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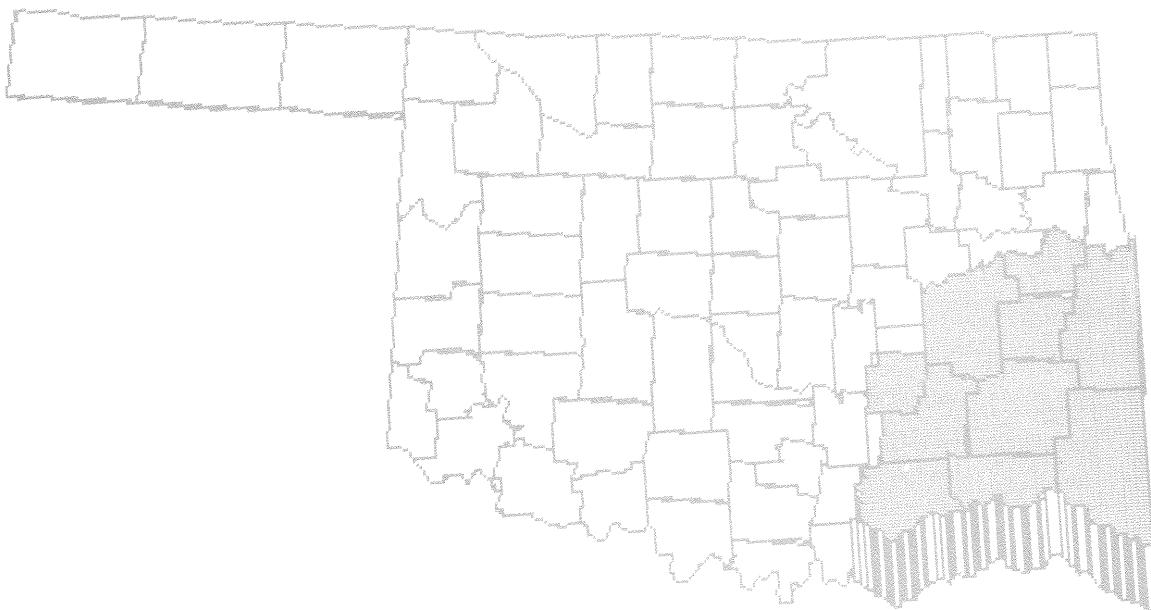
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Forest Statistics for Southeast Oklahoma Counties - 1986

Richard A. Birdsey and Daniel F. Bertelson



SUMMARY

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, 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.

ACKNOWLEDGMENTS

The Southern Station gratefully acknowledges the cooperation and assistance provided by the Oklahoma Division of Forestry and forest industries in collecting field data. Appreciation is also expressed for the cooperation of other public agencies and other private landowners in providing access to the sample locations.

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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.

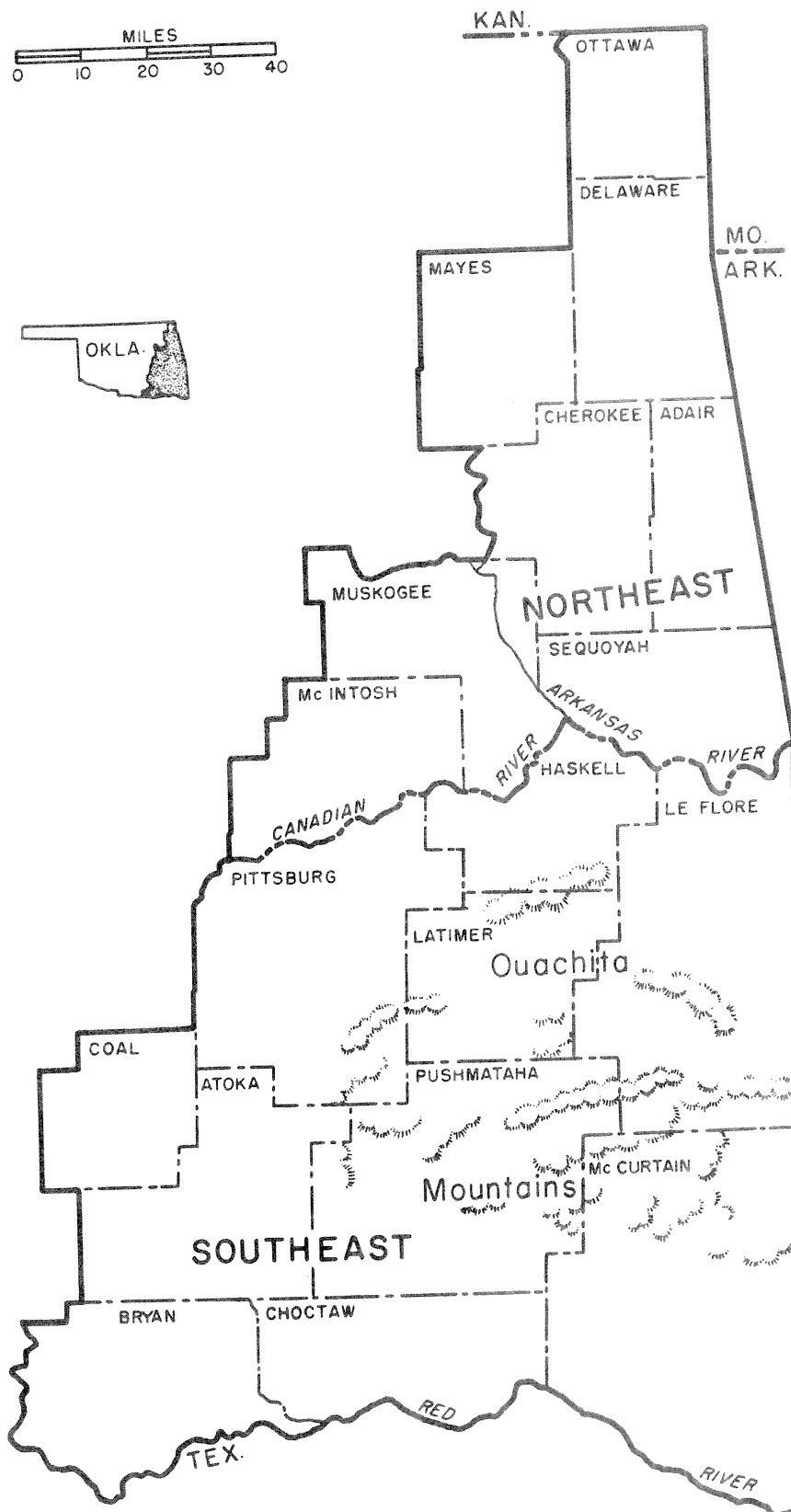


Figure 1.--The Forest Survey Regions of East Oklahoma.

Forest Statistics for Southeast Oklahoma Counties - 1986

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INTRODUCTION

These tables were derived from data obtained during a 1986 inventory of 10 counties comprising the Southeast Unit of Oklahoma (fig. 1). All comparisons of the 1976 and 1986 forest statistics made in this Bulletin account for this change. The data on forest acreage and timber volume were secured by a systematic sampling method involving a forest-nonforest classification on aerial photographs and on-the-ground measurement of trees at sample locations. The sample locations were at the intersections of a grid of lines spaced 3 miles apart. At each forest location, per acre estimates were obtained from 10 Basal Area 37.5 point samples.

The sampling methods were developed to provide suitable estimates for east Oklahoma. Estimates for smaller areas are presented, but

sampling error increases as the area considered decreases. Sampling errors given in Table I are based on one standard deviation or a probability of two chances out of three. To estimate the sampling error for a combination of counties one can use the following:

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

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

Table I - *Sampling errors¹ for timberland, growing stock, and sawtimber, Southeast Oklahoma, 1986*

County	Timberland	Growing stock			Sawtimber volume
		Volume	Growth	Removals	
----- <i>Percent</i> -----					
Atoka ³	2.6	14.7	22.7	21.0	18.8
Bryan	1.7	19.9	2	35.9	23.1
Choctaw	2.7	13.9	19.5	15.6	17.6
Haskell	3.6	2	2	...	2
Latimer	3.5	8.8	17.6	23.4	10.8
Le Flore	1.6	8.0	11.7	15.1	10.7
McCurtain	0.9	8.7	9.8	9.4	11.2
Pittsburg	4.8	20.9	2	2	24.3
Pushmataha	1.6	6.3	8.8	13.2	8.3
All counties	0.8	5.1	6.2	6.8	6.7

¹ By random-sampling formula.

² Sampling error greater than 50.

³ Coal included in Atoka.

HIGHLIGHTS

Timberland Area

The southeastern region of Oklahoma is 55 percent forested. Most of the forest land is classified as timberland capable of growing at least 20 cubic feet of wood each year. The area of timberland has increased from 3,246 to 3,481 thousand acres since 1976. The area of woodland and reserved timberland has remained constant at about 390 thousand acres. The increase in timberland is the result of additions from cropland and pasture.

Timberland owned by forest industry increased by 6 percent to 1,052 thousand acres. Other private owners gained 143 thousand acres of timberland, an increase of 8 percent.

All of the forest type groups except elm-ash-cottonwood gained in area. The loblolly-shortleaf pine group gained 100 thousand acres. Within this group, pine plantations increased from 44 to 264 thousand acres. An additional 253 thousand acres in the oak-pine and hardwood type groups had evidence of artificial regeneration, but were not classified as pine plantations because hardwoods comprised more than 50 percent of the stocking of live trees. Pines will eventually outgrow the hardwood competition on much of this acreage, most of which has been planted in the last 10 years.

There has been a significant increase in the area of nonstocked timberland, from 118 thousand acres in 1976 to 301 thousand acres in 1986. This is the result of clearcut harvesting without adequate regeneration. Most of the nonstocked timberland is owned by private individuals.

Number of Trees

There have been some significant changes in the number of live softwood trees by diameter class between 1976 and 1986. The number of live softwood trees in the 2-inch class declined by about 20 percent, in contrast with large increases in the 4- and 6-inch classes. Declines are also significant in the 8- and 10-inch classes, while the 12- through 16-inch classes showed little change.

The hardwood stand tables showed fairly large declines in the number of live trees in the 2-inch and 12-inch diameter classes. The other diameter classes showed little change between surveys.

Timber Volume

The volume of softwood growing stock declined slightly to 955 million cubic feet between 1976 and 1986. This contrasts with a 37-percent increase reported between 1966 and 1976. The volume of softwood sawtimber increased 3 percent to 3,520 million board feet between 1976 and 1986.

The volume of hardwood growing stock increased slightly to 725 million cubic feet between 1976 and 1986. The 1966 survey of Southeast Oklahoma did not include Bryan county, but the volume of hardwood growing stock in the other counties changed very little between 1966 and 1976. The volume of hardwood sawtimber increased by 5 percent to 1,833 million board feet between 1976 and 1986.

Growth, Removals, and Mortality

Average net annual growth of softwood growing stock has declined from 54 to 44 million cubic feet since 1976. At the same time average annual removals of softwood growing stock increased from 47 to 51 million cubic feet. Since softwood removals now exceed growth, the inventory is declining. The excess of softwood removals over growth has occurred entirely on forest industry timberland.

Average net annual growth of hardwood growing stock declined from 44 million cubic feet to 21 million cubic feet. Average annual removals of hardwood growing stock increased from 14 to 25 million cubic feet. The current excess of hardwood removals over growth involves timberland owned by forest industry and farmers.

An increase in mortality has contributed to the decline in net annual growth. Average annual mortality of softwood growing stock increased from 2 to 3 million cubic feet, and average annual mortality of hardwood growing

stock increased from 5 to 11 million cubic feet. The principal cause of mortality was recorded as disease.

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 annual gross growth. — Average annual net growth plus average annual mortality.

Average net annual growth. — Average net annual volume increase for the intersurvey period.

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

Average annual removals. — Average annual 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.

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.

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.

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

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

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

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

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

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

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

Stand-size class. — A classification of forest land based on the size class of growing-stock trees on the 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.

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

Core Tables 1 - 25

Table 1 – Area by county and land class, Southeast Oklahoma, 1986

County	All land ¹	Forest land			Reserved timberland	Nonforest land
		Total	Timberland ²	Woodland ³		
----- <i>Thousand acres</i> -----						
Atoka ⁴	967.2	390.6	318.1	63.6	8.9	576.6
Bryan	603.2	134.6	134.6	...	...	468.5
Choctaw	512.1	178.1	164.4	13.7	...	334.0
Coal ⁴	...	...	...	...	...	...
Haskell	400.6	168.6	153.3	15.3	...	232.0
Latimer	466.6	344.1	305.2	39.0	...	122.5
Le Flore	1029.0	645.8	639.8	6.0	...	383.1
McCurtain	1216.4	892.5	878.5	...	14.1	323.9
Pittsburg	882.4	395.7	177.4	218.3	...	486.7
Pushmataha	910.8	722.0	710.1	11.9	...	188.8
All counties	6988.2	3872.1	3481.2	367.9	23.0	3116.1

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 that 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 condition.

⁴ Coal included in Atoka.

Table 2 – Area of timberland by county and ownership class, Southeast Oklahoma, 1986

County	All ownerships	National forest	Misc. federal	State	County and municipal	Forest industry ¹	Farmer	Corporate ²	Individual ²
----- Thousand acres -----									
Atoka ³	318.1	...	12.7	6.4	...	...	171.8	6.4	120.9
Bryan	134.6	...	7.1	...	...	...	106.3	...	21.3
Choctaw	164.4	...	13.7	...	...	...	77.6	4.6	68.5
Haskell	153.3	...	10.2	...	...	...	66.4	10.2	66.4
Latimer	305.2	...	...	26.0	...	...	32.5	6.5	240.2
Le Flore	639.8	175.0	18.1	...	...	108.6	60.4	6.0	271.6
McCurtain	878.5	67.6	39.4	...	...	596.9	78.8	5.6	90.1
Pittsburg	177.4	...	6.8	6.8	...	...	68.2	20.5	75.0
Pushmataha	710.1	...	...	29.8	...	346.1	101.4	23.9	208.8
All counties	3481.2	242.6	108.1	69.0	...	1051.6	763.4	83.6	1162.9

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 Coal included in Atoka.

Table 3 - *Area of timberland by county and forest type group, Southeast Oklahoma, 1986*

County	Total	Forest type group					
		Loblolly-shortleaf pine		Oak- pine	Oak- hickory	Oak-gum cypress	Elm-ash cottonwood
		Planted	Natural				
-----Thousand acres-----							
Atoka ¹	318.1	...	57.3	19.1	140.0	76.3	25.4
Bryan	134.6	...	...	...	113.4	21.3	...
Choctaw	164.4	...	13.7	18.3	109.6	22.8	...
Haskell	153.3	...	...	25.5	86.9	25.5	15.3
Latimer	305.2	...	58.4	84.4	155.8	6.5	...
Le Flore	639.8	36.2	102.6	169.0	289.7	36.2	6.0
McCurtain	878.5	180.2	168.9	191.5	281.6	56.3	...
Pittsburg	177.4	...	20.5	20.5	95.5	40.9	...
Pushmataha	710.1	47.7	244.6	190.9	214.8	11.9	...
All counties	3481.2	264.2	666.0	719.2	1487.2	297.9	46.8

¹ Coal included in Atoka.

Table 4 - *Area of timberland by county and stand-size class, Southeast Oklahoma, 1986*

County	All classes	Stand-size class			Nonstocked ¹ areas
		Sawtimber	Poletimber	Sapling- seedling	
-----Thousand acres-----					
Atoka ²	318.1	76.3	114.5	101.8	25.4
Bryan	134.6	28.3	35.4	56.7	14.2
Choctaw	164.4	45.7	50.2	50.2	18.3
Haskell	153.3	20.4	51.1	35.8	46.0
Latimer	305.2	103.9	110.4	71.4	19.5
Le Flore	639.8	144.9	265.6	156.9	72.4
McCurtain	878.5	236.5	242.1	366.0	33.8
Pittsburg	177.4	34.1	40.9	54.6	47.8
Pushmataha	710.1	202.9	220.8	262.5	23.9
All counties	3481.2	893.0	1131.1	1156.0	301.2

¹ Timberland less than 16.7 percent stocked.

² Coal included in Atoka.

Table 5 - *Area of timberland by county and site class, Southeast Oklahoma, 1986*

County	All classes	Site class (cubic feet/acre/year)				
		>165	120-165	85-120	50-85	<50
----- Thousand acres -----						
Atoka ¹	318.1	...	...	12.7	165.4	140.0
Bryan	134.6	...	7.1	...	42.5	85.0
Choctaw	164.4	...	...	18.3	68.5	77.6
Haskell	153.3	5.1	10.2	5.1	46.0	86.9
Latimer	305.2	...	6.5	...	155.8	142.8
Le Flore	639.8	...	12.1	24.1	325.9	277.6
McCurtain	878.5	11.3	78.8	191.5	506.8	90.1
Pittsburg	177.4	...	...	6.8	81.9	88.7
Pushmataha	710.1	...	6.0	71.6	411.7	220.8
All counties	3481.2	16.4	120.7	330.1	1804.6	1209.5

¹ Coal included in Atoka.**Table 6** - *Area of timberland by county and stocking classes of growing-stock trees, Southeast Oklahoma, 1986*

County	All classes	Stocking class (percent)				
		>130	100-130	60-100	16.7-60	<16.7
----- <i>Thousand acres</i> -----						
Atoka ¹	318.1	...	6.4	76.3	209.9	25.4
Bryan	134.6	...	7.1	14.2	99.2	14.2
Choctaw	164.4	...	4.6	22.8	118.7	18.3
Haskell	153.3	...	5.1	15.3	86.9	46.0
Latimer	305.2	...	26.0	71.4	188.3	19.5
Le Flore	639.8	18.1	42.3	235.4	271.6	72.4
McCurtain	878.5	16.9	107.0	473.0	247.8	33.8
Pittsburg	177.4	...	...	13.6	116.0	47.8
Pushmataha	710.1	6.0	83.5	340.1	256.6	23.9
All counties	3481.2	41.0	281.9	1262.3	1594.9	301.2

¹ Coal included in Atoka.

Table 7 - Area of timberland by forest type and ownership class, Southeast Oklahoma, 1986

Forest type ¹	All ownerships	National forest	Other public	Forest industry	Forest industry- leased	Other private
----- Thousand acres -----						
Loblolly-shortleaf pine	930.2	106.2	35.4	492.6	...	296.0
Softwood total	930.2	106.2	35.4	492.6	...	296.0
Oak-pine	719.2	60.0	36.5	294.9	...	327.8
Oak-hickory	1487.2	65.2	75.7	235.7	5.6	1105.0
Oak-gum-cypress	297.9	11.3	12.9	22.9	...	250.9
Elm-ash-cottonwood	46.8	...	16.6	...	...	30.2
Hardwood total	2551.1	136.4	141.7	553.4	5.6	1713.9
All types	3481.2	242.6	177.1	1046.0	5.6	2009.9

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, Southeast Oklahoma, 1986

Ownership class	All classes	Stocking class (percent)				
		>130	100-130	60-100	16.7-60	<16.7
----- Thousand acres -----						
National forest	242.6	12.1	41.0	129.6	60.0	...
Other public	177.1	...	22.0	41.7	106.6	6.8
Forest industry	1046.0	17.2	145.2	543.3	305.7	34.5
Forest industry-leased	5.6	5.6	...	...	...	...
Other private	2009.9	6.0	73.6	547.7	1122.7	259.8
All ownerships	3481.2	41.0	281.9	1262.3	1594.9	301.2

Table 9 – Area of timberland by forest type and stand-size class, Southeast Oklahoma, 1986

Forest type ¹	All classes	Stand-size class			Nonstocked ² areas
		Sawtimber	Poletimber	Sapling- seedling	
----- <i>Thousand acres</i> -----					
Loblolly-shortleaf pine	930.2	399.2	224.8	306.2	...
Softwood total	930.2	399.2	224.8	306.2	...
Oak-pine	719.2	213.0	213.0	287.1	6.0
Oak-hickory	1487.2	156.3	583.3	499.7	247.9
Oak-gum-cypress	297.9	106.7	92.5	51.4	47.2
Elm-ash-cottonwood	46.8	17.8	17.5	11.5	...
Hardwood total	2551.1	493.8	906.3	849.7	301.2
All types	3481.2	893.0	1131.1	1156.0	301.2

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 type.

² Timberland less than 16.7 percent stocked.

Table 10 – Number of live trees on timberland by species and diameter class, Southeast Oklahoma, 1986

Species	Diameter class (inches at breast height)												
	All classes	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	624972	329566	159758	62614	30300	19057	13211	6415	2515	996	294	246	...
Cypress	89	...	...	...	77	...	...	...	...	12	...	...	...
Other softwoods	33963	24657	5821	1946	930	372	82	105	15	27	8	...	...
Total softwoods	659024	354223	165579	64560	31308	19429	13294	6520	2530	1035	302	246	...
Select white oaks	73763	37778	19343	7568	3792	2515	818	873	555	284	145	77	15
Select red oaks	29623	12378	7907	5151	1668	875	585	413	219	170	95	140	22
Other white oaks	377436	177762	113765	41209	19322	10903	6581	4545	1689	872	411	378	...
Other red oaks	127514	73335	31159	10177	4575	2782	2155	1164	785	626	390	345	21
Hickory	233839	132543	57794	22752	11262	5169	2049	1296	557	217	82	106	12
Hard maple	1733	1033	516	...	...	134	27	23	...	...	...	...	...
Soft maple	55942	41708	10488	2192	465	274	345	177	182	49	23	39	...
Sweetgum	24670	16155	4623	1781	823	446	306	259	160	61	10	41	4
Tupelo-blackgum	26728	19375	4377	1292	695	278	269	160	161	38	40	43	...
Ash	43960	23176	10402	4236	3095	1342	789	342	256	162	75	86	...
Cottonwood-aspen	1865	...	...	274	631	330	198	111	30	52	53	180	6
Basswood	189	...	...	77	54	33	25	...	...	...	...	...	...
Black walnut	249	...	...	115	...	99	...	24	...	...	...	11	...
Other hardwoods	302220	212338	56667	17552	7180	4561	1642	1196	535	258	129	134	29
Total hardwoods	1299730	747580	317042	114376	53561	29742	15791	10582	5129	2788	1452	1580	107
Noncommercial	220514	157455	38506	13098	6182	3248	1113	572	218	83	...	39	...
All species	2179268	1259257	521126	192034	91050	52418	30198	17674	7878	3906	1754	1865	107

Table 11 — Number of growing-stock trees on timberland by species and diameter class, Southeast Oklahoma, 1986

Species	Diameter class (inches at breast height)												
	All classes	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	442826	182123	133474	57114	28925	18427	12653	6219	2470	946	243	231	...
Other softwoods	30628	23034	5403	1220	637	173	63	86	...	13	...	...	...
Total softwoods	473454	205157	138877	58334	29562	18600	12716	6305	2470	959	243	231	...
Select white oaks	37355	14468	11575	5164	3043	1839	414	361	228	139	73	48	3
Select red oaks	12867	1538	5695	3075	934	673	346	292	93	82	52	82	5
Other white oaks	138929	36769	54816	25201	11583	5533	2304	1580	677	270	101	94	...
Other red oaks	59743	26065	18035	6753	3693	1904	1354	824	453	346	214	103	...
Hickory	68384	24079	22391	11547	5724	2637	929	649	275	53	32	68	...
Hard maple	42	...	...	...	...	42	...	...	...	...	...	...	...
Soft maple	11566	5973	4144	996	280	99	...	56	18	...	...	...	...
Sweetgum	10697	5724	2484	1066	416	363	255	222	95	48	...	24	...
Tupelo-blackgum	6094	2661	2170	424	395	170	89	116	47	12	10	...	...
Ash	17591	5199	6530	2384	1816	679	505	186	114	123	31	23	...
Cottonwood-aspen	1766	...	...	184	631	330	198	111	30	52	53	173	4
Basswood	54	...	...	...	54	...	...	...	...	...	...	...	...
Black walnut	35	...	...	...	...	...	...	24	...	...	...	11	...
Other hardwoods	42338	15668	13807	6243	2863	2364	578	466	199	55	66	30	...
Total hardwoods	407461	138144	141647	63038	31432	16633	6972	4887	2230	1180	632	655	11
All species	880915	343301	280524	121372	60994	35233	19688	11192	4700	2139	875	886	11

Table 12 - Volume of growing stock on timberland by species and diameter class, Southeast Oklahoma, 1986

Species	Diameter class (inches at breast height)										
	All classes	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	945.6	113.4	148.2	189.4	197.2	143.4	76.0	39.9	14.7	23.4	...
Other softwoods	9.6	2.6	2.3	1.8	0.9	1.6	...	0.5	...	...	...
Total softwoods	955.2	116.0	150.4	191.2	198.1	145.0	76.0	40.4	14.7	23.4	...
Select white oaks	77.3	13.9	15.4	17.5	6.5	8.1	5.1	5.3	2.8	2.5	0.2
Select red oaks	38.7	7.2	4.6	4.9	4.2	5.4	3.0	2.0	2.2	4.7	0.4
Other white oaks	214.5	49.1	48.1	39.9	26.2	23.8	13.8	7.1	3.1	3.5	...
Other red oaks	124.8	13.5	16.8	16.2	19.7	17.6	11.8	12.6	10.5	6.1	...
Hickory	102.5	19.7	23.6	20.3	10.9	12.5	7.3	1.6	1.5	5.0	...
Hard maple	0.4	...	...	0.4	...	...	...	...	...	...	...
Soft maple	5.6	2.1	1.4	0.6	...	1.1	0.4	...	...	...	...
Sweetgum	24.0	2.1	2.3	3.2	4.9	5.2	3.2	1.5	...	1.7	...
Tupelo-blackgum	9.3	1.0	1.6	1.2	1.0	2.3	1.4	0.2	0.6	...	...
Ash	40.9	5.8	10.0	6.3	6.7	3.3	2.5	3.5	1.4	1.4	...
Cottonwood-aspen	40.2	0.5	3.2	3.2	3.3	2.7	1.3	3.0	4.7	17.9	0.6
Basswood	0.2	...	0.2	...	...	...	...	...	...	...	...
Black walnut	0.8	...	...	...	...	0.4	...	...	...	0.4	...
Other hardwoods	71.2	12.2	12.3	18.1	7.3	9.8	5.5	1.7	2.9	1.4	...
Total hardwoods	750.3	126.9	139.4	131.7	90.6	92.2	55.3	38.5	29.8	44.6	1.3
All species	1705.5	242.9	289.8	322.9	288.6	237.2	131.4	78.9	44.5	68.0	1.3

Table 13 — *Volume of growing stock in the saw log portion of sawtimber¹ trees on timberland by species and diameter class, Southeast Oklahoma, 1986*

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	21.0-28.9	29.0 & larger
-----Million cubic feet-----									
Shortleaf-loblolly pine	614.4	159.0	178.7	132.4	70.4	37.4	14.1	22.5	...
Other softwoods	4.0	1.4	0.7	1.5	...	0.4	...	...	...
Total softwoods	618.5	160.4	179.4	133.9	70.4	37.9	14.1	22.5	...
Select white oaks	26.4	...	5.2	6.9	4.6	4.8	2.4	2.2	0.2
Select red oaks	20.1	...	3.6	4.8	2.8	1.8	2.0	4.6	0.4
Other white oaks	70.2	...	23.5	21.7	12.6	6.4	2.8	3.2	...
Other red oaks	66.7	...	14.7	15.6	10.2	11.1	9.7	5.3	...
Hickory	32.9	...	8.9	10.8	6.3	1.3	1.4	4.2	...
Soft maple	1.3	...	...	0.9	0.4	...	...	...	...
Sweetgum	13.9	...	3.6	4.4	2.8	1.4	...	1.6	...
Tupelo-blackgum	4.3	...	0.7	1.6	1.3	0.2	0.5	...	...
Ash	16.6	...	5.3	3.0	2.3	3.4	1.2	1.4	...
Cottonwood-aspen	30.3	...	2.3	2.1	0.9	2.8	4.4	17.0	0.6
Black walnut	0.7	...	...	0.3	...	...	...	0.4	...
Other hardwoods	24.3	...	6.1	8.3	4.7	1.6	2.5	1.1	...
Total hardwoods	307.7	...	74.0	80.4	49.0	34.9	26.9	41.1	1.3
All species	926.1	160.4	253.5	214.3	119.3	72.8	41.1	63.6	1.3

¹ That part of the bole of sawtimber trees between the 1-foot stump and the 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, Southeast Oklahoma, 1986

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	21.0-28.9	29.0 & larger
-----Million board feet-----									
Shortleaf-loblolly pine	3499.2	824.6	987.4	777.2	436.0	234.1	92.5	147.4	...
Other softwoods	20.6	6.9	3.8	7.7	...	2.3	...	...	...
Total softwoods	3519.8	831.5	991.2	784.9	436.0	236.4	92.5	147.4	...
Select white oaks	159.6	...	29.4	40.1	26.9	30.6	16.4	15.3	0.9
Select red oaks	123.3	...	20.1	26.9	16.8	11.1	13.8	31.4	3.2
Other white oaks	409.1	...	128.1	124.1	76.6	40.1	18.2	22.0	...
Other red oaks	392.0	...	78.7	88.8	60.8	67.7	60.8	35.3	...
Hickory	196.6	...	49.0	63.6	39.2	8.4	8.8	27.6	...
Soft maple	7.6	...	...	5.4	2.2	...	...	...	...
Sweetgum	80.4	...	20.7	24.6	17.2	8.2	...	9.6	...
Tupelo-blackgum	23.8	...	3.7	8.5	7.5	1.2	2.8	...	...
Ash	95.3	...	27.7	16.7	14.0	20.8	7.8	8.3	...
Cottonwood-aspen	196.1	...	13.2	12.3	5.9	18.1	31.0	112.3	3.4
Black walnut	4.2	...	...	1.5	...	...	...	2.6	...
Other hardwoods	145.5	...	34.0	49.2	28.0	9.8	16.7	7.7	...
Total hardwoods	1833.4	...	404.6	461.7	295.2	216.0	176.4	272.2	7.5
All species	5353.3	831.5	1395.8	1246.5	731.2	452.4	268.8	419.6	7.5

Table 15 - Volume of growing stock and sawtimber on timberland by county and species group, Southeast Oklahoma, 1986

County	Growing Stock						Sawtimber							
	All species	Softwood			Hardwood		All species	Softwood			Hardwood			
		Pine	Planted	Natural	Other	Soft ¹		Hard ²	Pine	Planted	Natural	Other	Soft ¹	Hard ²
-----Million cubic feet-----														
Atoka ³	110.9	...	47.3	...	11.1	52.5	308.4	...	151.2	...	16.7	140.4		
Bryan	46.4	...	...	0.2	13.0	33.1	138.4	...	...	...	49.3	89.1		
Choctaw	64.8	...	14.7	2.8	9.3	38.1	201.3	...	51.3	8.7	16.7	124.6		
Haskell	68.2	...	12.0	...	33.7	22.6	275.4	...	37.5	...	183.0	54.9		
Latimer	142.6	...	95.2	0.6	1.8	45.0	388.8	...	319.1	...	...	69.7		
Le Flore	299.7	3.4	159.4	2.8	25.9	108.2	779.2	2.2	536.8	3.8	45.1	191.2		
McCurtain	547.8	39.2	274.3	0.2	39.6	194.5	1912.2	75.2	1226.5	...	117.4	493.1		
Pittsburg	47.3	...	19.8	...	2.6	24.9	163.1	...	65.9	...	8.5	88.6		
Pushmataha	378.0	4.0	276.3	3.0	6.4	88.2	1186.6	3.9	1029.5	8.1	10.6	134.5		
All counties	1705.5	46.6	899.0	9.6	143.3	607.0	5353.3	81.3	3417.9	20.6	447.2	1386.3		

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 Coal included in Atoka.

Table 16 — Volume of timber on timberland by class of timber and species group, Southeast Oklahoma, 1986

Class of timber	All species	Softwood			Hardwood	
		Pine		Other	Soft ¹	Hard ²
		Planted	Natural			
----- Million cubic feet -----						
Sawtimber trees:						
Saw log portion	926.1	15.1	599.3	4.0	73.0	234.7
Upper-stem portion	114.9	2.0	67.7	0.7	11.0	33.6
Total	1041.1	17.2	667.0	4.7	84.0	268.3
Poletimber trees	664.5	29.4	232.1	4.9	59.4	338.7
All growing-stock trees	1705.5	46.6	899.0	9.6	143.3	607.0
Rough trees:						
Sawtimber size	224.1	1.7	12.8	1.8	32.5	175.3
Poletimber size	243.6	1.2	11.4	1.5	41.1	188.5
Total	467.8	2.9	24.2	3.3	73.5	363.8
Rotten trees:						
Sawtimber size	50.4	...	1.7	0.3	11.0	37.3
Poletimber size	9.0	...	...	...	1.1	7.9
Total	59.4	...	1.7	0.3	12.1	45.2
Salvable dead trees:						
Sawtimber size	11.8	1.0	3.5	...	1.8	5.5
Poletimber size	6.8	0.2	1.9	...	1.2	3.5
Total	18.6	1.1	5.4	...	3.0	9.0
All classes	2251.2	50.7	930.4	13.3	232.0	1025.0

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, Southeast Oklahoma, 1986

Ownership class	Live trees						Growing stock							
	All species	Softwood			Hardwood		All species	Softwood			Hardwood			
		Pine	Planted	Natural	Other	Soft ¹		Hard ²	Pine	Planted	Natural	Other	Soft ¹	Hard ²
----- Million cubic feet -----														
National forest	285.4	2.7	167.2	2.4	12.4	100.7	249.5	2.7	164.0	2.4	8.1	72.4		
Other public	143.1	...	51.8	0.3	38.7	52.2	109.1	...	50.8	...	33.9	24.4		
Forest industry	583.7	41.6	317.8	1.7	28.3	194.3	507.1	39.9	309.3	0.8	19.1	138.1		
Other private	1220.4	5.3	388.1	8.8	149.5	668.7	839.8	4.1	375.0	6.4	82.2	372.1		
All ownerships	2232.6	49.5	924.9	13.3	228.9	1016.0	1705.5	46.6	899.0	9.6	143.3	607.0		

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, Southeast Oklahoma, 1986

County	Growing stock						Sawtimber							
	All species	Softwood			Hardwood		All species	Softwood			Hardwood			
		Pine	Planted	Natural	Other	Soft ¹		Hard ²	Pine	Planted	Natural	Other	Soft ¹	Hard ²
----- Million cubic feet -----						----- Million board feet -----								
Atoka ³	4.9	...	2.8	...	-0.4	2.5	16.4	...	11.2	...	-1.0	6.2		
Bryan	0.6	...	...	...	-0.2	0.8	4.9	...	...	...	1.2	3.6		
Choctaw	3.0	...	1.2	0.1	0.3	1.4	11.7	...	4.4	0.3	0.2	6.9		
Haskell	3.4	...	0.7	...	2.0	0.7	21.5	...	2.6	...	15.7	3.2		
Latimer	4.2	...	3.2	0.1	...	0.9	13.1	...	12.6	...	...	0.6		
Le Flore	10.3	0.6	6.2	0.4	0.3	2.8	32.4	1.9	25.8	0.1	0.6	4.0		
McCurtain	22.8	6.3	9.6	...	0.8	6.1	90.4	17.2	49.0	0.1	3.6	20.5		
Pittsburg	1.0	...	1.7	...	-1.4	0.7	5.7	...	4.4	...	-4.0	5.4		
Pushmataha	14.5	1.4	9.8	0.1	0.3	3.0	57.4	3.5	48.3	0.1	0.8	4.7		
All counties	64.6	8.3	35.1	0.6	1.7	18.9	253.7	22.6	158.2	0.6	17.1	55.2		

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 Coal included in Atoka.

Table 19 — Average annual removals of growing stock and sawtimber on timberland by county and species group, Southeast Oklahoma, 1986

County	Growing stock						Sawtimber																				
	All species	Softwood			Hardwood		All species	Softwood			Hardwood																
		Pine	Planted	Natural	Other	Soft ¹		Hard ²	Pine	Planted	Natural	Other	Soft ¹	Hard ²													
----- Million cubic feet -----														----- Million board feet -----													
Atoka ³	4.3	...	1.0	...	0.4	2.9	14.5	...	3.7	...	1.5	9.3															
Bryan	0.5	...	...	...	...	0.5	1.4	...	...	...	...	1.4															
Choctaw	2.9	...	0.3	...	0.8	1.9	8.9	...	0.6	...	2.1	6.1															
Haskell	...	...	...	...	...	...	...	...	...	...	...	...															
Latimer	0.2	...	...	...	...	0.2	0.3	...	0.1	...	...	0.3															
Le Flore	13.0	3.6	5.5	0.5	0.6	2.8	44.6	15.8	20.0	...	2.7	6.1															
McCurtain	38.5	22.1	5.0	0.1	1.5	9.8	143.5	91.2	17.7	0.4	5.1	29.0															
Pittsburg	1.0	...	...	...	...	0.9	1.3	...	...	...	...	1.3															
Pushmataha	15.2	8.3	4.5	...	0.2	2.2	45.5	26.1	14.4	0.2	0.6	4.2															
All counties	75.5	34.0	16.3	0.6	3.5	21.1	260.1	133.1	56.6	0.6	12.1	57.8															

¹ Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottownwood, 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 Coal included in Atoka.

Table 20 — Average net annual growth and average annual removals of growing stock on timberland, Southeast Oklahoma, 1986

Species	Growth	Removals
----- Million cubic feet -----		
Yellow pines	43.5	50.3
Other softwoods	0.6	0.6
Total softwoods	44.0	50.9
Select white-red oaks	3.7	3.1
Other white-red oaks	11.3	14.0
Hickory	2.1	3.0
Sweetgum	0.6	1.4
Ash-walnut-black cherry	1.6	0.8
Other hardwoods	1.2	2.3
Total hardwoods	20.6	24.5
All species	64.6	75.4

Table 21 — Average net annual growth and average annual removals of sawtimber on timberland, Southeast Oklahoma, 1986

Species	Growth	Removals
----- Million board feet -----		
Yellow pines	180.8	189.8
Other softwoods	0.6	0.6
Total softwoods	181.4	190.4
Select white-red oaks	9.5	8.6
Other white-red oaks	35.5	37.6
Hickory	5.2	9.6
Sweetgum	4.2	4.3
Ash-walnut-black cherry	5.7	1.5
Other hardwoods	12.2	8.1
Total hardwoods	72.3	69.8
All species	253.7	260.1

Table 22 — Average annual mortality of growing stock and sawtimber on timberland by species, Southeast Oklahoma, 1986

Species	Growing stock	Sawtimber
	- - Million cubic feet - - -	- - Million board feet - -
Yellow pines	2.7	8.2
Total softwoods	2.7	8.2
Select white-red oaks	1.0	2.7
Other white-red oaks	3.2	8.2
Hickory	1.4	4.8
Sweetgum	...	...
Ash-walnut-black cherry	0.4	1.2
Other hardwoods	4.6	15.6
Total hardwoods	10.8	32.4
All species	13.4	40.6

Table 23 — Average net annual growth and average annual removals of growing stock on timberland by ownership class and species group, Southeast Oklahoma, 1986

Ownership class	Growth						Removals							
	All species	Softwood			Hardwood		All species	Softwood			Hardwood			
		Pine	Planted	Natural	Other	Soft ¹		Hard ²	Pine	Planted	Natural	Other	Soft ¹	Hard ²
----- Million cubic feet -----														
National forest	7.5	0.4	5.0	0.3	-0.1	1.9	4.3	1.2	1.1	0.4	...	1.6		
Other public	4.5	...	1.9	...	2.0	0.7	1.0	...	0.9	...	...	0.1		
Forest industry	22.0	7.6	9.9	...	0.1	4.5	50.7	32.5	7.4	0.1	1.6	9.1		
Other private	30.7	0.4	18.4	0.3	-0.3	11.9	19.4	0.3	6.9	0.1	1.9	10.2		
All ownerships	64.7	8.3	35.1	0.6	1.7	18.9	75.4	34.0	16.3	0.6	3.5	21.0		

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, Southeast Oklahoma, 1986

Ownership class	Growth						Removals							
	All species	Softwood			Hardwood		All species	Softwood			Hardwood			
		Pine	Planted	Natural	Other	Soft ¹		Hard ²	Pine	Planted	Natural	Other	Soft ¹	Hard ²
----- Million board feet -----														
National forest	32.7	0.6	25.6	0.1	-0.1	6.5	12.9	5.2	4.2	...	...	...	3.5	
Other public	25.8	...	7.2	...	16.4	2.1	2.0	...	2.0	...	...	...	...	
Forest industry	77.5	21.0	46.1	-0.1	0.6	10.0	183.3	126.4	28.7	0.2	5.6	22.4	22.4	
Other private	117.8	1.0	79.3	0.5	0.2	36.7	61.9	1.4	21.7	0.4	6.5	31.8	31.8	
All ownerships	253.8	22.6	158.2	0.6	17.1	55.3	260.0	133.1	56.6	0.6	12.1	57.7	57.7	

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.

Table 25 — Volume of sawtimber on timberland by species and tree grade, Southeast Oklahoma, 1986

Species	All grades	Grade 1	Grade 2	Grade 3	Grade 4
----- Million board feet -----					
Yellow pines	3499.2	441.8	726.3	2331.1	...
Redcedar	20.6	20.6	...	...	...
Total softwoods	3519.8	462.5	726.3	2331.1	...
Select white-red oaks	282.9	19.5	92.4	124.6	46.4
Other white-red oaks	801.1	41.6	126.7	320.0	312.9
Hickory	196.6	15.0	36.5	84.9	60.2
Sweetgum	80.4	4.4	23.7	36.7	15.6
Tupelo and blackgum	23.8	...	6.5	11.3	6.0
Ash-walnut-black cherry	105.0	18.2	24.4	58.0	4.4
Other hardwoods	343.6	132.4	93.1	83.4	34.7
Total hardwoods	1833.4	231.1	403.3	718.9	480.2
All species	5353.3	693.6	1129.6	3050.0	480.2

Supplemental Tables 26 - 36

Table 26 — *Area of timberland by stand age, forest type group, and type of regeneration, Southeast Oklahoma, 1986*

Stand age class	Pine		Oak-pine		Other hardwood types	
	Artificial	Natural	Artificial	Natural	Artificial	Natural
----- Thousand acres -----						
1-10	173.0	23.9	127.1	6.0	80.0	94.0
11-20	67.9	24.1	22.5	...	...	28.9
21-30	5.6	18.3	...	...	...	6.0
31-40	...	59.0	...	6.0	...	24.8
41-50	...	24.4	...	6.0	...	23.3
>50	...	12.8	...	6.0	...	11.6
Mixed	17.6	503.5	23.3	522.3	...	1563.2
All classes	264.2	666.0	172.9	546.3	80.0	1751.9

Table 27 — *Volume of softwood growing stock on timberland by forest type, Southeast Oklahoma, 1986*

County	Total	Forest type group			
		Loblolly-shortleaf pine		Oak- pine	Oak- hickory
		Planted	Natural		
----- Million cubic feet -----					
Atoka ¹	47.3	...	40.6	4.2	2.5
Bryan	0.2	...	...	...	0.2
Choctaw	17.4	...	8.5	5.2	3.8
Haskell	12.0	...	...	10.4	1.5
Latimer	95.8	...	52.5	30.5	12.8
Le Flore	165.6	3.2	94.4	53.0	15.0
McCurtain	313.7	33.0	195.1	62.7	22.9
Pittsburg	19.8	...	14.0	4.8	1.0
Pushmataha	283.4	2.1	215.8	56.1	9.4
All counties	955.2	38.3	620.9	226.9	69.1

¹ Coal included in Atoka.

Table 28 — *Volume of hardwood growing stock on timberland by forest type, Southeast Oklahoma, 1986*

County	Total	Forest type group					
		Loblolly-shortleaf pine		Oak- pine	Oak- hickory	Oak-gum- cypress	Elm-ash- cottonwood
		Planted	Natural				
----- <i>Million cubic feet</i> -----							
Atoka ¹	63.5	...	1.9	1.2	21.0	33.3	6.1
Bryan	46.1	...	...	...	25.9	20.3	...
Choctaw	47.3	...	2.0	1.8	38.0	5.5	...
Haskell	56.3	...	...	1.8	8.3	16.0	30.2
Latimer	46.8	...	5.0	12.7	25.1	4.0	...
Le Flore	134.1	0.2	7.8	19.2	80.0	17.6	9.2
McCurtain	234.1	1.5	23.6	36.0	121.1	51.9	...
Pittsburg	27.5	...	0.2	0.2	15.6	11.4	...
Pushmataha	94.6	...	23.4	28.7	39.6	2.9	...
All counties	750.3	1.7	64.0	101.7	374.4	163.0	45.6

¹ Coal included in Atoka.

Table 29 — *Volume of softwood growing stock in the saw log portion of sawtimber trees on timberland by forest type, Southeast Oklahoma, 1986*

County	Total	Forest type group			
		Loblolly-shortleaf pine		Oak- pine	Oak- hickory
		Planted	Natural		
----- Million cubic feet -----					
Atoka ¹	27.5	...	24.1	1.9	1.4
Bryan	...	...	...	...	...
Choctaw	11.3	...	5.9	3.2	2.3
Haskell	6.9	...	...	5.8	1.1
Latimer	59.3	...	31.0	20.1	8.3
Le Flore	97.9	0.4	56.3	33.4	7.8
McCurtain	218.6	13.2	145.5	42.1	17.8
Pittsburg	11.7	...	8.5	2.7	0.5
Pushmataha	185.3	0.4	144.5	34.6	5.8
All counties	618.5	14.0	415.8	143.7	45.0

¹ Coal included in Atoka.

Table 30 — *Volume of hardwood growing stock in the saw log portion of sawtimber trees on timberland by forest type, Southeast Oklahoma, 1986*

County	Total	Forest type group					
		Loblolly-shortleaf pine		Oak- pine	Oak- hickory	Oak-gum- cypress	Elm-ash- cottonwood
		Planted	Natural				
----- Million cubic feet -----							
Atoka ¹	26.6	...	1.3	...	4.7	16.6	4.0
Bryan	23.1	...	...	...	11.4	11.7	...
Choctaw	24.1	...	0.6	0.5	19.2	3.8	...
Haskell	37.4	...	...	0.2	2.1	9.5	25.6
Latimer	12.4	...	0.8	3.8	5.9	2.0	...
Le Flore	39.5	...	1.9	5.7	22.3	7.6	2.0
McCurtain	103.8	0.9	9.2	16.7	40.5	36.5	...
Pittsburg	15.9	...	0.2	...	7.0	8.7	...
Pushmataha	24.8	...	6.7	7.4	8.9	1.8	...
All counties	307.7	0.9	20.7	34.3	122.1	98.0	31.6

¹ Coal included in Atoka.

Table 31 — *Volume of timber on timberland by county, class of timber, and species group, Southeast Oklahoma, 1986*

County	All classes	Growing stock		Rough		Rotten	
		Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood
----- Million cubic feet -----							
Atoka ¹	178.4	47.3	63.5	0.8	59.5	0.4	6.9
Bryan	82.3	0.2	46.1	0.4	32.6	...	3.0
Choctaw	91.6	17.4	47.3	0.6	24.1	...	2.2
Haskell	99.2	12.0	56.3	0.5	27.4	0.2	2.9
Latimer	199.5	95.8	46.8	3.7	46.5	...	6.7
Le Flore	404.0	165.6	134.1	5.8	89.0	...	9.5
McCurtain	623.8	313.7	234.1	6.6	55.4	...	13.9
Pittsburg	81.2	19.8	27.5	2.0	28.5	0.1	3.3
Pushmataha	472.6	283.4	94.6	10.2	74.4	1.3	8.8
All counties	2232.6	955.2	750.3	30.4	437.3	2.1	57.3

¹ Coal included in Atoka.

Table 32 - Number of live trees on timberland by detailed species and diameter class, Southeast Oklahoma, 1986

Species	Diameter class (inches at breast height)												
	All classes	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	499376	274130	110443	46955	27925	18167	12495	5927	2299	779	196	60	...
Loblolly pine	125596	55436	49315	15659	2375	890	716	488	216	217	98	186	...
Redcedar	33963	24657	5821	1946	930	372	82	105	15	27	8	...	...
Cypress	89	...	...	...	77	...	...	...	...	12	...	...	...
Total softwoods	659024	354223	165579	64560	31308	19429	13294	6520	2530	1035	302	246	...
Select white oaks	73763	37778	19343	7568	3792	2515	818	873	555	284	145	77	15
Select red oaks	29623	12378	7907	5151	1668	875	585	413	219	170	95	140	22
Other white oaks	377436	177762	113765	41209	19322	10903	6581	4545	1689	872	411	378	...
Other red oaks	127514	73335	31159	10177	4575	2782	2155	1164	785	626	390	345	21
Sweet pecan	2660	1816	...	291	144	46	95	92	31	55	34	49	8
Water hickory	4676	4647	...	...	...	...	...	...	...	13	12	5	...
Other hickories	226503	126080	57794	22461	11118	5123	1955	1204	526	149	37	53	4
Persimmon	10966	9753	468	516	175	...	53	...	...	...	...	...	...
Hard maple	1733	1033	516	...	...	134	27	23	...	...	...	...	...
Soft maple	52046	40007	9473	1696	334	132	224	81	63	22	10	6	...
Boxelder	3896	1701	1016	496	131	142	122	96	119	27	13	34	...
Sweetgum	24670	16155	4623	1781	823	446	306	259	160	61	10	41	4
Blackgum	26728	19375	4377	1292	695	278	269	160	161	38	40	43	...
White ash	21796	14755	3098	1647	926	690	246	181	139	37	31	46	...
Other ashes	22165	8421	7303	2590	2168	652	543	161	117	125	44	40	...
Sycamore	1873	419	516	239	121	233	149	26	81	16	24	39	9
Cottonwood	1865	...	...	274	631	330	198	111	30	52	53	180	6
Basswood	189	...	...	77	54	33	25	...	...	...	...	...	...
Willow	2807	516	1549	280	220	71	25	48	31	26	23	17	...
Black walnut	249	...	...	115	...	99	...	24	...	...	...	11	...
Black cherry	5392	4082	516	240	123	301	92	20	17	...	...	...	...
American elm	11664	6698	1792	1242	598	388	464	289	93	28	33	25	16
Other elms	162764	112236	32636	10583	3969	2151	602	352	98	97	11	26	4
River birch	2967	1549	468	596	157	36	...	82	50	...	...	27	...
Hackberry	27798	18658	5545	1589	860	701	80	212	76	38	38	...	...
Black locust	553	553	...	...	...	...	...	...	...	...	...	...	...
Other locusts	6017	3439	1137	475	397	339	85	87	19	40	...	...	...
Sassafras	4681	3678	553	450	...	...	...	...	...	...	...	...	...
Dogwood	36401	29992	6098	310	...	...	...	...	...	...	...	...	...
Holly	4833	4758	...	...	...	38	...	23	14	...	...	...	...
Other commercial	23505	16008	5387	1032	559	303	92	57	55	13	...	...	...
Total hardwoods	1299730	747580	317042	114376	53561	29742	15791	10582	5129	2788	1452	1580	107
Noncommercial	220514	157455	38506	13098	6182	3248	1113	572	218	83	...	39	...
All species	2179268	1259257	521126	192034	91050	52418	30198	17674	7878	3906	1754	1865	107

Table 33 - *Number of growing-stock trees on timberland by detailed species and diameter class, Southeast Oklahoma, 1986*

Species	Diameter class (inches at breast height)										
	All classes	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	107813	42565	26681	17702	11937	5731	2254	730	164	50	...
Loblolly pine	19416	14549	2244	725	716	488	216	217	79	181	...
Redcedar	2192	1220	637	173	63	86	...	13	...	...	...
Total softwoods	129420	58334	29562	18600	12716	6305	2470	959	243	231	...
Select white oaks	11312	5164	3043	1839	414	361	228	139	73	48	3
Select red oaks	5634	3075	934	673	346	292	93	82	52	82	5
Other white oaks	47344	25201	11583	5533	2304	1580	677	270	101	94	...
Other red oaks	15643	6753	3693	1904	1354	824	453	346	214	103	...
Sweet pecan	489	187	82	46	...	92	17	14	11	40	...
Water hickory	5	...	...	...	...	...	...	...	...	5	...
Other hickories	21420	11360	5642	2591	929	557	258	39	21	23	...
Persimmon	377	351	...	...	25	...	...	...	...	...	...
Hard maple	42	...	...	42	...	...	...	...	...	...	...
Soft maple	1075	793	215	46	...	21	...	...	...	...	...
Boxelder	373	202	64	53	...	36	18	...	...	...	...
Sweetgum	2489	1066	416	363	255	222	95	48	...	24	...
Blackgum	1264	424	395	170	89	116	47	12	10	...	...
White ash	1756	634	435	336	146	115	63	12	10	6	...
Other ashes	4105	1750	1381	343	359	71	51	111	21	16	...
Sycamore	592	89	51	233	88	26	65	16	24	...	...
Cottonwood	1766	184	631	330	198	111	30	52	53	173	4
Basswood	54	...	54	...	...	...	...	...	...	...	...
Willow	224	155	...	30	...	...	16	13	11	...	...
Black walnut	35	...	...	...	...	24	...	...	...	11	...
Black cherry	435	112	123	130	33	20	17	...	...	...	...
American elm	1391	763	151	179	116	89	53	15	9	16	...
Other elms	7058	3753	1717	1087	284	164	32	11	11	...	...
River birch	290	135	87	...	...	37	17	...	...	14	...
Hackberry	1799	771	462	448	...	107	...	...	11	...	...
Other locusts	474	...	215	207	30	22	...	...	...	...	...
Sassafras	115	115	...	...	...	...	...	...	...	...	...
Other commercial	108	...	57	51	...	...	...	...	...	...	...
Total hardwoods	127670	63038	31432	16633	6972	4887	2230	1180	632	655	11
All species	257091	121372	60994	35233	19688	11192	4700	2139	875	886	11

Table 34 — Volume of growing-stock trees on timberland by species and diameter class, Southeast Oklahoma, 1986

Species	Diameter class (inches at breast height)										
	All classes	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	835.0	91.5	139.6	181.1	184.4	130.3	67.6	28.7	8.3	3.6	...
Loblolly pine	110.6	21.8	8.5	8.3	12.8	13.2	8.4	11.2	6.4	19.9	...
Redcedar	9.6	2.6	2.3	1.8	0.9	1.6	...	0.5	...	...	...
Total softwoods	955.2	116.0	150.4	191.2	198.1	145.0	76.0	40.4	14.7	23.4	...
Select white oaks	77.3	13.9	15.4	17.5	6.5	8.1	5.1	5.3	2.8	2.5	0.2
Select red oaks	38.7	7.2	4.6	4.9	4.2	5.4	3.0	2.0	2.2	4.7	0.4
Other white oaks	214.5	49.1	48.1	39.9	26.2	23.8	13.8	7.1	3.1	3.5	...
Other red oaks	124.8	13.5	16.8	16.2	19.7	17.6	11.8	12.6	10.5	6.1	...
Sweet pecan	6.9	0.3	0.3	0.3	...	1.8	0.6	0.5	0.4	2.7	...
Water hickory	0.5	...	...	...	...	...	...	...	...	0.5	...
Other hickories	95.1	19.4	23.3	19.9	10.9	10.7	6.8	1.1	1.1	1.8	...
Persimmon	1.0	0.6	...	...	0.4	...	...	...	...	...	...
Hard maple	0.4	...	...	0.4	...	...	...	...	...	...	...
Soft maple	3.3	1.7	1.1	0.3	...	0.3	...	...	...	...	...
Boxelder	2.3	0.5	0.3	0.3	...	0.8	0.4	...	...	...	...
Sweetgum	24.0	2.1	2.3	3.2	4.9	5.2	3.2	1.5	...	1.7	...
Blackgum	9.3	1.0	1.6	1.2	1.0	2.3	1.4	0.2	0.6	...	...
White ash	12.2	1.2	1.9	2.9	1.8	2.0	1.4	0.2	0.5	0.2	...
Other ashes	28.7	4.6	8.1	3.5	4.9	1.3	1.1	3.3	0.8	1.2	...
Sycamore	9.9	0.5	0.4	2.6	1.6	0.7	2.2	0.6	1.4	...	...
Cottonwood	40.2	0.5	3.2	3.2	3.3	2.7	1.3	3.0	4.7	17.9	0.6
Basswood	0.2	...	0.2	...	...	...	...	...	...	...	...
Willow	1.5	0.2	...	0.2	...	...	0.4	0.3	0.4	...	...
Black walnut	0.8	...	...	...	...	0.4	...	...	...	0.4	...
Black cherry	2.9	0.3	0.6	0.9	0.4	0.4	0.4	...	...	...	...
American elm	9.5	1.4	0.5	1.7	1.3	1.7	1.3	0.4	0.6	0.7	...
Other elms	31.4	7.6	7.4	8.1	3.2	3.5	0.8	0.5	0.3	...	...
River birch	2.5	0.2	0.4	...	...	0.9	0.4	...	...	0.6	...
Hackberry	8.3	1.2	1.8	2.7	...	2.3	...	...	0.3	...	...
Other locusts	3.5	...	1.1	1.7	0.4	0.4	...	...	...	...	...
Sassafras	0.2	0.2	...	...	...	...	...	...	...	...	...
Other commercial	0.4	...	0.2	0.3	...	...	...	...	...	...	...
Total hardwoods	750.3	126.9	139.4	131.7	90.6	92.2	55.3	38.5	29.8	44.6	1.3
All species	1705.5	242.9	289.8	322.9	288.6	237.2	131.4	78.9	44.5	68.0	1.3

Table 35 — Volume of growing stock in the saw log portion of sawtimber trees on timberland by detailed species and diameter class, Southeast Oklahoma, 1986

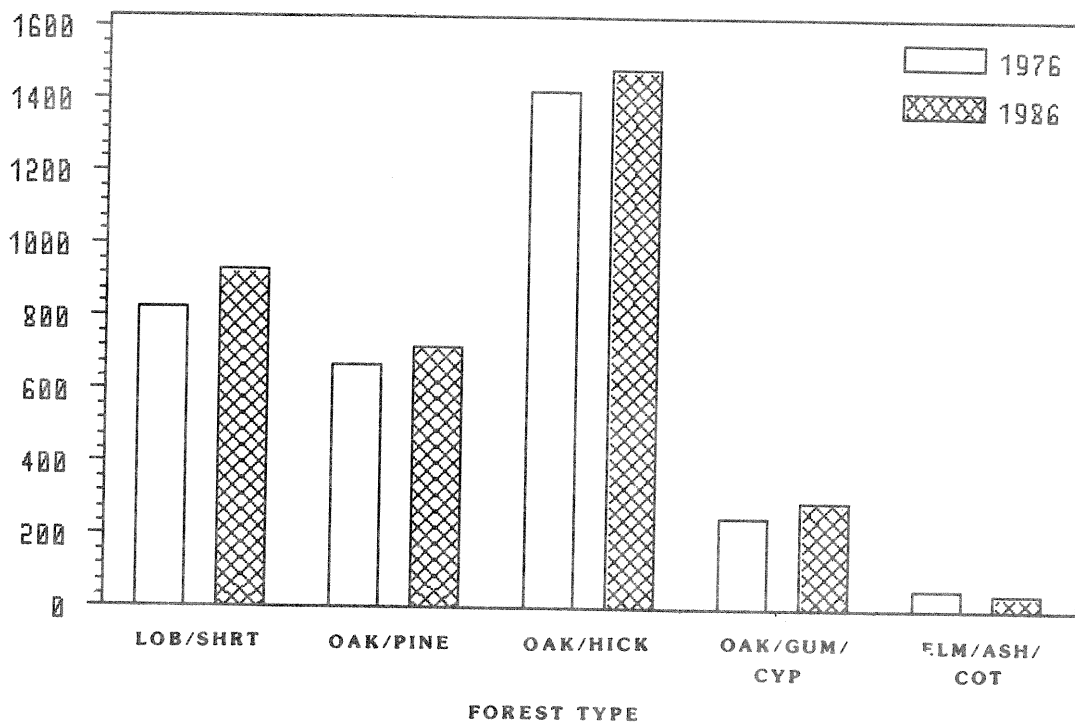
Species	Diameter class (inches at breast height)								
	All classes	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
----- Million cubic feet -----									
Shortleaf pine	539.7	152.0	167.3	120.1	62.3	26.6	7.9	3.5	...
Loblolly pine	74.7	6.9	11.4	12.3	8.0	10.9	6.2	19.0	...
Redcedar	4.0	1.4	0.7	1.5	...	0.4	...	...	...
Total softwoods	618.5	160.4	179.4	133.9	70.4	37.9	14.1	22.5	...
Select white oaks	26.4	...	5.2	6.9	4.6	4.8	2.4	2.2	0.2
Select red oaks	20.1	...	3.6	4.8	2.8	1.8	2.0	4.6	0.4
Other white oaks	70.2	...	23.5	21.7	12.6	6.4	2.8	3.2	...
Other red oaks	66.7	...	14.7	15.6	10.2	11.1	9.7	5.3	...
Sweet pecan	4.9	...	...	1.6	0.4	0.4	0.4	2.1	...
Water hickory	0.5	...	...	...	...	...	...	0.5	...
Other hickories	27.5	...	8.9	9.2	5.9	0.9	0.9	1.7	...
Persimmon	0.3	...	0.3	...	...	...	...	...	...
Soft maple	0.2	...	...	0.2	...	...	...	...	...
Boxelder	1.1	...	...	0.7	0.4	...	...	...	...
Sweetgum	13.9	...	3.6	4.4	2.8	1.4	...	1.6	...
Blackgum	4.3	...	0.7	1.6	1.3	0.2	0.5	...	...
White ash	5.5	...	1.4	1.9	1.4	0.2	0.4	0.2	...
Other ashes	11.1	...	3.9	1.1	1.0	3.1	0.8	1.2	...
Sycamore	5.4	...	1.1	0.5	1.9	0.6	1.2	...	...
Cottonwood	30.3	...	2.3	2.1	0.9	2.8	4.4	17.0	0.6
Willow	0.8	...	...	...	0.3	0.2	0.3	...	...
Black walnut	0.7	...	...	0.3	...	...	...	0.4	...
Black cherry	1.0	...	0.3	0.4	0.3	...	...	...	...
American elm	5.4	...	1.3	1.6	1.1	0.4	0.6	0.5	...
Other elms	7.1	...	2.8	3.0	0.6	0.4	0.2	...	...
River birch	1.7	...	...	0.7	0.4	...	...	0.6	...
Hackberry	2.1	...	...	1.9	...	...	0.2	...	...
Other locusts	0.5	...	0.3	0.2	...	...	...	...	...
Total hardwoods	307.7	...	74.0	80.4	49.0	34.9	26.9	41.1	1.3
All species	926.1	160.4	253.5	214.3	119.3	72.8	41.1	63.6	1.3

Table 36 — *Volume of timber on timberland by species and class of timber, Southeast Oklahoma, 1986*

Species	All live	Growing stock	Rough	Rotten
----- Million cubic feet -----				
Shortleaf pine	859.4	835.0	22.6	1.7
Loblolly pine	115.1	110.6	4.5	...
Redcedar	12.9	9.6	2.9	0.3
Cypress	0.4	...	0.4	...
Total softwoods	987.7	955.2	30.4	2.1
Select white oaks	104.4	77.3	23.3	3.9
Select red oaks	55.3	38.7	13.8	2.7
Other white oaks	371.8	214.5	138.7	18.6
Other red oaks	170.1	124.8	37.7	7.7
Sweet pecan	10.7	6.9	3.2	0.6
Water hickory	0.8	0.5	...	0.3
Other hickories	154.4	95.1	52.4	6.9
Persimmon	2.1	1.0	1.0	...
Hard maple	1.1	0.4	0.4	0.4
Soft maple	9.6	3.3	4.8	1.5
Boxelder	9.3	2.3	6.3	0.7
Sweetgum	31.1	24.0	5.0	2.1
Blackgum	16.8	9.3	4.8	2.8
White ash	21.7	12.2	9.4	...
Other ashes	41.4	28.7	11.4	1.4
Sycamore	14.5	9.9	3.9	0.7
Cottonwood	41.0	40.2	0.3	0.4
Basswood	0.7	0.2	0.3	0.3
Willow	4.9	1.5	3.2	0.2
Black walnut	1.3	0.8	0.5	...
Black cherry	4.6	2.9	1.1	0.6
American elm	20.5	9.5	9.2	1.8
Other elms	59.4	31.4	27.2	0.8
River birch	5.6	2.5	2.5	0.6
Hackberry	16.5	8.3	7.1	1.2
Other locusts	7.9	3.5	3.7	0.6
Sassafras	0.2	0.2	...	...
Dogwood	0.2	...	0.2	...
Holly	0.4	...	0.2	0.2
Other commercial	4.3	0.4	3.5	0.4
Total hardwoods	1182.7	750.3	375.1	57.3
Noncommercial	62.2	...	62.2	...
All species	2232.6	1705.5	467.8	59.4

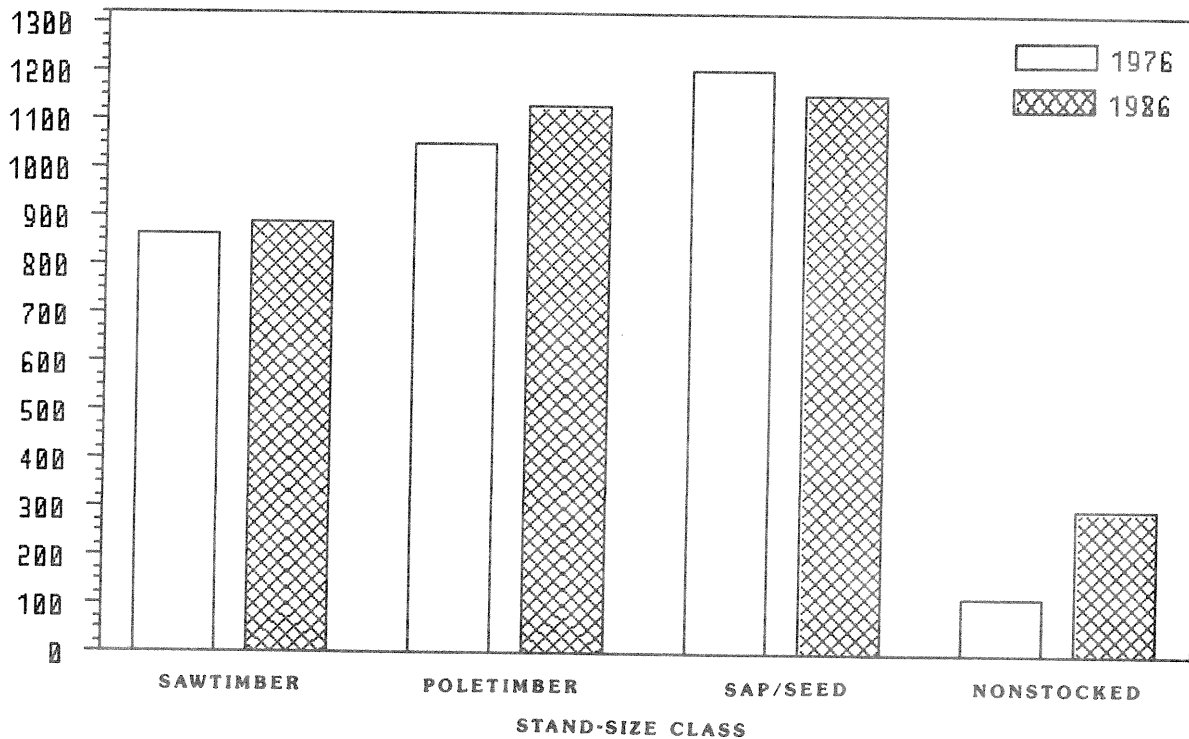
AREA OF TIMBERLAND BY FOREST TYPE SOUTHEAST OKLAHOMA 1976 AND 1986

THOUSAND ACRES



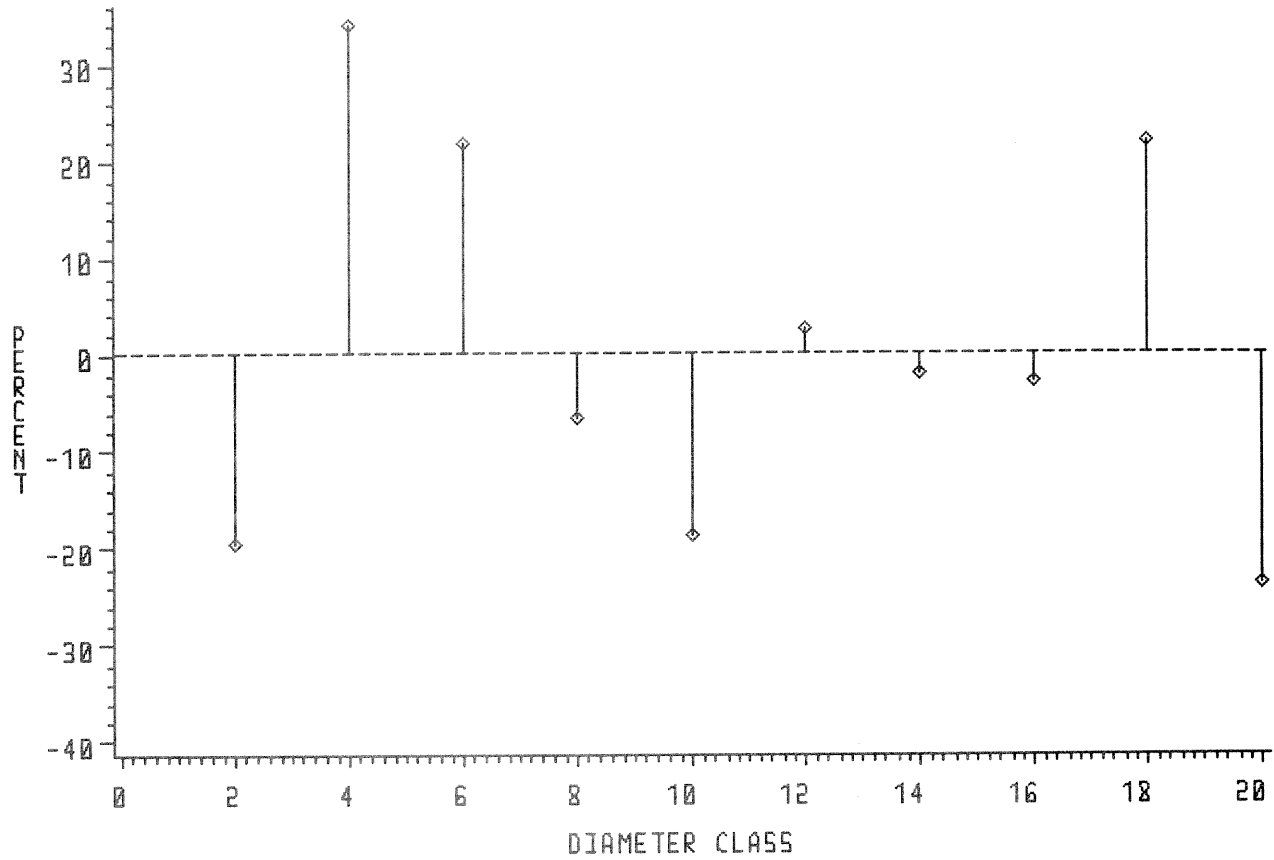
AREA OF TIMBERLAND BY STAND-SIZE CLASS SOUTHEAST OKLAHOMA 1976 AND 1986

THOUSAND ACRES



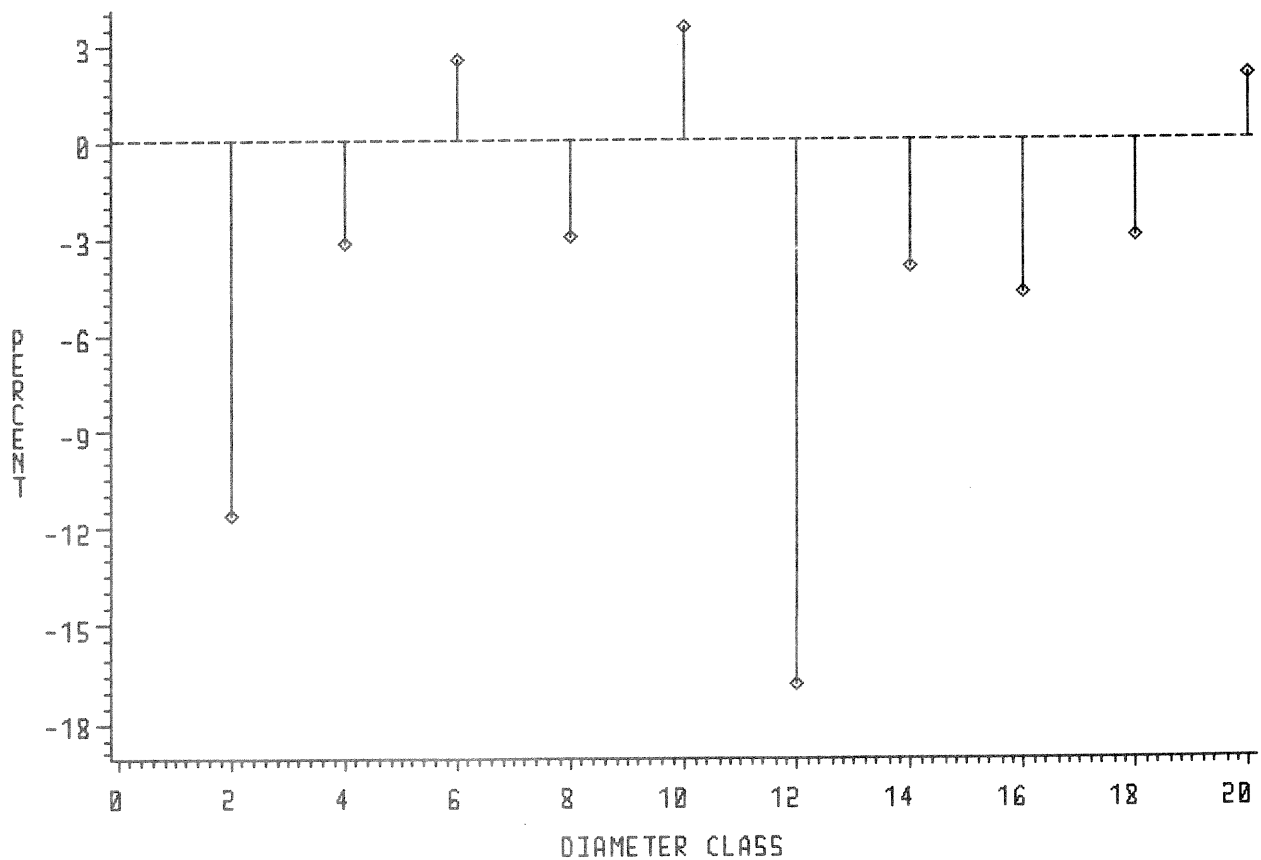
CHANGE IN NUMBER OF LIVE SOFTWOOD TREES

SOUTHEAST OKLAHOMA 1976 TO 1986

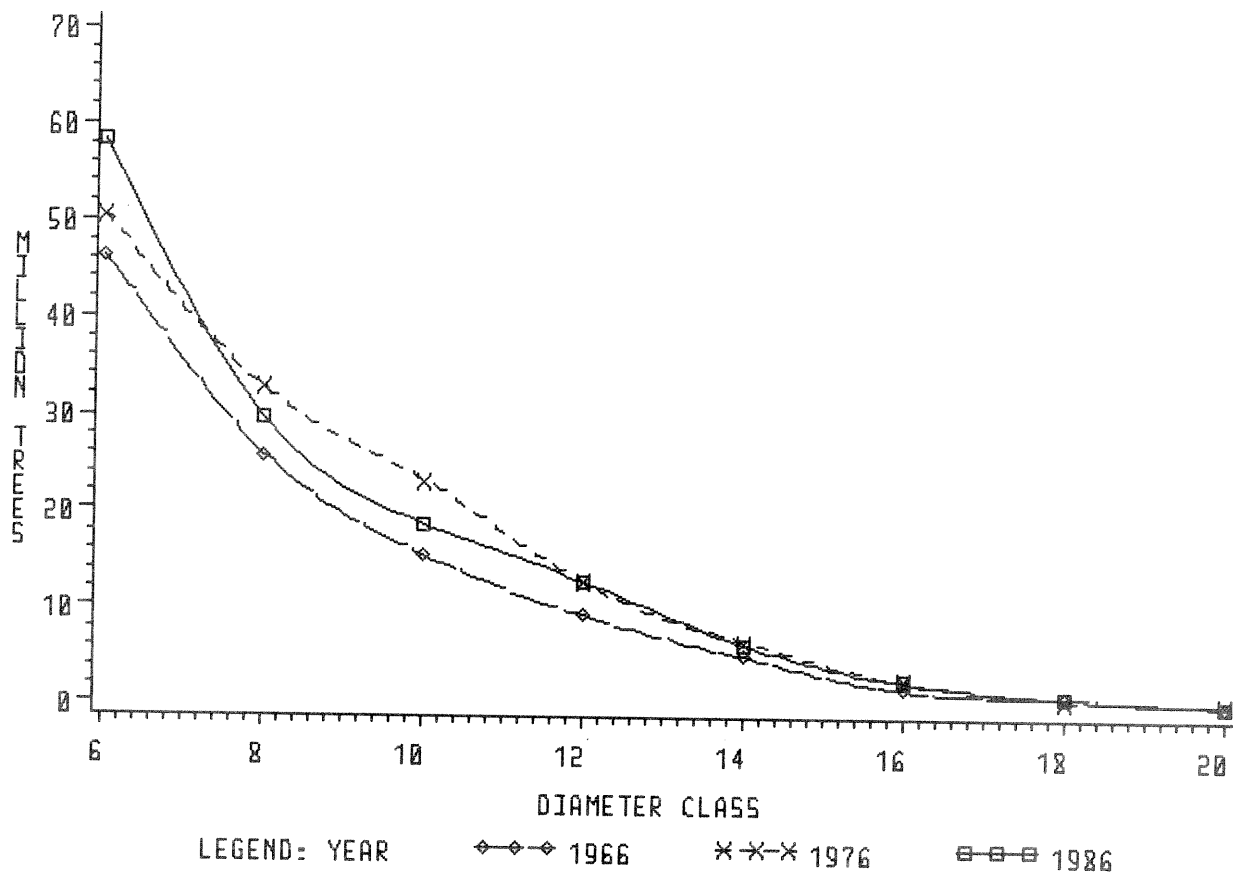


CHANGE IN NUMBER OF LIVE HARDWOOD TREES

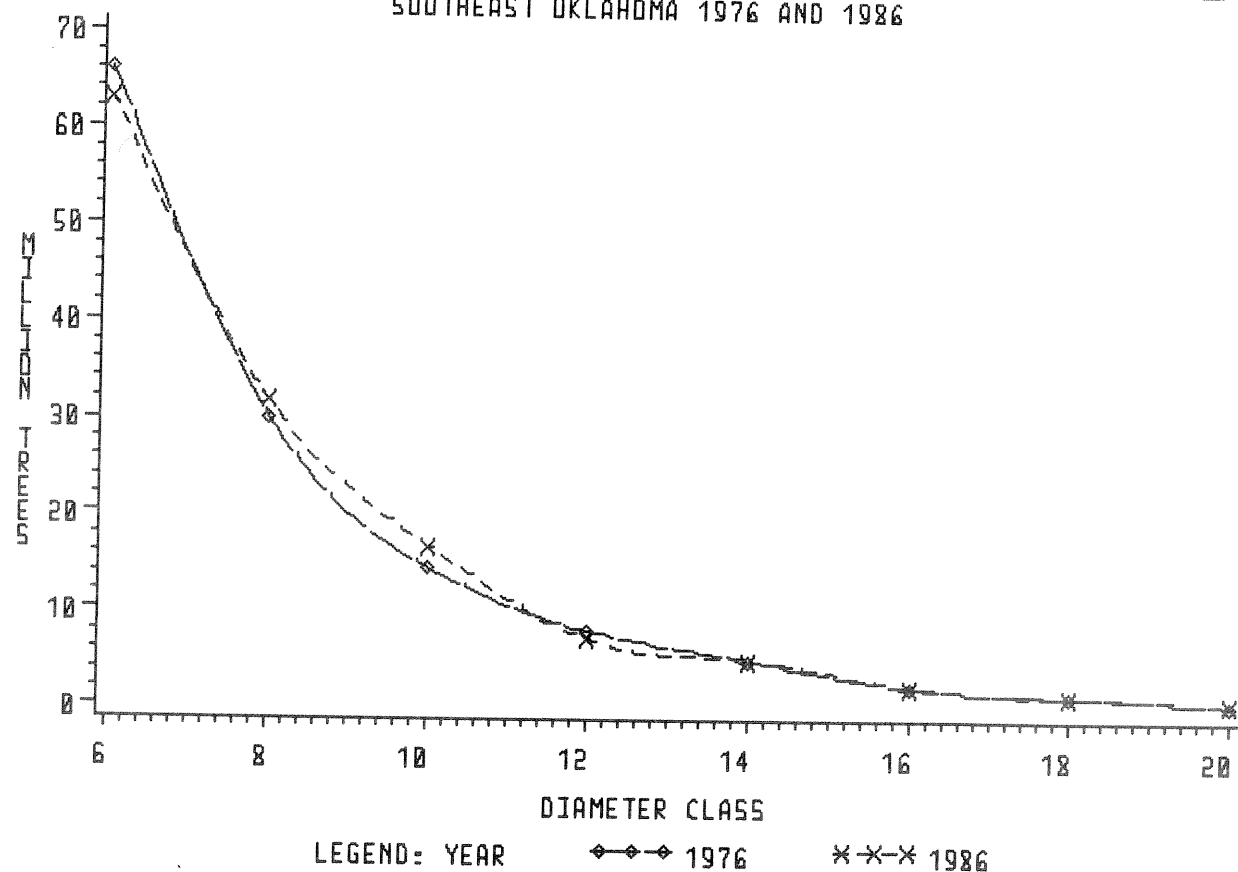
SOUTHEAST OKLAHOMA 1976 TO 1986



NUMBER OF SOFTWOOD GROWING STOCK TREES BY DBH CLASS SOUTHEAST OKLAHOMA 1966, 1976, AND 1986

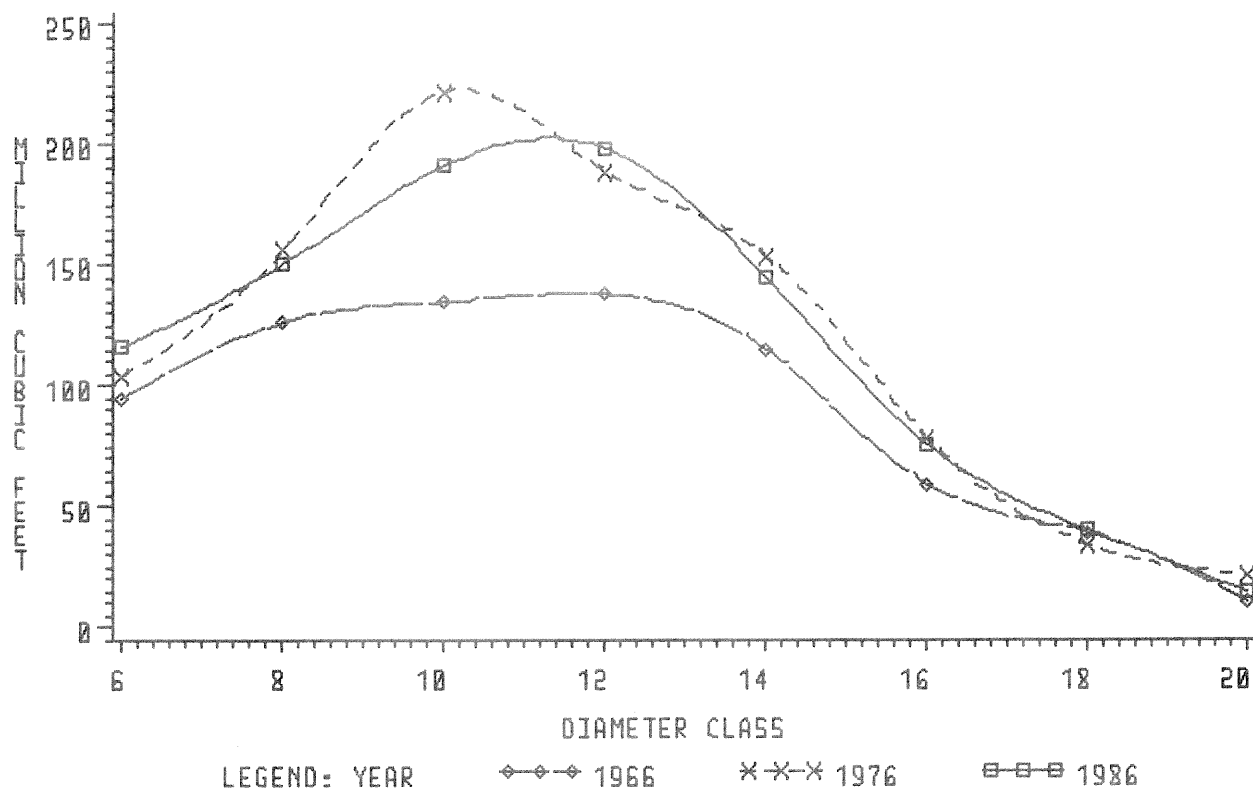


NUMBER OF HARDWOOD GROWING STOCK TREES BY DBH CLASS SOUTHEAST OKLAHOMA 1976 AND 1986



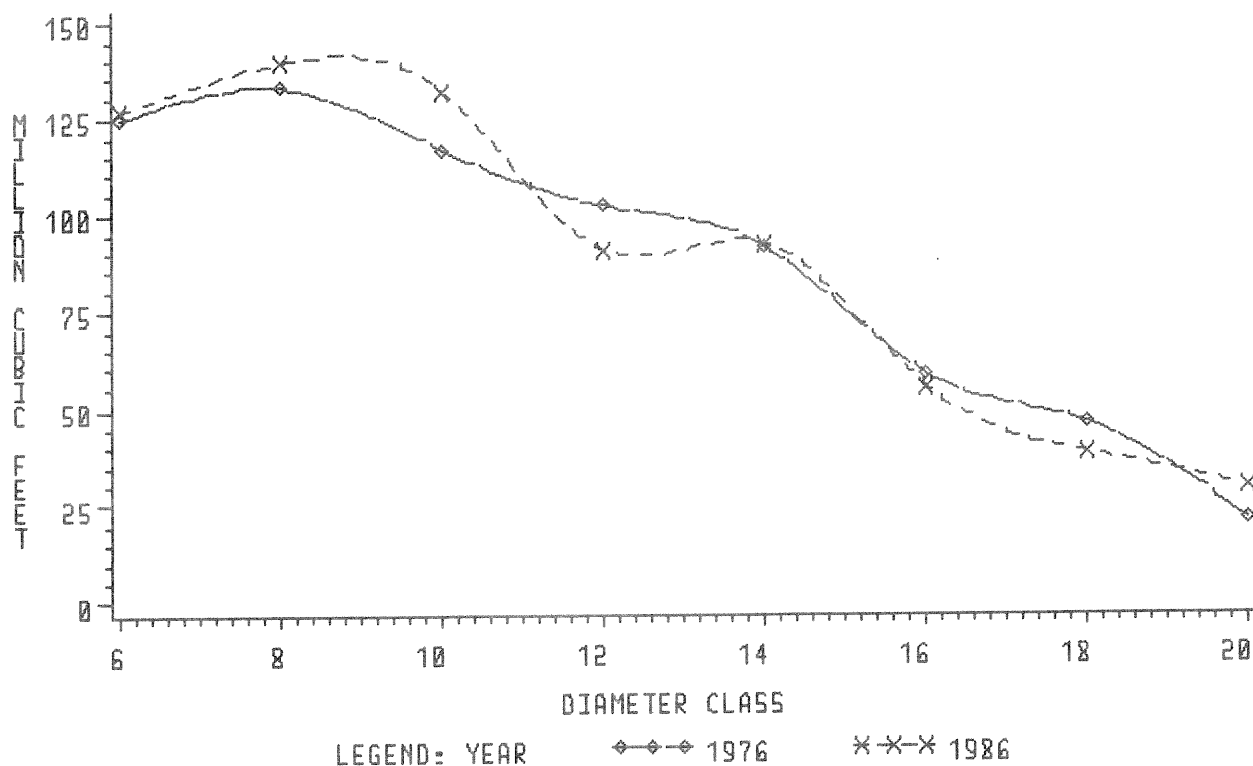
SOFTWOOD GROWING STOCK VOLUME BY DBH CLASS

SOUTHEAST OKLAHOMA 1966, 1976 AND 1986



HARDWOOD GROWING STOCK VOLUME BY DBH CLASS

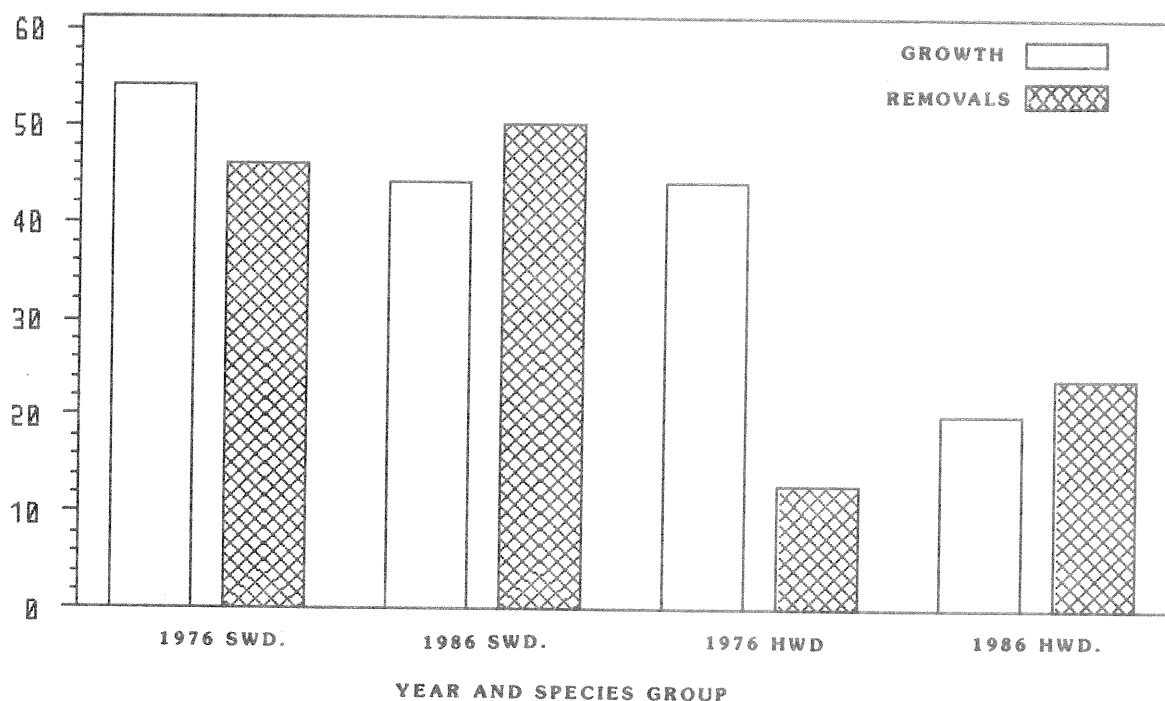
SOUTHEAST OKLAHOMA 1976 AND 1986



GROWTH AND REMOVALS BY SPECIES GROUP

SOUTHEAST OKLAHOMA 1976 AND 1986

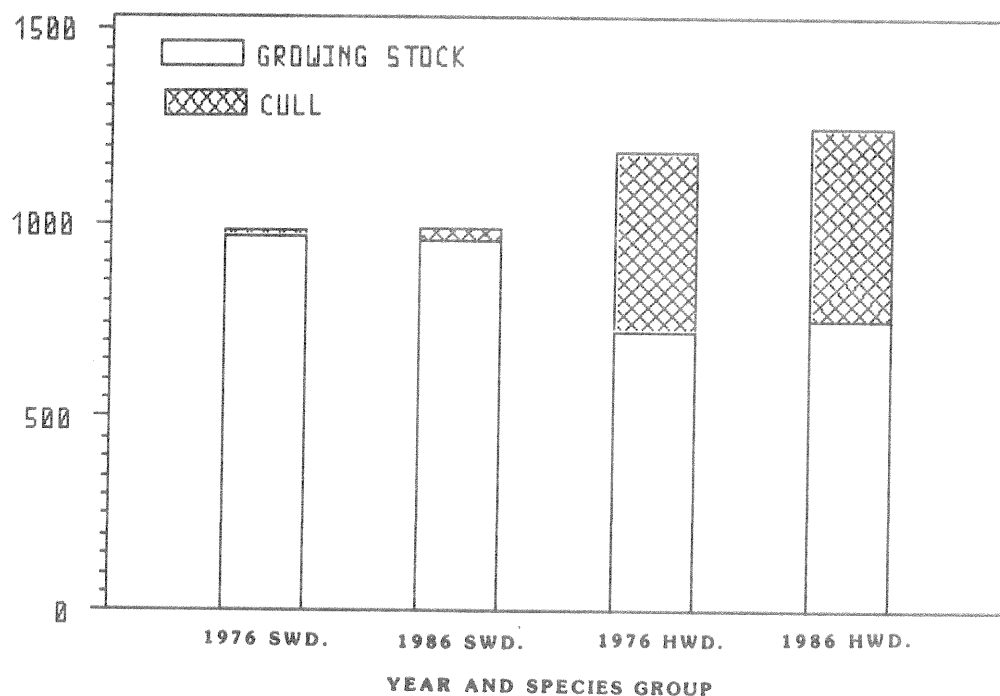
MILLION CUBIC FEET



TIMBER VOLUME BY TREE CLASS AND SPECIES

SOUTHEAST OKLAHOMA 1976 AND 1986

MILLION CUBIC FEET



Birdsey, Richard A. and Bertelson, Daniel F. Forest statistics for Southeast Oklahoma counties - 1986. Resour. Bull. SO- 119. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1987. 30p.

Tabulates forest resource information from a new inventory of the Southeast Unit of Oklahoma.

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

