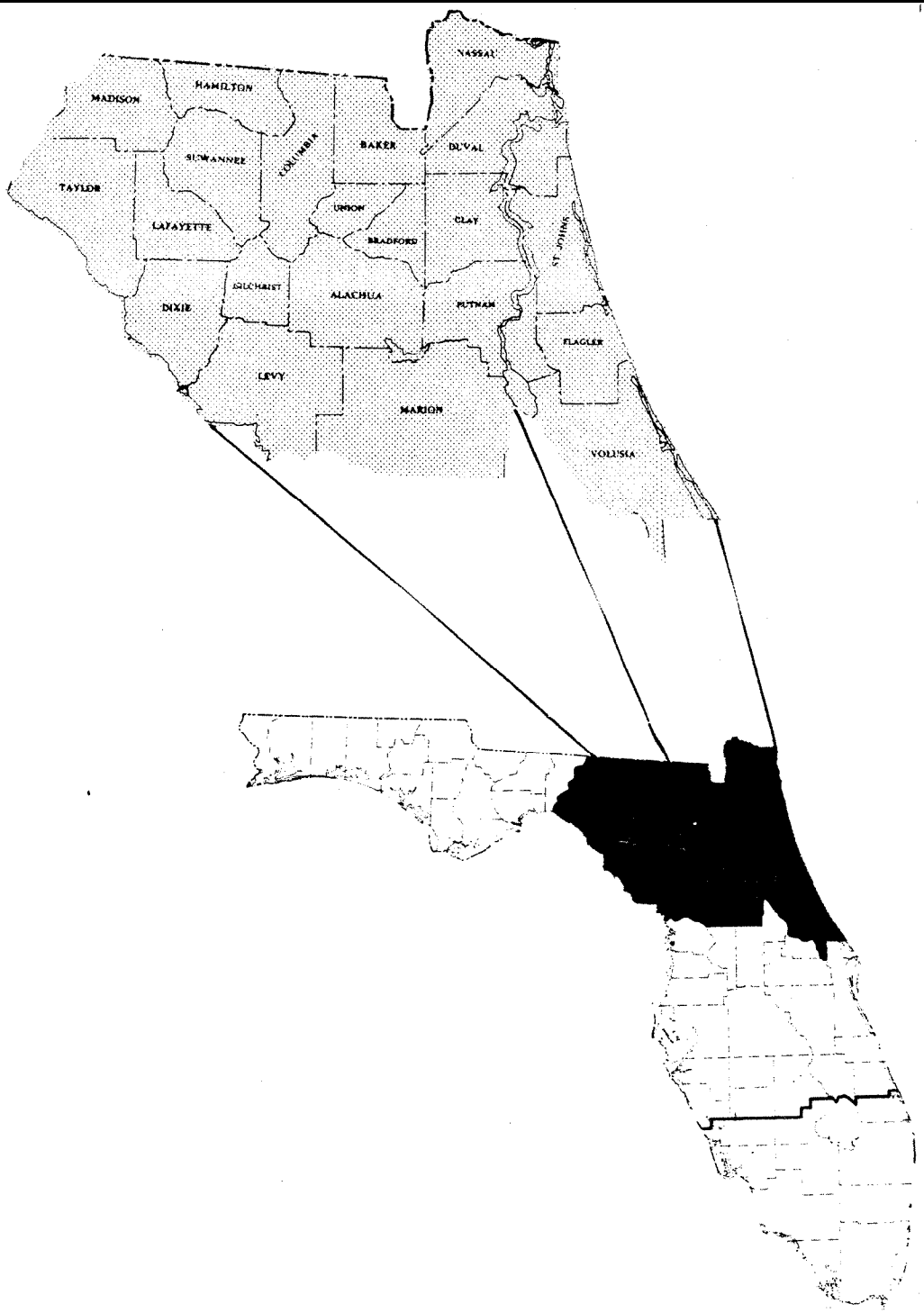
United States
Department
of Agriculture

Southeastern Forest
Experiment Station

Forest Service
Resource Bulletin
SE-53

Forest 'Statistics for Northeast Florida,1980



FOREWORD

This report highlights the principal findings of the fifth forest survey of Northeast Florida. Fieldwork began in June 1979 and was completed in December 1979. Four previous surveys, completed in 1934, 1949, 1959, and 1970, provide statistics for measuring changes and trends over the past 46 years. The primary emphasis in this report is on the changes and trends since 1970. Previously reported figures have been adjusted to provide the best estimate of change.

Renewable Resources Evaluation (formerly Forest Survey) is authorized by the Forest and Rangeland Renewable Resources Research Act of 1978. The survey is a continuing, nationwide undertaking by the regional experiment stations of the Forest Service, USDA. In Florida, Georgia, North Carolina, South Carolina. and Virginia, Renewable Resources Evaluation is administered through the Southeastern Forest Experiment Station, with headquarters in Asheville, North Carolina. The primary objective of the survey is to periodically inventory and evaluate forest and related resources. These inventories provide information on the extent and condition of forest lands. volume of timber, and rates of timber growth and removals. These data and evaluations help provide a basis for formulating forest policies and programs and for the orderly development and use of the resources.

The 21-county area covered by this report is one of four survey units in Florida. A similar report. **USDA** Forest Service Resource Bulletin SE-52, has been issued for Northwest Florida. Comparable reports for the other two units will be issued as processing of the Statewide survey progresses. When completed, this survey w-ill provide updated statistics on the forest resource for all of Florida.

The Southeastern Station gratefully acknowledges the cooperation end assistance provided by the Div ision of Forestry, Florida Department of Agriculture and Consumer Services, in collecting the field data. Appreciation is also expressed for the excellent cooperation of other public agencies, forest industry, and private landowners in <providing information and access to the sample locations.

Joe P. McClure

JOE P. MCCLURE
Project Leader

December 1980
Southeastern Forest Experiment Station
Asheville, North Carolina

ERRATA SHEET

FOREST STATISTICS FOR NORTHEAST FLORIDA, 1980

The paragraph below should be substituted for the 6th paragraph on page 1:

■ ***average basal area of all live rreesS.O inches d.b.h. andlarger has increasedfrom 44 to 53 square feet per acre of commercialforest land.*** Acreage in stands fully stocked with growing-stock trees has increased from 1.3 to 2.2 million acres, or by 74 percent. Poorly stockedor nonstocked stands have declined in area from 3.0 to 2.3 million acres, or by 21 percent. Such stands still comprise over one-third of the commercial forest acreage. The number of 2- and 4-inch softwood trees decreased by 24 and 11 percent, respectively.

The paragraph below should be substituted for the 4th paragraph on page 2:

■ ***removals from growing stock totaled 315 million cubic feet. and included 958 million boardfeet of saw-timber.*** Softwood species made up 87 percent of the growing stock removals. Softwood removals have increased by 72 percent since 1969, while hardwood removals have increased by 39 percent. By ownership class, 48 percent of the volume removed was from forest industry lands, 8 percent from farmer-owned lands, 36 percent from miscellaneous private woodlands, and 8 percent from lands controlled by public agencies. On lands owned by forest industry, removals of total pine growing stock nearly equaled net growth while removals of pine sawtimber exceeded net growth by 39 percent.

Forest Statistics

for

Northeast Florida,

1980

by

Raymond M. Sheffield, Resource Analyst
Asheville, North Carolina

CONTENTS

HIGHLIGHTS

Since 1970 in Northeast Florida

■ ***area of commercial forest land has declined by 238,000 acres, or by more than 3 percent.*** Nearly 323,000 acres of commercial forest land were diverted to other land uses, while only 85,000 acres were added to commercial forest. Diversions to urban land uses accounted for 46 percent of the loss, agricultural uses 42 percent, and noncommercial forests and water the remaining 12 percent. Commercial forests still cover over 6.8 million acres, or 70 percent of the land area in this 21-county area.

■ ***the decline in area of commercial forest land occurred in all three forest-type groups-pine, oak-pine, and hardwood.*** Acreage occupied by pine forest types declined by 141,000 acres, or 4 percent; oak-pine type declined by 33,000 acres, or 6 percent; and hardwood types declined by 64,000 acres, or 2 percent. These net changes mask forest-type changes on almost 1.5 million acres. For example, the forest type on over 326,000 acres changed from oak-pine or hardwood to pine; pine types gained another 68,000 acres due to additions to the commercial forest land base. Forestry practices such as harvesting, artificial regeneration, intermediate cutting, prescribed burning, and various other treatments accounted for 57 percent of the total gain in pine types. The forest type on another 376,000 acres changed from pine to either oak-pine or hardwood. About 62 percent of this change was attributed to hardwoods replacing pines following harvesting. Land clearing accounted for the loss of another 160,000 acres of pine type, Acreage in longleaf pine decreased by 30 percent and accounted for two-thirds of the total net loss in pine types. Pond pine acreage also declined by 30 percent. The area of slash pine, the predominant forest type in this region, showed little net change.

■ ***area of commercialforest land owned by forest industries has increasedfrom an estimated2.4 to 2.7 million acres.*** An additional633,000 acres of farmer and miscellaneous private lands are under long-term lease; thus, almost one-half the commercial forest land is under forest industry control. Farmer-owned woodlands have declined from 1.1 million acres to 668,000 acres. Miscellaneous private acreage, as a whole, has increased by over 100,000 acres, but there has been a significant shift from individual to corporate ownership. Area of commercial forest land owned by miscellaneous private individuals has declined from 2.0 to 1.8 million acres, while miscellaneous private corporate acreage has increased from 750,000 acres to over 1 .O million acres. The area of commercial forest land controlled by public agencies has increased by 5 percent and now totals 587,000 acres. The forest industry fee-simple acreage of 3.3 million acres reported in 1970 was found to be incorrect because the long-term lease acreage was double-counted as fee-simple land. Because of problems in identifying those lands with leasing arrangements, the total long-term lease acreage for 1970 was also underestimated. Both of these problems were considered in arriving at the adjusted 1970 fee-simple acreage of 2.6 million acres. Since the 1970 forest industry acreage was overestimated, the farmer and miscellaneous private lands were underestimated and, thus, had to be adjusted upward. The trends stated above reflect these adjustments. Almost all the adjustment was in the miscellaneous private ownership group.

■ ***about 777,000 acres have been artificially regeneratedand are adequately stocked with suitable species.*** Over 77 percent of this activity took place on lands owned or leased by forest industry. Across all ownership classes, stands originating from planting or seeding now make up 30 percent of the commercial forest land. Nearly one-quarter million acres of artificially regenerated stands have been harvested and retained in commercial forest land. An estimated 43,000 acres of similar stands were cleared to some nonforest land use.

'nearly 1.5 million acres have been harvested. About 37 percent of the harvested average was artificially regenerated after the harvest. About 10 percent of the harvested stands had adequate natural regeneration of suitable species, while 53 percent, or 784,000 acres, had insufficient tree stocking at the time the survey was made. Additional treatments included intermediate cutting on 332,000 acres, and other treatments-primarily prescribed burning-on almost I .2 million acres. Disease, wildfires, insects, and other natural destructive agents caused significant damage on an additional 359,000 acres.

■ ***average basal ares of all live trees 5.0 inches d.b.h. and larger has increasedfrom 44 to 55 square feet per acre of commercialforest land.*** Acreage in stands fully stocked with growing-stock trees has increased from 1.3 to 2.2 million acres, or by 74 percent. Poorly stocked or nonstocked stands have declined in area from 3.0 to 2.3 million acres, or by 21 percent. Such stands still comprise over one-third of the commercial forest acreage. The number of 2- and 4-inch softwood trees decreased by 24 and 11 percent, respectively.

■ ***volume of softwood growing stock has increasedfrom 3.4 to 4.1 billion cubic feet, or by 20percent.*** The increase occurred across the entire range of diameter classes; however, almost three-fourths of the increase was in the 6-, 8-, and IO-inch classes. Slash pine, the most abundant softwood species in terms of volume, accounted for 72 percent of the softwood-volume increase. Longleaf pine was the only major softwood species to record a volume loss, declining by over 21 percent. The current inventory of softwood growing stock includes 10.7 billion board feet of sawtimber, up I3 percent since 1970.

■ ***volume of hardwood growing stock has increased from over 1.8 to nearly 2.1 billion cubic feet, or by 13 percent.*** The gain was spread across most major hard- and soft-textured hardwood species. The hardwood-volume increase occurred across the range ofdiameter classes. The current inventory of hardwood growing stock includes 5.8 billion board feet of sawtimber, up by 12 percent since 1970.

In 1979

■ ***net annual growth of growing stock totaled 432 million cubic feet and included 1.3 billion boardfeet of sawtimber.*** Net growth has increased from 39 cubic feet per acre of commercial forest land in 1969 to the current 63 cubic feet. Softwood species accounted for 80 percent of this net growth. This high growth rate is attributed to the larger proportion of the softwood inventory in the smaller diameter classes and to a high ingrowth rate. Ingrowth into the 6-inch and larger diameter classes accounted for 20 percent of the softwood gross growth. Net growth of softwoods exceeded removals by 25 percent, while net growth of hardwoods exceeded removals by I 18 percent.

■ ***removals from growing stock totaled 315 million cubic feet, and included 958 million boardfeet of sawtimber.*** Softwood species made up 87 percent of the growing stock removals. Softwood removals have increased by 72 percent since 1969, while hardwood removals have increased by 39 percent. By ownership class, 48 percent of the volume removed was from forest industry lands controlled by public agencies. On lands owned by forest industry, removals of total pine growing stock nearly equaled net growth while removals of pine sawtimber exceeded net growth by 39 percent.

■ ***mortahty of growing stock totaled 37 million cubic feet and included 90 million cubic feet of sawtimber.*** Softwood species accounted for 58 percent of the mortality. The leading identifiable causes of death were suppression, weather, disease, insects, and fire. Mortality reduced gross growth by 8 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 29,010 sample clusters systematically spaced on the latest aerial photographs available. A subsample of 3,011 of the 16-point clusters was ground checked, and a linear regression was fitted to the data to develop the relationship between the photo and ground classification of the subsample. This procedure provides a means for adjusting the initial estimates of area for change in land use since date of photography and for photo misclassifications.

2. Estimates of timber volume and forest classifications were based on measurements recorded at 2,012 ground sample locations systematically distributed within the commercial forest land. The plot design at each location was based on a cluster of 10 points. In most cases, variable plots, 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 of standing trees in this 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 50 active cutting operations. These data will be pooled with similar measurements taken in the State to supplement the standing-tree-volume data and to generate utilization factors for product and species groups that will be analyzed at the State level.

5. Estimates of growth, removals, and mortality were determined from the remeasurement of 1,792 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 on these lands.

7. All field data were sent to Asheville for editing and were punched into cards and stored for machine computing, sorting, and tabulation. 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 commercial forest land	1.13
Per billion cubic feet of growing stock	*6.38*
Per billion cubic feet of net annual growth	1.59
Per billion cubic feet of annual removals	*3.04*

SAMPLING ERRORS FOR COUNTY AND UNIT TOTALS IN TERMS OF ONE STANDARD ERROR

COUNTY	COMMERCIAL FOREST AREA	CUBIC-FOOT VOLUME OF GROWING STOCK		
		INVENTORY	GROWTH	REMOVALS
	SAMPLING ERROR[2]			
ALACHUA	2.53	12.03	12.98	22.25
BAKER	0.98	10.68	9.83	20.95
BRADFORD	2.92	17.93	19.84	25.28
CLAY	1.87	13.23	11.56	38.79
COLUMBIA	1.62	9.36	8.86	27.96
DIXIE	1.19	11.10	9.77	19.56
DUVAL	2.41	11.33	11.48	27.43
FLAGLER	2.55	13.86	11.42	23.07
GILCHRIST	3.82	19.09	18.00	44.09
HAMILTON	2.79	13.35	12.96	25.78
LAFAYETTE	1.70	12.87	12.41	34.32
LEVY	1.59	9.74	9.70	18.38
MADISON	2.04	14.48	11.42	19.39
MARION	1.51	8.80	8.37	22.96
NASSAU	1.74	9.80	9.46	18.98
PUTNAM	1.59	13.23	10.60	31.87
ST. JOHNS	2.64	10.82	10.27	28.35
SUWANNEE	2.70	15.33	16.61	25.19
TAYLOR	1.12	8.36	8.59	17.54
UNION	3.68	16.18	14.08	34.78
VOLUSIA	1.64	9.24	8.98	25.92
UNIT TOTAL	0.43	2.56	2.42	5.42

[1] 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.

[2] BY RANDOM-SAMPLING FORMULA (IN PERCENT).

DEFINITIONS OF TERMS

Acceptable trees. --Growing-stock trees of commercial species that meet specified standards of size and quality., but not qualifying as desirable trees.

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.

Commercial forest land.--Forest land producing or capable of producing crops of industrial wood and not withdrawn from timber utilization.

Commercial species. --Tree species presently or prospectively suitable for industrial wood products.

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.

Desirable trees. --Growing-stock trees of commercial species having no serious defects in quality limiting present or prospective use for timber products, of relatively high vigor, and containing no pathogens that may result in death or serious deterioration before rotation age.

Diameter class.--A classification of trees based on diameter outside bark, measured at breast height (4-1/2 feet above the ground). D.b.h. is the common abbreviation for "diameter at breast height." Two-inch-diameter classes are commonly used in Forest Survey, with the even inch the approximate midpoint for a class. For example, the 6-inch class includes trees 5.0 through 6.9 inches d.b.h., inclusive.

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

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

Farmer-owned lands. --Lands owned by farm operators.

Forest industry lands. --Lands owned by companies or individuals operating wood-using plants.

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 upon the species forming a plurality of live-tree stocking.

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

Oak-pine. --Forests in which hardwoods (usually upland oaks) comprise a plurality of the stocking but in which pines comprise 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, comprise a plurality of the stocking, except where pines comprise 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. --Bottomland forests in which tupelo, blackgum, sweetgum, oaks, or southern cypress, singly or in combination, comprises a plurality of the stocking, except where pines comprise 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, comprises a plurality of the stocking. (Common associates include willow, sycamore, beech, and maple.)

Gross growth. --Annual increase in net volume of trees in the absence of cutting and mortality.

Growing-stock trees.--Live trees of commercial species qualifying as desirable or acceptable trees.

Growing-stock volume.--Net volume in cubic feet of growing-stock trees 5.0 inches d.b.h. and over from a l-foot stump to a minimum 4.0-inch top diameter outside bark of the central stem, or to the point where the central stem breaks into limbs. (Net volume in primary forks is included.)

Hardwoods.--Dicotyledonous trees, usually broad-leaved and deciduous.

Soft hardwoods.--Soft-textured hardwoods such as boxelder, red and silver maple, buckeye, hackberry, loblolly-bay, silverbell (in mountains), butternut, sweetgum, yellow-poplar, cucumbertree, magnolia, sweetbay, water tupelo, blackgum, sycamore, cottonwood, black cherry, willow, basswood, and elm.

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

Idle farmland. --Includes former croplands, orchards, improved pastures and farm sites not tended within the past 2 years, and presently less than 16.7 percent stocked with trees.

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

Industrial wood. --All roundwood products except fuelwood.

Land area. --The area of dry land and land temporarily or partly covered by water such as marshes, swamps, and river flood plains (omitting tidal flats below mean high tide); streams, sloughs, estuaries, and canals less than 1/8 of a statute mile in width; and lakes, reservoirs, and ponds less than 40 acres in area.

Logging residues .--The unused portions of trees cut or killed by logging.

Miscellaneous Federal lands. --Federal lands other than National Forests, lands administered by the Bureau of Land Management, and Indian lands.

Miscellaneous private lands - corporate. --Lands owned by private corporations other than forest industry.

Miscellaneous private lands - individual .--Privately owned lands other than forest-industry, farmer-owned, or corporate lands.

Mortality.--Number or sound-wood volume of live trees dying from natural causes during a specified period.

National Forest land. --Federal lands which have been legally designated as National Forests or purchase units, and other lands under the administration of the Forest Service, including experimental areas and Bankhead-Jones Title III lands.

Net annual growth. --The increase in volume for a specific year.

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

Noncommercial forest land .--(a) Unproductive forest land incapable of yielding crops of industrial wood because of adverse site conditions, and (b) productive-reserved forest land.

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 lands formerly forested where timber management is precluded by development for other uses.

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

Other Federal lands. --Federal lands other than National Forests, including lands administered by the Bureau of Land Management, Bureau of Indian Affairs, and other Federal agencies.

Other public lands.--Publicly owned lands other than National Forests.

Overstocked areas. --Areas where growth of trees is significantly reduced by excessive numbers of trees.

Poletimber trees.--Growing-stock trees of commercial species at least 5.0 inches in d.b.h. but smaller than sawtimber size.

Productive-reserved forest land. --Forest land sufficiently productive to qualify as commercial forest land, but withdrawn from timber utilization through statute or administrative designation.

Rangeland.--Land on which the natural plant cover is composed principally of native grasses, forbs, or shrubs valuable for forage.

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 tree volume in sound material.

Rough trees. --(a) 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 tree volume in sound material;-and (b) all live trees of noncommercial species.

Salvable dead trees. --Standing or down dead trees that are considered merchantable by Forest Survey standards.

Saplings.--Live trees 1.0 to 5.0 inches in diameter at breast height.

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 the stump and the saw-log top.

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

Sawtimbertrees .--Live trees of commercial species containing at least a 12-foot saw log, or two noncontiguous saw logs, each 8 feet or longer, and with at least one-third of the gross board-foot volume between the l-foot stump and minimum saw-log top being sound. Softwoods must be at least 9.0 inches and hardwoods at least 11.0 inches in diameter at breast height,

Sawtimber volume .--Net volume of the saw-log portion of live sawtimber in board-foot International l/&-inch rule.

Seedlings.--Live trees less than 1.0 inch in diameter at breast height 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.

Class 1. --Sites capable of producing 165 or more cubic feet per acre annually.

Class 2 .--Sites capable of producing 120 to 165 cubic feet per acre annually.

Class 3. --Sites capable of producing 85 to 120 cubic feet per acre annually.

Class 4 .--Sites capable of producing 50 to 85 cubic feet per acre annually.

Class . --Sites incapable of producing 50 cubic feet per acre annually, but excluding unproductive sites.

Softwoods .--Coniferous trees, usually evergreen, having needles or scale-like leaves.

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

Other softwoods .--White-pine, hemlock, cypress, eastern redcedar, white-cedar, spruce, and fir.

Stand-size class .--A classification of forest land based on the size class of growing-stock trees on the area.

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

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

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

State, county, and municipal lands;--lands owned by States, counties, and local public agencies or municipalities, or lands 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 to a minimum standard, depending on tree size, to fully utilize the growth potential of the land. (See page 12.)

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

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

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

Urban and other areas.--Areas within the legal boundaries of cities and towns; suburban 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.

STOCKING STANDARD

D.B.H. CLASS	MINIMUM NUMBER OF TREES PER ACRE FOR FULL STOCKING	MINIMUM BASAL AREA PER ACRE FOR FULL STOCKING	PERCENT STOCKING ASSIGNED EACH TALLY TREE'
SEEDLINGS,	600	--	
2	560	--	2:;
4	460	--	6.5
6	340	67	5.8
8	240	84	4.8
10	155	85	4.3
12	115	90	4.0
14	90	96	3.8
16	72	101	3.7
18	60	106	3.5
20	51	111	3.5

'STOCKING PERCENTAGES BASED ON TALLY AT ALL 10 POINTS OF A 10-POINT CLUSTER OF PLOTS. TREES LESS THAN 5 INCHES D.B.H. WERE TALLIED ON CIRCULAR, 1/300-ACRE PLOTS AT EACH POINT. TREES 5.0 INCHES D.B.H. AND LARGER WERE TALLIED ON VARIABLE PLOTS USING A BASAL AREA FACTOR OF 37.5 AT EACH SAMPLE POINT.

OVERSTOCKED--OVER 130 PERCENT
FULLY STOCKED--100-130 PERCENT
MEDIUM STOCKED--60-99 PERCENT
POORLY STOCKED--16.7-59 PERCENT
NONSTOCKED--LESS THAN 16.7 PERCENT

CUBIC FEET OF WOOD PER AVERAGE CORD (EXCLUDING BARK)

D.B.H. CLASS	ALL SPECIES	PINE	OTHER SOFTWOOD	HARDWOOD
6	61.4	61.0	68.2	60.0
8	69.1	68.1	76.0	68.4
10	74.3	73.1	81.4	73.4
12	77.8	76.7	85.2	76.4
14	80.3	79.4	88.2	78.4
16	81.8	81.6	90.4	79.8
18	83.0	83.3	92.3	80.8
20	84.0	84.8	93.8	81.5
22	84.2	86.0	95.1	82.1
24+	84.5	87.4	98.2	83.2
AVERAGE	73.4	70.7	81.9	74.1

COUNTY TABLES

THE COUNTY TABLES ARE INTENDED FOR USE IN COMPILING FOREST RESOURCE ESTIMATES FOR GROUPS OF COUNTIES. BECAUSE THE SAMPLING PROCEDURE USED BY THE FOREST SURVEY WAS INTENDED PRIMARILY TO FURNISH INVENTORY DATA FOR THE SURVEY UNIT AS A WHOLE, INDIVIDUAL COUNTY ESTIMATES HAVE LIMITED AND VARIABLE ACCURACY. AS COUNTY TOTALS ARE BROKEN DOWN BY VARIOUS SUBDIVISIONS, THE POSSIBILITY OF ERROR INCREASES AND IS GREATEST FOR THE SMALLEST ITEMS. THE ORDER OF THIS INCREASE CAN BE COMPUTED WITH THE FORMULA ON PAGE 5.

TABLE 1.--AREA, BY LAND CLASS AND COUNTY, 1980

COUNTY	ALL LAND[1]	FOREST LAND				NONFOREST LAND[2]
		TOTAL	COMMERCIAL FOREST	UNPRODUCTIVE FOREST	PRODUCTIVE-RESERVED	
	ACRES					
ALACHUA	592,947	320,684	309,353	--	11,331	272,263
BAKER	373,733	331,860	331,542	--	318	41,873
BRADFORD	186,561	136,299	136,299	--	--	50,262
CLAY	388,548	316,483	315,100	--	1,383	72,065
COLUMBIA	511,587	371,622	366,138	1,096	4,388	139,965
DIXIE	453,981	395,155	395,155	--	--	58,826
DUVAL	496,061	279,380	277,344	1,359	677	216,681
FLAGLER	315,108	253,582	250,483	1,345	1,754	61,526
GILCHRIST	224,901	141,989	141,989	--	--	82,912
HAMILTON	332,069	242,683	241,382	--	1,301	89,386
LAFAYETTE	351,465	285,418	285,418	--	--	66,047
LEVY	721,776	480,089	466,584	895	12,610	241,687
MADISON	457,788	297,382	297,353	--	29	160,406
MARION	1,035,667	633,423	631,402	302	1,719	402,244
NASSAU	415,037	338,634	337,175	512	947	76,403
PUTNAM	469,696	363,307	363,204	--	103	106,389
ST. JOHNS	396,909	292,696	288,592	2,672	1,432	104,213
SUWANNEE	440,943	202,759	200,884	--	1,875	238,184
TAYLOR	668,092	595,277	588,605	6,664	8	72,815
UNION	158,611	118,107	118,107	--	--	40,504
VOLUSIA	726,145	517,786	502,361	11,017	4,408	208,359
TOTAL	9,717,625	6,914,615	6,844,470	25,862	44,283	2,803,010

[1] FROM U. S. BUREAU OF THE CENSUS, LAND AND WATER AREA OF THE UNITED STATES, 1970.
[2] INCLUDES 53,012 ACRES OF WATER ACCORDING TO SURVEY STANDARDS OF AREA CLASSIFICATION BUT DEFINED BY THE BUREAU OF THE CENSUS AS LAND.

TABLE 2. --AREA OF COMMERCIAL FOREST LAND, BY OWNERSHIP CLASS AND COUNTY, 1980

COUNTY	ALL OWNERSHIPS	OWNERSHIP CLASS							
		NATIONAL FOREST	MISCELLANEOUS FEDERAL	STATE	COUNTY AND MUNICIPAL	FOREST INDUSTRY'	FARMER	MISCELLANEOUS PRIVATE	
								CORPORATE	INDIVIDUAL
	ACRES								
ALACHUA	309,353	--	--	3,719	2,330	*103,271*	69,720	*56,830*	73,483
BAKER	331,542	75,507	3,678	166	37	127,527	5,081	104,302	15,244
BRADFORD	136,299	--	--	*8,029*	994	62,065	23,208	9,676	32,327
CLAY	*315,100*	--	640	*45,047*		80,168	23,402	73,027	*91,889*
COLUMBIA	366,138	77,256	*102*	45	226	69,627	66,901	47,121	104,860
DIXIE	395,155	--	--	5		372,484	5,596	1,399	15,386
DUVAL	277,344	--	*15,910*	1,235	4,516	44,381	17,205	54,081	140,016
FLAGLER	250,483	--	--	129	519	52,050	16,817	70,029	110,939
GILCHRIST	141,989	--	--	21	267	34,396	35,937	16,336	55,032
HAMILTON	241,382	--	--	27		87,799	30,552	8,729	114,247
LAFAYETTE	285,418	--	--	36	426	189,618	37,167	*10,137*	48,034
LEVY	466,584	--	--	51		235,730	29,230	66,155	134,727
MADISON	*297,353*	--		14		159,207	85,145	3,041	*49,880*
MARION	631,402	252,595	3,000	24,957	1,053	70,898	64,102	113,727	101,070
NASSAU	337,175	--	28	2,287	1,034	174,538	3,659	*13,955*	141,674
PUTNAM	363: 204	20,689	4,463	7,490	639	71,447	14,888	*115,381*	128,207
ST. JOHNS	288,592			--		74,161	6,895	59,482	147,796
SUWANNEE	200,884		--	--	496	25,111	77,777	38,043	59,457
TAYLOR	588,605			*106*		519,818	3,420	1,710	63,276
UNION	118,107		--		350	71,833	19,926	*3,322*	17,420
VOLUSIA	502,361		9,370	5,256 7,975	1,668	78.842	30.978	*102.427*	191,101
TOTAL	6,844,470	426,047	*37,191*	106,595	*17,085*	*29704,971*	667,606	1,048,910	1,836,065

'NOT INCLUDING 633.328 ACRES OF FARMER-OWNED AND MISCELLANEOUS PRIVATE LANDS LEASED TO FOREST INDUSTRY.

TABLE 7 — AREA OF COMMERCIAL FOREST LAND, BY FOREST TYPE GROUP AND COUNTY, 1980

COUNTY	ALL TYPE GROUPS	FOREST TYPE GROUP: WHITE PINE-HEMLOCK	SPRUCE-FIR	LONGLEAF-SLASH	LOBLOLLY-SHORTLEAF	OAK-PINE	OAK-HICKORY	OAK-GUM-CYPRESS	ELM-ASH-COTTONWOOD	MAPLE-BEECH-BIRCH
	ACRES									
ALACHUA	309,353	--	--	150,508	1,255	31,446	74,712	51,432	--	--
BAKER	331,542	--	--	217,285	--	12,526	3,644	98,087	--	
BRADFORD	136,299	--	--	63,269	8,467	25,869	15,524	23,170	--	
CLAY	315,100	--	--	152,189	28,405	15,032	56,810	62,664	--	--
COLUMBIA	366,138	--	--	208,431	3,818	14,195	50,361	89,333	--	--
DIXIE	395,155	--	--	178,781	14,189	26,231	52,544	123,410	--	--
DUVAL	277,344	--	--	145,541	20,369	33,004	37,851	40,579	--	
FLAGLER	250,483	--	--	138,818	6,288	28,165	11,081	66,131	--	--
GILCHRIST	141,989	--	--	72,595	--	3,267	46,842	19,285	--	--
HAMILTON	241,382	--	--	133,204	13,771	22,051	18,884	53,472	--	--
LAFAYETTE	285,418	--	--	115,486	27,074	37,218	31,190	74,450	--	--
LEVY	466,584	--	--	183,289	6,959	55,698	103,778	113,631	3,229	--
MADISON	297,353	--	--	106,699	27,341	25,827	54,762	82,724	--	--
MARION	631,402	--	--	125,705	232,649	64,730	141,971	62,576	3,771	--
NASSAU	337,175	--	--	151,733	24,810	39,743	10,808	110,081	--	--
PUTNAM	363,204	--	--	174,220	40,852	29,957	69,422	48,753	--	
ST. JOHNS	288,592	--	--	134,390	25,855	16,639	17,499	94,209	--	--
SUWANNEE	200,884	--	--	80,042	9,511	15,789	76,520	19,022	--	--
TAYLOR	588,605	--	--	300,615	40,843	10,164	38,527	198,456	--	
UNION	118,107	--	--	71,862	--	2,763	9,964	32,704	814	--
VOLUSIA	502,361	--	--	209,422	58,515	46,101	30,978	157,345	--	--
TOTAL	6,844,470	--	--	3,114,084	590,971	556,415	953,672	1,621,514	7,814	--

TABLE 4. --AREA OF COMMERCIAL FOREST LAND, BY STAND-SIZE CLASS AND COUNTY, 1980

COUNTY	ALL STANDS	STAND-SIZE CLASS			NONSTOCKED AREAS
		SAWTIMBER	POLETIMBER	SAPLING-SEEDLING	
	ACRES				
ALACHUA	309,353	60,859	108,180	111,901	28,413
BAKER	331,542	104,688	82,410	117,516	26,928
BRADFORD	136,299	29,803	35,223	60,352	10,921
CLAY	315,100	82,668	76,324	109,323	46,785
COLUMBIA	366,138	109,548	120,915	121,991	13,684
DIXIE	395,155	88,585	131,905	142,552	32,113
DUVAL	277,344	75,210	100,674	63,610	37,850
FLAGLER	250,483	73,025	88,660	61,621	27,177
GILCHRIST	141,989	35,887	44,811	26,164	35,127
HAMILTON	241,382	70,939	66,964	92,094	11,385
LAFAYETTE	285,418	60,884	91,372	99,287	33,875
LEVY	466,584	163,239	113,782	101,927	87,636
MADISON	297,353	100,708	53,221	114,597	28,827
MARION	631,402	149,521	193,695	204,456	83,730
NASSAU	337,175	72,014	147,464	101,407	16,290
PUTNAM	363,204	83,421	97,451	102,063	80,269
ST. JOHNS	288,592	67,318	130,682	67,491	23,101
SUWANNEE	200,884	39,382	60,176	69,622	31,704
TAYLOR	588,605	152,084	191,746	182,084	62,691
UNION	118,107	27,098	41,518	46,169	3,322
VOLUSIA	502,361	167,637	137,354	141,402	55,968
TOTAL	6,844,470	1,814,518	2,114,527	2,137,629	777,796

TABLE 5. --AREA OF COMMERCIAL FOREST LAND, BY SITE CLASS AND COUNTY, 1980

COUNTY	ALL CLASSES	SITE CLASS				
		1	2	3	4	5
	ACRES					
ALACHUA	309,353		17,389	96,344	170,449	25,171
BAKER	331,542		--	65,803	243,231	22,508
BRADFORD	136,299	--	4,025	47,938	68,588	15,748
CLAY	315,100	--	5,846	40,885	152,155	116,214
COLUMBIA	366,138	--	8,612	107,860	213,620	36,046
DIXIE	395,155		-	72,344	289,299	33,512
DUVAL	277,344	--		41,634	178,621	57,089
FLAGLER	250,483	--	7,096	28,045	188,624	26,718
GILCHRIST	141,989	--	--	35,153	62,057	44,779
HAMILTON	241,382		2,684	31,233	187,630	19,835
LAFAYETTE	285,418		--	61,332	172,594	51,492
LEVY	466,584		--	90,999	288,024	87,561
MADISON	297,353		3,790	30,856	220,220	42,487
MARION	631,402	3,771	41,055	112,759	306,511	167,306
NASSAU	337,175		2,187	53,035	238,357	43,596
PUTNAM	363,204		--	60,199	182,293	120,712
ST. JOHNS	288,592		--	31,470	216,182	40,940
SUWANNEE	200,884		--	28,534	118,514	53,836
TAYLOR	588,605		7,426	69,719	367,447	144,013
UNION	118,107		3,321	28,746	74,431	11,609
VOLUSIA	502,361	--	6,884	32,936	338,360	124,181
TOTAL	6,844,470	3,771	110,315	1,167,824	4,277,207	1,285,353

TABLE 6. --AREA OF COMMERCIAL FOREST LAND, BY STOCKING CLASSES OF GROWING-STOCK TREES, BY COUNTY, 1980

COUNTY	ALL CLASSES	STOCKING PERCENTAGE'				
		OVER 130	100-130	60-99	16.7-59	LESS THAN 16.7
	ACRES					
ALACHUA	309,353	10,726	111,447	100,335	58,432	28,413
BAKER	331,542	23,938	122,039	110,291	48,346	26,928
BRADFORD	136,299	3,448	51,429	43,242	27,259	10,921
CLAY	315,100	15,867	80,765	112,267	59,416	46,785
COLUMBIA	366,138	14,554	95,750	172,208	69,942	13,684
DIXIE	395,155	14,190	107,823	138,254	102,775	32,113
DUVAL	277,344	10,051	86,709	79,045	63,689	37,850
FLAGLER	250,483	18,768	80,473	68,639	55,426	27,177
GILCHRIST	141,989	17,171	24,369	43,432	21,890	35,127
HAMILTON	241,382	5,793	75,892	97,998	50,314	11,385
LAFAYETTE	285,418	10,143	74,450	81,194	85,756	33,875
LEVY	466,584	29,695	95,222	142,363	111,668	87,636
MADISON	297,353	25,522	44,780	117,660	80,564	28,827
MARION	631,402	3,043	122,325	222,586	199,718	83,730
NASSAU	337,175	14,791	108,912	117,584	79,598	16,290
PUTNAM	363,204	29,505	94,831	92,161	66,438	80,269
ST. JOHNS	288,592	21,032	101,121	105,152	38,186	23,101
SUWANNEE	200,884	15,853	56,938	58,345	38,044	31,704
TAYLOR	588,605	34,834	154,384	199,577	137,119	62,691
UNION	118,107	5,524	46,169	44,841	18,251	3,322
VOLUSIA	502,361	26,752	133,760	134,673	151,208	55,968
TOTAL	6,844,470	351,200	1,869,588	2,281,847	1,564,039	777,796

'SEE STOCKING STANDARDS ON PAGE 12.

TABLE 7. -- VOLUME OF SAWTIMBER AND GROWING STOCK ON COMMERCIAL FOREST LAND, BY SPECIES GROUP AND COUNTY, 1980

COUNTY	SAWTIMBER					GROWING STOCK				
	ALL SPECIES	PINE	OTHER SOFTWOOD	SOFT HARDWOOD	HARD HARDWOOD	ALL SPECIES	PINE	OTHER SOFTWOOD	SOFT HARDWOOD	HARD HARDWOOD
	THOUSAND BOARD FEET[1]					THOUSAND CUBIC FEET[1]				
ALACHUA	610,058	287,321	100,818	78,505	143,414	275,385	169,151	29,499	34,922	41,813
BAKER	1,127,330	711,959	185,821	226,151	3,399	370,840	225,237	62,434	81,739	1,430
BRADFORD	310,370	239,648	11,460	22,428	36,834	117,974	92,096	6,165	12,693	7,020
CLAY	632,570	317,316	65,051	127,115	123,088	239,641	132,894	19,134	47,899	39,714
COLUMBIA	1,031,563	680,620	163,768	134,936	52,239	359,808	210,250	53,384	69,584	26,590
DIXIE	823,221	189,303	218,016	177,123	238,779	313,114	82,986	78,057	68,974	83,097
DUVAL	726,471	389,182	20,659	162,616	154,014	266,340	144,818	10,475	63,536	47,511
FLAGLER	740,089	286,165	222,058	87,206	144,660	256,613	121,180	74,973	32,740	27,720
GILCHRIST	200,032	96,963	54,129	10,252	38,688	109,765	78,516	15,511	3,246	12,492
HAMILTON	569,767	340,035	52,576	81,400	95,756	214,096	109,183	30,110	49,430	25,373
LAFAYETTE	478,225	223,433	114,750	40,665	99,377	194,357	97,238	40,741	30,128	26,250
LEVY	1,288,180	515,403	261,150	200,721	309,906	459,894	201,063	91,213	79,585	88,033
MADISON	857,038	258,901	178,309	303,487	116,341	285,767	85,847	58,033	107,213	34,674
MARION	1,506,058	931,198	65,653	140,324	368,883	515,098	340,859	17,027	56,236	100,976
NASSAU	884,704	492,714	87,420	176,352	128,218	340,146	171,283	31,825	94,670	42,368
PUTNAM	935,511	511,228	43,179	206,517	174,587	343,468	214,726	12,022	70,246	46,474
ST. JOHNS	767,547	328,221	102,906	153,731	182,689	308,412	147,314		76,739	50,612
SUWANNEE	1,179,524	339,154,845	2,589	52,200	129,962	146,173	91,817		19,837	34,047
TAYLOR		350,602	268,567	219,	340,683	497,741	195.275	87,991	101,190	113,285
UNION	299,422	169,519	39,164	86,4..	3,982	133,926	79,130		34,657	3,914
VOLUSIA	1,264,618	635: 635	370,413	165,785	92,785	455,615	214,209	138,489	77,530	25,387
TOTAL	16,571,894	8,111,211	2,628,456	2,853,943	2,978,284	6,204,173	3,205,062	907,537	1,212,794	878,780

[1] FACTORS FOR CONVERTING TO CORDS ARE SHOWN ON PAGE 12.

TABLE 8.--*NET ANNUAL GROWTH OF SAWTIMBER AND GROWING STOCK ON COMMERCIAL FOREST LAND, BY SPECIES GROUP AND COUNTY, 1979*

COUNTY	SAWTIMBER					GROWING STOCK				
	ALL SPECIES	PINE	OTHER SOFTWOOD	SOFT HARDWOOD	HARD HARDWOOD	ALL SPECIES	PINE	OTHER SOFTWOOD	SOFT HARDWOOD	HARD HARDWOOD
	THOUSAND BOARD FEET					*THOUSAND CUBIC FEET*				
ALACHUA	65,654	50,286	3,091	5,409	6,868	21,971	18,383	711	1,100	1,777
BAKER	77,450	62,722	7,279	7,342	107	23,942	19,402	1,544	2,785	211
BRADFORD	24,374	21,143	458	2,038	735	10,158	9,344	179	491	144
CLAY	47,455	34,615	2,128	5,790	4,922	16,469	12,513	718	1,888	1,350
COLUMBIA	85,341	68,165	4,774	7,200	5,202	22,552	16,298	1,311	3,249	1,694
DIXIE	52,712	20,910	8,704	9,070	14,028	21,454	12,095	2,031	3,225	4,103
DUVAL	58,260	39,560	1,011	9,323	8,366	17,834	13,105	374	2,584	1,771
FLAGLER	42,489	26,500	9,475	3,531	2,983	18,482	14,516	2,015	1,369	582
GILCHRIST	28,599	23,826	2,193	381	2,199	10,099	8,862	380	250	607
HAMILTON	38,779	26,876	2,462	5,131	4,310	16,075	11,457	940	2,175	1,503
LAFAYETTE	40,053	27,527	4,161	2,890	5,475	14,743	10,789	1,061	1,890	1,003
LEVY	84,635	47,775	10,405	12,603	13,852	28,452	18,403	2,741	3,509	3,799
MADISON	53,071	28,294	6,600	11,411	6,766	13,955	7,840	1,208	3,435	1,472
MARION	124,655	101,236	1,756	6,398	15,265	36,229	29,973	374	2,582	3,300
NASSAU	71,670	52,043	2,961	10,308	6,358	23,748	16,649	909	3,822	2,368
PUTNAM	66,779	51,335	1,636	8,225	5,583	26,018	21,433	360	2,884	1,341
ST. JOHNS	58,881	39,100	3,772	8,286	7,723	22,775	16,635	1,149	3,078	1,913
SUWANNEE	32,260	25,640	114	2,272	4,234	12,938	10,909	19	568	1,442
TAYLOR	87,518	41,366	12,357	12,706	21,089	35,538	22,869	3,165	4,278	5,226
UNION	25,702	19,331	2,150	3,524	697	10,866	8,759	450	1,537	120
VOLUSIA	96,198	67,354	14,401	9,135	5,308	27,202	18,927	3,591	3,700	984
TOTAL	1,262,535	875,604	101,888	142,973	142,070	431,500	319,161	25,230	50,399	36,710

TABLE 9. --ANNUAL REMOVALS OF SAWTIMBER AND GROWING STOCK ON COMMERCIAL FOREST LAND, BY SPECIES GROUP AND COUNTY, 1979

COUNTY	SAWTIMBER					GROWING STOCK				
	ALL SPECIES	PINE	OTHER SOFTWOOD	SOFT HARDWOOD	HARD HARDWOOD	ALL SPECIES	PINE	OTHER SOFTWOOD	SOFT HARDWOOD	HARD HARDWOOD
	THOUSAND BOARD FEET					THOUSAND CUBIC FEET				
ALACHUA	48,318	22,646	--	9,589	16,083	16,022	10,158	--	2,918	3,386
BAKER	65,312	65,312	--	--	--	20,636	20,441	64	131	--
BRADFORD	46,822	45,188	423	--	1,211	15,289	14,063	1,035		191
CLAY	18,891	16,914	1,159	818	--	7,517	6,781	247	989	
COLUMBIA	38,921	32,346	685	--	5,890	12,850	10,719	118	614	1,399
DIXIE	88,972	64,865	3,348	7,052	13,707	24,507	18,306	985	1,825	3,391
DUVAL	28,088	20,590	--	681	6,817	8,144	6,675	--	146	1,323
FLAGLER	60,225	53,252	3,758	3,215	--	22,229	19,094	1,631	1,504	--
GILCHRIST	1,895	1,169	--	--	726	4,757	4,601	--	--	156
HAMILTON	25,589	18,010	6,011	1,568	--	10,726	8,155	1,835	736	--
LAFAYETTE	29,530	24,325	476	4,020	709	8,740	7,262	243	957	278
LEON	66,104	46,599	4,096	3,756	11,653	21,588	14,259	1,837	2,015	3,477
MADISON	38,811	32,112	2,493	1,641	2,565	17,244	14,262	881	894	1,207
MARION	63,597	59,779	281	2,977	560	19,214	18,149	154	791	120
NASSAU	74,761	60,629	--	6,669	7,463	23,731	20,281	--	1,801	1,649
PUTNAM	26,412	24,062	--	--	2,350	6,654	6,303	--	--	351
ST. JOHNS	28,762	25,661	874	567	1,660	10,049	8,615	508	584	342
SUWANNEE	17,464	16,387	--	--	1,077	8,485	7,754	--	83	648
TAYLOR	116,045	94,773	9,009	8,062	4,201	35,123	28,461	2,260	2,233	2,169
UNION	17,477	10,921	417	2,316	3,823	6,434	4,493	333	778	770
VOLUSIA	56,187	40,491	11,420	4,276	--	14,690	11,359	2,328	1,003	--
TOTAL	958,183	776,031	44,450	57,207	80,495	314,629	260,191	14,519	19,062	20,857

TABLE I 0. - -AREA OF COMMERCIAL FOREST L AND, BY FOREST TYPE AND OWNERSHIP CLASS, 1980

FOREST TYPE	ALL OWNERSHIPS	OWNERSHIP CLASS				
		NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY	FARMER	MISC. PRIVATE
	ACRES					
SOFTWOOD TYPES:						
WHITE PINE-HEMLOCK	--	--	--	--	--	--
SPRUCE-FIR	--	60,305	--	--	--	--
LONGLEAF PINE	314.997	82,470	6,006	76,877	13,751	158.058
SLASH PINE	2,799.087		56,769	1,301,488	194,443	1,163,917
LOBLOLLY PINE	188,999	--	2.517	64,349	36.910	85,223
SHORTLEAF PINE	3.343	--	--	--	--	3,343
VIRGINIA PINE	--	--	--	--	--	--
SAND PINE	284,587	184,958	5,985	32,029	--	61,615
EASTERN REDCEDAR	--	--	--	--		--
POND PINE	114,042	7,642	5,305	43,074	3,343	54,678
SPRUCE PINE	--	--	--	--	--	--
PITCH PINE	--	--	--	--	--	--
TABLE-MOUNTAIN PINE	--	--	--	--	--	--
TOTAL	3,705,055	335,375	76,582	1,517,817	248,447	1,526,834
HARDWOOD TYPES:						
OAK-PINE	556,415	30,017	13,613 7,619	283,394 129,272	156,069 68,951	243,664 246,434
OAK-HICKORY	545.662	3.044				
CHESTNUT OAK	--	--	--	--	--	
SOUTHERN SCRUB OAK	408.010	18,261	10,294	24,095	52,227	303.133
OAK-GUM-CYPR ESS	1,621,514	39,350	52,763	827,164	141,912	560,325
ELM-ASH-COTT ONWOOD	7.814	--	--	3,229	--	4.585
MAPLE-BEECH-BIRCH	--	--	--	--	--	--
TOTAL	3,139,415	90,672	84,289	1,187,154	419,159	1,358,141
ALL TYPES	6,844,470	426,047	160,871	2,704,971	667,606	2,884,975

TABLE I I . --AREA OF COMMERCIAL FOREST L AND, BY OWNERSHIP AND STOCKING CL ASSES OF GROWING-STOCK TREES, 1980

OWNERSHIP CLASSES	ALL CLASSES	STOCKING PERCENTAGE'				
		OVER 130	loo-130	60-99	16.7-59	LESS THAN 16.7
	ACRES					
NATIONAL FOREST	426,047		87,096			33,407
OTHER PUBLIC	160,871	19,648	58,708	907,916	108,475	13,819
FOREST INDUSTRY	2,667,606	157,260	908,504	216.401	532,892	198,389
FARMER		52,551	108,514		206,797	75,451
MISC. PRIVATE	2,884,975	119,224	698,864	928,979	681,178	456,730
ALL OWNERSHIPS	6,844,470	351,200	1,869,588	2'281,847	1,564,039	777,796

'SEE STOCKING STANDARDS ON PAGE 12.

TABLE 12. -- VOLUME OF TIMBER ON COMMERCIAL FOREST LAND, BY CLASS AND SPECIES GROUP, 1980

CLASS OF TIMBER	ALL SPECIES	PINE	OTHER SOFTWOOD	SOFT HARDWOOD	HARD HARDWOOD
			THOUSAND CUBIC FEET		
SAWTIMBER TREES:					
SAW-LOG PORTION	3,311,199	1,582,562	582,167	607,576	538,894
UPPER-STEM PORTION	348,609	147,014	54,081	78,176	69,338
TOTAL	3,659,808	1,729,576	636,248	685,752	508,232
POLETIMBER TREES	2,544,365	1,475,486	271,289	527,042	270,548
ALL GROWING-STOCK TREES	6,204,173	3,205,062	907,537	1,212,794	078,780
ROUGH TREES:					
SAWTIMBER-SIZE TREES	272,268	3,246	6,942	55,921	206,159
POLETIMBER-SIZE TREES	298,262	9,947	7,380	87,257	193,678
TOTAL	570,530	13,193	14,322	143,178	399,837
ROTTEN TREES:					
SAWTIMBER-SIZE TREES	57,917	--	[illegible]	22,552	26,302
POLETIMBER-SIZE TREES	12,552	--	[illegible]	7,073	4,609
TOTAL	70,469	--	9,933	29,625	30,911
SALVABLE DEAD TREES:					
SAWTIMBER-SIZE TREES	1,743	1,540	203	--	--
POLETIMBER-SIZE TREES	2,494	2,267	227	--	--
TOTAL	4,237	3,807	430	--	--
TOTAL, ALL TIMBER	6,849,409	3'222,062	932,222	1,385,597	1,309,528

TABLE 13. --NUMBER OF GROWING-STOCK TREES ON COMMERCIAL FOREST LAND, BY SPECIES AND DIAMETER CLASS, 1980

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 TREES										
SOFTWOOD:											
LONGLEAF PINE	34,637					2,166				94	--
SLASH PINE	410,635	249,186 9,309	104,068	33,761	14,195	5,990	2,237	825	2 %	140	--
SHORTLEAF PINE	--	--	--	--	--	--	--	--	--	--	--
LOBLOLLY PINE	20,820	8,043	3,586	2,910	2,130	1,674	1,147	683	331	303	13
POND PINE	12,502	4,724	3,361	2,172	1,393	512	157	109	37	37	--
VIRGINIA PINE	--	--	--	--	--	--	--	--	--	--	--
PITCH PINE	--	--	--	--	--	--	--	--	--	--	--
TABLE-MOUNTAIN PINE	218	19,461	147	--	--	--	--	--	--	--	--
SPRUCE PINE	772	--	--	--	--	--	--	15	--	--	--
SAND PINE	32	--	--	--	--	306	17	45	23	16	--
EASTERN WHITE PINE	--	--	8,313	3,655	888	--	--	--	--	--	--
EASTERN HEMLOCK	--	--	--	--	--	--	--	--	--	--	--
SPRUCE AND FIR	--	--	--	--	--	--	--	--	--	--	--
BALDCYPRESS	11,662		2,975	1,857							
PONDCYPRESS		37,312	23,049		73	129	1,865	348	325	188	7
CEDARS	90,563	1,316	89	13,793	8,676 1,184	4.577	808	37	749	306	21
	1,831			187							
TOTAL SOFTWOODS	615,640	332,911	152,598	66.802	34,946	lb.162	6,860	3,004	1,313	1.003	41
HARDWOOD:											
SELECT WHITE OAKS	785										
SELECT RED OAKS	248	115 115	317	123	75	104	19	26--	--	---	-- b
CHESTNUT OAK	--	--	--	62	28	31	--		12		
OTHER WHITE OAKS	6,195	915	1,058	897	710	643	297	456	325	725	169
OTHER RED OAKS	45,040	17,315	11,443	6,871		2,602	'1,357	793	387	637	129
HICKORY	4,[illegible]	1,[illegible]	1,[illegible]	4[illegible]	3,[illegible]	4[illegible]	166	150	33	106	11
YELLOW BIRCH	625	150	209	96	653	25					
HARD MAPLE								--	--	--	--
SOFT MAPLE	17,881	7,748	4,497	2,413	1,636	864	388 36	204 31	13	34	4
BEECH	67		--	--	39		--	15	13	--	--
SWEETGUM	26,900	11,463	7,513	3,507	2,025 4,105	1,363	614	149	121	125	10
TUPELO AND BLACKGUM	69,889		16,270					858		366	36
ASH	15,097	30,610	2,467	9,560	2,374 5,639	, 636	1,992 338	204	178	69	--
COTTONWOOD	--	7,701	--	--	1,130	--	--	--	--		--
BASSWOOD	656	144	213	198	90	23	53	14	12	-- 7	--
YELLOW-POPLAR			172		68	744	39	43	--	9	--
BAY AND MAGNOLIA	27,324	14,170	5,710	3,447	1,980	34	604	338	190	137	4
BLACK CHEQRY	266	--	232		--	--	--	--	--	--	--
BLACK WALNUT	--	--	--	--	--	--	--	--	--	--	--
SYCAMORE	--	--	--		--	--	--		--	--	--
	--	--	--	--	--	--	--	--	--	--	--
BLACK LOCUST	3.731	1,640	895	481	332	262	74	47	--	--	--
OTHER EASTERN HARDWOODS	2,670	1,112	928	242	231	93	35	13	--	9	--
TOTAL HARDWOODS	222,622	94,807	52,945	30 778	18,297	12,018	6,012	3,351	1,811	2,234	369
ALL SPECIES	838,262	427,718	205,543	97,580	53,243	28,180	12,872	6,355	3,124	3,237	410

TABLE 14. --VOLUME OF ALL LIVE TREES ON COMMERCIAL FOREST LAND, BY SPECIES AND DIAMETER CLASS, 1980

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	% % ?
	THOUSAND CUBIC FEET										
SOFTWOOD:											
LONCLEAF PINE	2,206,167	602,780	625,094	393,342	126,711	57,197	30.988	10,606	3,656	5,795	--
SLASH PINE			48,312	104,941	277,121	163,688	81,135	39,348	13.946	9.,711	--
SHORTLEAF PINE	--	--	--	--	--	--	--	--	--	--	--
LOBLOLLY PINE	298,183	16,277	21,965	32,495	41,729	49,365	45,855	37,036	22,744	28,519	2,198
POND PINE	99.239	9.611	17.005	21.196	23;002	11.667	6.122	5,475	2,099	3.062	--
VIRGINIA PINE	--	--	--	--	--	--	--	--	--	--	--
PITCH PINE	--	--	--	--	--	--	--	--	--	--	--
TABLE-MOUNTAIN PINE	5,148	--	737	--	--	--	--	--	--	--	--
SPRUCE PINE		--		--	--	--	--	--	--	--	--
SAND PINE	197.912	60,138	60.112	46,337	17,925	7,418	3,257 71	2,011 718	1,640	1,282	--
EASTERN WHITE PINE	--	--	--	--	--	--	--	--	--	717	--
EASTERN HEMLOCK	--	--	--	--	--	--	--	--	--	--	--
SPRUCE AND FIR	--	--	--	--	--	--	--	--	--	--	--
BALDCYPRESS	162,296	11,929	20,364	22,173	21,950	20,585	14,036	16,003	--	13,046	--
PONDCYPRESS	757 437	97,937	145,044	151,689	146,262	104,357	54,394	27,469	17,972	13,899	4,237
CEDARS	12.059	3.615	660	2,343	1,325	3,129	987	--	13,878	--	2.518
TOTAL SOFTWOODS	4,150,047	825,679	939,293	774,516	656,025	417,408	237,542	138,665	75,935	76,031	8,953
HARDWOOD:											
SELECT WHITE OAKS	8,681	347	1,302	1,484	1,103	2,041	391	1,185	--	--	828
SELECT RED OAKS	3,590	386	518	581	687	723	--	--	695	--	--
CHESTNUT OAK	--	--	--	--	--	--	--	--	--	--	--
OTHER WHITE OAKS	365,849	13,565	17,239	23,583	30,351	34,197	27,204	32,587	34,652	99,055	53,396
OTHER RED OAKS	524,248	52,635	67,638	79,866	64,167	69,651	45,858	35,661	22,914	56,809	29,049
HICKORY	65,951	3.132	5,698	5,541	12,746	11,741	5,774	7.619	2,859	9,129	1,712
YELLOW BIRCH	--	--	--	--	--	--	--	--	--	--	--
HARD MAPLE	9,690	557	1,463	2,156	1,277	580	1,471	1,333	853	--	--
SOFT MAPLE	181,832	25,575	30,744	28,481	35,711	24,607	15,369	10,300	5,589	4,809	647
BEECH	1,961	--	--	--	511	--	--	803	647	--	--
SWEETGUM	230,717	24,418	41,452	37,499	37.491	38,307	23,269	7,577	7,004	11,331	2,369
TUPELO AND BLACKGUM	666,688	82,181	91,834	105,948			69,186	42,789			8,522
ASH	155,399	25,304	18,916	28,187	106,679	104,988	17,048	10,536	24,514 10,387	30,047	205
COTTONWOOD	--	--	--	--	20.678	18.131	--	--	--	6.007	--
BASSWOOD	10,322	282		1,073	1,813	852	1,667	1,133	644	1,400	--
YELLOW-POPLAR	10,316	42,194 251	1,282	45,314 1,073	1.114	1,981	1,268	2,614		1,131	--
BAY AND MAGNOLIA	236		280		34,632	20.501	19,425	14.153	11,175	12,371	544
BLACK CHERRY	2,287	418	36,007	--	478	535	--	--	--	--	--
BLACK WALNUT	--	--	856	--	--	--	--	--	--	--	--
SYCAMORE	--	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--	--
BLACK LOCUST	35,241	4,236	5,597	6,240	5,928	6,900	3,630	2,265	--	445	--
OTHER EASTERN HARDWOODS	106,207	46.349	49,066	30,849	31,089	13,931	7,469	4,086	2,184	1,184	--
TOTAL HARDWOODS	2,695,125	321,830	370,502	397,875	386,475	349,666	239,029	174,641	124,117	233,710	97,272
ALL SPECIES	6,845,172	1,147,509	1,309,795	1,172,391	1,042,500	767,074	476,571	313,306	200,052	309.749	106,225

TABLE 15. --*VOLUME OF GROWING STOCK ON COMMERCIAL FOREST LAND, BY SPECIES AND DIAMETER CLASS, 1980*

SPECIES	ALL CLASSES	DIAMETER CLASS (INCHES AT BREAST HEIGHT) 5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 AND LARGER
					THOUSAND CUBIC FEET						
SOFTWOOD:											
LONGLEAF PINE	411,003	23,400	47,709	104,941	126,711	57,197	30,988	10,606	3,656	5,795	--
SLASH PINE	2,198,675	599,338	622,299	392,519	277.121	163.258	81,135	39,348	13,946	9.711	
SHORTLEAF PINE	--	--	--	--	--	--	--	--	--	--	
LDBLOLLY PINE	296,579	15,956	20,682	32,495	41,729	49,365	45,855	37,036	22,744	28,519	2,198
POND PINE	98.563	9.379	16.561	21,196	23.002	11.667	6.122	5,475	2,099	3,062	--
VIRGINIA PINE	--	--	--	--	--	--	--	--	--	--	--
PITCH PINE		--		--	--	--	--	--	--	--	--
TABLE-MOUNTAIN PINE		--	--	--	--	--	--	--	--	--	--
SPRUCE PINE	5,148		737	--	--	--	771	718	1,640	1,282	--
SAND PINE	195,094	59,580	59,845	45,412	16,857	7,418	3,255	2,010	--	717	--
EASTERN WHITE PINE	--	--	--	--	--	--	--	--	--	--	--
EASTERN HEMLOCK	--	--	--	--	--		--	--	--	--	--
SPRUCE AND FIR		--			--	--	--	--	--	--	
BALDCYPRESS	157,206	11,929	19,903	22,034	21,950	20,587	13,597	16,003	17,661	12,262	1,280
PONDCYPRESS	-740,481	94,028	142,236	148,795	144,121	102,755	52,916	26,859	13,417	12,836	2,518
CEDARS	9,850	2,910	283	1,.912	977	2,781	987	--	--	--	--
TOTAL SOFTWOODS	4,112,599	816,520	930,255	769,304	652,468	415,028	235,626	138,055	75,163	74,184	5,996
HARDWOOD:											
SELECT WHITE OAKS	8.681	347	1,302	1,484	1,103	2,041	391	1.185	--	--	828
SELECT RED OAKS	3.072	386	--	581	687	723	--	--	695	--	--
CHESTNUT OAK	--	--	--	--	--	--	--	--	--	--	
OTHER WHITE OAKS	189.761	1.911	5.350	7,373	11,772	16.299	9,609	21,120	18,074	60,945	37.308
OTHER RED OAKS	463,540	43,160	60,299	70,993	58,106	63,288	42,448	32,910	20,703	49,236	22,397
HICKORY	62.490	2.755	4.944	5,248	12.255	11,308	5.774	7.619	2.322	8,553	1.712
YELLOW BIRCH	--	--	--	--	--	--	--		--	--	--
HARD MAPLE	8,092	170	1,330	1,078	1.277	580	1,471	1,333	853	--	--
SOFT MAPLE	147,932	18,706	24,210	24,714	29,315	21,533	12,485	8,735	4,742	2,845	647
BEECH	1,961	--	--	--	511	--	--	803	647	--	--
SWEETGUM	218,003	21,956	38,112	36,473	36,910	37,091	22,082	7,099	6.452	10,508	1,320
TUPELO AND BLACKG'JM	596,924	72,069	81,997	93,243	93,514	98,550	64,116	36,734	23,021	26,569	7,111
ASH	130,434	18,042	13,762	24,578	18,953	17,095	12,857	9,582	9,891	5.674	--
COTTONWOOD	--	--	--	--	--	--	--	--	--	--	--
BASSWOOD	8,818	282	1,282	1,073	1,539	852	1.667	627	644	852	--
YELLOW-POPLAR	9,521	251	890	1,073	1,114	1,981	1,268	2,214	--	730	
BAY AND MAGNOLIA	194,286	31,658	27,669	35,195	32,104	16,618	17,621	13,111	9,372	10,394	544
BLACK CHERRY	1,391	--	856	--	--	535	--	--	--	--	--
BLACK WALNUT	--	--	--	--	--	--	--	--	--	--	--
SYCAMORE	--	--	--	--	--	--	--	--	--	--	--
BLACK LOCUST	--	--	--	--	--		--	--	--	--	--
ELM	29,464	3.081	4,654	4,903	5,928	6.5%	2,107	2,265	--	--	--
OTHER EASTERN HARDWOODS	17,204	1,822	4,253	2,075	3.839	2,239	1,350	665	--	961	--
TOTAL HARDWOODS	2,091,574	216,596	270,910	310,084	308,927	297,259	195,246	146,002	97,416	177,267	71,067
ALL SPECIES	6,204,173	1,033,116	1,201,165	1,079,388	961,395	712,287	430,872	204,057	172,579	251,451	77,863

TABE 16.--*VOLUME OF SAWTIMBER ON COMMERCIAL FOREST LAND, BY SPECIES AND DIAMETER CLASS, 1980*

SPECIES	ALL CLASSES	DIAMETER CLASS (INCHES AT BREAST HEIGHT) 9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 AND LARGER
				THOUSAND BOARD FEET					
SOFTWOOD:									
LONGLEAF PINE	1,648,134	426,822	611,106	305,434	179,692	64,475	23,200	38,448	--
SLASH PINE	4,415,035	1,451,459	1,268,838	846,051	460,056	236,073	88,113	64,446	--
SHORTLEAF PINE	--	--	--	--	--	--	--	--	--
LOBLOLLY PINE	1,364,825	114,263	183,598	250,540	254,045	218,665	140,707	187,469	15,538
POND PINE	340,898	78,820	105,300	59,019	34,200	31,611	12,694	19,254	--
VIRGINIA PINE	--	--	--	--	--	--	--	--	--
PITCH PINE	--	--	--	--	--	--	--	--	--
TABLE-MOUNTAIN PINE	--	--	--	--	--	--	--	--	--
SPRUCE PINE	22,913	--	--	--	3,886	3,656	8,539	6,832	--
SAND PINE	319,356	168,707	76,938	38,260	18,564	12,200	--	4,687	--
EASTERN WHITE PINE	--	--	--	--	--	--	--	--	--
EASTERN HEMLOCK	--	--	--	--	--	--	--	--	--
SPRUCE AND FIR	--	--	--	--	--	--	--	--	--
BALDCYPRESS	556,922	63,890	80,598	89,307	65,293	82,033	96,216	71,007	8,578
PONDCYPRESS	2,039,532	461,500	561,452	456,796	256,705	139,127	73,174	74,466	16,312
CEDARS	32,002	7,828	4,350	14,255	5,569	--	--	--	--
TOTAL SOFTWOODS	10,739,667	2,773,295	2,892,180	2,059,662	1,277,010	787,840	442,643	466,609	40,428
HARDWOOD:									
SELECT WHITE OAK	25,490	--	3,546	8,094	1,820	6,422	--	--	5,608
SELECT RED OAKS	9,207	--	2,626	2,792	--	--	3,789	--	--
CHESTNUT OAK	--	--	--	--	--	--	--	--	--
OTHER WHITE OAKS	961,983	--	42,767	68,804	44,868	106,438	96,938	354,803	247,365
OTHER RED OAKS	1,405,286	--	219,513	276,335	201,725	167,836	111,445	285,577	142,855
HICKORY	220,611	--	41,189	45,531	26,024	37,116	12,315	47,923	10,513
YELLOW BIRCH	--	--	--	--	--	--	--	--	--
HARD MAPLE	23,578	--	4,848	2,310	6,365	6,027	4,028	--	--
SOFT MAPLE	304,300	--	91,783	80,903	51,580	38,809	22,430	15,117	3,678
BEECH	7,631	--	1,836	--	--	3,192	2,603	--	--
SWEETGUM	537,034	--	128,448	158,392	105,728	37,020	35,931	62,743	8,772
TUPELO AND BLACKUM	1,455,656	--	295,606	378,489	283,393	178,283	119,646	152,422	47,817
ASH	304,945	--	61,147	65,772	54,929	44,590	48,661	29,846	--
COTTONWOOD	--	--	--	--	--	--	--	--	--
BASSWOOD	26,499	--	5,451	3,418	7,231	2,855	3,029	4,515	--
YELLOW-POPLAR	34,714	--	3,950	8,492	6,063	11,744	--	4,465	--
BAY AND MAGNOLIA	414,636	--	104,682	63,848	75,393	59,799	46,571	61,183	3,160
BLACK CHERRY	2,053	--	--	2,053	--	--	--	--	--
BLACK WALNUT	--	--	--	--	--	--	--	--	--
SYCAMORE	--	--	--	--	--	--	--	--	--
BLACK LOCUST	--	--	--	--	--	--	--	--	--
ELM	64,434	--	19,858	25,335	9,014	10,227	--	--	--
OTHER EASTERN HADWOODS	34,170	--	11,982	8,526	5,707	3,140	--	4,815	--
TOTAL HARDWOOD	5,832,227	--	1,039,232	1,199,094	879,840	713,498	507,386	1,023,409	469,768
ALL SPECIES	16,571,894	2,773,295	3,931,412	3,258,756	2,156,850	1,501,338	950,029	1,490,018	510,196

TABLE 17. - -NET ANNUAL GROWTH AND REMOVALS OF GROWING STOCK UN COMMERCIAL FOREST LAND, BY SPECIES, 1979

SPECIES	NET ANNUAL GROWTH	ANNUAL TIMBER REMOVALS
	- - THOUSAND CUBIC FEET - -	
SOFTWOOD:		
YELLOW PINES	319,161	260,191
EASTERN WHITE PINE	--	--
SPRUCE AND FIR	--	--
CYPRESS	24,570	13,624
OTHER EASTERN SOFTWOODS	660	895
TOTAL SOFTWOODS	344,391	274,710
HARDWOOD:		
SELECT WHITE AND RED OAKS	231	885
OTHER WHITE AND RED OAKS	29,346	17,498
HICKORY	2,020	1,973
YELLOW BIRCH	--	--
HARD MAPLE	351	--
SWEETGUM	10,490	6,558
ASH, WALNUT, AND BLACK CHERRY	3,922	501
YELLOW-POPLAR	555	--
TUPELO AND BLACKGUM	17,989	5,032
BAY AND MAGNOLIA	10,989	3,073
OTHER EASTERN HARDWOODS	11,206	4,399
TOTAL HARDWOODS	87,109	39,919
ALL SPECIES	431,500	314,629

T ABL E I 8. - -NET ANNUAL GROWTH AND REMOVALS Of SAWTIMBER ON COMMERCIAL FOREST LAND, BY SPECIES, 1979

SPECIES	NET ANNUAL GROWTH	ANNUAL TIMBER REMOVALS
	- THOUSAND BOARD FEET - - -	
SOFTWOOD:		
YELLOW PINES	875,604	776,031
EASTERN WHITE PINE	--	--
SPRUCE AND FIR	--	--
CYPRESS	100,320	41,720
OTHER EASTERN SOFTWOODS	1.568	2.730
TOTAL SOFTWOODS	977,492	820,481
HARDWOOD:		
SELECT WHITE AND RED OAKS	1,343	3,120
OTHER WHITE AND RED OAKS	117,721	68,208
HICKORY	9,115	7,746
YELLOW BIRCH	--	--
HARD MAPLE	1,628	--
SWEETGUM	37,684	17,547
ASH, WALNUT, AND BLACK CHERRY	10,881	1,421
YELLOW-POPLAR	2,279	--
TUPELO AND BLACKGUM	52,778	19,848
BAY AND MAGNOLIA	26,013	10,137
OTHER EASTERN HARDWOODS	25,601	9,675
TOTAL HARDWOODS	285,043	137,702
ALL SPECIES	1,262,535	958,183

TABLE 19.--MORTALITY OF GROWING STOCK AND SAWTIMBER ON COMMERCIAL FOREST LAND, BY SPECIES, 1979

SPECIES	GROWING STOCK	SAWTIMBER
	THOUSAND CUBIC FEET	THOUSAND BOARD FEET
SOFTWOOD:		
YELLOW PINES	19,321	38,379
EASTERN WHITE PINE	--	--
SPRUCE AND FIR	--	--
CYPRESS	2,185	4,248
OTHER EASTERN SOFTWOODS	--	--
TOTAL SOFTWOODS	21,506	42,627
HARDWOOD:		
SELECT WHITE AND RED OAKS	--	--
OTHER WHITE AND RED OAKS	3,890	15,887
HICKORY	307	1,639
YELLOW BIRCH	--	--
HARD MAPLE	--	--
SWEETGUM	2,150	5,145
ASH, WALNUT, AND BLACK CHERRY	727	880
YELLOW-POPLAR	--	--
TUPELO AND BLACKGUM	4,874	13,085
BAY AND MAGNOLIA	1,281	4,775
OTHER EASTERN HARDWOODS	2,224	6,149
TOTAL HARDWOODS	15,453	47,560
ALL SPECIES	36,959	90,187

TABLE 20.--*VOLUME OF ALL LIVE TREES AND GROWING STOCK ON COMMERCIAL FOREST LAND, BY OWNERSHIP CLASS AND SPECIES GROUP, 1980*

OWNERSHIP CLASS	ALL SPECIES	PINE	OTHER SOFTWOOD	SOFT HARDWOOD	HARD HARDWOOD	ALL SPECIES	PINE	OTHER SOFTWOOD	SOFT HARDWOOD	HARD HARDWOOD
	THOUSAND CUBIC FEET									
NATIONAL FOREST	546,380	408,356	49,062	71,500	17,462	522,531	407,076	47,542	62,715	5,198
OTHER PUBLIC	131,713	72,324	11,279	37,637	10,473	115,925	72,324	11,279	29,836	2,486
FOREST INDUSTRY	2,603,090	1,108,810	453,700	580,840	459,740	2,401,166	1,104,379	445,844	510,773	340,170
FARMER	789,722	302,106	90,962	144,086	252,568	682,065	301,435	88,456	120,652	171,522
MISCELLANEOUS PRIVATE	2,774,267	1,326,659	326,789	551,534	569,285	2,482,486	1,319,848	314,416	488,818	359,404
ALL OWNERSHIPS	6,845,172	3,218,255	931,792	1,385,597	1,309,528	6,204,173	3,205,062	907,537	1,212,794	878,780

TABLE 21.--*VOLUME OF SAWTIMBER ON COMMERCIAL FOREST LAND, BY OWNERSHIP CLASS AND SPECIES GROUP, 1980*

OWNERSHIP CLASS	SMALL SAWTIMBER[1]					LARGE SAWTIMBER[2]				
	ALL SPECIES	PINE	OTHER SOFTWOOD	SOFT HARDWOOD	HARD HARDWOOD	ALL SPECIES	PINE	OTHER SOFTWOOD	SOFT HARDWOOD	HARD HARDWOOD
	THOUSAND BOARD FEET									
NATIONAL FOREST	1,249,753	1,104,333	91,464	49,507	4,449	392,117	164,331	96,969	117,108	13,709
OTHER PUBLIC	231,570	167,735	27,570	36,265	--	87,861	35,486	9,843	42,532	--
FOREST INDUSTRY	3,594,711	1,796,747	839,541	606,798	351,625	2,185,462	533,391	414,527	510,904	726,640
FARMER	994,208	520,526	196,237	126,229	151,216	1,026,166	281,962	98,385	180,989	464,830
MISCELLANEOUS PRIVATE	3,893,221	2,395,820	585,164	558,648	353,589	2,916,825	1,110,880	268,756	624,963	912,226
ALL OWNERSHIPS	9,963,463	5,985,161	1,739,976	1,377,447	860,879	6,608,431	2,126,050	888,480	1,476,496	2,117,405

[1] VOLUME OF SAWTIMBER TREES LESS THAN 15.0 INCHES AT D.B.H.
[2] VOLUME OF SAWTIMBER TREES 15.0 INCHES AND LARGER AT D.B.H.

TABLE 22.--NET ANNUAL GROWTH AN5 REMOVAL S OF GROWING STOCK ON COMMERCIAL FOREST LAND, BY OWNERSHIP CLASS AND SPECIES GROUP, 1979

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	32,182	28,563	1,154	237	2,280	11,133	11,133	--	--	--
OTHER PUBLIC	174,824	125,543	6,758	12,2,346	1,752 1,019	13,434	11,133	612	633	2,655
FOREST INDUSTRY	42,402	27,549	9,050		5,430	149,643	121,985	5,786	11,376	8,124
FARMER	173,847	130,748			19,918	14,131	113,504	93,182	1,030 7,091	1,871 5,182
MISCELLANEOUS PRIVATE										
ALL OWNERSHIPS	431,500	319,161	25,230	50,399	36,710	314,629	260,191	14,519	19,062	20,857

TABLE 23.--NET ANNUAL GROWTH AN5 REMOVAL S OF SAWTIMBER ON COMMERCIAL FOREST LAND, BY OWNERSHIP CI ASS AN5 SPECIES GROUP, 1979

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	124,358	112,432	5,229	6,125	572	28,244	28,244	--	--	--
OTHER PUBLIC	22,617	17,656	2,061	3,671	60,319	51,189	35,044	2,449	2,315	11,381
FOREST INDUSTRY	444,822	274,736	48,402	61, 365	22,153	463,800	380,860	16,433	37,081	29,426
FARMER	110,611			15, 642		77,910	61,824	2,981	4,691	8,414
MISCELLANEOUS PRIVATE	530,097	378,707	92,073	10,773	56, 170	58,797	337,040	270,059	22,587	13,120
ALL OWNERSHIPS	1,262,535	875,604	101,888	36,425	142,973	142,070	958,183	776,031,	44,450	57,207

TABLE 24. -AVERAGE NET VOLUME PER ACRE OF SAWTIMBER, GROWING STOCK AND OTHER LIVE TIMBER' ON COMMERCIAL FOREST LAND, BY OWNERSHIP CLASS, MAJOR FOREST TYPE, AND SPECIES GROUP, 1980

FOREST TYPE, SPECIES GROUP, AND CLASS OF MATERIAL	ALL OWNERSHIPS		OWNERSHIP CLASS									
			NATIONAL FOREST		OTHER PUBLIC		FOREST INDUSTRY		FARMER		MISC. PRIVATE	
	BOARD FEET	CUBIC FEET	BOARD FEET	CUBIC FEET	BOARD FEET	CUBIC FEET	BOARD FEET	CUBIC FEET	BOARD FEET	CUBIC FEET	BOARD FEET	CUBIC FEET
PINE TYPES:												
GROWING STOCK:												
SOFTWOOD	1,717	753	3,221	1,037	2,176	808	1,127	629	2,364	1,035	1,793	755
HARDWOOD	45	24	9	13	17	7	23	15	133	76	64	29
TOTAL	1,762	777	3,230	1,050	2,193	815	1,150	644	2,497	1,111	1,857	784
OTHER TIMBER:												
SOFTWOOD	--	3	--	3	--	--	--	3	--	4	--	4
HARDWOOD	--	8	--	18	--	14	--	2	--	29	--	9
TOTAL	--	11	--	21	--	14	--	5	--	33	--	13
OAK-PINE TYPES:												
GROWING STOCK:												
SOFTWOOD	2,307	607	1,089	378	717	120		746	2,871	692		520
HARDWOOD	784	305	142	56	--	56	2,642	336	1,716	518	2,106	265
TOTAL	3,091	912	1,231	434	717	l/b	3,490	1,082	4,587	1,210	2,702	785
OTHER TIMBER:												
SOFTWOOD	--	8	--	7	--	--	--		--		--	
HARDWOOD	--	111	--	69	--	116	--	El:	--	169	--	1 2
TOTAL	--	119	--	76	--	lb	--	92	--	169	--	134
UPLAND HARDWOOD TYPES:												
GROWING STOCK:												
SOFTWOOD	227	56	404	130	462	117				54		56
HARDWOOD	1,407	405	lb2	37	--	78	1,8[illegible]6	5 %	1,[illegible]66	558	1,[illegible]98	331
TOTAL	1,634	461	566	lb7	462	195	1,987	616	2,190	612	1,432	387
OTHER TIMBER:												
SOFTWOOD		1	--	--	--					--		1
HARDWOOD		226	--	74	--	1 %	--	214	--	239	II	231
TOTAL	--	227	--	74	--	112	--	20	--	239	--	32
BDTTOMLAND HARDWOOD TYPES:												
GROWING STOCK:												
SOFTWOOD	1,760	567	3,528	803	1,002	291	1,625	543	2,068	593		594
HARDWOOD	2,435	905	3,731	1,297	2,074	786	2,102	826	2,680	894	2,777 1,784	998
TOTAL	4,195	1,472	7,259	2,100	3,076	1,077	3,127	1,369	4,748	1,487	4,561	1,592
OTHER TIMBER:												
SOFTWOOD		12		27	--	--	--			15	--	17
HARDWOOD		185		217	--	253	--	1698		267	--	182
TOTAL		197		244		53		177		282		99
ALL TYPES:												
GROWING STOCK:				925		536		579		598		
SOFTWOOD	1,569	60[illegible]	2,966	138	1,544 506	207	1,339	318	1,[illegible]84	448	1,520	570
HARDWOOD	852		376				820				854	296
TOTAL	2,421	907	3,342	1,063	2,050	743	2,159	897	3,101	1,046	2,374	866
OTHER TIMBER:												
SOFTWOOD		5	--	6	--	--	--	5		5	--	
HARDWOOD		88	--	43	--	101	--	71		160	--	9:
TOTAL		93		49		101	--	76	--	165	--	02
ALL TIMBER	2,421	1,000	3,342	1,112	2,050	844	2,159	973	3,101	1,211	2,374	968

'ROUGH AND ROTTEN TREES.

TABLE 2 5. - -LAND AREA, BY CL ASS, MAJOR FOREST TYPE, AND SURVEY COMPL ETION DATE, 1959 , 1970 , A N D 1980

LAND USE CLASS	SURVEY COMPLETION DATE			CHANGE 1970-1980
	1959	1970	1980	
	- - - - - - - - ACRES - - - - - - - -			
FOREST LAND:				
COMMERCIAL FOREST LAND:				
HARDWOOD AND PINE TYPES	2,914,900	2,647,281	2,583,000	-173,650
PINE TYPES				- 64,281
TOTAL	7,251,000	7,082,401	6,844,470	-237,931
NONCOMMERCIAL FOREST LAND:				
PRODUCTIVE-RESERVED	12,300	13,700	44,283	+ 30,583
UNPRODUCTIVE	62,400	39,326	25,862	- 13,464
TOTAL	74,700	53,026	70,145	+ 17,119
NONFOREST LAND:			817,629	
CROPLAND	1,079,300	797,964	880,175	- 9,013
PASTURE AND RANGE	790,800	914,273	1,061,207	+ 82.211
OTHER				+146,934
TOTAL	2 338 300	2,529,866	2,749,998	+220,132
ALL LAND'	9,664,000	9,665,293	9,664,613	- 680

'EXCLUDES ALL WATER AREAS.

U.S. Government Printing Office: 1981- 735-056/4019 Region No. 3-II

TABLE 26.--VOLUME[1] OF SAWTIMBER, GROWING STOCK, AND ALL LIVE TIMBER ON COMMERCIAL FOREST LAND, BY SPECIES GROUP, DIAMETER CLASS, AND SURVEY COMPLETION DATE

SPECIES GROUP	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	1959	7,549,957	--	--	29218.968			719 201	327,342	185,769	151,536
	1970	9,486,350	--	--	2,497,591	2,760,101	1,959,794	1,126,000	579,146	290,281	273,437
	1980	10,739,667	--	--	2,773,295	2,892,180	2,059,662	1,277,010	787,840	442,643	507,037
HARDWOOD	1959	4,839,459	--	--	--		995 611	823,390	596,835	482,120	1,135,134
	1970	5,205,065	--	--	--	902,245 877,203	1,029,231	879,840	617,487	503,129	1,329,583
	1980	5:832:227	--	--	--	1,039,232	1,199,094		713,498	507,386	1,493,177
	1959				GROWING STOCK (IN T562,359 CUBIC FEET)					31,545	
SOFTWOOD	1970	3,419,680	399,727 631,642	533,317 675,959	615,525 692,813	622.626	293,009 394,881	132,694 207,749	57,358 101,480	49.292	23,962 43,238~
	1980	4,112,599	171,825	930,255	769,304	652,468	415,028	235,626	138,055	92,573	80,180
HARDWOOD	1959	1,723,765	183.431	205,379	267,872	260,762	246,805	167,012	122,127	96.607	189,410
	1970	1,846,173		238,771	273,078	268,206	255,139	182,732	126,353		221,856
	1980	2,091,574	216: 596	270,910	310,084	308,927	297,259	195,246	146,002	97,416	249,134
					ALC LIVE TIMBER (IN THOUSAND CUBIC FEET)						
SOFTWOOD	1959	2,670,828	404,159 638.643	588,354	619,541	565,465 626,078	294,669 397,106	133,736	101,910	31,887 49,792	25,410 45,862
	1980	4,150,047	255,812	939,293	774,516	656,025	417,408	204,453	138,665	117,985	84,984
HARDWOOD	1959	2,217,145	273.091	280,788	343,737	326,378	290,307	223.685	146.084	123.077	251,601
	1980	2,378,412	321,830	370,502	397,875	386,475	349,666	239,029	174.641	124,117	330,990
		2.695.125									

[1] 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.

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