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Forest Statistics for Northwest Florida, 1987

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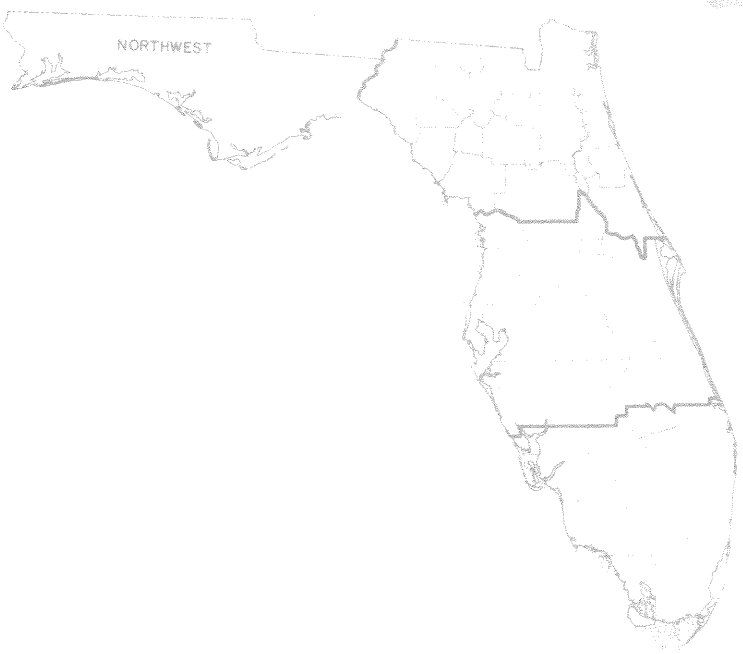

NORTHWEST

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Southeastern Forest Experiment Station
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Forest Statistics for Northwest Florida, 1987

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Foreword

This report highlights the principal findings of the sixth forest survey of Northwest Florida. Field work began in September 1986 and was completed in March 1987. Five previous surveys, completed in 1934, 1949, 1959, 1969, and 1979, 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 1979. 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 16-county area covered by this report is one of four Survey Units in Florida. A comparable report for the Northeast, 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 public agencies, forest industry, and other private landowners in providing information and access to the sample locations.

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 1979 in Northwest Florida--

• area of timberland has declined by 166,000 acres, or 3 percent. Timberland now totals more than 5.3 million acres, or almost 74 percent, of the land area in this 16-county region. Some 331,000 acres were diverted to other land uses, and another 165,000 acres were added to the timberland base from nonforest sources. Urban and related land uses were the most prominent causes of timberland diversion, accounting for 69 percent of the acreage lost. Agricultural uses made up an additional 28 percent of the diverted timberland.

• area of nonindustrial private forest (NIPF) land has declined 12 percent to less than 2.0 million acres. Within the NIPF group, farmer-owned lands dropped by 30 percent to 456,000 acres, other corporate lands declined by 20 percent to 516,000 acres, and area owned by other individuals increased by 5 percent to 991,000 acres. Area of national forest remained about the same at 515,000 acres. Forest industry controls more than 2.0 million acres of timberland, down less than 1 percent. State-owned lands increased by 54 percent to 354,000 acres. Most of this increase resulted from the acquisition of several river floodplains by the Northwest Florida Water Management District.

• area classed as a pine forest type declined by 3 percent to less than 3.0 million acres. More than half of the acreage in pine type was in planted stands, an increase of 25 percent. Slash pine acreage dropped by 5 percent but remains the most prevalent forest type, with 1.7 million acres. Acreage classed as longleaf pine dropped the most, by 24 percent, to 565,000 acres. Area of loblolly pine and sand pine forest types rose substantially, by 58 and 49 percent, respectively, as a result of their increased use in plantation establishment. Area of oak-pine type was down almost 12 percent to 518,000 acres. Area of the remaining hardwood types was relatively unchanged at almost 1.9 million acres. However, the portion in upland hardwood types declined, whereas the area in lowland hardwood types, primarily oak-gum-cypress, increased.

• overall stocking has improved slightly. Average basal area of live trees 5.0 inches d.b.h. and larger increased 3 percent to 51 square feet per acre, and average net merchantable volume per acre of all trees increased 6 percent to 1,053 cubic feet. Number of saplings per acre decreased from 417 to 393, with declines in both softwoods and hardwoods. Area of stands classified as fully stocked increased 16 percent since 1979, whereas area of medium-stocked stands dropped by 2 percent; those classed as poorly stocked or nonstocked decreased 15 percent. Even with the improvement in overall stocking, about one-third of the timberland is still either poorly stocked or nonstocked.

• total area undergoing final harvest and retained in timberland averaged 122,000 acres annually. About 31,000 acres of pine plantations and 63,000 acres of natural pine stands were harvested each year, accounting for more than three-fourths of the annual acreage harvested. About 57 percent of the annual harvest occurred on forest industry land, 33 percent on NIPF land, and 10 percent on publicly owned lands. In addition to final harvests, partial harvests and other intermediate cutting occurred on nearly 37,000 acres each year. Insects, diseases, weather, and other natural agents damaged almost 39,000 acres annually.

• total area artificially and naturally regenerated averaged 114,000 acres of timberland annually. About 89,000 acres of this total regenerated to new pine stands, an area 95 percent as large as the acreage of pine stands harvested. More than 76,000 acres of the total regeneration were established through artificial means, up by 56 percent since 1979. About 29 percent of the artificial regeneration took place on NIPF land, less than 10 percent on public land, and 61 percent on land controlled by forest industry. Natural regeneration accounted

for almost 38,000 acres annually. Natural reversion of nonforest land accounted for about one-fifth of the natural regeneration. Almost two-thirds of the natural regeneration occurred on NIPF land.

• volume of softwood growing stock changed little, increasing less than 1 percent to nearly 3.0 billion cubic feet. Slash pine, the predominant softwood species, increased 2 percent to 1.2 billion cubic feet. Longleaf pine, second in abundance, decreased 16 percent to 734 million cubic feet. Loblolly pine is next, increasing 13 percent to 338 million cubic feet. Other softwoods with noticeable increases were sand pine and pondcypress. Volume of softwood growing stock was down in the 8- through 12-inch diameter classes, but increased in the 6-inch class and those classes 14 inches and larger. The increase in the 6-inch class occurred on forest industry land; the increase in the large diameters was on public and other private lands. Volume of softwood sawtimber increased 3 percent to 10.4 billion board feet.

• volume of hardwood growing stock increased 10 percent to almost 2.1 billion cubic feet. The tupelo and blackgum combination continues to contain the most hardwood volume and increased by 12 percent to 693 million cubic feet. The second most abundant hardwood group is the oaks, with 584 million cubic feet, up 9 percent. Collectively, the bays and magnolias account for 329 million cubic feet, up 10 percent. Individually, sweetgum increased by 16 percent to 183 million cubic feet. Hardwood volume increased across all diameter classes. Volume of hardwood sawtimber increased 15 percent to 6.1 billion board feet.

• net annual growth of growing stock averaged 188 million cubic feet, a decline of 21 percent since the last survey. Net growth averaged 35 cubic feet per acre of timberland, down from 43 cubic feet. The rate of growth decline was about the same for both softwoods and hardwoods. Softwoods accounted for 76 percent, or 143 million cubic feet, of the total net annual growth. On NIPF land, softwood growth was down 33 percent, and on public land it was down 30 percent. However, on forest industry land softwood growth remained constant due to increased numbers of pine trees in young plantations crossing the 5.0-inch d.b.h. threshold. Across all ownerships, almost one-half the softwood growth occurred on pine plantations. Hardwood growth was down in every major ownership class except other public, where there was a substantial acquisition of lowland hardwood by the State. Net annual growth for all species includes 634 million board feet of sawtimber, down 28 percent.

• total annual removals of growing stock averaged 163 million cubic feet, 1 percent below the previous level. Softwood removals accounted for 87 percent, or 141 million cubic feet, of the total and increased 5 percent from the previous survey. Hardwood removals were down 31 percent. About one-half of all softwood removals came from forest industry lands, more than one-third from NIPF lands, and the remainder from public lands. The amount of softwood removals increased 37 percent on forest industry and 17 percent on public, but it decreased 22 percent on NIPF lands. Nearly 31 percent of the annual softwood removals came from pine plantations. Hardwood removals were down on each of the major ownerships. About 59 percent of the hardwood removals came from NIPF land and 38 percent from forest industry land. The total annual removals of growing stock included 494 million board feet of sawtimber, down 14 percent.

• annual mortality of growing stock averaged nearly 40 million cubic feet, up 17 percent. Hardwoods made up 51 percent of the annual mortality. Of those causes of mortality that were identifiable, weather was the most common in hardwoods, with 29 percent of the mortality. For softwoods, insects and weather were the leading causes of death, with 23 and 19 percent of the mortality, respectively. Altogether, annual mortality of growing stock included 139 million board feet of sawtimber, up 26 percent. Mortality reduced gross growth by 17 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 23,977 sample clusters systematically spaced on the latest aerial photographs available. A subsample of 2,817 of the 16-point clusters was ground checked, and a linear regression was fitted to the data to develop the relationship between the photo and ground classification of the subsample. This procedure provides a means for adjusting the initial estimates of area for change in land use since date of photography and for photo misclassifications.

2. Estimates of timber volume and forest classifications were based on measurements recorded at 1,988 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 37 active cutting operations. These data will supplement the standing-tree volume data and be used to generate utilization factors for product and species groups. Forest biomass estimates were made from equations developed by the Utilization of Southern Timber Research Work Unit of the Southeastern Forest Experiment Station in Athens, GA.

5. Estimates of growth, removals, and mortality were determined from the remeasurement of 1,656 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	0.99
Per billion cubic feet of growing stock	6.22
Per billion cubic feet of net annual growth	1.13
Per billion cubic feet of annual removals	2.53

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

County	Timberland area	Cubic-foot volume of growing stock		
		Inventory	Growth	Removals
	Sampling error[b]			
Bay	1.37	13.45	10.75	17.57
Calhoun	1.47	11.50	11.94	24.88
Escambia	2.50	12.10	9.47	23.71
Franklin	1.17	15.27	12.53	30.89
Gadsden	1.83	13.60	11.86	27.42
Gulf	1.27	16.40	13.05	32.80
Holmes	2.43	13.83	15.62	30.75
Jackson	2.69	10.58	10.47	26.03
Jefferson	1.76	10.47	9.28	23.06
Leon	1.93	9.17	9.35	26.03
Liberty	.40	8.39	8.61	20.63
Okaloosa	1.67	8.56	9.36	27.89
Santa Rosa	1.69	7.62	7.29	17.72
Wakulla	1.38	11.09	11.02	26.95
Walton	1.56	8.93	8.27	19.88
Washington	1.64	14.77	12.57	28.94
Total	.42	2.76	2.60	6.27

[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	60.9	61.0	68.2	60.0
8	68.7	68.1	76.0	68.4
10	73.7	73.1	81.4	73.4
12	77.1	76.7	85.2	76.4
14	79.6	79.4	88.2	78.4
16	81.4	81.6	90.4	79.8
18	82.7	83.3	92.3	80.8
20	83.9	84.8	93.8	81.5
22	84.0	86.0	95.1	82.1
24+	86.5	87.8	98.5	83.2
Average	74.7	73.2	85.7	74.5

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, Northwest Florida, 1987

County	All land[a]	Forest land				Nonforest land[b]
		Total	Timberland	Woodland	Reserved timberland	
	Acres					
Bay	484,858	402,062	400,032	2,030	--	82,796
Calhoun	363,392	298,800	298,800	--	--	64,592
Escambia	422,682	250,847	246,116	4,357	374	171,835
Franklin	348,698	312,324	309,773	2,440	111	36,374
Gadsden	331,264	242,495	242,495	--	--	88,769
Gulf	357,523	294,176	293,027	1,149	--	63,347
Holmes	312,000	184,977	184,664	--	313	127,023
Jackson	602,611	284,617	284,617	--	--	317,994
Jefferson	389,933	281,815	279,715	--	2,100	108,118
Leon	432,582	295,031	294,872	--	159	137,551
Liberty	535,814	508,591	500,791	--	7,800	27,223
Okaloosa	598,918	429,121	428,524	597	--	169,797
Santa Rosa	655,053	476,441	475,212	--	1,229	178,612
Wakulla	384,845	337,567	311,635	--	25,932	47,278
Walton	682,080	510,924	508,291	2,633	--	171,156
Washington	377,427	288,049	287,894	--	155	89,378
Total	7,279,680	5,397,837	5,346,458	13,206	38,173	1,881,843

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

[b]Includes 6,916 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, Northwest Florida, 1987

County	All ownerships	Ownership class							
		National forest	Miscellaneous Federal	State	County and municipal	Forest industry[a]	Other private		
							Farmer	Corporate	Individual
	Acres								
Bay	400,032	--	21,410	6,542	265	247,747	4,865	68,116	51,087
Calhoun	298,800	--	--	33	85	198,688	21,620	24,323	54,051
Escambia	246,116	--	2,560	5,404	90	100,721	15,548	62,192	59,601
Franklin	309,773	21,170	7,295	17,380	690	253,184	--	3,016	7,038
Gadsden	242,495	--	1	12,383	145	88,654	19,784	33,915	87,613
Gulf	293,027	--	755	39,392	67	210,555	2,817	16,903	22,538
Holmes	184,664	--	500	2,432	337	69,725	77,105	--	34,565
Jackson	284,617	--	5,209	2,809	83	64,942	88,379	42,850	80,345
Jefferson	279,715	--	2,200	4,338	412	119,270	40,393	35,008	78,094
Leon	294,872	101,538	20	8,528	1,928	56,677	17,319	39,586	69,276
Liberty	500,791	252,133	--	23,452	40	167,578	10,969	8,227	38,392
Okaloosa	428,524	--	211,478	59,859	748	54,823	15,135	10,810	75,671
Santa Rosa	475,212	--	56,033	132,525	809	171,004	27,647	10,633	76,561
Wakulla	311,635	139,880	31,732	6,729	175	56,745	12,220	15,275	48,879
Walton	508,291	--	137,233	18,687	209	128,721	58,520	42,560	122,361
Washington	287,894	--	10	13,869	178	42,236	43,882	102,392	85,327
Total	5,346,458	514,721	476,436	354,362	6,261	2,031,270	456,203	515,806	991,399

[a]Includes 70,186 acres of other private land under long-term lease.

Table 3.--Area of timberland, by county and forest-type group, Northwest 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									
Bay	400,032	--	--	283,724	20,903	15,559	46,318	33,528	--	--
Calhoun	298,800	--	--	142,360	28,642	41,842	23,733	54,582	7,641	--
Escambia	246,116	--	--	138,565	18,761	31,857	24,468	29,873	2,592	--
Franklin	309,773	--	--	202,582	14,452	21,805	4,138	66,796	--	--
Gadsden	242,495	--	--	31,470	65,878	34,081	19,951	91,115	--	--
Gulf	293,027	--	--	145,022	2,818	19,441	2,817	120,111	2,818	--
Holmes	184,664	--	--	48,140	46,909	16,655	27,289	45,671	--	--
Jackson	284,617	--	--	56,687	47,627	33,366	26,780	114,656	5,501	--
Jefferson	279,715	--	--	48,179	46,992	27,334	30,026	127,184	--	--
Leon	294,872	--	--	103,241	57,696	27,868	61,920	44,147	--	--
Liberty	500,791	--	--	236,621	29,105	38,089	31,592	153,363	12,021	--
Okaloosa	428,524	--	--	199,512	55,872	64,529	50,256	58,355	--	--
Santa Rosa	475,212	--	--	258,759	12,106	57,889	60,907	85,551	--	--
Wakulla	311,635	--	--	145,781	47,621	34,689	10,527	73,017	--	--
Walton	508,291	--	--	172,476	114,005	30,640	81,451	109,719	--	--
Washington	287,894	--	--	69,835	58,213	21,942	52,951	84,953	--	--
Total	5,346,458	--	--	2,282,954	667,600	517,586	555,124	1,292,621	30,573	--

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

County	All stands	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling-seedling	
	Acres				
Bay	400,032	34,177	117,716	173,299	74,840
Calhoun	298,800	91,329	72,651	98,382	36,438
Escambia	246,116	100,523	63,060	79,560	2,973
Franklin	309,773	59,430	74,554	153,982	21,807
Gadsden	242,495	79,672	51,520	102,723	8,580
Gulf	293,027	80,286	58,298	122,315	32,128
Holmes	184,664	60,169	35,601	83,226	5,668
Jackson	284,617	102,053	63,199	97,796	21,569
Jefferson	279,715	129,953	39,214	77,289	33,259
Leon	294,872	129,712	45,818	109,056	10,286
Liberty	500,791	223,244	95,326	126,875	55,346
Okaloosa	428,524	181,735	95,261	98,380	53,148
Santa Rosa	475,212	189,743	131,071	134,727	19,671
Wakulla	311,635	151,571	34,875	106,812	18,377
Walton	508,291	145,357	117,766	145,083	100,085
Washington	287,894	56,518	73,896	105,214	52,266
Total	5,346,458	1,815,472	1,169,826	1,814,719	546,441

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

County	All classes	Site class (cubic feet per acre per year)				
		>164	120-164	85-119	50-84	20-49
	Acres					
Bay	400,032	--	--	10,693	223,650	165,689
Calhoun	298,800	--	7,641	33,580	202,845	54,734
Escambia	246,116	2,592	--	24,847	199,167	19,510
Franklin	309,773	--	1,924	3,648	116,604	187,597
Gadsden	242,495	--	5,954	53,933	157,036	25,572
Gulf	293,027	--	--	5,587	140,779	146,661
Holmes	184,664	--	--	47,303	112,730	24,631
Jackson	284,617	--	14,473	46,903	189,732	33,509
Jefferson	279,715	--	13,465	48,810	188,614	28,826
Leon	294,872	--	7,422	39,864	159,176	88,410
Liberty	500,791	--	--	45,482	269,770	185,539
Okaloosa	428,524	--	--	31,782	170,806	225,936
Santa Rosa	475,212	--	22,300	99,353	243,070	110,489
Wakulla	311,635	--	--	34,533	156,678	120,424
Walton	508,291	--	--	23,410	263,911	220,970
Washington	287,894	--	4,192	26,453	110,717	146,532
Total	5,346,458	2,592	77,371	576,181	2,905,285	1,785,029

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

County	All classes	Stocking class (percent)[a]				
		>130	100-130	60-99	16.7-59	<16.7
	Acres					
Bay	400,032	8,262	118,052	116,581	82,297	74,840
Calhoun	298,800	--	85,148	122,757	54,457	36,438
Escambia	246,116	21,335	79,725	102,070	40,013	2,973
Franklin	309,773	10,627	97,709	121,649	57,981	21,807
Gadsden	242,495	11,673	62,718	107,979	51,545	8,580
Gulf	293,027	14,296	67,029	98,508	81,066	32,128
Holmes	184,664	2,659	65,129	70,625	40,583	5,668
Jackson	284,617	8,035	103,370	113,715	37,928	21,569
Jefferson	279,715	12,822	45,081	136,936	51,617	33,259
Leon	294,872	2,475	77,222	145,785	59,104	10,286
Liberty	500,791	18,523	96,738	205,213	124,971	55,346
Okaloosa	428,524	14,759	43,639	151,809	165,169	53,148
Santa Rosa	475,212	32,278	138,885	172,246	112,132	19,671
Wakulla	311,635	10,215	63,132	112,920	106,991	18,377
Walton	508,291	18,937	70,323	202,478	116,468	100,085
Washington	287,894	2,438	70,591	105,152	57,447	52,266
Total	5,346,458	189,334	1,284,491	2,086,423	1,239,769	546,441

[a]See stocking standards on page 11.

Table 7.--Volume of growing stock and sawtimber on timberland, by county and species group, Northwest 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				
Bay	168,861	133,873	8,741	17,235	9,012	289,017	204,467	23,163	54,131	7,256
Calhoun	247,070	141,938	19,176	52,030	33,926	757,979	383,980	84,074	166,237	123,688
Escambia	322,810	177,563	5,671	106,152	33,424	1,138,189	615,946	22,974	390,774	108,495
Franklin	223,161	108,866	46,106	60,526	7,663	668,255	293,853	139,351	211,770	23,281
Gadsden	235,374	93,291	--	72,935	69,148	802,131	360,491	--	211,514	230,126
Gulf	220,673	57,806	58,632	85,083	19,152	655,935	131,429	182,153	269,331	73,022
Holmes	167,021	68,039	8,662	68,736	21,584	512,960	263,285	36,071	143,459	70,145
Jackson	328,367	116,200	21,101	103,980	87,086	1,074,208	451,855	79,731	254,487	288,135
Jefferson	345,506	88,676	40,431	130,731	85,668	1,213,020	402,779	162,196	365,248	282,797
Leon	314,153	160,318	6,202	78,104	69,529	1,109,015	632,840	16,045	223,254	236,876
Liberty	542,876	230,902	94,064	152,652	65,258	1,913,295	786,016	387,126	476,004	264,149
Okaloosa	387,051	292,081	15,448	51,167	28,355	1,349,401	1,082,601	71,811	98,163	96,826
Santa Rosa	568,392	356,429	50,534	124,259	37,170	1,769,373	1,179,542	190,253	300,831	98,747
Wakulla	306,381	172,923	7,412	69,522	56,524	1,153,274	733,552	30,474	206,309	182,939
Walton	424,410	280,951	11,695	103,363	28,401	1,349,353	943,836	50,457	290,896	64,164
Washington	236,240	63,217	50,421	77,647	44,955	727,784	204,343	253,473	147,188	122,780
Total	5,038,346	2,543,073	444,296	1,354,122	696,855	16,483,189	8,670,815	1,729,352	3,809,596	2,273,426

[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, Northwest Florida, 1979-1986

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				
Bay	14,598	13,784	194	296	324	16,497	14,878	245	731	643
Calhoun	12,169	9,807	325	1,149	888	32,332	23,162	2,402	3,440	3,328
Escambia	11,614	8,889	140	1,516	1,069	46,460	36,243	613	5,351	4,253
Franklin	10,990	9,583	715	593	99	18,663	13,062	2,425	2,682	494
Gadsden	9,114	5,461	---	1,780	1,873	32,525	15,596	--	7,277	9,652
Gulf	5,927	3,577	1,134	906	310	15,353	5,895	4,431	3,603	1,424
Holmes	6,571	4,094	164	1,402	911	18,919	12,924	930	2,696	2,369
Jackson	10,008	5,221	487	2,003	2,297	42,032	23,954	1,715	5,340	11,023
Jefferson	9,972	3,880	615	2,996	2,481	42,071	16,670	4,366	10,748	10,287
Leon	11,100	7,017	134	1,865	2,084	47,880	31,500	293	6,485	9,602
Liberty	14,429	9,718	1,145	2,309	1,257	48,702	27,290	5,819	8,247	7,346
Okaloosa	14,473	12,137	245	1,310	781	54,517	46,785	1,475	2,802	3,455
Santa Rosa	21,435	16,438	1,064	2,558	1,375	85,510	69,405	5,728	6,653	3,724
Wakulla	10,332	7,114	221	1,367	1,630	35,780	24,710	543	4,406	6,121
Walton	16,703	14,008	234	1,480	981	73,094	60,615	1,116	6,634	4,729
Washington	8,366	4,609	708	1,670	1,379	24,058	10,867	4,322	4,943	3,926
Total	187,801	135,337	7,525	25,200	19,739	634,393	433,556	36,423	82,038	82,376

Table 9.--Average annual removals of growing stock and sawtimber on timberland, by county and species group, Northwest Florida, 1979-1986

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				
Bay	12,015	11,891	--	--	124	25,953	25,953	--	--	--
Calhoun	9,499	9,044	--	271	184	28,800	27,327	--	806	667
Escambia	8,815	8,815	--	--	--	24,208	24,208	--	--	--
Franklin	6,377	6,199	178	--	--	17,872	17,464	408	--	--
Gadsden	12,377	8,626	--	2,203	1,548	43,961	28,453	--	8,844	6,664
Gulf	7,702	6,386	54	967	295	30,925	27,391	--	2,203	1,331
Holmes	9,435	7,714	--	409	1,312	23,996	19,876	--	261	3,859
Jackson	10,436	7,851	--	166	2,419	26,703	21,535	--	--	5,168
Jefferson	16,580	14,013	--	484	2,083	64,680	57,865	--	1,637	5,178
Leon	11,125	9,108	--	734	1,283	39,303	32,723	--	2,607	3,973
Liberty	11,919	9,940	200	856	923	37,721	29,764	188	3,055	4,714
Okaloosa	5,733	4,937	--	394	402	19,645	17,793	--	1,206	646
Santa Rosa	14,675	14,278	273	124	--	43,479	42,717	762	--	--
Wakulla	10,123	8,197	--	276	1,650	29,789	24,031	--	1,451	4,307
Walton	10,460	8,673	260	557	970	28,131	22,931	1,166	1,651	2,383
Washington	5,519	4,662	44	65	748	8,728	8,060	--	--	668
Total	162,790	140,334	1,009	7,506	13,941	493,894	428,091	2,524	23,721	39,558

Table 10.--Area of timberland, by forest type and ownership class, Northwest 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	565,177	118,994	193,457	85,024	--	167,702
Slash pine	1,717,777	206,265	154,463	891,240	31,427	434,382
Loblolly pine	347,452	4,667	26,074	140,426	15,166	161,119
Shortleaf pine	30,061	--	937	8,691	--	20,433
Virginia pine	--	--	--	--	--	--
Sand pine	244,114	--	81,518	89,560	--	73,036
Eastern redcedar	--	--	--	--	--	--
Pond pine	45,973	32,252	--	11,061	--	2,660
Spruce pine	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--
Total	2,950,554	362,178	456,449	1,226,002	46,593	859,332
Hardwood types						
Oak-pine	517,586	42,906	92,420	145,579	5,898	230,783
Oak-hickory	293,646	--	23,193	79,841	--	190,612
Chestnut oak	--	--	--	--	--	--
Southern scrub oak	261,478	5,347	59,489	67,711	5,898	123,033
Oak-gum-cypress	1,292,621	104,290	198,808	428,909	11,797	548,817
Elm-ash-cottonwood	30,573	--	6,700	13,042	--	10,831
Maple-beech-birch	--	--	--	--	--	--
Total	2,395,904	152,543	380,610	735,082	23,593	1,104,076
All types	5,346,458	514,721	837,059	1,961,084	70,186	1,963,408

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

Ownership class	All classes	Stocking class (percent)[a]				
		>130	100-130	60-99	16.7-59	<16.7
	Acres					
National forest	514,721	17,381	94,662	200,046	159,767	42,865
Other public	837,059	55,609	133,194	314,558	271,289	62,409
Forest industry	1,961,084	73,229	604,862	702,640	347,456	232,897
Forest industry-leased	70,186	2,426	15,801	28,366	5,898	17,695
Other private	1,963,408	40,689	435,972	840,813	455,359	190,575
All ownerships	5,346,458	189,334	1,284,491	2,086,423	1,239,769	546,441

[a]See stocking standards on page 11.

Table 12.--Area of timberland, by forest type and stand-size class, Northwest 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	565,177	345,714	53,719	126,543	39,201
Slash pine	1,717,777	297,912	542,591	786,090	91,184
Loblolly pine	347,452	87,747	58,720	196,145	4,840
Shortleaf pine	30,061	21,370	8,691	--	--
Virginia pine	--	--	--	--	--
Sand pine	244,114	41,373	62,113	130,135	10,493
Eastern redcedar	--	--	--	--	--
Pond pine	45,973	15,953	24,510	--	5,510
Spruce pine	--	--	--	--	--
Pitch pine	--	--	--	--	--
Table Mountain pine	--	--	--	--	--
Total	2,950,554	810,069	750,344	1,238,913	151,228
Hardwood types					
Oak-pine	517,586	216,817	80,629	177,890	42,250
Oak-hickory	293,646	90,493	55,290	107,446	40,417
Chestnut oak	--	--	--	--	--
Southern scrub oak	261,478	11,961	2,438	41,671	205,408
Oak-gum-cypress	1,292,621	658,377	281,125	245,981	107,138
Elm-ash-cottonwood	30,573	27,755	--	2,818	--
Maple-beech-birch	--	--	--	--	--
Total	2,395,904	1,005,403	419,482	575,806	395,213
All types	5,346,458	1,815,472	1,169,826	1,814,719	546,441

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

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
			Acres			
0-10	964,959	638,129	122,531	54,465	70,281	79,553
11-20	651,897	451,922	82,728	42,609	31,887	42,751
21-30	465,657	294,672	93,705	13,767	9,503	54,010
31-40	434,477	56,991	216,922	42,830	23,389	94,345
41-50	373,716	8,439	220,530	40,098	19,500	85,149
51-60	372,052	--	154,536	40,956	18,290	158,270
61-70	213,335	2,617	56,556	14,760	8,121	131,281
71-80	122,940	--	31,074	8,111	5,077	78,678
81+	171,568	--	10,940	11,208	5,396	144,024
No manageable stand	1,575,857	30,822	477,440	248,782	363,680	455,133
All classes	5,346,458	1,483,592	1,466,962	517,586	555,124	1,323,194

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

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
			Acres			
0-10	114,603	59,860	32,032	5,688	14,418	2,605
11-20	88,654	62,184	22,822	2,712	--	936
21-30	61,857	36,390	22,784	--	--	2,683
31-40	101,720	12,652	71,011	14,238	--	3,819
41-50	120,190	2,604	108,850	--	--	8,736
51-60	159,210	--	112,572	11,204	--	35,434
61-70	105,720	--	40,561	5,547	--	59,612
71-80	68,807	--	26,294	--	2,603	39,910
81+	82,333	--	10,940	2,668	--	68,725
No manageable stand	448,686	8,137	188,934	93,269	71,008	87,338
All classes	1,351,780	181,827	636,800	135,326	88,029	309,798

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

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
			Acres			
0-10	483,267	390,793	28,069	25,979	21,492	16,934
11-20	391,441	330,714	14,864	21,496	2,973	21,394
21-30	209,230	163,546	31,583	2,770	--	11,331
31-40	109,744	25,834	56,301	2,578	2,860	22,171
41-50	94,963	3,132	43,587	21,567	3,779	22,898
51-60	99,603	--	22,524	11,395	5,375	60,309
61-70	39,297	2,617	10,966	3,778	--	21,936
71-80	31,495	--	2,618	--	--	28,877
81+	62,965	--	--	8,540	--	54,425
No manageable stand	509,265	12,462	132,985	53,374	116,971	193,473
All classes	2,031,270	929,098	343,497	151,477	153,450	453,748

[a]Includes 70,186 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] Northwest Florida, 1987

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
			Acres			
0-10	367,089	187,476	62,430	22,798	34,371	60,014
11-20	171,802	59,024	45,042	18,401	28,914	20,421
21-30	194,570	94,736	39,338	10,997	9,503	39,996
31-40	223,013	18,505	89,610	26,014	20,529	68,355
41-50	158,563	2,703	68,093	18,531	15,721	53,515
51-60	113,239	--	19,440	18,357	12,915	62,527
61-70	68,318	--	5,029	5,435	8,121	49,733
71-80	22,638	--	2,162	8,111	2,474	9,891
81+	26,270	--	--	--	5,396	20,874
No manageable stand	617,906	10,223	155,521	102,139	175,701	174,322
All classes	1,963,408	372,667	486,665	230,783	313,645	559,648

[a]Excludes 70,186 acres of other private land under long-term lease to forest industry.

Table 17.--Area of timberland, by broad management and stand-volume classes, Northwest 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	1,483,592	1,039,675	202,480	126,217	63,059	52,161
Natural pine	1,466,962	512,483	311,982	218,601	184,458	239,438
Oak-pine	517,586	256,676	74,070	62,882	51,507	72,451
Upland hardwood	555,124	409,419	50,332	37,446	34,021	23,906
Lowland hardwood	1,323,194	387,748	194,354	196,415	151,153	393,524
All classes	5,346,458	2,606,001	833,218	641,561	484,198	781,480

Table 18.--Volume of growing stock on timberland, by broad management class, species group, and stand-age class, Northwest 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	590,919	4,124	9,886	177,047	296,442	85,607	12,933	--	4,880	--	--
Hardwood	12,453	--	2,390	1,224	6,588	1,523	728	--	--	--	--
Total	603,372	4,124	12,276	178,271	303,030	87,130	13,661	--	4,880	--	--
Natural pine											
Softwood	1,529,325	190,070	22,692	41,659	101,908	331,132	385,499	261,302	101,431	83,106	10,526
Hardwood	97,670	8,659	934	1,799	8,191	15,649	37,995	10,060	4,894	9,489	--
Total	1,626,995	198,729	23,626	43,458	110,099	346,781	423,494	271,362	106,325	92,595	10,526
Oak-pine											
Softwood	320,209	87,472	5,335	11,679	10,745	41,302	55,019	48,411	25,014	12,343	22,889
Hardwood	177,282	22,174	2,618	4,104	8,184	28,640	44,451	41,095	9,854	7,618	8,544
Total	497,491	109,646	7,953	15,783	18,929	69,942	99,470	89,506	34,868	19,961	31,433
Upland hardwood											
Softwood	41,111	19,005	3,661	5,953	555	3,294	3,147	2,471	--	1,450	1,575
Hardwood	202,920	38,802	8,967	15,551	10,843	28,416	24,671	32,344	19,533	12,440	11,353
Total	244,031	57,807	12,628	21,504	11,398	31,710	27,818	34,815	19,533	13,890	12,928
Lowland hardwood											
Softwood	505,805	35,646	6,773	2,975	14,270	31,549	28,493	94,223	56,412	58,040	177,424
Hardwood	1,560,652	154,791	19,453	24,592	35,531	138,975	142,890	286,024	274,809	179,074	304,513
Total	2,066,457	190,437	26,226	27,567	49,801	170,524	171,383	380,247	331,221	237,114	481,937
All types											
Softwood	2,987,369	336,317	48,347	239,313	423,920	492,884	485,091	406,407	187,737	154,939	212,414
Hardwood	2,050,977	224,426	34,362	47,270	69,337	213,203	250,735	369,523	309,090	208,621	324,410
Total	5,038,346	560,743	82,709	286,583	493,257	706,087	735,826	775,930	496,827	363,560	536,824

Table 19.--Average net annual growth of growing stock on timberland, by broad management class, species group, and stand-age class, Northwest Florida, 1979-1986

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	70,722	323	3,971	35,546	25,169	4,792	789	--	132	--	--
Hardwood	879	--	53	318	419	64	25	--	--	--	--
Total	71,601	323	4,024	35,864	25,588	4,856	814	--	132	--	--
Natural pine											
Softwood	50,405	6,083	1,416	2,588	5,849	13,484	10,616	6,391	2,388	1,390	200
Hardwood	3,632	368	25	28	287	708	1,477	296	212	231	--
Total	54,037	6,451	1,441	2,616	6,136	14,192	12,093	6,687	2,600	1,621	200
Oak-pine											
Softwood	10,462	3,318	229	981	542	1,251	1,570	1,459	422	273	417
Hardwood	4,891	813	88	412	260	864	1,165	870	141	142	136
Total	15,353	4,131	317	1,393	802	2,115	2,735	2,329	563	415	553
Upland hardwood											
Softwood	1,616	618	258	251	15	206	121	63	--	39	45
Hardwood	5,967	1,007	396	842	587	961	659	739	352	233	191
Total	7,583	1,625	654	1,093	602	1,167	780	802	352	272	236
Lowland hardwood											
Softwood	9,657	1,197	271	81	385	943	844	1,851	1,004	933	2,148
Hardwood	29,570	4,200	605	1,257	1,219	3,302	3,114	5,373	4,539	2,388	3,573
Total	39,227	5,397	876	1,338	1,604	4,245	3,958	7,224	5,543	3,321	5,721
All types											
Softwood	142,862	11,539	6,145	39,447	31,960	20,676	13,940	9,764	3,946	2,635	2,810
Hardwood	44,939	6,388	1,167	2,857	2,772	5,899	6,440	7,278	5,244	2,994	3,900
Total	187,801	17,927	7,312	42,304	34,732	26,575	20,380	17,042	9,190	5,629	6,710

[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, Northwest Florida, 1979-1986

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	43,373	372	525	10,759	28,819	2,898	--	--	--	--	--
Hardwood	363	--	--	58	196	109	--	--	--	--	--
Total	43,736	372	525	10,817	29,015	3,007	--	--	--	--	--
Natural pine											
Softwood	86,828	8,780	734	2,729	7,983	24,091	27,208	10,857	2,700	299	1,447
Hardwood	2,946	125	--	149	694	419	1,303	193	--	63	--
Total	89,774	8,905	734	2,878	8,677	24,510	28,511	11,050	2,700	362	1,447
Oak-pine											
Softwood	7,393	3,794	93	297	1,234	121	--	745	1,109	--	--
Hardwood	2,851	1,544	94	--	840	223	150	--	--	--	--
Total	10,244	5,338	187	297	2,074	344	150	745	1,109	--	--
Upland hardwood											
Softwood	1,323	1,117	--	60	146	--	--	--	--	--	--
Hardwood	5,234	1,127	603	--	1,549	720	70	536	--	629	--
Total	6,557	2,244	603	60	1,695	720	70	536	--	629	--
Lowland hardwood											
Softwood	2,426	457	160	--	--	490	259	406	565	89	--
Hardwood	10,053	2,031	--	150	--	1,382	2,472	1,418	1,739	861	--
Total	12,479	2,488	160	150	--	1,872	2,731	1,824	2,304	950	--
All types											
Softwood	141,343	14,520	1,512	13,845	38,182	27,600	27,467	12,008	4,374	388	1,447
Hardwood	21,447	4,827	697	357	3,279	2,853	3,995	2,147	1,739	1,553	--
Total	162,790	19,347	2,209	14,202	41,461	30,453	31,462	14,155	6,113	1,941	1,447

[a]Classifications before timber removals.

Table 21.--Merchantable volume of live trees and growing stock on timberland, by forest-type and species groups, Northwest 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	1,783,874	1,665,253	17,161	50,158	51,302	1,751,163	1,662,459	15,402	43,518	29,784
Loblolly-shortleaf pine	500,728	444,626	2,216	13,481	40,405	479,204	440,167	2,216	11,122	25,699
Oak-pine	550,423	285,929	37,940	114,949	111,605	497,491	284,285	35,924	98,313	78,969
Oak-hickory	295,851	41,111	--	61,414	193,326	244,031	41,111	--	55,147	147,773
Oak-gum-cypress	2,434,711	116,079	424,994	1,331,511	562,127	2,013,837	114,202	390,754	1,113,016	395,865
Elm-ash-cottonwood	64,622	849	--	40,855	22,918	52,620	849	--	33,006	18,765
Maple-beech-birch	--	--	--	--	--	--	--	--	--	--
All types	5,630,209	2,553,847	482,311	1,612,368	981,683	5,038,346	2,543,073	444,296	1,354,122	696,855

Table 22.--Area of timberland treated or disturbed annually and retained in timberland, by treatment or disturbance and ownership class, Northwest Florida, 1979 to 1987

Treatment or disturbance	All ownerships	Ownership class			
		Public	Forest industry	Forest industry-leased	Other private
	Acres[a]				
Final harvest	122,172	12,675	66,441	2,571	40,485
Partial harvest[b]	13,737	3,928	3,889	--	5,920
Commercial thinning	21,721	9,041	4,962	106	7,612
Other stand improvement	1,055	688	--	--	367
Site preparation	81,568	8,784	53,247	2,571	16,966
Artificial regeneration[c]	76,438	7,320	45,683	1,059	22,376
Natural regeneration[c]	37,524	5,585	7,900	--	24,039
Other treatment	6,268	1,725	1,022	--	3,521
Natural disturbance	38,585	6,914	14,122	--	17,549

[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, Northwest Florida, 1979 to 1987

Treatment or disturbance	All classes	Broad management class[a]				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
	Acres[b]					
Final harvest	122,172	30,782	62,909	9,485	10,346	8,650
Partial harvest[c]	13,737	707	6,569	2,405	595	3,461
Commercial thinning	21,721	9,677	11,391	322	--	331
Other stand improvement	1,055	--	1,055	--	--	--
Site preparation	81,568	22,446	35,484	5,340	12,744	5,554
Other treatment	6,268	--	3,037	1,253	1,288	690
Natural disturbance	38,585	10,234	10,850	4,112	2,955	10,434

[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, Northwest Florida, 1979 to 1986

Type of regeneration	All classes	Broad management class[a]				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
	Acres					
Artificial regeneration following harvest	46,836	44,681	--	1,783	372	--
Natural regeneration following harvest	19,672	--	5,597	1,801	4,896	7,378
Other artificial regeneration on forest land	19,981	18,949	--	1,032	--	--
Other natural regeneration on forest land	11,001	--	6,015	1,613	992	2,381
Artificial regeneration on nonforest land	9,621	9,621	--	--	--	--
Natural reversion of nonforest land	6,851	--	4,512	1,025	634	680
Total	113,962	73,251	16,124	7,254	6,894	10,439

[a]Classification after regeneration.

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

Treatment opportunity class	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
	Acres					
Salvage	20,505	5,402	9,926	--	--	5,177
Harvest	173,937	2,617	39,384	11,208	10,591	110,137
Commercial thinning	90,863	79,148	9,277	--	--	2,438
Other stand improvement	225,715	13,634	79,233	23,780	40,846	68,222
Stand conversion	68,845	7,850	6,614	11,907	12,528	29,946
Regeneration	1,501,766	30,822	468,856	244,949	363,680	393,459
Stands in relatively good condition	2,993,320	1,344,119	842,926	212,297	127,479	466,499
Adverse sites[a]	271,507	--	10,746	13,445	--	247,316
All classes	5,346,458	1,483,592	1,466,962	517,586	555,124	1,323,194

[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, Northwest Florida, 1987

Treatment opportunity class	All ownerships	Ownership class			
		Public	Forest industry	Forest industry-leased	Other private
	Acres				
Salvage	20,505	3,187	12,141	--	5,177
Harvest	173,937	72,995	68,014	--	32,928
Commercial thinning	90,863	13,586	53,582	2,426	21,269
Other stand improvement	225,715	40,570	53,516	--	131,629
Stand conversion	68,845	6,705	23,159	--	38,981
Regeneration	1,501,766	424,765	461,769	17,695	597,537
Stands in relatively good condition	2,993,320	682,080	1,204,270	50,065	1,056,905
Adverse sites[a]	271,507	107,892	84,633	--	78,982
All classes	5,346,458	1,351,780	1,961,084	70,186	1,963,408

[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, Northwest 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	604,386	347,878	85,979	137,371	33,158	554,369	346,927	72,235	113,853	21,354
Other public	1,269,613	614,511	93,990	345,665	215,447	1,095,247	611,327	88,358	277,521	118,041
Forest industry	1,507,613	673,641	176,434	460,954	196,584	1,380,223	671,436	162,924	397,120	148,743
Forest industry-leased	21,128	20,292	--	--	836	20,974	20,292	--	--	682
Other private	2,227,469	897,525	125,908	668,378	535,658	1,987,533	893,091	120,779	565,628	408,035
All ownerships	5,630,209	2,553,847	482,311	1,612,368	981,683	5,038,346	2,543,073	444,296	1,354,122	696,855

Table 28.--Volume of sawtimber on timberland, by ownership class and species group, Northwest 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	1,220,363	988,676	123,114	81,268	27,305	691,938	332,329	93,176	214,924	51,509
Other public	2,079,715	1,563,239	129,829	260,988	125,659	2,204,134	966,915	279,215	674,395	283,609
Forest industry	1,806,641	1,027,866	226,190	416,004	136,581	2,030,442	453,454	395,202	748,406	433,380
Forest industry-leased	21,736	21,736	--	--	--	2,418	--	--	--	2,418
Other private	3,362,670	2,097,416	174,198	641,732	449,324	3,063,132	1,219,184	308,428	771,879	763,641
All ownerships	8,491,125	5,698,933	653,331	1,399,992	738,869	7,992,064	2,971,882	1,076,021	2,409,604	1,534,557

[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, Northwest Florida, 1979-1986

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	13,604	10,294	772	2,061	477	12,453	12,402	--	51	--
Other public	29,184	21,124	1,292	4,124	2,644	9,335	8,598	93	154	490
Forest industry	72,845	58,863	3,113	7,036	3,833	75,901	67,157	602	3,131	5,011
Forest industry-leased	1,810	1,780	--	4	26	1,578	1,578	--	--	--
Other private	70,358	43,276	2,348	11,975	12,759	63,523	50,599	314	4,170	8,440
All ownerships	187,801	135,337	7,525	25,200	19,739	162,790	140,334	1,009	7,506	13,941

Table 30.--Average net annual growth and removals of sawtimber on timberland, by ownership class and species group, Northwest Flordia, 1979-1986

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	52,408	41,402	3,301	5,336	2,369	41,311	41,311	--	--	--
Other public	141,406	105,033	7,570	15,710	13,093	28,885	27,496	--	348	1,041
Forest industry	162,828	109,239	13,595	25,412	14,582	231,826	200,857	1,358	9,881	19,730
Forest industry-leased	2,535	2,475	--	--	60	2,857	2,857	--	--	--
Other private	275,216	175,407	11,957	35,580	52,272	189,015	155,570	1,166	13,492	18,787
All ownerships	634,393	433,556	36,423	82,038	82,376	493,894	428,091	2,524	23,721	39,558

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

Class of timber	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	- - - - - - - - - Thousand cubic feet - - - - - - - - -				
Sawtimber trees					
Saw-log portion	3,057,074	1,585,255	326,311	730,961	414,547
Upper-stem portion[a]	388,687	151,512	32,011	135,945	69,219
Total	3,445,761	1,736,767	358,322	866,906	483,766
Poletimber trees	1,592,585	806,306	85,974	487,216	213,089
All growing-stock trees	5,038,346	2,543,073	444,296	1,354,122	696,855
Rough trees					
Sawtimber size	252,178	6,495	11,179	103,975	130,529
Poletimber size	253,368	4,279	8,039	105,697	135,353
Total	505,546	10,774	19,218	209,672	265,882
Rotten trees					
Sawtimber size	77,636	--	17,174	43,224	17,238
Poletimber size	8,681	--	1,623	5,350	1,708
Total	86,317	--	18,797	48,574	18,946
Salvable dead trees					
Sawtimber size	7,335	5,213	521	765	836
Poletimber size	2,682	1,984	34	334	330
Total	10,017	7,197	555	1,099	1,166
Total, all timber	5,640,226	2,561,044	482,866	1,613,467	982,849

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

Table 32.--Number of live trees on timberland, by species and diameter class, Northwest 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	109,412	38,464	17,931	11,574	11,174	11,553	10,182	5,996	2,030	387	91	30	--
Slash pine	583,952	193,716	197,958	120,880	39,488	15,849	7,937	4,506	2,004	978	374	251	11
Shortleaf pine	8,391	2,243	2,003	1,084	1,123	693	495	428	190	80	18	30	4
Loblolly pine	111,042	51,481	31,438	12,955	5,933	2,978	2,041	1,539	1,155	727	393	383	19
Pond pine	10,042	2,757	2,273	1,878	1,553	639	487	200	165	48	27	15	--
Virginia pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	5,201	2,246	984	1,068	160	194	165	141	98	69	46	30	--
Sand pine	72,641	33,997	16,625	11,439	6,387	2,530	951	420	224	58	10	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	14,113	5,020	2,601	2,235	1,260	749	483	333	402	331	266	300	133
Pondcypress	85,780	39,754	18,178	10,820	6,430	3,872	2,608	1,808	948	531	357	407	67
Cedars	29,192	17,242	4,687	2,041	1,899	1,401	858	487	368	89	70	50	--
Total softwoods	1,029,766	386,920	294,678	175,974	75,407	40,458	26,207	15,858	7,584	3,298	1,652	1,496	234
Hardwood													
Select white oaks	7,056	3,033	1,938	746	419	255	247	187	104	72	27	28	--
Select red oaks	405	331	--	--	49	--	--	--	--	11	9	5	--
Chestnut oak	--	--	--	--	--	--	--	--	--	--	--	--	--
Other white oaks	51,767	30,091	10,685	4,258	2,175	1,288	791	792	498	353	246	470	120
Other red oaks	302,117	213,656	43,655	17,884	9,819	6,456	4,373	2,370	1,672	866	601	659	106
Hickory	12,393	6,329	2,701	866	932	338	428	395	207	93	66	38	--
Yellow birch	--	--	--	--	--	--	--	--	--	--	--	--	--
Hard maple	1,811	999	327	194	122	--	136	--	13	20	--	--	--
Soft maple	70,226	52,898	9,228	3,378	2,391	1,059	471	456	177	126	10	32	--
Beech	1,593	324	824	111	80	--	78	60	29	36	20	27	4
Sweetgum	78,451	48,062	14,056	6,388	3,312	2,644	1,930	944	571	245	176	115	8
Tupelo and blackgum	379,415	221,166	78,854	32,933	18,435	9,004	6,747	4,639	2,839	1,661	1,182	1,666	289
Ash	78,758	52,669	14,587	6,620	1,955	1,102	711	424	221	159	107	166	37
Cottonwood	12	--	--	--	--	--	--	--	--	--	--	12	--
Basswood	17	--	--	--	--	--	--	--	17	--	--	--	--
Yellow-poplar	13,855	6,609	2,375	2,245	691	485	668	265	266	77	89	81	4
Bay and magnolia	216,608	127,372	44,720	18,773	11,017	6,154	4,527	1,780	1,089	664	224	269	19
Black cherry	9,177	6,126	2,075	475	235	79	107	58	--	22	--	--	--
Black walnut	162	162	--	--	--	--	--	--	--	--	--	--	--
Sycamore	394	--	156	--	51	--	81	19	14	47	8	14	4
Black locust	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm	8,827	4,412	1,951	1,186	371	357	168	213	92	33	18	26	--
Other eastern hardwoods	452,340	326,975	87,924	26,060	6,428	3,091	622	415	180	186	184	218	57
Total hardwoods	1,685,384	1,101,214	316,056	122,117	58,482	32,312	22,085	13,017	7,989	4,671	2,967	3,826	648
All species	2,715,150	1,488,134	610,734	298,091	133,889	72,770	48,292	28,875	15,573	7,969	4,619	5,322	882

Table 33.--Number of growing-stock trees on timberland, by species and diameter class, Northwest 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	105,752	35,472	17,619	11,332	11,174	11,520	10,132	5,978	2,017	387	91	30	--
Slash pine	568,004	181,507	194,610	120,553	39,439	15,849	7,937	4,506	1,989	978	374	251	11
Shortleaf pine	8,065	1,917	2,003	1,084	1,123	693	495	428	190	80	18	30	4
Loblolly pine	107,928	49,051	30,925	12,955	5,804	2,943	2,041	1,539	1,155	727	393	376	19
Pond pine	8,225	1,620	1,949	1,667	1,432	639	463	200	165	48	27	15	--
Virginia pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	4,194	1,277	984	1,068	160	194	165	118	83	69	46	30	--
Sand pine	68,110	30,769	15,846	11,338	6,152	2,381	926	420	210	58	10	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	12,123	3,509	2,264	2,235	1,260	749	432	316	402	319	258	295	84
Pondcypress	68,703	30,222	15,499	8,854	5,329	3,030	2,395	1,545	765	367	319	331	47
Cedars	25,113	15,104	3,474	1,759	1,594	1,360	791	471	351	89	70	50	--
Total softwoods	976,217	350,448	285,173	172,845	73,467	39,358	25,777	15,521	7,327	3,122	1,606	1,408	165
Hardwood													
Select white oaks	5,660	2,057	1,626	746	343	255	215	187	104	72	27	28	--
Select red oaks	234	160	--	--	49	--	--	--	--	11	9	5	--
Chestnut oak	--	--	--	--	--	--	--	--	--	--	--	--	--
Other white oaks	13,513	6,042	2,371	1,331	1,335	797	233	462	304	173	188	249	28
Other red oaks	218,125	144,043	34,631	15,383	8,565	5,943	4,069	2,117	1,469	757	516	551	81
Hickory	7,485	3,406	1,402	738	609	296	370	357	161	57	57	32	--
Yellow birch	--	--	--	--	--	--	--	--	--	--	--	--	--
Hard maple	477	171	156	117	--	--	--	--	13	20	--	--	--
Soft maple	24,165	15,963	4,219	1,328	1,244	650	285	282	91	71	10	22	--
Beech	848	161	334	111	80	--	50	60	13	12	10	13	4
Sweetgum	53,112	27,706	10,132	5,809	3,108	2,575	1,818	905	540	245	176	94	4
Tupelo and blackgum	193,926	82,562	50,807	24,615	14,020	7,155	5,163	3,671	2,371	1,250	993	1,173	146
Ash	17,651	10,848	2,794	1,637	809	403	425	254	132	136	87	110	16
Cottonwood	6	--	--	--	--	--	--	--	--	--	--	6	--
Basswood	17	--	--	--	--	--	--	--	17	--	--	--	--
Yellow-poplar	10,444	3,737	2,052	2,113	691	485	617	265	251	77	71	81	4
Bay and magnolia	134,043	71,205	28,781	13,830	8,435	5,146	3,458	1,346	910	535	188	194	15
Black cherry	5,058	2,905	1,267	475	183	79	80	58	--	11	--	--	--
Black walnut	--	--	--	--	--	--	--	--	--	--	--	--	--
Sycamore	394	--	156	--	51	--	81	19	14	47	8	14	4
Black locust	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm	2,855	1,152	652	88	371	145	85	193	92	33	18	26	--
Other eastern hardwoods	6,823	3,808	1,487	435	409	281	96	192	29	60	26	--	--
Total hardwoods	694,836	375,926	142,867	68,756	40,302	24,210	17,045	10,368	6,511	3,567	2,384	2,598	302
All species	1,671,053	726,374	428,040	241,601	113,769	63,568	42,822	25,889	13,838	6,689	3,990	4,006	467

Table 34.--Merchantable volume of live trees on timberland, by species and diameter class, Northwest 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	735,853	35,089	81,279	150,150	199,720	169,207	73,736	18,344	5,039	3,289	--
Slash pine	1,204,842	287,108	243,591	194,452	163,162	132,353	80,259	51,978	25,866	23,878	2,195
Shortleaf pine	59,157	3,484	8,171	9,078	9,362	12,723	7,593	3,927	1,592	2,519	708
Loblolly pine	339,552	28,629	33,149	33,953	42,406	45,885	46,786	39,235	26,704	39,158	3,647
Pond pine	47,698	4,404	8,852	7,077	9,431	6,022	6,470	2,391	1,814	1,237	--
Virginia pine	--	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	30,782	3,982	1,353	2,405	3,164	4,187	4,382	4,030	3,430	3,849	--
Sand pine	135,963	32,505	38,989	28,259	15,775	10,478	7,289	2,291	377	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	132,039	7,098	8,537	8,455	7,703	7,763	13,216	14,562	14,954	26,418	23,333
Pondcypress	267,618	29,116	35,381	36,144	37,088	36,522	25,316	16,972	16,618	27,252	7,209
Cedars	82,654	5,270	10,234	15,659	14,068	12,317	12,617	4,497	3,971	4,021	--
Total softwoods	3,036,158	436,685	469,536	485,632	501,879	437,457	277,664	158,227	100,365	131,621	37,092
Hardwood											
Select white oaks	27,940	1,869	2,283	3,082	4,115	5,180	4,134	3,108	2,088	2,081	--
Select red oaks	2,145	--	235	--	--	--	--	481	580	849	--
Chestnut oak	--	--	--	--	--	--	--	--	--	--	--
Other white oaks	147,513	9,373	9,104	10,799	9,373	16,139	15,201	13,224	12,310	34,575	17,415
Other red oaks	516,778	48,631	58,112	73,515	76,344	58,139	56,766	37,555	34,679	54,403	18,634
Hickory	45,295	2,102	4,905	3,367	7,551	9,725	7,049	3,659	3,970	2,967	--
Yellow birch	--	--	--	--	--	--	--	--	--	--	--
Hard maple	4,445	358	582	--	1,968	--	571	966	--	--	--
Soft maple	62,090	9,125	11,971	10,838	7,021	9,933	5,279	4,598	709	2,616	--
Beech	8,896	205	508	--	1,096	1,507	790	855	976	2,135	824
Sweetgum	191,076	14,950	20,563	32,306	37,660	27,307	21,896	13,090	11,313	10,802	1,189
Tupelo and blackgum	834,571	87,257	100,839	90,927	106,667	107,175	86,633	62,323	55,532	101,994	35,224
Ash	91,242	11,295	9,177	10,420	10,685	9,797	7,524	7,471	6,649	13,256	4,968
Cottonwood	753	--	--	--	--	--	--	--	--	753	--
Basswood	716	--	--	--	--	--	716	--	--	--	--
Yellow-poplar	65,209	7,901	4,982	5,976	12,010	6,736	10,699	4,020	5,513	6,773	599
Bay and magnolia	400,730	52,103	64,985	66,858	76,856	43,347	35,691	27,783	11,852	18,583	2,672
Black cherry	8,392	1,353	1,572	953	1,884	1,441	--	989	--	--	--
Black walnut	--	--	--	--	--	--	--	--	--	--	--
Sycamore	7,893	--	270	--	1,406	519	623	2,461	576	1,301	737
Black locust	--	--	--	--	--	--	--	--	--	--	--
Elm	25,650	2,971	1,965	3,578	2,418	5,596	3,230	1,721	1,405	2,766	--
Other eastern hardwoods	152,717	44,395	25,711	23,942	7,934	9,827	4,511	7,042	8,676	13,808	6,871
Total hardwoods	2,594,051	294,088	317,764	336,561	364,988	312,368	261,313	191,346	156,828	269,662	89,133
All species	5,630,209	730,773	787,300	822,193	866,867	749,825	538,977	349,573	257,193	401,283	126,225

Table 35.--Volume of growing stock on timberland, by species and diameter class, Northwest 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	733,851	34,776	81,279	149,834	199,084	168,851	73,355	18,344	5,039	3,289	--
Slash pine	1,203,339	286,547	243,254	194,452	163,162	132,353	79,654	51,978	25,866	23,878	2,195
Shortleaf pine	59,157	3,484	8,171	9,078	9,362	12,723	7,593	3,927	1,592	2,519	708
Loblolly pine	337,775	28,629	32,572	33,528	42,406	45,885	46,786	39,235	26,704	38,383	3,647
Pond pine	46,437	3,994	8,364	7,077	9,068	6,022	6,470	2,391	1,814	1,237	--
Virginia pine	--	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	29,647	3,982	1,353	2,405	3,164	3,665	3,769	4,030	3,430	3,849	--
Sand pine	132,867	32,229	37,672	27,324	15,563	10,478	6,933	2,291	377	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	122,630	7,098	8,537	8,455	7,227	7,630	13,216	14,368	14,745	26,172	15,182
Pondcypress	242,157	25,483	30,970	30,391	35,527	34,062	23,563	14,151	16,043	25,746	6,221
Cedars	79,509	4,820	9,066	15,423	13,565	11,937	12,209	4,497	3,971	4,021	--
Total softwoods	2,987,369	431,042	461,238	477,967	498,128	433,606	273,548	155,212	99,581	129,094	27,953
Hardwood											
Select white oaks	27,372	1,869	2,124	3,082	3,706	5,180	4,134	3,108	2,088	2,081	--
Select red oaks	2,145	--	235	--	--	--	--	481	580	849	--
Chestnut oak	--	--	--	--	--	--	--	--	--	--	--
Other white oaks	84,265	2,960	5,763	7,122	3,460	11,055	10,390	7,706	9,931	20,256	5,622
Other red oaks	470,701	42,722	52,362	69,107	72,228	54,364	51,836	34,607	30,712	47,746	15,017
Hickory	38,245	1,852	3,644	2,936	6,562	8,904	5,594	2,947	3,390	2,416	--
Yellow birch	--	--	--	--	--	--	--	--	--	--	--
Hard maple	1,748	211	--	--	--	--	571	966	--	--	--
Soft maple	38,138	3,638	6,775	7,354	4,919	6,614	3,368	2,892	709	1,869	--
Beech	7,027	205	508	--	906	1,507	551	406	707	1,413	824
Sweetgum	183,444	13,966	19,635	31,534	36,159	26,487	21,140	13,090	11,313	9,406	714
Tupelo and blackgum	693,234	67,732	81,304	75,955	88,469	92,451	76,393	51,857	50,185	83,530	25,358
Ash	58,163	3,639	5,276	4,308	7,551	7,232	5,140	6,690	5,802	10,257	2,268
Cottonwood	294	--	--	--	--	--	--	--	--	294	--
Basswood	716	--	--	--	--	--	716	--	--	--	--
Yellow-poplar	62,955	7,535	4,982	5,976	11,638	6,736	9,962	4,020	4,734	6,773	599
Bay and magnolia	329,294	40,181	51,559	58,440	61,606	34,299	31,978	23,660	10,459	14,676	2,436
Black cherry	6,735	1,553	1,023	953	1,374	1,441	--	391	--	--	--
Black walnut	--	--	--	--	--	--	--	--	--	--	--
Sycamore	7,893	--	270	--	1,406	519	623	2,461	576	1,301	737
Black locust	--	--	--	--	--	--	--	--	--	--	--
Elm	19,907	303	1,965	1,883	1,425	5,209	3,230	1,721	1,405	2,766	--
Other eastern hardwoods	18,701	1,266	1,823	2,775	2,025	5,324	1,012	2,688	1,788	--	--
Total hardwoods	2,050,977	189,632	239,248	271,425	303,434	267,322	226,638	159,691	134,379	205,633	53,575
All species	5,038,346	620,674	700,486	749,392	801,562	700,928	500,186	314,903	233,960	334,727	81,528

Table 36.--Volume of sawtimber on timberland, by species and diameter class, Northwest 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	3,058,156	610,752	955,947	903,764	421,805	111,383	31,995	22,510	--
Slash pine	3,274,894	709,345	753,945	694,552	456,285	316,825	165,689	162,092	16,161
Shortleaf pine	239,546	34,536	42,086	65,430	42,709	23,407	9,993	16,315	5,070
Loblolly pine	1,503,012	121,008	192,098	235,819	264,070	236,184	168,816	258,418	26,599
Pond pine	169,695	26,954	41,786	31,528	36,115	14,026	11,321	7,965	--
Virginia pine	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--
Spruce pine	133,444	9,736	14,752	18,981	21,139	23,353	20,763	24,720	--
Sand pine	292,068	107,066	72,839	56,009	39,901	13,886	2,367	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--
Baldcypress	552,857	25,173	27,413	32,873	63,373	73,665	79,474	152,781	98,105
Pondcypress	852,212	95,240	138,960	152,097	114,717	73,596	87,377	151,002	39,223
Cedars	324,283	59,263	61,870	60,442	66,824	26,158	23,951	25,775	--
Total softwoods	10,400,167	1,799,073	2,301,696	2,251,495	1,526,938	912,483	601,746	821,578	185,158
Hardwood									
Select white oaks	89,484	--	12,653	20,786	18,463	15,153	10,599	11,830	--
Select red oaks	10,364	--	--	--	--	2,591	2,961	4,812	--
Chestnut oak	--	--	--	--	--	--	--	--	--
Other white oaks	329,626	--	12,191	44,992	47,085	36,160	49,402	107,574	32,222
Other red oaks	1,462,718	--	276,514	238,700	245,754	175,052	163,181	270,247	93,270
Hickory	128,752	--	22,415	36,122	25,367	14,437	17,544	12,867	--
Yellow birch	--	--	--	--	--	--	--	--	--
Hard maple	7,074	--	--	--	2,539	4,535	--	--	--
Soft maple	81,497	--	16,306	24,851	14,255	13,058	3,352	9,675	--
Beech	24,936	--	3,332	5,664	2,157	1,600	2,842	5,853	3,488
Sweetgum	537,526	--	129,704	114,262	101,635	68,442	62,856	55,858	4,769
Tupelo and blackgum	2,099,772	--	288,134	360,308	331,829	246,664	251,025	458,792	163,020
Ash	204,646	--	24,849	27,968	22,263	31,558	28,826	55,755	13,427
Cottonwood	1,691	--	--	--	--	--	--	1,691	--
Basswood	3,028	--	--	--	3,028	--	--	--	--
Yellow-poplar	212,937	--	41,178	28,886	48,577	21,752	27,341	41,132	4,071
Bay and magnolia	717,877	--	206,740	131,443	134,837	106,152	49,831	74,522	14,352
Black cherry	12,550	--	4,652	5,899	--	1,999	--	--	--
Black walnut	--	--	--	--	--	--	--	--	--
Sycamore	34,589	--	4,314	1,937	2,765	11,464	2,928	6,889	4,292
Black locust	--	--	--	--	--	--	--	--	--
Elm	67,708	--	4,752	20,412	13,669	7,882	6,827	14,166	--
Other eastern hardwoods	56,247	--	7,340	21,557	4,687	13,087	9,576	--	--
Total hardwoods	6,083,022	--	1,055,074	1,083,787	1,018,910	771,586	689,091	1,131,663	332,911
All species	16,483,189	1,799,073	3,356,770	3,335,282	2,545,848	1,684,069	1,290,837	1,953,241	518,069

Table 37.--Volume of sawtimber on timberland, by species, size class, and tree grade, Northwest 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]	8,670,815	2,300,194	1,952,624	4,417,997	--	2,971,882	1,127,659	669,728	1,174,495	--
Eastern white pine[b]	--	--	--	--	--	--	--	--	--	--
Spruce and fir[b]	--	--	--	--	--	--	--	--	--	--
Cypress[c]	1,405,069	636,148	313,630	452,356	2,935	933,313	636,148	204,408	92,757	--
Other eastern softwoods[b]	324,283	109,941	101,375	99,400	13,567	142,708	73,349	46,804	22,555	--
Total	10,400,167	3,046,283	2,367,629	4,969,753	16,502	4,047,903	1,837,156	920,940	1,289,807	--
Hardwood[c]										
Select white and red oaks	99,848	32,173	25,264	38,256	4,155	66,409	32,173	15,936	15,672	2,628
Other white and red oaks	1,792,344	388,119	450,725	740,648	212,852	1,219,947	388,119	370,329	364,623	96,876
Hickory	128,752	19,239	50,538	50,122	8,853	70,215	19,239	32,517	16,860	1,599
Yellow birch	--	--	--	--	--	--	--	--	--	--
Hard maple	7,074	--	2,539	4,535	--	7,074	--	2,539	4,535	--
Sweetgum	537,526	111,632	204,318	201,695	19,881	293,560	111,632	116,631	56,554	8,743
Ash, walnut, and black cherry	217,196	53,337	60,599	91,657	11,603	153,828	53,337	43,679	45,209	11,603
Yellow-poplar	212,937	41,411	67,634	97,783	6,109	142,873	41,411	56,140	45,322	--
Other eastern hardwoods	3,087,345	774,345	1,056,987	1,171,690	84,323	1,990,255	774,345	817,927	364,945	33,038
Total	6,083,022	1,420,256	1,918,604	2,396,386	347,776	3,944,161	1,420,256	1,455,698	913,720	154,487
All species	16,483,189	4,466,539	4,286,233	7,366,139	364,278	7,992,064	3,257,412	2,376,638	2,203,527	154,487

[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, Northwest 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	563,984	124,126	181,964	160,593	71,097	17,973	4,975	3,256	--
Slash pine	607,305	153,109	148,189	125,862	77,505	51,221	25,607	23,639	2,173
Shortleaf pine	44,074	7,427	8,475	12,119	7,407	3,875	1,575	2,495	701
Loblolly pine	259,727	26,181	38,192	43,355	45,374	38,580	26,437	37,998	3,610
Pond pine	31,587	5,798	8,323	5,778	6,311	2,357	1,796	1,224	--
Virginia pine	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--
Spruce pine	23,041	1,898	2,841	3,473	3,668	3,955	3,395	3,811	--
Sand pine	55,537	22,189	14,084	9,949	6,705	2,239	371	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--
Baldcypress	98,374	5,964	6,093	6,806	12,204	13,486	13,979	25,115	14,727
Pondcypress	167,953	23,374	31,164	31,336	22,164	13,486	15,405	24,953	6,071
Cedars	59,984	12,424	12,258	11,247	11,773	4,396	3,906	3,980	--
Total softwoods	1,911,566	382,490	451,583	410,518	264,208	151,568	97,446	126,471	27,282
Hardwood									
Select white oaks	17,274	--	2,585	4,284	3,632	2,833	1,942	1,998	--
Select red oaks	1,781	--	--	--	--	445	533	803	--
Chestnut oak	--	--	--	--	--	--	--	--	--
Other white oaks	61,056	--	2,522	9,173	9,128	6,915	9,094	18,899	5,325
Other red oaks	260,333	--	52,857	44,935	45,127	30,995	27,973	44,267	14,179
Hickory	24,950	--	4,696	7,324	4,896	2,665	3,124	2,245	--
Yellow birch	--	--	--	--	--	--	--	--	--
Hard maple	1,379	--	--	--	504	875	--	--	--
Soft maple	16,373	--	3,420	5,194	2,864	2,539	634	1,722	--
Beech	5,363	--	671	1,194	473	352	628	1,285	760
Sweetgum	98,856	--	25,493	21,990	18,772	12,098	10,707	9,089	707
Tupelo and blackgum	400,363	--	63,116	75,439	66,400	46,713	46,046	78,296	24,353
Ash	39,104	--	5,326	5,885	4,483	6,075	5,375	9,761	2,199
Cottonwood	280	--	--	--	--	--	--	280	--
Basswood	618	--	--	--	618	--	--	--	--
Yellow-poplar	37,625	--	7,978	5,491	8,804	3,727	4,498	6,534	593
Bay and magnolia	147,847	--	43,201	28,263	28,244	21,733	9,863	14,131	2,412
Black cherry	2,527	--	987	1,186	--	354	--	--	--
Black walnut	--	--	--	--	--	--	--	--	--
Sycamore	6,385	--	862	394	535	2,164	526	1,204	700
Black locust	--	--	--	--	--	--	--	--	--
Elm	13,172	--	969	4,174	2,729	1,512	1,263	2,525	--
Other eastern hardwoods	10,222	--	1,480	4,155	802	2,288	1,497	--	--
Total hardwoods	1,145,508	--	216,163	219,081	198,011	144,283	123,703	193,039	51,228
All species	3,057,074	382,490	667,746	629,599	462,219	295,851	221,149	319,510	78,510

Table 39.--Total volume of live trees on timberland, by species and diameter class, Northwest 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	880,109	7,739	22,284	48,138	97,677	173,600	227,242	190,858	82,754	20,520	5,637	3,660	--
Slash pine	1,735,377	52,065	216,356	407,017	295,109	225,114	185,212	148,911	89,846	57,996	28,798	26,521	2,432
Shortleaf pine	71,502	486	2,528	4,594	9,901	10,515	10,703	14,408	8,557	4,413	1,784	2,823	790
Loblolly pine	435,203	11,405	27,573	40,940	40,573	39,570	48,499	52,023	52,742	44,093	29,940	43,780	4,065
Pond pine	59,106	651	2,392	5,923	10,672	8,253	10,830	6,869	7,354	2,712	2,052	1,398	--
Virginia pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	37,272	471	1,084	5,272	1,620	2,797	3,624	4,751	4,943	4,540	3,856	4,314	--
Sand pine	197,505	8,839	18,397	47,734	48,185	33,092	18,122	11,904	8,231	2,578	423	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	168,223	1,215	3,609	10,404	10,976	10,513	9,425	9,418	15,955	17,499	17,907	31,609	29,693
Pondcypress	396,721	11,685	24,113	50,388	49,373	47,704	47,840	46,705	32,322	21,767	20,924	34,633	9,267
Cedars	107,201	3,338	5,802	7,032	12,510	18,491	16,496	14,377	14,669	5,231	4,594	4,661	--
Total softwoods	4,088,219	97,894	324,138	627,442	576,596	569,649	577,993	500,224	317,373	181,349	115,915	153,399	46,247
Hardwood													
Select white oaks	38,911	834	2,711	2,728	2,977	3,903	5,159	6,453	5,115	3,845	2,570	2,616	--
Select red oaks	2,681	43	--	--	299	--	--	--	--	591	710	1,038	--
Chestnut oak	--	--	--	--	--	--	--	--	--	--	--	--	--
Other white oaks	205,156	5,860	11,688	16,299	12,513	13,875	11,778	20,049	18,724	16,128	15,018	42,027	21,197
Other red oaks	769,381	42,785	55,650	75,566	78,060	94,467	96,577	73,214	71,182	46,914	43,473	68,071	23,422
Hickory	60,303	1,043	2,721	3,277	6,444	4,257	9,295	11,834	8,525	4,579	4,766	3,562	--
Yellow birch	--	--	--	--	--	--	--	--	--	--	--	--	--
Hard maple	6,253	277	465	520	746	--	2,397	--	684	1,164	--	--	--
Soft maple	102,606	10,944	13,230	13,130	15,345	13,295	8,647	12,025	6,493	5,517	841	3,139	--
Beech	12,233	108	659	313	696	--	1,439	1,871	1,004	1,141	1,240	2,754	1,008
Sweetgum	254,322	8,955	18,267	22,003	25,525	38,202	43,672	31,318	25,015	14,875	12,841	12,291	1,358
Tupelo and blackgum	1,243,976	64,596	109,993	131,262	131,654	114,288	132,046	131,714	106,723	77,302	69,420	128,872	46,106
Ash	140,460	13,341	17,209	16,333	11,353	12,411	12,436	11,304	8,685	8,577	7,615	15,352	5,844
Cottonwood	889	--	--	--	--	--	--	--	--	--	--	889	--
Basswood	818	--	--	--	--	--	--	--	818	--	--	--	--
Yellow-poplar	80,541	1,453	3,526	10,361	5,890	6,906	13,723	7,627	12,053	4,529	6,209	7,595	669
Bay and magnolia	589,673	31,215	60,115	75,763	82,237	81,545	92,247	51,680	42,418	32,972	14,113	22,208	3,160
Black cherry	15,353	1,987	3,185	2,031	1,925	1,141	2,230	1,696	--	1,158	--	--	--
Black walnut	79	79	--	--	--	--	--	--	--	--	--	--	--
Sycamore	9,599	--	431	--	325	--	1,649	605	723	2,848	666	1,503	849
Black locust	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm	34,430	933	2,268	4,275	2,474	4,328	2,887	6,597	3,792	2,014	1,640	3,222	--
Other eastern hardwoods	350,698	61,182	83,960	67,629	33,781	30,425	9,952	12,046	5,642	8,614	10,986	17,353	9,128
Total hardwoods	3,918,362	245,635	386,078	441,490	412,244	419,043	446,134	380,033	317,596	232,768	192,108	332,492	112,741
All species	8,006,581	343,529	710,216	1,068,932	988,840	988,692	1,024,127	880,257	634,969	414,117	308,023	485,891	158,988

Table 40.--Green weight of forest biomass on timberland, by species and diameter class, Northwest 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	687,988	6,057	18,896	33,967	73,994	134,428	179,044	151,459	66,238	16,432	4,557	2,916	--
Slash pine	1,352,261	38,873	200,585	297,396	225,516	172,765	142,928	115,287	69,555	44,806	22,238	20,455	1,857
Shortleaf pine	50,274	264	1,522	2,893	6,667	7,481	7,717	10,393	6,208	3,233	1,270	2,058	568
Loblolly pine	312,062	5,660	16,367	30,020	30,422	29,354	35,341	38,042	38,370	32,083	21,828	31,658	2,917
Pond pine	41,669	362	1,343	4,218	7,680	5,906	7,706	4,882	5,225	1,908	1,450	989	--
Virginia pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Pitch pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Table Mountain pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce pine	25,647	354	993	3,035	1,051	1,899	2,524	3,332	3,507	3,201	2,721	3,030	--
Sand pine	137,675	6,534	15,150	30,193	33,238	23,249	12,879	8,433	5,845	1,838	316	--	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--	--	--
Baldcypress	131,737	625	2,295	5,352	6,854	7,201	7,046	7,268	12,684	14,120	14,716	26,649	26,927
Pondcypress	254,818	6,197	15,189	21,717	27,453	29,001	31,816	32,833	23,521	16,300	15,939	27,259	7,593
Cedars	84,860	2,410	3,781	5,437	9,724	14,348	13,293	11,662	12,140	4,313	3,843	3,909	--
Total softwoods	3,078,991	67,336	276,121	434,228	422,599	425,632	440,294	383,591	243,293	138,234	88,878	118,923	39,862
Hardwood													
Select white oaks	32,135	664	2,017	2,042	2,448	3,184	4,341	5,348	4,257	3,385	2,115	2,334	--
Select red oaks	2,359	33	--	--	261	--	--	--	--	548	624	893	--
Chestnut oak	--	--	--	--	--	--	--	--	--	--	--	--	--
Other white oaks	180,451	4,309	8,697	9,465	10,029	11,894	10,596	18,083	16,911	14,983	13,900	39,841	21,743
Other red oaks	617,578	37,544	42,141	56,630	63,546	75,698	78,577	59,996	58,212	38,453	34,916	53,862	18,003
Hickory	50,194	876	2,419	2,306	5,250	3,351	7,538	9,935	7,285	3,920	4,189	3,125	--
Yellow birch	--	--	--	--	--	--	--	--	--	--	--	--	--
Hard maple	5,694	232	384	487	697	--	2,214	--	606	1,074	--	--	--
Soft maple	76,859	8,315	9,434	9,360	12,148	10,195	6,585	9,086	4,707	4,222	563	2,244	--
Beech	10,158	96	582	227	436	--	1,210	1,525	886	1,088	1,030	2,268	810
Sweetgum	185,182	5,893	12,056	14,708	18,227	27,606	32,214	23,505	19,012	11,357	9,979	9,516	1,109
Tupelo and blackgum	861,429	42,369	73,803	66,576	80,854	74,474	89,377	92,745	78,512	58,833	55,465	106,789	41,632
Ash	92,500	8,102	10,934	14,999	9,002	8,573	8,229	7,126	5,142	4,934	4,195	8,266	2,998
Cottonwood	723	--	--	--	--	--	--	--	--	--	--	723	--
Basswood	548	--	--	--	--	--	--	--	548	--	--	--	--
Yellow-poplar	56,769	1,091	2,330	6,368	4,069	4,760	9,778	5,583	8,692	3,327	4,615	5,640	516
Bay and magnolia	369,489	18,971	37,806	41,356	50,745	51,103	59,187	33,885	27,903	21,973	9,489	14,943	2,128
Black cherry	9,819	932	2,133	1,244	1,234	740	1,507	1,185	--	844	--	--	--
Black walnut	71	71	--	--	--	--	--	--	--	--	--	--	--
Sycamore	7,094	--	285	--	245	--	1,149	434	528	2,124	513	1,154	662
Black locust	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm	22,767	688	1,606	2,543	1,646	2,831	1,963	4,379	2,530	1,343	1,075	2,163	--
Other eastern hardwoods	297,457	54,401	81,670	63,081	29,853	24,348	7,459	8,115	3,577	5,689	6,101	9,092	4,071
Total hardwoods	2,879,276	184,587	288,297	291,392	290,690	298,757	321,924	280,930	239,308	178,097	148,769	262,853	93,672
All species	5,958,267	251,923	564,418	725,620	713,289	724,389	762,218	664,521	482,601	316,331	237,647	381,776	133,534

Table 41.--Average net annual growth and removals of live timber and growing stock on timberland, by species, Northwest Florida, 1979-1986

Species	Live timber[a]		Growing stock	
	Net annual growth	Annual timber removals	Net annual growth	Annual timber removals
	- - - - - Thousand cubic feet - - - - -			
Softwood				
Yellow pines	135,555	141,182	135,337	140,334
Eastern white pine	--	--	--	--
Spruce and fir	--	--	--	--
Cypress	5,375	793	5,315	699
Other eastern softwoods	2,242	310	2,210	310
Total softwoods	143,172	142,285	142,862	141,343
Hardwood				
Select white and red oaks	698	254	694	206
Other white and red oaks	18,087	13,923	16,865	12,673
Hickory	792	932	733	932
Yellow birch	--	--	--	--
Hard maple	104	--	87	--
Sweetgum	5,260	2,843	5,134	2,752
Ash, walnut, and black cherry	2,085	277	1,593	211
Yellow-poplar	2,564	387	2,519	387
Tupelo and blackgum	10,397	2,609	9,401	2,027
Bay and magnolia	6,681	2,189	6,003	1,800
Other eastern hardwoods	4,191	2,375	1,910	459
Total hardwoods	50,859	25,789	44,939	21,447
All species	194,031	168,074	187,801	162,790

[a]Merchantable portion only.

Table 42.--Average net annual growth and removals of sawtimber on timberland, by species, Northwest Florida, 1979-1986

Species	Net annual growth	Annual timber removals
	Thousand board feet	
Softwood		
Yellow pines	433,556	428,091
Eastern white pine	--	--
Spruce and fir	--	--
Cypress	25,881	1,762
Other eastern softwoods	10,542	762
Total softwoods	469,979	430,615
Hardwood		
Select white and red oaks	2,708	964
Other white and red oaks	70,666	36,152
Hickory	2,647	1,764
Yellow birch	--	--
Hard maple	101	--
Sweetgum	20,142	10,391
Ash, walnut, and black cherry	6,277	678
Yellow-poplar	7,102	1,506
Tupelo and blackgum	31,211	5,527
Bay and magnolia	16,836	5,208
Other eastern hardwoods	6,724	1,089
Total hardwoods	164,414	63,279
All species	634,393	493,894

Table 43.--Average annual removals of growing stock on timberland, by species and diameter class, Northwest Florida, 1979-1986

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	140,334	21,614	30,642	26,334	25,532	15,918	10,279	4,575	4,026	1,414	--
Eastern white pine	--	--	--	--	--	--	--	--	--	--	--
Spruce and fir	--	--	--	--	--	--	--	--	--	--	--
Cypress	699	301	--	41	124	79	103	51	--	--	--
Other eastern softwoods	310	93	37	121	59	--	--	--	--	--	--
Total softwoods	141,343	22,008	30,679	26,496	25,715	15,997	10,382	4,626	4,026	1,414	--
Hardwood											
Select white and red oaks	206	--	--	--	--	--	101	105	--	--	--
Other white and red oaks	12,673	1,427	1,607	1,929	1,558	1,299	1,617	778	765	1,364	329
Hickory	932	154	135	261	--	180	76	--	--	126	--
Yellow birch	--	--	--	--	--	--	--	--	--	--	--
Hard maple	--	--	--	--	--	--	--	--	--	--	--
Sweetgum	2,752	102	123	185	715	598	531	--	303	195	--
Ash, walnut, and black cherry	211	81	--	--	--	--	--	--	--	130	--
Yellow-poplar	387	--	83	--	--	186	--	--	118	--	--
Tupelo and blackgum	2,027	343	69	265	675	195	166	--	113	201	--
Bay and magnolia	1,800	355	69	61	498	317	100	188	94	118	--
Other eastern hardwoods	459	--	78	129	79	76	--	97	--	--	--
Total hardwoods	21,447	2,462	2,164	2,830	3,525	2,851	2,591	1,168	1,393	2,134	329
All species	162,790	24,470	32,843	29,326	29,240	18,848	12,973	5,794	5,419	3,548	329

Table 44.--Average annual mortality of live timber, growing stock, and sawtimber on timberland, by species, Northwest Florida, 1979-1986

Species	Live timber[a]	Growing stock	Sawtimber
	Thousand cubic feet		Thousand board feet
Softwood			
Yellow pines	18,849	18,128	66,499
Eastern white pine	--	--	--
Spruce and fir	--	--	--
Cypress	990	844	4,939
Other eastern softwoods	575	555	2,753
Total softwoods	20,414	19,527	74,191
Hardwood			
Select white and red oaks	320	152	435
Other white and red oaks	11,873	8,575	31,244
Hickory	437	346	1,129
Yellow birch	--	--	--
Hard maple	--	--	--
Sweetgum	1,866	1,696	4,451
Ash, walnut, and black cherry	1,667	952	3,027
Yellow-poplar	310	310	509
Tupelo and blackgum	3,047	2,040	6,208
Bay and magnolia	6,452	4,244	12,844
Other eastern hardwoods	5,201	1,905	5,169
Total hardwoods	31,173	20,220	65,016
All species	51,587	39,747	139,207

[a]Merchantable portion only.

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

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									
1979	932,581	344,817	280,208	142,742	72,998	43,036	27,227	13,134	8,419
1987	900,681	324,904	269,212	160,878	65,818	34,436	22,258	13,230	9,945
Change	-31,900	-19,913	-10,996	+18,136	-7,180	-8,600	-4,969	+96	+1,526
Other softwood									
1979	129,807	55,632	30,090	16,156	10,568	6,562	4,304	2,862	3,633
1987	129,085	62,016	25,466	15,096	9,589	6,022	3,949	2,628	4,319
Change	-722	+6,384	-4,624	-1,060	-979	-540	-355	-234	+686
Hardwood									
1979	1,858,108	1,259,082	331,400	122,794	55,822	35,120	21,981	13,400	18,509
1987	1,685,384	1,101,214	316,056	122,117	58,482	32,312	22,085	13,017	20,101
Change	-172,724	-157,868	-15,344	-677	+2,660	-2,808	+104	-383	+1,592

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

Land use class	Survey completion date			Change 1979-1987
	1969	1979	1987	
	- - - - - - - - - - Acres - - - - - - - - - -			
Forest land				
Timberland:				
Pine and oak-pine types	3,690,344	3,639,018	3,468,140	-170,878
Hardwood types	2,087,979	1,873,043	1,878,318	+5,275
Total	5,778,323	5,512,061	5,346,458	-165,603
Reserved timberland	6,100	37,355	38,173	+818
Woodland	10,966	15,966	13,206	-2,760
Total forest land	5,795,389	5,565,382	5,397,837	-167,545
Nonforest land				
Cropland	721,103	809,635	825,936	+16,301
Pasture and range	286,642	331,956	274,088	-57,868
Other	473,007	569,168	774,903	+205,735
Total	1,480,752	1,710,759	1,874,927	+164,168
All land[a]	7,276,141	7,276,141	7,272,764	-3,377

[a]Excludes all water areas.

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

Species group and year	All classes	Diameter class (inches at breast height)								
		5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0 and larger
					SAWTIMBER (in thousand board feet)					
Softwood										
1969	8,010,553	--	--	1,900,140	2,212,295	1,637,806	975,202	638,616	267,023	379,471
1979	10,091,489	--	--	2,108,516	2,709,832	2,172,443	1,268,187	725,444	464,779	642,288
1987	10,400,167	--	--	1,799,073	2,301,696	2,251,495	1,526,938	912,483	601,746	1,006,736
Hardwood										
1969	4,571,613	--	--	--	871,466	846,523	783,866	709,272	495,487	864,999
1979	5,290,352	--	--	--	975,312	991,142	821,777	739,678	624,080	1,138,363
1987	6,083,022	--	--	--	1,055,074	1,083,787	1,018,910	771,586	689,091	1,464,574
					GROWING STOCK (in thousand cubic feet)					
Softwood										
1969	2,462,586	326,755	441,737	501,090	481,738	318,567	177,425	110,970	44,598	59,706
1979	2,974,646	371,557	498,880	555,988	590,135	422,595	230,742	126,056	77,630	101,063
1987	2,987,369	431,042	461,238	477,967	498,128	433,606	273,548	155,212	99,581	157,047
Hardwood										
1969	1,656,915	151,916	206,909	217,891	270,217	220,598	182,914	151,000	99,136	156,334
1979	1,867,626	171,307	209,295	246,463	302,436	258,293	191,757	157,484	124,869	205,722
1987	2,050,977	189,632	239,248	271,425	303,434	267,322	226,638	159,691	134,379	259,208
					LIVE TIMBER[b] (in thousand cubic feet)					
Softwood										
1969	2,512,611	337,098	453,079	509,423	486,026	322,667	180,090	112,192	44,954	67,082
1979	3,036,851	383,087	511,995	564,949	595,367	428,029	234,268	127,430	78,207	113,519
1987	3,036,158	436,685	469,536	485,632	501,879	437,457	277,664	158,227	100,365	168,713
Hardwood										
1969	2,155,355	249,090	297,353	294,219	322,960	263,682	220,179	177,202	117,278	213,392
1979	2,429,912	281,573	301,208	332,752	361,478	308,697	230,822	184,843	147,719	280,820
1987	2,594,051	294,088	317,764	336,561	364,988	312,368	261,313	191,346	156,828	358,795

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

[b]Merchantable volume.