



United States  
Department of  
Agriculture

Forest Service

**Southern Forest  
Experiment Station**

New Orleans,  
Louisiana

Resource Bulletin  
SO-123



# Midcycle Survey of Arkansas' Forest Resources

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April 1987

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## INTRODUCTION

This report summarizes an interim survey of Arkansas' forest resources. Field work was completed in April 1985. The survey provides new estimates of forest area and inventory for both the State's softwoods and hardwoods. This survey was a cooperative effort with the Arkansas Forestry Commission, the Soil Conservation Service, the Statistical Reporting Service, and the Forest Service.

## METHODS AND PROCEDURES

Midcycle survey estimates were derived by re-measuring 12 percent (330 plots) of the permanent plots measured by Forest Inventory and Analysis personnel during periodic forest surveys. Timberland was estimated by photo interpretation of National High Altitude Photography (NHAP) and by enumeration of classified Landsat scenes. All of the regular permanent plots that were still forested were updated by using relationships between plots measured in both the regular survey of 1978 and in the midcycle survey of 1985.

### Area Estimation

A cooperative venture between the Statistical Reporting Service (SRS), the Soil Conservation Service (SCS) and the Forest Service was in progress at the time of the midcycle survey. Personnel from the three agencies developed a set of common definitions for various land cover classes in Arkansas. The SRS applied these criteria to sample land segments in their June enumerative study. Relationships between these ground samples and corresponding Landsat imagery were used then to estimate forest cover in Arkansas. This procedure had been used for some time by the SRS to improve the relative efficiency of their crop estimates. (Hanuschak and others 1982).

The standard forest survey process was the second method of estimating land covered by forests. Permanent sample points were transferred, using proportional dividers, from previous aerial photography to a 9- by 9-inch NHAP. The points were marked on the photos and interpreted as forest, nonforest, or water. An additional 25 photo-points, distributed on a fixed

grid about each permanent plot, were interpreted according to the same classes. The photo-point classification was used to develop area estimates for these interpreted classes.

No new information on ownership of forest land was collected.

### Volume Estimation

Field procedures were essentially the same as those used in the 1978 survey. Volumes of individual trees were computed deterministically, using algorithms developed as part of STX (Grosenbaugh 1971). These volumes, summed for softwoods and for hardwoods, were compared to corresponding values for 1978. Estimates of per-acre volume for both the 1978 and 1984 surveys were established for all resurveyed plots.

Regression equations, for softwoods and hardwoods, were developed for each survey region (fig. 1). These regressions, reflecting volume changes on the re-measured plots, were applied to all of the plots from the previous survey in 1978.

### Growth and Removals

Because of the small sampling, no attempt was made to produce county estimates of growth, or to account for any of the components of growth during the intersurvey period.

Removals estimates were derived from products output data from various sources. Severance tax information was used to update removals of saw log, veneer log, and miscellaneous product output. Pulpwood removals were estimated by using the annual pulpwood production data compiled by the Southern Forest Experiment Station's FIA unit. Removals estimates were compiled for each year and then averaged to obtain average annual removals. Fuelwood estimates for 1978 (Van Hees 1980) and 1984 (Benney 1984) were averaged to obtain an estimate of average annual removals for the period.

Limitations to using severance and pulpwood data for removals do exist. Accurate reporting, for both amount and county source, are essential to achieving sound estimates of removals by county. While errors are known to occur in this source, data were used in this study because they were judged to be more reli-



Figure 1.—Forest survey regions of Arkansas.

able than estimates developed from the limited number of remeasured plots. A further limitation using the Arkansas severance tax information for tracking trends in output of various forest products is a change in reporting that occurred in 1983. All products are now reported in green tons. While the change may produce gains in efficiency and perhaps even revenues, it does limit the utility of severance tax as an indicator of output of various forest products. Because of the reporting changes, removals estimates based on severance tax were held constant from 1982–1984.

## RESULTS

Slightly more than half of the State of Arkansas' acreage supports forest cover. The SRS estimate of 17.635 million acres in forest cover was nearly identical to the FIA estimate of 17.643 million acres. There is no difference statistically. The FIA estimate is used in the balance of this report to avoid making minor adjustments in the table cells. Moreover, the focus of the midcycle survey is on the commercial forest resource, a subset of the forest cover of Arkansas.

Of special note is a slight increase in the total area of Arkansas. The 1980 census reports Arkansas has a total of 34.04 million acres, up some 50,000 acres over 1970. New census figures are the basis from which estimates of forest land for each county are derived.

Total commercial forest area (timberland) in Arkansas is 16.424 million acres, nearly 200,000 acres less than the 1978 survey total. Most of the decline was in the heavily timbered Southwest, and the rest occurred in the Ouachita Region. Loblolly-shortleaf pine type declined 123,000 acres; oak-pine declined 76,000 acres. Other forest types remained fairly constant since the 1978 survey.

Softwood growing-stock volume dropped nearly 5 percent since the last survey. Most of the loss was in the Southwest. Gains in other regions failed to offset the loss statewide. Softwood volume is concentrated in pine forest type (64 percent), but about 22 percent is in oak-pine types.

Hardwood growing stock gained almost 4 percent since the last survey with changes mixed among the geographic units. Again, the Southwest registered the largest loss, offset by gains in the other units. Oak-hickory types comprised the largest share of the hardwood volume (47 percent), followed by oak-gum-cypress (30 percent) and oak-pine types (13 percent). Pine types contain about 8 percent of the hardwood volume.

The 1985 interim survey confirms past trends in Arkansas' forest resources; i.e., area continues to decline slightly and volume per acre continues to increase. Net growth, as a percent of inventory, has been declining steadily as Arkansas' forests mature. Based on estimated annual removals and the net change between surveys, we expect this downward trend to have continued through this interim survey. Softwood volume per acre has apparently dropped below 1978 levels and removals probably exceed growth. The hardwood inventory continues to rise slightly but will probably level off or decline slightly. The next full survey of Arkansas, scheduled to begin in 1987, will provide more definitive results.

Estimates developed from the limited sampling of the midcycle survey should be used cautiously. With 330 plots distributed among 75 counties, the number of plots per county would average only 4 to 5. Because selection probability was proportional to volume measured during the 1978 survey, more plots were remeasured in the more heavily forested Southwest and Ouachita regions of the State than elsewhere. Accordingly, estimates for these regions are more reliable than those for the less heavily forested regions. In all regions, county estimates should be grouped for meaningful analysis.

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Tables are numbered to correspond to those in the 1978 survey report (Staff 1979). No rounding of totals was applied, and individual table cells may not sum to the total.

Table 1.—*Sampling errors for forest land and volume estimates, 1984*

Item	Sampling error
	<i>Percent</i>
Timberland	0.2
Growing-stock volume	1.39
Sawtimber volume	1.73

Table 2.—*Timberland, growing-stock, and sawtimber volume, 1985, and change since 1978*

Unit	Timberland	Change	Growing stock				Sawtimber			
			Softwood		Hardwood		Softwood		Hardwood	
			Volume	Change	Volume	Change	Volume	Change	Volume	Change
	<i>Thousand acres</i>	<i>Percent</i>	<i>Million cubic ft</i>	<i>Percent</i>	<i>Million cubic ft</i>	<i>Percent</i>	<i>Million board ft</i>	<i>Percent</i>	<i>Million board ft</i>	<i>Percent</i>
Delta	1924.9	+5	276.9	+16	1,707.8	-4	1,016.7	-4	6,397.7	-1
Southwestern	6159.7	-4	4,205.8	-14	3,252.4	-1	21,613.0	-1	10,278.8	+6
Ouachita	3072.8	-4	2,494.5	+8	1,230.2	+19	10,646.1	+19	2,535.6	+18
Ozark	5266.9	+1	792.6	+13	3,265.3	+43	3,319.7	+43	8,925.7	+30
All units	16424.3	-1	7,769.8	-5	9,455.7	+7	36,595.5	+7	28,137.8	+12

Table 3.—Total area, timberland 1978 and 1985, and proportion of total area in 1985

County	Total area	Timberland		Proportion
		Area '78	Area '85	
----- Thousand acres -----				
Arkansas	661.36	207.90	193.08	29.19
Ashley	601.32	369.20	378.57	62.96
Baxter	375.47	165.20	179.73	47.87
Benton	562.35	176.00	200.54	35.66
Boone	385.07	134.40	117.87	30.61
Bradley	419.10	366.00	345.44	82.43
Calhoun	404.41	336.30	309.11	76.44
Carroll	410.60	136.30	186.09	45.32
Chicot	442.12	67.20	89.14	20.16
Clark	565.19	400.20	373.36	66.06
Clay	410.31	68.40	58.22	14.19
Cleburne	378.82	214.20	235.03	62.04
Cleveland	383.21	319.00	338.31	88.28
Columbia	490.94	390.00	354.66	72.24
Conway	362.60	120.00	107.44	29.63
Craighead	456.80	47.30	57.41	12.57
Crawford	387.21	213.90	193.56	49.99
Crittenden	407.62	35.50	21.45	5.26
Cross	398.84	40.00	54.82	13.74
Dallas	427.35	360.40	339.05	79.34
Desha	522.03	154.00	165.88	31.78
Drew	534.85	364.00	338.03	63.20
Faulkner	425.17	144.00	126.27	29.70
Franklin	396.37	204.00	219.69	55.43
Fulton	395.96	171.60	186.45	47.09
Garland	470.02	313.20	302.99	64.46
Grant	405.40	333.20	335.92	82.86
Greene	370.83	50.40	60.92	16.43
Hempstead	474.08	268.80	266.93	56.30
Hot Spring	398.07	259.60	261.58	65.71
Howard	380.98	235.20	239.71	62.92
Independence	493.77	223.20	214.06	43.35
Izard	374.27	159.50	197.08	52.66
Jackson	410.33	53.20	47.09	11.48
Jefferson	586.42	214.20	218.86	37.32
Johnson	437.10	275.60	250.59	57.33
Lafayette	349.43	198.40	195.10	55.83
Lawrence	378.37	84.00	109.20	28.86
Lee	399.26	88.50	119.51	29.93
Lincoln	364.77	133.40	152.93	41.92
Little River	360.46	188.80	148.90	41.31
Logan	468.27	212.40	212.18	45.31
Lonoke	514.22	78.00	59.50	11.57
Madison	535.98	336.00	327.12	61.03
Marion	409.81	123.90	108.32	26.43
Miller	408.47	168.00	137.23	33.60
Mississippi	591.92	20.80	19.02	3.21
Monroe	397.45	145.60	143.00	35.98
Montgomery	512.36	410.40	417.96	81.58
Nevada	397.22	306.80	330.15	83.12
Newton	526.71	380.80	373.46	70.90
Ouachita	473.56	384.40	357.55	75.50
Perry	358.84	277.30	250.93	69.93
Phillips	465.56	87.60	80.62	17.32
Pike	392.76	296.40	297.08	75.64
Poinsett	489.47	41.80	52.27	10.68
Polk	551.69	418.90	376.30	68.21
Pope	531.31	365.80	337.47	63.52
Prairie	432.54	76.50	78.36	18.12
Pulaski	516.56	221.40	198.60	38.45
Randolph	419.96	147.00	158.02	37.63

Table 3.—Total area, timberland 1978 and 1985, and proportion of total area in 1985—  
Continued

County	Total area	Timberland		Proportion
		Area '78	Area '85	
----- Thousand acres -----				
St. Francis	410.98	62.70	74.10	18.03
Saline	467.45	355.10	352.82	75.48
Scott	575.03	477.90	460.16	80.02
Searcy	427.53	220.00	238.96	55.89
Sebastian	348.81	120.00	111.08	31.85
Sevier	372.27	249.60	223.06	59.92
Sharp	388.43	222.00	214.78	55.30
Stone	390.16	302.40	296.97	76.11
Union	675.69	594.00	590.00	87.32
Van Buren	463.44	313.20	337.04	72.72
Washington	611.92	255.00	238.00	38.89
White	666.78	200.60	222.36	33.35
Woodruff	380.10	68.60	69.48	18.28
Yell	607.74	390.50	389.79	64.14
All counties	34039.64	16615.60	16424.31	48.25

Table 5.—Timberland by forest type, 1985

County	All types	Loblolly- shortleaf	Oak-pine	Oak-hickory	Oak-gum- cypress	Elm-ash- cottonwood
Arkansas	193.08	.....	.....	46.81	128.72	17.55
Ashley	378.57	218.61	63.98	42.66	53.32	.....
Baxter	179.73	6.42	19.26	154.06	.....	.....
Benton	200.54	.....	6.27	194.28	.....	.....
Boone	117.87	.....	11.23	106.65	.....	.....
Bradley	345.44	164.23	39.64	67.96	73.62	.....
Calhoun	309.11	130.15	59.65	32.54	86.77	.....
Carroll	186.09	.....	44.92	141.17	.....	.....
Chicot	89.14	.....	.....	5.57	61.28	22.28
Clark	373.36	167.74	91.99	48.70	64.93	.....
Clay	58.22	.....	.....	12.94	45.28	.....
Cleburne	235.03	39.17	50.36	139.90	5.60	.....
Cleveland	338.31	135.32	61.51	61.51	79.96	.....
Columbia	354.66	165.51	59.11	53.20	76.84	.....
Conway	107.44	20.14	20.14	47.00	20.14	.....
Craighead	57.41	.....	.....	20.88	31.31	5.22
Crawford	193.56	12.49	43.71	137.37	.....	.....
Crittenden	21.45	.....	.....	.....	8.58	12.87
Cross	54.82	.....	.....	21.93	21.93	10.96
Dallas	339.05	134.62	79.78	59.83	64.82	.....
Desha	165.88	.....	.....	.....	128.18	37.70
Drew	338.03	120.73	86.92	62.78	67.61	.....
Faulkner	126.27	4.21	12.63	88.39	21.04	.....
Franklin	219.69	21.97	21.97	175.75	.....	.....
Fulton	186.45	11.30	5.65	169.50	.....	.....
Garland	302.99	109.70	99.26	94.03	.....	.....
Grant	335.92	98.80	79.04	69.16	88.92	.....
Greene	60.92	.....	5.08	40.62	10.15	5.08
Hempstead	266.93	105.66	44.49	72.29	44.49	.....
Hot Spring	261.58	47.56	77.29	112.96	23.78	.....
Howard	239.71	117.41	68.49	39.14	14.68	.....
Independence	214.06	23.78	35.68	154.60	.....	.....
Izard	197.08	40.78	20.39	129.12	6.80	.....



Table 5.—Timberland by forest type, 1985—Continued

County	All types	Loblolly-shortleaf	Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
----- Thousand acres -----						
Jackson	47.09	.....	.....	26.91	20.18	.....
Jefferson	218.86	52.11	31.27	46.90	78.17	10.42
Johnson	250.59	43.37	48.19	159.03	.....	.....
Lafayette	195.10	103.65	42.68	24.39	24.39	.....
Lawrence	109.20	.....	7.80	54.60	46.80	.....
Lee	119.51	.....	.....	15.93	95.60	7.97
Lincoln	152.93	19.95	6.65	79.79	39.89	6.65
Little River	148.90	55.84	37.22	27.92	23.27	4.65
Logan	212.18	64.83	58.94	76.62	11.79	.....
Lonoke	59.50	.....	.....	19.83	39.66	.....
Madison	327.12	16.36	16.36	294.41	.....	.....
Marion	108.32	10.32	.....	98.00	.....	.....
Miller	137.23	39.21	29.41	19.60	39.21	9.80
Mississippi	19.02	.....	.....	.....	9.51	9.51
Monroe	143.00	.....	10.21	10.21	122.57	.....
Montgomery	417.96	185.76	116.10	116.10	.....	.....
Nevada	330.15	133.33	63.49	76.19	57.14	.....
Newton	373.46	16.48	38.44	313.04	.....	5.49
Ouachita	357.55	109.57	80.74	74.97	92.27	.....
Perry	250.93	117.46	85.42	37.37	10.68	.....
Phillips	80.62	.....	.....	13.44	60.46	6.72
Pike	297.08	142.82	91.41	62.84	.....	.....
Poinsett	52.27	.....	.....	19.01	23.76	9.50
Polk	376.30	116.60	137.80	121.90	.....	.....
Pope	337.47	65.32	54.43	212.28	5.44	.....
Prairie	78.36	.....	.....	20.90	57.46	.....
Pulaski	198.60	33.91	43.60	77.50	38.75	4.84
Randolph	158.02	.....	7.53	135.45	15.05	.....
St. Francis	74.10	.....	.....	13.47	60.62	.....
Saline	352.82	110.59	94.79	105.32	42.13	.....
Scott	460.16	249.96	90.90	113.62	5.68	.....
Searcy	238.96	5.97	11.95	221.04	.....	.....
Sebastian	111.08	.....	16.66	77.76	11.11	5.55
Sevier	223.06	69.71	46.47	51.12	46.47	9.29
Sharp	214.78	11.61	17.41	185.76	.....	.....
Stone	296.97	26.52	79.55	190.91	.....	.....
Union	590.00	234.91	163.89	65.56	125.65	.....
Van Buren	337.04	40.68	46.49	249.87	.....	.....
Washington	238.00	9.52	4.76	223.72	.....	.....
White	222.36	6.54	19.62	130.80	65.40	.....
Woodruff	69.48	.....	.....	.....	69.48	.....
Yell	389.79	164.70	82.35	82.35	54.90	5.49
All counties	16424.31	4153.87	2890.92	6549.69	2622.25	207.56

Table 8.—*Timberland by physiographic site class, 1985*

County	All sites	Physiographic Class		
		Pine	Upland hardwood	Bottomland hardwood
----- <i>Thousand acres</i> -----				
Arkansas	193.08	.....	46.81	146.28
Ashley	378.57	319.92	.....	58.65
Baxter	179.73	83.45	96.29	.....
Benton	200.54	25.07	175.48	.....
Boone	117.87	28.06	89.81	.....
Bradley	345.44	271.82	.....	73.62
Calhoun	309.11	216.92	.....	92.19
Carroll	186.09	70.59	115.51	.....
Chicot	89.14	.....	5.57	83.56
Clark	373.36	308.43	.....	64.93
Clay	58.22	.....	12.94	45.28
Cleburne	235.03	229.44	.....	5.60
Cleveland	338.31	258.34	.....	79.96
Columbia	354.66	277.82	.....	76.84
Conway	107.44	67.15	20.14	20.14
Craighead	57.41	.....	20.88	36.53
Crawford	193.56	56.20	137.37	.....
Crittenden	21.45	.....	.....	21.45
Cross	54.82	10.96	10.96	32.89
Dallas	339.05	269.24	.....	69.80
Desha	165.88	.....	.....	165.88
Drew	338.03	255.94	4.83	77.26
Faulkner	126.27	33.67	71.55	21.04
Franklin	219.69	117.17	102.52	.....
Fulton	186.45	45.20	141.25	.....
Garland	302.99	302.99	.....	.....
Grant	335.92	247.00	.....	88.92
Greene	60.92	25.38	20.31	15.23
Hempstead	266.93	216.88	5.56	44.49
Hot Spring	261.58	237.80	.....	23.78
Howard	239.71	225.03	.....	14.68
Independence	214.06	107.03	107.03	.....
Lzard	197.08	149.51	40.78	6.80
Jackson	47.09	.....	26.91	20.18
Jefferson	218.86	130.28	.....	88.59
Johnson	250.59	149.39	101.20	.....
Lafayette	195.10	164.62	.....	30.48
Lawrence	109.20	.....	62.40	46.80
Lee	119.51	.....	15.93	103.57
Lincoln	152.93	106.38	.....	46.54
Little River	148.90	120.98	.....	27.92
Logan	212.18	194.50	5.89	11.79
Lonoke	59.50	.....	19.83	39.66
Madison	327.12	32.71	294.41	.....
Marion	108.32	67.05	41.26	.....
Miller	137.23	73.51	.....	63.71
Mississippi	19.02	.....	.....	19.02
Monroe	143.00	15.32	5.11	122.57
Montgomery	417.96	417.96	.....	.....
Nevada	330.15	241.26	.....	88.89
Newton	373.46	148.28	225.17	.....
Ouachita	357.55	247.98	.....	109.57
Perry	250.93	240.25	.....	10.68
Phillips	80.62	.....	13.44	67.18
Pike	297.08	297.08	.....	.....
Poinsett	52.27	.....	19.01	33.26
Polk	376.30	376.30	.....	.....
Pope	337.47	277.59	54.43	5.44
Prairie	78.36	10.45	10.45	57.46
Pulaski	198.60	145.32	4.84	48.44
Randolph	158.02	.....	142.98	15.05

Table 8.—*Timberland by physiographic site class, 1985—Continued*

County	All sites	Physiographic Class		
		Pine	Upland hardwood	Bottomland hardwood
----- <i>Thousand acres</i> -----				
St. Francis	74.10	.....	13.47	60.62
Saline	352.82	310.69	.....	42.13
Scott	460.16	448.80	5.68	5.68
Searcy	238.96	95.58	143.38	.....
Sebastian	111.08	55.54	38.88	16.66
Sevier	223.06	167.29	.....	55.76
Sharp	214.78	34.83	179.95	.....
Stone	296.97	206.82	90.15	.....
Union	590.00	447.97	.....	142.04
Van Buren	337.04	313.79	23.24	.....
Washington	238.00	19.04	218.96	.....
White	222.36	78.48	78.48	65.40
Woodruff	69.48	.....	.....	69.48
Yell	389.79	329.40	.....	60.39
All counties	16424.31	10422.47	3061.03	2940.80

Table 10.—*Growing-stock volume on timberland by species group, 1985*

County	All species	Softwood	Hardwood
----- <i>Million cubic feet</i> -----			
Arkansas	223.75	25.08	198.67
Ashley	324.85	217.88	106.97
Baxter	131.01	23.93	107.08
Benton	137.72	3.13	134.59
Boone	76.65	2.22	74.44
Bradley	409.43	239.45	169.97
Calhoun	292.30	198.14	94.16
Carroll	116.99	16.75	100.24
Chicot	88.38	0.00	88.38
Clark	500.00	268.51	231.49
Clay	63.23	0.00	63.23
Cleburne	181.53	80.28	101.25
Cleveland	533.13	269.23	263.90
Columbia	429.93	260.09	169.84
Conway	67.62	11.14	56.48
Craighead	34.67	7.56	27.11
Crawford	180.26	39.77	140.49
Crittenden	30.45	0.16	30.29
Cross	52.50	1.39	51.11
Dallas	255.01	171.16	83.86
Desha	174.20	20.34	153.86
Drew	416.31	251.11	165.20
Faulkner	68.03	5.26	62.77
Franklin	228.91	42.57	186.35
Fulton	92.43	31.89	60.53
Garland	342.09	223.99	118.10
Grant	487.17	183.67	303.50
Greene	63.20	14.14	49.06
Hempstead	402.76	239.09	163.67
Hot Spring	234.98	117.62	117.36
Howard	243.85	149.54	94.31
Independence	145.02	27.56	117.46
Izard	128.54	66.01	62.54
Jackson	33.24	0.00	33.24
Jefferson	235.21	90.38	144.83
Johnson	293.01	89.83	203.18
Lafayette	227.27	152.13	75.14
Lawrence	60.62	1.83	58.79

Table 10.—*Growing-stock volume on timberland by species group, 1985—Continued*

County	All species	Softwood	Hardwood
----- Million cubic feet -----			
Lee	168.49	2.92	165.57
Lincoln	127.49	49.93	77.56
Little River	129.77	84.34	45.43
Logan	212.99	131.34	81.65
Lonoke	39.28	0.39	38.88
Madison	235.47	13.30	222.17
Marion	61.97	8.28	53.69
Miller	116.05	63.27	52.79
Mississippi	15.85	5.32	10.53
Monroe	224.19	35.93	188.26
Montgomery	733.99	537.16	196.82
Nevada	501.39	261.01	240.38
Newton	341.25	35.94	305.31
Ouachita	512.20	245.22	266.98
Perry	264.10	188.48	75.62
Phillips	68.41	0.50	67.92
Pike	272.35	194.63	77.72
Poinsett	59.47	1.81	57.66
Polk	395.87	266.57	129.30
Pope	375.40	114.41	260.99
Prairie	99.33	8.94	90.39
Pulaski	137.62	75.11	62.51
Randolph	107.70	1.03	106.67
St. Francis	44.45	0.93	43.52
Saline	406.80	236.60	170.20
Scott	722.26	546.17	176.09
Searcy	168.61	17.74	150.87
Sebastian	51.64	13.05	38.59
Sevier	261.23	123.50	137.73
Sharp	104.19	13.21	90.98
Stone	238.69	58.36	180.34
Union	908.18	516.24	391.94
Van Buren	242.05	63.34	178.71
Washington	169.88	10.38	159.50
White	165.02	16.29	148.73
Woodruff	78.28	9.32	68.96
Yell	457.33	276.05	181.28
All counties	17225.48	7769.80	9455.68

Table 11.—*Sawtimber volume on timberland by species group, 1985*

County	All species	Softwood	Hardwood
----- Million board feet -----			
Arkansas	1024.47	137.54	886.93
Ashley	1697.81	1294.99	402.82
Baxter	445.54	86.12	359.41
Benton	462.44	26.43	436.02
Boone	246.40	15.79	230.61
Bradley	1844.45	1242.10	602.35
Calhoun	1272.54	965.65	306.89
Carroll	380.90	87.59	293.31
Chicot	339.98	0.00	339.98
Clark	1921.66	1308.91	612.75
Clay	201.03	0.00	201.03
Cleburne	556.53	340.31	216.22
Cleveland	2427.00	1360.17	1066.83

Table 11.—Sawtimber volume on timberland by species group,  
1985—Continued

County	All species	Softwood	Hardwood
----- Million board feet -----			
Columbia	1757.79	1263.55	494.24
Conway	170.92	15.22	155.70
Craighead	107.24	34.57	72.67
Crawford	561.06	163.90	397.15
Crittenden	139.14	0.00	139.14
Cross	192.29	0.00	192.29
Dallas	1141.03	942.88	198.15
Desha	719.78	115.58	604.20
Drew	1986.79	1346.03	640.76
Faulkner	191.85	21.75	170.10
Franklin	668.83	165.10	503.73
Fulton	240.52	63.47	177.05
Garland	1180.18	977.91	202.27
Grant	2207.11	953.37	1253.74
Greene	200.23	43.13	157.10
Hempstead	1504.18	1055.41	448.76
Hot Spring	844.24	618.57	225.67
Howard	1076.96	865.08	211.88
Independence	505.96	118.88	387.08
Izard	395.39	218.77	176.62
Jackson	82.82	0.00	82.82
Jefferson	789.54	248.52	541.02
Johnson	1037.79	427.70	610.09
Lafayette	918.84	699.93	218.91
Lawrence	171.20	1.77	169.43
Lee	728.29	14.63	713.66
Lincoln	366.53	114.62	251.91
Little River	467.69	424.88	42.81
Logan	776.56	550.56	26.00
Lonoke	122.84	2.48	120.36
Madison	598.91	52.71	546.20
Marion	200.97	45.41	155.57
Miller	400.66	309.63	91.04
Mississippi	61.04	26.30	34.74
Monroe	891.27	173.43	717.84
Montgomery	2857.70	2508.14	349.56
Nevada	1963.40	1278.50	684.90
Newton	962.50	174.86	787.64
Ouachita	2165.95	1340.60	825.35
Perry	920.23	781.18	139.05
Phillips	251.99	2.19	249.80
Pike	1108.97	929.39	179.57
Poinsett	207.59	11.47	196.12
Polk	1425.89	1222.14	203.74
Pope	1217.14	475.68	741.47
Prairie	399.76	43.01	356.76
Pulaski	405.19	304.81	100.37
Randolph	292.41	3.61	288.80
St. Francis	168.03	4.18	163.85
Saline	1295.86	878.82	417.04
Scott	2645.95	2306.84	339.11
Searcy	536.67	110.01	426.67
Sebastian	138.33	49.58	88.75
Sevier	1072.34	680.08	392.26
Sharp	245.27	24.95	220.32
Stone	707.85	278.73	429.12
Union	4112.38	2733.27	1379.10
Van Buren	637.84	283.69	354.15
Washington	418.74	40.35	378.39
White	562.96	78.68	484.28
Woodruff	249.37	43.30	206.07
Yell	1535.82	1066.08	469.74
All counties	64733.30	36595.47	28137.83

Table 13.—*Growing-stock volume of softwoods on timberland by forest type, 1985*

County	All types	Loblolly-shortleaf	Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
----- Million cubic feet -----						
Arkansas	25.08	.....	.....	0.00	25.08	0.00
Ashley	217.88	171.27	30.22	9.38	7.01	.....
Baxter	23.93	12.47	8.11	3.35	.....	.....
Benton	3.13	.....	1.14	1.99	.....	.....
Boone	2.22	.....	0.86	1.36	.....	.....
Bradley	239.45	170.03	27.26	23.29	18.87	.....
Calhoun	198.14	114.75	37.29	12.04	34.06	.....
Carroll	16.75	.....	13.40	3.35	.....	.....
Chicot	0.00	.....	.....	0.00	0.00	0.00
Clark	268.51	173.80	67.83	17.42	9.46	.....
Clay	0.00	.....	.....	0.00	0.00	.....
Cleburne	80.28	41.63	22.66	16.00	0.00	.....
Cleveland	269.23	171.47	59.23	27.30	11.22	.....
Columbia	260.09	191.66	39.42	16.70	12.31	.....
Conway	11.14	5.30	4.25	1.60	0.00	.....
Craighead	7.56	.....	.....	0.00	4.89	2.67
Crawford	39.77	28.73	5.36	5.69	.....	.....
Crittenden	0.16	.....	.....	.....	0.00	0.16
Cross	1.39	.....	.....	1.39	0.00	0.00
Dallas	171.16	104.61	39.99	15.69	10.86	.....
Desha	20.34	.....	.....	.....	20.34	0.00
Drew	251.11	145.54	58.55	24.04	22.98	.....
Faulkner	5.26	0.50	3.49	1.26	0.00	.....
Franklin	42.57	18.14	22.32	2.12	.....	.....
Fulton	31.89	29.17	2.17	0.55	.....	.....
Garland	223.99	148.39	59.79	15.81	.....	.....
Grant	183.67	99.55	46.41	22.20	15.51	.....
Greene	14.14	.....	5.88	7.86	0.00	0.39
Hempstead	239.09	178.21	33.63	21.95	5.30	.....
Hot Spring	117.62	50.95	39.02	23.54	4.11	.....
Howard	149.54	105.05	30.41	12.86	1.21	.....
Independence	27.56	13.88	9.48	4.19	.....	.....
Izard	66.01	48.91	8.86	8.25	0.00	.....
Jackson	0.00	.....	.....	0.00	0.00	.....
Jefferson	90.38	43.77	22.27	13.32	11.02	0.00
Johnson	89.83	65.72	18.79	5.32	.....	.....
Lafayette	152.13	111.74	31.08	6.28	3.03	.....
Lawrence	1.83	.....	1.31	0.51	0.00	.....
Lee	2.92	.....	.....	0.00	2.92	0.00
Lincoln	49.93	27.26	2.61	16.39	2.58	1.08
Little River	84.34	50.33	26.23	5.05	2.37	0.36
Logan	131.34	92.72	27.57	11.06	0.00	.....
Lonoke	0.39	.....	.....	0.00	0.39	.....
Madison	13.30	2.08	9.82	1.40	.....	.....
Marion	8.28	5.86	.....	2.42	.....	.....
Miller	63.27	32.27	15.57	5.77	6.58	3.07
Mississippi	5.32	.....	.....	.....	4.26	1.06
Monroe	35.93	.....	7.82	2.40	25.72	.....
Montgomery	537.16	405.06	98.66	33.44	.....	.....
Nevada	261.01	166.01	51.80	27.59	15.61	.....
Newton	35.94	14.93	10.30	10.71	.....	0.00
Ouachita	245.22	125.33	73.56	25.07	21.26	.....
Perry	188.48	125.16	57.15	5.82	0.35	.....
Phillips	0.50	.....	.....	0.00	0.50	0.00
Pike	194.63	123.39	54.63	16.61	.....	.....
Poinsett	1.81	.....	.....	0.00	0.00	1.81
Polk	266.57	156.03	89.85	20.68	.....	.....
Pope	114.41	81.65	23.15	9.61	0.00	.....
Prairie	8.94	.....	.....	1.83	7.11	.....
Pulaski	75.11	28.04	23.04	10.60	13.43	0.00
Randolph	1.03	.....	0.00	1.03	0.00	.....
St. Francis	0.93	.....	.....	0.00	0.93	.....

Table 13.—*Growing-stock volume of softwoods on timberland by forest type, 1985—Continued*

County	All types	Loblolly-shortleaf	Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
----- Million cubic feet -----						
Saline	236.60	145.78	57.39	29.57	3.85	.....
Scott	546.17	448.07	65.73	31.87	0.51	.....
Searcy	17.74	9.13	5.89	2.73	.....	.....
Sebastian	13.05	.....	7.19	5.85	0.00	0.00
Sevier	123.50	85.24	21.73	10.01	5.78	0.73
Sharp	13.21	8.99	2.27	1.95	.....	.....
Stone	58.36	16.09	32.74	9.53	.....	.....
Union	516.24	345.21	119.07	24.38	27.58	.....
Van Buren	63.34	31.88	18.88	12.58	.....	.....
Washington	10.38	3.75	5.48	1.15	.....	.....
White	16.29	0.30	7.40	3.76	4.84	.....
Woodruff	9.32	.....	.....	.....	9.32	.....
Yell	276.05	214.97	50.23	10.85	0.00	0.00
All counties	7769.80	4990.75	1716.23	678.32	373.15	11.34

Table 14.—*Growing-stock volume of hardwoods on timberland by forest type, 1985*

County	All types	Loblolly-shortleaf	Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
----- Million cubic feet -----						
Arkansas	198.67	.....	.....	47.75	136.73	14.19
Ashley	106.97	23.30	25.08	26.12	32.48	.....
Baxter	107.08	2.17	3.80	101.11	.....	.....
Benton	134.59	.....	0.51	134.08	.....	.....
Boone	74.44	.....	4.40	70.03	.....	.....
Bradley	169.97	12.99	21.47	46.23	89.29	.....
Calhoun	94.16	12.27	14.90	16.06	50.93	.....
Carroll	100.24	.....	11.13	89.12	.....	.....
Chicot	88.38	.....	.....	2.05	67.56	18.77
Clark	231.49	35.20	50.33	54.38	91.58	.....
Clay	63.23	.....	.....	4.83	58.40	.....
Cleburne	101.25	9.27	20.51	64.99	6.48	.....
Cleveland	263.90	30.55	35.04	72.65	125.66	.....
Columbia	169.84	29.85	24.46	31.44	84.10	.....
Conway	56.48	4.90	7.41	24.87	19.30	.....
Craighead	27.11	.....	.....	7.99	17.51	1.61
Crawford	140.49	1.94	16.91	121.64	.....	.....
Crittenden	30.29	.....	.....	.....	5.79	24.50
Cross	51.11	.....	.....	33.27	13.09	4.74
Dallas	83.86	14.64	17.53	18.38	33.32	.....
Desha	153.86	.....	.....	.....	118.17	35.69
Drew	165.20	15.76	35.05	58.77	55.62	.....
Faulkner	62.77	0.34	4.13	40.23	18.07	.....
Franklin	186.35	2.20	13.54	170.60	.....	.....
Fulton	60.53	1.22	0.45	58.86	.....	.....
Garland	118.10	25.96	33.73	58.41	.....	.....
Grant	303.50	26.54	29.34	69.10	178.52	.....
Greene	49.06	.....	4.74	30.34	9.47	4.51
Hempstead	163.67	26.94	15.41	70.67	50.66	.....
Hot Spring	117.36	14.59	23.32	58.25	21.19	.....
Howard	94.31	24.72	24.26	32.14	13.19	.....
Independence	117.46	3.07	14.63	99.75	.....	.....
Izard	62.54	8.97	6.34	44.23	3.00	.....

Table 14.—Growing-stock volume of hardwoods on timberland by forest type, 1985—Continued

County	All types	Loblolly-shortleaf	Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
----- Million cubic feet -----						
Jackson	33.24	.....	.....	14.12	19.12	.....
Jefferson	144.83	7.63	17.63	40.29	57.87	21.41
Johnson	203.18	10.15	22.95	170.08	.....	.....
Lafayette	75.14	21.23	29.03	6.53	18.35	.....
Lawrence	58.79	.....	2.20	25.14	31.45	.....
Lee	165.57	.....	.....	24.79	113.13	27.64
Lincoln	77.56	2.63	1.30	36.96	30.32	6.35
Little River	45.43	8.12	15.07	10.66	11.27	0.31
Logan	81.65	13.01	13.76	42.00	12.88	.....
Lonoke	38.88	.....	.....	12.59	26.29	.....
Madison	222.17	2.63	6.98	212.55	.....	.....
Marion	53.69	1.55	.....	52.14	.....	.....
Miller	52.79	7.92	10.88	9.55	20.71	3.72
Mississippi	10.53	.....	.....	.....	6.91	3.62
Monroe	188.26	.....	8.04	7.83	172.39	.....
Montgomery	196.82	51.22	62.28	83.32	.....	.....
Nevada	240.38	28.63	56.48	66.54	88.74	.....
Newton	305.31	3.87	11.63	283.49	.....	6.32
Ouachita	266.98	29.34	37.08	59.25	141.31	.....
Perry	75.62	15.24	28.87	19.25	12.25	.....
Phillips	67.92	.....	.....	19.44	43.50	4.97
Pike	77.72	21.38	40.75	15.59	.....	.....
Poinsett	57.66	.....	.....	16.92	32.87	7.86
Polk	129.30	28.76	49.70	50.85	.....	.....
Pope	260.99	18.16	27.33	206.85	8.65	.....
Prairie	90.39	.....	.....	19.17	71.22	.....
Pulaski	62.51	2.27	16.60	29.80	13.83	0.00
Randolph	106.67	.....	3.14	86.43	17.10	.....
St. Francis	43.52	.....	.....	1.81	41.71	.....
Saline	170.20	15.44	41.84	61.96	50.95	.....
Scott	176.09	39.80	39.39	84.23	12.68	.....
Searcy	150.87	1.78	6.95	142.14	.....	.....
Sebastian	38.59	.....	2.57	33.27	1.68	1.08
Sevier	137.73	17.67	18.72	40.99	49.51	10.83
Sharp	90.98	2.63	6.44	81.91	.....	.....
Stone	180.34	4.26	29.95	146.12	.....	.....
Union	391.94	66.83	97.69	56.02	171.40	.....
Van Buren	178.71	6.74	20.73	151.24	.....	.....
Washington	159.50	1.13	3.32	155.04	.....	.....
White	148.73	0.50	4.67	65.37	78.20	.....
Woodruff	68.96	.....	.....	.....	68.96	.....
Yell	181.28	34.25	26.96	48.23	70.06	1.79
All counties	9455.68	792.20	1219.36	4448.79	2795.41	199.92













