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MARCH 1, 1948

FOREST RESOURCES OF THE LOWER COASTAL PLAIN OF SOUTH CAROLINA

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PREFACE

Through the McSweeney-McNary Act of 1928, Congress authorized the Secretary of Agriculture to conduct a comprehensive survey of the forest resources of the United States. The Forest Survey was organized by the Forest Service to carry out the provisions of the Act through Regional Forest Experiment Stations. In the Southeastern States the Forest Survey is an activity in the Division of Forest Economics of the Southeastern Forest Experiment Station, Asheville, North Carolina, and its work is divided into five major phases:

1. Inventory. Determination of the extent, location, and condition of forest lands, and the quantity, species, and quality of timber on these lands.
2. Growth. Determination of the current rate of timber growth.
3. Drain. Determination of the amount of industrial and domestic wood removed from the growing stock and the loss resulting from fire, insects, disease, suppression, and other causes.
4. Requirements. Determination of the current and probable future requirements for all classes of forest products.
5. Analysis. Analysis of the relation of Survey findings to one another and to other economic factors as a basis for public and private policies regarding forest land use and management.

South Carolina was covered by the original Forest Survey in the period 1934-36, and reports presenting its findings have been published. Since then an effort has been made to keep the original inventory up to date by balancing annual growth against timber drain, but better fire protection, better forest management, more intensive use, and other factors have caused changes in the forest growing stock that can only be measured accurately by on-the-ground resurveys. This progress report presents the results of such a resurvey in the lower Coastal Plain of South Carolina, where the field work was done between November, 1946, and March, 1947. Similar reports on the timber inventory of the upper Coastal Plain and Piedmont will be issued as the field and office work is completed. For a description of methods and accuracy, see the Appendix.

Field Party

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TABLES FOR THE UNIT

AREA

1. Gross area by broad use class, 1947
2. Ownership of all land, 1947
3. Ownership of all private properties of 1,000 acres or more, 1946
4. Ownership of commercial forest land, 1947
5. Commercial forest area by forest type and stand-size class, 1947

NET VOLUME OF ALL TREES

6. By species group and class of material, 1947
7. By species group and diameter class, 1947
8. By forest type and stand-size class, 1947

NET VOLUME OF POLE-TIMBER TREES

9. By species group and diameter class, 1947
10. By forest type and stand-size class, 1947

NET VOLUME OF SAW TIMBER

11. By species group and diameter class, 1947
12. By forest type and stand-size class, 1947
13. By stand-size class and diameter class, 1947

AVERAGE VOLUME PER ACRE

14. Of all trees, by forest type and stand-size class, 1947
15. Of pole-timber trees, by forest type and stand-size class, 1947
16. Of saw timber, by forest type and stand-size class, 1947

TABLES FOR COUNTIES

17. County area by broad use class, 1947
18. Ownership of all land, by county, 1947
19. Ownership of all commercial forest land, by county, 1947
20. Net volume of all trees by pulping preference species and tree-diameter groups, by county, 1947
21. Net volume of saw timber by species group and county, 1947
22. Net volume of saw timber by broad species and tree-diameter groups, by county, 1947

CHANGE IN TIMBER VOLUME
SINCE THE ORIGINAL SURVEY

Decreased

Pine saw timber - - - - -	14 percent
Hardwood and cypress saw timber - - - - -	22 percent
Pines 5.0 inches d.b.h. and larger - - -	15 percent

Increased

Hardwood and cypress	
5.0 inches d.b.h. and larger - - - - -	22 percent

The original Forest Survey was made in the lower Coastal Plain of South Carolina about twelve years ago. Since then some of the best hardwood timberland has been flooded by waters of the Pinopolis Reservoir, furniture and veneer plants have increased their requirements for good-quality hardwoods, and large pulpmills have been built at Charleston and Georgetown. In addition, new pulpmills in Georgia and North Carolina have added to the demand for pulpwood. All of this, superimposed upon a high level of lumber production, has caused a reduction in all classes of timber except the hardwoods and cypress of less than saw-timber size.

The above percentage changes are based upon a comparison of the original Forest Survey inventory in nine counties of the lower Coastal Plain with a new inventory obtained by resurvey in early 1947. For the purpose of this comparison, the original survey definition of hardwood saw timber (trees 13 inches d.b.h. and larger) has been used. Elsewhere in this report, saw-timber volumes include the board-foot contents of hardwoods 11 to 13 inches d.b.h., as well, to accord with the closer utilization practices now prevailing. However, certain other changes of definition which could not be adjusted tend to reduce the validity of the comparison, and the adoption of new form-class volume tables for the 1947 survey introduces the possibility of additional differences. For these reasons, the values given should be considered only as approximations of the actual changes.

FOREST RESOURCES OF THE LOWER COASTAL PLAIN OF SOUTH CAROLINA

The area covered by this report consists of the nine counties of Beaufort, Berkeley, Charleston, Colleton, Dorchester, Georgetown, Hampton, Jasper, and Williamsburg. About one-half the area, bordering the ocean, lies in the flatwoods, where elevations seldom exceed 50 feet above sea-level. The remainder of the area lies at elevations ranging up to about 200 feet, with slightly more pronounced relief. The total area is 4,876,200 acres, of which 3,215,500 acres are forested. Loblolly pine is the leading tree species. The net volume of saw timber, of all species, is 10.9 billion board feet. The volume of both pole-timber and saw-timber trees is 47.8 million cords, 47 percent softwood.

The area includes parts of original South Carolina Survey Units 1 and 2

GROSS AREA
4,876,200 ACRES

FOREST LAND
65.9 PERCENT

AGRICULTURAL LAND
13.5 PERCENT

MARSH AND BEACH
10.0 PERCENT

WATER
6.2 PERCENT

IDLE LAND
3.0 PERCENT

URBAN AND OTHER
1.4 PERCENT

Sixty-six percent of the gross area of the unit is forest land.

Table 1. - Gross area^{1/} by broad use class, 1947

Class of use	Area	
	<u>Acres</u>	<u>Percent</u>
Forest:		
Commercial	3,205,100	65.7
Withdrawn	8,600	0.2
Non-productive	1,800	<u>2/</u>
Total forest	3,215,500	65.9
Non-forest:		
Idle	148,200	3.0
Agriculture	656,100	13.5
Marsh	465,000	9.5
Dune and beach	23,000	0.5
Urban and other ^{3/}	68,300	1.4
Total non-forest	1,360,600	27.9
Total land	4,576,100	93.8
Total water	300,100	6.2
All classes	4,876,200	100.0

^{1/} From Area of the United States, 1940, Bureau of the Census.

^{2/} Less than 0.05 percent.

^{3/} Includes urban, suburban residential, and rural industrial areas, rights-of-way, cemeteries, schools, etc.

TOTAL LAND AREA
4,576,100 ACRES

PRIVATE LAND
89.5 PERCENT

NATIONAL FOREST
5.4 PERCENT

OTHER FEDERAL
2.5 PERCENT

STATE
2.5 PERCENT

COUNTY & MUNICIPAL
0.1 PERCENT

Private owners own 89 out of every 100 acres of land; the federal government owns 8; and the state, county, and municipal governments own only 3 acres per 100.

Table 2. - Ownership of all land, 1947

Class of ownership	Distribution of all land	
	<u>Acres</u>	<u>Percent</u>
Public:		
National forest	245,400	5.4
Other federal	116,700	2.5
Total federal	362,100	7.9
State	112,800	2.5
County and municipal	7,400	0.1
Total public	482,300	10.5
Private:	4,093,800	89.5
All classes	4,576,100	100.0

ALL PRIVATE PROPERTIES
1000 ACRES OR MORE
1,784,100 ACRES

PULP INDUSTRY
26.3 PERCENT

ESTATES, CLUBS, PRESERVES
19.9 PERCENT

LUMBER INDUSTRY
19.0 PERCENT

FARMERS
15.2 PERCENT

OTHER INDIVIDUALS
14.0 PERCENT

ALL OTHERS
5.6 PERCENT

Thirty-nine percent of all the land (forest and non-forest) is in private ownerships of 1,000 acres or more. The pulp industry owns the largest share of this land.

Table 3. - Ownership of all private properties
of 1,000 acres or more, 1946^{1/}

Class of ownership	Distribution of all land ^{2/}	
	<u>Acres</u>	<u>Percent</u>
Corporate:		
Pulp company	468,900	26.3
Lumber company	243,100	13.6
Other forest industry	18,600	1.0
Bank, loan, and insurance	19,000	1.1
Railroad	17,600	1.0
Other	13,300	0.7
Total corporate	780,500	43.7
Individual:		
Estate, club, preserve	355,000	19.9
Farmer	270,900	15.2
Lumberman	97,100	5.4
Other forest industry	9,800	0.6
Other individual	249,900	14.0
Total individual	982,700	55.1
Unknown	20,900	1.2
All classes	1,784,100	100.0

^{1/} Data taken from county tax rolls, as of January 1, 1946.

^{2/} Includes forest and non-forest land on properties 1,000 acres and larger in size.

COMMERCIAL FOREST
3,205,100 ACRES

PRIVATE LAND
90.1 PERCENT

NATIONAL FOREST
7.7 PERCENT

OTHER FEDERAL
1.5 PERCENT

STATE
0.6 PERCENT

COUNTY & MUNICIPAL
0.1 PERCENT

Ninety percent of the forest land used for commercial timber production is in private ownership. The Francis Marion National Forest in Berkeley and Charleston Counties is the only large block of publicly owned forest.

Table 4. - Ownership of commercial forest land, 1947

Class of ownership	Distribution of commercial forest land	
	<u>Acres</u>	<u>Percent</u>
Public:		
National forest	245,200	7.7
Other federal	48,000	1.5
Total federal	293,200	9.2
State	18,400	0.6
County and municipal	4,500	0.1
Total public	316,100	9.9
Private:	2,889,000	90.1
All classes	3,205,100	100.0

AREA BY FOREST TYPE

Yellow pine types occupy 72 percent of the forest. Hardwoods are largely restricted to swamps, stream bottoms, and poorly drained flats.

AREA BY STAND - SIZE CLASS

Saw-timber stands occupy 56 percent of the land. Large saw timber is more abundant than elsewhere in the state.

Table 5. - Commercial forest area by forest type and stand-size class, 1947

Forest type	Large saw timber	Small saw timber	Pole timber	Seedling and sapling	Poorly stocked and denuded	All classes
	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>
Longleaf pine	12,500	151,800	85,000	13,300	48,900	311,500
Other yellow pine	174,300	440,700	146,900	124,600	76,900	963,400
Pine-hardwood ^{1/}	173,700	246,400	160,000	408,300	45,400	1,033,800
Lowland hardwood	163,500	311,500	125,300	45,600	71,500	717,400
Cypress-tupelo	33,200	92,400	53,400	--	--	179,000
All types	557,200	1,242,800	570,600	591,800	242,700	3,205,100

^{1/} Includes a small area in the upland hardwood type.

VOLUME OF ALL TREES BY CLASS OF MATERIAL

SAWLOGS

UPPER STEMS

POLE-TIMBER TREES

CULL TREES

NUMBERS ADD
TO 100 PERCENT

Forty-five percent of the net volume of sound wood, expressed in cords, is in sawlogs, 22 percent is in pole-timber trees, and 33 percent is in cull trees and upper stems and limbs of saw-timber trees.

Table 6. - Net volume of all trees, by species group
and class of material, 1947^{1/}

Species group	Saw-timber trees		Pole-timber trees ^{3/}	Sound portion of cull trees	All classes of material	
	Sawlogs	Upper stems ^{2/}				
	<u>Thousand cords</u>	<u>Thousand cords</u>	<u>Thousand cords</u>	<u>Thousand cords</u>	<u>Thousand cords</u>	<u>Percent</u>
Softwoods:						
Longleaf, slash pine	2,464	833	929	29	4,255	8.9
Loblolly pine	8,162	2,610	1,429	185	12,386	25.9
Other pines	1,665	552	617	139	2,973	6.2
Total pines	12,291	3,995	2,975	353	19,614	41.0
Cypress	1,416	399	791	104	2,710	5.7
Total softwoods	13,707	4,394	3,766	457	22,324	46.7
Hardwoods:						
Tupelo	3,020	1,779	2,273	2,052	9,124	19.1
Sweetgum	1,693	545	882	595	3,715	7.8
Soft maple	553	393	675	668	2,289	4.8
Yellow-poplar ^{4/}	219	106	128	128	581	1.2
Total soft hwdws.	5,485	2,823	3,958	3,443	15,709	32.9
Red oaks	1,319	887	933	1,670	4,809	10.1
White oaks	305	212	546	709	1,772	3.7
Hickory	307	207	227	129	870	1.8
Ash	280	90	352	271	993	2.1
Sycamore, birch ^{5/}	161	114	235	176	686	1.4
Holly, dogwood ^{6/}	19	--	84	32	135	0.3
Scrub oak ^{7/}	26	--	447	--	473	1.0
Total hard hwdws.	2,417	1,510	2,824	2,987	9,738	20.4
Total hardwoods	7,902	4,333	6,782	6,430	25,447	53.3
All species	21,609	8,727	10,548	6,887	47,771	100.0
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	
	45.2	18.3	22.1	14.4	100.0	

1/ Sound wood and bark in both sound and cull trees 5.0 inches d.b.h. and larger.

2/ No limbs included in softwoods; other species include sections of limbwood that are four feet long and at least four inches in diameter inside bark.

3/ Includes the entire stem to a minimum diameter of 4 inches inside bark. No limbs included.

4/ Includes cottonwood, willow, magnolia, and other soft-textured hardwoods.

5/ Includes beech, elm, and hackberry.

6/ Includes persimmon.

7/ Includes sourwood, ironwood, blue beech, and sassafras.

VOLUME OF ALL TREES BY DIAMETER CLASS

SOFTWOODS

SOFT HARDWOODS

HARD HARDWOODS

NUMBERS ARE
MILLION CORDS

Nearly 22 million cords, 46 percent of the net volume of sound wood, is in trees less than 13.0 inches d.b.h.

Table 7. - Net volume of all trees, by species group and diameter class, 1947^{1/}

(in thousand cords)

Species group	6-8 inches	10-12 inches	14-18 inches	20-24 inches	26 inches and larger	All diameters
Softwoods:						
Longleaf, slash pine	930	1,497	1,583	236	9	4,255
Loblolly pine	1,442	2,815	5,079	1,897	1,153	12,386
Other pines	627	1,023	1,138	145	40	2,973
Total pines	2,999	5,335	7,800	2,278	1,202	19,614
Cypress	800	675	701	221	313	2,710
Total softwoods	3,799	6,010	8,501	2,499	1,515	22,324
Hardwoods:						
Tupelo	1,493	2,950	3,192	1,069	420	9,124
Sweetgum	660	960	1,441	542	112	3,715
Soft maple	513	580	892	268	36	2,289
Yellow-poplar ^{2/}	82	168	177	89	65	581
Total soft hdwds.	2,748	4,658	5,702	1,968	633	15,709
Red oaks	856	922	1,377	1,137	517	4,809
White oaks	520	497	411	232	112	1,772
Hickory	160	179	326	175	30	870
Ash	398	222	206	105	62	993
Sycamore, birch ^{3/}	179	205	277	25	--	686
Holly, dogwood ^{4/}	68	43	24	--	--	135
Scrub oak ^{5/}	370	99	4	--	--	473
Total hard hdwds.	2,551	2,167	2,625	1,674	721	9,738
Total hardwoods	5,299	6,825	8,327	3,642	1,354	25,447
All species	9,098	12,835	16,828	6,141	2,869	47,771
	Percent	Percent	Percent	Percent	Percent	Percent
	19.0	26.9	35.2	12.9	6.0	100.0

^{1/} Sound wood and bark in both sound and cull trees 5.0 inches d.b.h. and larger.

^{2/} Includes cottonwood, willow, magnolia, and other soft-textured hardwoods.

^{3/} Includes beech, elm, and hackberry.

^{4/} Includes persimmon.

^{5/} Includes sourwood, ironwood, blue beech, and sassafras.

VOLUME OF ALL TREES BY FOREST TYPE

Forty-one percent of the net volume measured in cords is in the lowland hardwood and cypress-tupelo types, which together occupy only 28 percent of the forest land.

VOLUME OF EACH STAND-SIZE CLASS IN CULL TREES

Low-grade hardwoods are commonly left standing after commercial logging operations. Therefore cull trees make up a large part of the volume in the younger stands.

Table 8. - Net volume of all trees, by forest type and stand-size class, 1947^{1/}

SOUND TREES (in thousand cords)

Forest type	Large saw timber	Small saw timber	Pole timber	Seedling and sapling	Poorly stocked and denuded	All classes
Longleaf pine	180	2,178	521	10	67	2,956
Other yellow pine	4,137	6,501	860	125	173	11,796
Pine-hardwood ^{2/}	4,208	3,824	999	832	75	9,938
Lowland hardwood	3,918	6,151	941	71	--	11,081
Cypress-tupelo	1,383	3,363	367	--	--	5,113
All types	13,826	22,017	3,688	1,038	315	40,884

CULL TREES (in thousand cords)

Longleaf pine	1	19	13	3	--	36
Other yellow pine	308	332	176	33	65	914
Pine-hardwood ^{2/}	641	760	374	632	54	2,461
Lowland hardwood	964	1,203	417	183	--	2,767
Cypress-tupelo	356	342	11	--	--	709
All types	2,270	2,656	991	851	119	6,887

^{1/} Sound wood and bark in both sound and cull trees 5.0 inches d.b.h. and larger.

^{2/} Includes a small volume in the upland hardwood type.

VOLUME OF POLE TIMBER TREES BY SPECIES GROUP AND DIAMETER CLASS

SOFTWOODS

6-INCH CLASS

8-INCH CLASS

SOFT HARDWOODS

6-INCH CLASS

8-INCH CLASS

10-INCH CLASS

HARD HARDWOODS

6-INCH CLASS

8-INCH CLASS

10-INCH CLASS

NUMBERS ARE
MILLION CORDS

The young growing stock is predominantly of species that are suitable for pulping as 71 percent of the volume is in the pines, gums, soft maple, magnolia, yellow-poplar, and other soft hardwoods.

Table 9. - Net volume of pole-timber trees, by species group and diameter class, 1947^{1/}

(in thousand cords)

Species group	6 inches	8 inches	10 inches	All diameters
Softwoods:				
Longleaf, slash pine	366	564	<u>6/</u>	930
Loblolly pine	559	883	<u>6/</u>	1,442
Other pines	197	430	<u>6/</u>	627
Total pines	1,122	1,877	<u>6/</u>	2,999
Cypress	383	417	<u>6/</u>	800
Total softwoods	1,505	2,294	<u>6/</u>	3,799
Hardwoods:				
Tupelo	478	1,015	1,375	2,868
Sweetgum	259	401	415	1,075
Soft maple	249	264	324	837
Yellow-poplar ^{2/}	43	39	85	167
Total soft hwdws.	1,029	1,719	2,199	4,947
Red oak	420	436	400	1,256
White oak	226	294	214	734
Hickory	70	90	81	241
Ash	227	171	109	507
Sycamore, birch ^{3/}	61	118	125	304
Holly, dogwood ^{4/}	34	34	38	106
Scrub oak ^{5/}	206	164	77	447
Total hard hwdws.	1,244	1,307	1,044	3,595
Total hardwoods	2,273	3,026	3,243	8,542
All species	3,778	5,320	3,243	12,341

^{1/} Sound wood and bark in both sound and cull pole-timber trees 5.0 inches d.b.h. and larger.

^{2/} Includes cottonwood, willow, magnolia, and other soft-textured hardwoods.

^{3/} Includes beech, elm, and hackberry.

^{4/} Includes persimmon.

^{5/} Includes sourwood, ironwood, blue beech, and sassafras.

^{6/} Softwood trees in the 10-inch class are saw timber.

VOLUME OF EACH FOREST TYPE IN POLE TIMBER TREES

Between 20 and 30 percent of the net volume, measured in cords, of each forest type is in pole-timber trees.

VOLUME OF EACH STAND-SIZE CLASS IN POLE TIMBER TREES

In each stand-size class there is an intermingling of pole-timber and saw-timber trees. In small saw-timber stands 27 percent of the net volume measured in cords is in pole-timber trees, and in pole-timber stands 41 percent of the volume is in saw-timber trees.

Table 10. - Net volume of pole-timber trees, by forest type and stand-size class, 1947^{1/}

SOUND TREES (in thousand cords)

Forest type	Large saw timber	Small saw timber	Pole timber	Seedling and sapling	Poorly stocked and denuded	All classes
Longleaf pine	5	396	347	3	4	755
Other yellow pine	424	1,270	496	63	100	2,353
Pine-hardwood ^{2/}	639	1,278	569	253	30	2,769
Lowland hardwood	629	1,881	639	40	--	3,189
Cypress-tupelo	186	977	319	--	--	1,482
All types	1,883	5,802	2,370	359	134	10,548

CULL TREES (in thousand cords)

Longleaf pine	1	9	1	--	--	11
Other yellow pine	79	191	33	25	--	328
Pine-hardwood ^{2/}	142	224	143	94	7	610
Lowland hardwood	207	285	198	3	--	693
Cypress-tupelo	48	95	8	--	--	151
All types	477	804	383	122	7	1,793

^{1/} Sound wood and bark in all sound and cull pole-timber trees 5.0 inches d.b.h. and larger.

^{2/} Includes a small volume in the upland hardwood type.

VOLUME OF SAW TIMBER BY SPECIES

NUMBERS ARE
PERCENT

Fifty-two percent of the saw timber is loblolly pine and the tupelo gums.

Table 11. - Net volume of saw timber, by species group and diameter class, 1947^{1/}

(in thousand board feet)

	10-12 inches ^{2/}	14-18 inches	20-24 inches	26 ^{7/} inches	All diameters
Softwoods:					
Longleaf, slash pine	501,800	638,100	103,300	4,300	1,247,500
Loblolly pine	901,600	1,992,700	811,900	511,000	4,217,200
Other pines	301,900	437,400	62,700	16,500	818,500
Total pines	1,705,300	3,068,200	977,900	531,800	6,283,200
Cypress	233,600	292,000	96,100	142,000	763,700
Total softwoods	1,938,900	3,360,200	1,074,000	673,800	7,046,900
Hardwoods:					
Tupelo	340,600	803,000	203,000	53,600	1,400,200
Sweetgum	156,500	498,000	187,700	27,900	870,100
Soft maple	45,300	181,900	45,200	1,300	273,700
Yellow-poplar ^{3/}	20,300	52,700	27,700	10,000	110,700
Red oak	86,300	257,900	198,700	97,500	640,400
White oak	24,300	79,600	25,400	16,700	146,000
Hickory	19,800	74,600	37,900	8,900	141,200
Ash	29,500	57,300	39,100	20,300	146,200
Sycamore, birch ^{4/}	14,500	60,700	1,600	--	76,800
Total hardwoods	737,100	2,065,700	766,300	236,200	3,805,300
All species	2,676,000	5,425,900	1,840,300	910,000	10,852,200
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
	24.6	50.0	17.0	8.4	100.0

^{1/} According to International 1/4-inch log rule.

^{2/} Ten-inch hardwoods are not included.

^{3/} Includes cottonwood, willow, magnolia, and other soft-textured hardwoods.

^{4/} Includes beech, elm, and hackberry.

VOLUME OF SAW TIMBER BY FOREST TYPE

The pine types contain the largest share of the saw timber, yet 35 percent is in the lowland hardwood and cypress-tupelo types.

VOLUME OF SAW TIMBER BY TREE DIAMETER CLASS

Seventy-five percent of the saw timber is in trees over 13.0 inches in diameter at breast height.

Table 12. - Net volume of saw timber, by forest type and stand-size class, 1947^{1/}

(in thousand board feet)

Forest type	Large saw timber	Small saw timber	Pole timber	Seedling and sapling	Poorly stocked and denuded	All classes
Longleaf pine	75,300	656,600	62,000	3,000	28,500	825,400
Other yellow pine	1,492,900	1,911,100	123,600	22,700	28,100	3,578,400
Pine-hardwood	1,387,300	888,900	145,200	212,500	14,500	2,648,400
Lowland hardwood ^{2/}	1,111,900	1,360,800	104,700	9,300	--	2,586,700
Cypress-tupelo	427,800	768,500	17,000	--	--	1,213,300
All types	4,495,200	5,585,900	452,500	247,500	71,100	10,852,200
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
	41.4	51.5	4.2	2.3	0.6	100.0

^{1/} According to International 1/4-inch rule.^{2/} Includes a small volume in the upland hardwood type.Table 13. - Net volume of saw timber, by stand-size class and diameter class, 1947^{1/}

(in thousand board feet)

Stand-size class	10-12 inches	14-18 inches	20-24 inches	26+ inches	All diameters
Large saw timber	378,100	1,993,100	1,365,000	759,000	4,495,200
Small saw timber	1,990,900	3,066,200	402,100	126,700	5,585,900
Pole timber	217,500	178,400	32,300	24,300	452,500
Seedling and sapling	79,500	154,900	13,100	--	247,500
Poorly stocked and denuded	10,000	33,300	27,800	--	71,100
All classes	2,676,000	5,425,900	1,840,300	910,000	10,852,200

^{1/} According to International 1/4-inch rule.

VOLUME OF ALL TREES PER ACRE BY FOREST TYPE

The average volume in cords per acre ranges from 9.7 in the long-leaf pine type to 32.5 in the cypress-tupelo type. In both the lowland hardwood and cypress-tupelo types, the volume of cull trees averages nearly 4 cords per acre.

VOLUME OF ALL TREES PER ACRE BY STAND-SIZE CLASS

The average volume per acre of all stands is 14.8 cords, of which 2.1 cords are in cull trees.

Table 14. - Average volume, in cords per acre, of all trees,
by forest type and stand-size class, 1947^{1/}

SOUND TREES

Forest type	Large saw timber		Small saw timber		Pole timber		Seedling and sapling		Poorly stocked and denuded		All classes	
	S	H	S	H	S	H	S	H	S	H	S	H
Longleaf pine	14.5	<u>3/</u>	14.2	0.1	6.1	<u>3/</u>	0.8	<u>3/</u>	1.4	<u>3/</u>	9.4	0.1
Other yellow pine	20.7	3.0	13.5	1.2	5.8	<u>3/</u>	0.9	0.1	2.2	0.1	11.1	1.1
Pine-hardwood ^{2/}	13.7	10.6	7.8	7.8	2.9	3.4	1.5	0.5	0.2	1.4	5.2	4.4
Lowland hardwood	2.9	21.1	2.0	17.7	0.4	7.1	0.6	1.0	<u>3/</u>	<u>3/</u>	1.7	13.8
Cypress-tupelo	12.6	29.0	10.9	25.5	4.7	2.2	--	--	--	--	9.4	19.2
All types	12.7	12.1	9.4	8.3	3.8	2.7	1.3	0.5	1.0	0.3	6.8	5.9

CULL TREES

Longleaf pine	<u>3/</u>	0.1	<u>3/</u>	0.1	0.1	<u>3/</u>	0.2	<u>3/</u>	<u>3/</u>	<u>3/</u>	0.1	0.1
Other yellow pine	0.2	1.5	0.1	0.7	0.6	0.6	<u>3/</u>	0.3	0.8	<u>3/</u>	0.2	0.7
Pine-hardwood ^{2/}	0.1	3.6	<u>3/</u>	3.1	0.5	1.9	<u>3/</u>	1.5	0.2	1.0	0.1	2.3
Lowland hardwood	0.1	5.8	<u>3/</u>	3.8	<u>3/</u>	3.3	0.1	3.9	<u>3/</u>	<u>3/</u>	<u>3/</u>	3.8
Cypress-tupelo	1.0	9.8	0.5	3.2	<u>3/</u>	0.2	--	--	--	--	0.4	3.5
All types	0.2	3.9	0.1	2.1	0.3	1.4	<u>3/</u>	1.4	0.3	0.2	0.1	2.0

S - Softwoods, H - Hardwoods.

^{1/} Sound wood and bark in both sound and cull trees 5.0 inches d.b.h. and larger.

^{2/} Includes a small volume in the upland hardwood type.

3/ Less than 0.05 cords per acre.

VOLUME OF POLE-TIMBER TREES PER ACRE BY FOREST TYPE

The average volume of pole-timber trees per acre ranges from 2.5 cords in the longleaf pine type to 9.0 cords in the cypress-tupelo type. In both the lowland hardwood and cypress-tupelo types, the volume of cull pole-timber trees is about 1 cord per acre; in other types it is less.

VOLUME OF POLE-TIMBER TREES PER ACRE BY STAND-SIZE CLASS

The average volume of pole-timber trees per acre is 3.8 cords, of which 0.5 cord is in cull trees.

Table 15. - Average volume, in cords per acre, of pole-timber trees, by forest type and stand-size class, 1947^{1/}

SOUND TREES

Forest type	Large saw timber		Small saw timber		Pole timber		Seedling and sapling		Poorly stocked and denuded		All classes	
	S	H	S	H	S	H	S	H	S	H	S	H
Longleaf pine	0.4	<u>3/</u>	2.5	0.1	4.1	<u>3/</u>	0.2	<u>3/</u>	0.1	<u>3/</u>	2.4	0.1
Other yellow pine	0.7	1.7	1.9	1.0	3.4	<u>3/</u>	0.4	0.1	1.3	<u>3/</u>	1.7	0.8
Pine-hardwood ^{2/}	0.4	3.3	1.5	3.6	1.1	2.4	0.2	0.4	<u>3/</u>	0.7	0.7	2.0
Lowland hardwood	0.2	3.7	0.3	5.8	0.1	5.1	0.3	0.6	<u>3/</u>	<u>3/</u>	0.2	4.3
Cypress-tupelo	0.5	5.1	3.6	6.9	4.3	1.7	--	--	--	--	3.2	5.0
All types	0.4	2.9	1.6	3.0	2.2	2.0	0.2	0.4	0.4	0.1	1.2	2.1

CULL TREES

Longleaf pine	<u>3/</u>	0.1	<u>3/</u>	<u>3/</u>	<u>3/</u>	<u>3/</u>	<u>3/</u>	<u>3/</u>	<u>3/</u>	<u>3/</u>	<u>3/</u>	<u>3/</u>
Other yellow pine	<u>3/</u>	0.4	<u>3/</u>	0.4	<u>3/</u>	0.2	<u>3/</u>	0.2	<u>3/</u>	<u>3/</u>	<u>3/</u>	0.3
Pine-hardwood ^{2/}	<u>3/</u>	0.8	<u>3/</u>	0.9	<u>3/</u>	0.9	<u>3/</u>	0.2	<u>3/</u>	0.2	<u>3/</u>	0.6
Lowland hardwood	<u>3/</u>	1.3	<u>3/</u>	0.9	<u>3/</u>	1.6	<u>3/</u>	0.1	<u>3/</u>	<u>3/</u>	<u>3/</u>	1.0
Cypress-tupelo	<u>3/</u>	1.4	0.1	0.9	<u>3/</u>	0.2	--	--	--	--	<u>3/</u>	0.8
All types	<u>3/</u>	0.8	<u>3/</u>	0.6	<u>3/</u>	0.7	<u>3/</u>	0.2	<u>3/</u>	<u>3/</u>	<u>3/</u>	0.5

S - Softwoods, H - Hardwoods.

^{1/} Sound wood and bark in both sound and cull pole-timber trees 5.0 inches d.b.h. and larger.

^{2/} Includes a small volume in the upland hardwood type.

3/ Less than 0.05 cords per acre.

VOLUME OF SAW TIMBER PER ACRE BY FOREST TYPE

The average volume of saw timber per forest acre ranges from 2,560 board feet in the pine-hardwood type to 6,780 board feet in the cypress-tupelo type, averaging 3,390 board feet for all types.

VOLUME OF SAW TIMBER PER ACRE BY STAND-SIZE CLASS

The average volume per acre of all saw-timber stands is 5,600 board feet.

Table 16. - Average volume per acre of saw timber, by
forest type and stand-size class, 1947^{1/}

(in board feet)

Forest type	Large saw timber		Small saw timber		Pole timber		Seedling and sapling		Poorly stocked and denuded		All classes	
	S	H	S	H	S	H	S	H	S	H	S	H
Longleaf pine	6,050	3/	4,320	3/	730	3/	220	3/	580	3/	2,650	3/
Other yellow pine	8,150	410	4,240	90	840	3/	170	10	350	20	3,590	120
Pine-hardwood ^{2/}	5,660	2,330	2,340	1,270	640	270	480	40	90	230	1,800	760
Lowland hardwood	1,180	5,620	700	3,670	150	680	80	120	3/	3/	610	3,000
Cypress-tupelo	5,590	7,290	2,900	5,410	130	190	—	—	—	—	2,580	4,200
All types	5,130	2,940	2,890	1,600	550	240	380	40	240	50	2,200	1,190

S - Softwoods, H - Hardwoods

^{1/} According to International 1/4-inch log rule.

^{2/} Includes a small volume in the upland hardwood type.

^{3/} Less than 10 board feet per acre.

Table 17. -- County land area by broad use classes, 1947

	Total land area ^{1/}	Non- forest land	All forest land	Non- commercial forest ^{2/}	Commercial forest	
	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Percent</u>
Beaufort	426,500	237,100	189,400	1,500	187,900	44.1
Berkeley	685,200	92,200	593,000	--	593,000	86.5
Charleston	594,100	259,900	334,200	1,300	332,900	56.0
Colleton	663,300	198,300	465,000	900	464,100	70.0
Dorchester	363,400	95,200	268,200	700	267,500	73.6
Georgetown	520,200	104,600	415,600	5,900	409,700	78.8
Hampton	359,100	119,600	239,500	100	239,400	66.7
Jasper	367,200	86,400	280,800	--	280,800	76.5
Williamsburg	597,100	167,300	429,800	--	429,800	72.0
Total	4,576,100	1,360,600	3,215,500	10,400	3,205,100	70.0

^{1/} Gross area from Bureau of the Census, 1940, less the area of inland water as estimated by the Forest Survey.

^{2/} Non-productive forest land plus forest withdrawn from commercial timber use.

Table 18. - Ownership of all land, by county, 1947

County	Private ^{1/}		Public					
			National forest	Other federal	State	County, city, town	Total ^{1/}	
	Acres	Percent	Acres	Acres	Acres	Acres	Acres	Percent
Beaufort	413,300	96.9	--	9,200	4,000	--	13,200	3.1
Berkeley	394,200	57.5	186,800	12,300	90,100	1,800	291,000	42.5
Charleston	479,000	80.6	58,600	52,900	1,500	2,100	115,100	19.4
Colleton	660,400	99.6	--	--	400	2,500	2,900	0.4
Dorchester	362,300	99.7	--	--	1,100	--	1,100	0.3
Georgetown	473,700	91.1	--	35,600	10,000	900	46,500	8.9
Hampton	353,400	98.4	--	--	5,700	--	5,700	1.6
Jasper	360,400	98.1	--	6,700	--	100	6,800	1.9
Williamsburg	597,100	100.0	--	--	--	--	--	0.0
Total	4,093,800	89.5	245,400	116,700	112,800	7,400	482,300	10.5

^{1/} Percent is of total land area.

Table 19. - Ownership of all commercial forest land, by county, 1947

County	Private ^{1/}		Public					
			National forest	Other federal	State	County, city, town	Total ^{1/}	
	Acres	Percent	Acres	Acres	Acres	Acres	Acres	Percent
Beaufort	186,900	99.5	--	1,000	--	--	1,000	0.5
Berkeley	384,800	64.9	186,800	7,100	13,100	1,200	208,200	35.1
Charleston	268,900	80.8	58,400	3,600	100	1,900	64,000	19.2
Colleton	462,700	99.7	--	--	--	1,400	1,400	0.3
Dorchester	267,500	100.0	--	--	--	--	--	0.0
Georgetown	374,200	91.3	--	35,500	--	--	35,500	8.7
Hampton	234,200	97.8	--	--	5,200	--	5,200	2.2
Jasper	280,000	99.7	--	800	--	--	800	0.3
Williamsburg	429,800	100.0	--	--	--	--	--	0.0
Total	2,889,000	90.1	245,200	48,000	18,400	4,500	316,100	9.9

^{1/} Percent is of total commercial forest area.

Table 20. - Net volume of all trees by pulping preference species and tree-diameter groups, by county, 1947^{1/}

SOUND TREES (in thousand cords)

County	Yellow pines		Gums, soft maple and yellow-poplar ^{2/}		Other species ^{3/}		All species
	5 - 12 inches	13 + inches	5 - 12 inches	13 + inches	5 - 12 inches	13 + inches	
Beaufort	393	503	217	205	215	105	1,638
Berkeley	1,861	2,673	1,132	1,512	830	1,121	9,129
Charleston	930	2,001	549	525	796	267	5,068
Colleton	973	1,332	1,144	823	931	729	5,932
Dorchester	873	1,019	605	871	413	691	4,472
Georgetown	916	1,449	1,166	1,483	696	741	6,451
Hampton	334	517	319	182	360	136	1,848
Jasper	779	544	430	313	143	169	2,378
Williamsburg	1,062	1,102	371	419	570	444	3,968
Total	8,121	11,140	5,933	6,333	4,954	4,403	40,884

CULL TREES (in thousand cords)

Beaufort	24	33	46	42	213	127	485
Berkeley	20	4	266	339	199	408	1,236
Charleston	51	27	208	167	119	176	748
Colleton	25	11	185	160	122	212	715
Dorchester	21	24	105	150	92	121	513
Georgetown	23	11	244	385	127	98	888
Hampton	4	6	79	211	34	158	492
Jasper	19	18	181	136	102	118	574
Williamsburg	26	6	159	380	231	434	1,236
Total	213	140	1,473	1,970	1,239	1,852	6,887
All trees	8,334	11,280	7,406	8,303	6,193	6,255	47,771

^{1/} Sound wood and bark in sound and cull trees 5.0 inches d.b.h. and larger.

^{2/} Includes cottonwood, willow, magnolia, and other soft-textured hardwoods.

^{3/} Includes cypress and the hard-textured hardwoods.

^{4/} Includes upper stems and limbs 4.0 inches and larger in diameter inside bark.

Table 21. - Net volume of saw timber by species group
and county, 1947^{1/}

(in thousand board feet)

County	Softwoods ^{2/}	Gums, soft maple, and yellow-poplar ^{3/}	Other hardwoods ^{4/}	All species
Beaufort	281,500	92,300	39,400	413,200
Berkeley	1,640,500	617,800	301,100	2,559,400
Charleston	1,143,200	218,800	87,700	1,449,700
Colleton	853,100	370,800	219,200	1,443,100
Dorchester	706,000	358,200	165,700	1,229,900
Georgetown	1,010,300	581,400	110,800	1,702,500
Hampton	296,800	94,900	57,300	449,000
Jasper	389,200	149,000	56,300	594,500
Williamsburg	726,300	171,500	113,100	1,010,900
Total	7,046,900	2,654,700	1,150,600	10,852,200

^{1/} According to International 1/4-inch rule.

^{2/} Includes all pines and cypress.

^{3/} Includes cottonwood, willow, magnolia, and other soft-textured hardwoods.

^{4/} Includes the oaks, hickories, ash, sycamore, birch, beech, elm, hackberry.

Table 22. - Net volume of saw timber by broad species^{1/}
and tree-diameter groups, by county, 1947^{2/}

(in thousand board feet)

County	Softwoods		Hardwoods		Percent	
	9 - 14 inches	15 $\frac{1}{4}$ inches	11 - 16 inches	17 $\frac{1}{4}$ inches	Soft- woods	Hard- woods
Beaufort	115,600	165,900	108,100	23,600	4.0	3.5
Berkeley	740,000	900,500	513,800	405,100	23.3	24.1
Charleston	517,600	625,600	188,600	117,900	16.2	8.0
Colleton	374,900	478,200	340,400	249,600	12.1	15.5
Dorchester	293,400	412,600	259,800	264,100	10.0	13.8
Georgetown	502,900	507,400	388,600	303,600	14.4	18.2
Hampton	174,700	122,100	126,200	26,000	4.2	4.0
Jasper	221,800	167,400	113,700	91,600	5.5	5.4
Williamsburg	360,700	365,600	179,200	105,400	10.3	7.5
Total	3,301,600	3,745,300	2,218,400	1,586,900	100.0	100.0

^{1/} According to International 1/4-inch rule.

APPENDIX

How the Forest Inventory Is Made

Definition of Terms

Accuracy of Survey

HOW THE FOREST INVENTORY IS MADE

The present system of inventory is based upon interpretation of aerial photographs supplemented by cruising of randomly selected ground plots. The county is the basic work unit. Steps in the procedure are as follows:

1. Acreages of forest land are estimated with the use of a dot grid placed on every third contact print along flight lines in each county. The proportion of dots falling on forest areas when applied to the gross area of the county yields a preliminary estimate of the acreage of forest land. This is later revised after certain field checks.

2. Every 5th plot listed as forest in step one is classified into forest type, stand class, and density class by careful stereoscopic analysis of the photographs. The proportion of plots falling in each classification when applied to the forest area of the county gives the area in each classification. These areas are revised following ground checking.

3. Timber cruisers make a detailed on-the-ground tally of every 3rd large saw-timber photo plot, every 8th small saw-timber, every 17th pole-timber, and every 30th seedling, sapling, and denuded plot to obtain volume, growth, cull, and mortality data, and to check accuracy of photo classification. They also check a sample of the idle and agricultural plots.

4. Growth estimates are based on increment borings taken from trees of the various diameters and species in each forest type and stand class.

5. All field data are sent to the Asheville office for editing and are placed on punch cards for machine tabulation. Statistical techniques are used to correct for changes in photo classification, and to determine final figures on areas, volumes, and growth.

DEFINITION OF TERMS

Land-Use Classes

Forest. Land bearing forest growth, or land from which the forest has been removed and which shows no evidence of any other recent land use. Subdivided into the following classes:

Commercial: Land bearing, or capable of bearing, timber of commercial character and available now or prospectively for commercial use.

Withdrawn: Forest land in public ownership upon which commercial timber cutting is prohibited.

Non-productive: Forest land of such low productivity or so inaccessible that commercial timber will not be produced.

Non-forest. Land less than five percent stocked with trees and showing evidence of non-forest use.

Agriculture: Under cultivation or in pasture, including farm yards on active farms.

Idle: Land previously cultivated or pastured but now idle or abandoned. If reverting to forest there must be less than five percent stocking of trees.

Marsh: Low, boggy, non-forested land usually supporting a heavy growth of grass.

Sand dunes and beach: Non-forested sand dunes or coastal beaches.

Water: Includes both the small ponds and lakes less than 40 acres in size and streams, sloughs, and canals less than 10 chains in width classed as "land area" by the Bureau of the Census. Also includes the "inland water" listed by the Census. On coastal areas the water-line is the mean high tide mark; tidal flats are classed as water.

Urban and other: Includes towns, suburban areas being developed for residential or other urban purposes, school yards, cemeteries, industrial sites, roads, railroads, power lines, and other rights-of-way. Scattered areas of timber within exterior boundaries of cities or villages are also included.

Forest Types

Longleaf pine. Stands in which coniferous species comprise at least 75 percent of the dominant and co-dominant trees, with longleaf pine predominating.

Other yellow pine. Stands in which coniferous species comprise at least 75 percent of the dominant and co-dominant stems with slash, loblolly, shortleaf, Virginia, or pond pine predominating.

Pine-hardwood. Mixed stands in which pine species and commercial hardwoods each comprise at least 25 percent of the dominant and co-dominant trees.

Lowland hardwood. Stands in which mixed hardwoods, or hardwoods and cypress, comprise at least 75 percent of the dominant and co-dominant trees. Found in swamps and river bottoms in the piedmont and coastal areas and on flat, poorly drained areas of rather large extent in the coastal plain.

Cypress-tupelo. Stands in which cypress and tupelo comprise at least 75 percent of the dominant and co-dominant trees.

Stand-size Classes

Saw timber. Stands containing at least 1,500 board feet net, International 1/4-inch log rule, per acre in sound, live, softwood trees 9.0 inches d.b.h. or larger or hardwood trees 11.0 inches d.b.h. or larger. Two classes of saw-timber stands are recognized:

Large saw timber: Stands of saw timber having more than 50 percent of the net board-foot volume in softwood trees 15.0 inches d.b.h. or larger, or hardwood trees 17.0 inches d.b.h. or larger.

Small saw timber: Stands of saw timber having 50 percent or less of the net board-foot volume in softwood trees 15.0 inches d.b.h. or larger, or hardwood trees 17.0 inches d.b.h. or larger.

Pole timber. Stands at least 10 percent stocked with pole-size or larger timber, at least one-half in pole sizes, and which have less than 1,500 board feet net per acre of saw timber.

Seedling and sapling. Stands less than 10 percent stocked by pole-size or larger trees and with less than 1,500 board feet net per acre, but at least 40 percent stocked with commercial species. Eight hundred seedlings or saplings per acre will be considered full stocking.

Poorly stocked and denuded. All commercial forest land not included in any of the above classes.

Diameters

D.b.h. (diameter at breast height). Stem diameter in inches, outside bark, measured at $4\frac{1}{2}$ feet above the ground.

Diameter class. All trees were tallied by 2-inch diameter classes, each class including diameters 1.0 inch below and 0.9 inch above the stated midpoint; e.g., trees 7.0 to and including 8.9 inches are in the 8-inch class.

Tree Classification

Sound saw-timber trees. Softwood trees at least 9.0 inches d.b.h. and hardwood trees at least 11.0 inches d.b.h., with not less than one merchantable butt log 12 feet long, or with 50 percent of the gross volume of the tree in sound saw timber.

Sound pole-timber trees. Straight-boled trees between 5.0 inches d.b.h. and saw-timber size that will eventually produce sound saw-timber trees as described above.

Cull trees. Trees that fail to qualify as sound saw timber or pole timber because of poor form, excessive limbiness, rot, or other defect.

Species Groups

Softwoods. All of the pines, eastern redcedar, Atlantic whitecedar, pondcypress, baldcypress.

Soft hardwoods. Black and water tupelos, sweetgum, soft maple, yellow-poplar, cottonwood, willow, southern magnolia.

Hard hardwoods. All of the oaks and such species as hickory, ash, sycamore, birch, beech, elm.

Volume Estimates

Board-foot volume. The volume in board feet, measured by the International 1/4-inch log rule, exclusive of defect, of that portion of saw-timber trees between the stump and the upper limit of merchantability for sawlogs.

Volume in cords. The volume in standard cords (including bark) of the sound portion of trees 5.0 inches d.b.h. and larger, between stump and a minimum diameter of 4.0 inches inside bark. Also included is the volume in limbs, in sections 4 feet long and at least 4.0 inches in diameter inside bark, of saw-timber size hardwoods and the sound volume in cull trees.

International 1/4-inch log rule. A rule for estimating the board-foot volume of four-foot log sections according to the formula $V = .905 (0.22D^2 - 0.71D)$. The taper allowance for computing the volume in log lengths greater than four feet is 0.5 inch per four-foot section. Allowance for saw kerf is 1/4 inch.

Standard cord. A stacked pile, 4 x 4 x 8 feet, of round or split bolts, estimated to contain, on the average, 90 cubic feet of softwoods (wood and bark) or 80 cubic feet of hardwoods (wood and bark).

ACCURACY OF THE SURVEY

In estimating the areas of various categories of land there are two possible sources of error: (1) errors in classifying field plots or in compiling the data, and (2) sampling errors. The first arise from mistakes of judgment or technic and can be minimized by the exercise of care and skill even though it is seldom possible to evaluate them. In the present Forest Survey of South Carolina, every effort is being made to maintain a high order of accuracy in the collection and compilation of data. In the field, this takes the form of frequent checks and a continuing program of training. In the office, the work is organized to permit automatic machine verification of most of the more important operations.

Sampling errors (standard errors of estimate), on the other hand, carry no connotation of faulty work but are theoretical measures of the reliability of estimates based on the variability exhibited by sample measurements. The sampling intensity in the lower coastal plain area of South Carolina was sufficient to provide estimates of forest acreage by counties with standard errors ranging from ± 1 to ± 7 percent and for the survey unit as a whole of ± 1 percent. This standard error of estimate indicates the probabilities are 2 out of 3 that the actual forest area of the unit is within ± 1 percent of the value given, provided measurement and computing errors have introduced no bias.

In estimating timber volumes, the possible sources of error include (1) and (2) above and, in addition, (3) inaccurate measurements of tree diameter, height, form, or cull, and (4) bias resulting from improper construction, selection, or use of tree volume tables. As in the case of area determinations, every effort is being made to secure accurate measurements through frequent checks and training. The volume tables used also have been checked and were found to give reasonably accurate figures. The standard error of estimate of the board-foot volume of saw timber in the unit is ± 3 percent; the errors of the individual counties range from ± 6 to ± 11 percent. Corresponding errors of the total volume in cords were not computed, since it seemed reasonable to assume they would be smaller than those for board feet.

Apparently, the statistics of total forest area and total volumes, even for the individual counties, can be considered reliable for general use. A word of caution is appropriate, however, regarding the accuracy of the estimates of the smaller land-use class acreages and of the finer breakdowns of forest areas and volumes. For instance, tests of the area estimates for individual stand-size classes disclose standard errors ranging from 5 to 14 percent in contrast to 1 percent for total forest land. If a further breakdown by forest types is added, another comparable decrease in accuracy occurs. Similar changes in the error of volume estimates accompany breakdowns by stand size and type or by species and tree size.

The reliability of one statistic as compared to another presented in the same or a related table can be judged roughly by its relative magnitude. In general, the larger values warrant greater confidence, while the smallest should probably be considered indicative rather than as absolute quantities. Attempts to make detailed comparisons between individual counties are especially risky. However, several counties may be grouped to produce figures sufficiently accurate for many purposes, and the detailed county tables were prepared with this in mind.

FOREST SURVEY REPORTS PUBLISHED BY SOUTHEASTERN FOREST EXPERIMENT STATION

Forest Survey Releases

- No. 1 -- Forest Resources of the Northern Coastal Plain of South Carolina. 1939
- No. 2 -- Forest Resources of the Piedmont Region of South Carolina. 1939
- No. 3 -- Forest Resources of the Southern Coastal Plain of South Carolina. 1939
- No. 4 -- Forest Resources of the Southern Coastal Plain of North Carolina. 1940
- No. 5 -- Forest Resources of the Northern Coastal Plain of North Carolina. 1940
- No. 6 -- Forest Resources of the Piedmont Region of North Carolina. 1940
- No. 7 -- Forest Resources of the Mountain Region of North Carolina. 1941
- No. 8 -- The Distribution of Commercial Forest Trees in North Carolina. 1941
- No. 9 -- The Distribution of Commercial Forest Trees in South Carolina. 1941
- No. 10 - The Distribution of Commercial Forest Trees in Virginia. 1942
- No. 11 - Virginia's Forests. 1942
- No. 12 - The Forest Situation in the Coastal Plain of Virginia. 1943
- No. 13 - The Forest Situation in Piedmont Virginia. 1943
- No. 14 - Preliminary Estimate of 1942 Lumber Production in the Carolinas, Virginia, West Virginia, Kentucky, and Tennessee. 1943
- No. 15 - The Forest Situation in the Mountain Region of Virginia. 1943
- No. 16 - Wartime Lumber Production in the Appalachian Hardwood Region, January 1942-June 1944. 1944
- No. 17 - Wood Waste Available for Conversion to Ethyl Alcohol in the Columbia Area of South Carolina. 1944
- No. 18 -- North Carolina Forest Growth and Drain, 1937-1943. 1945
- No. 19 - Approximate Forest Area and Timber Volume by County in the Carolinas and Virginia. 1945
- No. 20 - South Carolina Forest Growth and Drain, 1936-1943. 1945
- No. 21 - 1945 Pulpwood Production by County in the Carolinas and Virginia. 1946
- No. 22 - Southern Forests as a Source of Pulpwood. 1947
- No. 23 - 1946 Pulpwood Production by County in the Southeast. 1947
- No. 24 - Southern Pulpwood Production and the Timber Supply. 1948

USDA Miscellaneous Publications

- No.533 - North Carolina Forest Resources and Industries. 1944
- No.552 - South Carolina Forest Resources and Industries. 1944