

**Forest Statistics
for
South Florida
1970**

Forest Service - U.S. Department of Agriculture
Southeastern Forest Experiment Station
Asheville, North Carolina

FOREWORD

This report highlights the principal findings of the fourth Forest Survey of the timber resource in South Florida. The survey was started in February 1970 and completed in March 1970. Findings of the three previous surveys, completed in 1936, 1949, and 1959, provide the basis for measuring changes that have occurred and trends that have developed over the past 34 years. However, in this report, the primary emphasis is on the changes and trends that have taken place since the last survey.

Forest Survey, authorized by the McSweeney-McNary Forest Research Act of May 22, 1928, is a continuing nationwide undertaking by the regional experiment stations of the Forest Service, USDA. In Florida, Georgia, North Carolina, South Carolina, and Virginia, Forest Survey is an activity of the Southeastern Forest Experiment Station, with headquarters at Asheville, North Carolina. The general objective is to inventory periodically the forest lands, their extent, condition, and volume of timber, and to ascertain rates of forest growth and depletion. It is necessary to keep this basic information up to date to provide a sound basis for the formulation of forest policies and programs.

The 10-county area covered by this report is one of four Survey units in Florida. Similar reports, USDA Forest Service Resource Bulletins SE-14 and SE-15, have been issued for Northwest and Northeast Florida, and a report for Central Florida is planned for later this year. When completed, this survey 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 the collection of the field data.

Joe P. McClure, Project Leader of the Forest Survey in the Southeast, organized and coordinated the various phases of the Survey. Noel D. Cost was in charge of the data collection. William H. B. Haines was in charge of the computations. Richard L. Welch was responsible for compiling the timber removal and mortality information. Herbert A. Knight was in charge of the analysis and reporting.

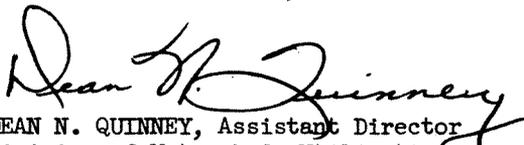
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by

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and

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CONTENTS

	<u>Page</u>
HIGHLIGHTS - - - - -	1
HOW THE FOREST SURVEY IS MADE - - - - -	3
RELIABILITY OF THE DATA - - - - -	4
DEFINITIONS OF TERMS - - - - -	6
 COUNTY TABLES:	
1. Area, by land class - - - - -	13
2. Area of commercial forest land, by ownership class - - - - -	14
3. Area of commercial forest land, by forest-type group - - - - -	15
4. Area of commercial forest land, by stand-size class - - - - -	16
5. Area of commercial forest land, by site class - - - - -	17
6. Area of commercial forest land, by stocking classes of growing-stock trees - - - - -	18
7. Volume of sawtimber and growing stock on commercial forest land, by species group - - - - -	19
8. Net annual growth of sawtimber and growing stock on commercial forest land, by species group - - - - -	20
9. Annual removals of sawtimber and growing stock on commercial forest land, by species group - - - - -	21
 UNIT TABLES:	
10. Area of commercial forest land, by forest type and ownership class - - - - -	22
11. Area of commercial forest land, by ownership and stocking classes of growing-stock trees - - - - -	22
12. Volume of timber on commercial forest land, by class and species group - - - - -	23
13. Number of growing-stock trees on commercial forest land, by species and diameter class - - - - -	24
14. Volume of all live trees on commercial forest land, by species and diameter class - - - - -	25
15. Volume of growing stock on commercial forest land, by species and diameter class - - - - -	26
16. Volume of sawtimber on commercial forest land, by species and diameter class - - - - -	27
17. Net annual growth and removals of growing stock on commercial forest land, by species - - - - -	28
18. Net annual growth and removals of sawtimber on commercial forest land, by species - - - - -	29
19. Mortality of growing stock and sawtimber on commercial forest land, by species - - - - -	30
20. Volume of all live trees and growing stock on commercial forest land, by ownership class and species group - - - - -	31
21. Volume of sawtimber on commercial forest land, by ownership class and species group - - - - -	31
22. Net annual growth and removals of growing stock on commercial forest land, by ownership class and species group - - - - -	32
23. Net annual growth and removals of sawtimber on commercial forest land, by ownership class and species group - - - - -	32
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 - - - - -	33
25. Land area, by class, major forest type, and survey completion date - - - - -	34
26. Volume of sawtimber, growing stock, and all live timber on commercial forest land, by species group, diameter class, and survey completion date - - - - -	35

HIGHLIGHTS

The unique physiographic features and rapidly changing land use patterns in South Florida present Forest Survey with a most difficult sampling problem in its attempt to measure periodically the timber resource there. The statistics presented in this report are the best available estimates; however, it is only fair to state at the outset that the statistical reliability of many of the data is extremely weak. Because timber production in this 10-county area does not command the strong economic position that it does in other areas of the Southeast, the benefits of greater precision do not justify the additional expenditures required to accurately sample these unique forest conditions.

Although this latest Forest Survey shows 2.2 million acres, or 28 percent, of the land in South Florida as forest, 1.5 million acres are classified as unproductive or noncommercial forest land. This 1.5-million figure includes approximately 441,400 acres of marginal forest land that were classified as commercial forest in the 1959 survey. An additional 511,400 acres of land classified as nonstocked forest in 1959 were reclassified as rangeland. These reclassifications, together with a real loss of almost 229,000 acres of commercial forest diverted to other land uses, leave only 727,500 acres classified as commercial forest, contrasted with 1.9 million acres in 1959.

The following conclusions were reached from an analysis of the principal findings of the Forest Survey:

Since 1959 in South Florida--

- area of commercial forest land has declined by 206,000 acres, or 22 percent, excluding reclassifications. Some 229,000 acres were diverted from commercial forest to other land uses while only 23,000 acres of new forest were added. About 58 percent of the diversion was to urban development and the remaining 42 percent to citrus groves, other cropland, and pasture. The new estimate of commercial forest area is 727,500 acres.
- average stand density of all live trees 5.0 inches d.b.h. and larger has increased from 29 to 36 square feet of basal area per acre. In spite of this buildup in average stand density, however, two out of every three acres of commercial forest are poorly stocked with growing-stock trees. About one out of every five trees 5.0 inches d.b.h. and larger does not qualify as growing stock because of poor form, roughness, or internal rot.
- there has been no significant change in the total volume of growing-stock timber, although average volume per acre has increased from 368 to 474 cubic feet. This tends to confirm that there is very

little timber volume on the reclassified areas. Volume of growing stock totals 345 million cubic feet, with cypress and slash pine the predominant species. Altogether, the hardwoods make up less than 10 percent of the volume of growing stock. Volume of sawtimber totals 964 million board feet, with essentially the same species composition as that of total growing stock. Three-fourths of this board-foot volume is in small sawtimber, trees less than 15.0 inches d.b.h.

- timber removals have about been in balance with net growth. In 1969, removals of growing stock totaled an estimated 6.5 million cubic feet and net growth totaled about 6.8 million cubic feet. Removals and net growth of sawtimber totaled 18.5 and 24.4 million board feet, respectively. Over the remeasurement period, almost 80 percent of the removals were the result of land clearing and only about 20 percent were the result of commercial logging.
- mortality of growing stock has reduced gross growth by as much as 50 percent. In fact, the survey shows in 1969 that mortality of hardwood was such that no net growth resulted whatsoever. Mortality of all growing stock in 1969 totaled an estimated 7.5 million cubic feet. Almost two-thirds of this loss is attributed to fire and the remainder is attributed to insects, weather, and suppression.
- the annual harvest of pulpwood has averaged about 37,000 cords, according to the annual pulpwood production studies. Over this period, the pulpwood harvest has ranged from a low of 19,000 cords in 1963, to a high of 58,000 cords in 1965. Some of this pulpwood harvest came from nongrowing-stock sources.

This latest Forest Survey also shows that--

- almost 95 percent, 688,100 acres, of the commercial forest land in South Florida is privately owned. The State owns about two-thirds of the 39,400 acres of publicly owned commercial forest. The two largest individual public holdings are the J. W. Corbett Wildlife Management Area in Palm Beach County and the Big Cypress Indian Reservation in Hendry County.
- tree planting has occurred on less than 5 percent of the commercial forest land. Most of the estimated 32,000 acres which have been planted are located in Glades County.

HOW THE FOREST SURVEY IS MADE

The method of survey is essentially 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 the total is large enough to meet the desired degree of reliability. The basic steps of the survey procedure were as follows:

1. Estimates of forest and nonforest areas were based on the ground classification of 2,569 sample clusters systematically distributed within the 10-county area. At each of the sample clusters, 16 points were classified as to land use. Because of the unique and complex land-use patterns which exist in this Survey Unit, photo classifications and direct aerial observation normally used in the area sample were not attempted. The area estimates and land-use separations, therefore, were based entirely upon the ground classifications.
2. Approximately 511,400 acres of land classified as nonstocked forest land in the 1959 survey were reclassified as rangeland. Approximately 441,400 acres of marginal forest land classified as commercial forest in the 1959 survey were reclassified as unproductive forest. These steps were taken in an attempt to provide a more realistic measure of the timber resource in this 10-county area.
3. Estimates of timber volume and forest classifications were based on measurements recorded at 222 ground sample locations systematically distributed within the commercial forest land. A 10-point cluster of plots systematically spaced on an acre were measured at each of these sample locations using a basal area factor of 37.5 square feet per acre. Trees less than 5.0 inches d.b.h. were tallied on fixed-radius plots around the point centers.
4. Existing volume-prediction equations were used to compute the volumes of individual tally trees. These volume equations were developed from measurements on standing trees in northern Florida and other areas of the Southeast. A mirror caliper and sectional aluminum poles were used to obtain the measurements. Felled trees were measured at active cutting operations to provide utilization factors for product and species groups and to supplement the standing tree-volume study.
5. Estimates of growth, removals, and mortality were determined from the remeasurement of 231 permanent sample plots which were established in the third survey.

6. Ownership information was collected from local contacts, correspondence, and public records. In those counties where the sample missed a particular ownership class, temporary sample plots were added and measured to describe the forest conditions within the ownership class.
7. All field data were sent to Asheville for editing and punched into cards and stored on magnetic tape 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:

	<u>Percent</u>
Per million acres of commercial forest land - - - - -	4.06
Per billion cubic feet of growing stock - - - - -	6.06
Per billion cubic feet of net annual growth - - - - -	0.83
Per billion cubic feet of annual removals - - - - -	1.79

Sampling errors for county and unit totals,^{1/} in terms of one standard error

County	Commercial forest area	Cubic-foot volume of growing stock		
		Inventory	Growth	Removals
- - - - - <u>Sampling error</u> ^{2/} - - - - -				
Broward	45.48	(3/)	(3/)	(3/)
Charlotte	20.41	27.32	31.17	70.14
Collier	8.88	15.90	14.48	53.16
Dade	29.58	80.31	96.24	48.62
Glades	14.35	33.55	33.63	75.69
Hendry	10.05	21.98	18.59	62.91
Lee	11.41	45.37	30.47	(3/)
Martin	17.00	33.80	38.97	42.06
Monroe	74.14	(3/)	(3/)	(3/)
Palm Beach	13.38	34.74	37.29	38.53
Unit total	4.77	10.31	9.87	23.14

^{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).

^{3/} Undefined.

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 ($4\frac{1}{2}$ 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.--Either a place operated as a unit of 10 or more acres from which the sale of agricultural products totaled \$50 or more annually, or a place operated as a unit of less than 10 acres from which the sale of agricultural products for the year amounted to at least \$250.

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, comprises 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 1-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 mts.), 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 two 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 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 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 non-commercial species.

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

Saplings.--Live trees 1.0 inch 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 top.--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.

Sawtimber trees.--Live trees of commercial species containing at least a 12-foot saw log and with at least one-third of the gross board-foot volume between the 1-foot stump and minimum saw-log top 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 1/4-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 5.--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-Mt., sand, and spruce pine.

Other softwoods.--White pine, hemlock, cypress, eastern redcedar, whitecedar, 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 poletimber 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 sawtimber.

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 ₁ /
Seedlings	600	--	5.0
2	560	--	5.4
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

₁/ Trees less than 5.0 inches d.b.h. were tallied on a 10-point cluster of circular, 1/300-acre plots at each sample location. Trees 5.0 inches d.b.h. and larger were tallied on a 10-point cluster of variable plots using a basal area factor of 37.5 at each sample location.

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	Soft hardwood	Hard hardwood
6	64.1	61.0	68.2	60.0	60.0
8	72.3	68.1	76.0	68.4	68.4
10	77.5	73.1	81.4	73.4	73.4
12	81.9	76.7	85.2	76.4	76.4
14	83.9	79.4	88.2	78.4	78.4
16	86.2	81.6	90.4	79.8	79.8
18	88.2	83.3	92.3	80.8	80.8
20	89.6	84.8	93.8	81.5	81.5
22	87.9	86.0	95.1	82.1	82.1
24+	92.1	--	97.8	82.9	82.9
Average	76.3	71.1	80.8	68.3	73.2

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 in South Florida was intended primarily to furnish inventory data for the 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, 1970

County	All land ^{1/}	Forest land				Nonforest land ^{2/}
		Total	Commercial forest	Unproductive forest	Productive reserved	
----- <u>Thousand acres</u> -----						
Broward	780.8	145.2	4.5	140.4	0.3	635.6
Charlotte	473.0	55.1	38.0	17.1	--	417.9
Collier	1,322.7	817.5	220.8	594.9	1.8	505.2
Dade	1,267.1	313.8	13.5	259.6	40.7	953.3
Glades	507.9	78.6	78.6	--	--	429.3
Hendry	744.7	139.8	117.8	21.9	0.1	604.9
Lee	531.7	181.8	117.2	64.5	0.1	349.9
Martin	354.7	70.9	49.0	14.2	7.7	283.8
Monroe	636.2	254.3	3.1	251.2	--	381.9
Palm Beach	1,282.6	177.5	85.0	92.5	--	1,105.1
Total	7,901.4	2,234.5	727.5	1,456.3	50.7	5,666.9

^{1/} From U. S. Bureau of the Census, Land and Water Area of the United States, 1960.

^{2/} Includes 186,000 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 and county, 1970

County	All ownerships	Ownership class									
		National Forest	Miscellaneous Federal	State	County and municipal	Forest industry	Farmer	Miscellaneous private Corporate	Individual		
		-- Thousand acres --									
Broward	4.5	--	--	1.1	0.6	--	--	--	--	--	2.8
Charlotte	38.0	--	--	4.9	0.6	--	--	15.0	5.0	--	12.5
Collier	220.8	--	--	0.6	(1/)	--	--	8.9	172.6	--	38.7
Dade	13.5	--	2.1	4.1	(1/)	--	--	--	--	--	7.3
Glades	78.6	--	2.2	--	--	--	--	6.9	66.0	--	3.5
Hendry	117.8	--	6.4	0.3	0.1	--	--	48.6	62.4	--	--
Lee	117.2	--	--	0.2	--	--	--	20.7	44.7	--	51.6
Martin	49.0	--	--	--	0.4	--	--	--	22.4	--	26.2
Monroe	3.1	--	--	--	--	--	--	--	--	--	3.1
Palm Beach	85.0	--	--	14.8	1.0	--	--	6.6	23.1	--	39.5
Total	727.5	--	10.7	26.0	2.7	--	--	106.7	396.2	--	185.2

1/ Less than 50 acres.

Table 3.--Area of commercial forest land, by forest-type group and county, 1970

County	All type groups	Forest-type groups									
		Longleaf-slash pine	Loblolly-shortleaf pine	Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood				
		Thousand acres									
Broward	4.5	2.8	1.7	--	--	--	--	--	--	--	--
Charlotte	38.0	25.5	--	--	--	12.5	--	--	--	--	--
Collier	220.8	78.0	5.9	8.9	--	128.0	--	--	--	--	--
Dade	13.5	13.5	--	--	--	--	--	--	--	--	--
Glades	78.6	52.1	--	3.5	--	23.0	--	--	--	--	--
Hendry	117.8	59.0	--	--	--	58.8	--	--	--	--	--
Lee	117.2	72.5	--	6.9	6.9	30.9	--	--	--	--	--
Martin	49.0	30.3	7.5	--	--	11.2	--	--	--	--	--
Monroe	3.1	3.1	--	--	--	--	--	--	--	--	--
Palm Beach	85.0	63.4	--	10.7	--	10.9	--	--	--	--	--
Total	727.5	400.2	15.1	30.0	6.9	275.3	--	--	--	--	--

Table 4.--Area of commercial forest land, by stand-size class and county, 1970

County	All stands	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling and seedling	
----- Thousand acres -----					
Broward	4.5	--	4.5	--	--
Charlotte	38.0	10.0	12.5	13.0	2.5
Collier	220.8	68.5	63.1	41.6	47.6
Dade	13.5	--	6.2	--	7.3
Glades	78.6	31.2	13.9	24.3	9.2
Hendry	117.8	24.7	52.0	22.5	18.6
Lee	117.2	7.1	24.1	44.7	41.3
Martin	49.0	11.2	7.5	11.6	18.7
Monroe	3.1	--	--	3.1	--
Palm Beach	85.0	21.6	16.5	14.0	32.9
Total	727.5	174.3	200.3	174.8	178.1

Table 5.-- Area of commercial forest land, by site class and county, 1970

County	All classes	Site class				
		1	2	3	4	5
----- <u>Thousand acres</u> -----						
Broward	4.5	--	--	--	2.8	1.7
Charlotte	38.0	--	--	--	15.5	22.5
Collier	220.8	--	--	--	101.8	119.0
Dade	13.5	--	--	--	--	13.5
Glades	78.6	--	--	3.5	68.1	7.0
Hendry	117.8	--	--	3.4	72.9	41.5
Lee	117.2	--	--	--	44.9	72.3
Martin	49.0	--	--	--	7.5	41.5
Monroe	3.1	--	--	--	--	3.1
Palm Beach	85.0	--	--	--	33.8	51.2
Total	727.5	--	--	6.9	347.3	373.3

Table 6.--Area of commercial forest land, by stocking classes of growing-stock trees, by county, 1970

County	All classes	Stocking percentage ^{1/}				
		Over 130	100-130	60-99	16.7-59	Less than 16.7
----- <u>Thousand acres</u> -----						
Broward	4.5	--	--	1.7	2.8	--
Charlotte	38.0	--	2.5	13.0	20.0	2.5
Collier	220.8	8.9	8.9	68.4	87.0	47.6
Dade	13.5	--	--	6.2	--	7.3
Glades	78.6	3.5	10.4	13.9	41.6	9.2
Hendry	117.8	7.0	6.9	37.2	48.1	18.6
Lee	117.2	3.4	3.5	17.2	51.8	41.3
Martin	49.0	--	--	3.8	26.5	18.7
Monroe	3.1	--	--	--	3.1	--
Palm Beach	85.0	--	3.3	9.9	38.9	32.9
Total	727.5	22.8	35.5	171.3	319.8	178.1

^{1/} See stocking standards on page 12.

Table 7.--Volume of sawtimber and growing stock on commercial forest land, by species group and county, 1970

County	Sawtimber					Growing stock				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Million board feet	Million cubic feet ^{1/}								
Broward	--	--	--	--	--	1.8	1.8	--	--	--
Charlotte	43.1	29.8	13.3	--	--	18.6	10.8	7.8	--	--
Collier	353.8	85.6	236.2	22.4	--	122.1	27.8	77.3	10.1	6.9
Dade	15.7	15.7	--	--	--	6.9	6.9	--	--	--
Glades	177.8	70.6	98.1	3.4	3.4	54.3	18.1	32.2	3.2	0.8
Hendry	194.0	26.5	156.2	7.4	7.4	74.6	16.4	52.8	2.9	2.5
Lee	85.4	11.0	74.4	--	--	32.2	8.3	23.9	--	--
Martin	25.6	24.1	--	1.5	1.5	10.9	10.1	--	--	0.8
Monroe	2.3	2.3	--	--	--	0.5	0.5	--	--	--
Palm Beach	66.1	62.2	3.9	--	--	23.1	20.0	3.1	--	--
Total	963.8	327.8	582.1	34.7	34.7	345.0	120.7	197.1	16.2	11.0

^{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^{1/} and county, 1969

County	Sawtimber					Growing stock				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Million board feet	Million cubic feet								
Broward	--	--	--	--	--	--	--	--	--	--
Charlotte	1.5	1.3	0.2	--	--	0.1	0.1	--	--	--
Collier	6.9	3.2	3.7	--	--	0.4	0.3	0.1	--	--
Dade	0.4	0.4	--	--	--	1.6	0.9	0.7	--	--
Glades	4.3	2.3	2.0	--	--	0.4	0.4	--	--	--
Hendry	4.7	1.9	2.8	--	--	1.0	0.5	0.5	--	--
Lee	2.1	0.7	1.4	--	--	1.2	0.7	0.5	--	--
Martin	1.7	1.7	--	--	--	0.9	0.6	0.3	--	--
Monroe	(2/)	(2/)	--	--	--	0.3	0.3	--	--	--
Palm Beach	2.8	2.7	0.1	--	--	(3/)	(3/)	--	--	--
Total	24.4	14.2	10.2	--	--	6.8	4.7	2.1	--	--

^{1/} Because of the high mortality of hardwood, there was no net growth.

^{2/} Less than 50,000 board feet.

^{3/} Less than 50,000 cubic feet.

Table 9.--Annual removals of sawtimber and growing stock on commercial forest land,
by species group and county, 1969

County	Sawtimber					Growing stock				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	Million board feet					Million cubic feet				
Broward	2.3	0.4	1.9	--	--	0.8	0.1	0.7	--	--
Charlotte	0.8	0.8	--	--	--	0.2	0.2	--	--	--
Collier	1.4	1.1	0.3	--	--	0.4	0.3	0.1	--	--
Dade	2.2	2.2	--	--	--	0.6	0.6	--	--	--
Glades	--	--	--	--	--	0.3	0.2	0.1	--	--
Hendry	4.8	2.9	1.3	--	0.6	1.8	0.9	0.6	--	0.3
Lee	--	--	--	--	--	--	--	--	--	--
Martin	1.0	0.7	--	--	0.3	0.7	0.6	--	--	0.1
Monroe	--	--	--	--	--	--	--	--	--	--
Palm Beach	6.0	6.0	--	--	--	1.7	1.7	--	--	--
Total	18.5	14.1	3.5	--	0.9	6.5	4.6	1.5	--	0.4

Table 10.--Area of commercial forest land, by forest type and ownership class, 1970

Forest type	All ownerships	Ownership class				
		National Forest	Other public	Forest industry	Farmer	Misc. private
----- <u>Thousand acres</u> -----						
Softwood types:						
Longleaf pine	9.4	--	--	--	--	9.4
Slash pine	390.8	--	20.4	--	49.8	320.6
Sand pine	9.2	--	1.7	--	--	7.5
Pond pine	5.9	--	--	--	3.0	2.9
Total	415.3	--	22.1	--	52.8	340.4
Hardwood types:						
Oak-pine	30.0	--	7.4	--	6.3	16.3
Southern scrub oak	6.9	--	--	--	--	6.9
Oak-gum-cypress	275.3	--	9.9	--	47.6	217.8
Total	312.2	--	17.3	--	53.9	241.0
All types	727.5	--	39.4	--	106.7	581.4

Table 11.--Area of commercial forest land, by ownership and stocking classes of growing-stock trees, 1970

Ownership classes	All classes	Stocking percentage ^{1/}				
		Over 130	100-130	60-99	16.7-59	Less than 16.7
----- <u>Thousand acres</u> -----						
National Forest	--	--	--	--	--	--
Other public	39.4	--	--	15.9	20.0	3.5
Forest industry	--	--	--	--	--	--
Farmer	106.7	3.5	12.9	28.9	48.1	13.3
Misc. private	581.4	19.3	22.6	126.5	251.7	161.3
All ownerships	727.5	22.8	35.5	171.3	319.8	178.1

^{1/} See stocking standards on page 12.

Table 12.--Volume of timber on commercial forest land,
by class and species group, 1970

Class of timber	: All : species	: Pine	: Other : softwood	: Soft : hardwood	: Hard : hardwood
- - - - - <u>Million cubic feet</u> - - - - -					
Sawtimber trees:					
Saw-log portion	193.2	64.0	118.0	3.6	7.6
Upper-stem portion	22.3	6.1	14.7	0.7	0.8
Total	215.5	70.1	132.7	4.3	8.4
Poletimber trees	129.5	50.6	64.4	11.9	2.6
All growing-stock trees	345.0	120.7	197.1	16.2	11.0
Rough trees:					
Sawtimber-size trees	18.0	0.1	7.9	1.4	8.6
Poletimber-size trees	33.8	0.5	16.3	6.9	10.1
Total	51.8	0.6	24.2	8.3	18.7
Rotten trees:					
Sawtimber-size trees	6.3	0.2	4.1	0.8	1.2
Poletimber-size trees	2.1	--	2.0	0.1	--
Total	8.4	0.2	6.1	0.9	1.2
Salvable dead trees:					
Sawtimber-size trees	--	--	--	--	--
Poletimber-size trees	--	--	--	--	--
Total	--	--	--	--	--
Total, all timber	405.2	121.5	227.4	25.4	30.9

Table 13.--Number of growing-stock trees on commercial forest land, by species and diameter class, 1970

Species	All classes	Diameter class (inches at breast height)										Total softwoods	Total hardwoods	All species		
		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	410		189	183	28	10										
Slash pine	20,786	9,588	6,004	2,938	1,154	758	223					92	24			
Pond pine	128		80	48												
Sand pine	130	70	36	24												
Baldcypress	9,155	2,527	3,052	1,561	1,115	510	211					150	10		17	2
Pondcypress	15,615	5,999	4,602	2,731	1,128	647	296					112	52		37	11
Total softwoods	46,224	18,184	13,963	7,485	3,425	1,925	730	354	86	59	13					
Hardwood:																
Select white oaks																
Select red oaks																
Other white oaks	164			58	50	26	17					7	6			
Other red oaks	827	355	151	50	76	89	51					18	10		25	2
Florida maple	108		84	24												
Soft maple	2,038	999	637	215	137	12	26					7			5	
Tupelo and blackgum	115	56	39			13						7				
Ash																
Elm																
Sweetbay	298	116	148	24												
Loblolly-bay	11					11										
Hackberry																
Willow																
Other eastern hardwoods	780	628	108	44												
Total hardwoods	4,341	2,154	1,167	415	263	151	104	39	16	30	2					
All species	50,565	20,338	15,130	7,900	3,688	2,076	834	393	102	89	15					

Table 14.--Volume of all live trees on commercial forest land, by species and diameter class, 1970

Species	All classes	Diameter class (inches at breast height)										Million cubic feet	
		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		
Softwood:													
Longleaf pine	3.5	--	1.1	1.8	0.4	0.2	--	--	--	--	--	--	--
Slash pine	116.7	22.2	27.2	26.6	14.7	15.6	5.9	3.2	1.0	0.3	--	--	--
Pond pine	0.8	--	0.3	0.5	--	--	--	--	--	--	--	--	--
Sand pine	0.5	0.1	0.2	0.2	--	--	--	--	--	--	--	--	--
Baldcypress	95.1	9.2	22.5	17.0	18.4	12.4	6.6	6.1	1.2	1.3	0.4	0.4	0.4
Pondcypress	132.3	21.6	29.3	28.8	18.9	14.5	8.4	4.2	2.7	2.5	1.4	1.4	1.4
Total softwoods	348.9	53.1	80.6	74.9	52.4	42.7	20.9	13.5	4.9	4.1	1.8	1.8	1.8
Hardwood:													
Select white oaks	--	--	--	--	--	--	--	--	--	--	--	--	--
Select red oaks	--	--	--	--	--	--	--	--	--	--	--	--	--
Other white oaks	10.4	1.6	1.9	1.0	1.4	1.7	1.3	1.1	0.4	--	--	--	--
Other red oaks	17.9	1.2	2.7	1.7	2.2	2.9	2.0	1.4	0.8	2.4	0.6	0.6	0.6
Florida maple	1.0	--	0.8	0.2	--	--	--	--	--	--	--	--	--
Soft maple	16.3	3.6	4.7	3.2	2.1	1.0	0.9	0.2	--	0.6	--	--	--
Tupelo and blackgum	1.7	0.4	0.3	0.3	0.2	0.2	--	0.3	--	--	--	--	--
Ash	1.3	0.8	0.5	--	--	--	--	--	--	--	--	--	--
Elm	0.2	--	0.2	--	--	--	--	--	--	--	--	--	--
Sweetbay	2.5	0.8	0.9	0.3	--	--	0.5	--	--	--	--	--	--
Loblolly-bay	0.3	--	--	--	--	0.3	--	--	--	--	--	--	--
Hackberry	0.2	--	--	0.2	--	--	--	--	--	--	--	--	--
Willow	4.2	2.3	1.1	0.6	0.2	--	--	--	--	--	--	--	--
Other eastern hardwoods	0.3	0.2	0.1	--	--	--	--	--	--	--	--	--	--
Total hardwoods	56.3	10.9	13.2	7.5	6.1	6.1	4.7	3.0	1.2	3.0	0.6	0.6	0.6
All species	405.2	64.0	93.8	82.4	58.5	48.8	25.6	16.5	6.1	7.1	2.4	2.4	2.4

Table 15.--Volume of growing stock on commercial forest land, by species and diameter class, 1970

Species	Diameter class (inches at breast height)											Million cubic feet
	All classes	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	
Softwood:												
Longleaf pine	3.5	--	1.1	1.8	0.4	0.2	--	--	--	--	--	--
Slash pine	115.9	21.8	27.1	26.4	14.7	15.6	5.9	3.2	0.9	0.3	--	--
Pond pine	0.8	--	0.3	0.5	--	--	--	--	--	--	--	--
Sand pine	0.5	0.1	0.2	0.2	--	--	--	--	--	--	--	--
Baldcypress	87.3	8.1	19.5	16.0	17.6	11.9	6.4	5.9	0.4	1.1	0.4	0.4
Pondcypress	109.8	14.5	22.3	24.2	16.7	13.8	8.3	3.8	2.4	2.5	1.3	1.3
Total softwoods	317.8	44.5	70.5	69.1	49.4	41.5	20.6	12.9	3.7	3.9	1.7	1.7
Hardwood:												
Select white oaks	--	--	--	--	--	--	--	--	--	--	--	--
Select red oaks	--	--	--	--	--	--	--	--	--	--	--	--
Other white oaks	2.1	--	--	0.4	0.5	0.4	0.5	0.1	0.2	--	--	--
Other red oaks	8.3	0.8	0.5	0.3	1.0	1.5	1.2	0.7	0.5	1.5	0.3	0.3
Florida maple	0.6	--	0.4	0.2	--	--	--	--	--	--	--	--
Soft maple	11.5	3.1	3.3	1.9	1.8	0.2	0.7	0.2	--	0.3	--	--
Tupelo and blackgum	0.9	0.2	0.2	--	--	0.2	--	0.3	--	--	--	--
Ash	--	--	--	--	--	--	--	--	--	--	--	--
Elm	--	--	--	--	--	--	--	--	--	--	--	--
Sweetbay	1.9	0.4	0.9	0.3	--	--	0.3	--	--	--	--	--
Loblolly-bay	0.3	--	--	--	--	0.3	--	--	--	--	--	--
Hackberry	--	--	--	--	--	--	--	--	--	--	--	--
Willow	1.6	1.1	0.3	0.2	--	--	--	--	--	--	--	--
Other eastern hardwoods	--	--	--	--	--	--	--	--	--	--	--	--
Total hardwoods	27.2	5.6	5.6	3.3	3.3	2.6	2.7	1.3	0.7	1.8	0.3	0.3
All species	345.0	50.1	76.1	72.4	52.7	44.1	23.3	14.2	4.4	5.7	2.0	2.0

Table 16.--Volume of sawtimber on commercial forest land, by species and diameter class, 1970

Species	Diameter class (inches at breast height)										Million board feet	
	All classes	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger			
Softwood:												
Longleaf pine	10.4	7.8	1.7	0.9	--	--	--	--	--	--	17.0	8.0
Slash pine	315.2	112.5	69.6	80.2	30.2	16.9	4.3	1.5	--	--	17.0	8.0
Pond pine	1.6	1.6	--	--	--	--	--	--	--	--	--	--
Sand pine	0.6	0.6	--	--	--	--	--	--	--	--	--	--
Baldcypress	272.2	60.6	80.7	59.2	33.1	30.5	2.0	4.1	2.0	2.0	17.0	8.0
Pondcypress	309.9	90.5	70.6	60.7	39.8	18.4	12.5	11.4	6.0	6.0	17.0	8.0
Total softwoods	909.9	273.6	222.6	201.0	103.1	65.8	18.8	17.0	8.0	8.0	17.0	8.0
Hardwood:												
Select white oaks	--	--	--	--	--	--	--	--	--	--	--	--
Select red oaks	--	--	--	--	--	--	--	--	--	--	--	--
Other white oaks	6.6	--	1.6	1.4	2.1	0.6	0.9	--	--	--	--	--
Other red oaks	28.1	--	4.0	6.3	5.3	2.5	2.0	6.8	1.2	1.2	--	--
Florida maple	--	--	--	--	--	--	--	--	--	--	--	--
Soft maple	14.5	--	8.2	1.0	3.8	0.9	--	0.6	--	--	--	--
Tupelo and blackgum	2.4	--	--	1.0	--	1.4	--	--	--	--	--	--
Ash	--	--	--	--	--	--	--	--	--	--	--	--
Elm	--	--	--	--	--	--	--	--	--	--	--	--
Sweetbay	1.2	--	--	--	1.2	--	--	--	--	--	--	--
Loblolly-bay	1.1	--	--	1.1	--	--	--	--	--	--	--	--
Hackberry	--	--	--	--	--	--	--	--	--	--	--	--
Willow	--	--	--	--	--	--	--	--	--	--	--	--
Other eastern hardwoods	--	--	--	--	--	--	--	--	--	--	--	--
Total hardwoods	53.9	--	13.8	10.8	12.4	5.4	2.9	7.4	1.2	1.2	17.0	8.0
All species	963.8	273.6	236.4	211.8	115.5	71.2	21.7	24.4	9.2	9.2	17.0	8.0

Table 17.--Net annual growth and removals of growing stock on commercial forest land, by species, 1969

Species	: Net annual growth :	: Annual timber removals
	- - <u>Million cubic feet</u> - -	
Softwood:		
Yellow pines	4.7	4.6
Cypress	2.1	1.5
Total softwoods	6.8	6.1
Hardwood:		
Select white and red oaks	--	--
Other white and red oaks	--	0.4
Hard maple	--	--
Ash, walnut, and black cherry	--	--
Other hardwoods	--	--
Total hardwoods	--	0.4
All species	6.8	6.5

Table 18.--Net annual growth and removals of sawtimber on commercial forest land, by species, 1969

Species	: Net annual growth :	: Annual timber removals
	- - <u>Million board feet</u> - -	
Softwood:		
Yellow pines	14.2	14.1
Cypress	10.2	3.5
Total softwoods	24.4	17.6
Hardwood:		
Select white and red oaks	--	--
Other white and red oaks	--	0.9
Hard maple	--	--
Ash, walnut, and black cherry	--	--
Other hardwoods	--	--
Total hardwoods	--	0.9
All species	24.4	18.5

Table 19.--Mortality of growing stock and sawtimber on commercial forest land, by species, 1969

Species	: Growing stock :	: Sawtimber
	<u>Million cubic feet</u>	<u>Million board feet</u>
Softwood:		
Yellow pines	2.9	8.2
Cypress	2.6	9.2
Total softwoods	5.5	17.4
Hardwood:		
Select white and red oaks	--	--
Other white and red oaks	1.2	4.4
Hard maple	--	--
Ash, walnut, and black cherry	--	--
Other hardwoods	0.8	1.1
Total hardwoods	2.0	5.5
All species	7.5	22.9

Table 20.--Volume of all live trees and growing stock on commercial forest land, by ownership class and species group, 1970

Ownership class	All live trees					Growing stock				
	All species	Pine	Other softwood	Softwood hardwood	Hardwood	All species	Pine	Other softwood	Softwood hardwood	Hardwood
National Forest	--	--	--	--	--	--	--	--	--	--
Other public	22.1	6.8	11.1	2.3	1.9	16.9	6.8	8.4	0.9	0.8
Forest industry	--	--	--	--	--	--	--	--	--	--
Farmer	80.4	25.8	48.6	0.9	5.1	68.8	25.7	41.7	0.2	1.2
Miscellaneous private	302.7	88.9	167.7	22.2	23.9	259.3	88.2	147.0	15.1	9.0
All ownerships	405.2	121.5	227.4	25.4	30.9	345.0	120.7	197.1	16.2	11.0

Table 21.--Volume of sawtimber on commercial forest land, by ownership class and species group, 1970

Ownership class	Small sawtimber ^{1/}					Large sawtimber ^{2/}				
	All species	Pine	Other softwood	Softwood hardwood	Hardwood	All species	Pine	Other softwood	Softwood hardwood	Hardwood
National Forest	--	--	--	--	--	--	--	--	--	--
Other public	36.0	14.7	19.1	0.8	1.4	11.8	--	9.4	1.3	1.1
Forest industry	--	--	--	--	--	--	--	--	--	--
Farmer	129.0	64.6	62.6	--	1.8	48.2	5.2	39.3	1.0	2.7
Miscellaneous private	556.8	195.6	340.6	10.5	10.1	182.0	47.7	111.1	5.6	17.6
All ownerships	721.8	274.9	422.3	11.3	13.3	242.0	52.9	159.8	7.9	21.4

^{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 and removals of growing stock on commercial forest land, by ownership class and species group, 1969

Ownership class	Net annual growth					Annual timber removals					Million cubic feet	
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood		
National Forest	--	--	--	--	--	--	--	--	--	--	--	--
Other public	0.5	0.4	0.1	--	--	--	--	--	--	--	--	--
Forest industry	--	--	--	--	--	--	--	--	--	--	--	--
Farmer	1.5	1.1	0.4	--	--	0.9	0.6	--	--	--	0.3	--
Miscellaneous private	4.8	3.2	1.6	--	--	5.6	4.0	1.5	--	--	0.1	--
All ownerships	6.8	4.7	2.1	--	--	6.5	4.6	1.5	--	--	0.4	--

Table 23.--Net annual growth and removals of sawtimber on commercial forest land, by ownership class and species group, 1969

Ownership class	Net annual growth					Annual timber removals					Million board feet	
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood		
National Forest	--	--	--	--	--	--	--	--	--	--	--	--
Other public	0.7	0.4	0.3	--	--	--	--	--	--	--	--	--
Forest industry	--	--	--	--	--	--	--	--	--	--	--	--
Farmer	5.4	3.7	1.7	--	--	1.9	1.3	--	--	--	0.6	--
Miscellaneous private	18.3	10.1	8.2	--	--	16.6	12.8	3.5	--	--	0.3	--
All ownerships	24.4	14.2	10.2	--	--	18.5	14.1	3.5	--	--	0.9	--

Table 24.--Average net volume per acre of sawtimber, growing stock, and other live timber^{1/} on commercial forest land, by ownership class, major forest type, and species group, 1970

Forest type, species group, and class of material	Ownership class											
	All ownerships		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	720	278	--	--	1,176	607	--	--	956	412	671	248
Hardwood	5	1	--	--	--	--	--	--	--	--	6	1
Total	725	279	--	--	1,176	607	--	--	956	412	677	249
Other timber:												
Softwood	--	8	--	--	--	--	--	--	--	--	--	9
Hardwood	--	7	--	--	--	--	--	--	--	--	--	8
Total	--	15	--	--	--	--	--	--	--	--	--	17
Oak-pine type:												
Growing stock:												
Softwood	915	299	--	--	720	202	--	--	2,315	725	397	150
Hardwood	--	--	--	--	--	--	--	--	--	--	--	--
Total	915	299	--	--	720	202	--	--	2,315	725	397	150
Other timber:												
Softwood	--	20	--	--	--	--	--	--	--	57	--	10
Hardwood	--	42	--	--	--	--	--	--	--	--	--	67
Total	--	62	--	--	--	--	--	--	--	57	--	77
Upland hardwood types:												
Growing stock:												
Softwood	--	--	--	--	--	--	--	--	--	--	--	--
Hardwood	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--
Other timber:												
Softwood	--	--	--	--	--	--	--	--	--	--	--	--
Hardwood	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--
Bottomland hardwood types:												
Growing stock:												
Softwood	2,065	685	--	--	1,248	363	--	--	2,257	871	2,110	678
Hardwood	180	93	--	--	203	72	--	--	114	29	192	109
Total	2,245	778	--	--	1,451	435	--	--	2,371	900	2,302	787
Other timber:												
Softwood	--	96	--	--	--	116	--	--	--	138	--	84
Hardwood	--	88	--	--	--	110	--	--	--	97	--	83
Total	--	184	--	--	--	226	--	--	--	235	--	167
All types:												
Growing stock:												
Softwood	1,251	437	--	--	1,177	415	--	--	1,625	638	1,188	402
Hardwood	74	37	--	--	126	45	--	--	51	13	75	41
Total	1,325	474	--	--	1,303	460	--	--	1,676	651	1,263	443
Other timber:												
Softwood	--	43	--	--	--	72	--	--	--	66	--	37
Hardwood	--	40	--	--	--	69	--	--	--	44	--	38
Total	--	83	--	--	--	141	--	--	--	110	--	75
All timber	1,325	557	--	--	1,303	601	--	--	1,676	761	1,263	518

^{1/} Rough and rotten trees.

Table 25.--Land area, by class, major forest type, and survey completion date, 1949, 1959, and 1970

Land use class	Survey completion date			Change 1959-1970
	1949	1959 ^{2/}	1970	
- - - - - <u>Thousand acres</u> - - - - -				
Forest land:				
Commercial forest land:				
Pine and oak-pine types	1,755.5	1,216.6	445.3	- 771.3
Hardwood types	418.7	669.7	282.2	- 387.5
Total	<u>2,174.2</u>	<u>1,886.3</u>	<u>727.5</u>	<u>-1,158.8</u>
Noncommercial forest land:				
Productive-reserved	24.2	54.4	50.7	- 3.7
Unproductive	1,115.6	1,153.1	1,456.3	+ 303.2
Total	<u>1,139.8</u>	<u>1,207.5</u>	<u>1,507.0</u>	<u>+ 299.5</u>
Nonforest land:				
Cropland	^{3/} 392.6	^{3/} 427.3	856.1	+ 428.8
Pasture and range	1,443.8	883.7	1,589.8	+ 706.1
Other	2,703.7	3,180.7	3,035.0	- 145.7
Total	<u>4,540.1</u>	<u>4,491.7</u>	<u>5,480.9</u>	<u>+ 989.2</u>
All land ^{1/}	<u>7,854.1</u>	<u>7,585.5</u>	<u>7,715.4</u>	<u>+ 129.9</u>

^{1/} Excludes all water areas.

^{2/} These figures differ slightly from reported figures because of revisions in the estimates of land area.

^{3/} Source: Census of Agriculture.

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 million board feet)												
Softwood	1949	682.7	--	--	228.4	182.4	121.4	69.8	40.0	1.8	38.9	
	1959	874.1	--	--	243.6	249.6	188.6	68.4	50.2	31.0	42.7	
	1970	909.9	--	--	273.6	222.6	201.0	103.1	65.8	18.8	25.0	
Hardwood	1949	30.4	--	--	--	6.9	5.2	1.1	0.8	7.0	9.4	
	1959	58.0	--	--	--	11.9	12.0	11.3	9.5	5.3	8.0	
	1970	53.9	--	--	--	13.8	10.8	12.4	5.4	2.9	8.6	
GROWING STOCK (in million cubic feet)												
Softwood	1949	243.0	35.6	53.2	57.7	40.5	25.1	13.9	7.9	0.4	8.7	
	1959	310.5	58.7	56.7	61.6	55.4	38.9	13.6	9.9	6.1	9.6	
	1970	317.8	44.5	70.5	69.1	49.4	41.5	20.6	12.9	3.7	5.6	
Hardwood	1949	13.6	2.6	1.6	2.0	1.6	1.3	0.3	0.2	1.7	2.3	
	1959	32.7	9.3	5.9	3.8	2.8	2.9	2.5	2.2	1.3	2.0	
	1970	27.2	5.6	5.6	3.3	3.3	2.6	2.7	1.3	0.7	2.1	
ALL LIVE TIMBER (in million cubic feet)												
Softwood	1949	266.5	42.4	60.8	62.5	42.9	25.8	14.2	8.2	0.5	9.2	
	1959	342.6	69.9	64.8	66.7	58.7	40.0	13.9	10.3	8.1	10.2	
	1970	348.9	53.1	80.6	74.9	52.4	42.7	20.9	13.5	4.9	5.9	
Hardwood	1949	27.1	5.1	3.9	4.6	3.1	2.9	0.4	0.4	2.8	3.9	
	1959	67.9	18.1	14.0	8.6	5.3	6.7	4.3	5.4	2.1	3.4	
	1970	56.3	10.9	13.2	7.5	6.1	6.1	4.7	3.0	1.2	3.6	

^{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 as well as for the reclassifications of commercial forest land.

