 116,000 acres were regenerated by artificial methods--54 percent more than in 1980. About 61 percent of the artificial regeneration took place on areas controlled by forest industry, 33 percent on NIPF land, and 6 percent on public land. In addition, the area artificially regenerated on NIPF land more than tripled, including a fivefold increase on nonforest land. Natural regeneration occurred on 28,000 acres annually, with more than 71 percent occurring on NIPF land.

• average basal area of live trees 5.0 inches d.b.h. and larger changed little, declining 1 percent to less than 53 square feet per acre. Average net merchantable volume per acre of all trees is now 1,079 cubic feet. The average number of saplings per acre decreased from 418 to 384 trees. Numbers of both softwood and hardwood saplings declined. Numbers of softwood trees decreased in all diameter classes 16 inches and smaller, and numbers of hardwood trees decreased in all diameter classes 10 inches and below. Stands

classified as fully stocked increased by more than 2 percent, whereas medium-stocked stands decreased by 2 percent. Areas poorly stocked or nonstocked decreased by 8 percent, yet they still occupy about one-third of Northeast Florida's timberland.

• volume of softwood growing stock declined 4 percent to 4.1 billion cubic feet. Slash pine, the predominant species, decreased 4 percent to 2.2 billion cubic feet. Pond cypress, the second most abundant softwood, increased 4 percent to 809 million cubic feet. Loblolly pine contained the third highest softwood volume with 319 million cubic feet, up more than 2 percent. More than 31 percent of the softwood growing-stock volume is in plantations. Volume of softwood growing stock increased slightly in the 8-inch diameter class, but it decreased in all other diameters below 16 inches. The increase in the 8-inch class resulted almost entirely from gains on forest industry land. Softwood volume declined almost 14 percent on NIPF land to less than 1.5 billion cubic feet. Softwood volume on forest industry land increased more than 1 percent to 2.1 billion cubic feet. Softwood volume on public land was up 3 percent to almost 0.6 billion cubic feet. Volume of softwood sawtimber increased less than 1 percent to 11.1 billion board feet.

• volume of hardwood growing stock increased more than 7 percent to 2.4 billion cubic feet. Collectively, oaks accounted for 757 million cubic feet, up almost 7 percent. Tupelo and blackgum volume amounted to 646 million cubic feet, increasing less than 2 percent. Bay and magnolia volume increased the most, rising 33 percent to 276 million cubic feet. Sweetgum increased by almost 8 percent to 250 million cubic feet. Hardwood volume increased in all diameter classes except the 14-inch class. Volume of hardwood sawtimber increased by 10 percent to almost 6.7 billion board feet.

• net annual growth of growing stock averaged about 327 million cubic feet, a decrease of 24 percent since the last survey. Net growth per acre averaged 49 cubic feet, down from 63 cubic feet. Softwood growth was down almost 23 percent to 266 million cubic feet. This decline in softwood growth coincides with similar trends recently identified in other parts of the Southeast. Hardwood growth was down 30 percent to less than 61 million cubic feet. Softwoods accounted for more than 81 percent of the total net annual growth. Softwood growth was down in all major ownership categories. However, forest industry was down the least at 13 percent and NIPF softwood growth decreased the most with a 35-percent reduction. About 62 percent of softwood growth occurred on pine plantations. Hardwood growth increased almost 10 percent on public land, but decreased 26 percent on NIPF land, and by 37 percent on forest industry land. Net annual growth for all species includes 880 million board feet of sawtimber, down by 30 percent.

• annual removals of growing stock averaged 330 million cubic feet, up about 5 percent from the previous level. Softwood removals accounted for 88 percent, or 290 million cubic feet, of the total and increased by almost 6 percent since the previous survey. Hardwood removals changed little. About 52 percent of softwood removals came from forest industry land, 40 percent from NIPF land, and 8 percent from public land. Softwood removals decreased 7 percent on forest industry land, but increased 29 percent on NIPF land, and 5 percent on public land. On NIPF land, softwood removals exceeded net growth by 45 percent, whereas net growth exceeded removals on forest industry and public land. More than 49 percent of softwood removals came from pine plantations. This percentage is the highest in the Southeast but is indicative of future harvests in most pine regions in the Southeast. Almost half of the softwood removals came from the 6- and 8-inch diameter classes. Forest industry land accounted for 60 percent of the hardwood removals; NIPF ownerships accounted for the

remainder. Annual removals of growing stock included 791 million board feet of sawtimber, down 17 percent.

• annual mortality of growing stock averaged nearly 53 million cubic feet, up 43 percent. The mortality was about equally divided between softwoods and hardwoods. Hardwood mortality was up 72 percent from the previous survey, and softwood mortality rose by 22 percent. Softwood mortality actually declined slightly on public and forest industry land but increased considerably on NIPF land. Hardwood mortality increased on all ownerships but almost doubled on NIPF land. The leading identifiable cause of death to softwoods was fire, which accounted for about 30 percent of their mortality. Insects were next, causing about 15 percent of the softwood mortality. Hardwood mortality was more evenly distributed across all possible causes of death. Altogether, annual mortality of growing stock included 156 million board feet of sawtimber, an increase of 73 percent. Mortality reduced gross growth of softwoods by 9 percent and gross growth of hardwoods by 30 percent.

How the Inventory is Made

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

1. Initial estimates of forest and nonforest areas were based on the classification of 32,389 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 misclassifications.

2. Estimates of timber volume and forest classifications were based on measurements recorded at 2,456 ground sample locations systematically distributed on timberland. The plot design at each location was based on a cluster of 10 points. In most cases, variable plots, established by using a basal-area factor of 37.5 square feet per acre, were systematically spaced within a single forest condition at 5 of the 10 cluster points. Trees less than 5 inches d.b.h. were tallied on a fixed-radius plot around each point center.

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

4. Felled trees were measured at 56 active cutting operations. These data will supplement the standing-tree volume data and be used to generate utilization factors for product and species groups. Forest biomass estimates were made from equations developed by the Utilization of Southern Timber Research Work Unit of the Southeastern Forest Experiment Station in Athens, GA.

5. Estimates of growth, removals, and mortality were determined from the remeasurement of 2,074 permanent sample plots established in the fourth survey.

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

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

Reliability of the Data

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

	Percent
Per million acres of timberland	1.10
Per billion cubic feet of growing stock	6.28
Per billion cubic feet of net annual growth	1.39
Per billion cubic feet of annual removals	2.97

Sampling errors for county and unit totals,[a] in terms of one standard error, Northeast Florida, 1987

County	Timberland area	Cubic-foot volume of growing stock		
		Inventory	Growth	Removals
	Sampling error[b]			
Alachua	2.32	11.34	11.37	28.08
Baker	.88	10.43	10.23	23.53
Bradford	2.35	20.31	20.32	30.08
Clay	2.31	11.73	11.09	27.64
Columbia	2.03	9.35	10.30	19.45
Dixie	.87	9.35	9.11	19.61
Duval	2.60	12.71	12.29	21.48
Flagler	1.59	11.93	10.15	29.11
Gilchrist	3.30	22.67	21.30	25.05
Hamilton	2.37	12.50	11.44	27.31
Lafayette	1.85	10.43	12.80	26.90
Levy	1.63	9.48	9.81	22.22
Madison	2.02	12.27	11.47	30.82
Marion	1.70	8.15	7.95	17.93
Nassau	1.32	9.93	10.98	21.97
Putnam	1.95	13.38	10.21	20.13
St. Johns	2.24	10.79	10.63	22.81
Suwannee	3.20	15.99	14.22	26.02
Taylor	.75	9.11	8.72	15.43
Union	3.17	17.54	17.43	29.48
Volusia	1.81	8.22	8.88	24.96
Total	.41	2.46	2.43	5.17

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

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

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

SE = Specified sampling error in table.

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

Definitions of Terms

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

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

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

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

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

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

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

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

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

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

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

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

Commercial forest land. (see: Timberland).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Industrial wood. All roundwood products except fuelwood.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Class 1. 165 or more cubic feet per acre.

Class 2. 120 to 164 cubic feet per acre.

Class 3. 85 to 119 cubic feet per acre.

Class 4. 50 to 84 cubic feet per acre.

Class 5. 20 to 49 cubic feet per acre.

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

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

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

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

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

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

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

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

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

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

Fully stocked. 100 percent or more stocking.

Medium stocked. 60 to 99 percent stocking.

Poorly stocked. Less than 60 percent stocking.

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

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

Timber products. Roundwood products and byproducts.

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

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

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

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

Unproductive forest land. (see: Woodland).

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

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

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

Stocking Standard

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

Conversion factors

Cubic feet of wood per average cord (excluding bark)

D.b.h. class	All species	Pine	Other softwood	Hardwood
6	61.4	61.0	68.2	60.0
8	69.1	68.1	76.0	68.4
10	74.3	73.1	81.4	73.4
12	77.8	76.7	85.2	76.4
14	80.4	79.4	88.2	78.4
16	81.8	81.6	90.4	79.8
18	83.0	83.3	92.3	80.8
20	83.6	84.8	93.8	81.5
22	84.3	86.0	95.1	82.1
24+	84.8	87.6	98.0	83.3
Average	73.8	71.1	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 above ground level
1 square foot = 929.03 square centimeters or 0.0929 square meter
1 square foot per acre basal area = 0.229568 square meter per hectare
1 pound = 0.454 kilogram
1 ton = 0.907 metric ton

County Tables

The county tables are intended for use in compiling forest resource estimates for groups of counties. Because the sampling procedure used by the Forest Survey was intended primarily to furnish inventory data for the survey unit as a whole, individual county estimates have limited and variable accuracy. As county totals are broken down by various subdivisions, the possibility of error increases and is greatest for the smallest items. The order of this increase can be computed with the formula on page 4.

Table 1.--Area, by county and land class, Northeast Florida, 1987

County	All land[a]	Forest land				Nonforest land[b]
		Total	Timberland	Woodland	Reserved timberland	
	Acres					
Alachua	576,941	307,773	297,262	--	10,511	269,168
Baker	374,509	338,624	327,657	--	10,967	35,885
Bradford	187,373	130,077	130,077	--	--	57,296
Clay	379,008	289,812	289,812	--	--	89,196
Columbia	509,728	364,523	357,298	1,096	6,129	145,205
Dixie	448,826	396,866	396,866	--	--	51,960
Duval	496,954	262,713	261,242	1,359	112	234,241
Flagler	314,099	255,897	253,247	1,345	1,305	58,202
Gilchrist	226,413	138,145	138,145	--	--	88,268
Hamilton	331,193	228,055	228,055	--	--	103,138
Lafayette	348,928	286,790	286,790	--	--	62,138
Levy	703,718	496,965	486,570	895	9,500	206,753
Madison	454,618	310,381	310,381	--	--	144,237
Marion	1,030,195	576,799	563,237	302	13,260	453,396
Nassau	415,386	335,452	334,940	512	--	79,934
Putnam	469,043	351,426	348,923	--	2,503	117,617
St. Johns	395,059	270,465	267,741	2,672	52	124,594
Suwannee	441,388	211,231	211,231	--	--	230,157
Taylor	676,813	592,791	586,127	6,664	--	84,022
Union	157,286	118,903	118,903	--	--	38,383
Volusia	707,198	482,229	467,605	11,017	3,607	224,969
Total	9,644,676	6,745,917	6,662,109	25,862	57,946	2,898,759

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

[b]Includes 33,911 acres of water according to Forest Survey standards of area classification, but defined by the Bureau of Census as land.

Table 2.--Area of timberland, by county and ownership class, Northeast Florida, 1987

County	All ownerships	Ownership class							
		National forest	Miscellaneous Federal	State	County and municipal	Forest industry[a]	Other private		
							Farmer	Corporate	Individual
	Acres								
Alachua	297,262	--	10	5,053	1,560	125,026	57,965	41,403	66,245
Baker	327,657	67,249	3,678	382	10	207,641	4,869	24,349	19,479
Bradford	130,077	--	--	12,936	929	83,356	13,529	5,798	13,529
Clay	289,812	--	640	46,341	1,138	86,192	7,068	68,326	80,107
Columbia	357,298	74,145	10	4,356	185	151,818	45,451	28,706	52,627
Dixie	396,866	--	4,827	1,177	245	322,742	2,262	33,938	31,675
Duval	261,242	--	15,015	2,020	1,334	48,530	3,037	85,025	106,281
Flagler	253,247	--	--	767	415	150,359	11,301	36,727	53,678
Gilchrist	138,145	--	--	5	280	32,334	25,125	15,075	65,326
Hamilton	228,055	--	--	2,484	190	148,038	29,572	11,374	36,397
Lafayette	286,790	--	--	90	323	214,077	18,861	15,717	37,722
Levy	486,570	--	7,070	9,840	1,256	281,017	18,475	52,785	116,127
Madison	310,381	--	955	1,061	47	161,966	45,236	10,644	90,472
Marion	563,237	244,691	--	28,905	1,309	96,078	16,293	68,429	107,532
Nassau	334,940	--	5	3,298	599	197,370	9,326	21,760	102,582
Putnam	348,923	19,637	4,463	3,868	397	110,909	11,034	110,342	88,273
St. Johns	267,741	--	--	4,201	120	139,252	12,670	32,943	78,555
Suwannee	211,231	--	40	3,681	626	24,486	17,490	29,983	134,925
Taylor	586,127	--	--	280	224	546,082	2,551	3,827	33,163
Union	118,903	--	--	5,210	260	76,141	14,343	2,869	20,080
Volusia	467,605	--	1,220	2,715	740	78,988	22,922	180,510	180,510
Total	6,662,109	405,722	37,933	138,670	12,187	3,282,402	389,380	880,530	1,515,285

[a]Includes 589,748 acres of other private land under long-term lease.

Table 3.--Area of timberland, by county and forest-type group, Northeast Florida, 1987

County	All type groups	Forest-type group								
		White pine-hemlock	Spruce-fir	Longleaf-slash	Loblolly-shortleaf	Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood	Maple-beech-birch
	Acres									
Alachua	297,262	--	--	160,367	9,652	17,026	55,669	54,548	--	--
Baker	327,657	--	--	230,162	--	16,349	--	81,146	--	--
Bradford	130,077	--	--	68,173	6,951	21,617	3,865	29,471	--	--
Clay	289,812	--	--	129,665	27,549	10,723	52,731	69,144	--	--
Columbia	357,298	--	--	188,322	12,833	20,584	47,257	88,302	--	--
Dixie	396,866	--	--	177,390	11,424	21,314	41,963	144,775	--	--
Duval	261,242	--	--	122,097	18,218	34,901	33,475	52,551	--	--
Flagler	253,247	--	--	156,036	7,810	16,275	7,395	65,731	--	--
Gilchrist	138,145	--	--	69,382	5,026	10,049	43,372	10,316	--	--
Hamilton	228,055	--	--	115,134	15,754	12,697	30,752	53,718	--	--
Lafayette	286,790	--	--	138,327	16,942	17,423	32,661	81,437	--	--
Levy	486,570	--	--	175,609	44,807	37,586	109,561	116,277	2,730	--
Madison	310,381	--	--	102,888	36,384	16,732	59,819	91,642	2,916	--
Marion	563,237	--	--	119,134	195,816	46,722	134,134	67,431	--	--
Nassau	334,940	--	--	179,007	17,513	17,893	14,786	105,741	--	--
Putnam	348,923	--	--	163,577	28,606	29,099	70,782	54,100	2,759	--
St. Johns	267,741	--	--	124,485	23,793	33,571	10,136	70,688	5,068	--
Suwannee	211,231	--	--	99,081	2,499	20,505	64,158	22,490	2,498	--
Taylor	586,127	--	--	305,501	44,122	17,647	18,141	200,716	--	--
Union	118,903	--	--	79,834	2,869	2,429	7,726	26,045	--	--
Volusia	467,605	--	--	193,679	28,651	57,069	25,214	160,126	2,866	--
Total	6,662,109	--	--	3,097,850	557,219	478,211	863,597	1,646,395	18,837	--

Table 4.--Area of timberland, by county and stand-size class, Northeast Florida, 1987

County	All stands	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling-seedling	
	Acres				
Alachua	297,262	85,105	89,983	107,442	14,732
Baker	327,657	85,908	104,146	116,544	21,059
Bradford	130,077	13,805	34,887	60,362	21,023
Clay	289,812	73,122	83,037	80,188	53,465
Columbia	357,298	101,366	118,702	125,387	11,843
Dixie	396,866	103,605	155,613	117,828	19,820
Duval	261,242	81,588	49,377	100,174	30,103
Flagler	253,247	82,727	94,645	59,287	16,588
Gilchrist	138,145	10,187	43,235	56,427	28,296
Hamilton	228,055	53,554	78,811	81,644	14,046
Lafayette	286,790	65,587	101,843	97,478	21,882
Levy	486,570	137,393	133,067	150,036	66,074
Madison	310,381	93,773	76,448	99,543	40,617
Marion	563,237	166,800	162,838	143,276	90,323
Nassau	334,940	89,765	119,041	105,322	20,812
Putnam	348,923	79,779	94,275	111,738	63,131
St. Johns	267,741	78,058	94,939	84,608	10,136
Suwannee	211,231	60,389	45,960	92,388	12,494
Taylor	586,127	124,635	161,768	226,971	72,753
Union	118,903	28,385	46,458	41,631	2,429
Volusia	467,605	182,399	106,997	133,172	45,037
Total	6,662,109	1,797,930	1,996,070	2,191,446	676,663

Table 5.--Area of timberland, by county and site class, Northeast Florida, 1987

County	All classes	Site class (cubic feet per acre per year)				
		>164	120-164	85-119	50-84	20-49
	Acres					
Alachua	297,262	--	5,986	109,752	152,059	29,465
Baker	327,657	--	9,508	46,664	249,844	21,641
Bradford	130,077	--	758	16,212	102,163	10,944
Clay	289,812	--	4,712	42,410	172,732	69,958
Columbia	357,298	--	7,505	95,153	226,227	28,413
Dixie	396,866	--	5,119	48,032	281,818	61,897
Duval	261,242	--	6,074	43,503	142,891	68,774
Flagler	253,247	--	5,287	17,005	191,050	39,905
Gilchrist	138,145	--	2,644	7,948	87,352	40,201
Hamilton	228,055	--	--	32,844	181,739	13,472
Lafayette	286,790	--	--	30,587	205,427	50,776
Levy	486,570	--	2,639	73,136	298,850	111,945
Madison	310,381	--	--	64,012	218,228	28,141
Marion	563,237	6,169	20,155	126,503	287,501	122,909
Nassau	334,940	--	5,838	59,594	191,458	78,050
Putnam	348,923	--	--	76,082	191,648	81,193
St. Johns	267,741	--	2,534	29,230	197,042	38,935
Suwannee	211,231	--	--	22,487	138,256	50,488
Taylor	586,127	--	--	75,202	360,434	150,491
Union	118,903	5,210	--	26,046	79,480	8,167
Volusia	467,605	2,865	8,596	57,544	298,490	100,110
Total	6,662,109	14,244	87,355	1,099,946	4,254,689	1,205,875

Table 6.--Area of timberland, by county and stocking class of growing-stock trees, Northeast Florida, 1987

County	All classes	Stocking class (percent)[a]				
		>130	100-130	60-99	16.7-59	<16.7
				Acres		
Alachua	297,262	20,254	99,905	108,594	53,777	14,732
Baker	327,657	31,550	130,394	89,400	55,254	21,059
Bradford	130,077	13,513	27,177	51,994	16,370	21,023
Clay	289,812	13,728	77,998	91,564	53,057	53,465
Columbia	357,298	16,515	110,596	132,088	86,256	11,843
Dixie	396,866	20,576	80,281	161,042	115,147	19,820
Duval	261,242	6,545	102,601	79,080	42,913	30,103
Flagler	253,247	15,143	69,544	107,753	44,219	16,588
Gilchrist	138,145	7,675	48,737	25,668	27,769	28,296
Hamilton	228,055	16,845	80,761	66,679	49,724	14,046
Lafayette	286,790	15,984	84,635	93,429	70,860	21,882
Levy	486,570	34,426	105,863	173,703	106,504	66,074
Madison	310,381	28,141	74,229	117,659	49,735	40,617
Marion	563,237	7,003	139,019	183,168	143,724	90,323
Nassau	334,940	22,214	120,769	123,841	47,304	20,812
Putnam	348,923	19,595	59,874	109,645	96,678	63,131
St. Johns	267,741	13,348	81,033	106,648	56,576	10,136
Suwannee	211,231	--	68,673	84,465	45,599	12,494
Taylor	586,127	14,987	175,423	178,409	144,555	72,753
Union	118,903	20,221	49,325	26,359	20,569	2,429
Volusia	467,605	25,695	122,295	123,799	150,779	45,037
Total	6,662,109	363,958	1,909,132	2,234,987	1,477,369	676,663

[a]See stocking standards on page 11.

Table 7.--Volume of growing stock and sawtimber on timberland, by county and species group, Northeast Florida, 1987

County	Growing stock					Sawtimber				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand cubic feet[a]					Thousand board feet				
Alachua	321,961	151,985	51,525	52,054	66,397	867,699	269,927	197,442	139,553	260,777
Baker	393,443	253,061	67,886	70,760	1,736	1,082,496	711,739	203,613	164,291	2,853
Bradford	87,065	54,778	6,688	14,283	11,316	189,348	99,946	12,673	21,878	54,851
Clay	257,201	148,711	11,437	48,772	48,281	686,941	393,937	41,628	108,206	143,170
Columbia	366,963	208,923	50,077	76,253	31,710	1,065,519	694,807	169,345	124,139	77,228
Dixie	438,281	148,291	103,414	95,130	91,446	1,132,383	315,760	318,244	250,144	248,235
Duval	281,941	128,484	14,346	83,432	55,679	865,189	428,259	38,918	215,663	182,349
Flagler	294,892	141,004	91,378	43,984	18,526	757,384	302,216	257,331	116,921	80,916
Gilchrist	82,278	54,581	16,643	2,794	8,260	185,615	104,310	48,712	4,073	28,520
Hamilton	246,355	105,708	30,977	60,699	48,971	604,846	241,046	69,858	117,036	176,906
Lafayette	241,050	120,181	48,759	36,377	35,733	583,575	268,830	120,069	57,735	136,941
Levy	515,926	218,455	97,012	98,755	101,704	1,428,263	547,116	277,991	280,713	322,443
Madison	316,917	98,333	61,374	122,317	34,893	903,319	312,305	198,347	299,364	93,303
Marion	492,341	335,883	20,422	54,932	81,104	1,390,207	888,150	64,362	136,578	301,117
Nassau	394,980	189,941	40,833	110,209	53,997	1,021,708	505,141	134,937	216,758	164,872
Putnam	333,237	174,093	11,725	91,694	55,725	943,442	428,231	42,717	276,696	195,798
St. Johns	278,033	138,937	29,618	67,272	42,206	705,229	364,571	90,895	125,754	124,009
Suwannee	139,596	47,436	219	23,887	68,054	497,905	147,778	--	88,183	261,944
Taylor	430,431	173,754	69,131	97,125	90,421	1,072,135	350,249	203,919	232,940	285,027
Union	124,804	57,467	16,378	45,033	5,926	282,650	109,296	50,346	108,202	14,806
Volusia	487,845	201,479	138,266	101,040	47,060	1,453,766	715,077	328,202	242,573	167,914
Total	6,525,540	3,151,485	978,108	1,396,802	999,145	17,719,619	8,198,691	2,869,549	3,327,400	3,323,979

[a]Factors for converting to cords are shown on page 11.

Table 8.--Average net annual growth of growing stock and sawtimber on timberland, by county and species group, Northeast Florida, 1980-1986

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	17,011	13,233	857	1,167	1,754	63,094	46,649	3,848	4,992	7,605
Baker	20,168	17,390	1,237	1,418	123	39,604	33,403	4,351	1,778	72
Bradford	5,308	4,495	212	407	194	13,696	11,791	296	497	1,112
Clay	14,589	11,920	182	1,350	1,137	38,147	30,688	481	3,216	3,762
Columbia	16,645	11,869	666	2,927	1,183	42,815	35,116	2,249	2,900	2,550
Dixie	23,475	16,070	2,399	2,201	2,805	56,956	31,567	7,910	6,575	10,904
Duval	12,646	9,132	240	2,125	1,149	45,075	30,864	961	7,066	6,184
Flagler	14,432	11,417	1,889	877	249	41,586	30,276	7,152	2,825	1,333
Gilchrist	6,209	5,510	301	99	299	19,438	17,545	1,017	68	808
Hamilton	14,241	10,819	675	1,525	1,222	24,243	15,374	2,054	3,574	3,241
Lafayette	12,955	10,319	846	1,053	737	26,793	21,544	2,185	958	2,106
Levy	23,826	16,751	2,263	2,139	2,673	80,748	55,248	9,422	6,291	9,787
Madison	11,429	6,936	854	2,373	1,266	33,708	18,608	3,465	8,126	3,509
Marion	26,516	22,257	310	1,681	2,268	73,884	58,848	1,168	5,634	8,234
Nassau	21,121	16,547	686	2,612	1,276	56,159	43,467	1,924	6,718	4,050
Putnam	15,175	11,626	205	2,354	990	43,930	32,165	960	7,234	3,571
St. Johns	15,254	11,269	643	2,367	975	35,096	25,105	2,086	5,050	2,855
Suwannee	6,432	3,830	12	486	2,104	19,052	9,779	--	2,004	7,269
Taylor	25,385	19,294	1,589	2,338	2,164	57,001	37,766	5,374	6,203	7,658
Union	5,979	4,548	359	945	127	14,370	10,520	747	2,787	316
Volusia	17,955	11,687	2,600	2,750	918	54,926	36,524	7,241	7,302	3,859
Total	326,751	246,919	19,025	35,194	25,613	880,321	632,847	64,891	91,798	90,785

Table 9.--Average annual removals of growing stock and sawtimber on timberland, by county and species group, Northeast Florida, 1980-1986

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	20,148	18,380	--	354	1,414	46,376	41,182	--	1,353	3,841
Baker	14,152	14,028	66	--	58	40,577	40,577	--	--	--
Bradford	11,535	10,603	89	384	459	35,859	32,374	333	971	2,181
Clay	10,151	8,925	977	249	--	22,923	19,576	2,707	640	--
Columbia	16,539	14,425	984	609	521	48,133	41,125	2,785	2,721	1,502
Dixie	9,380	6,406	513	921	1,540	14,913	9,883	1,453	1,691	1,886
Duval	13,533	12,077	203	911	342	33,450	30,641	532	1,467	810
Flagler	12,925	11,958	888	79	--	28,117	24,515	3,602	--	--
Gilchrist	14,075	11,676	770	176	1,453	23,934	16,315	3,165	544	3,910
Hamilton	12,060	10,470	689	587	314	28,600	27,405	312	616	267
Lafayette	10,146	7,784	1,019	750	593	20,089	15,216	3,326	1,096	451
Levy	19,106	15,099	1,130	1,358	1,519	41,927	29,892	4,362	2,471	5,202
Madison	11,842	6,554	345	2,723	2,220	34,244	16,398	1,515	10,506	5,825
Marion	25,269	21,296	246	1,131	2,596	83,918	73,457	1,230	1,228	8,003
Nassau	17,565	13,634	--	2,832	1,099	46,601	38,779	--	4,910	2,912
Putnam	20,541	19,642	--	407	492	48,626	45,151	--	1,964	1,511
St. Johns	17,362	12,952	561	2,721	1,128	40,948	28,541	1,109	7,321	3,977
Suwannee	14,437	14,013	73	118	233	20,240	19,837	403	--	--
Taylor	35,320	25,528	3,499	3,295	2,998	68,057	36,475	15,089	7,596	8,897
Union	9,634	9,634	--	--	--	20,586	20,586	--	--	--
Volusia	14,260	9,398	3,769	1,048	45	43,239	24,083	16,097	3,059	--
Total	329,980	274,482	15,821	20,653	19,024	791,357	632,008	58,020	50,154	51,175

Table 10.--Area of timberland, by forest type and ownership class, Northeast Florida, 1987

Forest type	All ownerships	Ownership class				
		National forest	Other public	Forest industry	Forest industry-leased	Other private
	Acres					
Softwood types						
White pine-hemlock	--	--	--	--	--	--
Spruce-fir	--	--	--	--	--	--
Longleaf pine	233,561	45,659	7,050	53,383	5,607	121,862
Slash pine	2,864,289	92,006	72,675	1,332,578	388,547	978,483
Loblolly pine	227,961	--	2,891	113,323	17,371	94,376
Shortleaf pine	--	--	--	--	--	--
Virginia pine	--	--	--	--	--	--
Sand pine	267,304	173,057	5,329	48,947	--	39,971
Eastern redcedar	--	--	--	--	--	--
Pond pine	61,954	2,056	9,558	14,405	5,269	30,666
Spruce pine	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--
Total	3,655,069	312,778	97,503	1,562,636	416,794	1,265,358
Hardwood types						
Oak-pine	478,211	23,278	4,048	165,430	17,809	267,646
Oak-hickory	538,511	8,225	14,780	122,391	15,772	377,343
Chestnut oak	--	--	--	--	--	--
Southern scrub oak	325,086	22,620	14,706	11,230	3,172	273,358
Oak-gum-cypress	1,646,395	38,821	57,753	825,321	136,201	588,299
Elm-ash-cottonwood	18,837	--	--	5,646	--	13,191
Maple-beech-birch	--	--	--	--	--	--
Total	3,007,040	92,944	91,287	1,130,018	172,954	1,519,837
All types	6,662,109	405,722	188,790	2,692,654	589,748	2,785,195

Table 11.--Area of timberland, by ownership and stocking classes of growing-stock trees, Northeast Florida, 1987

Ownership class	All classes	Stocking class (percent)[a]				
		>130	100-130	60-99	16.7-59	<16.7
	Acres					
National forest	405,722	13,717	94,204	147,762	107,206	42,833
Other public	188,790	17,050	55,632	40,729	49,133	26,246
Forest industry	2,692,654	188,351	843,706	926,790	542,222	191,585
Forest industry-leased	589,748	32,570	244,577	226,209	63,546	22,846
Other private	2,785,195	112,270	671,013	893,497	715,262	393,153
All ownerships	6,662,109	363,958	1,909,132	2,234,987	1,477,369	676,663

[a]See stocking standards on page 11.

Table 12.--Area of timberland, by forest type and stand-size class, Northeast Florida, 1987

Forest type	All stands	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling-seedling	
	Acres				
Softwood types					
White pine-hemlock	--	--	--	--	--
Spruce-fir	--	--	--	--	--
Longleaf pine	233,561	129,755	20,185	51,984	31,637
Slash pine	2,864,289	398,048	1,077,032	1,235,663	153,546
Loblolly pine	227,961	62,220	63,823	99,561	2,357
Shortleaf pine	--	--	--	--	--
Virginia pine	--	--	--	--	--
Sand pine	267,304	45,549	96,642	117,357	7,756
Eastern redcedar	--	--	--	--	--
Pond pine	61,954	26,905	15,832	10,653	8,564
Spruce pine	--	--	--	--	--
Pitch pine	--	--	--	--	--
Table Mountain pine	--	--	--	--	--
Total	3,655,069	662,477	1,273,514	1,515,218	203,860
Hardwood types					
Oak-pine	478,211	164,059	98,215	176,266	39,671
Oak-hickory	538,511	236,427	102,721	140,456	58,907
Chestnut oak	--	--	--	--	--
Southern scrub oak	325,086	8,153	12,635	55,460	248,838
Oak-gum-cypress	1,646,395	713,391	508,985	298,632	125,387
Elm-ash-cottonwood	18,837	13,423	--	5,414	--
Maple-beech-birch	--	--	--	--	--
Total	3,007,040	1,135,453	722,556	676,228	472,803
All types	6,662,109	1,797,930	1,996,070	2,191,446	676,663

Table 13.--Area of timberland, by stand-age and broad management classes, all ownerships, Northeast Florida, 1987

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
			Acres			
0-10	1,300,420	1,007,359	83,248	62,289	64,792	82,732
11-20	863,390	665,855	72,000	29,692	36,416	59,427
21-30	802,325	527,057	148,759	27,489	13,417	85,603
31-40	478,304	57,828	233,731	21,995	33,007	131,743
41-50	456,686	2,057	134,271	70,551	36,266	213,541
51-60	346,617	4,112	90,471	15,461	31,086	205,487
61-70	207,865	--	27,604	19,185	21,864	139,212
71-80	137,289	--	21,575	14,121	8,149	93,444
81+	147,357	--	4,704	2,461	16,185	124,007
No manageable stand	1,921,856	95,190	479,248	214,967	602,415	530,036
All classes	6,662,109	2,359,458	1,295,611	478,211	863,597	1,665,232

Table 14.--Area of timberland, by stand-age and broad management classes, public ownerships, Northeast Florida, 1987

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
			Acres			
0-10	82,616	75,024	7,347	245	--	--
11-20	39,156	30,814	2,056	2,056	1,227	3,003
21-30	67,490	30,903	24,219	4,946	--	7,422
31-40	62,149	--	53,273	2,319	1,227	5,330
41-50	60,110	2,057	46,671	--	1,968	9,414
51-60	68,138	4,112	56,180	543	2,056	5,247
61-70	18,499	--	8,952	--	--	9,547
71-80	12,774	--	7,615	--	1,968	3,191
81+	18,834	--	4,704	--	--	14,130
No manageable stand	164,746	3,665	52,689	17,217	51,885	39,290
All classes	594,512	146,575	263,706	27,326	60,331	96,574

Table 15.--Area of timberland, by stand-age and broad management classes, forest industry,[a] Northeast Florida, 1987

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
			Acres			
0-10	730,503	621,970	12,461	30,409	15,780	49,883
11-20	603,497	524,990	14,107	18,842	8,387	37,171
21-30	479,366	382,899	36,855	11,984	--	47,628
31-40	212,431	30,923	88,241	9,467	7,683	76,117
41-50	190,242	--	31,347	26,563	7,504	124,828
51-60	175,245	--	22,004	8,738	11,042	133,461
61-70	81,497	--	5,658	5,922	7,932	61,985
71-80	54,876	--	5,459	5,394	--	44,023
81+	77,037	--	--	2,461	--	74,576
No manageable stand	677,708	66,747	135,769	63,459	94,237	317,496
All classes	3,282,402	1,627,529	351,901	183,239	152,565	967,168

[a]Includes 589,748 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, 1987

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
			Acres			
0-10	487,301	310,365	63,440	31,635	49,012	32,849
11-20	220,737	110,051	55,837	8,794	26,802	19,253
21-30	255,469	113,255	87,685	10,559	13,417	30,553
31-40	203,724	26,905	92,217	10,209	24,097	50,296
41-50	206,334	--	56,253	43,988	26,794	79,299
51-60	103,234	--	12,287	6,180	17,988	66,779
61-70	107,869	--	12,994	13,263	13,932	67,680
71-80	69,639	--	8,501	8,727	6,181	46,230
81+	51,486	--	--	--	16,185	35,301
No manageable stand	1,079,402	24,778	290,790	134,291	456,293	173,250
All classes	2,785,195	585,354	680,004	267,646	650,701	601,490

[a]Excludes 589,748 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, 1987

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	2,359,458	1,412,108	364,219	231,001	194,301	157,829
Natural pine	1,295,611	499,932	229,595	151,945	162,733	251,406
Oak-pine	478,211	237,905	75,080	48,991	33,416	82,819
Upland hardwood	863,597	554,561	104,166	82,053	62,375	60,442
Lowland hardwood	1,665,232	443,571	252,694	217,984	164,422	586,561
All classes	6,662,109	3,148,077	1,025,754	731,974	617,247	1,139,057

Table 18.--Volume of growing stock on timberland, by broad management class, species group, and stand-age class, Northeast Florida, 1987

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	1,296,754	10,497	24,189	439,795	715,167	97,183	4,432	5,491	--	--	--
Hardwood	22,164	408	3,724	4,344	13,140	548	--	--	--	--	--
Total	1,318,918	10,905	27,913	444,139	728,307	97,731	4,432	5,491	--	--	--
Natural pine											
Softwood	1,412,038	153,828	21,467	37,357	177,672	392,929	305,791	197,199	66,032	36,419	23,344
Hardwood	80,978	5,483	2,355	4,538	6,725	20,811	21,951	4,740	6,271	4,386	3,718
Total	1,493,016	159,311	23,822	41,895	184,397	413,740	327,742	201,939	72,303	40,805	27,062
Oak-pine											
Softwood	324,475	63,402	6,630	8,327	17,500	20,339	118,903	33,045	22,812	25,406	8,111
Hardwood	144,242	17,133	1,648	581	8,477	11,314	51,610	13,707	24,525	10,500	4,747
Total	468,717	80,535	8,278	8,908	25,977	31,653	170,513	46,752	47,337	35,906	12,858
Upland hardwood											
Softwood	61,455	29,812	1,877	3,403	3,664	3,945	6,801	5,271	5,300	--	1,382
Hardwood	424,495	143,898	5,113	15,024	9,729	37,661	68,613	56,705	34,283	12,550	40,919
Total	485,950	173,710	6,990	18,427	13,393	41,606	75,414	61,976	39,583	12,550	42,301
Lowland hardwood											
Softwood	1,034,871	82,269	6,369	11,303	39,965	64,511	164,541	186,574	142,835	104,706	231,798
Hardwood	1,724,068	188,410	11,566	17,784	50,676	143,936	321,698	289,913	268,591	212,235	219,259
Total	2,758,939	270,679	17,935	29,087	90,641	208,447	486,239	476,487	411,426	316,941	451,057
All types											
Softwood	4,129,593	339,808	60,532	500,185	953,968	578,907	600,468	427,580	236,979	166,531	264,635
Hardwood	2,395,947	355,332	24,406	42,271	88,747	214,270	463,872	365,065	333,670	239,671	268,643
Total	6,525,540	695,140	84,938	542,456	1,042,715	793,177	1,064,340	792,645	570,649	406,202	533,278

Table 19.--Average net annual growth of growing stock on timberland, by broad management class, species group, and stand-age class, Northeast Florida, 1980-1986

Broad management class[a] and species group	All classes	No manageable stand	Stand-age class[a] (years)								
			0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81+
	Thousand cubic feet										
Pine plantation											
Softwood	163,576	1,604	12,172	76,299	66,782	6,006	285	428	--	--	--
Hardwood	1,840	5	74	685	860	216	--	--	--	--	--
Total	165,416	1,609	12,246	76,984	67,642	6,222	285	428	--	--	--
Natural pine											
Softwood	60,811	6,739	1,529	3,672	12,354	18,308	10,255	4,919	1,823	776	436
Hardwood	3,345	314	48	190	596	909	855	143	75	67	148
Total	64,156	7,053	1,577	3,862	12,950	19,217	11,110	5,062	1,898	843	584
Oak-pine											
Softwood	14,061	2,673	1,323	1,473	1,197	828	4,093	835	849	573	217
Hardwood	5,106	845	58	174	471	704	1,887	255	471	149	92
Total	19,167	3,518	1,381	1,647	1,668	1,532	5,980	1,090	1,320	722	309
Upland hardwood											
Softwood	3,140	1,742	205	296	184	101	240	133	190	--	49
Hardwood	11,199	3,778	306	875	556	1,077	1,522	1,330	746	274	735
Total	14,339	5,520	511	1,171	740	1,178	1,762	1,463	936	274	784
Lowland hardwood											
Softwood	24,356	2,905	293	597	1,127	1,842	3,927	4,066	3,105	1,801	4,693
Hardwood	39,317	5,250	368	1,155	2,561	4,466	7,629	6,408	4,873	3,564	3,043
Total	63,673	8,155	661	1,752	3,688	6,308	11,556	10,474	7,978	5,365	7,736
All types											
Softwood	265,944	15,663	15,522	82,337	81,644	27,085	18,800	10,381	5,967	3,150	5,395
Hardwood	60,807	10,192	854	3,079	5,044	7,372	11,893	8,136	6,165	4,054	4,018
Total	326,751	25,855	16,376	85,416	86,688	34,457	30,693	18,517	12,132	7,204	9,413

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

Table 20.--Average annual removals of growing stock on timberland, by broad management class, species group, and stand-age class, Northeast Florida, 1980-1986

Broad management class[a] and species group	All classes	No manageable stand	Stand-age class[a] (years)								
			0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81+
	Thousand cubic feet										
Pine plantation											
Softwood	143,484	1,153	1,250	70,020	66,728	3,802	--	531	--	--	--
Hardwood	608	--	--	229	257	122	--	--	--	--	--
Total	144,092	1,153	1,250	70,249	66,985	3,924	--	531	--	--	--
Natural pine											
Softwood	112,809	5,336	666	6,471	28,194	44,028	15,488	7,682	1,981	203	2,760
Hardwood	2,522	407	68	349	209	1,183	156	71	--	--	79
Total	115,331	5,743	734	6,820	28,403	45,211	15,644	7,753	1,981	203	2,839
Oak-pine											
Softwood	13,164	2,363	173	494	1,735	3,913	1,208	2,615	--	513	150
Hardwood	4,816	119	--	51	1,049	947	986	1,664	--	--	--
Total	17,980	2,482	173	545	2,784	4,860	2,194	4,279	--	513	150
Upland hardwood											
Softwood	3,018	1,184	450	58	222	184	920	--	--	--	--
Hardwood	8,742	1,796	99	425	590	1,867	1,676	672	659	--	958
Total	11,760	2,980	549	483	812	2,051	2,596	672	659	--	958
Lowland hardwood											
Softwood	17,828	1,048	500	331	1,134	3,019	1,505	4,598	3,102	1,639	952
Hardwood	22,989	4,272	197	214	1,182	4,266	4,770	2,475	3,747	1,820	46
Total	40,817	5,320	697	545	2,316	7,285	6,275	7,073	6,849	3,459	998
All types											
Softwood	290,303	11,084	3,039	77,374	98,013	54,946	19,121	15,426	5,083	2,355	3,862
Hardwood	39,677	6,594	364	1,268	3,287	8,385	7,588	4,882	4,406	1,820	1,083
Total	329,980	17,678	3,403	78,642	101,300	63,331	26,709	20,308	9,489	4,175	4,945

[a]Classifications before timber removals.

Table 21.--Merchantable volume of live trees and growing stock on timberland, by forest-type and species groups, Northeast Florida, 1987

Forest-type group	Live trees					Growing stock				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand cubic feet									
White pine-hemlock	--	--	--	--	--	--	--	--	--	--
Spruce-fir	--	--	--	--	--	--	--	--	--	--
Longleaf-slash pine	2,380,787	2,245,300	41,189	44,375	49,923	2,351,946	2,241,289	40,062	42,064	28,531
Loblolly-shortleaf pine	472,412	431,425	260	16,573	24,154	459,988	427,181	260	15,616	16,931
Oak-pine	523,336	255,272	72,737	91,289	104,038	468,717	253,206	71,269	80,033	64,209
Oak-hickory	701,622	61,346	3,122	97,551	539,603	485,950	60,151	1,304	87,829	336,666
Oak-gum-cypress	3,032,252	169,695	873,824	1,297,537	691,196	2,689,549	169,151	856,268	1,150,307	513,823
Elm-ash-cottonwood	74,972	507	8,945	21,992	43,528	69,390	507	8,945	20,953	38,985
Maple-beech-birch	--	--	--	--	--	--	--	--	--	--
All types	7,185,381	3,163,545	1,000,077	1,569,317	1,452,442	6,525,540	3,151,485	978,108	1,396,802	999,145

Table 22.--Area of timberland treated or disturbed annually and retained in timberland, by treatment or disturbance and ownership class, Northeast Florida, 1930 to 1987

Treatment or disturbance	All ownerships	Ownership class			
		Public	Forest industry	Forest industry-leased	Other private
	Acres[a]				
Final harvest	158,854	13,243	72,718	18,160	54,733
Partial harvest[b]	16,386	1,298	5,077	3,143	6,868
Commercial thinning	22,528	3,281	11,186	3,628	4,433
Other stand improvement	4,649	318	1,915	--	2,416
Site preparation	111,566	9,130	59,090	16,753	26,593
Artificial regeneration[c]	116,288	7,381	52,017	18,669	38,221
Natural regeneration[c]	28,354	684	5,909	1,503	20,258
Other treatment	3,630	--	700	--	2,930
Natural disturbance	42,275	710	18,809	4,022	18,734

[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, 1980-1987

Treatment or disturbance	All classes	Broad management class[a]				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
	Acres[b]					
Final harvest	158,854	61,609	61,813	9,840	8,831	16,761
Partial harvest[c]	16,386	1,044	4,015	2,613	1,105	7,609
Commercial thinning	22,528	17,130	4,440	--	299	659
Other stand improvement	4,649	1,418	2,064	--	418	749
Site preparation	111,566	42,965	46,194	6,116	8,658	7,633
Other treatment	3,630	670	1,273	619	718	350
Natural disturbance	42,275	18,594	11,017	3,011	3,619	6,034

[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, 1980 to 1987

Type of regeneration	All classes	Broad management class[a]				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
			Acres			
Artificial regeneration following harvest	70,613	68,713	--	1,191	345	364
Natural regeneration following harvest	15,667	322	2,634	1,097	4,481	7,133
Other artificial regeneration on forest land	30,449	26,675	--	2,818	592	364
Other natural regeneration on forest land	9,404	--	5,568	1,621	694	1,521
Artificial regeneration on nonforest land	15,226	14,557	--	669	--	--
Natural reversion of nonforest land	3,283	--	2,375	--	657	251
Total	144,642	110,267	10,577	7,396	6,769	9,633

[a]Classification after regeneration.

Table 25.--Area of timberland, by treatment opportunity and broad management classes, Northeast Florida, 1987

Treatment opportunity class	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
	Acres					
Salvage	2,865	--	2,865	--	--	--
Harvest	178,170	--	39,960	21,786	23,687	92,737
Commercial thinning	336,668	290,819	35,287	2,759	--	7,803
Other stand improvement	280,538	37,423	61,158	40,997	28,672	112,288
Stand conversion	65,502	2,758	2,319	8,390	18,776	33,259
Regeneration	1,812,762	92,248	476,714	209,442	599,474	434,884
Stands in relatively good condition	3,529,943	1,933,268	672,013	177,966	190,047	556,649
Adverse sites[a]	455,661	2,942	5,295	16,871	2,941	427,612
All classes	6,662,109	2,359,458	1,295,611	478,211	863,597	1,665,232

[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, 1987

Treatment opportunity class	All ownerships	Ownership class			
		Public	Forest industry	Forest industry-leased	Other private
	Acres				
Salvage	2,865	--	--	--	2,865
Harvest	178,170	24,643	46,873	3,707	102,947
Commercial thinning	336,668	2,439	155,686	77,336	101,207
Other stand improvement	280,538	30,847	86,805	35,352	127,534
Stand conversion	65,502	6,830	19,439	6,863	32,370
Regeneration	1,812,762	156,000	549,763	63,425	1,043,574
Stands in relatively good condition	3,529,943	332,032	1,583,000	380,902	1,234,009
Adverse sites[a]	455,661	41,721	251,088	22,163	140,689
All classes	6,662,109	594,512	2,692,654	589,748	2,785,195

[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, 1987

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	510,677	385,277	41,395	57,114	26,891	485,010	382,806	40,807	48,087	13,310
Other public	314,840	114,744	42,698	85,011	72,387	278,221	114,531	42,698	75,250	45,742
Forest industry	2,868,734	1,267,798	492,846	671,086	437,004	2,655,075	1,263,416	483,158	591,665	316,836
Forest industry-leased	479,004	280,663	69,522	91,557	37,262	457,017	279,759	68,076	82,692	26,490
Other private	3,012,126	1,115,063	353,616	664,549	878,898	2,650,217	1,110,973	343,369	599,108	596,767
All ownerships	7,185,381	3,163,545	1,000,077	1,569,317	1,452,442	6,525,540	3,151,485	978,108	1,396,802	999,145

Table 28.--Volume of sawtimber on timberland, by ownership class and species group, Northeast Florida, 1987

Ownership class	Small sawtimber[a]					Large sawtimber[b]				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Thousand board feet									
National forest	1,101,049	978,277	75,891	38,547	8,334	436,977	247,685	87,260	72,824	29,208
Other public	483,132	304,791	58,408	77,664	42,269	430,440	86,907	100,283	127,865	115,385
Forest industry	3,721,123	1,924,327	884,879	599,911	312,006	2,485,465	642,502	480,377	713,329	649,257
Forest industry-leased	500,727	279,599	122,803	74,120	24,205	381,371	189,123	44,249	77,657	70,342
Other private	4,094,789	2,315,879	650,607	647,342	480,961	4,084,546	1,229,601	364,792	898,141	1,592,012
All ownerships	9,900,820	5,802,873	1,792,588	1,437,584	867,775	7,818,799	2,395,818	1,076,961	1,889,816	2,456,204

[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, 1980-1986

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	19,428	17,570	592	942	324	19,085	19,085	--	--	--
Other public	11,571	7,781	981	1,617	1,192	3,186	3,186	--	--	--
Forest industry	152,595	119,226	9,557	15,688	8,124	142,271	116,111	6,484	10,402	9,274
Forest industry-leased	32,715	28,353	1,175	2,461	726	33,036	25,985	2,738	2,856	1,457
Other private	110,442	73,989	6,720	14,486	15,247	132,402	110,115	6,599	7,395	8,293
All ownerships	326,751	246,919	19,025	35,194	25,613	329,980	274,482	15,821	20,653	19,024

Table 30.--Average net annual growth and removals of sawtimber on timberland, by ownership class and species group, Northeast Florida, 1980-1986

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	54,258	49,045	2,136	1,756	1,321	56,357	56,357	--	--	--
Other public	35,543	22,640	3,379	4,532	4,992	7,294	7,294	--	--	--
Forest industry	360,575	263,078	31,634	34,878	30,985	315,720	243,214	25,000	25,518	21,988
Forest industry-leased	71,119	60,388	4,500	4,381	1,850	64,942	47,285	6,995	7,105	3,557
Other private	358,826	237,696	23,242	46,251	51,637	347,044	277,858	26,025	17,531	25,630
All ownerships	880,321	632,847	64,891	91,798	90,785	791,357	632,008	58,020	50,154	51,175

Table 31.--Volume of timber on timberland, by class of timber and species group, Northeast Florida, 1987

Class of timber	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
			Thousand cubic feet		
Sawtimber trees					
Saw-log portion	3,386,098	1,539,601	595,849	646,655	603,993
Upper-stem portion[a]	490,726	183,509	84,023	130,374	92,820
Total	3,876,824	1,723,110	679,872	777,029	696,813
Poletimber trees	2,648,716	1,428,375	298,236	619,773	302,332
All growing-stock trees	6,525,540	3,151,485	978,108	1,396,802	999,145
Rough trees					
Sawtimber size	290,577	5,865	7,373	58,522	218,817
Poletimber size	288,055	5,923	5,882	87,415	188,835
Total	578,632	11,788	13,255	145,937	407,652
Rotten trees					
Sawtimber size	71,521	272	8,451	21,182	41,616
Poletimber size	9,688	--	263	5,396	4,029
Total	81,209	272	8,714	26,578	45,645
Salvable dead trees					
Sawtimber size	11,177	5,553	1,219	2,126	2,279
Poletimber size	8,107	4,959	798	1,318	1,032
Total	19,284	10,512	2,017	3,444	3,311
Total, all timber	7,204,665	3,174,057	1,002,094	1,572,761	1,455,753

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

Table 32.--Number of live trees on timberland, by species and diameter class, Northeast Florida, 1987

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	39,648	10,104	7,331	4,741	4,026	5,568	4,480	2,209	788	248	87	66	--
Slash pine	899,958	264,765	279,095	193,177	105,226	34,259	13,711	5,832	2,460	945	354	134	--
Shortleaf pine	17	--	--	--	--	--	--	--	17	--	--	--	--
Loblolly pine	63,044	20,436	13,034	13,160	6,981	3,634	2,169	1,353	820	709	392	349	7
Pond pine	13,712	2,600	3,663	1,828	2,234	1,408	1,030	629	226	36	28	30	--
Virginia pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	997	336	324	97	48	79	56	--	13	20	--	24	--
Sand pine	142,552	81,960	28,150	18,076	9,067	3,044	1,764	354	59	68	10	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	27,387	7,895	5,866	4,880	3,374	1,998	1,341	689	549	267	218	281	29
Pondcypress	316,319	161,799	67,974	36,372	21,186	13,184	7,858	4,674	1,812	845	254	334	27
Cedars	4,574	2,282	662	884	505	68	106	55	--	12	--	--	--
Total softwoods	1,508,208	552,177	406,099	273,215	152,647	63,242	32,515	15,795	6,744	3,150	1,343	1,218	63
Hardwood													
Select white oaks	2,507	1,209	525	356	129	161	27	63	14	--	19	--	4
Select red oaks	146	--	--	--	78	41	--	18	--	--	9	--	--
Chestnut oak	--	--	--	--	--	--	--	--	--	--	--	--	--
Other white oaks	102,593	62,368	19,727	5,358	4,535	2,776	1,897	1,294	1,163	947	536	1,430	562
Other red oaks	317,131	211,509	50,309	22,813	11,930	7,933	5,448	2,663	1,962	953	534	858	219
Hickory	15,669	7,813	3,251	2,229	615	502	328	395	183	120	76	153	4
Yellow birch	--	--	--	--	--	--	--	--	--	--	--	--	--
Hard maple	2,355	1,813	--	97	238	101	30	57	--	--	11	8	--
Soft maple	145,536	98,199	24,522	9,510	5,744	3,071	2,136	988	668	349	211	127	11
Beech	110	--	--	--	53	--	24	--	--	--	28	5	--
Sweetgum	122,741	69,431	26,251	11,750	5,642	4,461	2,373	1,373	771	408	131	136	14
Tupelo and blackgum	334,943	172,254	84,658	33,822	19,403	10,908	5,874	3,699	1,936	1,182	543	601	63
Ash	129,237	78,227	28,243	11,229	4,124	3,210	1,743	930	800	297	247	175	12
Cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--
Basswood	4,351	3,285	322	224	182	107	23	116	33	24	27	8	--
Yellow-poplar	1,350	870	176	120	69	36	27	17	--	--	--	35	--
Bay and magnolia	259,706	161,048	57,756	21,752	9,516	4,122	2,401	1,410	733	445	231	274	18
Black cherry	9,791	7,338	1,590	249	380	122	53	44	15	--	--	--	--
Black walnut	--	--	--	--	--	--	--	--	--	--	--	--	--
Sycamore	--	--	--	--	--	--	--	--	--	--	--	--	--
Black locust	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm	20,664	11,589	4,646	2,018	1,077	493	419	218	120	35	29	20	--
Other eastern hardwoods	449,899	343,902	67,698	21,296	9,861	4,293	1,737	653	280	131	19	29	--
Total hardwoods	1,918,729	1,230,855	369,674	142,823	73,576	42,337	24,540	13,938	8,678	4,891	2,651	3,859	907
All species	3,426,937	1,783,032	775,773	416,038	226,223	105,579	57,055	29,733	15,422	8,041	3,994	5,077	970

Table 33.--Number of growing-stock trees on timberland, by species and diameter class, Northeast Florida, 1987

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	38,332	8,961	7,331	4,651	4,026	5,521	4,456	2,209	776	248	87	66	--
Slash pine	886,137	255,558	275,777	192,263	105,030	34,147	13,679	5,811	2,460	934	344	134	--
Shortleaf pine	17	--	--	--	--	--	--	--	17	--	--	--	--
Loblolly pine	60,406	18,769	12,536	13,024	6,794	3,516	2,137	1,353	820	709	392	349	7
Pond pine	11,377	1,321	2,746	1,718	2,234	1,408	1,001	629	226	36	28	30	--
Virginia pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	997	336	324	97	48	79	56	--	13	20	--	24	--
Sand pine	139,560	79,607	27,988	17,874	8,876	3,006	1,738	334	59	68	10	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	25,037	6,418	5,368	4,777	3,308	1,888	1,341	689	534	256	199	242	17
Pondcypress	288,802	140,672	63,672	35,253	20,774	12,917	7,719	4,639	1,770	820	235	309	22
Cedars	4,048	2,120	662	695	442	32	50	35	--	12	--	--	--
Total softwoods	1,454,713	513,762	396,404	270,352	151,532	62,514	32,177	15,699	6,675	3,103	1,295	1,154	46
Hardwood													
Select white oaks	2,507	1,209	525	356	129	161	27	63	14	--	19	--	4
Select red oaks	146	--	--	--	78	41	--	18	--	--	9	--	--
Chestnut oak	--	--	--	--	--	--	--	--	--	--	--	--	--
Other white oaks	24,411	12,002	5,605	1,306	1,532	650	584	513	526	385	218	766	324
Other red oaks	217,522	134,027	37,473	18,772	10,133	6,709	4,370	2,249	1,663	853	481	642	150
Hickory	10,649	3,916	2,599	2,005	519	457	300	374	167	109	67	132	4
Yellow birch	--	--	--	--	--	--	--	--	--	--	--	--	--
Hard maple	415	--	--	--	238	101	--	57	--	--	11	8	--
Soft maple	76,504	46,026	14,308	6,634	4,091	2,213	1,576	679	506	238	167	63	3
Beech	110	--	--	--	53	--	24	--	--	--	28	5	--
Sweetgum	88,854	43,281	21,377	10,168	5,001	4,149	2,258	1,299	727	369	113	108	4
Tupelo and blackgum	215,269	80,581	65,831	29,718	17,270	9,655	5,055	3,362	1,703	1,065	464	517	48
Ash	55,848	28,199	11,960	7,277	2,635	2,452	1,388	697	669	235	181	147	8
Cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--
Basswood	2,098	1,299	160	224	109	107	23	96	33	12	27	8	--
Yellow-poplar	1,174	699	176	120	69	36	27	17	--	--	--	30	--
Bay and magnolia	171,599	96,282	42,531	16,888	7,595	3,302	2,153	1,293	719	375	191	252	18
Black cherry	6,581	4,353	1,430	249	315	122	53	44	15	--	--	--	--
Black walnut	--	--	--	--	--	--	--	--	--	--	--	--	--
Sycamore	--	--	--	--	--	--	--	--	--	--	--	--	--
Black locust	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm	10,031	3,731	2,497	1,636	952	422	371	218	120	35	29	20	--
Other eastern hardwoods	18,464	12,974	3,264	1,019	647	192	151	81	79	48	9	--	--
Total hardwoods	902,182	468,579	209,736	96,372	51,366	30,769	18,360	11,060	6,941	3,724	2,014	2,698	563
All species	2,356,895	982,341	606,140	366,724	202,898	93,283	50,537	26,759	13,616	6,827	3,309	3,852	609

Table 34.--Merchantable volume of live trees on timberland, by species and diameter class, Northeast Florida, 1987

Species	All classes	Diameter class (inches at breast height)									
		5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	29.0 and larger
	Thousand cubic feet										
Softwood											
Longleaf pine	316,360	13,061	28,232	72,646	89,271	61,710	29,255	11,687	5,211	5,287	--
Slash pine	2,210,996	500,292	674,156	415,333	269,452	168,842	97,308	49,311	23,551	12,751	--
Shortleaf pine	640	--	--	--	--	--	640	--	--	--	--
Loblolly pine	321,452	29,068	38,032	38,265	40,578	38,552	34,660	37,258	28,352	35,594	1,093
Pond pine	81,197	5,077	12,757	15,934	18,355	15,436	7,608	1,524	1,895	2,611	--
Virginia pine	--	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	7,751	320	344	1,089	1,195	--	580	1,456	--	2,767	--
Sand pine	225,149	65,626	67,333	43,242	34,017	8,731	2,394	3,071	735	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	168,732	15,632	22,110	20,816	24,364	16,404	19,171	11,642	11,422	20,245	6,926
Pondcypress	822,794	115,408	146,149	155,217	141,827	120,088	62,504	37,244	13,973	26,077	4,307
Cedars	8,551	2,603	2,479	560	1,425	922	--	562	--	--	--
Total softwoods	4,163,622	747,087	991,592	763,102	620,484	430,685	254,120	153,755	85,139	105,332	12,326
Hardwood											
Select white oaks	7,405	957	601	1,559	434	1,417	522	--	1,145	--	770
Select red oaks	2,016	--	447	333	--	541	--	--	695	--	--
Chestnut oak	--	--	--	--	--	--	--	--	--	--	--
Other white oaks	389,743	11,848	19,909	22,100	24,260	25,519	32,886	32,298	25,023	104,166	91,734
Other red oaks	628,045	63,986	73,848	87,811	92,956	67,147	63,260	44,046	29,905	69,356	35,730
Hickory	61,757	5,144	3,504	5,133	6,257	10,480	6,369	5,936	4,412	13,802	720
Yellow birch	--	--	--	--	--	--	--	--	--	--	--
Hard maple	6,120	365	1,207	1,409	401	1,622	--	--	561	555	--
Soft maple	207,130	25,975	33,258	31,724	35,683	24,073	21,988	12,389	12,634	8,169	1,237
Beech	3,678	--	578	--	510	--	--	--	1,858	732	--
Sweetgum	268,240	27,500	33,747	51,307	45,820	37,825	30,702	20,275	8,507	11,040	1,517
Tupelo and blackgum	706,251	90,235	115,023	114,774	98,425	91,863	64,757	49,724	28,741	43,940	8,769
Ash	203,400	27,911	25,066	34,381	29,926	20,943	26,251	12,817	11,907	12,917	1,281
Cottonwood	--	--	--	--	--	--	--	--	--	--	--
Basswood	10,142	600	1,133	1,289	520	2,631	918	722	1,697	632	--
Yellow-poplar	5,119	407	315	349	577	615	--	--	--	2,856	--
Bay and magnolia	314,534	58,215	54,930	43,806	41,476	34,251	24,968	19,169	12,865	22,739	2,115
Black cherry	6,866	934	2,342	1,115	997	1,004	474	--	--	--	--
Black walnut	--	--	--	--	--	--	--	--	--	--	--
Sycamore	--	--	--	--	--	--	--	--	--	--	--
Black locust	--	--	--	--	--	--	--	--	--	--	--
Elm	39,229	4,908	6,174	5,249	7,901	5,223	4,137	1,544	2,078	2,015	--
Other eastern hardwoods	162,084	39,907	43,044	31,423	22,180	11,511	7,445	4,685	681	1,208	--
Total hardwoods	3,021,759	358,892	415,126	433,762	408,323	336,665	284,677	203,605	142,709	294,127	143,873
All species	7,185,381	1,105,979	1,406,718	1,196,864	1,028,807	767,350	538,797	357,360	227,848	399,459	156,199

Table 35.--Volume of growing stock on timberland, by species and diameter class, Northeast Florida, 1987

Species	All classes	Diameter class (inches at breast height)									
		5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	29.0 and larger
	Thousand cubic feet										
Softwood											
Longleaf pine	315,181	12,849	28,232	72,244	89,058	61,710	28,903	11,687	5,211	5,287	--
Slash pine	2,205,849	498,343	673,173	414,736	269,057	168,435	97,308	48,767	23,279	12,751	--
Shortleaf pine	640	--	--	--	--	--	640	--	--	--	--
Loblolly pine	319,018	28,947	37,248	37,031	40,283	38,552	34,660	37,258	28,352	35,594	1,093
Pond pine	80,754	4,890	12,757	15,934	18,099	15,436	7,608	1,524	1,895	2,611	--
Virginia pine	--	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	7,751	320	344	1,089	1,195	--	580	1,456	--	2,767	--
Sand pine	222,292	64,841	66,431	42,763	33,615	8,442	2,394	3,071	735	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	161,897	15,384	21,723	19,864	24,364	16,404	18,835	11,309	10,889	18,571	4,554
Pondcypress	809,478	112,781	144,008	153,062	139,932	119,549	61,548	36,668	13,489	24,620	3,821
Cedars	6,733	2,203	2,137	350	815	666	--	562	--	--	--
Total softwoods	4,129,593	740,558	986,053	757,073	616,418	429,194	252,476	152,302	83,850	102,201	9,468
Hardwood											
Select white oaks	7,405	957	601	1,559	434	1,417	522	--	1,145	--	770
Select red oaks	2,016	--	447	333	--	541	--	--	695	--	--
Chestnut oak	--	--	--	--	--	--	--	--	--	--	--
Other white oaks	199,640	3,261	7,289	6,296	8,155	10,578	15,879	15,286	11,328	63,234	58,334
Other red oaks	548,071	53,884	65,599	77,441	78,766	59,242	57,643	40,275	27,952	58,209	29,060
Hickory	56,733	4,777	2,886	4,695	5,734	9,954	6,004	5,357	4,043	12,563	720
Yellow birch	--	--	--	--	--	--	--	--	--	--	--
Hard maple	5,354	--	1,207	1,409	--	1,622	--	--	561	555	--
Soft maple	158,698	19,174	25,663	24,729	27,908	17,478	17,879	9,914	10,574	4,771	608
Beech	3,678	--	578	--	510	--	--	--	1,858	732	--
Sweetgum	250,272	23,689	30,765	48,731	44,111	36,391	29,270	19,113	7,616	9,832	754
Tupelo and blackgum	646,169	80,635	105,384	105,622	88,594	85,951	59,631	46,928	26,100	39,918	7,406
Ash	167,092	19,808	18,129	28,203	25,979	17,889	23,137	11,138	9,839	11,840	1,130
Cottonwood	--	--	--	--	--	--	--	--	--	--	--
Basswood	9,479	600	832	1,289	520	2,362	918	629	1,697	632	--
Yellow-poplar	4,655	407	315	349	577	615	--	--	--	2,392	--
Bay and magnolia	275,859	46,239	45,817	36,210	37,809	32,275	24,592	17,398	11,688	21,716	2,115
Black cherry	6,536	934	2,012	1,115	997	1,004	474	--	--	--	--
Black walnut	--	--	--	--	--	--	--	--	--	--	--
Sycamore	--	--	--	--	--	--	--	--	--	--	--
Black locust	--	--	--	--	--	--	--	--	--	--	--
Elm	36,316	4,018	5,567	4,740	6,994	5,223	4,137	1,544	2,078	2,015	--
Other eastern hardwoods	17,974	2,216	3,783	1,911	2,898	1,791	2,591	2,338	446	--	--
Total hardwoods	2,395,947	260,599	316,874	344,632	329,986	284,333	242,677	169,920	117,620	228,409	100,897
All species	6,525,540	1,001,157	1,302,927	1,101,705	946,404	713,527	495,153	322,222	201,470	330,610	110,365

Table 36.--Volume of sawtimber on timberland, by species and diameter class, Northeast Florida, 1987

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	1,357,383	294,074	428,952	329,046	166,427	70,869	32,992	35,023	--
Slash pine	4,724,466	1,519,777	1,233,277	881,781	555,340	297,564	149,187	87,540	--
Shortleaf pine	3,482	--	--	--	3,482	--	--	--	--
Loblolly pine	1,362,985	131,337	182,190	199,160	197,241	224,987	179,603	240,436	8,031
Pond pine	304,498	60,952	83,923	79,266	42,786	9,056	11,754	16,761	--
Virginia pine	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--
Spruce pine	39,727	4,426	5,660	--	3,298	8,621	--	17,722	--
Sand pine	406,150	166,856	157,665	44,531	13,764	18,684	4,650	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--
Baldcypress	565,527	57,838	92,614	72,043	89,437	58,122	58,182	106,843	30,448
Pondcypress	2,291,791	481,843	548,186	531,164	299,394	189,797	73,753	143,135	24,519
Cedars	12,231	1,566	3,806	3,528	--	3,331	--	--	--
Total softwoods	11,068,240	2,718,669	2,736,273	2,140,519	1,371,169	881,031	510,121	647,460	62,998
Hardwood									
Select white oaks	21,108	--	1,447	5,582	2,584	--	6,347	--	5,148
Select red oaks	5,870	--	--	2,299	--	--	3,571	--	--
Chestnut oak	--	--	--	--	--	--	--	--	--
Other white oaks	912,579	--	28,222	41,402	67,772	69,354	53,945	324,473	327,411
Other red oaks	1,702,716	--	299,189	256,947	274,634	204,541	148,844	334,925	183,636
Hickory	207,716	--	19,665	40,393	26,883	25,929	20,729	69,694	4,423
Yellow birch	--	--	--	--	--	--	--	--	--
Hard maple	11,863	--	--	6,437	--	--	2,654	2,772	--
Soft maple	356,820	--	91,259	66,547	75,334	44,835	50,725	24,645	3,475
Beech	12,475	--	1,873	--	--	--	7,528	3,074	--
Sweetgum	662,693	--	159,385	156,093	140,721	99,416	42,631	59,381	5,066
Tupelo and blackgum	1,525,469	--	296,715	341,775	262,414	224,146	132,969	221,577	45,873
Ash	424,841	--	84,381	69,324	99,971	52,192	48,894	63,359	6,720
Cottonwood	--	--	--	--	--	--	--	--	--
Basswood	29,610	--	1,873	9,291	3,864	2,945	8,399	3,238	--
Yellow-poplar	19,612	--	2,158	2,855	--	--	--	14,599	--
Bay and magnolia	617,531	--	126,687	124,344	105,384	79,439	56,651	112,799	12,227
Black cherry	9,596	--	3,487	3,953	2,156	--	--	--	--
Black walnut	--	--	--	--	--	--	--	--	--
Sycamore	--	--	--	--	--	--	--	--	--
Black locust	--	--	--	--	--	--	--	--	--
Elm	89,099	--	24,054	20,354	17,630	6,960	9,857	10,244	--
Other eastern hardwoods	41,781	--	10,290	7,078	11,189	11,072	2,152	--	--
Total hardwoods	6,651,379	--	1,150,685	1,154,674	1,090,536	820,829	595,896	1,244,780	593,979
All species	17,719,619	2,718,669	3,886,958	3,295,193	2,461,705	1,701,860	1,106,017	1,892,240	656,977

Table 37.--Volume of sawtimber on timberland, by species, size class, and tree grade, Northeast Florida, 1987

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]	8,198,691	2,439,675	1,613,896	4,145,120	--	2,395,818	1,172,779	585,089	637,950	--
Eastern white pine[b]	--	--	--	--	--	--	--	--	--	--
Spruce and fir[b]	--	--	--	--	--	--	--	--	--	--
Cypress[c]	2,857,318	539,665	849,345	1,435,512	32,796	1,073,630	539,665	413,146	111,195	9,624
Other eastern softwoods[b]	12,231	--	3,331	8,900	--	3,331	--	3,331	--	--
Total	11,068,240	2,979,340	2,466,572	5,589,532	32,796	3,472,779	1,712,444	1,001,566	749,145	9,624
Hardwood[c]										
Select white and red oaks	26,978	3,571	15,702	7,705	--	17,650	3,571	11,495	2,584	--
Other white and red oaks	2,615,295	439,123	751,650	1,191,888	232,634	1,989,535	439,123	668,043	749,169	133,200
Hickory	207,716	56,065	58,533	76,924	16,194	147,658	56,065	39,626	38,820	13,147
Yellow birch	--	--	--	--	--	--	--	--	--	--
Hard maple	11,863	--	5,171	4,948	1,744	5,426	--	2,772	2,654	--
Sweetgum	662,693	89,776	240,735	314,984	17,198	347,215	89,776	167,244	83,363	6,832
Ash, walnut, and black cherry	434,437	99,888	141,015	182,814	10,720	273,292	99,888	109,374	60,019	4,011
Yellow-poplar	19,612	14,599	--	5,013	--	14,599	14,599	--	--	--
Other eastern hardwoods	2,672,785	542,224	863,570	1,159,629	107,362	1,550,645	542,224	596,270	366,703	45,448
Total	6,651,379	1,245,246	2,076,376	2,943,905	385,852	4,346,020	1,245,246	1,594,824	1,303,312	202,638
All species	17,719,619	4,224,586	4,542,948	8,533,437	418,648	7,818,799	2,957,690	2,596,390	2,052,457	212,262

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

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

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

Table 38.--Cubic volume in the merchantable saw-log portion of sawtimber trees on timberland, by species and diameter class, Northeast Florida, 1987

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	249,819	59,846	81,494	58,630	28,021	11,451	5,143	5,234	--
Slash pine	909,499	327,598	243,499	160,074	94,595	48,062	23,047	12,624	--
Shortleaf pine	620	--	--	--	620	--	--	--	--
Loblolly pine	236,015	28,562	36,242	36,489	33,677	36,658	28,064	35,241	1,082
Pond pine	57,874	13,103	16,643	14,730	7,433	1,505	1,876	2,584	--
Virginia pine	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--
Spruce pine	6,689	863	1,085	--	566	1,436	--	2,739	--
Sand pine	79,085	34,629	30,433	7,983	2,314	3,003	723	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--
Baldcypress	109,492	13,722	20,554	14,740	17,342	10,619	10,306	17,785	4,424
Pondcypress	484,132	118,152	122,836	109,808	57,884	34,920	12,959	23,840	3,733
Cedars	2,225	305	746	632	--	542	--	--	--
Total softwoods	2,135,450	596,780	553,532	403,086	242,452	148,196	82,118	100,047	9,239
Hardwood									
Select white oaks	3,724	--	283	1,118	472	--	1,088	--	763
Select red oaks	1,083	--	--	442	--	--	641	--	--
Chestnut oak	--	--	--	--	--	--	--	--	--
Other white oaks	166,223	--	6,019	8,695	13,777	13,644	10,302	58,694	55,092
Other red oaks	299,896	--	57,497	48,755	50,206	36,115	25,539	54,233	27,551
Hickory	38,560	--	4,120	8,192	5,224	4,822	3,714	11,798	690
Yellow birch	--	--	--	--	--	--	--	--	--
Hard maple	2,355	--	--	1,330	--	--	510	515	--
Soft maple	71,307	--	19,087	13,863	15,163	8,712	9,516	4,393	573
Beech	2,710	--	377	--	--	--	1,661	672	--
Sweetgum	122,571	--	31,337	30,104	25,988	17,626	7,226	9,543	747
Tupelo and blackgum	296,216	--	63,085	70,482	51,873	42,206	23,968	37,501	7,101
Ash	84,313	--	18,055	14,578	20,161	10,088	9,116	11,219	1,096
Cottonwood	--	--	--	--	--	--	--	--	--
Basswood	5,866	--	399	1,945	790	570	1,571	591	--
Yellow-poplar	3,259	--	421	529	--	--	--	2,309	--
Bay and magnolia	124,844	--	26,556	26,432	21,749	15,983	11,033	21,000	2,091
Black cherry	1,952	--	733	808	411	--	--	--	--
Black walnut	--	--	--	--	--	--	--	--	--
Sycamore	--	--	--	--	--	--	--	--	--
Black locust	--	--	--	--	--	--	--	--	--
Elm	17,658	--	4,945	4,171	3,508	1,347	1,851	1,836	--
Other eastern hardwoods	8,111	--	2,075	1,429	2,193	2,005	409	--	--
Total hardwoods	1,250,648	--	234,989	232,873	211,515	153,118	108,145	214,304	95,704
All species	3,386,098	596,780	788,521	635,959	453,967	301,314	190,263	314,351	104,943

Table 39.--Total volume of live trees on timberland, by species and diameter class, Northeast Florida, 1987

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	376,380	2,237	9,391	18,026	33,941	84,019	101,536	69,608	32,826	13,090	5,815	5,891	--
Slash pine	3,063,068	68,639	299,002	698,672	815,684	480,640	306,062	190,026	108,931	55,014	26,237	14,161	--
Shortleaf pine	723	--	--	--	--	--	--	--	723	--	--	--	--
Loblolly pine	394,417	4,269	13,844	41,480	46,361	44,661	46,425	43,695	39,045	41,841	31,778	39,800	1,218
Pond pine	99,275	653	3,904	6,641	15,336	18,543	21,090	17,630	8,647	1,735	2,145	2,951	--
Virginia pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	9,438	62	526	421	406	1,265	1,366	--	653	1,638	--	3,101	--
Sand pine	338,941	17,498	37,029	94,477	83,325	50,644	39,061	9,922	2,703	3,457	825	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	222,605	2,630	8,613	22,959	28,505	25,938	29,707	19,835	23,152	13,990	13,748	24,482	9,046
Pondcypress	1,265,353	48,794	99,978	193,833	202,463	204,058	182,043	152,411	78,889	46,909	17,609	32,742	5,624
Cedars	12,459	529	899	3,683	3,198	684	1,687	1,111	--	668	--	--	--
Total softwoods	5,782,659	145,311	473,186	1,080,192	1,229,219	910,452	728,977	504,238	295,569	178,342	98,157	123,128	15,888
Hardwood													
Select white oaks	10,480	341	575	1,456	787	1,978	546	1,770	650	--	1,423	--	954
Select red oaks	2,534	--	--	--	584	423	--	668	--	--	859	--	--
Chestnut oak	--	--	--	--	--	--	--	--	--	--	--	--	--
Other white oaks	523,354	14,215	21,131	20,427	27,361	28,422	30,374	31,424	40,188	39,613	30,400	126,751	113,048
Other red oaks	928,005	44,053	63,894	98,972	98,947	113,198	118,103	84,844	79,921	55,152	37,463	87,741	45,717
Hickory	83,258	1,449	4,358	8,232	4,588	6,447	7,687	12,741	7,710	7,152	5,351	16,684	859
Yellow birch	--	--	--	--	--	--	--	--	--	--	--	--	--
Hard maple	7,971	386	--	514	1,558	1,733	490	1,956	--	--	671	663	--
Soft maple	317,806	23,943	34,872	37,419	42,223	38,994	43,254	28,917	26,542	15,095	15,035	9,966	1,546
Beech	4,565	--	--	--	750	--	637	--	--	--	2,282	896	--
Sweetgum	366,651	15,259	29,335	40,542	41,963	60,779	53,033	43,455	35,008	23,077	9,674	12,679	1,847
Tupelo and blackgum	1,079,385	54,228	125,278	135,181	149,174	143,007	120,775	111,994	79,079	60,526	34,944	54,301	10,898
Ash	302,788	20,630	36,013	39,820	30,933	40,923	34,927	24,408	30,202	14,733	13,787	14,888	1,524
Cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--
Basswood	12,957	680	413	806	1,344	1,494	598	3,031	1,053	876	1,942	720	--
Yellow-poplar	6,569	285	375	546	385	402	655	693	--	--	--	3,228	--
Bay and magnolia	517,126	39,158	81,833	87,278	69,341	53,115	49,422	40,601	29,390	22,637	15,262	26,623	2,466
Black cherry	12,734	2,768	1,651	1,198	2,861	1,336	1,180	1,184	556	--	--	--	--
Black walnut	--	--	--	--	--	--	--	--	--	--	--	--	--
Sycamore	--	--	--	--	--	--	--	--	--	--	--	--	--
Black locust	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm	56,578	2,609	5,881	7,007	7,742	6,334	9,393	6,170	4,853	1,805	2,426	2,358	--
Other eastern hardwoods	350,417	66,985	66,905	60,611	56,312	40,179	27,600	14,442	9,218	5,753	835	1,577	--
Total hardwoods	4,583,178	286,989	472,514	540,009	536,853	538,764	498,674	408,298	344,370	246,419	172,354	359,075	178,859
All species	10,365,837	432,300	945,700	1,620,201	1,766,072	1,449,216	1,227,651	912,536	639,939	424,761	270,511	482,203	194,747

Table 40.--Green weight of forest biomass on timberland, by species and diameter class, Northeast Florida, 1987

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	294,676	1,817	7,975	12,881	25,790	64,978	79,962	55,192	26,209	10,474	4,662	4,736	--
Slash pine	2,369,728	50,299	276,957	509,640	620,634	369,972	236,789	147,188	84,386	42,582	20,285	10,996	--
Shortleaf pine	520	--	--	--	--	--	--	--	520	--	--	--	--
Loblolly pine	287,893	2,051	8,162	30,559	35,273	33,459	34,337	32,233	28,411	30,670	23,018	28,807	913
Pond pine	70,718	367	2,187	4,730	11,087	13,288	15,180	12,732	6,313	1,254	1,510	2,070	--
Virginia pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	6,655	44	472	247	280	856	947	--	469	1,139	--	2,201	--
Sand pine	225,963	12,049	30,193	56,811	54,333	33,871	26,966	6,965	1,831	2,407	537	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	161,324	1,513	5,444	11,838	17,744	17,805	21,832	15,494	18,091	11,366	11,255	20,730	8,212
Pondcypress	772,987	26,003	62,899	84,670	110,790	125,271	121,306	106,454	57,142	34,811	13,372	25,617	4,652
Cedars	9,357	339	564	2,752	2,408	547	1,369	915	--	463	--	--	--
Total softwoods	4,199,821	94,482	394,853	714,128	878,339	660,047	538,688	377,173	223,372	135,166	74,639	95,157	13,777
Hardwood													
Select white oaks	8,621	283	464	817	650	1,693	469	1,528	588	--	1,276	--	853
Select red oaks	2,110	--	--	--	426	369	--	581	--	--	734	--	--
Chestnut oak	--	--	--	--	--	--	--	--	--	--	--	--	--
Other white oaks	480,194	10,709	15,811	11,901	21,800	24,564	27,513	29,125	37,541	37,697	29,128	122,351	112,054
Other red oaks	744,123	38,862	48,415	75,286	81,414	91,841	95,854	68,434	65,275	44,429	30,283	69,119	34,911
Hickory	68,819	1,235	3,800	5,642	3,668	5,203	6,143	10,521	6,510	6,084	4,639	14,588	786
Yellow birch	--	--	--	--	--	--	--	--	--	--	--	--	--
Hard maple	6,963	320	--	385	1,370	1,482	449	1,730	--	--	612	615	--
Soft maple	233,971	18,208	24,906	26,285	32,239	29,266	32,168	21,392	19,332	11,222	10,685	7,205	1,063
Beech	3,679	--	--	--	501	--	501	--	--	--	1,922	755	--
Sweetgum	267,140	10,216	19,660	27,177	30,183	44,296	39,387	32,789	26,553	17,727	7,544	10,093	1,515
Tupelo and blackgum	704,084	35,859	83,152	69,424	90,344	91,679	79,230	77,085	56,054	44,075	25,616	42,847	8,719
Ash	195,725	12,613	22,810	30,442	21,956	26,997	21,979	15,203	18,194	8,566	8,023	8,153	789
Cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--
Basswood	9,017	442	287	459	903	1,022	411	2,185	774	621	1,401	512	--
Yellow-poplar	4,725	204	242	318	266	297	468	497	--	--	--	2,433	--
Bay and magnolia	318,310	24,630	48,036	45,304	43,048	33,677	31,979	26,685	19,622	15,211	10,164	18,182	1,772
Black cherry	8,124	1,436	1,094	751	1,919	912	794	819	399	--	--	--	--
Black walnut	--	--	--	--	--	--	--	--	--	--	--	--	--
Sycamore	--	--	--	--	--	--	--	--	--	--	--	--	--
Black locust	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm	37,454	1,897	4,128	4,322	5,023	4,181	6,039	4,166	3,298	1,252	1,577	1,571	--
Other eastern hardwoods	306,914	56,080	60,909	52,823	50,014	36,427	24,962	11,979	7,673	4,151	710	1,186	--
Total hardwoods	3,399,973	212,994	333,714	351,336	385,724	393,906	368,346	304,719	261,813	191,035	134,314	299,610	162,462
All species	7,599,794	307,476	728,567	1,065,464	1,264,063	1,053,953	907,034	681,892	485,185	326,201	208,953	394,767	176,239

Table 41.--Average net annual growth and removals of live timber and growing stock on timberland, by species, Northeast Florida, 1980-1986

Species	Live timber[a]		Growing stock	
	Net annual growth	Annual timber removals	Net annual growth	Annual timber removals
	Thousand cubic feet			
Softwood				
Yellow pines	247,552	275,585	246,919	274,482
Eastern white pine	--	--	--	--
Spruce and fir	--	--	--	--
Cypress	18,680	15,105	18,504	15,001
Other eastern softwoods	551	820	521	820
Total softwoods	266,783	291,510	265,944	290,303
Hardwood				
Select white and red oaks	249	567	249	497
Other white and red oaks	23,569	18,191	20,829	14,753
Hickory	1,287	2,164	1,231	2,000
Yellow birch	--	--	--	--
Hard maple	135	--	132	--
Sweetgum	6,923	5,730	6,672	5,307
Ash, walnut, and black cherry	3,757	2,079	3,224	1,721
Yellow-poplar	219	806	217	806
Tupelo and blackgum	11,998	8,677	11,326	8,124
Bay and magnolia	11,781	3,126	10,956	2,488
Other eastern hardwoods	9,158	7,837	5,971	3,981
Total hardwoods	69,076	49,177	60,807	39,677
All species	335,859	340,687	326,751	329,980

[a]Merchantable portion only.

Table 42.--Average net annual growth and removals of sawtimber on timberland, by species, Northeast Florida, 1980-1986

Species	Net annual growth	Annual timber removals
	Thousand board feet	
Softwood		
Yellow pines	632,847	632,008
Eastern white pine	--	--
Spruce and fir	--	--
Cypress	63,942	54,577
Other eastern softwoods	949	3,443
Total softwoods	697,738	690,028
Hardwood		
Select white and red oaks	973	1,448
Other white and red oaks	75,023	40,525
Hickory	4,691	6,868
Yellow birch	--	--
Hard maple	813	--
Sweetgum	23,821	12,716
Ash, walnut, and black cherry	8,886	2,334
Yellow-poplar	582	2,372
Tupelo and blackgum	29,713	24,203
Bay and magnolia	23,654	4,224
Other eastern hardwoods	14,427	6,639
Total hardwoods	182,583	101,329
All species	880,321	791,357

Table 43.--Average annual removals of growing stock on timberland, by species and diameter class, Northeast Florida, 1980-1986

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	274,482	50,406	84,267	61,069	36,951	21,120	9,172	5,942	2,199	3,217	139
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--
Cypress	15,001	1,381	1,290	2,384	2,792	2,266	1,644	1,121	1,023	906	194
Other eastern softwoods	820	68	62	154	73	390	73	--	--	--	--
Total softwoods	290,303	51,855	85,619	63,607	39,816	23,776	10,889	7,063	3,222	4,123	333
Hardwood											
Select white and red oaks	497	--	111	99	--	108	--	--	179	--	--
Other white and red oaks	14,753	1,408	2,397	2,475	1,712	2,222	1,588	1,068	377	766	740
Hickory	2,000	50	112	186	663	601	168	85	--	--	135
Yellow birch	--	--	--	--	--	--	--	--	--	--	--
Hard maple	--	--	--	--	--	--	--	--	--	--	--
Sweetgum	5,307	744	847	891	957	1,044	309	94	190	231	--
Ash, walnut, and black cherry	1,721	535	298	303	212	197	--	87	89	--	--
Yellow-poplar	806	--	109	205	--	292	200	--	--	--	--
Tupelo and blackgum	8,124	838	745	896	1,483	1,308	929	664	385	876	--
Bay and magnolia	2,488	502	381	604	413	220	--	75	73	220	--
Other eastern hardwoods	3,981	484	985	895	634	420	248	--	182	133	--
Total hardwoods	39,677	4,561	5,985	6,554	6,074	6,412	3,442	2,073	1,475	2,226	875
All species	329,980	56,416	91,604	70,161	45,890	30,188	14,331	9,136	4,697	6,349	1,208

Table 44.--Average annual mortality of live timber, growing stock, and sawtimber on timberland, by species, Northeast Florida, 1980-1986

Species	Live timber[a]	Growing stock	Sawtimber
	Thousand cubic feet		Thousand board feet
Softwood			
Yellow pines	22,294	22,083	59,784
Eastern white pine	--	--	--
Spruce and fir	--	--	--
Cypress	4,398	4,099	10,138
Other eastern softwoods	245	138	332
Total softwoods	26,937	26,320	70,254
Hardwood			
Select white and red oaks	165	165	691
Other white and red oaks	15,089	12,059	44,921
Hickory	277	184	945
Yellow birch	--	--	--
Hard maple	--	--	--
Sweetgum	2,174	1,727	3,959
Ash, walnut, and black cherry	1,127	555	969
Yellow-poplar	217	113	630
Tupelo and blackgum	5,413	4,318	13,943
Bay and magnolia	6,023	4,870	13,752
Other eastern hardwoods	9,213	2,604	5,580
Total hardwoods	39,698	26,595	85,390
All species	66,635	52,915	155,644

[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									
1980	1,301,080	369,951	415,568	293,264	127,625	51,164	25,089	10,669	7,750
1987	1,159,928	380,201	331,597	231,079	127,582	47,992	23,210	10,377	7,890
Change	-141,152	+10,250	-83,971	-62,185	-43	-3,172	-1,879	-292	+140
Other softwood									
1980	389,919	203,820	77,634	44,709	26,915	16,368	10,162	5,642	4,669
1987	348,280	171,976	74,502	42,136	25,065	15,250	9,305	5,418	4,628
Change	-41,639	-31,844	-3,132	-2,573	-1,850	-1,118	-857	-224	-41
Hardwood									
1980	2,121,935	1,401,855	388,947	152,529	77,862	42,764	24,496	14,889	18,593
1987	1,918,729	1,230,855	369,674	142,823	73,576	42,337	24,540	13,938	20,986
Change	-203,206	-171,000	-19,273	-9,706	-4,286	-427	+44	-951	+2,393

Brown, Mark J.

Forest statistics for Northeast Florida, 1987. Resour. Bull. SE-97. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southeastern Forest Experiment Station; 1987. 53 pp.

Since 1980, area of timberland in Northeast Florida has decreased 3 percent to 6.7 million acres. Area of nonindustrial private forest land has decreased 5 percent to 2.8 million acres. The area in pine plantations has increased from 1.9 to 2.4 million acres. An average of 159,000 acres were harvested annually and retained in timberland. An average of 145,000 acres regenerated annually, 80 percent of which were planted. Volume of softwood growing stock dropped 4 percent to 4.1 billion cubic feet. Volume of hardwood growing stock rose 7 percent to 2.4 billion cubic feet. Average net annual growth was down 24 percent to 327 million cubic feet. Annual removals averaged 330 million cubic feet, up about 5 percent. Annual mortality increased 43 percent to 53 million cubic feet.

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

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