LOUISIANA MID-CYCLE SURVEY SHOWS CHANGE IN FOREST RESOURCE TRENDS

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ABOUT THIS SURVEY

Because costs of doing surveys are escalating rapidly, and both dollars and manpower are scarce resources, a low-intensity survey for the mid-cycle inventory may be the answer to timely monitoring of State resource trends.

Forest surveys have been conducted in the South since the early 1930s. This activity, authorized by the McSweeney-McNary Research Act of 1928, was directed to gather and keep current authoritative data on the extent, character, condition, and use of the Nation's forest resources.

The first survey of Louisiana began in 1934 when foresters and timber estimators systematically cruised the whole forest area. They ran parallel compass lines 10 miles apart across the State, and along these lines examined about 35,000 sample plots. These samples represented a satisfactory sample for the entire state.

To make the information more specific to areas within the state, survey units were established to be relatively homogeneous as to forest, economic, and industrial conditions.

The Delta units consist of alluvial bottom lands of the Mississippi River, where forests are almost exclusively hardwoods and cypress. The three others, the Southeast, Southwest, Northwest units, are largely coastal flatwoods and rolling uplands where forests are generally pine.

The cycle of Louisiana surveys, except for the period 1935-54, has been about 10 years. With reduced personnel and tight travel budgets, survey cycles are likely to become longer, not shorter. On the other hand, we are trying new procedures to gain more frequent information on forest resource trends. These new surveys won't replace full-scale inventories, but they will enable more frequent estimates at roughly one-tenth the cost of regular surveys. This 1980 mid-cycle survey was conducted jointly by the Louisiana Office of Forestry, the National Forestry Applications Laboratory, and the Renewable Resources Evaluation unit at the Southern Forest Experiment Station.

To conduct the survey with minimal resources and in a short time, a new sampling procedure was used for ground plots. Basically, a sub-set of the regular survey sample plots was selected for re-measurement according to their volume in the 1974 inventory. About 220 plots were re-measured by survey crews and Louisiana Office of Forestry personnel. Area was determined by photo-interpretation of optical bar photography at the Forestry Applications Laboratory. The Office of Forestry supplied vehicles and the Louisiana Department of Natural Resources provided money to conduct the survey.

The survey was designed to achieve reasonable results on a broad scale. Estimates for area and inventory volume are the most reliable. Estimates for Parishes must be used cautiously. Because growth and removals amount to only 5 to 10 percent of the inventory, the reliability of these estimates is correspondingly low. Removals estimates for limited areas may be better approached through the use of severance tax information.

These hybrid surveys offer today's best insight into resource trends between major surveys. The verification of trends will come when the next full-scale survey of the State is completed, sometime in the mid-1980s.

PAST RESOURCE TRENDS

At the time of the first survey, Louisiana was 56 percent forested. About one-fifth of the forests were old growth.

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Louisiana had 7.6 million acres of bottom-land hardwoods, more than any other state in the South. In the 1953-54 survey, total forest area was about the same, but softwood acreage was up 2 percent and hardwood acreage was down 4 percent. Growing stock increased.

By 1964, total forest land in Louisiana had changed very little, but sizable shifts were reported among resource regions. The Delta continued to decline while other units grew in forest acreage. Softwood inventories were up 43 percent over 1954 while hardwood volume fell 20 percent.

The latest full survey of Louisiana was in 1974. Forest area had declined 9 percent since 1964, and totaled 14.5 million acres. Softwood growing stock at 9 billion cubic feet showed an increase in 1974 of 31 percent over 1964. Loss of hardwood forests in the Delta was largely responsible for a 7-percent decline in hardwood inventory. Commercial forest area declined in all regions, but especially in the northern part of the Delta.

Louisiana Mid-cycle Survey Shows Change in Forest Resource Trends

Louisiana's forests show a 1-percent decrease in inventory volume since 1974, and almost a 4-percent decline in area. These new estimates are based on a low-intensity sample designed to produce reliable results for the State.

The mid-cycle survey of Louisiana shows a decline in volume but some easing in the clearing of bottomland hardwood forests. Overall, the growing stock inventory decreased about 1 percent since 1974. Hardwood inventories fell 8 percent; softwood rose 4 percent. Two units showed a loss in volume. The Delta declined because of extensive losses in hardwood forests (Table I). In the Northwest, both pine and hardwood volumes fell. Roughly 460 thousand acres in the Delta region changed from commercial forest land to other land uses.

The primary objective of the mid-cycle survey was to assess trends in softwoods in the southeast, southwest and northwest units of the State. These units contain the vast majority of the oftwood resource in the state. In the Southeast, forest area declined about 6 percent, but pine inventories gained substantially. In southwest Louisiana there was a slight increase in forest area and substantial gains in softwood inventory. In the Northwest, heavy cutting of softwood growing stock has reduced supplies 10 percent.

The 31 parishes (figure 1) in these units reflected a decline of less than 1 percent in forest area since the 1974 survey. The inventory is still expanding, but at a slower rate. There was a 4 percent increase in softwood growing stock ir the past 6 years versus a 31 percent increase in the preceding 10 years. Softwood sawtimber volume continued to accumulate in the 31 parishes with a 17 percent increase since 1974 compared to a 29 percent accrual for the 10 years prior to 1974.

The mid-cycle survey indicated a slight decline in the net annual growth on softwood growing stock. There were 487.8 million cubic feet per year added

Table I. *Louisiana Mid-cycle forest resource estimates*

Resource Region	Commercial Forest		Softwood		Hardwood	
	Area	Change	Volume	Change	Volume	Change
	M acres	*Percent*	*MM ft³*	*Percent*	*MM ft³*	*Percent*
Delta	3292.1	-12	1191.2	+ 2	3132.4	- 8
Southwest	4573.2	+ 1	3824.0	+15	1443.8	-12
Southeast	1679.3	- 6	1378.8	+16	717.2	- 2
Northwest	4444.4	---	2997.8	-10	1785.0	- 5
Total	13989.0	- 4	9391.8	+ 3	7078.4	- 8

to the inventory while in 1974 the comparable figure showed 567.5 million. This finding tends to confirm the declining rate of accumulation of growing stock (Table 25).

Net annual growth rate of softwood sawtimber also declined from the 1974 survey rate. In 1974, growth was reported to be 2469 million board feet. 1/ Since then the sawtimber growth has averaged 1971 million board feet/year. The decline portends future slowing in the accumulation of sawtimber similar to the one currently apparent in growing stocks (Table 26). On the whole, the report confirms the trends observed in the 1974 Louisiana survey. Land continues to be diverted to other uses, though not as rapidly as in the past. The volume of softwood timber in the state continues a healthy accumulation, however the rate has slowed. A continuation of current harvest rate could soon show actual declines in inventories. Current economic conditions may relieve some of the pressure on softwood sawtimber stocks and allow a recovery of this softwood resource.

FOREST STATISTICS FOR LOUISIANA PARISHES

Information in these tables was derived from a 1980 midcycle inventory of the State of Louisiana. Estimates of acreage, growing stock volume, growth, removals and mortality were made for all parishes. Tables 3, 10, 25, 27, and 29 present these individual Parish statistics.

The last complete survey of Louisiana was published in 1974. In table 2, changes between the two surveys are summarized in terms of current measurement standards. Some columns and rows may not sum exactly, but all totals have been checked to be within rounding error limits for the subunits.

A more detailed breakdown of inventory is reported for Parishes in Southeast, Southwest and Northwest Louisiana (Units 3, 4, 5). Data for forest acreage in these units were obtained from high altitude photography taken especially for the midcycle survey. Standard RRE sample locations were photo-interpreted using this photography. A 10 percent subsample of the forested locations was drawn with probability proportional to the 1974 inventory volumes.

At each location 10 sample points were remeasured using a 37.5 BAF prism. Three of the 10 points also have 1/300 acre fixed area samples. The sampling methods are those used in the most recent complete inventory of the State of Louisiana.

For convenience, the tables in this report correspond to those used in the 1974 "Forest Statistics for Louisiana Parishes", RB-SO-52. Some tables however, were excluded for various reasons. Table 4 was omitted because ownership was not resurveyed. Insufficient data limited the reliability of Tables 12, 24, 31, & 32; so they were not included.

Table 9 is excluded because it can be obtained by converting cubic feet (Table 10) to cords. Appropriate factors can be derived from the 1974 report state totals.

The sampling methods were developed to provide suitable unit estimates. Estimates for smaller areas are presented, but sampling error increases as the area considered decreases. Sampling errors given in table 1 are based on one standard deviation or a probability of two chances out of three. To estimate the sampling error for a combination of parishes one can use the following:

$$SE_G = \frac{SE_T \sqrt{X_T}}{\sqrt{X_G}}$$

where:

SE = Sampling error
X = variable of interest (area, volume)
G = group of counties to be combined
T = total for the unit

1/ International 1/4-inch rule.

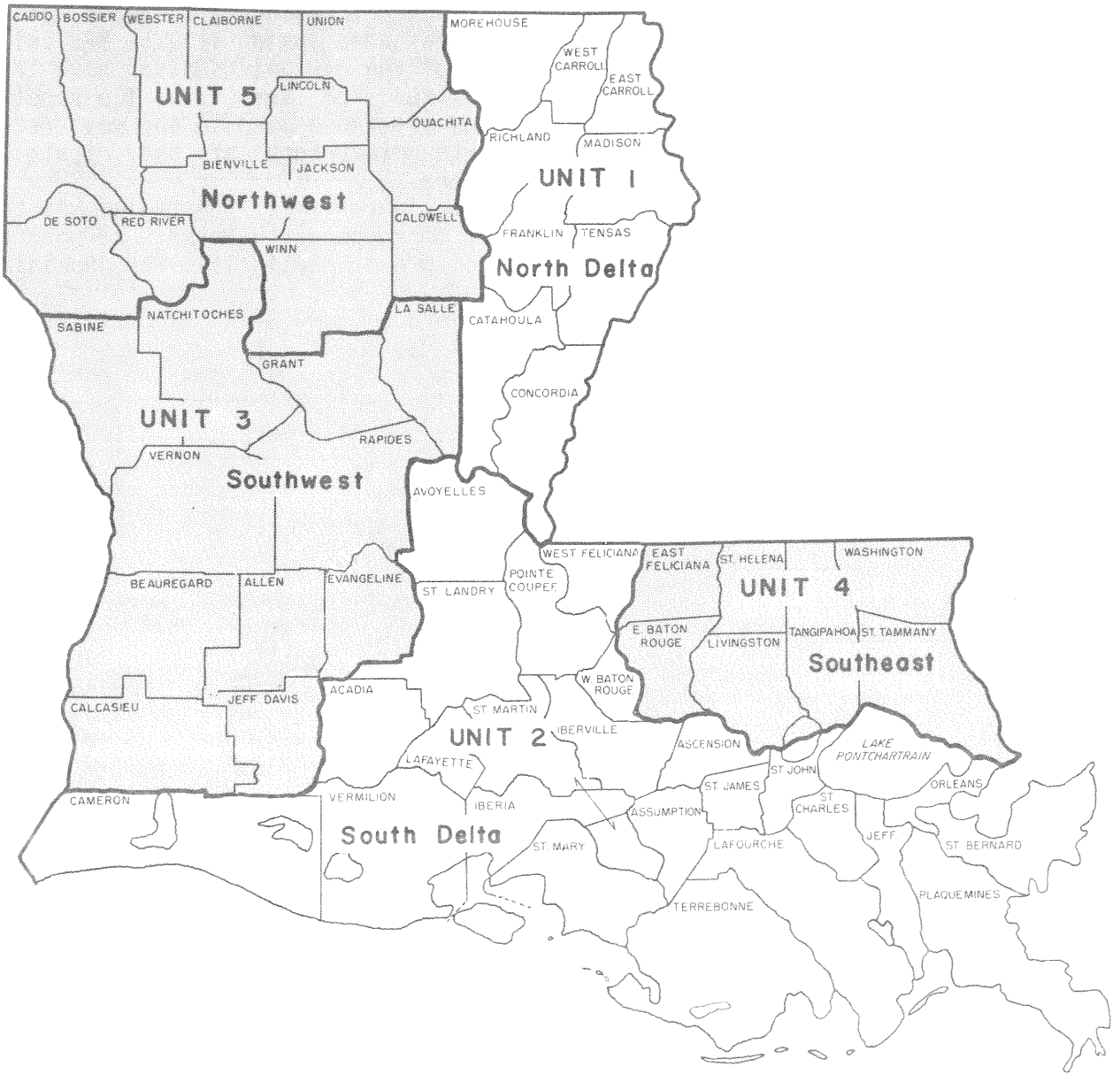

Figure 1. High altitude photographic coverage obtained in 1980 for shaded units.

DEFINITIONS OF TERMS

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

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

Desirable trees.--Growing-stock trees that are of commercial species, have no defects in quality for timber products, are of relatively high vigor, and contain no pathogens that may result in death or serious deterioration before rotation age.

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

Growing-stock trees.--Live trees that are of commercial species and qualify as desirable or acceptable trees.

Growing-stock volume.--Net volume in cubic feet of growing-stock trees at least 5.0 inches in diameter at breast height, from a 1-foot stump to a minimum 4.0-inch top diameter outside bark of the central stem, or to the point were the central stem breaks into limbs.

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.

Physiographic site.--A classification of forest land according to its suitability for growing certain species groups--pine, upland hardwood, or bottomland hardwood.

Poletimber trees.--Growing-stock trees of commercial species at least 5.0 inches in diameter at breast height, but smaller than sawtimber size.

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.

Rough trees.--Live trees of commercial species that do not contain at least one 12-foot saw log, now or prospectively, primarily because of roughness or poor form. (Includes all live trees of noncommercial species.)

Sawtimber trees.--Live trees that are of commercial species, contain at least a 12-foot saw log, and meet regional specifications for freedom from defect. Softwoods must be at least 9.0 inches in diameter at breast height and hardwoods at least 11.0 inches.

Sawtimber volume.--Net volume of the sawlog portion of live sawtimber in board feet, International 1/4-inch rule.

Site class.--A classification of forest land in terms of inherent capacity to grow crops of industrial wood.

Stand-size class.--A classification of forest land based on the size class of growing-stock trees on the area; that is, sawtimber, poletimber, or sapling and seedling.

For more complete coverage of definitions used in this report, see USDA Forest Service Resource Bulletin SO-53.

Table 1. *Sampling errors for forest land and volume estimates, 1980 Midcycle*

Item	Sampling error
	Percent
Commercial forest land	1.3
Growing stock volume	4.8
Sawtimber volume	5.7

Table 2. *Commercial forest land, growing stock, and sawtimber volume, 1980 change since 1974*

Unit	Commercial Forest		Growing stock				Sawtimber			
			Softwood		Hardwood		Softwood		Hardwood	
	Area	change	Volume	change	Volume	change	Volume	change	Volume	change
	Thousand acres	*%*	*Million cu. ft.*	*%*	*Million cu. ft.*	*%*	*Million bd. ft.*	*%*	*Million bd. ft.*	*%*
Delta	3292.1	-12	1191.2	+ 2	3132.4	- 8	5002.6	+ 2	10474.1	- 5
Southwest	4573.2	+ 1	3824.0	+15	1443.8	-12	18714.2	+28	4540.3	-10
Southeast	1679.3	- 6	1378.8	+16	717.2	- 2	6359.0	+28	2613.6	+24
Northwest	4444.4	---	2997.3	-11	1785.0	- 5	13764.5	---	5804.9	+ 5
State	13989.0	- 4	9391.3	+ 4	7078.4	- 8	43840.3	+18.5	23432.9	- 2

Table 3. *Total area, commercial forest land, in 1974 and 1980, and proportion of total area in 1980*

Parish	Total area	Commercial forest		
		Area '74	Area '80	Proportion
	Thousand acres			*Percent*
Acadia	424.3	66.0	87.0	20
Allen	496.0	346.5	334.3	67
Ascension	197.1	97.2	79.4	40
Assumption	243.2	138.6	117.5	48
Avoyelles	544.0	239.4	235.6	43
Beauregard	757.8	614.8	614.6	81
Bienville	536.3	453.6	447.2	83
Bossier	556.8	368.5	374.7	67
Caddo	603.6	305.0	336.0	56
Calcasieu	714.9	192.5	165.4	23
Caldwell	352.6	284.2	217.9	77
Cameron [2]	--	--	--	--
Catahoula	480.0	203.0	205.0	42
Claiborne	490.2	378.2	394.7	81
Concordia	480.0	219.3	201.6	42
De Soto	581.1	376.2	417.7	72
East Baton Rouge	302.1	106.4	108.3	36
East Carroll	291.8	51.7	22.0	8
East Feliciana	290.6	162.8	112.7	39
Evangeline	435.2	200.6	214.7	49
Franklin	414.7	67.1	69.9	17
Grant	435.8	356.4	371.7	85
Iberia	414.1	121.9	103.1	25
Iberville	411.5	279.3	281.9	68
Jackson	373.1	336.6	351.8	94
Jefferson [3]	415.4	--	--	--
Jefferson Davis	423.0	68.2	66.5	16
Lafayette [2]	--	--	--	--
Lafourche	865.9	178.2	129.6	15
La Salle	427.5	357.5	376.2	88
Lincoln	300.2	233.7	222.4	74
Livingston	443.5	336.0	344.7	78
Madison	430.2	168.0	136.9	32
Morehouse	514.6	200.6	161.2	31
Natchitoches	849.9	599.2	622.2	73
Orleans [3]	232.3	--	--	--

Table 3. *Total area, commercial forest land, in 1974 and 1980, and proportion of total area in* 1980 (Continued)

Parish	Total area	Commercial forest		
		Area '74	Area '80	Proportion
	Thousand acres			*Percent*
Plaquemines [2]	895.4	--	--	--
Pointe Coupee	376.3	154.0	129.5	34
Ouachita	411.5	256.2	248.1	60
Rapides	849.3	576.8	555.1	65
Red River	265.0	148.8	132.5	50
Richland	369.3	86.9	59.7	16
Sabine	658.6	477.9	466.3	71
St. Bernard [3]	517.1	--	--	--
St. Charles	270.7	76.8	70.6	26
St. Helena	268.8	198.0	179.2	67
St. James	165.8	85.5	80.4	48
St. John Baptist	238.1	99.6	81.8	34
St. Landry	598.4	220.0	173.5	29
St. Martin	514.6	305.5	234.6	46
St. Mary	453.8	148.5	89.8	20
St. Tammany	738.6	378.2	328.2	44
Tangipahoa	543.4	306.0	346.4	64
Tensas	413.4	162.0	176.6	43
Terrebonne	1144.3	113.4	128.9	11
Union	579.8	474.0	486.3	84
Vermilion [2]	2113.3	23.4	22.6	1
Vernon	870.4	748.0	786.2	90
Washington	425.6	298.9	259.8	61
Webster	401.9	290.0	269.9	67
West Baton Rouge	135.7	62.0	62.6	46
West Carroll	227.8	19.8	21.8	9
West Feliciana	272.6	163.8	129.0	
Winn	610.6	545.4	545.2	89
Total	31059.4	14526.6	13989.0	45

1/ United States Bureau of Census, Land and Water Area of the United States

2/ Cameron and Lafayette included in Vermilion

3/ Urban area

Table 5. *Commercial forest land by forest type, 1980*

Parish	All types	Longleaf-slash pine	Loblolly-shortleaf pine	Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
	Thousand acres						
Allen	334.2	64.7	80.9	64.7	37.7	86.2	--
Beauregard	614.9	301.3	104.5	61.5	30.8	116.8	--
Bienville	447.2	5.7	209.4	101.9	90.6	39.6	--
Bossier	374.7	--	163.9	87.8	58.5	52.7	11.7
Caddo	335.7	--	106.0	100.1	53.0	70.7	5.9
Calcasieu	165.5	63.7	25.5	25.5	25.5	25.5	--
Caldwell	218.0	--	48.5	48.5	43.6	77.5	--
Claiborne	394.9	--	200.8	107.1	40.1	46.9	--
De Soto	417.5	--	195.7	104.4	71.8	45.7	--
East Baton Rouge	108.3	--	--	7.2	36.1	65.0	--
East Feliciana	112.7	--	43.8	18.8	31.3	18.8	--
Evangeline	214.6	26.0	71.5	45.5	19.5	52.0	--
Grant	371.8	27.5	165.2	96.4	34.4	48.2	--
Jackson	351.8	10.7	170.6	80.0	53.3	37.3	--
Jefferson Davis	66.4	--	22.2	22.2	7.4	14.8	--
La Salle	376.2	5.8	167.8	52.1	34.7	115.8	--
Lincoln	222.4	--	102.2	90.2	12.0	18.0	--
Livingston	344.5	--	123.0	86.1	18.5	110.7	6.2
Natchitoches	622.2	24.6	252.6	154.0	86.2	86.2	18.5
Ouachita	248.1	--	66.6	36.3	36.3	108.9	--
Rapides	555.0	52.0	190.8	104.1	52.0	150.3	5.8
Red River	132.5	--	34.6	34.6	23.0	5.8	--
Sabine	466.4	12.1	242.3	78.7	115.1	18.1	--
St. Helena	179.2	--	112.8	26.6	39.8	--	--
St. Tammany	328.3	98.5	72.2	13.1	39.4	105.1	--
Tangipahoa	346.2	60.7	72.9	42.5	66.8	97.2	6.1
Union	485.9	--	193.1	93.5	99.7	99.7	--
Vernon	786.8	186.2	300.3	138.1	78.1	78.1	6.0
Washington	259.9	44.2	77.4	38.7	55.3	44.2	--
Webster	270.0	--	79.8	79.8	67.5	43.0	--
Winn	545.0	10.9	250.7	114.5	109.0	60.0	--
Total	10,696.8	994.6	3,947.6	2,154.5	1,567.0	1,938.8	60.2

Table 6. *Commercial forest land by stand-size, 1980*

Parish	All classes	Sawtimber	Poletimber	Sapling and seedling	Nonstocked areas
			Thousand acres		
Allen	334.2	194.0	75.5	59.3	5.4
Beauregard	614.9	209.1	227.5	153.7	24.6
Bienville	447.2	203.8	107.6	135.9	--
Bossier	374.7	187.3	152.2	29.3	5.8
Caddo	335.7	135.5	100.1	88.3	11.8
Calcasieu	165.5	82.7	19.1	57.3	6.4
Caldwell	218.0	140.5	43.6	29.1	4.9
Claiborne	394.9	167.4	154.0	73.6	--
De Soto	417.5	202.2	91.3	123.9	--
East Baton Rouge	108.3	50.5	28.9	28.9	--
East Feliciana	112.7	87.6	12.5	12.5	--
Evangeline	214.6	130.1	65.0	19.5	--
Grant	371.8	234.1	82.6	48.2	6.9
Jackson	351.8	223.9	74.6	53.3	--
Jefferson Davis	66.4	51.7	7.4	7.4	--
La Salle	376.2	196.8	75.3	98.4	5.8
Lincoln	222.4	81.2	108.2	30.1	--
Livingston	344.5	196.9	36.9	110.7	--
Natchitoches	622.2	326.5	178.6	117.0	--
Ouachita	248.1	133.1	48.4	60.5	6.1
Rapides	555.0	277.5	98.3	161.9	17.3
Red River	132.5	74.9	40.3	11.5	5.8
Sabine	466.4	272.2	121.1	72.7	--
St. Helena	179.2	106.2	26.6	46.5	--
St. Tammany	328.3	177.3	78.8	52.5	19.7
Tangipahoa	346.2	182.2	91.1	60.7	12.2
Union	485.9	230.5	112.1	143.3	--
Vernon	786.8	336.3	180.2	258.3	12.0
Washington	259.9	138.3	5.5	105.1	11.1
Webster	270.0	122.7	79.8	67.5	--
Winn	545.0	365.2	98.1	76.3	5.5
Total	10,696.8	5,518.2	2,621.2	2,393.2	161.3

Table 7. *Commercial forest land by site class, 1980*

Parish	All classes	165 cu. ft. or more	120-165 cu. ft.	85-120 cu. ft.	50-85 cu. ft.	Less than 50 cu. ft.
	Thousand acres					
Allen	334.2	10.8	70.1	118.6	113.2	21.6
Beauregard	614.9	18.5	79.9	258.3	233.7	24.6
Bienville	447.2	--	62.3	243.4	141.5	--
Bossier	374.7	--	29.2	152.2	193.2	--
Caddo	335.7	--	29.5	182.6	123.7	--
Calcasieu	165.5	6.4	19.1	25.5	76.4	38.2
Caldwell	218.0	--	4.9	53.3	155.1	4.9
Claiborne	394.9	6.7	100.4	214.2	73.6	--
De Soto	417.5	--	52.2	117.4	247.9	--
East Baton Rouge	108.3	--	14.4	72.2	21.7	--
East Feliciana	112.7	--	31.3	75.1	6.3	--
Evangeline	214.6	--	52.0	97.6	58.5	6.5
Grant	371.8	6.9	20.7	130.8	185.9	27.5
Jackson	351.8	21.3	74.6	175.9	80.0	--
Jefferson Davis	66.4	--	22.2	22.2	14.8	7.4
La Salle	376.2	--	--	28.9	260.5	86.8
Lincoln	222.4	6.0	24.0	138.3	54.1	--
Livingston	344.5	12.3	153.8	104.6	73.8	--
Natchitoches	622.2	18.5	86.2	277.2	221.8	18.5
Ouachita	248.1	--	--	24.2	211.8	12.1
Rapides	555.0	5.8	63.6	196.6	271.7	17.3
Red River	132.5	--	11.5	34.6	86.4	--
Sabine	466.4	12.1	54.5	236.2	151.4	12.1
St. Helena	179.2	6.6	53.1	99.6	13.3	6.6
St. Tammany	328.3	6.6	26.3	72.2	197.0	26.3
Tangipahoa	346.2	--	72.9	121.5	127.6	24.3
Union	485.9	6.2	118.4	261.7	93.5	6.2
Vernon	786.8	--	144.2	282.3	312.3	48.1
Washington	259.9	--	--	49.8	182.5	27.7
Webster	270.0	6.1	36.8	116.6	92.1	18.4
Winn	545.0	16.4	103.6	299.8	119.9	5.5
Total	10,696.8	167.2	1,611.7	4,283.4	4,195.2	440.6

Table 8. *Commercial forest land by physiographic class, 1980*

Parish	All sites	Pine	Upland hardwood	Bottomland hardwood
		Thousand acres		
Allen	334.2	242.6	--	91.6
Beauregard	614.9	491.9	--	123.0
Bienville	447.2	407.6	--	39.6
Bossier	374.7	304.4	--	70.2
Caddo	335.7	259.1	--	76.6
Calcasieu	165.5	133.7	--	31.8
Caldwell	218.0	130.8	9.7	77.5
Claiborne	394.9	348.1	--	46.9
De Soto	417.4	371.8	--	45.7
East Baton Rouge	108.3	36.1	7.2	65.0
East Feliciana	112.7	87.6	6.3	18.8
Evangeline	214.6	156.1	--	58.5
Grant	371.8	316.7	--	55.1
Jackson	351.8	314.5	--	37.3
Jefferson Davis	66.4	44.3	--	22.2
La Salle	376.2	260.5	--	115.8
Lincoln	222.4	204.4	--	18.0
Livingston	344.5	215.3	--	129.2
Natchitoches	622.2	517.4	--	104.7
Ouachita	248.1	139.2	--	108.9
Rapides	555.0	370.0	--	185.0
Red River	132.5	103.7	--	28.8
Sabine	466.4	442.2	--	24.2
St. Helena	179.2	172.6	--	6.6
St. Tammany	328.3	223.3	--	105.1
Tangipahoa	346.2	218.7	12.2	115.4
Union	485.9	380.0	--	105.9
Vernon	786.8	690.7	--	96.1
Washington	259.9	210.1	--	49.8
Webster	270.0	220.9	--	49.1
Winn	545.0	479.6	5.5	60.0
Total	10,696.7	8,493.9	40.9	2,162.4

Table 10. *Growing-stock volume on commercial forest land by species group, 1980*

Parish	All species	Softwood	Hardwood
	Million cubic feet		
Acadia	119.8	24.6	95.2
Allen	403.6	289.1	114.8
Ascension	107.7	28.3	79.4
Assumption	267.5	128.1	139.4
Avoyelles	238.7	62.3	176.4
Beauregard	646.6	501.2	148.4
Bienville	428.8	286.7	142.1
Bossier	420.7	278.9	141.8
Caddo	314.4	174.8	139.6
Calcasieu	131.1	92.7	38.4
Caldwell	231.1	113.8	117.3
Catahoula	187.9	60.2	127.7
Claiborne	432.3	284.8	147.5
Concordia	275.4	17.8	257.6
De Soto	435.3	301.9	133.4
East Baton Rouge	89.5	36.7	52.8
East Carroll	25.8	1.7	24.2
East Feliciana	205.9	140.2	65.7
Evangeline	294.1	201.8	92.3
Franklin	63.0	15.4	47.6
Grant	571.5	422.4	149.1
Iberia	122.7	51.2	71.5
Iberville	361.7	95.5	266.2
Jackson	389.2	266.0	123.2
Jefferson Davis	87.3	53.9	33.4
Lafourche	198.7	86.1	112.6
La Salle	407.1	275.6	131.5
Lincoln	227.5	159.5	68.0
Livingston	497.6	297.3	200.3
Madison	175.1	--	175.1
Morehouse	215.5	98.8	116.7
Natchitoches	754.2	543.3	210.9

Table 10. *Growing-stock volume on commercial forest land by species group, 1980* (Continued)

Parish	All species	Softwood	Hardwood
	Million cubic feet		
Ouachita	241.3	122.1	119.2
Pointe Coupee	157.0	11.8	145.2
Rapides	568.1	381.8	186.3
Red River	123.0	69.1	53.9
Richland	45.6	--	45.6
Sabine	644.8	483.7	161.1
St. Charles	77.2	30.2	47.0
St. Helena	202.4	158.6	43.8
St. James	144.8	54.0	90.8
St. John Baptist	157.0	67.7	89.3
St. Landry	230.5	46.2	184.3
St. Martin	304.9	97.5	207.4
St. Mary	114.9	42.9	72.0
St. Tammany	413.8	279.8	134.0
Tangipahoa	409.0	260.9	148.1
Tensas	237.7	--	237.7
Terrebonne	224.2	110.6	113.6
Union	517.0	312.7	204.3
Vernon	756.2	578.5	177.7
Washington	277.8	205.3	72.5
Webster	308.7	180.0	128.7
West Baton Rouge	89.6	--	89.6
West Carroll	14.4	--	14.4
West Feliciana	166.5	60.5	106.0
Winn	713.5	447.5	266.0
Total	16467.2	9392.0	7078.6

Table 11. *Sawtimber volume on commercial forest land by species group, 1980*

Parish	All species	Softwood	Hardwood
	Million board feet		
Allen	1880.9	1485.9	395.0
Beauregard	2598.9	2123.0	475.9
Bienville	1720.0	1244.4	475.6
Bossier	1754.8	1308.5	446.3
Caddo	1259.7	799.1	460.6
Calcasieu	629.2	492.5	136.7
Caldwell	1003.7	583.3	420.4
Claiborne	1644.7	1183.0	461.7
De Soto	1803.3	1360.9	442.4
East Baton Rouge	377.6	178.3	199.3
East Feliciana	919.2	660.4	258.8
Evangeline	1308.5	978.3	330.2
Grant	2645.6	2156.3	489.3
Jackson	1681.9	1282.1	399.8
Jefferson Davis	390.0	265.5	124.5
La Salle	1923.7	1436.9	486.8
Lincoln	834.7	630.8	203.9
Livingston	2035.9	1405.4	630.5
Natchitoches	3185.9	2632.9	553.0
Ouachita	974.5	603.7	370.8
Rapides	2592.1	2008.1	584.0
Red River	460.0	276.9	183.1
Sabine	2744.9	2302.4	442.5
St. Helena	876.6	708.1	168.5
St. Tammany	1844.0	1330.1	513.9
Tangipahoa	1672.0	1129.8	542.2
Union	2008.6	1376.0	632.6
Vernon	3354.8	2832.4	522.4
Washington	1247.3	946.9	300.4
Webster	1156.4	767.6	388.8
Winn	3267.1	2348.2	918.9
Total	51796.5	38837.7	12958.8

Table 13. *Growing stock volume of softwoods on commercial forest land by forest type, 1980*

Parish	All types	Longleaf-slash pine	Loblolly-shortleaf pine	Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
	Million cubic feet						
Allen	289.1	51.2	155.7	37.9	10.0	34.2	--
Beauregard	501.2	289.8	116.9	40.3	9.4	44.7	--
Bienville	286.7	11.0	182.6	57.3	22.4	13.5	--
Bossier	278.9	--	192.7	53.2	16.4	15.1	1.5
Caddo	174.8	--	87.4	56.0	12.0	18.7	0.8
Calcasieu	92.7	35.3	21.7	22.2	7.4	6.1	--
Caldwell	113.8	--	50.8	35.9	11.3	15.7	--
Claiborne	284.8	--	195.2	65.3	14.6	9.8	--
De Soto	301.9	--	218.4	44.3	19.9	19.3	--
East Baton Rouge	36.7	--	--	5.9	7.6	23.2	--
East Feliciana	140.2	--	88.5	24.3	12.3	15.2	--
Evangeline	201.8	14.6	128.1	43.8	5.7	9.7	--
Grant	422.4	36.4	271.9	81.1	8.8	24.2	--
Jackson	266.0	13.3	178.2	48.4	18.2	7.9	--
Jefferson Davis	53.9	--	29.5	12.6	2.4	9.3	--
La Salle	275.6	14.9	177.0	36.8	7.6	39.3	--
Lincoln	159.5	--	112.4	40.7	1.8	4.7	--
Livingston	297.3	--	133.9	86.6	7.0	66.6	3.1
Natchitoches	543.3	57.0	346.5	94.4	21.4	21.2	2.8
Ouachita	122.1	--	50.9	29.2	13.2	28.8	--
Rapides	381.8	50.4	190.2	92.3	15.6	32.3	0.9
Red River	69.1	--	35.1	20.4	8.5	4.4	0.7
Sabine	483.7	3.6	335.0	85.3	49.3	10.4	--
St. Helena	158.6	--	118.7	27.0	13.0	...	--
St. Tammany	279.8	103.0	105.4	12.4	17.5	41.5	--
Tangipahoa	260.9	32.0	107.7	35.9	25.5	57.1	2.6
Union	312.7	--	222.0	36.6	27.4	26.8	--
Vernon	578.5	136.9	278.6	100.5	20.8	40.8	0.9
Washington	205.3	50.0	92.6	24.3	14.6	23.7	--
Webster	180.0	--	81.3	52.5	29.0	17.2	--
Winn	447.5	8.5	299.4	66.8	40.4	32.4	--
Total	8200.6	907.9	4604.3	1470.2	491.0	713.8	13.3

Table 14. *Growing-stock volume of hardwoods on commercial forest land by forest type, 1980*

Parish	All types	Longleaf-slash pine	Loblolly-shortleaf pine	Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
	Million cubic feet						
Allen	114.8	1.9	12.8	17.2	8.5	74.3	--
Beauregard	148.4	3.3	13.8	10.9	10.9	109.4	--
Bienville	142.1	0.6	34.8	40.3	26.2	40.2	--
Bossier	141.8	--	35.5	37.7	28.2	38.7	1.7
Caddo	139.6	--	18.4	36.7	27.4	55.1	2.0
Calcasieu	38.4	0.9	0.5	8.6	13.9	14.5	
Caldwell	117.3	--	10.2	21.6	28.0	57.6	--
Claiborne	147.5	--	40.0	42.7	21.2	43.7	--
De Soto	133.4	--	41.7	31.3	36.8	23.7	--
East Baton Rouge	52.8	--	--	3.5	14.9	34.3	--
East Feliciana	65.7	--	12.1	12.3	18.9	22.4	--
Evangeline	92.3	0.2	14.6	26.0	13.6	37.8	--
Grant	149.1	2.5	37.3	43.7	27.7	38.0	--
Jackson	123.2	1.5	25.2	31.5	25.9	39.0	--
Jefferson Davis	33.4	--	5.8	13.0	4.3	10.3	--
La Salle	131.5	0.7	18.9	19.9	8.6	83.4	--
Lincoln	68.0	--	16.1	30.1	4.6	17.3	--
Livingston	200.3	--	13.5	43.1	11.3	128.9	3.5
Natchitoches	210.9	1.1	42.8	51.0	46.5	54.1	15.3
Ouachita	119.2	--	13.7	13.7	26.5	65.3	--
Rapides	186.3	2.1	19.2	53.9	21.5	87.2	2.5
Red River	53.9	--	4.7	13.5	14.0	17.0	4.7
Sabine	161.1	0.9	40.7	39.5	58.0	22.1	--
St. Helena	43.8	--	15.5	14.0	14.3	--	--
St. Tammany	134.0	6.7	16.3	7.8	17.7	85.4	--
Tangipahoa	148.1	3.0	14.9	17.9	31.2	78.0	3.6
Union	204.3	--	39.7	24.7	41.9	98.1	--
Vernon	177.7	3.7	29.5	37.6	27.1	76.4	3.3
Washington	72.5	5.7	11.5	8.1	9.7	37.6	--
Webster	128.7	--	15.8	41.8	43.7	28.0	--
Winn	266.0	0.6	59.3	47.5	79.3	79.2	--
Total	3947.2	35.4	674.8	841.1	762.3	1597.0	36.6

Table 15. *Sawtimber volume of softwoods on commercial forest land by forest type, 1980*

Parish	All types	Longleaf-slash pine	Loblolly-shortleaf pine	Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
	Million board feet						
Allen	1485.9	172.3	794.7	206.6	75.2	256.3	--
Beauregard	2123.0	902.6	568.4	240.6	79.1	352.4	--
Bienville	1244.4	54.2	710.4	275.1	126.8	77.9	--
Bossier	1308.5	--	890.1	233.8	90.9	82.5	11.2
Caddo	799.1	--	344.8	264.6	74.0	109.9	5.8
Calcasieu	492.5	183.0	97.6	105.5	53.2	57.2	--
Caldwell	583.3	--	218.7	196.8	70.3	97.5	--
Claiborne	1183.0	--	759.6	276.7	83.9	62.7	--
De Soto	1360.9	--	910.7	221.0	118.9	110.3	--
East Baton Rouge	178.3	--	--	30.1	35.1	113.1	--
East Feliciana	660.4	--	384.4	123.5	57.4	95.0	--
Evangeline	978.3	57.5	570.0	213.8	47.6	101.5	--
Grant	2156.3	158.0	1331.8	472.0	76.3	148.4	--
Jackson	1282.1	53.0	817.6	248.1	109.5	53.9	--
Jefferson Davis	265.5	--	119.6	69.6	13.6	66.0	--
La Salle	1436.9	72.8	804.9	207.2	54.3	313.5	--
Lincoln	630.8	--	399.8	188.9	11.6	30.5	--
Livingston	1405.4	--	602.7	438.3	36.9	313.1	14.3
Natchitoches	2632.9	231.9	1516.3	515.6	185.0	178.3	36.5
Ouachita	603.7	--	235.8	137.1	81.6	149.2	--
Rapides	2008.1	213.7	857.1	519.6	121.3	306.6	11.2
Red River	276.9	--	97.7	100.3	47.2	26.1	5.6
Sabine	2302.4	19.0	1437.8	483.2	324.4	68.6	--
St. Helena	708.1	--	489.1	154.3	64.7	--	--
St. Tammany	1330.1	400.8	548.7	62.8	96.6	221.2	--
Tangipahoa	1129.8	137.7	434.0	168.9	135.7	239.8	13.6
Union	1376.0	--	890.8	165.9	160.4	158.8	--
Vernon	2832.4	703.7	1181.8	545.1	157.9	263.5	11.3
Washington	946.9	191.7	443.9	123.1	71.5	116.6	--
Webster	767.6	--	307.1	238.7	163.1	58.7	--
Winn	2348.2	47.9	1526.0	353.1	257.9	163.3	--
Total	38837.7	3599.8	20291.9	7579.9	3081.9	4392.4	109.5

Table 16. *Sawtimber volume of hardwoods on commercial forest land by forest type, 1980*

Parish	All types	Longleaf-slash pine	Loblolly-shortleaf pine	Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
	Million board feet						
Allen	395.0	7.4	33.9	49.4	22.9	281.4	--
Beauregard	475.9	28.0	36.6	29.7	25.5	356.1	--
Bienville	475.6	3.0	124.7	124.1	80.3	143.6	--
Bossier	446.3	--	118.7	125.9	76.7	118.2	6.7
Caddo	460.6	--	69.1	116.4	78.6	189.2	7.3
Calcasieu	136.7	6.0	2.4	22.9	54.5	50.8	--
Caldwell	420.4	--	41.1	62.8	89.7	226.8	--
Claiborne	461.7	--	125.7	124.7	67.5	143.7	--
De Soto	442.4	--	158.3	100.7	122.1	61.3	--
East Baton Rouge	199.3	--	--	11.7	37.7	149.9	--
East Feliciana	258.8	--	45.9	41.5	69.3	102.1	--
Evangeline	330.2	2.4	51.6	93.8	55.5	126.9	--
Grant	489.3	5.6	104.6	122.1	114.0	143.1	--
Jackson	399.8	5.7	94.3	106.4	54.5	138.9	--
Jefferson Davis	124.5	--	18.9	50.9	15.4	39.3	--
La Salle	486.8	0.6	46.2	62.8	25.6	351.6	--
Lincoln	203.9	--	62.0	84.8	9.6	47.5	--
Livingston	630.5	--	81.1	124.5	29.6	386.9	8.4
Natchitoches	553.0	2.5	120.8	119.1	120.3	150.0	40.3
Ouachita	370.8	--	57.1	52.2	75.2	186.4	--
Rapides	584.0	8.8	52.0	177.7	60.3	284.5	0.6
Red River	183.1	--	14.7	46.6	47.2	64.1	10.4
Sabine	442.5	1.7	103.4	135.2	135.8	66.3	--
St. Helena	168.5	--	71.6	49.5	47.3	--	--
St. Tammany	513.9	53.1	91.3	30.9	70.0	268.6	--
Tangipahoa	542.2	23.3	64.5	71.6	112.9	258.0	12.0
Union	632.6	--	125.6	61.0	130.2	315.7	--
Vernon	522.4	18.4	80.1	72.5	88.2	249.6	13.6
Washington	300.4	23.0	52.8	30.5	33.3	160.8	--
Webster	388.8	--	53.2	106.2	126.3	103.1	--
Winn	918.9	2.9	174.5	150.5	282.9	308.1	--
Total	12958.8	192.4	2276.7	2558.6	2358.9	5472.5	99.3

Table 17. *Growing-stock volume of softwoods on commercial forest land by stand-size class, 1980*

Parish	All classes	Sawtimber	Poletimber	Sapling and seedling	Nonstocked areas
	Million cubic feet				
Allen	289.1	198.6	73.2	16.2	1.2
Beauregard	501.2	203.2	241.0	52.8	4.2
Bienville	286.7	180.0	80.3	26.4	--
Bossier	278.9	186.7	75.4	16.0	0.9
Caddo	174.8	97.5	49.2	26.6	1.5
Calcasieu	92.7	60.8	15.0	15.6	1.3
Caldwell	113.8	78.8	25.4	7.1	2.5
Claiborne	284.8	150.3	113.6	21.0	--
De Soto	301.9	223.7	50.1	28.1	--
East Baton Rouge	36.7	16.9	11.9	7.9	--
East Feliciana	140.2	122.2	14.4	3.6	--
Evangeline	201.8	164.8	32.1	4.9	--
Grant	422.4	335.0	69.4	12.4	5.6
Jackson	266.0	201.7	53.7	10.6	--
Jefferson Davis	53.9	45.0	7.5	1.3	--
La Salle	275.6	175.8	66.1	28.9	4.9
Lincoln	159.5	89.8	63.5	6.2	--
Livingston	297.3	220.0	33.3	44.0	--
Natchitoches	543.3	418.5	96.9	27.9	--
Ouachita	122.1	97.4	7.0	17.7	--
Rapides	381.8	282.7	54.8	41.0	3.3
Red River	69.1	41.1	23.5	2.8	1.7
Sabine	483.7	375.0	85.7	22.9	--
St. Helena	158.6	125.6	22.3	10.7	--
St. Tammany	279.8	193.0	57.5	23.8	5.5
Tangipahoa	260.9	169.4	70.0	18.2	3.3
Union	312.7	206.5	70.9	35.4	--
Vernon	578.5	364.0	133.5	79.2	1.8
Washington	205.3	173.6	1.6	28.5	1.6
Webster	180.0	100.1	58.7	21.1	--
Winn	447.5	378.4	55.3	13.8	--
Total	8200.6	5676.1	1812.8	672.6	39.3

Table 18. *Growing-stock volume of hardwoods on commercial forest land by stand-size class, 1980*

Parish	All classes	Sawtimber	Poletimber	Sapling and seedling	Nonstocked areas
	Million cubic feet				
Allen	114.8	91.1	15.8	7.9	--
Beauregard	148.4	103.9	37.7	6.5	0.2
Bienville	142.1	94.0	30.2	17.8	--
Bossier	141.8	75.6	60.8	5.0	0.4
Caddo	139.6	78.46	42.0	16.2	2.9
Calcasieu	38.4	34.4	2.0	1.9	--
Caldwell	117.3	94.8	18.5	2.7	1.4
Claiborne	147.5	87.5	52.7	7.3	--
De Soto	133.4	71.8	35.0	26.6	--
East Baton Rouge	52.8	29.4	15.1	8.2	--
East Feliciana	65.7	56.8	4.5	4.4	--
Evangeline	92.3	64.2	24.6	3.5	--
Grant	149.1	119.5	20.5	7.9	1.2
Jackson	123.2	86.9	28.0	8.4	--
Jefferson Davis	33.4	31.8	1.6	--	--
La Salle	131.5	95.4	22.4	12.9	0.8
Lincoln	68.0	38.2	23.7	6.2	--
Livingston	200.3	145.0	35.0	20.3	--
Natchitoches	210.9	114.5	72.7	23.7	--
Ouachita	119.2	70.4	36.7	12.0	--
Rapides	186.3	137.8	26.2	22.0	0.4
Red River	53.9	40.0	8.9	4.0	0.9
Sabine	161.1	117.6	35.9	7.6	--
St. Helena	43.8	37.2	2.7	3.9	--
St. Tammany	134.0	93.2	34.4	4.3	1.5
Tangipahoa	148.1	108.1	31.8	7.1	1.2
Union	204.3	132.3	46.0	26.0	--
Vernon	177.7	122.7	37.6	17.2	0.2
Washington	72.5	53.8	2.3	15.7	0.6
Webster	128.7	79.0	37.7	11.9	--
Winn	266.0	225.5	31.0	9.5	--
Total	3946.1	2730.8	874.0	328.6	11.7

Table 19. *Sawtimber volume of softwood on commercial forest land by stand-size class, 1980*

Parish	All classes	Sawtimber	Poletimber	Sapling and seedling	Nonstocked areas
	Million board feet				
Allen	1485.9	1115.3	236.8	122.2	11.6
Beauregard	2123.0	1104.1	601.7	367.6	49.6
Bienville	1244.4	885.1	231.9	127.3	--
Bossier	1308.5	928.9	286.5	87.5	5.6
Caddo	799.1	479.9	185.1	122.5	11.6
Calcasieu	492.5	319.1	52.1	108.0	13.3
Caldwell	583.3	445.3	93.5	39.7	4.8
Claiborne	1183.0	718.4	366.5	98.1	--
De Soto	1360.9	1022.2	181.2	157.4	--
East Baton Rouge	178.3	82.5	57.1	38.8	--
East Feliciana	660.4	615.4	28.0	17.0	--
Evangeline	978.3	786.9	154.8	36.6	--
Grant	2156.3	1773.0	266.7	103.7	12.9
Jackson	1282.1	1039.1	174.9	68.2	--
Jefferson Davis	265.5	233.9	18.2	13.4	--
La Salle	1436.9	974.3	239.2	209.3	14.2
Lincoln	630.8	429.9	170.8	30.1	--
Livingston	1405.4	1067.2	114.3	223.9	--
Natchitoches	2632.9	1918.1	485.9	228.8	--
Ouachita	603.7	479.0	170.8	30.1	--
Rapides	2008.1	1420.6	242.0	310.6	34.9
Red River	276.9	200.3	56.7	13.2	6.7
Sabine	2302.4	1775.8	378.5	148.1	--
St. Helena	708.1	592.3	68.9	46.9	--
St. Tammany	1330.1	1013.8	179.9	110.3	26.1
Tangipahoa	1129.8	823.7	203.6	85.9	16.5
Union	1376.0	960.2	232.7	183.2	--
Vernon	2832.4	1749.9	507.1	552.7	22.6
Washington	946.9	802.0	7.9	129.0	7.9
Webster	767.6	474.6	184.0	109.0	--
Winn	2348.2	2058.5	202.4	87.2	--
Total	38837.7	28289.3	6379.7	4006.3	238.3

Table 20. *Sawtimber volume of hardwoods on commercial forest land by stand-size class, 1980*

Parish	All classes	Sawtimber	Poletimber	Sapling and seedling	Nonstocked areas
	Million board feet				
Allen	395.0	344.6	25.2	24.6	0.5
Beauregard	475.9	366.7	84.1	22.7	2.4
Bienville	475.6	331.2	78.0	66.4	--
Bossier	446.3	263.4	163.4	16.5	2.9
Caddo	460.6	276.5	113.5	60.3	10.3
Calcasieu	136.7	124.1	5.4	6.6	0.6
Caldwell	420.4	359.5	43.6	8.9	8.5
Claiborne	461.7	308.9	120.7	32.1	--
De Soto	442.4	246.5	105.9	90.0	--
East Baton Rouge	199.3	138.4	34.3	26.5	--
East Feliciana	258.8	226.6	13.4	18.9	--
Evangeline	330.2	245.2	64.4	20.6	--
Grant	489.3	428.4	36.1	24.2	0.7
Jackson	399.8	301.8	60.4	37.6	--
Jefferson Davis	124.5	117.1	6.7	0.6	--
La Salle	486.8	395.4	54.8	36.0	0.6
Lincoln	203.9	124.8	55.0	24.0	--
Livingston	630.5	496.7	44.8	89.0	--
Natchitoches	553.0	376.2	132.3	44.5	--
Ouachita	370.8	251.7	66.0	53.1	--
Rapides	584.0	486.3	48.7	47.3	1.7
Red River	183.1	147.8	22.2	8.0	5.1
Sabine	442.5	364.3	57.5	20.7	--
St. Helena	168.5	140.2	14.0	14.3	--
St. Tammany	513.9	382.6	90.5	28.6	12.3
Tangipahoa	542.2	422.3	82.5	29.7	7.8
Union	632.6	437.3	102.2	93.0	--
Vernon	522.4	398.3	77.5	45.6	1.1
Washington	300.4	233.1	5.6	58.0	3.7
Webster	388.8	275.3	74.2	39.4	--
Winn	918.9	796.3	83.2	39.4	--
Total	12958.8	9807.5	1966.1	1127.1	58.2

Table 21. *Growing-stock volume on commercial forest land by physiographic site class and species group, 1980*

Parish	All sites	Site: Pine		Site: Upland Hardwood		Site: Bottomland Hardwood	
		Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood
	Million cubic feet						
Allen	403.9	249.7	37.5	--	--	39.4	77.3
Beauregard	649.6	432.2	35.5	--	--	69.0	112.9
Bienville	428.8	273.2	101.9	--	--	13.5	40.2
Bossier	420.7	259.0	99.4	--	--	19.8	41.3
Caddo	314.4	155.3	82.5	--	--	19.5	57.0
Calcasieu	131.1	78.8	21.2	--	--	14.0	17.1
Caldwell	231.1	96.8	48.3	1.3	11.4	15.7	57.6
Claiborne	432.3	275.1	103.9	--	--	9.8	48.7
De Soto	435.3	282.6	109.7	--	--	19.3	23.7
East Baton Rouge	89.5	11.9	15.8	1.6	2.6	23.2	34.3
East Feliciana	205.9	121.2	38.6	3.9	4.7	15.2	22.4
Evangeline	294.1	187.0	50.4	--	--	14.8	41.9
Grant	571.5	393.5	105.4	--	--	28.9	43.7
Jackson	389.2	258.1	84.2	--	--	7.9	3.9
Jefferson Davis	83.7	39.4	15.8	--	--	14.5	17.7
La Salle	407.1	236.3	--	--	--	39.3	83.4
Lincoln	227.5	154.8	50.7	--	--	4.7	17.3
Livingston	498.3	214.1	61.7	--	--	83.1	139.1
Natchitoches	754.2	519.2	141.4	--	--	24.1	69.4
Ouachita	241.3	93.3	53.9	--	--	28.8	65.3
Rapides	568.1	305.7	77.2	--	--	76.1	109.1
Red River	123.0	64.0	82.3	--	--	5.1	21.6
Sabine	644.8	462.7	137.8	--	--	21.0	23.4
St. Helena	202.4	146.9	38.8	--	--	11.7	5.0
St. Tammany	413.8	238.3	48.6	--	--	41.5	85.4
Tangipahoa	409.0	184.7	48.1	3.3	13.0	73.0	87.1
Union	517.0	281.8	103.8	--	--	31.0	100.6
Vernon	756.2	527.8	93.6	--	--	50.7	84.2
Washington	277.8	179.9	31.8	--	--	25.5	40.6
Webster	308.7	157.9	90.9	--	--	22.2	29.8
Winn	713.5	414.4	184.6	0.7	10.7	32.4	82.9
Total	12143.8	7295.6	2195.3	10.8	42.4	894.7	1683.9

Table 22. *Growing-stock volume of softwoods on commercial forest land by class of timber, 1980*

Parish	All classes	Poletimber	Sawtimber
	Million cubic feet		
Allen	289.1	69.0	220.1
Beauregard	501.2	229.3	271.9
Bienville	286.7	80.1	206.6
Bossier	278.9	55.0	223.8
Caddo	174.8	52.1	122.8
Calcasieu	92.7	27.2	65.5
Caldwell	113.8	22.2	91.6
Claiborne	284.8	82.7	202.1
De Soto	301.9	72.1	229.8
East Baton Rouge	36.7	10.3	26.4
East Feliciana	140.2	31.2	109.0
Evangeline	201.8	51.0	150.8
Grant	422.4	61.3	361.0
Jackson	266.0	51.9	214.1
Jefferson Davis	53.9	12.4	41.5
La Salle	275.6	64.9	210.7
Lincoln	159.5	53.9	105.7
Livingston	297.3	53.9	243.4
Natchitoches	543.3	128.5	414.8
Ouachita	122.1	28.3	93.9
Rapides	381.8	91.6	290.2
Red River	69.1	25.6	43.5
Sabine	483.7	96.0	387.7
St. Helena	158.6	31.4	127.2
St. Tammany	279.8	71.4	208.4
Tangipahoa	260.9	69.8	191.1
Union	312.7	85.1	227.6
Vernon	578.5	160.7	417.8
Washington	205.3	39.5	165.8
Webster	180.0	42.6	137.4
Winn	447.5	64.2	383.3
Total	8200.6	2015.2	6185.5

Table 23. *Growing-stock volume of hardwoods on commercial forest land by class of timber, 1980*

Parish	All classes	Poletimber	Sawtimber
	Million cubic feet		
Allen	115.3	23.7	91.6
Beauregard	148.4	29.6	118.8
Bienville	142.1	37.4	104.7
Bossier	141.8	41.1	100.7
Caddo	139.6	27.0	112.6
Calcasieu	38.4	6.7	31.7
Caldwell	117.3	17.9	99.3
Claiborne	147.5	41.9	105.6
De Soto	133.4	33.2	100.2
East Baton Rouge	52.8	10.4	42.4
East Feliciana	65.7	11.7	54.0
Evangeline	92.3	16.3	76.0
Grant	149.1	32.5	116.6
Jackson	123.2	30.2	93.0
Jefferson Davis	33.4	3.9	29.5
La Salle	131.5	18.8	112.7
Lincoln	68.0	20.9	47.1
Livingston	200.3	40.3	160.0
Natchitoches	210.9	60.8	150.1
Ouachita	119.2	29.6	89.6
Rapides	186.3	45.8	140.5
Red River	53.9	13.1	40.8
Sabine	161.1	43.3	117.8
St. Helena	43.8	10.8	33.0
St. Tammany	134.0	31.4	102.6
Tangipahoa	148.1	38.8	109.3
Union	204.3	57.3	147.0
Vernon	177.7	45.4	132.3
Washington	72.5	15.7	56.8
Webster	128.7	36.4	92.3
Winn	266.0	50.4	215.6
Total	3946.6	922.3	3024.2

Table 25. *Net annual growth of growing stock on commercial forest land by species group, 1980*

Parish	All species	Softwood	Hardwood
	Million cubic feet		
Acadia	2.1	1.0	1.1
Allen	24.6	17.0	7.6
Ascension	4.5	.6	3.9
Assumption *	6.9	2.7	4.2
Avoyelles	5.0	1.4	3.6
Beauregard	37.1	28.1	9.0
Bienville	23.8	15.0	8.8
Bossier	21.1	12.6	8.6
Caddo	17.6	9.7	7.9
Calcasieu	9.9	6.3	3.6
Caldwell	21.3	13.3	8.0
Catahoula	2.4	1.8	.6
Ciaiborne	13.3	6.8	6.5
Concordia	4.1	--	4.1
De Soto	21.9	14.1	7.8
East Baton Rouge	8.2	4.3	3.9
East Carroll	-	--	
East Feliciana	12.9	8.8	4.1
Evangeline	14.2	9.9	4.3
Franklin	1.7	.6	1.1
Grant	27.7	20.4	7.3
Iberia	4.2	0.7	3.5
Iberville	4.3	2.4	1.9
Jackson	21.5	13.6	7.9
Jefferson Davis	4.6	2.9	1.7
Lafourche	8.7	0.8	7.9
La Salle	22.2	15.3	6.9
Lincoln	12.6	7.9	4.7
Livingston	30.8	19.6	11.2

Table 25. *Net annual growth of growing stock on commercial forest land by species group, 1980* (Continued)

Parish	All species	Softwood	Hardwood
	Million cubic feet		
Morehouse	4.4	1.0	3.4
Natchitoches	42.1	29.8	12.3
Ouachita	14.2	7.2	7.0
Pointe Coupee *	3.6	1.3	2.3
Rapides	32.6	22.1	10.5
Red River	7.6	4.0	3.6
Richland	2.2	--	2.2
Sabine	36.0	26.7	9.3
St. Charles	1.2	0.5	0.7
St. Helena	17.9	13.1	4.8
St. James	1.0	0.5	0.5
St. John Baptist	.5	0.4	.1
St. Landry	1.7	1.6	.1
St. Martin	1.9	1.9	--
St. Mary	0.7	0.7	--
St. Tammany	33.5	22.9	10.6
Tangipahoa	30.3	20.2	10.1
Tensas	--	--	
Terrebonne	.6	.6	--
Union	26.6	15.5	11.1
Vernon	43.2	32.4	10.8
Washington	23.2	16.2	7.0
Webster	16.6	9.7	6.9
West Baton Rouge	--	--	--
West Carroll	--	--	--
West Feliciana	0.9	0.9	--
Winn	35.5	21.0	14.5
Total	767.2	487.8	279.5

Table 26. *Net annual growth of sawtimber on commercial forest land by species group, 1980*

Parish	All species	Softwood	Hardwood
	Million board feet		
Allen	98.8	75.9	22.9
Beauregard	130.7	103.6	27.1
Bienville	95.0	68.5	26.5
Bossier	85.6	59.7	25.9
Caddo	59.6	35.8	23.8
Calcasieu	34.0	23.2	10.8
Caldwell	44.7	25.1	19.6
Claiborne	86.3	62.3	24.0
De Soto	88.7	65.2	23.5
East Baton Rouge	27.6	15.9	11.7
East Feliciana	44.8	32.5	12.3
Evangeline	49.4	36.5	12.9
Grant	110.4	88.4	22.0
Jackson	87.1	63.4	23.7
Jefferson Davis	15.8	10.7	5.1
La Salle	90.4	69.6	20.8
Lincoln	43.3	29.1	14.2
Livingston	119.2	85.5	33.7
Natchitoches	160.1	123.1	37.0
Ouachita	47.7	26.6	21.1
Rapides	126.3	94.7	31.6
Red River	25.6	14.8	10.8
Sabine	139.8	111.7	28.1
St. Helena	75.7	61.3	14.4
St. Tammany	129.6	97.7	31.9
Tangipahoa	117.6	87.2	30.4
Union	103.5	70.1	33.4
Vernon	165.2	132.7	32.5
Washington	94.1	73.0	21.1
Webster	56.5	35.8	20.7
Winn	134.9	91.3	43.6
Total	2688.0	1970.9	717.1

Table 27. *Average annual removals from growing stock on commercial forest land (1974 - 1980)*

Parish	All species	Softwood	Hardwood
	Million cubic feet		
Acadia	--	--	--
Allen	20.6	14.1	6.5
Ascension	3.3	0.8	2.5
Assumption	7.3	3.4	3.9
Avoyelles	0.6	--	0.6
Beauregard	23.1	20.4	2.7
Bienville	29.9	24.8	5.1
Bossier 1/	25.5	17.5	8.0
Caddo	11.8	6.4	5.4
Calcasieu	11.3	4.5	6.7
Caldwell	15.1	8.7	6.4
Catahoula	--	--	--
Claiborne	25.2	21.2	4.0
Concordia	4.0	--	--
De Soto	28.3	24.4	3.9
East Baton Rouge	5.3	.2	5.1
East Carroll	3.3	--	3.3
East Feliciana	3.4	1.9	1.5
Evangeline	5.1	3.7	1.4
Franklin	-		
Grant	10.8	8.1	2.7
Iberia	3.1	1.3	1.8
Iberville	--	--	--
Jackson 1/	44.1	35.4	8.7
Jefferson Davis	2.5	1.7	.9
Lafourche	10.8	4.6	6.7
La Salle	12.4	9.2	3.2
Lincoln	20.1	14.5	5.6
Livingston 1/	5.5	3.8	1.7
Madison	6.3	--	6.3
Morehouse	7.4	3.4	4.0
Natchitoches	28.3	20.0	8.3
Ouachita	17.4	8.8	8.6
Pointe Coupee	4.4	--	4.4

Table 27. *Average annual removals from growing stock on commercial forest land (1974 - 1980)* (Continued)

Parish	All species	Softwood	Hardwood
	Million cubic feet		
Rapides	23.2	15.0	8.2
Red River	10.6	6.5	4.1
Richland	2.9	--	2.9
Sabine	28.4	19.8	8.6
St. Charles	0.9	0.4	0.5
St. Helena	10.4	8.9	1.5
St. James	1.1	0.4	0.7
St. John Baptist	5.0	2.1	2.9
St. Landry	9.1	1.5	7.6
St. Martin	13.4	3.7	9.8
St. Mary	10.7	3.6	7.1
St. Tammany	19.0	13.1	5.9
Tangipahoa	10.6	7.5	3.1
Tensas	--	--	--
Terrebonne	--	--	--
Union	24.4	19.5	4.9
Vernon	26.9	21.1	5.7
Washington	9.3	6.9	2.4
Webster 1/	20.9	15.6	5.3
West Baton Rouge	--	--	--
West Carroll	--	--	--
West Feliciana	6.4	2.2	4.2
Winn	55.2	42.4	12.8
Total	681.1	453.0	228.1

1/ These parishes had an unusually large sampling error associated with their softwood removal volume.

Table 28. *Average annual removals from sawtimber on commercial forest land, (1974 - 1980)*

Parish	All species	Softwood	Hardwood
	Million board feet		
Allen	99.8	68.9	30.9
Beauregard	111.8	99.8	12.0
Bienville	145.3	121.3	24.0
Bossier 1/	124.0	85.6	38.4
Caddo	56.8	31.3	25.5
Calcasieu	53.4	22.0	31.4
Caldwell	72.9	42.5	30.4
Claiborne	122.2	103.7	18.5
De Soto	137.3	119.3	18.0
East Baton Rouge	25.0	1.0	24.0
East Feliciana	15.4	9.3	6.1
Evangeline	23.7	18.1	5.6
Grant	51.6	39.6	12.0
Jackson 1/	215.0	173.1	41.9
Jefferson Davis	11.4	8.3	3.1
La Salle	59.5	45.0	14.5
Lincoln	97.4	70.9	26.5
Livingston 1/	25.8	17.5	8.3
Natchitoches	137.7	97.8	39.9
Ouachita	84.4	43.0	41.4
Rapides	112.8	73.4	39.4
Red River	50.8	31.8	19.0
Sabine	138.2	96.8	41.4
St. Helena	49.6	43.5	6.1
St. Tammany	92.0	64.1	27.9
Tangipahoa	50.7	36.7	14.0
Union	118.4	95.4	23.0
Vernon	130.2	103.2	27.0
Washington	44.3	33.7	10.6
Webster 1/	101.3	76.3	25.0
Winn	269.5	207.3	62.2
Total	2828.2	2080.2	748.0

1/ These parishes had an unusually large sampling error associated with their softwood removal volume.

Table 29. *Average annual mortality of growing stock and sawtimber on commercial forest land, (1974 - 1980)*

Parish	Growing stock			Sawtimber		
	All species	Softwood	Hardwood	All species	Softwood	Hardwood
	Million cubic feet			*Million board feet*		
Allen	5.5	2.0	3.5	16.4	5.5	10.9
Beauregard	7.6	3.4	4.2	22.1	9.0	13.1
Bienville	4.0	2.2	1.8	11.6	6.0	5.6
Bossier	4.3	1.9	2.4	12.7	5.2	7.5
Caddo	3.2	1.0	2.2	9.8	3.0	6.8
Calcasieu	1.9	.3	1.6	6.2	1.2	5.0
Caldwell	3.0	.8	2.2	9.2	2.5	6.7
Claiborne	3.9	2.1	1.8	11.3	5.7	5.6
De Soto	3.6	2.1	1.5	10.3	5.6	4.7
East Baton Rouge	.7	--	.7	2.2	--	2.2
East Feliciana	1.6	1.1	.5	4.8	3.2	1.6
Evangeline	3.3	1.1	2.2	9.1	3.3	5.8
Grant	6.1	2.5	3.6	18.0	6.8	11.2
Jackson	4.6	2.4	2.2	12.0	6.5	5.5
Jefferson Davis	1.2	.3	.8	3.7	1.2	2.5
La Salle	4.7	1.6	3.1	14.3	4.5	9.8
Lincoln	2.4	1.3	1.1	7.1	3.7	3.4
Livingston	3.6	2.2	1.4	10.3	5.9	4.4
Natchitoches	8.6	3.9	4.7	24.9	10.3	14.6
Ouachita	3.3	.9	2.4	10.2	2.7	7.5
Rapides	7.3	2.4	4.9	21.7	6.5	15.2
Red River	1.7	.6	1.1	5.5	2.1	3.4
Sabine	7.3	3.3	4.0	23.0	10.6	12.4
St. Helena	1.7	1.3	.4	4.9	3.7	1.2
St. Tammany	4.4	3.3	1.1	12.1	8.8	3.3
Tangipahoa	2.6	1.6	1.0	7.6	4.5	3.1
Union	4.8	2.1	2.7	14.2	5.8	8.4
Vernon	8.0	3.5	4.5	23.3	9.3	14.0
Washington	2.8	2.3	.5	7.9	6.3	1.6
Webster	3.4	1.4	2.0	10.2	4.0	6.2
Winn	7.3	3.2	4.1	21.2	8.5	12.7
Total	128.4	58.1	70.2	377.8	161.9	215.9

THOMAS, C. E. AND C. V. BYLIN.
1982. Lousiana mid-cycle survey shows change in forest resource trends. U.S. Dep. Agric. For. Serv. Resour. Bull. SO- 86 33p South. For. Exp. Stn., New Orleans, La.

The first extensive mid-cycle update of Louisiana forest resources shows a 1% decrease in inventory volume between 1974 and 1980. Forested area declined by about 4% during the same period. Softwood inventory, however, continued to show a modest gain.

Additional keywords: Area, forest type, stand size growth, removals, mortality.