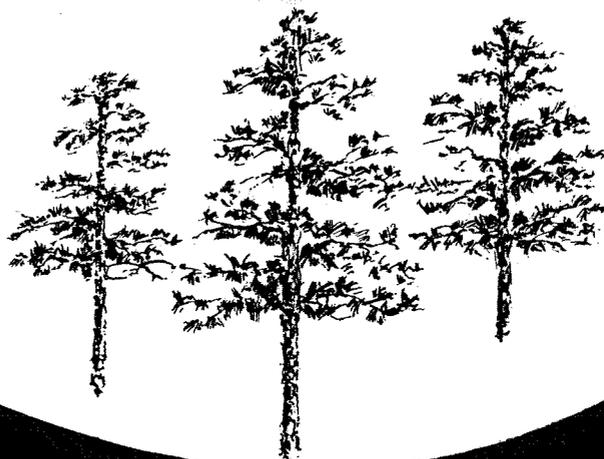


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Midcycle Evaluation of Mississippi Timber Resources

Dwane D. Van Hooser



Southern Forest Experiment Station
Forest Service
U. S. Department of Agriculture

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U.S. DEPARTMENT OF AGRICULTURE
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New Orleans, Louisiana

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The primary objective of the survey reported here was to quickly and accurately estimate growing-stock volume in Mississippi. This goal was accomplished through the relatively new technique of two-stage 3P sampling (3,4). The technique is described in Research Paper SO-77 (7).

The sample was of relatively low intensity. Only 2,300 of 42,000 trees measured in the 1967 survey were remeasured, and only one third of the original locations were revisited. It is impossible, therefore, to provide the detail that accompanies a full-scale forest survey of a State. Discussion related to area is confined to forest-non-forest classifications, and shifts that have taken place since 1967. Changes in volume are based on recomputed 1967 data. Volumes for that year were computed using program STX (4) and the second-stage 3P sample.

FOREST LAND

Although forest area has decreased 1 percent or 200,000 acres in the last 6 years, timber still occupies more than half of the State's land area (table I). In all, some 16.7 million acres are currently forested. The overall change was small, but substantial shifts in land use occurred within survey units.

Table I.—Commercial forest land in 1973 and change since 1967

Region	Commercial forest	Change since last survey	Proportion of region forested
	<i>Thousand acres</i>	<i>Percent</i>	<i>Percent</i>
Delta	1,306.7	— 13	23
North	4,141.5	— 1	49
Central	4,056.3	+ 2	68
South	4,446.9	— 1	72
Southwest	2,748.8	(1)	63
Total	16,700.2	— 1	55

¹ Negligible.

Four out of the five units experienced net losses in forest land. More than 14 percent of the Delta Unit's commercial forest was cleared and planted, primarily to soybeans or cotton. Here, heavy losses through clearing have been taking place since the early 1960's. The Delta Unit, which is almost entirely on the alluvial plain of the Mississippi River, contains some of the State's most productive land. If widescale clearing continues, and all indications are that it will, the impact on the hardwood resource may become even more severe within the next decade.

The Northern Unit also lost more than 200,000 acres of commercial forest land to agriculture. More than 5 percent of the commercial forest in the unit was cleared.

Statewide, 4 percent or 655,000 acres of commercial forest land was converted to agricultural uses (table II). An additional 108,000 acres were lost to water and to urban uses, such as housing developments, parks, and interstate highways.

Idle lands reverted to forest in all units, but the Central Unit was the only one to show a net increase in forest land—97,000 acres. This unit has been gaining forest for some time, primarily due to reseeded of abandoned farmland.

For the State as a whole, some 570,000 acres have reverted to forest and have attained stocking levels sufficiently high to qualify as commercial forest.

Even though the changes in forest acreage were partly offsetting, timber growth suffered. Land removed from the forest usually contains trees that represent years of growth. Land reverting to forest is usually unproductive for a long time unless trees are artificially seeded or planted promptly.

Since this survey only determined changes in land use, shifts in forest type or ownership were not measured. However, much of the area lost

Table II.—Change in commercial forest land, 1967-1973

Region	Net change	Additions from:	Conversions to:		
		Nonforest	Total	Agriculture	Other ¹
----- Thousand acres -----					
Delta	- 187.1	46.4	233.5	218.1	15.4
North	- 53.3	202.8	256.1	213.3	42.8
Central	+ 96.8	200.4	103.6	75.1	28.5
South	- 42.2	75.4	117.6	96.3	21.3
Southwest	- 5.9	46.7	52.6	52.6	...
Total	- 191.7	571.7	763.4	655.4	107.9

¹ Includes 38,400 acres that went to water impoundments and 69,500 acres transferred to urban and other uses.

in the Delta was in desirable bottom-land hardwood types. The gains made elsewhere were, for the most part, in the less productive upland hardwood types.

TIMBER VOLUME

Mississippi's forest contained more than 14 billion cubic feet of growing stock in 1973. The concepts of growing stock and sawtimber help to judge the quality of the inventory. Growing-stock trees have attributes that make them either presently or prospectively suitable for saw logs. Their volume is measured from a 1-foot stump to a 4-inch top. Sawtimber trees are growing-stock trees larger than a specified diameter.

Softwood Volume Still Increasing

Currently softwoods, primarily pine, account for more than half of the growing-stock volume. The State's forests contain slightly more than 7 billion cubic feet of softwood, 10 percent more than in 1967 (9) (table III).

Table III.—Growing-stock volume in 1973 and change since 1967

Region	Softwood		Hardwood	
	Change	Volume	Change	Volume
	<i>Million cu. ft.</i>	<i>Percent</i>	<i>Million cu. ft.</i>	<i>Percent</i>
Delta	79.0	+ 55	1,290.3	+ 3
North	1,159.0	+ 31	1,874.5	+ 7
Central	2,187.5	+ 10	1,655.2	+ 6
South	2,066.3	- 5	1,034.4	- 5
Southwest	1,641.4	+ 16	1,187.5	+ 22
Total	7,133.2	+ 10	7,041.9	+ 6

The greatest overall gains, well over 200 million cubic feet, occurred in the North and Southwest regions. Loblolly pine accounts for half of the softwood inventory.

Volume increases by diameter class were greatest for trees between 8 and 16 inches (fig. 1). Volume gains through this range of diameters is a healthy sign. Because these trees are of the sizes most frequently harvested for pulpwood and other products, an adequate growth base must be maintained in this portion of the inventory.

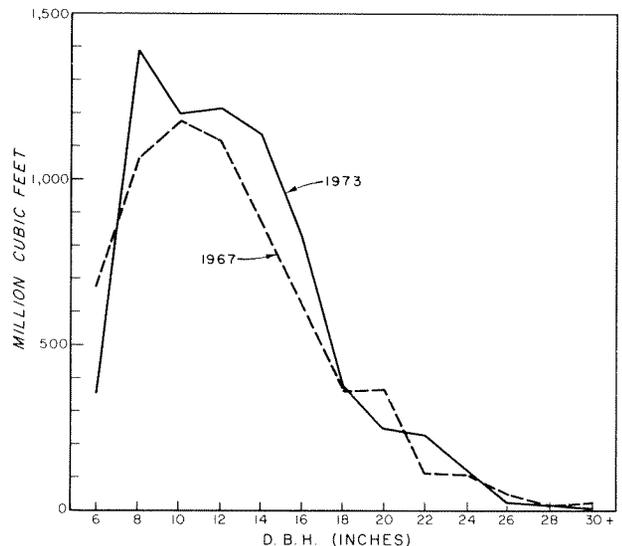


Figure 1.—Softwood growing stock volume by tree diameter, 1967 and 1973.

More than three-fourths of the softwood growing stock is in sawtimber-sized trees, i.e., trees at least 9 inches in diameter. The rest is classified as poletimber. Based on the 1967 distribution of volume into saw logs and upper

stems, some 90 percent of the 5.4 billion cubic feet in softwood sawtimber trees can be made into saw logs. This volume equates to nearly 30 billion board feet. The remaining 550 million plus cubic feet contained in upper stems is suitable for conversion to pulpwood and other products.

In all, the softwood sawtimber inventory increased 11 percent. The greatest gains were in the North and Central Units (table IV), as they had been between 1957-1967 (9).

Table IV.—Sawtimber volume in 1973 and change since 1967

Region	Softwood		Hardwood	
	Volume	Change	Volume	Change
	Million bd. ft.	Percent	Million bd. ft.	Percent
Delta	217.1	+ 16	4,301.9	+ 9
North	3,851.3	+ 58	4,635.3	+ 25
Central	8,932.0	+ 18	5,034.9	+ 43
South	9,098.2	- 10	2,630.9	+ 4
Southwest	7,814.4	+ 17	3,109.9	+ 35
Total	29,913.0	+ 11	19,712.9	+ 23

Hardwood Volume Increasing

The volume of hardwood growing stock has increased to 7 billion cubic feet, 6 percent more than in 1967. Trees from 10 to 17 inches d.b.h. were responsible for about half of the volume accretion (fig. 2). A significant gain was also registered by trees in the 20 inch class. As with softwood growing stock, the largest advances were in the North and Southwest regions of the State (table III).

The species composition of the hardwood inventory is changing somewhat, as it was between 1957-1967 (9). Oaks still dominate the stands, but now they comprise nearly 50 percent of the inventory as opposed to the 43 percent detected in 1967. The gums—sweetgum, black and other tupelos—account for some 21 percent of the hardwoods. The remaining inventory is made up of other hardwoods, i.e., hickory, ash, yellow-poplar, etc., in about the same proportion as they were in 1967.

The cubic foot volume in hardwood trees of sawtimber size, i.e., at least 11 inches d.b.h., has increased to 63 percent of the growing-stock inventory. If the 1967 ratio of saw-log volume to total volume remained constant, then four-

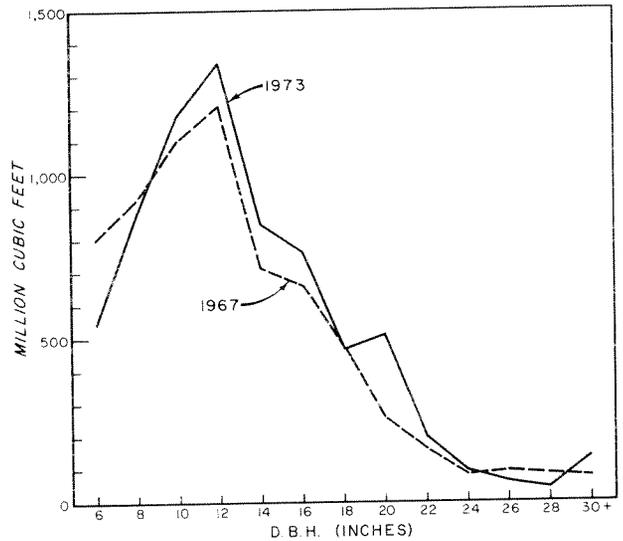


Figure 2.—Hardwood growing stock volume by tree diameter, 1967 and 1973.

fifths of the 4.4 billion cubic feet in sawtimber sized trees could be made into saw logs. This volume represents some 20 billion board feet, which is a 23 percent increase over 1967 board foot levels.

While the annual softwood gains are significant (about 2 percent/year) they are not nearly as substantial as those registered between the 1956 and 1967 surveys (9). During that time the softwood inventory had increased some 63 percent and was nearly equal to the hardwood sector of the forest. The apparent change in the softwood rate of increase is due primarily to the expansion of the primary wood-using industries within the State. Two industries in particular have gained significantly in producing capacity since 1966. These are, of course, the pulp and paper and southern pine plywood industries. The capacity of the State's pulp industry has increased 68 percent since 1966 and the number of mills has gone from seven to eight. The pine plywood industry, which was virtually nonexistent 10 years ago, now consumes more than 60 million cubic feet of pine logs. The hardwood veneer industry, once a major consumer of hardwood logs, has all but disappeared. Thus, it is easy to see why the gains in softwoods are increasing at a decreasing rate while hardwoods remain comparatively stable.

The inventory increased in four of the State's five units. Volumes declined in the Southern Unit. This area was damaged in 1969 by Hurricane Camille. At that time it was estimated that the volume of damaged material was equal to

nearly three-fourths of the State's total industrial cut for 1966 (8). A survey made in the damaged area immediately after the storm indicated that some 289 million cubic feet of growing stock had been either broken or damaged by wind. A subsequent resurvey revealed that 98 million cubic feet was salvaged (1). However, the growth base was reduced drastically in a fourth of the area, explaining the decline of the region's inventory. This loss represents a 5 percent volume reduction in a unit that gained more than 60 percent between 1957 and 1967(9). Hurricane Camille also partially explains the smaller than expected increase in the softwood inventory.

Growth, Mortality, and Removals

Mississippi's growing-stock inventory increased by 75.3 million cubic feet in 1972. This is the amount that growth added to the forests after deductions were made for mortality and removals.

The softwood inventory increased 7 percent in 1972, but 10 percent of this volume was offset by mortality (fig. 3). Although, fire, insects, and disease accounted for more than one third of the mortality from known causes, it was weather that killed more than half of the trees for which an actual cause of death was recorded. Virtually all of the mortality due to weather was confined to the Southern Unit. It was here that Hurricane Camille struck hardest in 1969.

Net growth of softwoods amounted to 453.8 million cubic feet. Timber removals offset 94 percent of this increment. Thus, growth exceeded cut by only 6 percent or 25.7 million cubic feet in 1972. Net growth on the sawtimber segment of the inventory exceeded cut by some 21 percent in 1972.

Hardwood net growth exceeded removals in 1972 by 15 percent. Some 49.6 million cubic feet of growing stock were added to this portion of the total stand (table V). Removals from the hardwood inventory amounted to 272 million cubic feet; more than two-thirds of this volume was manufactured into products. The remaining 84 million cubic feet were either left in the woods as logging residues or lost through land clearing or other operations, such as TSI, which remove trees from the stand but do not convert them to wood products.

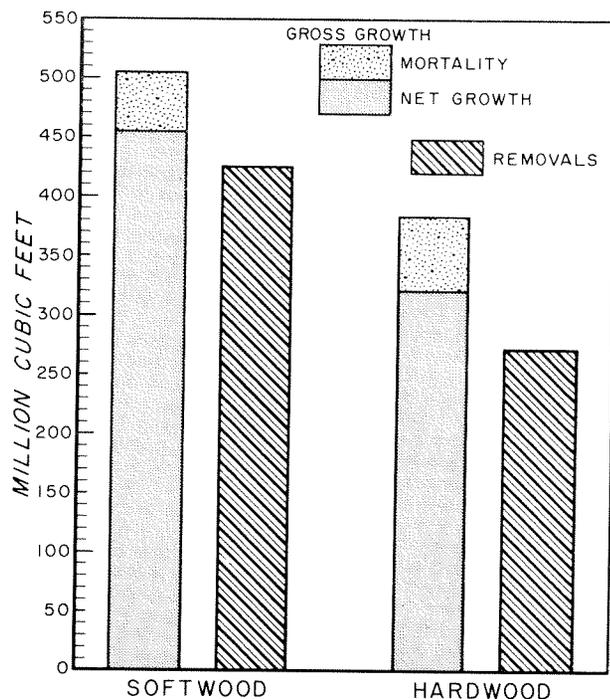


Figure 3.—Growth, mortality, and removals from growing stock, 1972.

Table V.—Summary of timber resource statistics, 1967-1973

Item	Growing stock		Sawtimber	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood
	<i>Million cubic feet</i>		<i>Million board feet</i>	
Inventory, 1967	6,512.9	6,631.1	26,946.8	16,023.8
Timber removals, 1972	428.1	272.1	1,752.4	817.0
Mortality, 1972	51.5	63.2	169.8	135.1
Net growth, 1972	453.8	321.7	2,227.5	1,488.8
Net change, 1972	+25.7	+49.6	+475.1	+671.8
Inventory, 1973	7,133.2	7,041.9	29,913.0	19,712.9

Hardwood mortality amounted to 16 percent of gross growth; its causes usually could not be identified. As with softwoods, however, weather killed most of the hardwoods for which a cause of death could be determined. Also, virtually all weather-killed trees were in the Southern Unit.

Net growth on the hardwood sawtimber inventory was nearly double the volume of removals. In total, this segment of the inventory had a net gain of 672 million board feet.

TIMBER HARVEST AND INDUSTRY

A 100-percent field canvass of Mississippi's primary wood-using industries (fig. 4) revealed

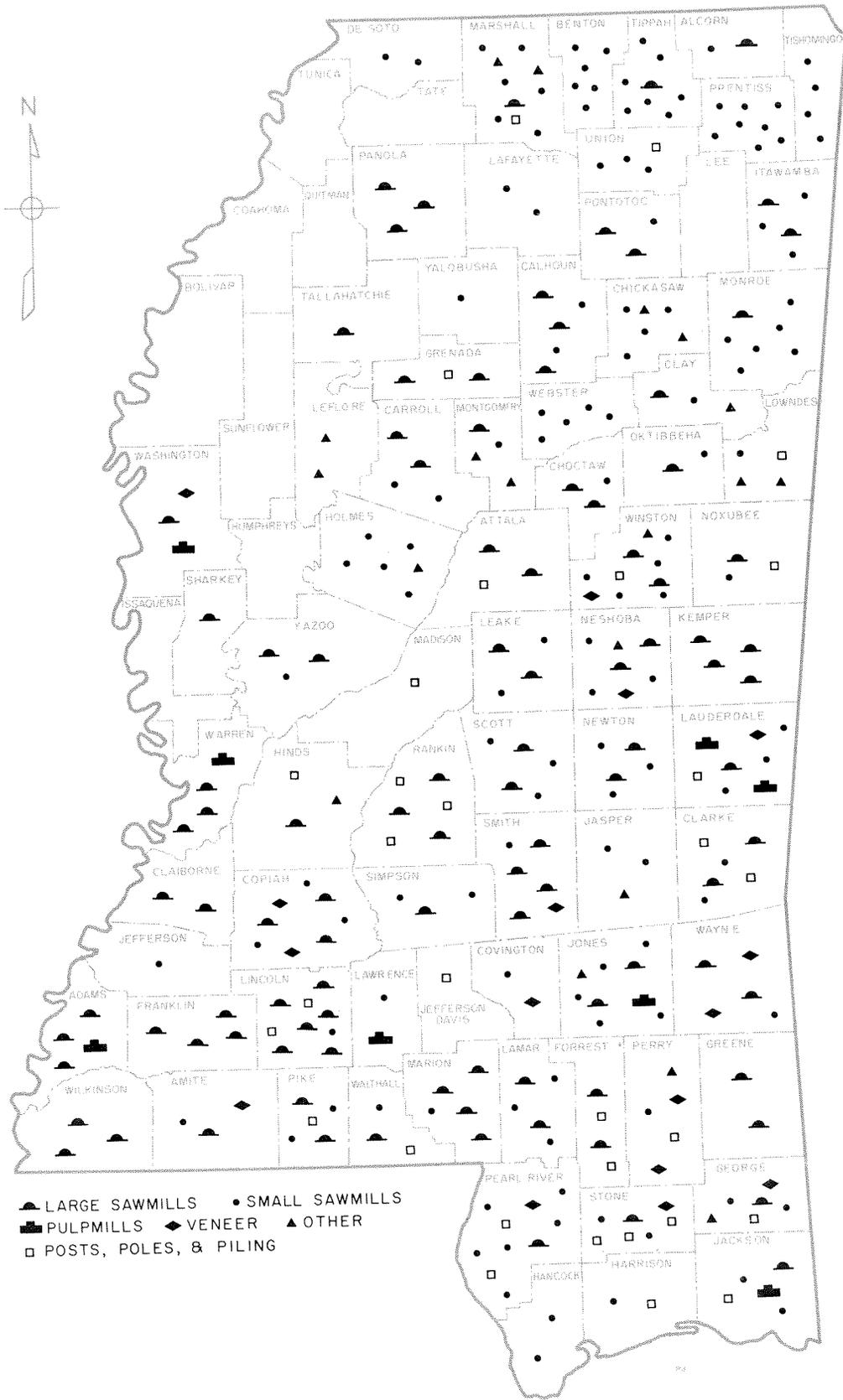


Figure 4.—Primary wood-using industries in Mississippi, 1972.

that the harvest for industrial roundwood products from the State's forests in 1972 was one of the largest on record. It amounted to more than 1½-billion cubic feet. Softwood species, nearly all pine, made up more than two-thirds of the harvest (fig. 5). Hardwoods consisted primarily of oaks, gums, and hickories.

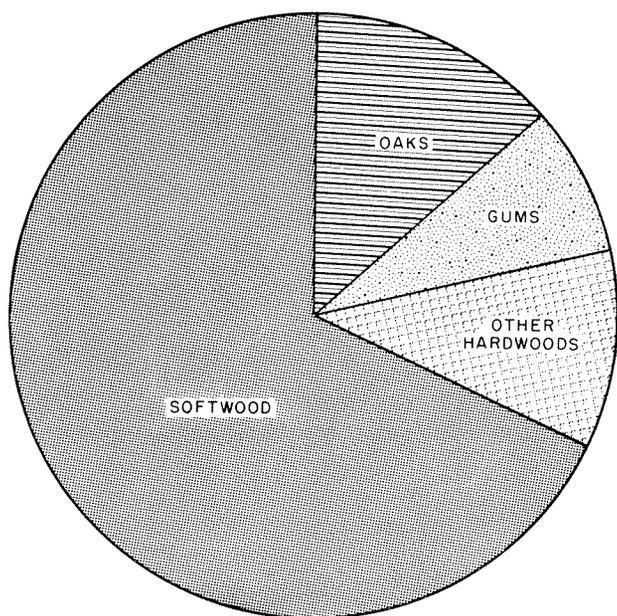


Figure 5.—Distribution of roundwood output by species group.

The major reason for the record production is the increased harvest of pulpwood and veneer bolts. Also, the demand for lumber has caused an increase in the cutting of saw logs, a continuation of the trend detected between 1962 and 1966 (6).

Pulpwood was the largest single product in 1972, accounting for more than half of the total roundwood output. The 3.5 million cords, though not a record high, were above 1966 production. Pulpwood production has generally trended upwards since 1946. Now, however, the harvest from Mississippi seems to have stabilized.

Saw-log production was second to pulpwood, and the margin appears to be growing wider (fig. 6). More than 1 billion board feet of saw logs were cut, with pine accounting for about two-thirds of the harvest. In total, logs cut for conversion to lumber made up one-third of the industrial harvest.

The third ranking product was veneer logs. In 1956, the output was 90 million board feet (5),

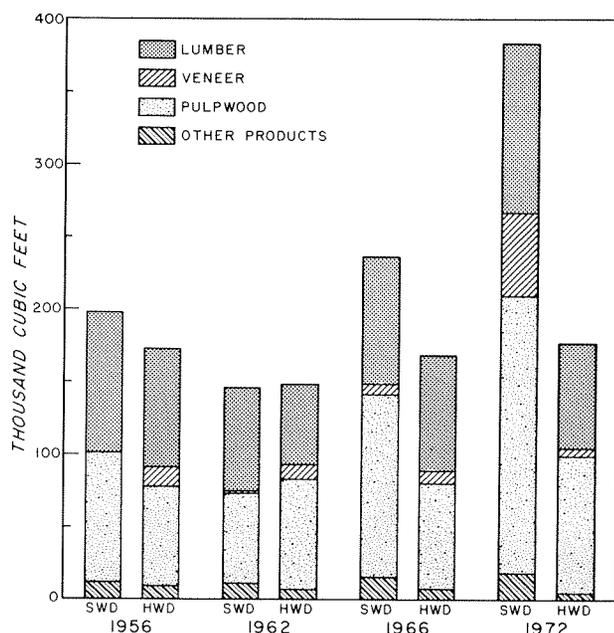


Figure 6.—Output of roundwood by product, species group, and year.

all of which was hardwood. In 1966, the production rose to 98 million board feet; however, nearly half of this was pine (6). The total production of veneer logs in 1972 was 376 million board feet, nine-tenths of which was softwood—virtually all pine. Total production increased nearly threefold and softwood production 6.5 fold since 1966.

The harvest of pulpwood, lumber, and veneer made up 96 percent of the industrial roundwood production in 1972. The remaining 4 percent was comprised of poles, piling, posts, and miscellaneous products. Mississippi has long been a top ranking supplier of poles and piling. In 1972, more than 800,000 pines were cut for poles, and nearly 8 million linear feet of piling were harvested. These products accounted for about 3 percent of the total industrial removals in 1972. The remaining harvest was for other products such as posts, cooperage, handle and furniture stock, and miscellaneous dimension.

Mississippi continues to be a net exporter of wood. During 1972, resident plants processed 80 percent of the State's timber harvest. Pulpwood accounted for most of the interstate movement; 36 percent of the 3.5 million cords were shipped to out-of-State mills. More than two-thirds of the pulpwood exports were pine.

Eight pulpmills are on stream in Mississippi. Their combined capacity is 6,050 tons per day, a

68 percent increase over 1966 capacity. Although the net gain in number of mills is one, the two mills that began operating since the 1966 canvass have added more than 2,600 tons per day of capacity, while the one mill that no longer processed wood only removed 350 tons per day of pulping capability. In addition, three of the eight mills operate exclusively on residues. Although there are no mills currently under construction in the State, the future demand for pulpwood from Mississippi's forests should remain at current levels.

Even though the production of lumber exceeded the 1966 level, the number of firms cutting saw logs declined. In fact, the total number of sawmills now operating within the State, 241, is one less than the number of small sawmills that were in existence in 1966. Of these, 103 are each cutting more than 3 million board feet per year. These mills received 90 percent of the logs in 1972. Small sawmills have declined in number and they now total 138.

The southern pine plywood industry has expanded in Mississippi; at present seven mills are converting veneer logs to plywood. Four of these seven mills opened since 1966. In addition to these plants, nine others turn out container and other veneers. Mississippi lost 11 firms since 1966. The total number of plants producing veneer is 16.

The wood preserving industry in Mississippi consists of 31 plants, about three-fifths of which use pressure systems. They treat virtually all of the roundwood harvested in the State for poles, piling, and commercial posts. They also process some lumber, railroad ties, crossarms, and other sawn products.

Other plants using Mississippi roundwood manufacture miscellaneous dimension stock, handle stock, shuttleblocks, charcoal, cooperage, and excelsior. In all, these types of plants number 19. Most numerous are those producing miscellaneous dimension stock for use in furniture manufacture.

Plant Residues

Forest industries in Mississippi in 1972 produced more than 154 million cubic feet of residues while converting roundwood into primary products. About two-thirds of this material was coarse. Coarse residue is material, such as slabs, edgings, miscuts, and other items, that can be

made into pulp chips. Fine residues consist mainly of sawdust and shavings and other material too small to be converted to chips.

More than 80 percent of the residues were utilized. Some 84 million cubic feet went into pulp and particleboard. Consumption by the pulp industry more than doubled since 1966. In fact, three pulpmills within the State are using residues exclusively in their operations. Of the remaining residues 25 million cubic feet were burned for fuel, and nearly 19 million cubic feet were used for other products such as lumber studs, animal bedding, and mulch.

Unused residues total 27 million cubic feet. More than three-fourths of this material was classified as fine.

The recovery and eventual sale of residues is becoming more and more a significant factor in forest industry operations. For example, in 1966, 68 percent of all residues were utilized (9), as compared to 82 percent in 1972. Only 24 percent of the sawmills operated some type of chipping facility in 1966; 49 percent now do.

RELIABILITY OF THE DATA

Reliability of the estimates may be affected by two types of errors. The first stems from the use of a sample to estimate the whole and from variability of the items being sampled. This type is termed sampling error; it is susceptible to a mathematical evaluation of the probability of error. The second type—often referred to as reporting or estimating error—derives from mistakes in measurement, judgment, or recording, and from limitations of method or equipment. Its effects cannot be appraised mathematically, but the Forest Survey constantly attempts to hold it to a minimum by proper training and good supervision, and by emphasis on careful work.

Since this survey involved two-stage sampling, it is necessary to combine the errors associated with each stage in order to determine overall variability. The sampling error associated with the first stage was determined to be ± 1.6 percent for growing-stock volume (9). The sampling error for the 3P second stage was ± 0.4 percent. Thus, by taking the square of the sum of the squared errors for each stage the combined sampling error is ± 1.6 percent. This ignores the covariance term which is usually negligible. As this total is broken down by species, tree diameter, county and other subdivisions, the possi-

bility of error increases and is greatest for the smallest items.

In general, the sampling errors associated with the data in this report will be only slightly greater than those published for the 1967 survey of Mississippi (9).

DEFINITIONS OF TERMS

Forest Land Class

Forest land.—Land at least 16.7 percent stocked by forest trees of any size, or formerly having such tree cover and not currently developed for nonforest use.

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

Tree Species

Commercial species.—Tree species presently or prospectively suitable for industrial wood products; excludes so-called weed species, such as blackjack oak and blue beech.

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

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

Class of Timber

Growing stock trees.—Sawtimber trees, poletimber trees, saplings, and seedlings; that is, all live trees except rough and rotten trees.

Sawtimber trees.—Live trees of commercial species, 9.0 inches and larger in diameter at breast height for softwoods and 11.0 inches and larger for hardwoods, and containing at least one 12-foot saw log.

Poletimber trees.—Live trees of commercial species, 5.0 to 9.0 inches in d.b.h. for softwoods and 5.0 to 11.0 inches for hardwoods, and of good form and vigor.

Saplings.—Live trees of commercial species, 1.0 inch to 5.0 inches in d.b.h. and of good form and vigor.

Rough and rotten trees.—Live trees that are unmerchantable for saw logs now or prospectively because of defect, rot, or species.

Salvable dead trees.—Standing or down dead trees that are considered currently or potentially merchantable.

Volume

Volume of sawtimber.—Net volume of the saw-log portion of live sawtimber trees, in board feet, International 1/4-inch rule.

Volume of growing stock.—Volume of sound wood in the bole of sawtimber and poletimber trees from stump to a minimum 4.0-inch top outside bark or to the point where the central stem breaks into limbs.

Volume of timber.—The volume of sound wood in the bole of growing stock, rough, rotten, and salvable dead

trees 5.0 inches and larger in d.b.h. from stump to a minimum 4.0-inch top outside bark or to the point where the central stem breaks into limbs.

Miscellaneous Definitions

D.b.h. (diameter breast high).—Tree diameter in inches, outside bark, measured at 4½ feet above ground.

Diameter classes.—The 2-inch diameter classes extend from 1.0 inch below to 0.9 inch above the stated midpoint. Thus, the 12-inch class includes trees 11.0 inches through 12.9 inches d.b.h.

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

Net annual growth.—The increase in volume of a specified size class for a given year.

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

Timber removals.—The net 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.

Timber products.—Roundwood products and plant by-products. Timber products output includes roundwood products cut from growing stock on commercial forest land; from other sources, such as cull trees, salvable dead trees, limbs, and saplings; from trees on noncommercial and nonforest lands; and from plant byproducts.

Roundwood products.—Logs, bolts, or other round sections cut from trees for industrial or consumer uses. Included are saw logs, veneer logs and bolts, cooperage logs and bolts, pulpwood, fuelwood, piling, poles, and posts, hewn ties, mine timbers, and various other round, split, or hewn products.

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

Plant byproducts.—Wood products, such as pulp chips, obtained incidentally to manufacture of other products.

Plant residues.—Wood materials not utilized for products. Included are slabs, edgings, trimmings, miscuts, sawdust, shavings, veneer cores and clippings, and pulp screenings.

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STANDARD TABLES

Table 1.—*Growing stock volume on commercial forest land by species and diameter class, Mississippi, 1973*

Species	Diameter class (inches at breast height)													
	All classes	6.0-7.9	8.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-17.9	18.0-19.9	20.0-21.9	22.0-23.9	24.0-25.9	26.0-27.9	28.0-29.9	30.0 and larger
----- Million cubic feet -----														
Softwood:														
Longleaf	435.3	2.0	40.3	70.5	88.3	151.9	50.2	21.4	10.7	...	...	...	...	...
Slash	616.6	62.7	115.0	174.9	79.7	79.2	73.2	14.4	17.5	...	...	...	...	...
Loblolly	3,555.0	100.0	653.2	476.7	541.4	531.3	493.5	260.5	194.8	164.0	109.8	21.3	8.7	...
Other softwoods	2,526.3	190.9	579.0	473.8	509.6	367.9	202.5	80.6	27.0	67.0	14.0	...	...	14.0
Total	7,133.2	355.6	1,387.5	1,195.9	1,219.0	1,130.3	819.2	376.9	250.0	231.0	123.8	21.3	8.7	14.0
Hardwood:														
Gums	1,512.0	147.3	232.8	377.4	308.2	137.8	120.8	104.5	31.6	42.8	...	8.8	...	...
Oaks	3,451.3	205.1	453.0	516.3	527.3	467.8	436.4	286.9	321.3	82.3	34.1	38.5	25.2	57.1
Other hardwoods	2,078.6	192.6	202.0	283.3	500.0	242.0	206.6	76.0	149.5	69.6	58.0	8.8	13.4	76.8
Total	7,041.9	545.0	887.8	1,177.0	1,335.5	847.6	763.8	467.4	502.4	194.7	92.1	56.1	38.6	133.9
All species	14,175.1	900.6	2,275.3	2,372.9	2,554.5	1,977.9	1,583.0	844.3	752.4	425.7	215.9	77.4	47.3	147.9

Table 2.—*Sawtimber volume on commercial forest land by species and diameter class, Mississippi, 1973*

Species	Diameter class (inches at breast height)											
	All classes	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0 and larger
----- Million board feet -----												
Softwood:												
Longleaf pine	2,037.3	305.6	456.1	807.8	282.5	127.1	58.2	...	...	...	...	...
Slash pine	2,001.3	588.5	394.8	424.1	410.6	90.1	93.2	...	...	...	...	...
Loblolly pine	16,687.5	1,839.0	3,137.5	3,195.5	3,243.0	1,767.9	1,371.3	1,081.7	829.5	159.5	62.6	...
Other softwoods	9,186.9	1,731.6	2,591.6	2,229.0	1,263.0	490.5	190.1	493.4	105.7	...	...	92.0
Total	29,913.0	4,464.7	6,580.0	6,656.4	5,199.1	2,475.6	1,712.8	1,575.1	935.2	159.5	62.6	92.0
Hardwood:												
Gums	3,210.5	...	1,192.3	568.4	588.5	443.6	148.5	228.4	...	40.8	...	...
Oaks	10,100.4	...	2,064.8	1,985.1	2,043.0	1,441.5	1,384.1	388.6	191.0	192.4	126.9	283.0
Other hardwoods	6,402.0	...	1,987.1	1,094.0	1,098.6	378.5	787.6	357.2	235.3	44.1	55.3	364.3
Total	19,712.9	...	5,244.2	3,647.5	3,730.1	2,263.6	2,320.2	974.2	426.3	277.3	182.2	647.3
All species	49,625.9	4,464.7	11,824.2	10,303.9	8,929.2	4,739.2	4,033.0	2,549.3	1,361.5	436.8	244.8	739.3

Table 3.—Annual growth and removals of growing stock on commercial forest land by species, Mississippi, 1972

Species	Net annual growth	Annual removals
<i>Million cubic feet</i>		
Softwood:		
Longleaf pine	24.5	55.6
Slash pine	35.5	25.7
Loblolly pine	245.7	252.6
Other softwoods	148.2	94.2
Total	453.9	428.1
Hardwood:		
Gums	54.5	81.6
Oaks	169.9	100.7
Other hardwoods	97.3	89.8
Total	321.7	272.1
All species	775.6	700.2

Table 4.—Annual growth and removals of sawtimber on commercial forest land by species, Mississippi, 1972

Species	Net annual growth	Annual removals
<i>Million board feet</i>		
Softwood:		
Longleaf pine	126.0	192.8
Slash pine	130.5	87.6
Loblolly pine	1,303.8	1,121.5
Other softwoods	667.2	350.5
Total	2,227.5	1,752.4
Hardwood:		
Gums	187.2	236.9
Oaks	801.2	310.5
Other hardwoods	500.4	269.6
Total	1,488.8	817.0
All species	3,716.3	2,569.4

Table 5.—Mortality of growing stock and sawtimber on commercial forest land by species, Mississippi, 1972

Species	Growing stock	Sawtimber
<i>Million cubic feet</i> <i>Million board feet</i>		
Softwood:		
Longleaf pine	4.2	16.3
Slash pine	4.6	5.4
Loblolly pine	30.8	21.8
Other softwoods	11.9	26.3
Total	51.5	169.8
Hardwood:		
Gums	15.7	34.9
Oaks	15.6	39.1
Other softwoods	31.9	61.1
Total	63.2	135.1
All species	114.7	304.9

Table 6.—Mortality of growing stock and sawtimber on commercial forest land by causes and by softwoods and hardwoods, Mississippi, 1972

Cause	Growing stock			Sawtimber		
	All species	Softwood	Hardwood	All species	Softwood	Hardwood
<i>— — Million cubic feet — —</i> <i>— — Million board feet — —</i>						
Insect	6.5	6.5	...	14.2	14.2	...
Disease	3.9	3.2	0.7	6.1	6.1	...
Fire	4.5	3.9	.6	8.9	8.9	...
Animal	5.4	...	5.4	3.9	...	3.9
Weather	33.4	18.8	14.6	131.2	94.2	37.0
Other	3.7	3.7	...	...	...	...
Unknown	57.3	15.4	41.9	140.6	46.4	94.2
All causes	114.7	51.5	63.2	304.9	169.8	135.1

Table 7.—Total output of timber products by product, by type of material used, and by softwoods and hardwoods, Mississippi, 1972

Product and species group	Standard units	Total output		Roundwood products		Plant byproducts	
		Number	M cu. ft.	Number	M cu. ft.	Number	M cu. ft.
Saw logs:							
Softwood	M bd. ft. ¹	740,671	119,711	714,421	117,523	26,250	2,188
Hardwood	M bd. ft. ¹	432,252	72,056	432,252	72,056	...	...
Total	M bd. ft. ¹	1,172,923	191,767	1,146,673	189,579	26,250	2,188
Veneer logs and bolts:							
Softwood	M bd. ft.	341,491	56,175	341,491	56,175	...	...
Hardwood	M bd. ft.	31,189	5,234	31,189	5,234	...	...
Total	M bd. ft.	372,680	61,409	372,680	61,409	...	...
Pulpwood:							
Softwood	Std. cords ²	3,161,367	256,071	2,367,567	191,773	793,800	64,298
Hardwood	Std. cords ²	1,423,032	113,842	1,177,932	94,234	245,100	19,608
Total	Std. cords ²	4,584,399	369,913	3,545,499	286,007	1,038,900	83,906
Cooperage:							
Softwood	M bd. ft.	...	...	...	...	...	...
Hardwood	M bd. ft.	1,275	184	1,275	184	...	...
Total	M bd. ft.	1,275	184	1,275	184	...	...
Piling:							
Softwood	M linear ft.	7,882	5,642	7,882	5,642	...	...
Hardwood	M linear ft.	...	...	...	...	...	...
Total	M linear ft.	7,882	5,642	7,882	5,642	...	...
Poles:							
Softwood	M pieces	834	9,722	834	9,722	...	...
Hardwood	M pieces	...	...	...	...	...	...
Total	M pieces	834	9,722	834	9,722	...	...
Commercial posts (round and split):							
Softwood	M pieces	3,026	1,740	3,026	1,740	...	...
Hardwood	M pieces	...	...	...	...	...	...
Total	M pieces	3,026	1,740	3,026	1,740	...	...
Other: ³							
Softwood	M cu. ft.	15,299	15,299	536	536	14,763	14,763
Hardwood	M cu. ft.	6,140	6,140	4,492	4,492	1,648	1,648
Total	M cu. ft.	21,439	21,439	5,028	5,028	16,411	16,411
Total industrial products:							
Softwood	...	...	464,360	...	383,111	...	81,249
Hardwood	...	...	197,456	...	176,200	...	21,256
Total	...	...	661,816	...	559,311	...	102,505
Noncommercial posts ⁴ (round and split):							
Softwood	M pieces	2,111	1,351	2,111	1,351	...	...
Hardwood	M pieces	9,853	6,306	9,853	6,306	...	...
Total	M pieces	11,964	7,657	11,964	7,657	...	...
Fuelwood: ⁴							
Softwood	Std. cords	253,550	19,016	58,897	4,417	⁵ 194,653	⁵ 14,599
Hardwood	Std. cords	663,961	49,797	526,588	39,494	⁵ 137,373	⁵ 10,303
Total	Std. cords	917,511	68,813	585,485	43,911	⁵ 332,026	⁵ 24,902
All products:							
Softwood	...	...	...	...	388,879	...	95,848
Hardwood	...	...	...	...	222,000	...	31,559
Total	...	...	...	...	610,879	...	127,407

¹ International ¼-inch rule.

² Rough wood basis (for example, chips converted to equivalent standard cords).

³ Includes chemical wood, handle stock, miscellaneous dimension and other minor industrial products. Additionally, by-products include material used for livestock bedding, mulch, etc.

⁴ Based on data collected during the 1966 survey.

⁵ Includes plant byproducts used for industrial and domestic fuel.

Table 8.—Output of roundwood products by source and by softwoods and hardwoods, Mississippi, 1972

Product and species group	All sources	Growing-stock trees ¹			Rough and rotten trees ¹	Salvable dead trees ¹	Other sources ²
		Total	Saw-timber	Pole-timber			
----- Thousand cubic feet -----							
Industrial products:							
Saw logs:							
Softwood	117,523	116,737	116,308	429	143	...	643
Hardwood	72,056	69,377	69,290	87	951	1,685	43
Total	189,579	186,114	185,598	516	1,094	1,685	686
Veneer logs and bolts:							
Softwood	56,175	55,800	55,595	205	68	...	307
Hardwood	5,234	5,143	5,143	...	69	...	22
Total	61,409	60,943	60,738	205	137	...	329
Pulpwood:							
Softwood	191,773	182,617	125,898	56,719	1,271	...	7,885
Hardwood	94,234	75,702	42,515	33,187	14,293	242	3,997
Total	286,007	258,319	168,413	89,906	15,564	242	11,882
Misc. industrial products:							
Cooperage:							
Softwood	...	...	...	...	...	...	...
Hardwood	184	181	181	...	1	...	2
Total	184	181	181	...	1	...	2
Piling:							
Softwood	5,642	5,617	5,617	...	...	...	25
Hardwood	...	...	...	...	...	...	...
Total	5,642	5,617	5,617	...	...	...	25
Poles:							
Softwood	9,722	9,650	8,535	1,115	...	...	72
Hardwood	...	...	...	...	...	...	...
Total	9,722	9,650	8,535	1,115	...	...	72
Commercial posts (round and split):							
Softwood	1,740	1,586	...	1,586	...	...	154
Hardwood	...	...	...	...	...	...	...
Total	1,740	1,586	...	1,586	...	...	154
Other:							
Softwood	536	505	271	234	...	...	31
Hardwood	4,492	4,477	4,234	243	6	1	8
Total	5,028	4,982	4,505	477	6	1	39
All misc. industrial products:							
Softwood	17,640	17,358	14,423	2,935	...	...	282
Hardwood	4,676	4,658	4,415	243	7	1	10
Total	22,316	22,016	18,838	3,178	7	1	292
All industrial products:							
Softwood	383,111	372,512	312,224	60,288	1,482	...	9,117
Hardwood	176,200	154,880	121,363	33,517	15,320	1,928	4,072
Total	559,311	527,392	433,587	93,805	16,802	1,928	13,189
Noncommercial posts ³ (round and split):							
Softwood	1,351	1,219	663	556	59	...	73
Hardwood	6,306	5,689	1,657	4,032	275	...	342
Total	7,657	6,908	2,320	4,588	334	...	415
Fuelwood: ³							
Softwood	4,417	3,121	559	2,562	206	306	784
Hardwood	39,494	27,909	5,003	22,906	1,843	2,738	7,004
Total	43,911	31,030	5,562	25,468	2,049	3,044	7,788
All products:							
Softwood	388,879	376,852	313,446	63,406	1,747	306	9,974
Hardwood	222,000	188,478	128,023	60,454	17,438	4,666	11,418
Total	610,879	565,330	441,469	123,861	19,185	4,972	21,392

¹ On commercial forest land.² Includes noncommercial forest land, nonforest land such as fence rows, trees less than 5.0 inches in diameter, and treetops and limbs.³ Based on data collected during 1966 survey.

Table 9.—*Timber removals from growing stock on commercial forest land by items and by softwoods and hardwoods, Mississippi, 1972*

Item	All species	Softwood	Hardwood
— Thousand cubic feet —			
Roundwood products:			
Saw logs	186,114	116,737	69,377
Veneer logs and bolts	60,943	55,800	5,143
Pulpwood	258,319	182,617	75,702
Cooperage logs and bolts	181	...	181
Piling	5,617	5,617	...
Poles	9,650	9,650	...
Posts ¹	8,494	2,805	5,689
Other	4,982	505	4,477
Fuelwood ²	31,030	3,121	27,909
All products	565,330	376,852	188,478
Logging residues	64,915	29,632	35,283
Other removals	69,966	21,583	48,383
Total removals	700,211	428,067	272,144

¹ Includes 6,908 thousand cubic feet of noncommercial post, based on 1966 fuelwood survey.

² Based on 1966 fuelwood survey.

Table 10.—*Timber removals from sawtimber on commercial forest land by items and by softwoods and hardwoods, Mississippi, 1972*

Item	All species	Softwood	Hardwood
— Thousand board feet —			
Roundwood products:			
Saw logs	1,111,790	705,776	406,014
Veneer logs and bolts	367,618	337,358	30,260
Pulpwood	665,269	500,541	164,728
Cooperage logs and bolts	1,219	...	1,219
Piling	33,317	33,317	...
Poles	49,322	49,322	...
Posts	9,054	2,634	6,420
Other	27,623	1,347	26,276
Fuelwood	25,762	2,592	23,170
All products	2,290,974	1,632,887	658,087
Logging residues	127,455	51,125	76,330
Other removals	151,000	68,383	82,617
Total removals	2,569,429	1,752,395	817,034

Table 11.—*Volume of plant residues by industrial source and type of residue and by softwoods and hardwoods, Mississippi, 1972*

Species group and type	All industries	Lumber	Veneer and plywood	Other
— — — — — Thousand cubic feet — — — — —				
Softwood:				
Coarse ¹	2,391	1,875	1	515
Fine ²	10,079	7,727	114	2,238
Total	12,470	9,602	115	2,753
Hardwood:				
Coarse	4,167	3,891	28	248
Fine	10,431	9,985	8	438
Total	14,598	13,876	36	686
All species:				
Coarse	6,558	5,766	29	763
Fine	20,510	17,712	122	2,676
All types	27,068	23,478	151	3,439

¹ Unused material suitable for chipping, such as slabs, edging, and veneer cores.

² Unused material not suitable for chipping, such as sawdust and shavings.

COUNTY TABLES

Table 12.—Total area and forest area, Mississippi, 1973

County	Total area ¹		Non-commercial forest		County	Total area ¹		Non-commercial forest	
	Thousand acres	Thousand acres	Percent	Thousand acres		Thousand acres	Thousand acres	Percent	Thousand acres
Adams	305.9	209.0	68	0.2	Lowndes	325.1	125.0	38	...
Alcorn	259.2	123.0	47	...	Madison	480.6	189.7	39	3.4
Amite	466.6	319.0	68	(²)	Marion	352.0	203.5	58	...
Attala	463.4	309.3	67	1.8	Marshall	454.4	215.0	47	.1
Benton	263.7	162.9	62	(²)	Monroe	492.2	248.0	50	...
Bolivar	601.6	73.7	12	.1	Montgomery	257.9	155.5	60	...
Calhoun	378.9	213.6	56	...	Neshoba	363.5	205.7	57	...
Carroll	408.3	209.5	51	...	Newton	371.2	268.2	72	...
Chickasaw	323.8	124.0	38	2.2	Noxubee	444.8	209.1	47	...
Choctaw	266.9	183.6	69	1.3	Oktibbeha	290.6	148.5	51	...
Claiborne	317.5	226.5	71	2.5	Panola	450.6	123.5	27	...
Clarke	446.1	370.7	83	...	Pearl River	530.0	366.5	69	...
Clay	265.0	100.9	38	.1	Perry	417.9	336.0	80	.1
Coahoma	379.5	63.7	17	...	Pike	262.4	150.3	57	...
Copiah	499.8	335.1	67	...	Pontotoc	320.6	145.5	45	.5
Covington	266.2	140.4	53	...	Prentiss	267.5	142.9	53	...
De Soto	312.3	80.1	26	...	Quitman	263.7	18.4	7	...
Forrest	300.2	216.1	72	.1	Rankin	512.0	367.8	72	(²)
Franklin	363.5	294.0	81	(²)	Scott	393.6	265.7	68	.2
George	307.8	236.8	77	...	Sharkey	279.0	74.1	27	.2
Greene	465.9	408.0	88	...	Simpson	375.7	248.0	66	...
Grenada	286.1	169.0	59	...	Smith	410.9	276.9	67	(²)
Hancock	313.0	244.1	78	1.8	Stone	286.7	238.5	83	...
Harrison	384.6	285.6	74	(²)	Sunflower	444.2	36.9	8	...
Hinds	561.3	196.8	35	1.6	Tallahatchie	412.8	123.2	30	...
Holmes	493.4	187.5	38	...	Tate	263.0	90.8	35	...
Humphreys	270.1	39.5	15	...	Tippah	297.0	166.5	56	...
Issaquena	285.5	126.4	44	...	Tishomingo	289.9	198.7	69	1.0
Itawamba	346.2	220.7	64	...	Tunica	304.6	58.4	19	...
Jackson	487.0	378.0	78	...	Union	270.1	115.5	43	...
Jasper	437.1	316.0	72	...	Walthall	257.9	108.9	42	...
Jefferson	336.0	248.1	74	.8	Warren	385.3	184.0	48	...
Jefferson Davis	265.0	130.0	49	...	Washington	487.7	53.2	11	...
Jones	451.8	290.4	64	(²)	Wayne	529.3	439.2	83	(²)
Kemper	484.5	342.0	71	...	Webster	266.2	145.0	54	1.0
Lafayette	434.5	273.1	63	(²)	Wilkinson	437.1	322.0	74	...
Lamar	320.0	235.2	74	...	Winston	387.8	277.6	72	...
Lauderdale	462.1	340.2	74	...	Yalobusha	322.6	175.4	54	(²)
Lawrence	277.1	189.7	68	...	Yazoo	600.9	207.1	34	...
Leake	375.0	259.1	69	1.4	All counties	30,538.2	16,700.2	55	21.3
Lee	291.2	85.3	29	.9					
Leflore	380.2	60.6	16	...					
Lincoln	375.1	258.3	69	...					

¹ Source: United States Bureau of the Census, Land and Water Area of the United States, 1960.

² Negligible.

Table 13.—*Growing-stock volume on commercial forest land by species group and county, Mississippi, 1973*

County	All species	Softwood	Hardwood	County	All species	Softwood	Hardwood
— — — Million cubic feet — — —				— — — Million cubic feet — — —			
Adams	66.2	14.8	51.4	Lowndes	81.4	34.3	47.1
Alcorn	59.9	24.5	35.4	Madison	165.4	87.1	78.3
Amite	388.0	282.9	105.1	Marion	164.9	101.6	63.3
Attala	217.8	126.1	91.7	Marshall	107.7	41.0	66.7
Benton	161.1	23.1	138.0	Monroe	129.3	46.3	83.0
Bolivar	97.5	...	97.5	Montgomery	149.6	83.3	66.3
Calhoun	177.7	79.9	97.8	Neshoba	227.5	107.3	120.2
Carroll	121.0	29.1	91.9	Newton	257.6	168.9	88.7
Chickasaw	66.7	22.3	44.4	Noxubee	162.7	121.3	41.4
Choctaw	122.6	79.3	43.3	Oktibbeha	115.6	49.5	66.1
Claiborne	240.7	36.7	204.0	Panola	55.6	...	55.6
Clarke	254.0	91.7	162.3	Pearl River	123.9	68.6	55.3
Clay	91.3	21.0	70.3	Perry	297.3	194.5	102.8
Coahoma	51.6	4.0	47.6	Pike	114.2	62.4	51.8
Copiah	344.5	128.2	216.3	Pontotoc	111.9	44.9	67.0
Covington	124.4	42.1	82.3	Prentiss	102.5	31.8	70.7
De Soto	46.8	3.1	43.7	Quitman	4.2	...	4.2
Forrest	67.8	56.0	11.8	Rankin	414.6	244.0	170.6
Franklin	472.1	387.8	84.3	Scott	288.4	144.3	144.1
George	173.8	104.5	69.3	Sharkey	76.3	...	76.3
Greene	272.5	230.6	41.9	Simpson	144.0	81.6	62.4
Grenada	146.2	64.6	81.6	Smith	444.1	281.1	163.0
Hancock	114.1	93.8	20.3	Stone	157.2	105.5	51.7
Harrison	248.9	177.3	71.6	Sunflower	44.7	10.0	34.7
Hinds	138.1	56.2	81.9	Tallahatchie	134.2	36.8	97.4
Holmes	77.5	18.4	59.1	Tate	76.8	...	76.8
Humphreys	32.6	...	32.6	Tippah	114.2	42.2	72.0
Issaquena	138.3	...	138.3	Tishomingo	170.3	68.7	101.6
Itawamba	194.2	63.0	131.2	Tunica	18.9	...	18.9
Jackson	291.6	163.8	127.8	Union	125.5	41.3	84.2
Jasper	199.1	125.2	73.9	Walthall	138.8	98.2	40.6
Jefferson	226.4	135.8	90.6	Warren	307.9	9.8	298.1
Jefferson Davis	87.0	54.5	32.5	Washington	34.3	...	34.3
Jones	161.9	127.6	34.3	Wayne	407.7	266.4	141.3
Kemper	325.6	170.5	155.1	Webster	135.4	69.4	66.0
Lafayette	170.7	104.2	66.5	Wilkinson	406.4	259.5	146.9
Lamar	90.9	75.1	15.8	Winston	261.8	156.2	105.6
Lauderdale	402.6	276.4	126.2	Yalobusha	164.8	92.2	72.6
Lawrence	178.0	106.2	71.8	Yazoo	270.7	...	270.7
Leake	242.9	92.9	150.0	All counties	14,175.1	7,133.2	7,041.9
Lee	34.7	...	34.7				
Leflore	80.6	...	80.6				
Lincoln	266.9	190.0	76.9				

Table 14.—*Net change in growing-stock volume between 1967 and 1973, by species group and county, Mississippi*

County	All species	Softwood	Hardwood	County	All species	Softwood	Hardwood
——— Million cubic feet ———				——— Million cubic feet ——			
Adams	- 95.8	- 46.3	- 49.5	Lowndes	+ 14.5	+ 12.0	+ 2.5
Alcorn	- 3.0	+ 3.7	- 6.7	Madison	+ 67.3	+ 36.2	+ 31.1
Amite	+ 85.3	+ 63.2	+ 22.1	Marion	+ 21.8	+ 6.6	+ 15.2
Attala	+ 15.2	+ 5.4	+ 9.8	Marshall	+ 24.5	+ 10.5	+ 14.0
Benton	+ 13.8	- .5	+ 14.3	Monroe	- 38.4	- 3.8	- 34.6
Bolivar	+ 10.7	- 1.9	+ 12.6	Montgomery	+ 4.6	+ 15.0	- 10.4
Calhoun	+ 30.1	+ 11.1	+ 19.0	Neshoba	+ 31.8	+ 2.7	+ 29.1
Carroll	- 5.3	+ 12.1	- 17.4	Newton	+ 42.7	+ 61.5	- 18.8
Chickasaw	- 12.1	- 8.0	- 4.1	Noxubee	- 41.5	+ 43.8	- 85.3
Choctaw	+ 4.1	+ 13.0	- 8.9	Oktibbeha	- 4.7	- .1	- 4.6
Claiborne	+ 79.4	- .2	+ 79.6	Panola	+ 1.4	...	+ 1.4
Clarke	- 46.0	- 69.1	+ 23.1	Pearl River	- 93.7	- 83.1	- 10.6
Clay	+ 2.8	+ 11.2	- 8.4	Perry	+ 14.3	+ 12.9	+ 1.4
Coahoma	- 4.9	- .2	- 4.7	Pike	+ 28.9	+ 19.9	+ 9.0
Copiah	+ 15.3	- 64.6	+ 79.9	Pontotoc	+ 29.2	+ 13.7	+ 15.5
Covington	- 15.1	- 18.5	+ 3.4	Prentiss	+ 31.6	+ 13.2	+ 18.4
De Soto	- 11.3	+ .9	- 12.2	Quitman	- 28.0	...	- 28.0
Forrest	- 53.3	- 53.5	+ .2	Rankin	+ 81.3	+ 50.4	+ 30.9
Franklin	+ 97.5	+ 122.6	- 25.1	Scott	+ 53.6	+ 19.6	+ 34.0
George	+ 7.8	+ 18.8	- 11.0	Sharkey	- 17.9	...	- 17.9
Greene	+ 46.3	+ 39.3	+ 7.0	Simpson	- 19.1	- 22.1	+ 3.0
Grenada	+ 52.0	+ 44.6	+ 7.4	Smith	+ 107.3	+ 81.6	+ 25.7
Hancock	- 36.0	+ 19.3	- 55.3	Stone	- 35.7	- 34.3	- 1.4
Harrison	- .4	- 13.8	+ 13.4	Sunflower	- 1.2	+ 2.7	- 3.9
Hinds	+ 42.5	+ 10.3	+ 32.2	Tallahatchie	+ 7.3	+ 24.6	- 17.3
Holmes	- 17.2	- 1.6	- 15.6	Tate	+ 10.3	...	+ 10.3
Humphreys	- 8.0	...	- 8.0	Tippah	+ 19.7	+ 5.7	+ 14.0
Issaquena	+ .1	...	+ .1	Tishomingo	+ 42.9	+ 15.7	+ 27.2
Itawamba	+ 58.2	+ 23.7	+ 34.5	Tunica	- 28.5	...	- 28.5
Jackson	+ 13.0	+ 9.9	+ 3.1	Union	+ 60.6	+ 26.5	+ 34.1
Jasper	- 105.3	- 72.8	- 32.5	Walthall	+ 25.7	+ 27.8	- 2.1
Jefferson	+ 27.1	+ 9.3	+ 17.8	Warren	+ 89.7	+ 4.4	+ 85.3
Jefferson Davis	- 23.0	- 12.1	- 10.9	Washington	+ 1.1	...	+ 1.1
Jones	- 85.7	- 73.9	- 11.8	Wayne	+ 70.4	+ 64.1	+ 6.3
Kemper	+ 15.9	- 15.4	+ 31.3	Webster	+ 3.6	+ 6.3	- 2.7
Lafayette	+ 19.5	+ 14.8	+ 4.7	Wilkinson	+ 38.0	+ 14.6	+ 23.4
Lamar	- 47.3	- 28.5	- 18.8	Winston	+ 70.5	+ 67.5	+ 3.0
Lauderdale	+ 68.5	+ 58.3	+ 10.2	Yalobusha	+ 51.3	+ 35.9	+ 15.4
Lawrence	+ 24.9	+ 10.9	+ 14.0	Yazoo	+ 46.5	...	+ 46.5
Leake	+ 21.7	- 10.2	+ 31.9				
Lee	- .3	...	- .3				
Leflore	+ 11.7	...	+ 11.7				
Lincoln	+ 54.0	+ 57.0	- 3.0	All counties	+ 1,031.1	+ 620.8	+ 410.8

Table 15.—Sawtimber volume on commercial forest land by species and county, Mississippi, 1973

County	All species	Softwood	Hardwood	County	All species	Softwood	Hardwood
— Million board feet —				— Million board feet —			
Adams	254.5	89.5	165.0	Lowndes	270.4	192.0	78.4
Alcorn	185.7	106.5	79.2	Madison	549.1	216.4	332.7
Amite	1,292.0	987.7	304.3	Marion	572.8	440.0	132.8
Attala	948.0	689.1	258.9	Marshall	346.8	100.5	246.3
Benton	586.7	146.2	440.5	Monroe	507.9	247.9	260.0
Bolivar	286.5	...	286.5	Montgomery	363.5	120.6	242.9
Calhoun	481.3	265.2	216.1	Neshoba	950.5	661.7	288.8
Carroll	323.3	40.1	283.2	Newton	661.9	459.3	202.6
Chickasaw	123.6	77.5	46.1	Noxubee	783.3	620.0	163.3
Choctaw	297.4	250.6	46.8	Oktibbeha	297.7	175.3	122.4
Claiborne	400.2	85.1	315.1	Panola	94.4	...	94.4
Clarke	718.2	325.1	393.1	Pearl River	435.9	354.3	81.6
Clay	347.1	142.4	204.7	Perry	1,301.9	1,044.0	257.9
Coahoma	178.6	14.9	163.7	Pike	477.0	340.5	136.5
Copiah	1,105.5	745.5	360.0	Pontotoc	368.4	197.5	170.9
Covington	437.8	215.0	222.8	Prentiss	285.9	159.5	126.4
De Soto	97.5	16.1	81.4	Quitman	20.3	...	20.3
Forrest	352.4	315.8	36.6	Rankin	1,122.8	653.3	469.5
Franklin	2,412.0	2,067.3	344.7	Scott	1,169.3	586.4	582.9
George	687.3	568.8	118.5	Sharkey	351.3	...	351.3
Greene	986.7	873.7	113.0	Simpson	525.5	395.7	129.8
Grenada	412.8	265.0	147.8	Smith	1,669.3	1,056.6	612.7
Hancock	109.0	44.3	64.7	Stone	605.9	473.8	132.1
Harrison	558.5	498.3	60.2	Sunflower	220.3	77.3	143.0
Hinds	262.1	60.4	201.7	Tallahatchie	164.7	...	164.7
Holmes	256.6	69.7	186.9	Tate	203.6	...	203.6
Humphreys	124.1	...	124.1	Tippah	378.0	170.6	207.4
Issaquena	504.5	...	504.5	Tishomingo	407.2	163.1	244.1
Itawamba	457.3	202.7	254.6	Tunica	89.4	...	89.4
Jackson	1,060.4	680.5	379.9	Union	217.5	52.1	165.4
Jasper	878.4	747.3	131.1	Walthall	684.8	557.3	127.5
Jefferson	1,036.1	744.5	291.6	Warren	1,140.4	55.2	1,085.2
Jefferson Davis	315.5	287.8	27.7	Washington	92.0	...	92.0
Jones	810.9	662.4	148.5	Wayne	1,704.1	1,332.9	371.2
Kemper	1,113.4	955.7	157.7	Webster	427.6	197.5	230.1
Lafayette	447.3	338.9	108.4	Wilkinson	2,144.4	1,680.7	463.7
Lamar	258.8	210.4	48.4	Winston	1,196.3	693.3	503.0
Lauderdale	1,201.1	650.6	550.5	Yalobusha	487.8	223.5	264.3
Lawrence	846.4	538.9	307.5	Yazoo	909.9	...	909.9
Leake	1,028.9	437.9	591.0				
Lee	69.9	...	69.9				
Leflore	180.4	...	180.4				
Lincoln	991.4	796.8	194.6	All counties	49,625.9	29,913.0	19,712.9

Table 16.—*Net change in sawtimber volume between 1967 and 1973, by species group and county, Mississippi*

County	All species	Softwood	Hardwood	County	All species	Softwood	Hardwood
——— Million board feet ———				——— Million board feet ——			
Adams	— 477.4	— 401.1	— 76.3	Lowndes	+ 102.5	+ 91.7	+ 10.8
Alcorn	+ 8.1	+ 23.3	— 15.2	Madison	+ 224.1	+ 105.5	+ 118.6
Amite	+ 320.4	+ 222.4	+ 98.0	Marion	+ 48.3	— 8.8	+ 57.1
Attala	+ 295.6	+ 140.0	+ 155.6	Marshall	+ 111.1	+ 25.2	+ 85.9
Benton	+ 113.4	+ 50.1	+ 63.3	Monroe	+ 108.6	+ 93.3	+ 15.3
Bolivar	+ 26.2	— 12.8	+ 39.0	Montgomery	— 40.3	— 31.3	— 9.0
Calhoun	+ 200.5	+ 115.1	+ 85.4	Neshoba	+ 232.8	+ 83.9	+ 148.9
Carroll	+ 42.8	+ 19.4	+ 23.4	Newton	+ 265.9	+ 320.4	— 54.5
Chickasaw	— 65.3	— 54.8	— 10.5	Noxubee	+ 144.1	+ 190.5	— 46.4
Choctaw	— 26.3	+ 39.6	— 65.9	Oktibbeha	+ 46.8	+ 7.8	+ 39.0
Claiborne	— 13.7	— 24.9	+ 11.2	Panola	— .9	...	— .9
Clarke	— 349.6	— 325.7	— 23.9	Pearl River	— 356.8	— 333.7	— 23.1
Clay	+ 76.2	+ 93.5	— 17.3	Perry	+ 104.3	+ 102.7	+ 1.6
Coahoma	+ 66.7	+ 1.0	+ 65.7	Pike	+ 162.7	+ 145.6	+ 17.1
Copiah	— 91.1	— 169.4	+ 78.3	Pontotoc	+ 210.6	+ 134.9	+ 75.7
Covington	— 80.4	— 83.9	+ 3.5	Prentiss	+ 152.5	+ 86.8	+ 65.7
De Soto	— 11.7	+ 5.2	— 16.9	Quitman	— 59.0	...	— 59.0
Forrest	— 260.1	— 265.8	+ 5.7	Rankin	+ 311.9	+ 156.3	+ 155.6
Franklin	+ 752.9	+ 644.6	+ 108.3	Scott	+ 493.3	+ 150.3	+ 343.0
George	+ 106.9	+ 108.1	— 1.2	Sharkey	— 50.5	...	— 50.5
Greene	+ 167.8	+ 91.9	+ 75.9	Simpson	— 21.1	— 83.3	+ 62.2
Grenada	+ 274.9	+ 225.0	+ 49.9	Smith	+ 454.5	+ 326.2	+ 128.3
Hancock	— 79.8	— 52.1	— 27.7	Stone	— 55.3	— 89.4	+ 34.1
Harrison	— 451.6	— 472.4	+ 20.8	Sunflower	+ 21.2	+ 26.0	— 4.8
Hinds	+ 204.4	+ 2.7	+ 201.7	Tallahatchie	— 30.8	— 14.7	— 16.1
Holmes	+ 5.1	+ 10.2	— 5.1	Tate	+ 97.8	...	+ 97.8
Humphreys	+ 16.5	...	+ 16.5	Tippah	+ 149.6	+ 77.6	+ 72.0
Issaquena	— 40.0	...	— 40.0	Tishomingo	+ 137.6	+ 46.9	+ 90.7
Itawamba	+ 260.0	+ 150.6	+ 109.4	Tunica	— 71.5	...	— 71.5
Jackson	+ 92.9	+ 142.5	— 49.6	Union	+ 111.8	+ 38.6	+ 73.2
Jasper	— 65.7	+ 27.3	— 93.0	Walthall	+ 137.0	+ 184.8	— 47.8
Jefferson	+ 149.2	+ 42.7	+ 106.5	Warren	+ 391.7	+ 21.0	+ 370.7
Jefferson Davis	— 59.8	+ 4.5	— 64.3	Washington	— 25.4	...	— 25.4
Jones	— 324.4	— 328.5	+ 4.1	Wayne	+ 208.0	+ 175.6	+ 32.4
Kemper	+ 89.3	+ 48.8	+ 40.5	Webster	+ 125.9	+ 87.5	+ 38.4
Lafayette	+ 37.2	+ 37.9	— 40.7	Wilkinson	+ 382.4	+ 289.3	+ 93.1
Lamar	— 221.3	— 202.2	— 19.1	Winston	+ 628.5	+ 408.3	+ 220.2
Lauderdale	+ 295.3	— 2.2	+ 297.5	Yalobusha	+ 120.6	+ 45.1	+ 75.5
Lawrence	+ 118.5	+ 29.5	+ 89.0	Yazoo	+ 86.5	...	+ 86.5
Leake	+ 121.3	— 52.0	+ 173.3				
Lee	— 8.4	...	— 8.4				
Leflore	+ 57.9	...	+ 57.9				
Lincoln	+ 320.9	+ 277.5	+ 43.4	All counties	+ 6,655.3	+ 2,966.2	+ 3,689.1

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1973. Midcycle evaluation of Mississippi timber resources. South. For. Exp. Stn., New Orleans, La. 19 p. (USDA For. Serv. Resour. Bull. SO-44)

Between 1967 and 1972 forest acreage in Mississippi decreased by 1 percent, but softwood volume increased by 10 percent and hardwood by 6 percent. More than 0.5 billion cubic feet of roundwood were harvested from the State's forests in 1972.

Additional keywords: Forest acreage, timber growth, timber cut, forest industries.