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Forest Statistics for Arkansas' Delta Counties - 1988

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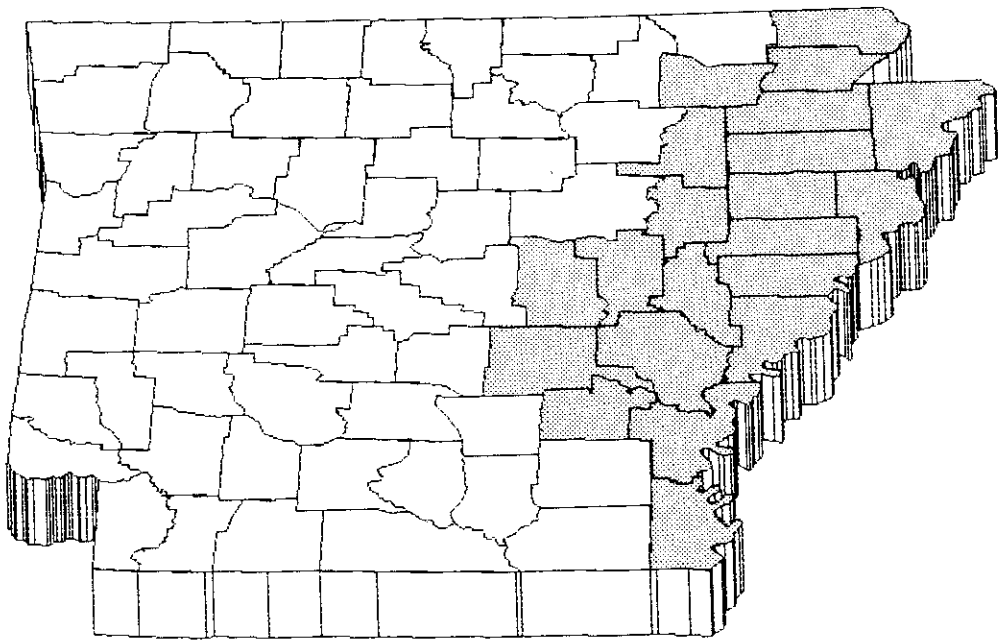

SUMMARY

The 1988 survey of the Arkansas Delta showed the following changes since the 1978 survey:

* Timberland area now covers 1,899.0 thousand acres, up 4 percent since 1978.
* Forest industry-owned timberland decreased 11 percent, other privately owned timberland increased 7 percent.
* Area covered by the loblolly-shortleaf forest type is up 26 percent.
* Oak-pine forest types showed a 20-percent decrease in acreage.
* Bottomland hardwood forest types increased by 38.0 thousand acres, 3 percent.
* Sawtimber stands increased 9 percent, poletimber stands decreased 5 percent, sapling-seedling stands decreased 3 percent.
* Plantations now cover 53.2 thousand acres, an increase of 116 percent.
* Softwood volumes have increased, 23 percent for growing stock, 14 percent for sawtimber.
* Hardwood volumes have increased, 26 percent for growing stock, 31 percent for sawtimber.
* Softwood growth and removals, growing stock and sawtimber, have increased.
* Hardwood growth on growing stock is down, growth on sawtimber is up.
* Removals of hardwood, both growing stock and sawtimber, have decreased substantially.
* Mortality estimates are up.

FOREWORD

The Southern Forest Survey, an activity of the Southern Forest Experiment Station Forest Inventory and Analysis work unit, covers the States of Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, and East Texas, and the island of Puerto Rico.

This survey is part of the nationwide Forest Survey originally authorized by the McSweeney-McNary Act of 1928. More recent legislation pertinent to the survey mission includes the Forest and Rangeland Renewable Resources Planning Act of 1974 and the Forest and Rangeland Renewable Resources Research Act of 1978. The survey mission is to develop, analyze, and maintain renewable forest resource information. This information is essential for formulation of forest policies and programs.

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*Core tables are presented in response to the Southern Industrial Forestry Research Council's recommendations. These tables are identical among Forest Inventory and Analysis units in the eastern United States.

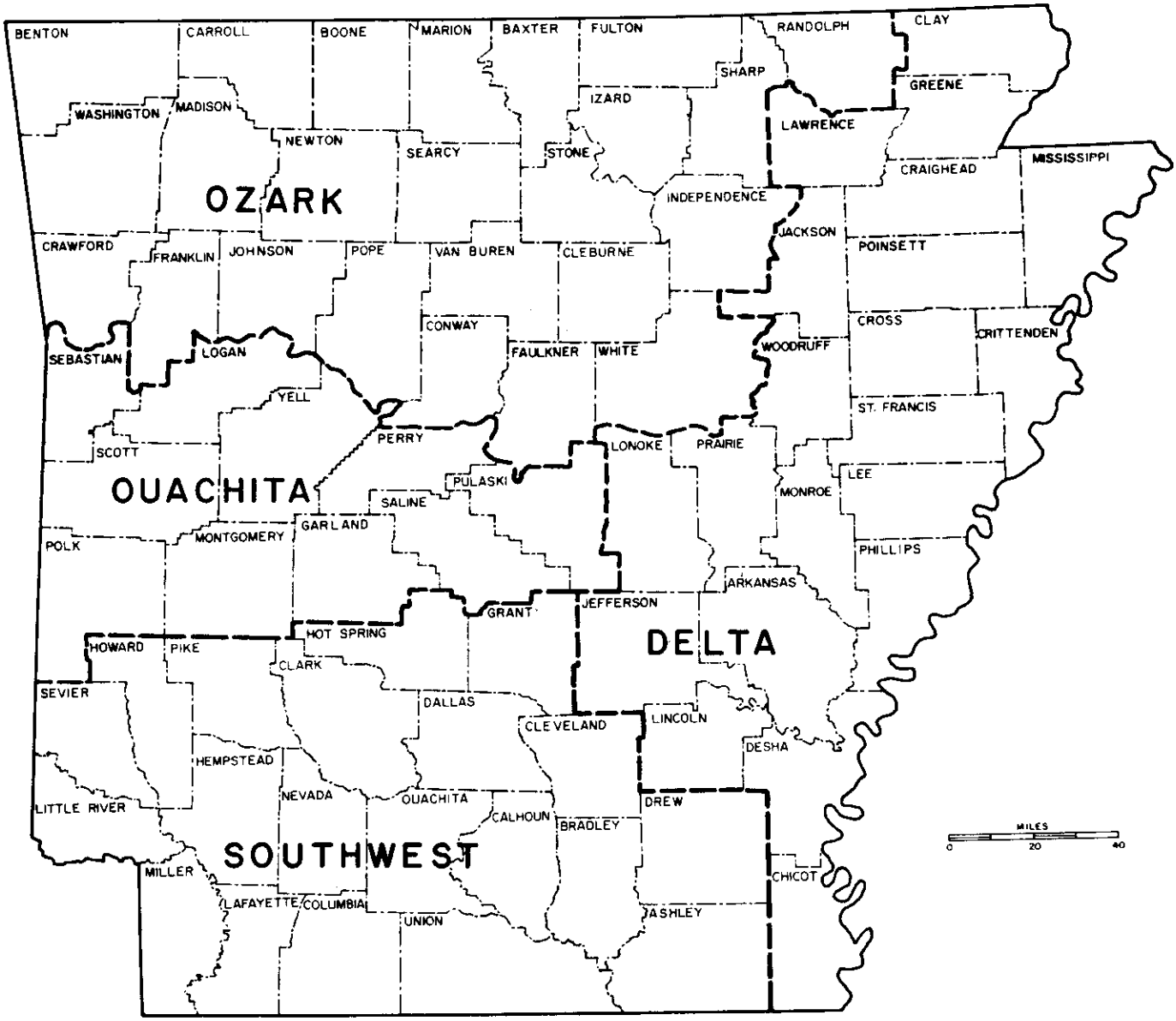

Figure I.–The forest survey regions of Arkansas

Forest Statistics for Arkansas' Delta Counties—1988

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INTRODUCTION

Tabulated results were derived from data obtained during a recent inventory of 21 counties comprising the Arkansas Delta (fig. 1). Data on forest acreage and timber volume were secured by a three-step process. A forest-nonforest classification using aerial photographs was accomplished for points representing approximately 230 acres. These photo classifications were adjusted based on ground observations at sample locations representing approximately 3,840 acres. Finally, field measurements were made at forest locations on the intersections of grid lines spaced 3 miles apart. At these forest locations, per-acre estimates were obtained from trees measured on ten 37.5 basal area factor prism points.

The sampling methods were designed to achieve suitable sampling errors for estimates of area and volume at the State level. Sampling error increases as the area or volume considered decreases. The sampling errors presented in table I, equal to one standard deviation for the sample data, may be used to construct confidence intervals for population parameters. For example, at the 95 percent confidence level, the confidence interval for growing-stock volume (in million cubic feet) in the Arkansas Delta (with a sampling error of 6.2 percent) is

$$2,534.9 \pm 1.96(0.062\text{x}2,534.9) = 2,534.9 \pm 308.0$$

where 1.96 is the number of standard deviations. This confidence interval indicates that the actual growing-stock volume lies in the range 2,226.9 to 2,842.9 million cubic feet, unless a 1 in 20 chance has occurred.

Sampling errors for sub-groups of counties in the unit may be estimated by the following formula:

$$SE_g = \frac{SE_t\sqrt{X_t}}{\sqrt{X_g}}$$

where:

SE	=	standard error of estimate (expressed as a percent)
X	=	variable of interest (area or volume)
g	=	group of counties to be combined
t	=	total for the unit.

For example, the sampling error estimate of growing-stock volume for Chicot, Desha, and Lincoln counties is 13.6 percent. Thus, the 95 percent confidence interval for growing-stock volume is 527.2 ± 140.5 million cubic feet.

Ownership information is obtained by the same systematic sample outlined above. County courthouse records are used to obtain ownership information for each forested plot. An expansion factor representing timberland area in that county is then applied to the ownership group the plot represents. Next, the ownership groups are totaled for each county. Thus, acreages reported at the county level are estimates and may not exactly match known totals for each ownership category within that county.

In order to achieve greater compatibility among Forest Inventory and Analysis Projects, a new tree grading classification has been initiated for the 1988 Arkansas Survey. Tree grade 5 is used for trees currently or prospectively capable of producing at least

Table I–*Sampling errors*[1] *for timberland, growing stock, and sawtimber, Arkansas Delta, 1988*

County	Timberland	Growing stock			Sawtimber volume
		Volume	Growth	Removals	
	Percent				
Arkansas	1.3	23.3	14.5	25.7	22.3
Chicot	1.8	23.3	39.8	22.9	25.6
Clay	1.5	29.5	24.5	...	32.5
Craighead	0.7	21.9	28.5	...	22.5
Crittenden[3]	0.8	23.2	20.9	33.3	30.6
Cross[4]	0.7	26.2	48.0	40.0	30.5
Desha	2.1	15.9	17.6	30.1	17.9
Greene	1.7	18.7	15.5	29.5	21.1
Jefferson	1.7	13.7	13.3	19.7	17.0
Lawrence	1.9	49.9	31.5	41.0	(2)
Lee	1.6	15.8	27.1	22.5	19.6
Lincoln	2.0	19.7	23.0	20.4	20.3
Lonoke	1.7	25.1	34.6	...	21.1
Monroe	1.7	15.8	24.3	16.5	18.5
Phillips	1.4	23.3	45.6	34.1	27.4
Poinsett	1.3	21.0	23.4	...	22.8
Prairie	0.9	38.5	39.3	...	30.2
St. Francis	0.9	27.8	33.4	42.9	35.9
Woodruff	1.3	19.2	21.6	23.6	23.1
All counties	0.3	6.2	6.0	8.1	6.5

[1] By random-sampling formula.
[2] Sampling error greater than 50.
[3] Mississippi included in Crittenden.
[4] Jackson included in Cross.

one 12-foot log or two 8-foot logs in the saw-log portion but not able to produce a 12-foot log in the butt 16 feet. These trees, formerly classed as rough or rotten, are now included in growing stock. Table II shows the impact of this change on volume and growth.

For comparative purposes 1978 survey data were reprocessed using current procedures. Therefore, differences between 1978 and 1988 data should reflect resource changes and not data processing differences. Results from the reprocessed 1978 data are used for comparison to 1988 data in the Highlights that follow.

HIGHLIGHTS

Timberland Area

The area of timberland in the Arkansas Delta has stabilized since the last survey in 1978. Area of timberland increased 4 percent from 1,828.8 thousand acres to 1,899.0 thousand acres. This is a marked turnaround from the loss of timberland recorded in previous surveys. The Arkansas Delta is now 20 percent forested.

Forest land owned by forest industry, including land under long-term lease, decreased by 11 percent and is now 240.8 thousand acres. Other privately-owned timberland showed a 7-percent increase. This category, with 1,367.9 thousand acres, is still by far the greatest ownership group. Other ownership groups showed little change since the 1978 survey.

Changes in several forest types have occurred since the previous survey. The loblolly-shortleaf forest type has increased 26 percent to 86.3 thousand acres. An increase of 8 percent in the oak-hickory forest type has

Table II–*Changes in volume and growth estimates due to inclusion of tree grade 5 in growing-stock inventory, Arkansas Delta, 1988*

	Tree grade 5		
	Excluded from growing stock	Included in growing stock	Percent change
	Million cubic feet		
Softwood:			
Growing-stock volume	265.1	290.3	9.5
Rough and rotten volume	38.3	13.1	-65.8
Growing-stock growth	9.8	12.4	26.5
Hardwood:			
Growing-stock volume	2089.6	2244.6	7.4
Rough and rotten volume	419.2	264.2	-37.0
Growing-stock growth	56.5	74.2	31.3
	Million board feet		
Softwood:			
Sawtimber volume	1099.8	1218.4	10.8
Sawtimber growth	35.7	48.5	35.9
Hardwood:			
Sawtimber volume	7826.4	8482.1	8.4
Sawtimber growth	257.3	332.8	29.3

pushed the acreage total to 472.1 thousand acres. Bottomland hardwood types, oak-gum-cypress and elm-ash-cottonwood, have increased 2 percent and 18 percent respectively. Oak-gum-cypress, covering 1,165.5 thousand acres, remains the dominant forest type in the Arkansas Delta. Only the oak-pine forest type decreased in area, down 20 percent to 45.3 thousand acres.

Forests of the Arkansas Delta are maturing. This process is seen by a shift toward stands of larger size timber. Sawtimber stands increased by 9 percent and are now up to 1,181.1 thousand acres. Thus, sawtimber stands represent 62 percent of the total forest area. Accordingly, as the area in sawtimber stands has increased, the area in poletimber and sapling-seedling stands is down 5 percent and 3 percent respectively. Poletimber stands now cover 442.2 thousand acres. The area covered by sapling-seedling stands is only 237.8 thousand acres despite a 28.6 thousand acre increase in plantation acreage. Plantations now cover 53.2 thousand acres.

Number of Trees

The total number of live trees has changed very little, down only .8 percent since the previous survey. However, the total number of live softwood trees is down 12 percent. There was virtually no change in the number of live hardwood trees. Most of the decline in softwood live trees occurred in the 2-inch diameter class, which suffered a 49-percent decrease. A pattern of change across diameters in the number of live hardwood trees is not evident.

Growing-stock trees, on the other hand, showed a 36-percent decline in total numbers. This loss is composed of a 16-percent decrease in softwoods and a 37-percent decrease in hardwoods. As with softwood live trees, the decline in softwood growing-stock trees was concentrated in the 2-inch class. The decrease in hardwood growing-stock trees is entirely within and below the 6-inch diameter class.

Timber Volume

Volumes of softwoods in the Arkansas Delta have increased since the previous survey. Between the 1969 and 1978 surveys softwood growing-stock volume increased 28.6 million cubic feet to 235.8 million cubic feet. The 10 years since the survey of 1978 witnessed another 23-percent increase with a current growing-stock volume of 290.3 million cubic feet. Similar increases are found for softwood sawtimber volumes. The 1969 survey showed 928.9 million board feet. The 1978 survey indicated a gain of 15 percent up to 1,064.5 million board feet. Current softwood sawtimber volume is at 1,218.4 million board feet, up another 14 percent.

Hardwood volumes are also up since the 1978 survey. But, the period between 1969 and 1978 showed a decline for both growing-stock and sawtimber volumes. Growing-stock volume went from 1,808.6 to 1,783.3 million cubic feet, while sawtimber volume moved from 6,477.5 to 6,467.2 million board feet. However, the current survey shows a 26-percent increase in growing-stock volume to 2,244.6 million cubic feet. Current sawtimber volume is up to 8,482.1 million board feet, a 31-percent increase.

Growth, Removals, and Mortality

Total average net annual growth of growing stock increased only .7 percent. This includes a 27-percent increase in softwood net annual growth and a 3-percent decrease in hardwood net annual growth. The current survey shows net annual growth of growing stock at 12.4 and 74.2 million cubic feet for softwoods and hardwoods respectively. It should be noted that without the reclassification of tree grade 5 trees mentioned above, total average net annual growth of growing stock would be down 23 percent (table II).

Contrary to growing-stock growth, total average net annual growth of sawtimber is up 32 percent. Softwood sawtimber growth is up 36 percent to 48.5 million board feet. Similarly, hardwood growth of sawtimber jumped to 332.8 million board feet, a 31-percent gain. However, as table II indicates, without the inclusion of tree grade 5 trees in growing stock, total net annual growth of sawtimber is up only 1 percent.

Softwood average annual removals have increased since the 1978 survey. Removals of softwood growing stock are up to 8.1 million cubic feet from 7.2 million cubic feet. Sawtimber removals have increased 36 percent, now estimated at 37.4 million board feet.

Conversely, hardwood removals are down substantially. Since the previous survey, average annual removals of hardwood decreased 42 percent for growing stock and 30 percent for sawtimber. Removal estimates for hardwoods are now 36.0 million cubic feet and 144.4 million board feet for growing stock and sawtimber respectively.

Mortality estimates for the Arkansas Delta have also increased. Total average annual mortality on growing stock is 31.5 million cubic feet, an increase of 15 percent. Sawtimber mortality, up 12 percent, is 98.5 million board feet annually.

Tables 1–25 were developed to provide compatibility among Forest Inventory and Analysis Projects. Tables 26–36 are supplementary tables and may change from unit to unit or State to State to address specific resource issues.

DEFINITION OF TERMS

Average net annual growth.—Average net annual volume increase for the inter-survey period.

Average annual mortality.—Average annual sound-wood volume of growing-stock trees dying from natural causes.

Average annual removals.—Average net annual volume of growing-stock trees removed from the inventory by harvesting, cultural operations (such as timber-stand improvement), land clearing, or changes in land use.

Commercial species.—Tree species which normally develop into trees suitable for industrial wood products.

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

Growing-stock trees.—Live trees of commercial species. Rough and rotten trees are excluded.

Growing-stock volume.—The cubic-foot volume of sound wood in 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 where the central stem breaks into limbs.

Live trees.—Commercial and noncommercial tree species of sapling size or larger.

Natural stands.—Stands with no evidence of artificial regeneration. This includes those stands established by seed tree regeneration methods.

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.

Planted stands.—Stands with some evidence of planting or direct seeding.

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

Reserved timberland.—Productive public forest land withdrawn from timber utilization through statute or administrative regulations.

Rotten trees.—Live trees of commercial species that do not contain at least one 12-foot log or two 8-foot logs in the saw-log portion, now or prospectively, primarily because of rot.

Rough trees.—Live trees of commercial species that do not contain at least one 12-foot log or two 8-foot logs in the saw-log portion, now or prospectively, primarily because of roughness or poor form. Also included are all live trees of noncommercial species.

Saplings.—Growing-stock trees at least 1.0 inches but less than 5.0 inches in diameter at breast height.

Sawtimber trees.—Live trees that contain at least one 12-foot log, or two 8-foot logs in the saw-log portion, 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 in diameter at breast height.

Sawtimber volume.—Sound-wood volume of the saw-log portion of growing-stock sawtimber trees in board feet, International 1/4-inch rule and in cubic feet.

Seedlings.—Growing-stock trees less than 1.0 inch in diameter at breast height, and greater than twelve inches in height for hardwoods, greater than six inches in height for softwoods, and greater than one-half inch in diameter at ground level for longleaf pine.

Select white oaks.—A classification of several white oak species composed of: white, swamp chestnut, swamp white, chinkapin, Durand, and bur oaks.

Select red oaks.—A classification of several red oak species composed of: cherrybark, Shumard, and northern red oaks.

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 diameter size class of growing-stock trees on the sampled area; that is, sawtimber, poletimber, or sapling and seedling.

Timberland.—Forest land that is producing, or is capable of producing, crops of industrial wood and not withdrawn from timber utilization. Timberland is synonymous with "commercial forest land" in prior reports.

Tree grade.—A classification of the volume of the saw-log portion of sawtimber trees based on: 1) the log grade of the butt log, or 2) ability to produce at least one 12-foot log or two 8-foot logs in the upper-section of the saw-log portion.

Woodland.—Forest land incapable of yielding crops of industrial wood because of adverse site conditions.

Table 1—*Area by county and land class, Arkansas Delta, 1988*

County	All land[1]	Forest land				Nonforest land
		Total	Timberland[2]	Woodland[3]	Reserved timberland	
	Thousand acres					
Arkansas	661.4	190.7	190.7	...	...	470.6
Chicot	442.1	83.7	83.7	...	...	358.4
Clay	410.3	78.5	78.5	...	...	331.8
Craighead	456.8	49.0	49.0	...	...	407.8
Crittenden[4]	999.5	49.0	49.0	...	...	950.5
Cross[5]	809.2	112.4	112.4	...	...	696.8
Desha	522.0	150.8	150.8	...	...	371.2
Greene	370.8	55.7	55.7	...	...	315.1
Jackson	...	...	...	...	...	...
Jefferson	586.4	218.8	218.8	...	...	367.6
Lawrence	378.4	84.6	84.6	...	...	293.8
Lee	399.3	98.4	98.4	...	...	300.9
Lincoln	364.8	153.2	153.2	...	...	211.6
Lonoke	514.2	75.8	75.8	...	...	438.4
Mississippi	...	...	...	...	...	...
Monroe	397.5	140.4	140.4	...	...	257.1
Phillips	465.6	94.4	94.4	...	...	371.2
Poinsett	489.5	54.9	54.9	...	...	434.6
Prairie	432.5	77.6	77.6	...	...	354.9
St. Francis	411.0	67.1	67.1	...	...	343.9
Woodruff	380.1	63.9	63.9	...	...	316.2
All counties	9491.3	1899.0	1899.0	...	...	7592.3

[1] From U.S. Bureau of the Census.

[2] Forest land (formerly termed commercial forest land) that is producing or capable of producing at least 20 cubic feet of industrial wood per acre per year. Includes areas which may be inaccessible or inoperable by current standards. Excludes reserved timberlands.

[3] Forest land incapable of producing 20 cubic feet of industrial wood per acre per year under natural conditions because of adverse site conditions.

[4] Mississippi included in Crittenden.

[5] Jackson included in Cross.

Table 2–*Area of timberland by county and ownership class, Arkansas Delta, 1988*

County	All ownerships	National forest	Misc. federal	State	County and municipal	Forest industry[1]	Farmer	Corporate[2]	Individual[2]
	Thousand acres								
Arkansas	190.7	...	46.2	28.9	...	5.8	52.0	17.3	40.5
Chicot	83.7	...	...	...	...	11.2	39.1	22.3	11.2
Clay	78.5	...	...	14.3	...	7.1	35.7	...	21.4
Craighead	49.0	...	...	14.7	...	...	4.9	9.8	19.6
Crittenden[3]	49.0	...	4.9	9.8	4.9	...	24.5	4.9	...
Cross[4]	112.4	...	...	...	...	...	46.8	9.4	56.2
Desha	150.8	...	14.4	...	...	64.6	14.4	43.1	14.4
Greene	55.7	...	...	...	...	...	11.1	...	44.6
Jefferson	218.8	...	16.0	10.7	...	48.0	16.0	26.7	101.4
Lawrence	84.6	...	...	6.0	...	...	30.2	...	48.4
Lee	98.4	16.4	...	...	...	8.2	24.6	...	49.2
Lincoln	153.2	...	...	6.7	...	33.3	20.0	26.6	66.6
Lonoke	75.8	...	...	5.1	...	...	50.6	10.1	10.1
Monroe	140.4	...	20.1	5.0	...	50.1	40.1	5.0	20.1
Phillips	94.4	7.3	7.3	...	...	7.3	14.5	...	58.1
Poinsett	54.9	...	...	13.7	...	...	18.3	...	22.9
Prairie	77.6	...	5.2	20.7	...	5.2	25.9	10.4	10.4
St. Francis	67.1	...	...	12.2	...	...	36.6	6.1	12.2
Woodruff	63.9	...	...	...	...	...	49.2	...	14.8
All counties	1899.0	23.7	114.0	147.7	4.9	240.8	554.5	191.7	621.7

[1] Includes land leased to forest industry.

[2] Indian land will be classed as corporate or individual as defined by the Bureau of Indian Affairs.

[3] Mississippi included in Crittenden.

[4] Jackson included in Cross.

Table 3–*Area of timberland by county and forest type group, Arkansas Delta, 1988*

County	Total	Forest type group					
		Loblolly-shortleaf pine		Oak-pine	Oak-hickory	Oak-gum cypress	Elm-ash-cottonwood
		Planted	Natural				
	Thousand acres						
Arkansas	190.7	...	...	...	40.5	138.7	11.6
Chicot	83.7	...	...	...	...	55.8	27.9
Clay	78.5	...	...	...	21.4	57.1	...
Craighead	49.0	...	...	...	14.7	24.5	9.8
Crittenden[1]	49.0	...	...	...	...	29.4	19.6
Cross[2]	112.4	...	...	...	56.2	56.2	...
Desha	150.8	...	...	...	...	129.3	21.5
Greene	55.7	...	...	5.6	44.6	5.6	...
Jefferson	218.8	10.7	37.4	21.3	53.4	90.7	5.3
Lawrence	84.6	...	...	...	54.4	30.2	...
Lee	98.4	...	...	...	16.4	73.8	8.2
Lincoln	153.2	13.3	20.0	13.3	59.9	40.0	6.7
Lonoke	75.8	5.1	...	...	15.2	50.6	5.1
Monroe	140.4	...	...	5.0	20.1	110.3	5.0
Phillips	94.4	...	...	...	21.8	72.6	...
Poinsett	54.9	...	...	...	13.7	32.0	9.1
Prairie	77.6	...	...	...	15.5	62.1	...
St. Francis	67.1	...	...	...	24.4	42.7	...
Woodruff	63.9	...	...	...	...	63.9	...
All counties	1899.0	29.0	57.3	45.3	472.1	1165.5	129.8

[1] Mississippi included in Crittenden.

[2] Jackson included in Cross.

Table 4—*Area of timberland by county and stand-size class, Arkansas Delta, 1988*

County	All classes	Stand-size class			Nonstocked[1] areas
		Sawtimber	Poletimber	Sapling-seedling	
	Thousand acres				
Arkansas	190.7	167.6	11.6	5.8	5.8
Chicot	83.7	44.7	16.7	16.7	5.6
Clay	78.5	42.8	21.4	14.3	...
Craighead	49.0	34.3	4.9	9.8	...
Crittenden[2]	49.0	19.6	19.6	4.9	4.9
Cross[3]	112.4	37.5	65.5	9.4	...
Desha	150.8	122.1	28.7	...	...
Greene	55.7	39.0	16.7	...	...
Jefferson	218.8	106.7	64.0	48.0	...
Lawrence	84.6	36.3	24.2	24.2	...
Lee	98.4	82.0	8.2	8.2	...
Lincoln	153.2	86.6	46.6	20.0	...
Lonoke	75.8	35.4	15.2	25.3	...
Monroe	140.4	105.3	20.1	15.0	...
Phillips	94.4	65.4	14.5	14.5	...
Poinsett	54.9	41.1	4.6	4.6	4.6
Prairie	77.6	62.1	15.5	...	...
St. Francis	67.1	18.3	24.4	12.2	12.2
Woodruff	63.9	34.4	19.7	4.9	4.9
All counties	1899.0	1181.1	442.2	237.8	38.0

[1] Timberland less than 16.7 percent stocked.

[2] Mississippi included in Crittenden.

[3] Jackson included in Cross.

Table 5—*Area of timberland by county and site class, Arkansas Delta, 1988*

County	All classes	Site class (cubic feet/acre/year) >165	120-165	85-120	50-85	<50
	Thousand acres					
Arkansas	190.7	11.6	34.7	98.3	34.7	11.6
Chicot	83.7	5.6	22.3	16.7	22.3	16.7
Clay	78.5	28.5	7.1	21.4	14.3	7.1
Craighead	49.0	...	9.8	9.8	24.5	4.9
Crittenden[1]	49.0	14.7	4.9	4.9	19.6	4.9
Cross[2]	112.4	...	18.7	18.7	37.5	37.5
Desha	150.8	35.9	28.7	64.6	21.5	...
Greene	55.7	...	5.6	5.6	33.4	11.1
Jefferson	218.8	10.7	16.0	112.1	74.7	5.3
Lawrence	84.6	...	12.1	6.0	48.4	18.1
Lee	98.4	...	49.2	24.6	16.4	8.2
Lincoln	153.2	6.7	33.3	59.9	53.3	...
Lonoke	75.8	15.2	5.1	20.2	30.3	5.1
Monroe	140.4	10.0	20.1	55.1	50.1	5.0
Phillips	94.4	14.5	21.8	21.8	36.3	...
Poinsett	54.9	...	13.7	27.4	9.1	4.6
Prairie	77.6	10.4	10.4	15.5	41.4	...
St. Francis	67.1	12.2	6.1	24.4	24.4	...
Woodruff	63.9	4.9	...	24.6	29.5	4.9
All counties	1899.0	180.8	319.5	631.8	621.8	145.1

[1] Mississippi included in Crittenden.

[2] Jackson included in Cross.

Table 6—*Area of timberland by county and stocking classes of growing-stock trees, Arkansas Delta, 1988*

County	All classes	Stocking class (percent) >130	100-130	60-100	16.7-60	<16.7
	Thousand acres					
Arkansas	190.7	...	23.1	115.6	46.2	5.8
Chicot	83.7	...	5.6	33.5	39.1	5.6
Clay	78.5	...	21.4	42.8	14.3	...
Craighead	49.0	...	4.9	19.6	24.5	...
Crittenden[1]	49.0	...	19.6	14.7	9.8	4.9
Cross[2]	112.4	...	...	65.5	46.8	...
Desha	150.8	...	28.7	71.8	50.3	...
Greene	55.7	...	5.6	27.9	22.3	...
Jefferson	218.8	21.3	69.4	69.4	58.7	...
Lawrence	84.6	...	...	60.4	24.2	...
Lee	98.4	...	8.2	73.8	16.4	...
Lincoln	153.2	...	6.7	99.9	46.6	...
Lonoke	75.8	5.1	10.1	40.4	20.2	...
Monroe	140.4	5.0	15.0	70.2	50.1	...
Phillips	94.4	...	7.3	58.1	29.1	...
Poinsett	54.9	...	13.7	32.0	4.6	4.6
Prairie	77.6	...	10.4	51.8	15.5	...
St. Francis	67.1	...	6.1	36.6	12.2	12.2
Woodruff	63.9	...	14.8	29.5	14.8	4.9
All counties	1899.0	31.4	270.5	1013.6	545.6	38.0

[1] Mississippi included in Crittenden.
[2] Jackson included in Cross.

Table 7—*Area of timberland by forest type and ownership class, Arkansas Delta, 1988*

Forest type[1]	All ownerships	National forest	Other public	Forest industry	Forest industry-leased	Other private
	Thousand acres					
Loblolly-shortleaf pine	86.4	...	...	52.0	...	34.4
Softwood total	86.4	...	...	52.0	...	34.4
Oak-pine	45.3	...	5.3	17.3	...	22.6
Oak-hickory	472.1	23.7	33.2	6.7	...	408.6
Oak-gum-cypress	1165.5	...	218.6	149.5	...	797.4
Elm-ash-cottonwood	129.8	...	9.5	15.4	...	105.0
Hardwood total	1812.6	23.7	266.6	188.8	...	1333.5
All types	1899.0	23.7	266.6	240.8	...	1367.9

[1] Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood types.

Table 8—*Area of timberland by ownership and stocking classes of growing-stock trees, Arkansas Delta, 1988*

Ownership class	All classes	Stocking class (percent)				
		>130	100-130	60-100	16.7-60	<16.7
	Thousand acres					
National forest	23.7	...	...	23.7	...	...
Other public	266.6	...	71.7	139.3	55.7	...
Forest industry	240.8	21.0	48.9	111.3	54.0	5.6
Other private	1367.9	10.4	149.9	739.3	435.9	32.4
All ownerships	1899.0	31.4	270.5	1013.6	545.6	38.0

Table 9—*Area of timberland by forest type and stand-size class, Arkansas Delta, 1988*

Forest type[1]	All classes	Stand-size class			Nonstocked[2] areas
		Sawtimber	Poletimber	Sapling-seedling	
	Thousand acres				
Loblolly-shortleaf pine	86.4	41.3	34.7	10.4	...
Softwood total	86.4	41.3	34.7	10.4	...
Oak-pine	45.3	22.6	6.7	16.0	...
Oak-hickory	472.1	241.7	144.1	86.3	...
Oak-gum-cypress	1165.5	804.8	233.3	98.9	28.5
Elm-ash-cottonwood	129.8	70.8	23.4	26.1	9.5
Hardwood total	1812.6	1139.8	407.5	227.4	38.0
All types	1899.0	1181.1	442.2	237.8	38.0

[1] Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood types.

[2] Timberland less than 16.7 percent stocked.

Table 10—*Number of live trees on timberland by species and diameter class, Arkansas Delta, 1988*

Species	All classes	Diameter class (inches at breast height) 1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
	Thousand trees												
Shortleaf-loblolly pine	45262	11437	15893	7927	4392	2210	1817	893	317	181	71	119	4
Cypress	4328	489	...	521	373	658	611	441	221	290	135	350	239
Other softwoods	4404	2768	1165	332	60	79	...	...	...	...	...	...	...
Total softwoods	53994	14694	17058	8780	4826	2947	2428	1334	538	471	206	469	24
Select white oaks	31158	17921	3497	3762	1409	1327	1199	716	600	243	237	226	20
Select red oaks	14587	6909	3190	932	599	437	602	425	291	372	267	525	37
Other white oaks	57603	24043	12123	6011	4587	3198	2227	1505	1293	901	572	947	195
Other red oaks	87196	42547	16371	7685	6004	4211	2821	2227	1886	1170	865	1135	274
Hickory	93139	56499	15478	6489	5527	3158	2458	1410	741	496	349	441	92
Hard maple	5996	4307	1504	...	124	61	...	...	...	...	...	...	...
Soft maple	55695	32124	14583	3867	2485	725	841	485	311	107	114	34	19
Beech	3370	1504	1504	...	...	...	81	...	48	74	39	121	...
Sweetgum	82003	50514	11998	7381	5056	2654	1704	1039	669	450	195	265	78
Tupelo-blackgum	37450	21730	7232	2254	1905	1581	882	377	332	290	173	475	220
Ash	76842	44651	18107	4560	3392	2255	1099	1087	627	427	220	368	49
Cottonwood-aspen	7771	2775	2246	325	190	393	350	347	333	249	181	316	66
Yellow-poplar	356	...	...	142	...	26	...	49	55	29	27	20	8
Black walnut	972	919	...	...	...	53	...	...	...	...	...	...	...
Other hardwoods	248821	157894	35957	18030	14941	7802	4382	3151	2355	1659	1188	1335	128
Total hardwoods	802958	464338	143788	61439	46219	27880	18646	12819	9540	6466	4427	6209	118
Noncommercial	87631	62769	16620	5768	1759	358	167	54	51	23	9	55	...
All species	944584	541802	177466	75986	52805	31185	21240	14206	10129	6960	4642	6733	1428

Table 11—*Number of growing-stock trees on timberland by species and diameter class, Arkansas Delta, 1988*

Species	All classes	Diameter class (inches at breast height) 1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
	Thousand trees												
Shortleaf-loblolly pine	40750	8315	14672	7791	4392	2210	1817	893	303	181	71	101	4
Cypress	3507	489	...	319	327	376	430	388	221	290	135	332	200
Other softwoods	3147	2768	...	239	60	79	...	...	...	...	...	...	...
Total softwoods	47404	11572	14672	8349	4779	2666	2247	1280	525	471	206	433	20
Select white oaks	19187	7775	2497	3454	1206	1258	1131	660	551	243	191	205	15
Select red oaks	9125	1999	3190	667	599	331	569	405	291	314	257	470	34
Other white oaks	33006	7421	7120	5166	3956	2961	1740	1228	1100	821	512	817	163
Other red oaks	52083	15753	10982	6251	5767	4047	2462	2061	1780	1016	801	1005	159
Hickory	45124	18656	7541	5821	4941	2689	2202	1338	657	460	314	425	79
Hard maple	3007	1318	1504	...	124	61	...	...	...	...	...	...	...
Soft maple	20475	6412	8188	2707	1520	514	479	230	222	85	88	21	8
Beech	1046	...	752	...	...	...	81	...	48	74	27	63	...
Sweetgum	49151	23099	8086	7046	4489	2374	1516	998	594	438	186	249	76
Tupelo-blackgum	17774	6287	4374	1896	1905	1470	497	290	234	190	96	371	163
Ash	31723	12997	6665	3809	3210	1884	772	918	521	395	202	321	29
Cottonwood-aspen	6754	1837	2246	325	190	393	350	330	313	249	164	295	62
Yellow-poplar	197	...	...	...	...	26	...	33	55	29	27	20	8
Black walnut	53	...	...	...	...	53	...	...	...	...	...	...	...
Other hardwoods	85568	25962	17589	13099	11443	6091	3328	2478	1934	1469	1006	1101	68
Total hardwoods	374272	129516	80733	50243	39351	24154	15129	10968	8301	5782	3870	5363	86
All species	421677	141088	95405	58592	44130	26820	17376	12248	8825	6253	4076	5796	1068

Table 12–*Volume of growing stock on timberland by species and diameter class, Arkansas Delta, 1988*

Species	All classes	Diameter class (inches at breast height) 5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
	Million cubic feet										
Shortleaf-loblolly pine	169.0	18.9	26.3	26.7	35.8	24.9	12.9	9.3	4.7	8.8	0.6
Cypress	120.0	0.7	1.4	3.6	7.2	8.6	6.7	13.6	8.8	24.9	44.5
Other softwoods	1.3	0.3	0.3	0.7	...	...	...	...	...	...	...
Total softwoods	290.3	19.9	28.0	31.0	43.1	33.5	19.6	23.0	13.5	33.7	45.0
Select white oaks	116.0	7.3	5.3	11.6	18.7	16.5	16.9	9.4	11.5	16.7	2.0
Select red oaks	98.8	1.7	3.8	3.3	9.5	9.0	8.9	12.4	13.5	32.5	4.1
Other white oaks	260.5	10.6	18.3	25.8	23.8	23.6	31.4	30.2	23.6	54.1	19.2
Other red oaks	410.6	14.7	33.2	42.4	38.8	47.6	54.2	41.1	41.3	76.9	20.4
Hickory	244.5	12.6	24.4	25.8	37.7	31.5	20.2	20.2	17.5	39.2	15.3
Hard maple	1.4	...	0.7	0.7	...	...	...	...	...	...	...
Soft maple	45.2	6.7	7.6	5.1	6.9	4.5	5.3	3.7	3.7	1.0	0.8
Beech	11.4	...	...	...	1.5	...	1.4	3.3	1.5	3.7	...
Sweetgum	214.3	15.6	23.8	27.1	27.7	26.5	22.5	21.1	11.7	22.2	16.1
Tupelo-blackgum	86.2	4.2	9.0	12.7	6.7	5.2	5.8	5.6	3.5	19.6	13.8
Ash	138.3	8.8	16.7	19.1	12.1	19.0	13.9	14.8	9.1	22.0	2.9
Cottonwood-aspen	96.7	1.1	1.3	5.1	6.7	8.8	11.4	12.3	11.2	28.4	10.4
Yellow-poplar	10.4	...	...	0.5	...	1.1	2.1	1.4	1.4	2.5	1.4
Black walnut	0.6	...	...	0.6	...	...	...	...	...	...	...
Other hardwoods	509.6	28.3	58.9	58.1	52.6	53.9	60.7	60.0	48.3	80.8	8.0
Total hardwoods	2244.6	111.6	203.1	237.9	242.6	247.4	254.8	235.4	197.8	399.6	114.5
All species	2534.9	131.4	231.1	268.8	285.7	280.8	274.4	258.4	211.3	433.3	159.6

Table 13—*Volume of growing stock in the saw-log portion of sawtimber*[1] *trees on timberland by species and diameter class, Arkansas Delta, 1988*

Species	All classes	Diameter class (inches at breast height) 9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
	Million cubic feet								
Shortleaf-loblolly pine	103.0	20.7	30.2	21.4	11.5	8.1	3.8	6.9	0.5
Cypress	107.1	2.1	5.7	7.3	6.1	12.8	8.3	23.4	41.5
Other softwoods	0.6	0.6	...	...	...	...	...	...	...
Total softwoods	210.8	23.4	35.8	28.7	17.6	20.8	12.1	30.4	42.0
Select white oaks	76.4	...	14.0	14.0	14.4	7.9	9.9	14.3	1.8
Select red oaks	77.4	...	7.0	7.8	7.6	11.0	12.2	28.1	3.7
Other white oaks	173.8	...	18.0	19.5	26.2	26.0	19.9	46.5	17.8
Other red oaks	271.9	...	27.9	40.0	46.2	35.9	36.3	67.2	18.4
Hickory	151.2	...	28.1	26.2	17.2	17.0	15.2	33.9	13.6
Soft maple	20.9	...	4.9	3.6	4.3	3.3	3.4	0.8	0.8
Beech	9.2	...	1.0	...	1.2	2.4	1.2	3.4	...
Sweetgum	126.5	...	19.3	22.5	19.8	18.7	10.7	20.3	15.2
Tupelo-blackgum	51.6	...	3.9	4.2	4.8	4.9	3.2	17.6	13.1
Ash	78.7	...	8.7	14.2	12.1	12.9	8.2	20.0	2.7
Cottonwood-aspen	79.6	...	5.2	7.4	10.1	11.0	10.2	25.9	9.8
Yellow-poplar	9.1	...	...	1.0	1.9	1.2	1.3	2.3	1.4
Other hardwoods	309.7	...	38.3	44.6	51.3	53.0	42.4	73.0	7.1
Total hardwoods	1436.1	...	176.3	205.0	217.0	205.2	174.0	353.3	105.2
All species	1646.8	23.4	212.2	233.7	234.6	226.0	186.1	383.6	147.2

[1] That part of the bole of sawtimber trees between a 1-foot stump and saw-log top, including the portion of the forks large enough to contain a saw log.

Table 14—*Volume of sawtimber on timberland by species and diameter class, Arkansas Delta, 1988*

Species	All classes	Diameter class (inches at breast height) 9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
	Million board feet								
Shortleaf-loblolly pine	619.1	109.1	174.7	130.7	74.2	52.7	26.3	48.4	3.1
Cypress	596.1	9.4	28.2	36.2	31.0	72.9	49.1	130.5	238.8
Other softwoods	3.2	3.2	...	...	...	...	...	...	...
Total softwoods	1218.4	121.7	202.8	166.9	105.2	125.6	75.4	178.9	241.9
Select white oaks	460.4	...	76.7	81.9	85.6	48.7	60.5	95.1	11.9
Select red oaks	456.5	...	37.0	43.3	44.4	67.6	76.6	166.7	20.8
Other white oaks	1040.3	...	93.0	108.8	152.1	157.7	121.2	294.0	113.4
Other red oaks	1623.7	...	147.6	220.6	271.1	217.9	220.9	427.5	118.1
Hickory	936.0	...	156.7	153.0	104.1	104.7	96.3	230.6	90.8
Soft maple	117.4	...	26.7	20.4	22.9	19.8	20.4	4.8	2.4
Beech	58.8	...	5.7	...	7.3	15.1	7.9	22.8	...
Sweetgum	764.5	...	106.2	129.4	118.9	113.1	67.3	135.3	94.3
Tupelo-blackgum	229.1	...	19.0	20.6	23.1	25.4	15.1	77.1	48.6
Ash	431.9	...	45.5	74.1	67.3	73.1	44.9	112.8	14.2
Cottonwood-aspen	483.0	...	30.1	44.2	60.6	68.2	64.1	161.3	54.6
Yellow-poplar	57.3	...	...	6.2	12.0	7.6	7.6	15.2	8.7
Other hardwoods	1823.1	...	208.6	251.1	304.4	320.3	251.4	443.8	43.5
Total hardwoods	8482.1	...	952.9	1153.7	1274.0	1239.0	1054.2	2187.1	621.3
All species	9700.6	121.7	1155.7	1320.6	1379.2	1364.6	1129.6	2366.0	863.1

Table 15–*Volume of growing stock and sawtimber on timberland by county and species group, Arkansas Delta, 1988*

County	Growing stock						Sawtimber					
	All species	Softwood			Hardwood		All species	Softwood			Hardwood	
		Pine						Pine				
		Planted	Natural	Other	Soft[1]	Hard[2]		Planted	Natural	Other	Soft[1]	Hard[2]
	Million cubic feet						*Million board feet*					
Arkansas	296.8	...	...	13.9	88.8	194.1	1208.0	...	...	64.1	352.3	791.6
Chicot	101.3	...	...	0.4	66.0	34.9	446.3	...	...	1.5	274.7	170.1
Clay	119.2	...	...	0.4	35.9	82.8	466.2	...	...	1.4	133.8	331.0
Craighead	54.8	...	0.4	9.0	24.5	21.0	191.1	...	...	36.9	87.2	67.0
Crittenden[3]	73.9	...	...	4.8	51.5	17.6	266.9	...	...	20.5	206.6	39.8
Cross[4]	99.0	...	...	...	15.9	83.1	309.3	...	...	...	40.8	268.5
Desha	253.3	...	...	20.6	165.5	67.1	1034.0	...	...	104.7	627.8	301.4
Greene	67.2	...	9.6	...	11.5	46.1	252.1	...	45.7	...	28.8	177.6
Jefferson	285.1	6.2	82.3	15.6	57.4	123.6	950.6	...	277.9	69.0	209.2	394.6
Lawrence	53.4	...	...	1.3	7.4	44.7	183.7	...	...	3.2	20.0	160.5
Lee	166.1	...	...	3.1	86.2	76.8	734.8	...	...	15.7	390.7	328.4
Lincoln	172.6	8.4	50.1	2.2	28.6	83.3	644.8	25.6	219.8	10.2	83.0	306.2
Lonoke	73.0	3.5	...	2.2	19.1	48.3	257.3	17.7	...	10.8	54.8	174.0
Monroe	227.4	...	8.0	25.2	77.2	116.9	885.2	...	30.5	148.7	242.9	463.2
Phillips	114.8	...	...	0.7	40.6	73.4	457.2	...	...	3.9	164.7	288.6
Poinsett	77.1	...	...	2.5	16.8	57.7	325.9	...	...	15.6	71.2	239.1
Prairie	142.3	...	0.4	8.0	53.8	80.1	528.4	...	2.0	39.2	198.9	288.3
St. Francis	69.0	...	...	0.5	20.1	48.4	249.0	...	...	2.2	58.6	188.1
Woodruff	88.7	...	...	10.8	25.9	52.0	309.7	...	...	51.8	65.4	192.5
All counties	2534.9	18.1	150.9	121.3	892.7	1351.9	9700.6	43.3	575.8	599.3	3311.5	5170.7

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Mississippi included in Crittenden.

[4] Jackson included in Cross.

Table 16—*Volume of timber on timberland by class of timber and species group, Arkansas Delta, 1988*

Class of timber	All species	Softwood			Hardwood	
		Pine				
		Planted	Natural	Other	Soft[1]	Hard[2]
	Million cubic feet					
Sawtimber trees:						
Saw-log portion	1646.8	7.3	95.7	107.8	568.7	867.4
Upper-stem portion	287.6	2.2	18.6	10.8	93.4	162.7
Total	1934.5	9.5	114.3	118.6	662.1	1030.0
Poletimber trees	600.4	8.6	36.6	2.7	230.6	321.9
All growing-stock trees	2534.9	18.1	150.9	121.3	892.7	1351.9
Rough trees:						
Sawtimber size	141.8	0.8	...	6.0	59.0	75.9
Poletimber size	81.9	0.2	...	0.7	35.2	45.8
Total	223.7	1.0	...	6.7	94.2	121.8
Rotten trees:						
Sawtimber size	50.7	...	...	5.4	20.6	24.6
Poletimber size	2.9	...	...	...	0.8	2.1
Total	53.6	...	...	5.4	21.5	26.7
Salvable dead trees:						
Sawtimber size	11.3	...	...	...	3.0	8.4
Poletimber size	6.6	...	...	...	1.0	5.7
Total	18.0	...	...	...	3.9	14.0
All classes	2830.1	19.1	150.9	133.4	1012.3	1514.5

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 17—*Volume of live trees and growing stock on timberland by ownership class and species group, Arkansas Delta, 1988*

Ownership class	Live trees						Growing stock					
	All species	Softwood			Hardwood		All species	Softwood			Hardwood	
		Pine						Pine				
		Planted	Natural	Other	Soft[1]	Hard[2]		Planted	Natural	Other	Soft[1]	Hard[2]
	Million cubic feet											
National forest	56.3	...	...	...	13.9	42.4	51.9	...	...	...	13.0	38.9
Other public	523.9	...	14.6	33.7	146.4	329.2	481.0	...	14.6	31.0	127.9	307.5
Forest industry	417.0	7.1	52.9	19.1	198.2	139.8	381.7	6.9	52.9	18.2	173.4	130.2
Other private	1814.8	12.0	83.3	80.6	649.9	989.1	1620.3	11.2	83.3	72.0	578.4	875.4
All ownerships	2812.1	19.1	150.9	133.4	1008.3	1500.4	2534.9	18.1	150.9	121.3	892.7	1351.9

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 18–*Average net annual growth of growing stock and sawtimber on timberland by county and species group, Arkansas Delta, 1988*

County	Growing stock						Sawtimber					
	All species	Softwood			Hardwood		All species	Softwood			Hardwood	
		Pine						Pine				
		Planted	Natural	Other	Soft[1]	Hard[2]		Planted	Natural	Other	Soft[1]	Hard[2]
	Million cubic feet						*Million board feet*					
Arkansas	9.6	...	...	-0.1	3.3	6.3	34.9	...	...	-0.3	11.8	23.5
Chicot	2.3	...	...	...	1.2	1.1	14.1	...	...	0.1	10.0	4.0
Clay	3.7	...	...	0.1	0.6	3.0	20.7	...	...	0.2	4.1	16.4
Craighead	2.9	...	...	0.3	1.6	0.9	10.7	...	...	1.1	5.8	3.8
Crittenden[3]	2.8	...	...	0.1	1.5	1.2	10.0	...	...	0.2	6.2	3.7
Cross[4]	2.5	...	...	...	0.6	1.9	12.5	...	...	...	2.9	9.6
Desha	9.3	...	...	0.3	6.7	2.3	40.8	...	...	0.3	29.7	10.8
Greene	1.5	...	0.1	...	0.4	0.9	8.4	...	0.8	...	1.5	6.1
Jefferson	13.7	0.2	5.7	0.8	1.3	5.7	43.5	...	19.9	3.6	-0.4	20.3
Lawrence	1.9	...	...	...	0.4	1.6	10.3	...	...	0.3	1.3	8.7
Lee	4.2	...	...	0.1	1.7	2.5	26.2	...	...	0.2	11.1	14.9
Lincoln	7.3	0.1	3.5	-0.1	1.0	2.8	32.8	1.0	15.2	-0.2	4.1	12.8
Lonoke	3.4	...	...	0.2	0.6	2.5	13.9	...	...	1.2	2.2	10.4
Monroe	4.6	...	0.3	0.1	0.9	3.2	21.1	...	2.2	0.4	3.7	14.9
Phillips	2.4	...	...	...	1.2	1.2	15.4	...	...	...	7.1	8.3
Poinsett	2.7	...	...	0.2	0.4	2.2	17.8	...	...	0.9	2.9	14.0
Prairie	5.5	...	...	0.3	2.9	2.3	20.4	...	0.2	0.9	10.6	8.6
St. Francis	3.0	...	...	...	0.7	2.3	10.3	...	...	...	1.6	8.7
Woodruff	3.5	...	...	...	1.4	2.1	17.5	...	...	0.4	4.6	12.5
All counties	86.6	0.4	9.8	2.3	28.4	45.7	381.3	1.0	38.2	9.3	120.6	212.2

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Mississippi included in Crittenden.

[4] Jackson included in Cross.

Table 19—*Average net annual removals of growing stock and sawtimber on timberland by county and species group, Arkansas Delta, 1988*

County	Growing stock						Sawtimber					
		Softwood			Hardwood			Softwood			Hardwood	
		Pine						Pine				
	All species	Planted	Natural	Other	Soft[1]	Hard[2]	All species	Planted	Natural	Other	Soft[1]	Hard[2]
	Million cubic feet						*Million board feet*					
Arkansas	0.8	...	...	0.1	0.3	0.4	4.9	...	...	0.7	2.1	2.1
Chicot	2.4	...	...	...	1.1	1.3	9.1	...	...	...	3.6	5.5
Clay	...	...	...	...	...	...	...	...	...	...	...	...
Craighead	0.6	...	...	...	...	0.6	0.6	...	...	...	...	0.6
Crittenden[3]	1.2	...	...	0.1	1.0	0.2	6.0	...	...	0.4	5.2	0.4
Cross[4]	1.6	...	...	...	...	1.6	7.8	...	...	...	...	7.8
Desha	2.1	...	...	0.5	0.9	0.8	10.5	...	...	3.0	4.0	3.6
Greene	1.4	...	0.1	...	0.5	0.7	4.0	...	0.3	0.1	1.8	1.9
Jefferson	10.2	...	4.7	...	0.9	4.6	40.2	...	22.9	...	4.0	13.3
Lawrence	1.4	...	...	...	0.2	1.2	4.1	...	...	...	0.7	3.3
Lee	5.9	...	...	...	1.1	4.7	27.5	...	...	...	4.7	22.8
Lincoln	4.2	0.3	2.1	...	0.8	1.2	13.4	0.6	8.5	...	2.6	1.7
Lonoke	...	...	...	...	...	...	...	...	...	...	...	...
Monroe	5.6	...	0.2	...	1.0	4.4	26.7	...	0.8	...	4.0	21.9
Phillips	1.6	...	...	...	0.9	0.7	7.7	...	...	...	5.0	2.7
Poinsett	0.3	...	...	...	...	0.3	...	...	...	...	...	...
Prairie	0.6	...	...	...	0.4	0.2	3.7	...	...	...	2.5	1.2
St. Francis	0.7	...	...	0.1	0.1	0.5	2.9	...	...	0.2	0.7	2.0
Woodruff	3.3	...	...	...	1.2	2.1	12.6	...	...	...	3.6	9.0
All counties	44.1	0.3	7.1	0.8	10.5	25.5	181.8	0.6	32.6	4.3	44.5	99.9

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Mississippi included in Crittenden.

[4] Jackson included in Cross.

Table 20—*Average net annual growth and average annual removals of growing stock on timberland by species, Arkansas Delta, 1988*

Species	Growth	Removals
	- - - - - *Million cubic feet* - - - -	
Yellow pines	10.2	7.3
Other softwoods	2.3	0.8
Total softwoods	12.4	8.1
Select white-red oaks	7.4	4.8
Other white-red oaks	23.8	12.6
Hickory	5.1	4.6
Hard maple	...	...
Sweetgum	8.2	1.8
Ash-walnut-black cherry	6.8	2.6
Yellow-poplar	0.3	...
Other hardwoods	22.5	9.6
Total hardwoods	74.2	36.0
All species	86.6	44.1

Table 21—*Average net annual growth and average annual removals of sawtimber on timberland by species, Arkansas Delta, 1988*

Species	Growth	Removals
	- - - - - *Million board feet* - - - -	
Yellow pines	39.2	33.1
Other softwoods	9.3	4.3
Total softwoods	48.5	37.4
Select white-red oaks	36.3	20.1
Other white-red oaks	118.7	48.6
Hickory	26.2	17.6
Sweetgum	33.8	7.3
Ash-walnut-black cherry	22.4	10.7
Yellow-poplar	2.6	...
Other hardwoods	92.9	40.1
Total hardwoods	332.8	144.4
All species	381.3	181.8

Table 22—*Average annual mortality of growing stock and sawtimber on timberland by species, Arkansas Delta, 1988*

Species	Growing stock	Sawtimber
	- - *Million cubic feet* - -	*Million board feet* - -
Yellow pines	1.3	2.5
Other softwoods	0.3	0.9
Total softwoods	1.6	3.5
Select white-red oaks	2.0	6.8
Other white-red oaks	7.5	18.5
Hickory	3.5	11.2
Sweetgum	2.1	6.6
Ash-walnut-black cherry	1.5	4.3
Other hardwoods	13.3	47.5
Total hardwoods	29.9	95.0
All species	31.5	98.4

Table 23–*Average net annual growth and average annual removals of growing stock on timberland by ownership class and species group, Arkansas Delta, 1988*

Ownership class	Growth						Removals					
		Softwood			Hardwood			Softwood			Hardwood	
		Pine						Pine				
	All species	Planted	Natural	Other	Soft[1]	Hard[2]	All species	Planted	Natural	Other	Soft[1]	Hard[2]
	Million cubic feet											
National forest	0.8	...	...	...	0.3	0.4	...	...	...	...	...	...
Other public	16.6	...	0.4	0.3	4.9	11.1	3.5	...	1.7	0.2	0.8	0.8
Forest industry	15.8	0.2	5.5	0.4	4.6	5.2	7.3	...	1.9	0.3	1.4	3.8
Other private	53.4	0.1	4.0	1.6	18.6	29.1	33.3	0.3	3.5	0.3	8.4	20.9
All ownerships	86.6	0.4	9.8	2.3	28.4	45.7	44.1	0.3	7.1	0.8	10.5	25.5

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood,aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 24–*Average net annual growth and average annual removals of sawtimber on timberland by ownership class and species group, Arkansas Delta, 1988*

Ownership class	Growth						Removals					
		Softwood			Hardwood			Softwood			Hardwood	
		Pine						Pine				
	All species	Planted	Natural	Other	Soft[1]	Hard[2]	All species	Planted	Natural	Other	Soft[1]	Hard[2]
	Million board feet											
National forest	6.1	...	...	...	2.8	3.3	...	...	...	...	...	...
Other public	65.3	...	0.6	0.7	15.9	48.0	18.8	...	9.5	1.0	4.1	4.2
Forest industry	60.7	...	13.7	1.3	23.2	22.5	30.9	...	6.8	2.1	5.6	16.4
Other private	249.2	1.0	23.9	7.3	78.7	138.5	132.1	0.6	16.3	1.2	34.8	79.3
All ownerships	381.3	1.0	38.2	9.3	120.6	212.2	181.8	0.6	32.6	4.3	44.5	99.9

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 25–*Volume of sawtimber on timberland by species and tree grade, Arkansas Delta, 1988*

Species	All grades	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
	Million board feet					
Yellow pines	619.1	185.4	116.9	313.2	...	3.7
Cypress	596.1	143.2	151.9	186.1	...	114.9
Redcedar	3.2	3.2	...	...	...	...
Total softwoods	1218.4	331.8	268.8	499.3	...	118.6
Select white-red oaks	917.0	90.4	302.8	394.4	83.6	45.8
Other white-red oaks	2664.0	180.9	641.2	1119.7	527.9	194.3
Hickory	936.0	41.6	216.8	540.1	105.4	32.0
Sweetgum	764.5	117.1	240.6	318.1	55.0	33.8
Tupelo and blackgum	229.1	20.5	40.1	131.3	3.4	33.8
Ash-walnut-black cherry	431.9	53.7	107.2	215.4	11.4	44.3
Yellow-poplar	57.3	17.9	7.6	21.4	2.7	7.7
Other hardwoods	2482.4	176.4	334.3	1400.8	312.0	258.9
Total hardwoods	8482.1	698.6	1890.6	4141.1	1101.4	650.6
All species	9700.6	1030.3	2159.3	4640.4	1101.4	769.2

Supplemental Tables 26–36

Table 26–*Area of timberland by stand age, forest type group and type of regeneration, Arkansas Delta, 1988*

Stand age class	Pine		Oak-pine		Other hardwood types	
	Artificial	Natural	Artificial	Natural	Artificial	Natural
	Thousand acres					
1-10	5.3	...	5.3	...	6.7	37.1
11-20	5.3	10.7	...	...	...	5.3
21-30	5.1	5.3	...	...	5.6	5.2
31-40	...	5.3	...	...	...	5.3
41-50	...	5.3	...	6.7	...	6.7
>50	...	...	...	...	...	8.2
Mixed	13.3	30.7	6.7	26.6	...	1687.3
Total	29.0	57.3	12.0	33.3	12.2	1755.1

Table 27—*Volume of softwood growing stock on timberland by forest type, Arkansas Delta, 1988*

County	Total	Forest type group					
		Loblolly-shortleaf pine		Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
		Planted	Natural				
	Million cubic feet						
Arkansas	13.9	...	...	...	...	13.9	...
Chicot	0.4	...	...	...	...	0.2	0.2
Clay	0.4	...	...	...	...	0.4	...
Craighead	9.4	...	...	...	0.4	5.3	3.7
Crittenden[1]	4.8	...	...	...	...	4.6	0.2
Cross[2]	...	...	...	...	...	...	...
Desha	20.6	...	...	...	...	20.6	...
Greene	9.6	...	...	5.7	3.9	...	...
Jefferson	104.1	6.2	50.0	15.3	17.0	15.6	...
Lawrence	1.3	...	...	...	1.3	...	...
Lee	3.1	...	...	...	...	3.1	...
Lincoln	60.7	4.8	38.9	6.3	8.5	2.2	...
Lonoke	5.6	3.5	...	...	...	2.2	...
Monroe	33.2	...	...	4.7	3.3	25.2	...
Phillips	0.7	...	...	...	...	0.7	...
Poinsett	2.5	...	...	...	...	0.2	2.3
Prairie	8.5	...	...	...	0.4	8.0	...
St. Francis	0.5	...	...	...	...	0.5	...
Woodruff	10.8	...	...	...	...	10.8	...
All counties	290.3	14.5	89.0	32.0	34.8	113.6	6.4

[1] Mississippi included in Crittenden.

[2] Jackson included in Cross.

Table 28—*Volume of hardwood growing stock on timberland by forest type, Arkansas Delta, 1988*

County	Total	Forest type group					
		Loblolly-shortleaf pine		Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
		Planted	Natural				
	Million cubic feet						
Arkansas	282.9	...	...	...	56.4	208.3	18.2
Chicot	100.9	...	...	...	...	74.7	26.2
Clay	118.8	...	...	...	8.7	110.0	...
Craighead	45.4	...	...	...	8.3	25.8	11.3
Crittenden[1]	69.1	...	...	...	...	34.4	34.7
Cross[2]	99.0	...	...	...	58.0	41.0	...
Desha	232.7	...	...	...	...	193.4	39.2
Greene	57.5	...	...	6.1	48.1	3.3	...
Jefferson	181.0	2.7	5.6	7.7	52.4	97.8	14.8
Lawrence	52.1	...	...	...	23.6	28.5	...
Lee	163.0	...	...	...	34.4	89.5	39.0
Lincoln	111.9	1.8	1.5	7.0	54.2	44.1	3.4
Lonoke	67.4	...	...	...	11.0	56.4	...
Monroe	194.2	...	...	2.8	17.3	174.0	...
Phillips	114.0	...	...	...	47.1	66.9	...
Poinsett	74.5	...	...	...	17.1	53.0	4.5
Prairie	133.9	...	...	...	18.4	115.4	...
St. Francis	68.5	...	...	...	14.5	54.0	...
Woodruff	77.9	...	...	...	...	77.9	...
All counties	2244.6	4.5	7.1	23.6	469.5	1548.6	191.4

[1] Mississippi included in Crittenden.

[2] Jackson included in Cross.

Table 29—*Volume of softwood growing stock in the saw-log portion of sawtimber trees on timberland by forest type, Arkansas Delta, 1988*

County	Total	Forest type group					
		Loblolly-shortleaf pine		Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
		Planted	Natural				
	Million cubic feet						
Arkansas	12.9	...	...	...	...	12.9	...
Chicot	0.3	...	...	...	...	0.2	0.2
Clay	0.3	...	...	...	...	0.3	...
Craighead	7.6	...	...	...	...	4.3	3.2
Crittenden[1]	3.7	...	...	...	...	3.7	...
Cross[2]	...	...	...	...	...	...	...
Desha	17.9	...	...	...	...	17.9	...
Greene	7.5	...	...	4.4	3.1	...	...
Jefferson	62.0	...	27.9	10.4	10.7	13.1	...
Lawrence	0.6	...	...	...	0.6	...	...
Lee	2.8	...	...	...	...	2.8	...
Lincoln	40.2	2.0	26.3	4.7	5.3	1.9	...
Lonoke	4.7	2.8	...	...	...	1.9	...
Monroe	29.3	...	...	2.7	2.4	24.2	...
Phillips	0.7	...	...	...	...	0.7	...
Poinsett	2.5	...	...	...	...	0.2	2.3
Prairie	7.8	...	...	...	0.4	7.4	...
St. Francis	0.4	...	...	...	...	0.4	...
Woodruff	9.3	...	...	...	...	9.3	...
All counties	210.8	4.8	54.2	22.2	22.4	101.4	5.7

[1] Mississippi included in Crittenden.

[2] Jackson included in Cross.

Table 30—*Volume of hardwood growing stock in the saw-log portion of sawtimber trees on timberland by forest type, Arkansas Delta, 1988*

County	Total	Forest type group					
		Loblolly-shortleaf pine		Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
		Planted	Natural				
	Million cubic feet						
Arkansas	194.6	...	...	...	38.9	146.3	9.4
Chicot	70.8	...	...	...	...	53.8	17.0
Clay	75.7	...	...	...	4.7	71.0	...
Craighead	26.9	...	...	...	3.9	15.0	8.0
Crittenden[1]	42.0	...	...	...	...	16.5	25.5
Cross[2]	52.8	...	...	...	33.1	19.7	...
Desha	155.6	...	...	...	...	131.9	23.7
Greene	35.7	...	...	3.9	30.5	1.4	...
Jefferson	107.9	0.3	2.7	4.4	24.6	62.9	13.1
Lawrence	29.5	...	...	...	10.8	18.7	...
Lee	118.5	...	...	...	24.2	58.0	36.3
Lincoln	67.3	1.0	...	2.5	27.2	33.7	2.8
Lonoke	39.1	...	...	...	6.7	32.4	...
Monroe	118.9	...	...	1.6	8.4	108.9	...
Phillips	75.5	...	...	...	35.7	39.8	...
Poinsett	52.5	...	...	...	12.0	36.4	4.0
Prairie	87.8	...	...	...	8.3	79.5	...
St. Francis	41.2	...	...	...	6.2	35.0	...
Woodruff	43.8	...	...	...	...	43.8	...
All counties	1436.1	1.3	2.7	12.3	275.2	1004.7	139.8

[1] Mississippi included in Crittenden.

[2] Jackson included in Cross.

Table 31—*Volume of timber on timberland by county, class of timber and species group, Arkansas Delta, 1988*

County	All classes	Growing stock		Rough		Rotten	
		Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood
	Million cubic feet						
Arkansas	321.5	13.9	282.9	1.3	16.9	1.2	5.2
Chicot	119.3	0.4	100.9	...	16.3	...	1.7
Clay	127.8	0.4	118.8	...	7.6	...	0.9
Craighead	66.3	9.4	45.4	0.5	8.7	...	2.3
Crittenden[1]	79.4	4.8	69.1	...	3.8	0.5	1.2
Cross[2]	113.4	...	99.0	...	10.5	...	3.9
Desha	279.2	20.6	232.7	1.0	20.1	1.4	3.4
Greene	73.0	9.6	57.5	...	4.5	...	1.4
Jefferson	292.6	104.1	181.0	0.5	6.5	...	0.4
Lawrence	63.5	1.3	52.1	0.3	7.8	...	2.0
Lee	182.4	3.1	163.0	...	13.1	...	3.2
Lincoln	186.2	60.7	111.9	1.4	11.3	...	0.9
Lonoke	88.7	5.6	67.4	1.3	11.4	1.4	1.6
Monroe	249.8	33.2	194.2	...	20.3	...	2.1
Phillips	132.9	0.7	114.0	...	14.9	...	3.3
Poinsett	84.8	2.5	74.5	0.5	6.0	...	1.2
Prairie	168.7	8.5	133.9	0.9	17.8	0.3	7.3
St. Francis	81.0	0.5	68.5	...	7.4	...	4.6
Woodruff	101.6	10.8	77.9	...	11.0	0.5	1.4
All counties	2812.1	290.3	2244.6	7.7	216.0	5.4	48.2

[1] Mississippi included in Crittenden.

[2] Jackson included in Cross.

Table 32—*Number of live trees on timberland by detailed species and diameter class, Arkansas Delta, 1988*

Species	All classes	Diameter class (inches at breast height) 1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
	Thousand trees												
Shortleaf pine	12452	3491	3425	2460	1105	835	569	355	126	36	21	28	...
Loblolly pine	32810	7946	12468	5468	3287	1375	1248	537	191	145	49	91	4
Redcedar	4404	2768	1165	332	60	79	...	...	...	...	...	...	...
Cypress	4328	489	...	521	373	658	611	441	221	290	135	350	239
Total softwoods	53994	14694	17058	8780	4826	2947	2428	1334	538	471	206	469	24
Select white oaks	31158	17921	3497	3762	1409	1327	1199	716	600	243	237	226	20
Select red oaks	14587	6909	3190	932	599	437	602	425	291	372	267	525	37
Other white oaks	57603	24043	12123	6011	4587	3198	2227	1505	1293	901	572	947	195
Other red oaks	87196	42547	16371	7685	6004	4211	2821	2227	1886	1170	865	1135	274
Sweet pecan	9404	6215	659	936	530	351	171	150	68	62	93	136	34
Water hickory	25787	13287	5235	1933	1826	1155	906	436	325	232	170	224	58
Other hickories	57948	36997	9584	3620	3172	1652	1381	824	348	202	86	82	...
Persimmon	23253	16646	2093	2449	1009	601	320	72	37	26	...	...	...
Hard maple	5996	4307	1504	...	124	61	...	...	...	...	...	...	...
Soft maple	36274	22175	10690	1774	631	330	289	118	100	52	70	27	19
Boxelder	19421	9950	3893	2093	1854	395	552	367	210	56	44	8	...
Beech	3370	1504	1504	...	...	...	81	...	48	74	39	121	...
Sweetgum	82003	50514	11998	7381	5056	2654	1704	1039	669	450	195	265	78
Blackgum	23625	19131	2468	587	378	446	199	153	103	59	41	59	...
Other gums/tupelos	13825	2598	4764	1667	1527	1135	683	224	229	231	132	416	220
White ash	4013	2860	530	128	198	92	...	105	13	10	11	64	3
Other ashes	72828	41792	17577	4433	3194	2163	1099	982	614	417	209	304	46
Sycamore	1353	...	...	197	125	222	256	114	133	75	46	182	4
Cottonwood	7771	2775	2246	325	190	393	350	347	333	249	181	316	66
Yellow-poplar	356	...	...	142	...	26	...	49	55	29	27	20	8
Willow	15226	3608	3593	1341	2444	1035	562	529	561	604	394	507	48
Black walnut	972	919	...	...	...	53	...	...	...	...	...	...	...
Black cherry	4387	2423	979	683	301	...	...	...	...	...	...	...	...
American elm	32444	19429	6109	2212	2092	1253	479	353	138	117	139	87	37
Other elms	64793	46883	9971	3740	2225	618	616	322	169	95	55	91	8
River birch	217	...	...	82	62	41	23	...	...	...	...	7	3
Hackberry	61831	30245	11078	5887	5042	3500	1747	1516	1213	691	498	394	20
Black locust	1379	1379	...	...	...	...	...	...	...	...	...	...	...
Other locusts	7159	3557	530	556	1188	454	378	222	103	38	58	68	7
Sassafras	704	560	...	109	...	...	...	22	...	13	...	...	...
Dogwood	29834	27654	1604	575	...	...	...	...	...	...	...	...	...
Other commercial	6240	5510	...	200	452	79	...	...	...	...	...	...	...
Total hardwoods	802958	464338	143788	61439	46219	27880	18646	12819	9540	6466	4427	6209	118
Noncommercial	87631	62769	16620	5768	1759	358	167	54	51	23	9	55	...
All species	944584	541802	177466	75986	52805	31185	21240	14206	10129	6960	4642	6733	1428

Table 33–*Number of growing-stock trees on timberland by detailed species and diameter class, Arkansas Delta, 1988.*

Species	All classes	Diameter class (inches at breast height) 5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
	Thousand trees										
Shortleaf pine	5536	2460	1105	835	569	355	126	36	21	28	...
Loblolly pine	12228	5331	3287	1375	1248	537	177	145	49	73	4
Redcedar	379	239	60	79	...	...	...	...	...	...	...
Cypress	3018	319	327	376	430	388	221	290	135	332	200
Total softwoods	21161	8349	4779	2666	2247	1280	525	471	206	433	205
Select white oaks	8916	3454	1206	1258	1131	660	551	243	191	205	15
Select red oaks	3936	667	599	331	569	405	291	314	257	470	34
Other white oaks	18465	5166	3956	2961	1740	1228	1100	821	512	817	163
Other red oaks	25348	6251	5767	4047	2462	2061	1780	1016	801	1005	159
Sweet pecan	2440	936	479	351	171	129	68	51	86	136	34
Water hickory	5984	1648	1491	825	703	401	294	220	143	215	45
Other hickories	10503	3237	2971	1513	1329	808	296	189	86	74	...
Persimmon	3124	1372	883	509	261	36	37	26	...	...	...
Hard maple	185	...	124	61	...	...	...	...	...	...	...
Soft maple	2985	1515	631	284	219	101	100	52	61	14	8
Boxelder	2890	1192	889	231	260	129	121	34	27	8	...
Beech	294	...	...	...	81	...	48	74	27	63	...
Sweetgum	17966	7046	4489	2374	1516	998	594	438	186	249	76
Blackgum	1699	587	378	335	101	131	61	45	21	41	...
Other gums/tupelos	5413	1309	1527	1135	397	159	173	145	76	330	163
White ash	598	128	198	92	...	105	...	10	11	55	...
Other ashes	11463	3682	3013	1792	772	812	521	385	191	266	29
Sycamore	1232	197	58	222	227	114	133	75	46	156	4
Cottonwood	2671	325	190	393	350	330	313	249	164	295	62
Yellow-poplar	197	...	...	26	...	33	55	29	27	20	8
Willow	6472	1262	2021	550	429	418	428	563	359	419	24
Black walnut	53	...	...	53	...	...	...	...	...	...	...
Black cherry	745	683	61	...	...	...	...	...	...	...	...
American elm	5560	1720	1587	1126	407	315	103	89	120	80	13
Other elms	5771	2275	1889	458	485	282	156	95	46	76	8
River birch	207	82	62	41	23	...	...	...	...	...	...
Hackberry	15877	4609	3675	2845	1226	1141	1032	600	412	325	11
Other locusts	2321	462	956	341	270	149	46	21	22	46	7
Sassafras	131	109	...	...	...	22	...	...	...	...	...
Dogwood	128	128	...	...	...	...	...	...	...	...	...
Other commercial	450	200	250	...	...	...	...	...	...	...	...
Total hardwoods	164023	50243	39351	24154	15129	10968	8301	5782	3870	5363	863
All species	185184	58592	44130	26820	17376	12248	8825	6253	4076	5796	1068

Table 34–*Volume of growing-stock trees on timberland by species and diameter class, Arkansas Delta, 1988*

Species	All classes	Diameter class (inches at breast height) 5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
	Million cubic feet										
Shortleaf pine	58.7	6.0	7.4	10.2	13.3	10.5	5.6	2.3	1.6	1.9	...
Loblolly pine	110.2	12.9	18.9	16.5	22.6	14.3	7.3	7.1	3.1	7.0	0.6
Redcedar	1.3	0.3	0.3	0.7	...	...	...	...	...	...	...
Cypress	120.0	0.7	1.4	3.6	7.2	8.6	6.7	13.6	8.8	24.9	44.5
Total softwoods	290.3	19.9	28.0	31.0	43.1	33.5	19.6	23.0	13.5	33.7	45.0
Select white oaks	116.0	7.3	5.3	11.6	18.7	16.5	16.9	9.4	11.5	16.7	2.0
Select red oaks	98.8	1.7	3.8	3.3	9.5	9.0	8.9	12.4	13.5	32.5	4.1
Other white oaks	260.5	10.6	18.3	25.8	23.8	23.6	31.4	30.2	23.6	54.1	19.2
Other red oaks	410.6	14.7	33.2	42.4	38.8	47.6	54.2	41.1	41.3	76.9	20.4
Sweet pecan	44.3	2.5	2.7	3.6	2.7	3.3	2.0	2.4	4.6	13.8	6.5
Water hickory	93.9	3.5	7.8	8.4	11.6	8.4	9.2	9.0	7.4	19.7	8.8
Other hickories	106.3	6.5	13.9	13.7	23.4	19.9	9.1	8.8	5.5	5.7	...
Persimmon	22.7	3.5	5.3	6.0	4.9	0.9	0.8	1.3	...	...	...
Hard maple	1.4	...	0.7	0.7	...	...	...	...	...	...	...
Soft maple	24.4	3.7	3.3	2.8	3.2	2.1	2.6	2.4	2.8	0.6	0.8
Boxelder	20.9	3.0	4.3	2.3	3.6	2.4	2.7	1.3	0.9	0.4	...
Beech	11.4	...	...	...	1.5	...	1.4	3.3	1.5	3.7	...
Sweetgum	214.3	15.6	23.8	27.1	27.7	26.5	22.5	21.1	11.7	22.2	16.1
Blackgum	15.7	1.1	1.4	2.9	1.5	2.6	1.7	1.3	0.8	2.4	...
Other gums/tupelos	70.6	3.1	7.7	9.9	5.2	2.6	4.1	4.3	2.8	17.2	13.8
White ash	8.5	0.4	1.0	1.1	...	1.8	...	0.4	0.3	3.5	...
Other ashes	129.8	8.4	15.7	18.0	12.1	17.1	13.9	14.4	8.8	18.5	2.9
Sycamore	35.9	0.6	0.5	2.3	3.8	3.1	4.6	3.6	2.7	13.9	0.9
Cottonwood	96.7	1.1	1.3	5.1	6.7	8.8	11.4	12.3	11.2	28.4	10.4
Yellow-poplar	10.4	...	...	0.5	...	1.1	2.1	1.4	1.4	2.5	1.4
Willow	124.4	2.6	10.7	4.8	7.5	8.8	14.4	24.2	17.7	31.6	2.0
Black walnut	0.6	...	...	0.6	...	...	...	...	...	...	...
Black cherry	1.7	1.5	0.2	...	...	...	...	...	...	...	...
American elm	52.5	3.7	7.7	9.7	6.3	6.5	3.4	2.7	5.1	5.8	1.5
Other elms	52.1	4.9	10.6	4.4	7.9	6.6	4.7	3.8	2.2	5.7	1.2
River birch	1.1	0.3	0.2	0.3	0.3	...	...	...	...	...	...
Hackberry	194.4	9.1	19.0	27.2	17.9	24.5	31.4	23.8	19.5	20.7	1.3
Other locusts	22.5	1.0	4.1	3.4	3.8	3.0	1.4	0.6	1.2	2.9	1.2
Sassafras	0.7	0.3	...	...	...	0.4	...	...	...	...	...
Dogwood	0.1	0.1	...	...	...	...	...	...	...	...	...
Other commercial	1.4	0.7	0.7	...	...	...	...	...	...	...	...
Total hardwoods	2244.6	111.6	203.1	237.9	242.6	247.4	254.8	235.4	197.8	399.6	114.5
All species	2534.9	131.4	231.1	268.8	285.7	280.8	274.4	258.4	211.3	433.3	159.6

Table 35—*Volume of growing stock in the saw-log portion of sawtimber trees on timberland by detailed species and diameter class, Arkansas Delta, 1988*

Species	All classes	Diameter class (inches at breast height) 9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
	Million cubic feet								
Shortleaf pine	38.0	7.7	11.4	9.3	4.9	2.2	1.3	1.4	...
Loblolly pine	65.0	13.0	18.8	12.2	6.6	5.9	2.5	5.6	0.5
Redcedar	0.6	0.6	...	...	...	...	...	...	...
Cypress	107.1	2.1	5.7	7.3	6.1	12.8	8.3	23.4	41.5
Total softwoods	210.8	23.4	35.8	28.7	17.6	20.8	12.1	30.4	42.0
Select white oaks	76.4	...	14.0	14.0	14.4	7.9	9.9	14.3	1.8
Select red oaks	77.4	...	7.0	7.8	7.6	11.0	12.2	28.1	3.7
Other white oaks	173.8	...	18.0	19.5	26.2	26.0	19.9	46.5	17.8
Other red oaks	271.9	...	27.9	40.0	46.2	35.9	36.3	67.2	18.4
Sweet pecan	31.2	...	2.2	2.8	1.7	2.0	3.9	12.3	6.2
Water hickory	62.0	...	8.4	7.0	7.9	7.8	6.7	16.9	7.4
Other hickories	58.1	...	17.5	16.4	7.6	7.2	4.6	4.8	...
Persimmon	6.7	...	4.0	0.8	0.7	1.2	...	...	...
Soft maple	12.0	...	2.3	1.6	2.2	2.2	2.5	0.5	0.8
Boxelder	8.9	...	2.6	2.0	2.1	1.1	0.8	0.3	...
Beech	9.2	...	1.0	...	1.2	2.4	1.2	3.4	...
Sweetgum	126.5	...	19.3	22.5	19.8	18.7	10.7	20.3	15.2
Blackgum	8.9	...	1.0	2.2	1.5	1.2	0.8	2.2	...
Other gums/tupelos	42.6	...	2.9	2.0	3.2	3.6	2.5	15.3	13.1
White ash	5.3	...	...	1.3	...	0.4	0.3	3.3	...
Other ashes	73.5	...	8.7	12.8	12.1	12.5	7.9	16.8	2.7
Sycamore	28.6	...	2.6	2.6	4.1	3.5	2.2	12.7	0.9
Cottonwood	79.6	...	5.2	7.4	10.1	11.0	10.2	25.9	9.8
Yellow-poplar	9.1	...	...	1.0	1.9	1.2	1.3	2.3	1.4
Willow	95.0	...	5.2	7.5	12.9	22.2	16.1	29.2	1.8
American elm	25.9	...	5.1	5.1	2.8	2.3	4.2	5.2	1.2
Other elms	27.3	...	5.9	5.6	4.0	3.4	1.8	5.5	1.0
River birch	0.3	...	0.3	...	...	...	...	...	...
Hackberry	114.6	...	12.9	20.1	25.7	19.9	17.0	17.9	1.0
Other locusts	11.0	...	2.4	2.6	1.1	0.5	1.0	2.5	1.1
Sassafras	0.3	...	...	0.3	...	...	...	...	...
Total hardwoods	1436.1	...	176.3	205.0	217.0	205.2	174.0	353.3	105.2
All species	1646.8	23.4	212.2	233.7	234.6	226.0	186.1	383.6	147.2

Table 36–*Volume of timber on timberland by species and class of timber, Arkansas Delta, 1988*

Species	All live	Growing stock	Rough	Rotten
	Million cubic feet			
Shortleaf pine	58.7	58.7	...	...
Loblolly pine	111.3	110.2	1.0	...
Redcedar	1.5	1.3	0.3	...
Cypress	131.8	120.0	6.4	5.4
Total softwoods	303.3	290.3	7.7	5.4
Select white oaks	122.0	116.0	5.1	0.9
Select red oaks	105.0	98.8	3.9	2.2
Other white oaks	287.9	260.5	22.0	5.5
Other red oaks	445.2	410.6	26.1	8.5
Sweet pecan	45.4	44.3	1.0	...
Water hickory	104.1	93.9	8.9	1.3
Other hickories	111.3	106.3	5.0	...
Persimmon	26.8	22.7	4.1	...
Hard maple	1.4	1.4	...	...
Soft maple	28.5	24.4	3.1	1.1
Boxelder	34.5	20.9	12.2	1.5
Beech	17.0	11.4	2.0	3.5
Sweetgum	224.7	214.3	8.7	1.6
Blackgum	19.4	15.7	2.8	0.9
Other gums/tupelos	87.0	70.6	7.7	8.8
White ash	9.2	8.5	0.3	0.4
Other ashes	144.8	129.8	12.6	2.4
Sycamore	37.3	35.9	0.7	0.7
Cottonwood	99.5	96.7	2.0	0.9
Yellow-poplar	11.1	10.4	0.7	...
Willow	138.3	124.4	11.8	2.1
Black walnut	0.6	0.6	...	...
Black cherry	2.2	1.7	0.6	...
American elm	61.7	52.5	8.4	0.9
Other elms	60.4	52.1	7.7	0.6
River birch	1.3	1.1	...	0.2
Hackberry	227.5	194.4	29.5	3.5
Other locusts	29.7	22.5	6.2	1.1
Sassafras	1.2	0.7	0.5	...
Dogwood	0.7	0.1	0.6	...
Other commercial	2.3	1.4	1.0	...
Total hardwoods	2488.0	2244.6	195.2	48.2
Noncommercial	20.8	...	20.8	...
All species	2812.1	2534.9	223.7	53.6

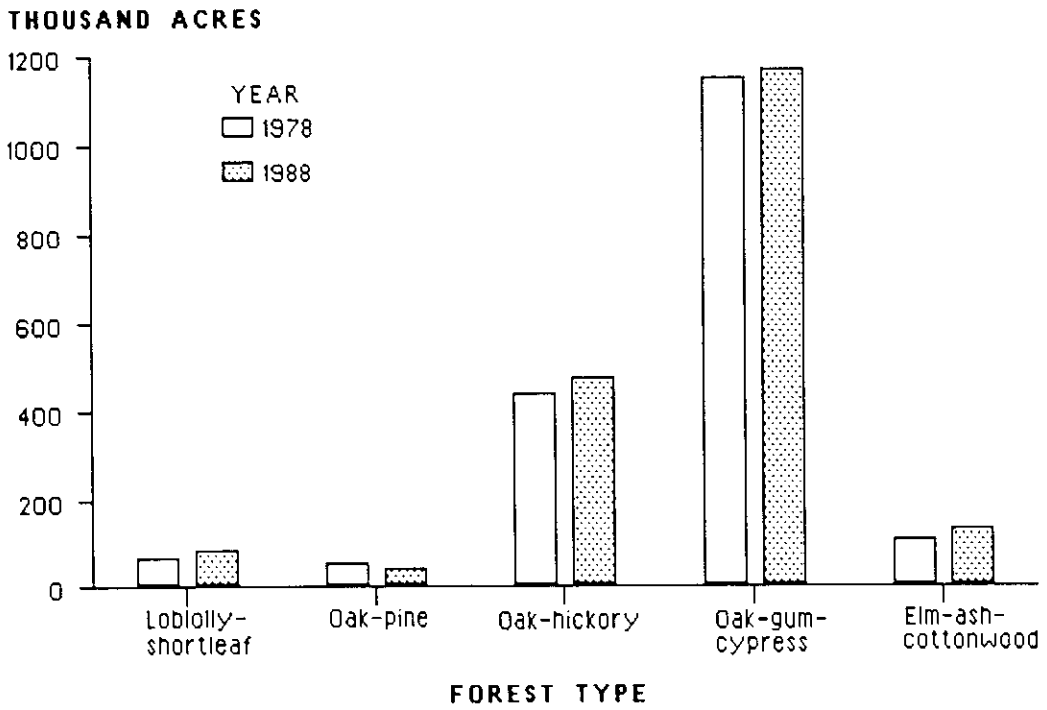

Figure 1.--Area of timberland by forest type, Arkansas Delta, 1978 and 1988.

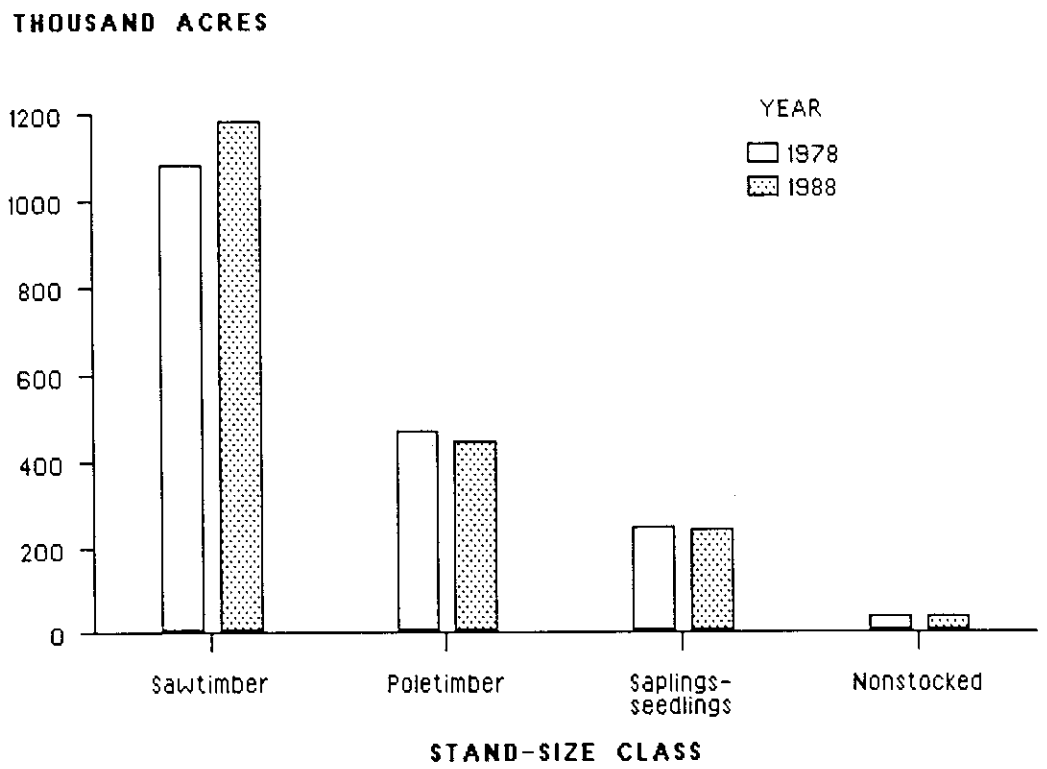

Figure 2.--Area of timberland by stand-size class, Arkansas Delta, 1978 and 1988.

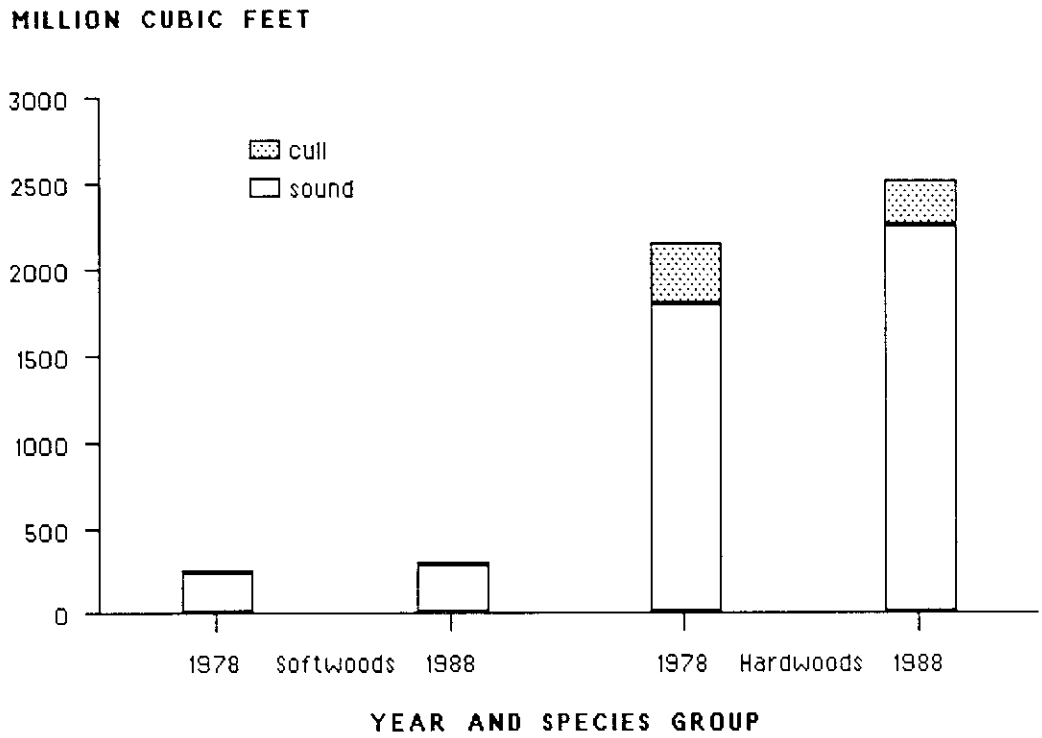

Figure 3.--Volume of timber on timberland by species group and class of timber, Arkansas Delta, 1978 and 1988.

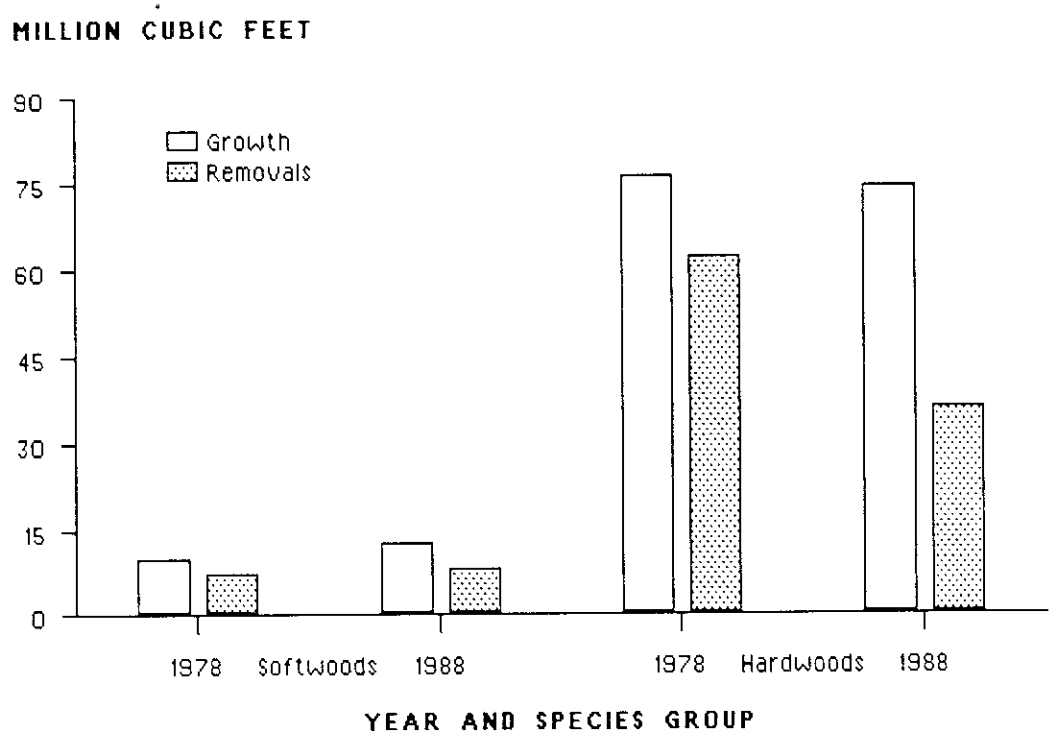

Figure 4.--Average net annual growth and average annual removals of growing stock on timberland by species group, Arkansas Delta, 1978 and 1988.

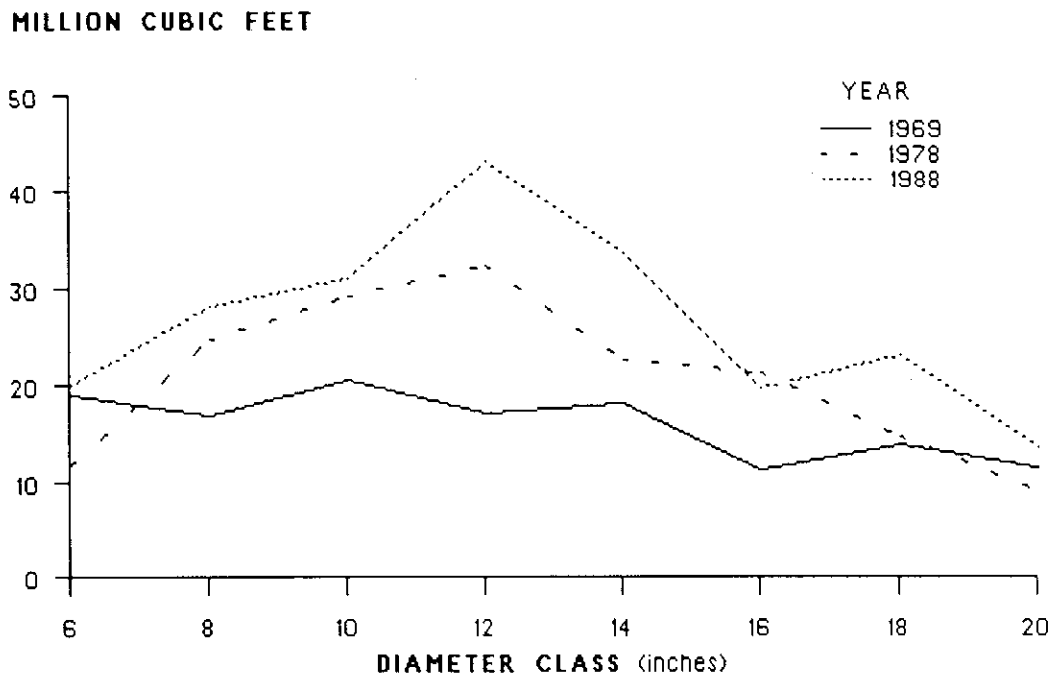

Figure 5.--Volume of softwood growing stock on timberland by diameter class, Arkansas Delta, 1969, 1978, and 1988.

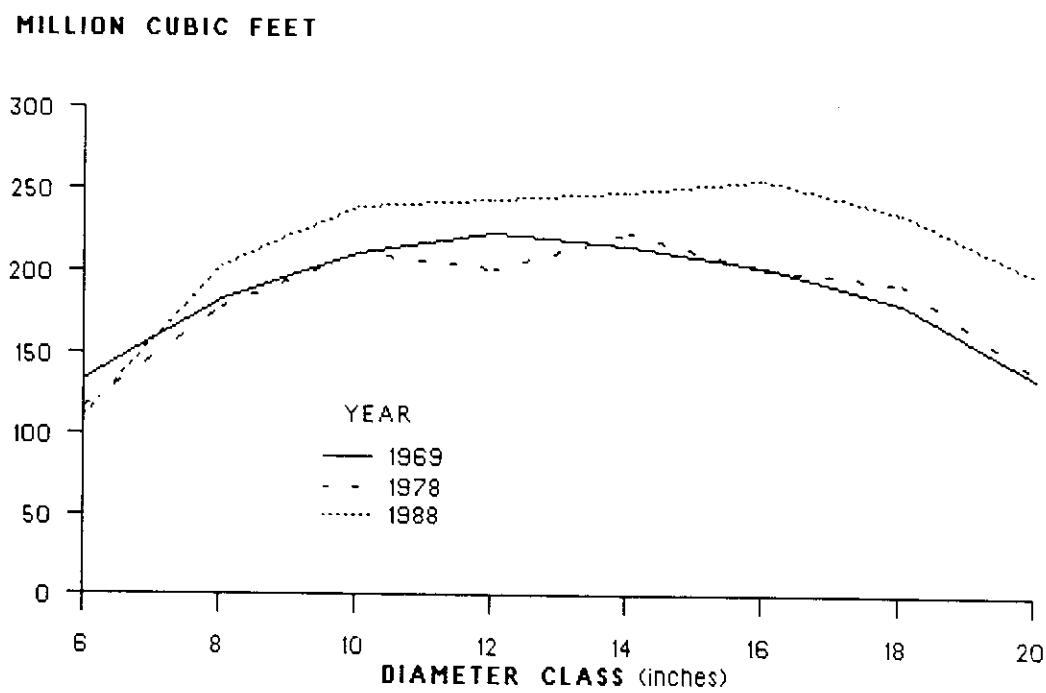

Figure 6.--Volume of hardwood growing stock on timberland by diameter class, Arkansas Delta, 1969, 1978, and 1988.

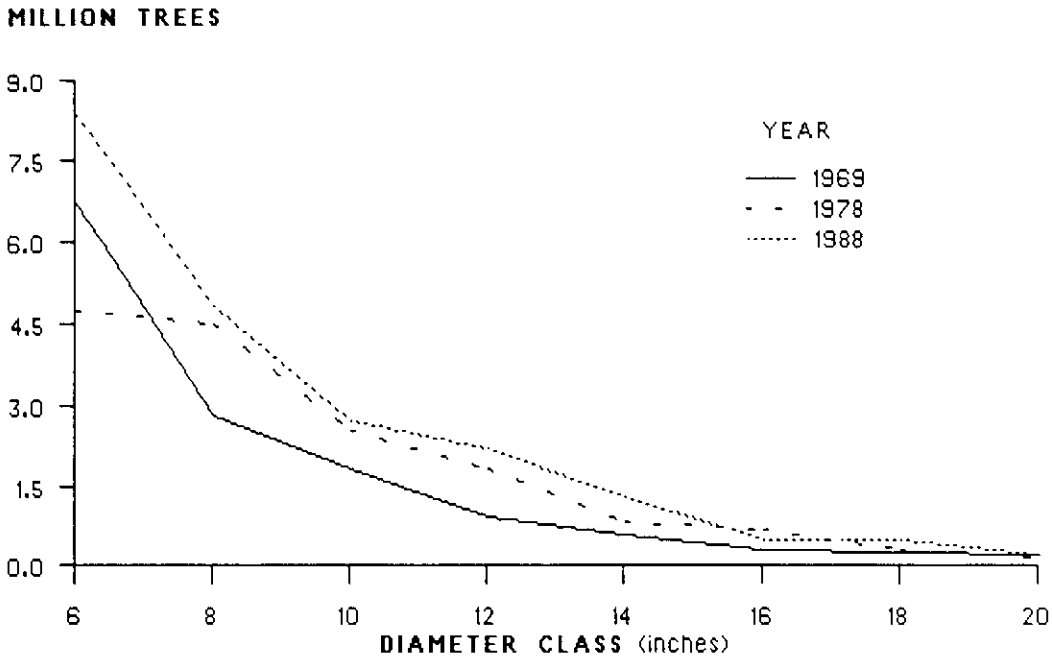

Figure 7.--Number of softwood growing-stock trees on timberland by diameter class, Arkansas Delta, 1969, 1978, and 1988.

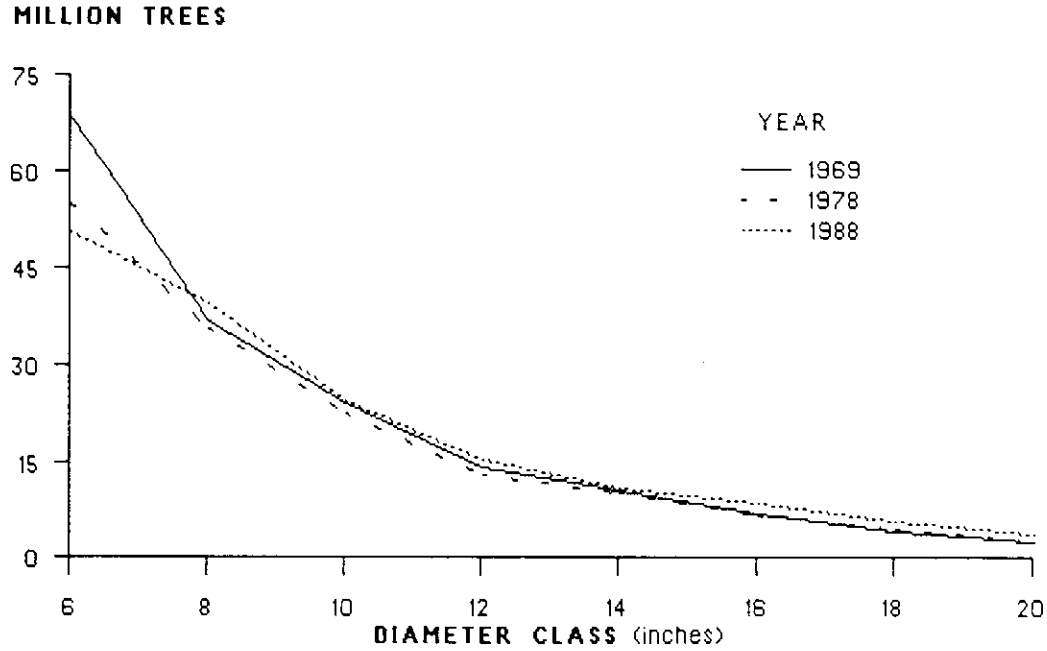

Figure 8.--Number of hardwood growing-stock trees on timberland by diameter class, Arkansas Delta, 1969, 1978, and 1988.

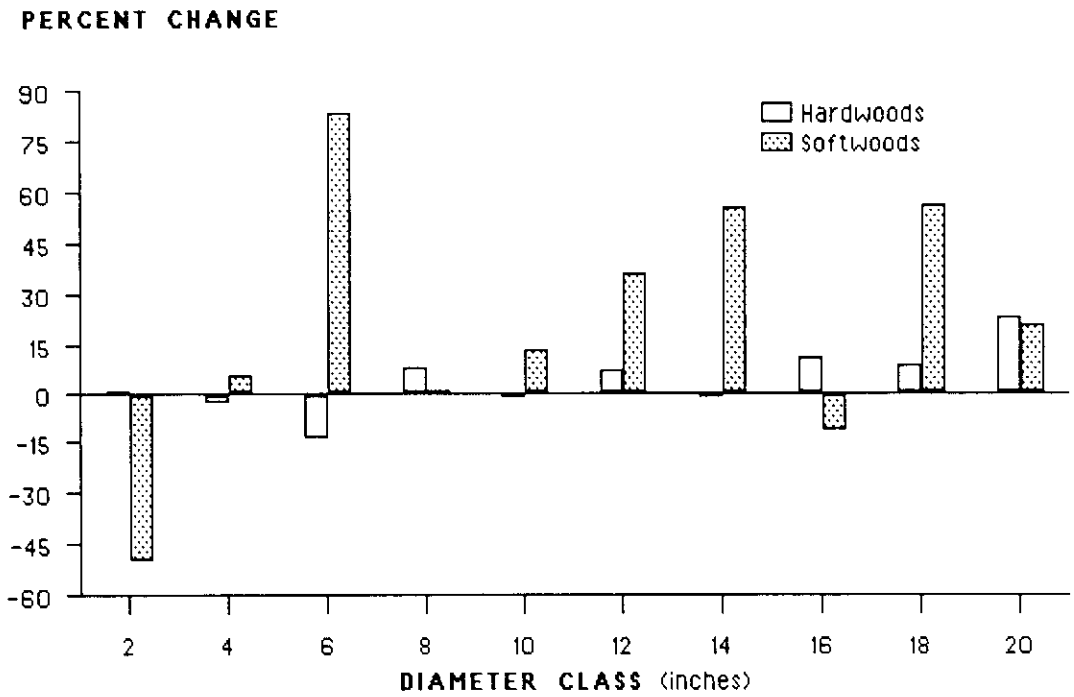

Figure 9.--Percent change in the number of live trees on timberland by species group and diameter class, Arkansas Delta, 1978 and 1988.

Hines, F. Dee, Forest Statistics for Arkansas' Delta Counties—1988. Resource Bull. SO-133. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1988. 39 p.

Tabulates forest resource information from a new inventory of Arkansas' Delta Unit.

Additional Keywords: Area, volume, forest type, stand size, ownership.

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