



United States
Department of
Agriculture

Forest Service

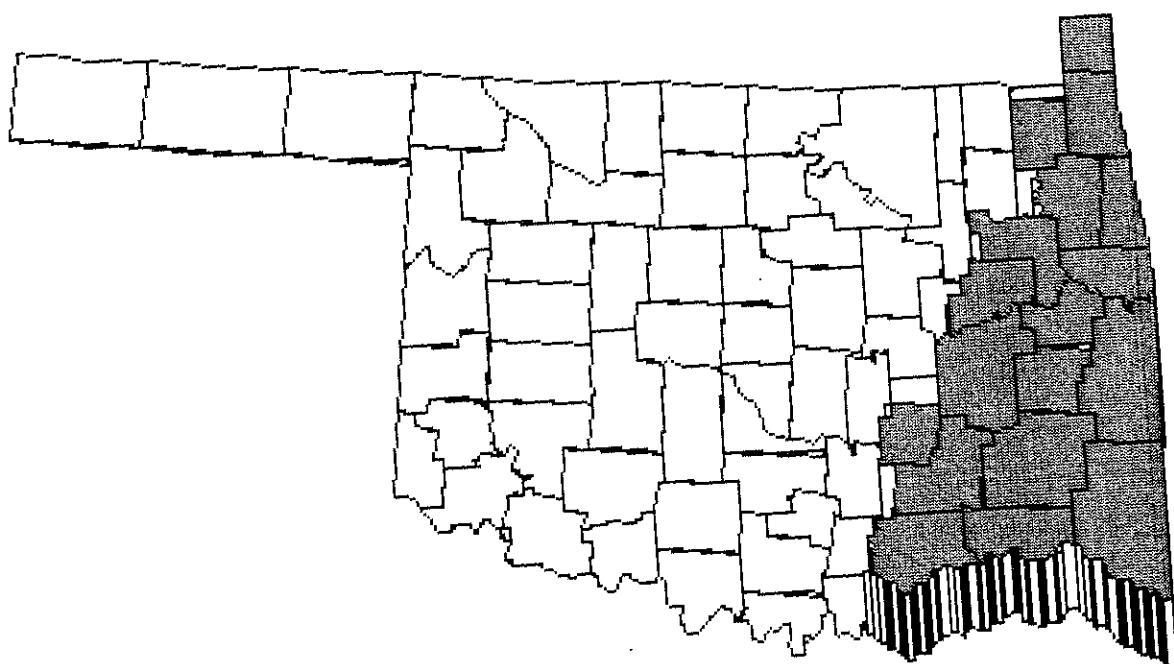
Southern Forest
Experiment Station

New Orleans,
Louisiana

Resource Bulletin
SO-121
January 1987

Forest Statistics for East Oklahoma Counties - 1986

Franklin D. Hines 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.

Forest Statistics for East Oklahoma Counties - 1986

Franklin D. Hines and Daniel F. Bertelson

INTRODUCTION

These tables were derived from data obtained during a 1986 inventory of east Oklahoma (fig. 1). 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, East Oklahoma, 1986

County	Timberland	Growing stock			Sawtimber volume
		Volume	Growth	Removals	
<i>Percent</i>					
Adair	2.6	11.5	13.5	40.7	14.4
Atoka ³	2.6	14.7	22.7	21.0	18.8
Bryan	1.7	19.9	2	35.9	23.1
Cherokee	3.1	22.2	15.5	19.0	25.1
Choctaw	2.7	13.9	19.5	15.6	17.6
Delaware ⁴	2.1	10.7	24.3	22.9	13.6
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
McCurta	0.9	8.7	9.8	9.4	11.2
McIntosh	3.8	36.5	41.0	26.5	44.6
Mayes	2.2	26.3	2	...	29.1
Muskogee	3.5	18.7	15.2	48.6	23.7
Pittsburg	4.8	20.9	2	2	24.3
Pushmataha	1.6	6.3	8.8	13.2	8.3
Sequoyah	3.8	14.0	24.4	2	19.2
All counties	0.7	4.3	5.2	7.2	5.5

¹ By random-sampling formula.

² Sampling error greater than 50.

³ Coal included in Atoka.

⁴ Ottawa included in Delaware.

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 inter-survey 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 dia-

meter 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.

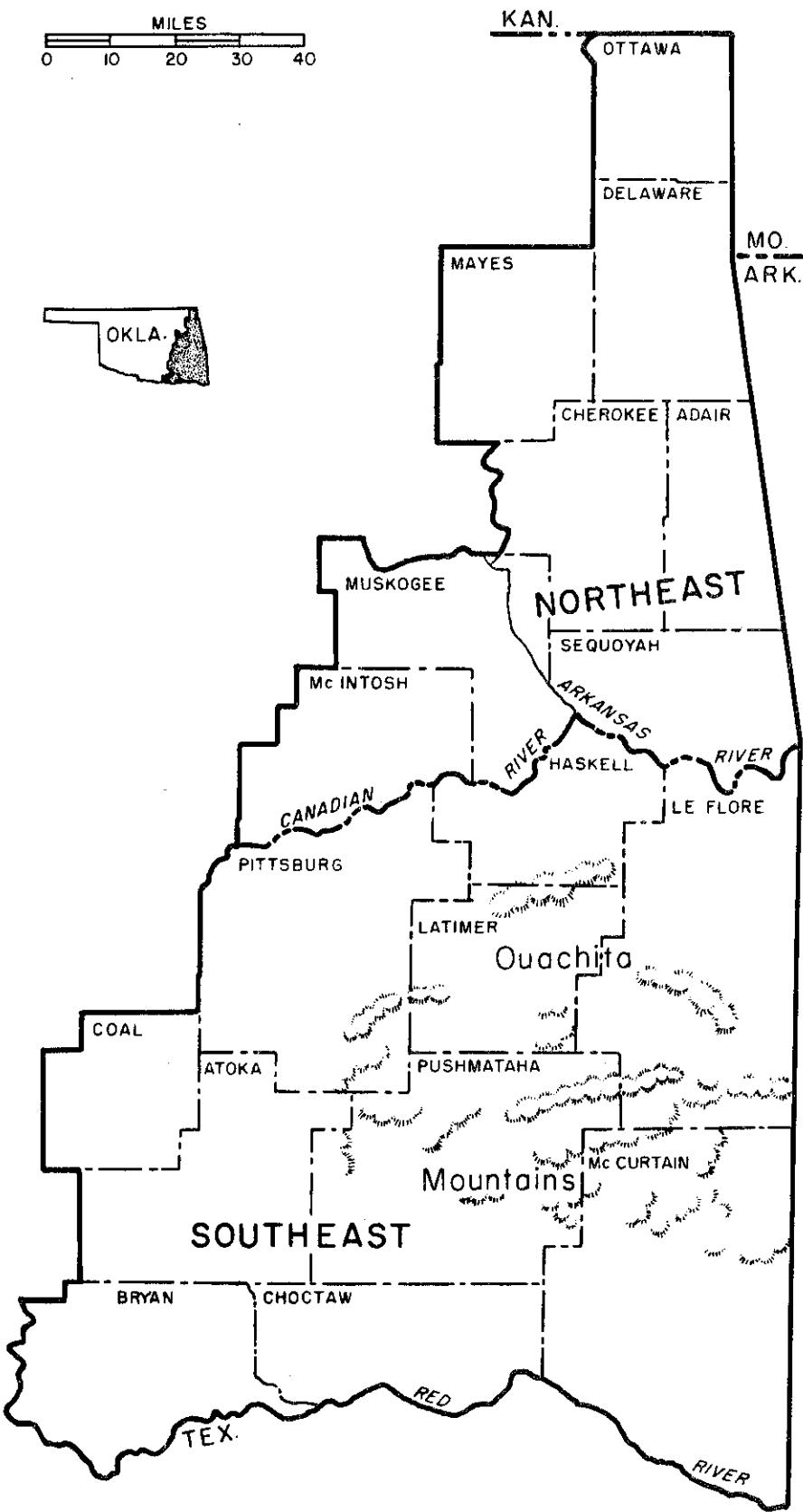
Site class. — A classification of forest land in terms of inherent capacity to grow crops of industrial wood.

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.

Tree grade. — A classification of the volume of the saw-log portion of sawtimber trees, based on the log grade of the butt log.

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, East Oklahoma, 1986*

County	All land ¹	Forest land				Nonforest land
		Total	Timberland ²	Woodland ³	Reserved timberland	
<i>Thousand acres</i>						
Adair	369.1	205.6	205.6	...	...	163.5
Atoka ⁴	967.2	390.6	318.1	63.6	8.9	576.6
Bryan	603.2	134.6	134.6	...	...	468.5
Cherokee	497.2	277.3	257.9	19.3	...	220.0
Choctaw	512.1	178.1	164.4	13.7	...	334.0
Coal ⁴	...	...	...	...	...	...
Delaware ⁵	816.5	270.2	270.2	...	...	546.3
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
McIntosh	455.4	114.6	82.7	31.8	...	340.8
Mayes	437.3	130.5	130.5	...	...	306.8
Muskogee	535.9	138.4	102.5	35.9	...	397.6
Ottawa ⁵	...	...	...	...	...	...
Pittsburg	882.4	395.7	177.4	218.3	...	486.7
Pushmataha	910.8	722.0	710.1	11.9	...	188.8
Sequoyah	457.7	247.8	216.8	31.0	...	210.0
All counties	10557.3	5256.4	4747.5	485.9	23.0	5301.0

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.

⁵ Ottawa included in Delaware.

Table 2 - Area of timberland by county and ownership class, East Oklahoma, 1986

County	All ownerships	National forest	Misc. federal	State	County and municipal	Forest industry ¹	Farmer	Corporate ²	Individual ²
- Thousand acres -									
Adair	205.6	...	...	...	...	...	118.4	24.9	62.3
Atoka ³	318.1	...	12.7	6.4	...	...	171.8	6.4	120.9
Bryan	134.6	...	7.1	...	...	...	106.3	...	21.3
Cherokee	257.9	...	19.3	32.2	...	...	154.8	...	51.6
Choctaw	164.4	...	13.7	...	...	...	77.6	4.6	68.5
Delaware ⁴	270.2	...	...	6.6	6.6	...	98.9	52.7	105.5
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
McIntosh	82.7	...	12.7	...	...	...	25.5	6.4	38.2
Mayes	130.5	...	20.6	6.9	...	...	27.5	13.7	61.8
Muskogee	102.5	...	35.9	...	...	...	20.5	10.2	35.9
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
Sequoyah	216.8	...	24.8	...	...	...	86.7	24.8	80.5
All counties	4747.5	242.6	221.4	114.7	6.6	1051.6	1295.6	216.4	1598.6

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.

⁴ Ottawa included in Delaware.

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

County	Total	Forest type group					
		Loblolly-shortleaf pine		Oak- pine	Oak- hickory	Oak-gum- cypress	Elm-ash- cottonwood
		Planted	Natural				
- Thousand acres -							
Adair	205.6	...	12.5	6.2	186.9	...	...
Atoka ¹	318.1	...	57.3	19.1	140.0	76.3	25.4
Bryan	134.6	...	...	...	113.4	21.3	...
Cherokee	257.9	...	6.4	12.9	225.7	6.4	6.4
Choctaw	164.4	...	13.7	18.3	109.6	22.8	...
Delaware ²	270.2	...	...	6.6	257.0	6.6	...
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	...
McIntosh	82.7	...	...	...	63.6	6.4	12.7
Mayes	130.5	...	6.9	...	109.9	13.7	...
Muskogee	102.5	...	...	...	87.1	15.4	...
Pittsburg	177.4	...	20.5	20.5	95.5	40.9	...
Pushmataha	710.1	47.7	244.6	190.9	214.8	11.9	...
Sequoyah	216.8	...	...	12.4	179.6	12.4	12.4
All counties	4747.5	264.2	691.8	757.3	2597.1	358.8	78.4

¹ Coal included in Atoka.

² Ottawa included in Delaware.

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

County	All classes	Stand-size class			
		Sawtimber	Poletimber	Sapling-seedling	Nonstocked areas ¹
----- Thousand acres -----					
Adair	205.6	87.2	99.7	12.5	6.2
Atoka ²	318.1	76.3	114.5	101.8	25.4
Bryan	134.6	28.3	35.4	56.7	14.2
Cherokee	257.9	70.9	129.0	51.6	6.4
Choctaw	164.4	45.7	50.2	50.2	18.3
Delaware ³	270.2	33.0	105.5	85.7	46.1
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
McIntosh	82.7	12.7	6.4	57.3	6.4
Mayes	130.5	27.5	34.3	27.5	41.2
Muskogee	102.5	20.5	56.4	...	25.6
Pittsburg	177.4	34.1	40.9	54.6	47.8
Pushmataha	710.1	202.9	220.8	262.5	23.9
Sequoyah	216.8	24.8	99.1	49.6	43.4
All counties	4747.5	1169.6	1661.3	1440.0	476.6

¹ Timberland less than 16.7 percent stocked.

² Coal included in Atoka.

³ Ottawa included in Delaware.

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

County	All classes	Site class (cubic feet/acre/year)				
		>165	120-165	85-120	50-85	<50
----- Thousand acres -----						
Adair	205.6	...	...	...	124.6	81.0
Atoka ¹	318.1	...	...	12.7	165.4	140.0
Bryan	134.6	...	7.1	...	42.5	85.0
Cherokee	257.9	...	6.4	19.3	103.2	129.0
Choctaw	164.4	...	...	18.3	68.5	77.6
Delaware ²	270.2	...	...	6.6	118.6	145.0
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
McIntosh	82.7	...	...	...	38.2	44.5
Mayes	130.5	...	...	6.9	48.1	75.6
Muskogee	102.5	...	...	5.1	35.9	61.5
Pittsburg	177.4	...	...	6.8	81.9	88.7
Pushmataha	710.1	...	6.0	71.6	411.7	220.8
Sequoyah	216.8	...	...	18.6	86.7	111.5
All counties	4747.5	16.4	127.1	386.6	2359.8	1857.6

¹ Coal included in Atoka.

² Ottawa included in Delaware.

Table 6 - Area of timberland by county and stocking classes of growing-stock trees, East Oklahoma, 1986

County	All classes	Stocking class (percent)				
		>130	100-130	60-100	16.7-60	<16.7
- Thousand acres -						
Adair	205.6	...	...	81.0	118.4	6.2
Atoka ¹	318.1	...	6.4	76.3	209.9	25.4
Bryan	134.6	...	7.1	14.2	99.2	14.2
Cherokee	257.9	...	12.9	103.2	135.4	6.4
Choctaw	164.4	...	4.6	22.8	118.7	18.3
Delaware ²	270.2	...	...	19.8	204.3	46.1
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
McIntosh	82.7	...	...	25.5	50.9	6.4
Mayes	130.5	...	...	...	89.3	41.2
Muskogee	102.5	...	...	25.6	51.2	25.6
Pittsburg	177.4	...	...	13.6	116.0	47.8
Pushmataha	710.1	6.0	83.5	340.1	256.6	23.9
Sequoyah	216.8	...	...	31.0	142.5	43.4
All counties	4747.5	41.0	294.8	1548.2	2387.0	476.6

¹ Coal included in Atoka.

² Ottawa included in Delaware.

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

Forest type ¹	All ownerships	National forest	Other public	Forest industry	Forest industry-leased		Other private
					- Thousand acres -		
Loblolly-shortleaf pine							
Loblolly-shortleaf pine	956.0	106.2	42.2	492.6	...	...	314.9
Softwood total	956.0	106.2	42.2	492.6	...	...	314.9
Oak-pine							
Oak-pine	757.3	60.0	36.5	294.9	...	...	365.9
Oak-hickory	2597.1	65.2	189.2	235.7	5.6	2101.5	
Oak-gum-cypress	358.8	11.3	45.6	22.9	...	...	279.0
Elm-ash-cottonwood	78.4	...	29.1	...	...	...	49.2
Hardwood total	3791.5	136.4	300.4	553.4	5.6	2795.6	
All types	4747.5	242.6	342.7	1046.0	5.6	3110.6	

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, East 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	342.7	...	22.0	85.2	217.1	18.4
Forest industry	1046.0	17.2	145.2	543.3	305.7	34.5
Forest industry-leased	5.6	5.6	...	...	...	...
Other private	3110.6	6.0	86.5	790.2	1804.2	423.6
All ownerships	4747.5	41.0	294.8	1548.2	2387.0	476.6

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

Forest type ¹	All classes	Stand-size class			
		Sawtimber	Poletimber	Sapling-seedling	Nonstocked areas
----- Thousand acres -----					
Loblolly-shortleaf pine	956.0	411.9	231.6	312.5	...
Softwood total	956.0	411.9	231.6	312.5	...
Oak-pine	757.3	225.5	225.6	300.1	6.0
Oak-hickory	2597.1	370.9	1087.5	726.8	412.0
Oak-gum-cypress	358.8	137.1	99.1	64.0	58.6
Elm-ash-cottonwood	78.4	24.3	17.5	36.6	...
Hardwood total	3791.5	757.7	1429.7	1127.5	476.6
All types	4747.5	1169.6	1661.3	1440.0	476.6

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, East Oklahoma, 1986

Species	All classes	Diameter class (inches at breast height)											
		1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
----- Thousand trees -----													
Shortleaf-loblolly pine	649464	344058	164456	64138	31706	20113	14035	6735	2658	1025	294	246	...
Cypress	89	...	...	...	77	...	...	...	...	12	...	...	...
Other softwoods	39726	28509	7009	2373	1188	410	82	105	15	27	8	...	...
Total softwoods	689279	372567	171465	66511	32971	20523	14117	6840	2673	1064	302	246	...
Select white oaks	110578	57040	28640	10836	5531	3952	1673	1241	800	407	237	208	15
Select red oaks	42876	19483	8491	6243	2990	2083	1476	753	446	414	183	244	71
Other white oaks	487613	226896	144162	53732	28116	14871	8811	5880	2574	1225	663	683	...
Other red oaks	213859	114244	48030	17406	11696	8167	5271	3653	2264	1459	739	880	48
Hickory	334551	201469	73437	30600	14850	7341	3318	2000	840	379	127	169	19
Hard maple	4786	3493	516	185	165	215	54	131	18	...	...	8	...
Soft maple	65093	48064	12120	2604	620	436	471	291	256	64	90	57	19
Sweetgum	24670	16155	4823	1781	823	446	306	259	160	61	10	41	4
Tupelo-blackgum	33739	24134	5585	1707	913	363	359	297	231	38	63	49	...
Ash	55619	30322	10985	6054	3835	1906	1182	506	397	214	96	118	4
Cottonwood-aspen	10099	7383	568	541	631	330	198	111	30	52	63	186	6
Basswood	189	...	...	77	54	33	25	...	...	...	...	...	...
Black walnut	7743	4202	2416	350	125	342	83	134	15	14	40	18	4
Other hardwoods	490924	356091	83291	28053	10632	6680	2694	1735	862	336	250	246	53
Total hardwoods	1882340	1108976	422866	160170	80982	47167	25921	16992	8893	4663	2560	2909	242
Noncommercial	303375	205605	57156	19419	10582	6279	2013	1265	584	333	88	49	...
All species	2874993	1687148	651487	246101	124535	73969	42051	25097	12150	6061	2950	3204	242

Table 11 – Number of growing-stock trees on timberland by species and diameter class, East 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	459634	190883	137034	58194	30062	19429	13444	6539	2613	962	243	231	...	...
Other softwoods	35676	26416	6590	1534	802	173	63	86	...	13	...	...	...	...
Total softwoods	495310	217299	143624	59728	30864	19602	13507	6625	2613	975	243	231	...	...
Select white oaks	49126	17892	14431	7394	4427	2762	945	572	353	191	73	83	3	3
Select red oaks	18704	3312	5695	3954	2051	1620	861	495	251	204	85	138	39	39
Other white oaks	182635	43221	71081	34763	18266	8163	3429	2160	970	340	123	118	...	...
Other red oaks	100820	38947	27396	11982	9291	5584	3106	2128	1106	693	351	225	10	10
Hickory	100934	39206	29644	16961	7926	3888	1644	1012	418	110	32	89	3	3
Hard maple	114	...	...	...	...	42	27	45	...	...	...	...	...	...
Soft maple	12545	6544	4144	996	348	221	94	81	57	...	59	...	...	...
Sweetgum	10697	5724	2484	1066	416	363	255	222	95	48	...	24	...	...
Tupelo-blackgum	8505	3803	2774	675	467	214	179	232	116	12	33	...	...	...
Ash	20851	6965	6530	2938	2152	890	641	306	204	149	52	23	...	...
Cottonwood-aspen	2611	568	...	451	631	330	198	111	30	52	63	173	4	4
Basswood	54	...	...	...	54	...	...	...	...	...	...	...	...	...
Black walnut	249	...	...	...	73	37	33	49	15	14	11	18	...	...
Other hardwoods	73174	33623	19497	9761	4320	3535	1110	697	385	55	120	65	5	5
Total hardwoods	581019	199805	183677	90942	50421	27650	12521	8111	4002	1868	1002	956	63	63
All species	1076329	417104	327301	150670	81285	47252	26028	14736	6615	2843	1245	1187	63	63

Table 12 - Volume of growing stock on timberland by species and diameter class, East 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	986.6	116.5	154.0	199.6	208.6	149.8	79.7	40.3	14.7	23.4	...
Other softwoods	10.8	3.1	3.0	1.8	0.9	1.6	...	0.5	...	...	...
Total softwoods	997.4	119.6	157.0	201.3	209.5	151.4	79.7	40.8	14.7	23.4	...
Select white oaks	115.8	19.5	22.4	25.6	13.7	12.5	8.0	6.7	2.8	4.4	0.2
Select red oaks	88.5	8.9	10.4	14.4	12.2	9.8	7.5	6.7	4.1	8.6	6.0
Other white oaks	310.6	68.7	75.6	59.0	37.8	33.1	19.5	8.6	3.7	4.6	...
Other red oaks	272.3	24.5	42.5	45.7	42.0	40.0	27.0	22.6	15.3	11.9	0.9
Hickory	156.5	29.9	34.0	29.9	20.3	19.7	10.4	3.6	1.5	6.6	0.5
Hard maple	1.5	...	...	0.4	0.4	0.7	...	...	...	...	...
Soft maple	14.3	2.1	1.6	2.1	1.5	1.8	1.6	...	3.5	...	...
Sweetgum	24.0	2.1	2.3	3.2	4.9	5.2	3.2	1.5	...	1.7	...
Tupelo-blackgum	16.9	1.6	1.9	1.5	2.1	4.5	3.4	0.2	1.7	...	...
Ash	54.9	7.9	11.4	8.2	8.4	5.7	5.2	4.5	2.1	1.4	...
Cottonwood-aspen	40.9	0.8	3.2	3.2	3.3	2.7	1.3	3.0	5.0	17.9	0.6
Basswood	0.2	...	0.2	...	...	...	...	...	...	...	...
Black walnut	3.8	...	0.3	0.3	0.4	0.9	0.6	0.2	0.5	0.8	...
Other hardwoods	121.6	20.1	20.1	27.9	15.3	14.5	11.1	1.7	5.2	4.6	1.1
Total hardwoods	1221.7	186.0	225.9	221.3	162.2	151.0	98.8	59.5	45.5	62.3	9.2
All species	2219.1	305.5	382.9	422.6	371.7	302.4	178.4	100.3	60.2	85.8	9.2

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

Species	All classes	Diameter class (inches at breast height)							
		9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
----- Million cubic feet -----									
Shortleaf-loblolly pine	643.5	167.5	189.2	138.4	73.8	37.9	14.1	22.5	...
Other softwoods	4.0	1.4	0.7	1.5	...	0.4	...	...	...
Total softwoods	647.5	168.9	190.0	139.9	73.8	38.3	14.1	22.5	...
Select white oaks	40.9	...	10.8	10.4	7.1	6.1	2.4	3.8	0.2
Select red oaks	48.3	...	10.1	8.5	6.7	6.0	3.5	8.1	5.4
Other white oaks	96.5	...	33.4	29.8	17.9	7.8	3.4	4.1	...
Other red oaks	135.8	...	32.4	35.0	23.4	19.9	13.9	10.4	0.8
Hickory	52.6	...	16.2	16.9	9.1	3.0	1.4	5.5	0.5
Hard maple	1.1	...	0.4	0.7	...	...	...	...	...
Soft maple	7.2	...	1.0	1.5	1.4	...	3.3	...	...
Sweetgum	13.9	...	3.6	4.4	2.8	1.4	...	1.6	...
Tupelo-blackgum	10.1	...	1.7	3.6	3.1	0.2	1.5	...	...
Ash	23.9	...	6.8	5.0	4.6	4.3	1.9	1.4	...
Cottonwood-aspen	30.5	...	2.3	2.1	0.9	2.8	4.6	17.0	0.6
Black walnut	2.6	...	0.2	0.7	0.5	0.2	0.4	0.7	...
Other hardwoods	44.8	...	12.1	11.9	9.4	1.6	4.5	4.4	1.0
Total hardwoods	508.2	...	131.0	130.6	86.8	53.4	40.8	57.0	8.5
All species	1155.7	168.9	321.0	270.5	160.6	91.7	54.9	79.4	8.5

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, East 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	3659.5	869.0	1046.7	810.5	456.4	237.1	92.5	147.4	...
Other softwoods	20.6	6.9	3.8	7.7	...	2.3	...	...	...
Total softwoods	3680.2	876.0	1050.4	818.2	456.4	239.4	92.5	147.4	...
Select white oaks	242.9	...	59.2	60.7	42.9	38.1	16.4	24.7	0.9
Select red oaks	290.0	...	55.6	48.3	39.7	37.9	23.3	51.7	33.5
Other white oaks	557.8	...	179.8	171.0	108.3	48.7	22.2	27.8	...
Other red oaks	801.3	...	172.7	200.4	139.4	123.8	88.9	70.5	5.5
Hickory	311.4	...	88.7	99.4	56.3	19.5	8.8	36.5	2.2
Hard maple	6.3	...	2.0	4.3	...	...	...	...	...
Soft maple	42.4	...	5.2	9.3	7.9	...	20.0	...	...
Sweetgum	80.4	...	20.7	24.6	17.2	8.2	...	9.6	...
Tupelo-blackgum	57.2	...	8.8	19.7	17.3	1.2	10.2	...	...
Ash	138.1	...	35.5	28.1	27.6	27.2	11.5	8.3	...
Cottonwood-aspen	197.3	...	13.2	12.3	5.9	18.1	32.2	112.3	3.4
Black walnut	16.8	...	1.0	3.6	3.4	1.4	2.9	4.5	...
Other hardwoods	266.4	...	67.1	71.0	57.8	9.8	29.2	27.6	3.8
Total hardwoods	3008.3	...	709.7	752.7	523.8	334.0	265.5	373.5	49.2
All species	6688.5	876.0	1760.1	1570.9	980.1	573.4	358.0	520.9	49.2

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

County	Growing Stock						Sawtimber					
	All species	Softwood			Hardwood			All species	Softwood			Hardwood
		Planted	Natural	Other	Soft ¹	Hard ²	Pine		Planted	Natural	Other	Soft ¹
----- Million cubic feet -----												----- Million board feet -----
Adair	138.9	...	14.7	...	8.0	116.2	391.4	...	64.0	...	30.7	296.6
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
Cherokee	149.5	...	12.4	...	24.8	112.3	416.6	...	46.1	...	71.0	299.5
Choctaw	64.8	...	14.7	2.8	9.3	38.1	201.3	...	51.3	8.7	16.7	124.6
Delaware ⁴	67.9	...	2.8	0.3	2.8	62.0	169.0	...	14.6	...	6.5	147.9
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
McIntosh	26.7	...	...	0.2	6.2	20.3	75.1	...	...	...	21.2	53.9
Mayes	37.9	...	5.4	...	8.5	24.0	118.0	...	14.8	...	34.3	69.0
Muskogee	41.7	...	0.2	...	9.1	32.5	61.8	...	0.5	...	14.7	46.5
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
Sequoyah	51.0	...	5.5	0.7	4.3	40.6	103.3	...	20.3	...	9.0	74.0
All counties	2219.1	46.6	940.0	10.8	207.0	1014.7	6688.5	81.3	3578.3	20.6	634.7	2373.7

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

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

³ Coal included in Atoka.

⁴ Ottawa included in Delaware.

Table 16 – Volume of timber on timberland by class of timber and species group, East Oklahoma, 1986

Class of timber	All species	Softwood			Hardwood	
		Pine			Soft ¹	Hard ²
		Planted	Natural	Other		
<i>Million cubic feet</i>						
Sawtimber trees:						
Saw-log portion	1155.7	15.1	628.3	4.0	104.9	403.3
Upper-stem portion	153.7	2.0	70.7	0.7	16.9	63.5
Total	1309.4	17.2	699.0	4.7	121.8	466.7
Poletimber trees	909.7	29.4	241.0	6.1	85.3	547.9
All growing-stock trees	2219.1	46.6	940.0	10.8	207.0	1014.7
Rough trees:						
Sawtimber size	347.1	1.7	13.4	2.2	48.0	281.7
Poletimber size	358.6	1.2	13.0	1.9	56.2	286.3
Total	705.7	2.9	26.4	4.1	104.3	568.0
Rotten trees:						
Sawtimber size	118.8	...	2.2	0.3	16.2	100.1
Poletimber size	19.4	...	...	...	2.0	17.3
Total	138.2	...	2.2	0.3	18.3	117.4
Salvable dead trees:						
Sawtimber size	12.9	1.0	3.5	...	2.2	6.2
Poletimber size	11.6	0.2	1.9	...	2.0	7.6
Total	24.6	1.1	5.4	...	4.2	13.8
All classes	3087.6	50.7	974.1	15.2	333.7	1714.0

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, East Oklahoma, 1986

Ownership class	All species	Live trees						Growing stock							
		Softwood			Hardwood			Softwood			Hardwood				
		Pine			Planted	Natural	Other	Soft ¹	Hard ²	Pine			Planted	Natural	Other
-----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	248.3	...	58.2	0.6	59.3	130.3	175.7	...	56.4	0.2	46.5	72.6			
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	1945.6	5.3	425.4	10.5	229.6	1274.8	1286.7	4.1	410.3	7.4	133.3	731.6			
All ownerships	3063.0	49.5	968.6	15.2	329.5	1700.1	2219.1	46.6	940.0	10.8	207.0	1014.7			

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 18 - Average net annual growth of growing stock and sawtimber on timberland by county and species group, East Oklahoma, 1986

County	All species	Growing stock						Sawtimber							
		Softwood			Hardwood			Softwood			Hardwood				
		Pine			Planted	Natural	Other	Soft ¹	Hard ²	Pine			Planted	Natural	Other
-----Million cubic feet-----															
Adair	4.0	...	0.2	...	0.1	3.6	13.5	...	1.4	...	0.4	11.7			
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	...	...	...	...	3.6			
Cherokee	4.5	...	0.4	...	0.2	3.9	12.7	...	1.6	...	0.7	10.5			
Choctaw	3.0	...	1.2	0.1	0.3	1.4	11.7	...	4.4	0.3	0.2	6.9			
Delaware ⁴	2.2	...	0.1	...	...	2.1	8.3	...	0.7	...	0.1	7.4			
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			
McIntosh	1.9	...	...	...	0.1	1.7	6.1	...	...	...	0.5	5.6			
Mayes	1.1	...	0.3	...	0.3	0.5	4.6	...	1.6	...	1.0	2.0			
Muskogee	2.4	...	...	...	0.3	2.1	4.3	...	...	...	-0.1	4.4			
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			
Sequoyah	3.7	...	0.7	0.1	0.5	2.4	8.2	...	2.0	...	1.6	4.6			
All counties	84.4	8.3	36.9	0.7	3.3	35.3	311.4	22.6	165.5	0.6	21.4	101.4			

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.

⁴ Ottawa included in Delaware.

Table 19 - Average annual removals of growing stock and sawtimber on timberland by county and species group, East 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
----- Million cubic feet -----												
Adair	0.3	...	...	...	...	0.3	0.8	...	...	...	...	0.8
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
Cherokee	1.2	...	...	...	...	1.1	2.4	...	...	...	0.3	2.1
Choctaw	2.9	...	0.3	...	0.8	1.9	8.9	...	0.6	...	2.1	6.1
Delaware ⁴	1.4	...	...	...	...	1.3	3.4	...	0.2	...	0.2	3.0
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
McIntosh	0.4	...	...	...	...	0.4	1.1	...	...	...	...	1.1
Mayes	0.1	...	0.1	...	...	...	0.4	...	0.4	...	...	...
Muskogee	0.3	...	...	...	...	0.2	0.4	...	...	...	...	0.4
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
Sequoyah	4.9	...	3.3	...	1.1	0.5	17.0	...	13.3	...	2.5	1.3
All counties	84.0	34.0	19.7	0.6	4.7	24.9	285.6	133.1	70.4	0.6	15.1	66.4

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.

⁴ Ottawa included in Delaware.

Table 20 - Average net annual growth and average annual removals of growing stock on timberland by species, East Oklahoma, 1986

Species	Growth	Removals
----- Million cubic feet -----		
Yellow pines	45.2	53.8
Other softwoods	0.7	0.6
Total softwoods	45.9	54.4
<hr/>		
Select white-red oaks	7.1	3.2
Other white-red oaks	21.7	17.0
Hickory	4.1	3.5
Hard maple	0.1	...
Sweetgum	0.6	1.4
Ash-walnut-black cherry	2.1	0.9
Other hardwoods	2.8	3.6
Total hardwoods	38.5	29.5
<hr/>		
All species	84.4	83.9

Table 21 - Average net annual growth and average annual removals of sawtimber on timberland by species, East Oklahoma, 1986

Species	Growth	Removals
----- Million board feet -----		
Yellow pines	188.1	203.6
Other softwoods	0.6	0.6
Total softwoods	188.7	204.2
<hr/>		
Select white-red oaks	22.0	8.8
Other white-red oaks	62.1	44.7
Hickory	9.0	10.8
Hard maple	0.5	...
Sweetgum	4.2	4.3
Ash-walnut-black cherry	8.3	1.5
Other hardwoods	16.7	11.4
Total hardwoods	122.7	81.5
<hr/>		
All species	311.4	285.7

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

Species	Growing stock		Sawtimber
	-- Million cubic feet -- - - - Million board feet --		
Yellow pines	2.8		8.2
Total softwoods	2.8		8.2
Select white-red oaks	1.2		3.4
Other white-red oaks	4.5		9.5
Hickory	2.1		6.6
Sweetgum	...		...
Ash-walnut-black cherry	0.6		1.2
Other hardwoods	5.7		19.8
Total hardwoods	14.1		40.6
All species	16.9		48.8

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

Ownership class	All species	Growth						Removals					
		Softwood			Hardwood			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	7.7	...	2.2	...	2.3	3.2	2.2	...	0.9	...	1.0	0.2	
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	47.3	0.4	19.9	0.4	0.9	25.7	26.7	0.3	10.3	0.1	2.1	13.8	
All ownerships	84.5	8.3	36.9	0.7	3.3	35.3	83.9	34.0	19.7	0.6	4.7	24.8	

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, East 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
----- 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	33.1	...	8.8	...	16.2	8.1	4.5	...	2.3	...	1.8	0.3
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
Other private	168.2	1.0	85.1	0.5	4.7	76.8	84.9	1.4	35.2	0.4	7.7	40.2
All ownerships	311.6	22.6	165.5	0.6	21.4	101.5	285.6	133.1	70.4	0.6	15.1	66.4

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, East Oklahoma, 1986

Species	All grades	Grade 1	Grade 2	Grade 3	Grade 4	----- Million board feet -----						
						----- Million board feet -----						
Yellow pines	3659.5	451.3	781.0	2427.3	...							
Redcedar	20.6	20.6	...	...	...				
Total softwoods	3680.2	471.9	781.0	2427.3	...							
Select white-red oaks	532.9	52.0	134.3	198.2	148.4							
Other white-red oaks	1359.1	45.5	190.3	603.7	519.7							
Hickory	311.4	15.0	49.0	132.9	114.5							
Hard maple	6.3	...	...	...	6.3							
Sweetgum	80.4	4.4	23.7	36.7	15.6							
Tupelo and blackgum	57.2	3.3	17.5	25.2	11.1							
Ash-walnut-black cherry	160.4	36.9	42.5	72.7	8.3							
Other hardwoods	500.6	155.1	122.2	161.0	62.3							
Total hardwoods	3008.3	312.2	579.5	1230.4	886.2							
All species	6688.5	784.1	1360.5	3657.7	886.2							

SUPPLEMENTAL TABLES 26 - 36

Table 26 - Area of timberland by stand age, forest type group, and type of regeneration, East 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	136.9
11-20	67.9	24.1	22.5	...	...	54.8
21-30	5.6	18.3	...	...	...	6.0
31-40	...	59.0	...	6.0	...	44.0
41-50	...	24.4	...	6.0	...	86.8
>50	...	12.8	...	6.0	...	43.8
Mixed	17.6	529.2	23.3	560.4	...	2582.0
All classes	264.2	691.8	172.9	584.4	80.0	2954.3

Table 27 - Volume of softwood growing stock on timberland by forest type, East Oklahoma, 1986

County	Total	Forest type group			
		Loblolly-shortleaf pine			
		Planted	Natural	Oak-pine	Oak-hickory
----- Million cubic feet -----					
Adair	14.7	...	9.3	3.6	1.8
Atoka ¹	47.3	...	40.6	4.2	2.5
Bryan	0.2	...	...	...	0.2
Cherokee	12.4	...	7.6	2.3	2.5
Choctaw	17.4	...	8.5	5.2	3.8
Delaware ²	3.1	...	...	...	3.1
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
McIntosh	0.2	...	...	...	0.2
Mayes	5.4	...	5.4	...	...
Muskogee	0.2	...	...	...	0.2
Pittsburg	19.8	...	14.0	4.8	1.0
Pushmataha	283.4	2.1	215.8	56.1	9.4
Sequoyah	6.1	...	...	5.5	0.7
All counties	997.4	38.3	643.2	238.3	77.6

¹ Coal included in Atoka.

² Ottawa included in Delaware.

Table 28 – Volume of hardwood growing stock on timberland by forest type, East 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>							
Adair	124.2	...	2.5	2.6	119.0	...	...
Atoka ¹	63.5	...	1.9	1.2	21.0	33.3	6.1
Bryan	46.1	...	...	...	25.9	20.3	...
Cherokee	137.1	...	...	2.9	109.4	13.7	11.0
Choctaw	47.3	...	2.0	1.8	38.0	5.5	...
Delaware ²	64.8	...	...	0.3	63.2	1.3	...
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	...
McIntosh	26.5	...	...	...	22.8	1.9	1.8
Mayes	32.5	...	0.7	...	22.1	9.7	...
Muskogee	41.5	...	...	...	33.5	8.1	...
Pittsburg	27.5	...	0.2	0.2	15.6	11.4	...
Pushmataha	94.6	...	23.4	28.7	39.6	2.9	...
Sequoyah	44.9	...	...	3.4	39.7	1.1	0.7
All counties	1221.7	1.7	67.2	110.9	784.0	198.8	59.0

¹ Coal included in Atoka.

² Ottawa included in Delaware.

Table 29 – Volume of softwood growing stock in the saw-log portion of sawtimber trees on timberland by forest type, East Oklahoma, 1986

County	Total	Forest type group			
		Loblolly-shortleaf pine		Oak-pine	Oak-hickory
		Planted	Natural		
<i>Million cubic feet</i>					
Adair	11.9	...	7.4	3.2	1.3
Atoka ¹	27.5	...	24.1	1.9	1.4
Bryan	...	...	...	...	...
Cherokee	8.4	...	5.2	1.0	2.2
Choctaw	11.3	...	5.9	3.2	2.3
Delaware ²	2.4	...	...	...	2.4
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
McIntosh	...	...	...	...	...
Mayes	2.6	...	2.6	...	...
Muskogee	0.1	...	...	...	0.1
Pittsburg	11.7	...	8.5	2.7	0.5
Pushmataha	185.3	0.4	144.5	34.6	5.8
Sequoyah	3.7	...	...	3.7	...
All counties	647.5	14.0	430.9	151.6	51.0

¹ Coal included in Atoka.

² Ottawa included in Delaware.

Table 30 — Volume of hardwood growing stock in the saw-log portion of sawtimber trees on timberland by forest type, East 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>							
Adair	57.6	...	1.1	1.9	54.7	...	...
Atoka ¹	26.6	...	1.3	...	4.7	16.6	4.0
Bryan	23.1	...	...	...	11.4	11.7	...
Cherokee	64.5	...	...	1.3	46.1	10.5	...
Choctaw	24.1	...	0.6	0.5	19.2	3.8	6.7
Delaware ²	24.9	...	...	...	24.3	0.6	...
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	...
McIntosh	12.2	...	...	...	10.7	0.4	1.2
Mayes	16.7	...	...	...	10.9	5.8	...
Muskogee	10.3	...	...	...	6.5	3.8	...
Pittsburg	15.9	...	0.2	...	7.0	8.7	...
Pushmataha	24.8	...	6.7	7.4	8.9	1.8	...
Sequoyah	14.2	...	...	0.9	12.8	0.2	0.2
All counties	508.2	0.9	21.7	38.4	288.2	119.3	39.6

¹ Coal included in Atoka.

² Ottawa included in Delaware.

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

County	All classes	Growing stock		Rough		Rotten	
		Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood
<i>Million cubic feet</i>							
Adair	195.2	14.7	124.2	1.1	45.2	...	10.0
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
Cherokee	207.8	12.4	137.1	...	46.6	...	11.7
Choctaw	91.6	17.4	47.3	0.6	24.1	...	2.2
Delaware ²	143.0	3.1	64.8	0.4	47.3	0.4	27.0
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
McIntosh	46.4	0.2	26.5	0.2	18.1	...	1.5
Mayes	81.7	5.4	32.5	0.7	21.0	...	22.0
Muskogee	70.6	0.2	41.5	...	26.6	...	2.3
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
Sequoyah	85.8	6.1	44.9	0.6	30.3	...	3.9
All counties	3063.0	997.4	1221.7	33.4	672.3	2.5	135.7

¹ Coal included in Atoka.

² Ottawa included in Delaware.

Table 82 - Number of live trees on timberland by detailed species and diameter class, East Oklahoma, 1986

Species	All classes	Diameter class (inches at breast height)												
		1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger	
----- Thousand trees -----														
Shortleaf pine	523826	288622	115142	48479	29331	19182	13318	6247	2442	808	196	60	...	...
Loblolly pine	125638	55436	49315	15659	2375	932	716	488	216	217	98	186	...	...
Redcedar	39726	28509	7009	2373	1188	410	82	105	15	27	8	...	...	...
Cypress	89	...	...	...	77	...	...	...	...	12	...	...	...	...
Total softwoods	689279	372567	171465	66511	32971	20523	14117	6840	2673	1064	302	246	...	...
Select white oaks	110578	57040	28640	10836	5531	3952	1673	1241	800	407	237	208	15	...
Select red oaks	42876	19483	8491	6243	2990	2083	1476	753	446	414	183	244	71	...
Other white oaks	487613	226896	144162	53732	28116	14871	8811	5880	2574	1225	663	683	...	...
Other red oaks	213859	114244	48030	17406	11696	8167	5271	3653	2264	1459	739	880	48	...
Sweet pecan	6642	5219	...	564	272	99	155	92	31	68	55	72	15	...
Water hickory	4676	4647	...	...	...	...	...	...	...	13	12	5	...	...
Other hickories	323233	191604	73437	30036	14578	7242	3163	1908	809	299	60	93	4	...
Persimmon	21270	18452	1628	963	175	...	53	...	...	...	...	...	...	...
Hard maple	4786	3493	516	185	165	215	54	131	18	...	...	8	...	...
Soft maple	59909	46363	10044	2108	421	252	318	153	102	37	69	23	19	...
Boxelder	5184	1701	2077	496	199	184	154	138	154	27	21	34	...	...
Sweetgum	24670	16155	4623	1781	823	446	306	259	160	61	10	41	4	...
Blackgum	33739	24134	5585	1707	913	363	359	297	231	38	63	49	...	...
White ash	26280	17468	3098	2562	1295	830	406	260	172	76	41	71	...	...
Other ashes	29339	12854	7887	3492	2539	1076	776	245	225	138	54	47	4	...
Sycamore	2954	419	516	593	477	321	264	51	134	28	48	86	18	...
Cottonwood	10099	7383	568	541	631	330	198	111	30	52	63	186	6	...
Basswood	189	...	...	77	54	33	25	...	...	...	...	...	...	...
Willow	6889	4492	1549	280	220	71	25	88	81	26	33	24	...	...
Black walnut	7743	4202	2416	350	125	342	83	134	15	14	40	18	4	...
Black cherry	8997	7083	1107	240	123	301	92	20	31	...	...	...	...	...
American elm	20469	11684	4028	2106	872	608	560	358	108	42	54	35	16	...
Other elms	234241	165526	44125	14802	4811	3172	868	560	181	97	54	40	4	...
River birch	3622	2117	468	596	157	36	28	82	68	14	12	37	5	...
Hackberry	46257	31004	8266	3167	1576	1165	399	391	153	65	50	17	3	...
Black locust	6489	4178	1825	329	156	...	...	...	...	...	...	...	...	...
Other locusts	8322	4614	1137	614	1050	509	225	87	38	40	...	8	...	...
Sassafras	38706	36525	1145	831	70	98	36	...	...	...	...	...	...	...
Dogwood	59510	48191	10246	993	81	...	...	...	...	...	...	...	...	...
Holly	4833	4758	...	...	...	38	...	23	14	...	...	...	...	...
Other commercial	28365	17049	7251	2538	864	360	143	73	55	24	...	...	8	...
Total hardwoods	1882340	1108976	422866	160170	80982	47167	25921	16992	8893	4663	2560	2909	242	...
Noncommercial	303375	205605	57156	19419	10582	6279	2013	1265	584	333	88	49	...	...
All species	2874993	1687148	651487	246101	124535	73969	42051	25097	12150	6061	2950	3204	242	...

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

Species	All classes	Diameter class (inches at breast height)										
		5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger	
<i>----- Thousand trees -----</i>												
Shortleaf pine	112259	43645	27818	18662	12727	6051	2397	745	164	50	...	
Loblolly pine	19458	14549	2244	767	716	488	216	217	79	181	...	
Redcedar	2670	1534	802	173	63	86	...	13	...	...	...
Total softwoods	134387	59728	30864	19602	13507	6625	2613	975	243	231	...	
Select white oaks	16803	7394	4427	2762	945	572	353	191	73	83	3	
Select red oaks	9697	3954	2051	1620	861	495	251	204	85	138	39	
Other white oaks	68333	34763	18266	8163	3429	2160	970	340	123	118	...	
Other red oaks	34477	11982	9291	5584	3106	2128	1106	693	351	225	10	
Sweet pecan	783	319	142	99	31	92	17	14	11	55	3	
Water hickory	5	...	...	...	...	...	...	...	...	5	...	
Other hickories	31296	16642	7784	3789	1613	920	401	96	21	29	...	
Persimmon	666	640	...	...	25	...	...	...	...	...	...
Hard maple	114	...	...	42	27	45	...	...	...	...	...
Soft maple	1373	793	215	127	94	46	39	...	59	...	...
Boxelder	483	202	132	95	...	36	18	...	...	...	...
Sweetgum	2489	1066	416	363	255	222	95	48	...	24	...	
Blackgum	1928	675	467	214	179	232	116	12	33	...	...
White ash	2456	1001	575	426	168	173	63	24	20	6	...	
Other ashes	4899	1937	1578	464	473	133	141	125	32	16	...	
Sycamore	1466	320	407	272	204	51	117	16	48	27	5	
Cottonwood	2044	451	631	330	198	111	30	52	63	173	4	
Basswood	54	...	54	...	...	...	...	...	...	...	...
Willow	313	155	...	30	...	40	65	13	11	...	...
Black walnut	249	...	73	37	33	49	15	14	11	18	...	
Black cherry	435	112	123	130	33	20	17	...	...	...	...
American elm	2165	1160	211	358	182	138	53	15	30	16	...	
Other elms	9741	5259	2142	1619	431	201	49	11	20	9	...	
River birch	290	135	87	...	...	37	17	...	...	14	...	
Hackberry	3317	1275	836	781	178	188	48	...	11	...	...
Black locust	102	102	...	...	...	...	...	...	...	...	...
Other locusts	678	...	342	240	56	22	19	...	...	...	...
Sassafras	532	407	70	54	...	...	...	...	...	...	...
Other commercial	349	196	102	51	...	...	...	...	...	...	...
Total hardwoods	197537	90942	50421	27650	12521	8111	4002	1868	1002	956	63	
All species	331924	150670	81285	47252	26028	14736	6615	2843	1245	1187	63	

Table 34 — Volume of growing-stock trees on timberland by species and diameter class, East 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
----- <i>Million cubic feet</i> -----											
Shortleaf pine	875.8	94.7	145.4	191.1	195.8	136.6	71.2	29.1	8.3	3.6	...
Loblolly pine	110.8	21.8	8.5	8.5	12.8	13.2	8.4	11.2	6.4	19.9	...
Redcedar	10.8	3.1	3.0	1.8	0.9	1.6	...	0.5	...	...	...
Total softwoods	997.4	119.6	157.0	201.3	209.5	151.4	79.7	40.8	14.7	23.4	...
Select white oaks	115.8	19.5	22.4	25.6	13.7	12.5	8.0	6.7	2.8	4.4	0.2
Select red oaks	88.5	8.9	10.4	14.4	12.2	9.8	7.5	6.7	4.1	8.6	6.0
Other white oaks	310.6	68.7	75.6	59.0	37.8	33.1	19.5	8.6	3.7	4.6	...
Other red oaks	272.3	24.5	42.5	45.7	42.0	40.0	27.0	22.6	15.3	11.9	0.9
Sweet pecan	10.1	0.8	0.7	0.7	0.4	1.8	0.6	0.5	0.4	3.7	0.5
Water hickory	0.5	...	...	...	...	...	...	...	...	0.5	...
Other hickories	145.9	29.2	33.4	29.1	19.9	18.0	9.9	3.1	1.1	2.4	...
Persimmon	1.6	1.2	...	...	0.4	...	...	...	...	...	...
Hard maple	1.5	...	...	0.4	0.4	0.7	...	...	...	...	...
Soft maple	11.1	1.7	1.1	1.1	1.5	1.0	1.2	...	3.5	...	...
Boxelder	3.2	0.5	0.6	1.0	...	0.8	0.4	...	...	...	...
Sweetgum	24.0	2.1	2.3	3.2	4.9	5.2	3.2	1.5	...	1.7	...
Blackgum	16.9	1.6	1.9	1.5	2.1	4.5	3.4	0.2	1.7	...	...
White ash	16.8	2.8	2.4	3.4	2.0	3.0	1.4	0.7	0.9	0.2	...
Other ashes	38.1	5.1	9.0	4.9	6.4	2.7	3.7	3.8	1.2	1.2	...
Sycamore	23.8	1.3	3.0	3.1	4.3	1.4	4.0	0.6	2.5	2.7	1.1
Cottonwood	40.9	0.8	3.2	3.2	3.3	2.7	1.3	3.0	5.0	17.9	0.6
Basswood	0.2	...	0.2	...	...	...	...	...	...	...	...
Willow	4.1	0.2	...	0.2	...	1.0	1.9	0.3	0.4	...	...
Black walnut	3.8	...	0.3	0.3	0.4	0.9	0.6	0.2	0.5	0.8	...
Black cherry	2.9	0.3	0.6	0.9	0.4	0.4	0.4	...	...	...	...
American elm	14.3	2.0	0.8	2.9	2.2	2.4	1.3	0.4	1.5	0.7	...
Other elms	45.2	10.7	9.7	12.9	5.1	4.1	1.1	0.5	0.5	0.5	...
River birch	2.5	0.2	0.4	...	...	0.9	0.4	...	...	0.6	...
Hackberry	18.9	2.4	3.0	5.5	2.3	3.9	1.5	...	0.3	...	...
Black locust	0.3	0.3	...	...	...	...	...	...	...	...	...
Other locusts	5.1	...	1.6	1.9	0.6	0.4	0.5	...	...	...	...
Sassafras	1.4	0.8	0.4	0.3	...	...	...	...	...	...	...
Other commercial	1.4	0.7	0.5	0.3	...	...	...	...	...	...	...
Total hardwoods	1221.7	186.0	225.9	221.3	162.2	151.0	98.8	59.5	45.5	62.3	9.2
All species	2219.1	305.5	382.9	422.6	371.7	302.4	178.4	100.3	60.2	85.8	9.2

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

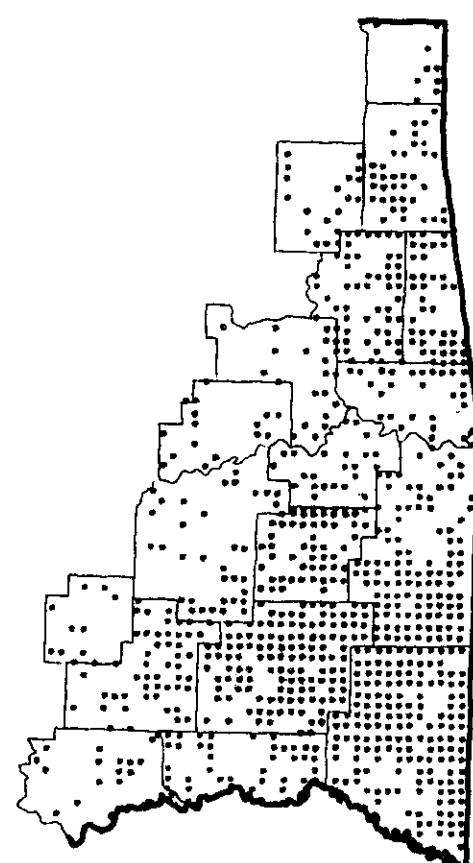
Species	Diameter class (inches at breast height)									
	All classes	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger	
----- Million cubic feet -----										
Shortleaf pine	568.6	160.5	177.8	126.1	65.8	27.0	7.9	3.5	...	
Loblolly pine	74.8	7.1	11.4	12.3	8.0	10.9	6.2	19.0	...	
Redcedar	4.0	1.4	0.7	1.5	...	0.4	...	...	...
Total softwoods	647.5	168.9	190.0	139.9	73.8	38.3	14.1	22.5	...	
Select white oaks	40.9	...	10.8	10.4	7.1	6.1	2.4	3.8	0.2	
Select red oaks	48.3	...	10.1	8.5	6.7	6.0	3.5	8.1	5.4	
Other white oaks	96.5	...	33.4	29.8	17.9	7.8	3.4	4.1	...	
Other red oaks	135.8	...	32.4	35.0	23.4	19.9	13.9	10.4	0.8	
Sweet pecan	6.4	...	0.3	1.6	0.4	0.4	0.4	2.8	0.5	
Water hickory	0.5	...	...	...	...	...	...	0.5	...	
Other hickories	45.7	...	16.0	15.3	8.7	2.6	0.9	2.2	...	
Persimmon	0.3	...	0.3	...	...	...	...	...	...
Hard maple	1.1	...	0.4	0.7	...	...	...	...	...
Soft maple	6.1	...	1.0	0.9	1.0	...	3.3	...	...
Boxelder	1.1	...	...	0.7	0.4	...	...	...	...
Sweetgum	13.9	...	3.6	4.4	2.8	1.4	...	1.6	...	
Blackgum	10.1	...	1.7	3.6	3.1	0.2	1.5	...	...
White ash	7.3	...	1.5	2.8	1.4	0.6	0.8	0.2	...	
Other ashes	16.7	...	5.2	2.2	3.2	3.7	1.1	1.2	...	
Sycamore	14.3	...	3.1	1.1	3.6	0.6	2.3	2.7	1.0	
Cottonwood	30.5	...	2.3	2.1	0.9	2.8	4.6	17.0	0.6	
Willow	2.7	...	...	0.6	1.6	0.2	0.3	...	...
Black walnut	2.6	...	0.2	0.7	0.5	0.2	0.4	0.7	...	
Black cherry	1.0	...	0.3	0.4	0.3	...	...	...	...
American elm	7.3	...	1.9	2.1	1.1	0.4	1.2	0.5	...	
Other elms	10.2	...	4.4	3.6	0.9	0.4	0.4	0.5	...	
River birch	1.7	...	...	0.7	0.4	...	...	0.6	...	
Hackberry	6.3	...	1.7	3.2	1.2	...	0.2	...	...
Other locusts	1.0	...	0.4	0.2	0.3	...	...	...	...
Total hardwoods	508.2	...	131.0	130.6	86.8	53.4	40.8	57.0	8.5	
All species	1155.7	168.9	321.0	270.5	160.6	91.7	54.9	79.4	8.5	

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

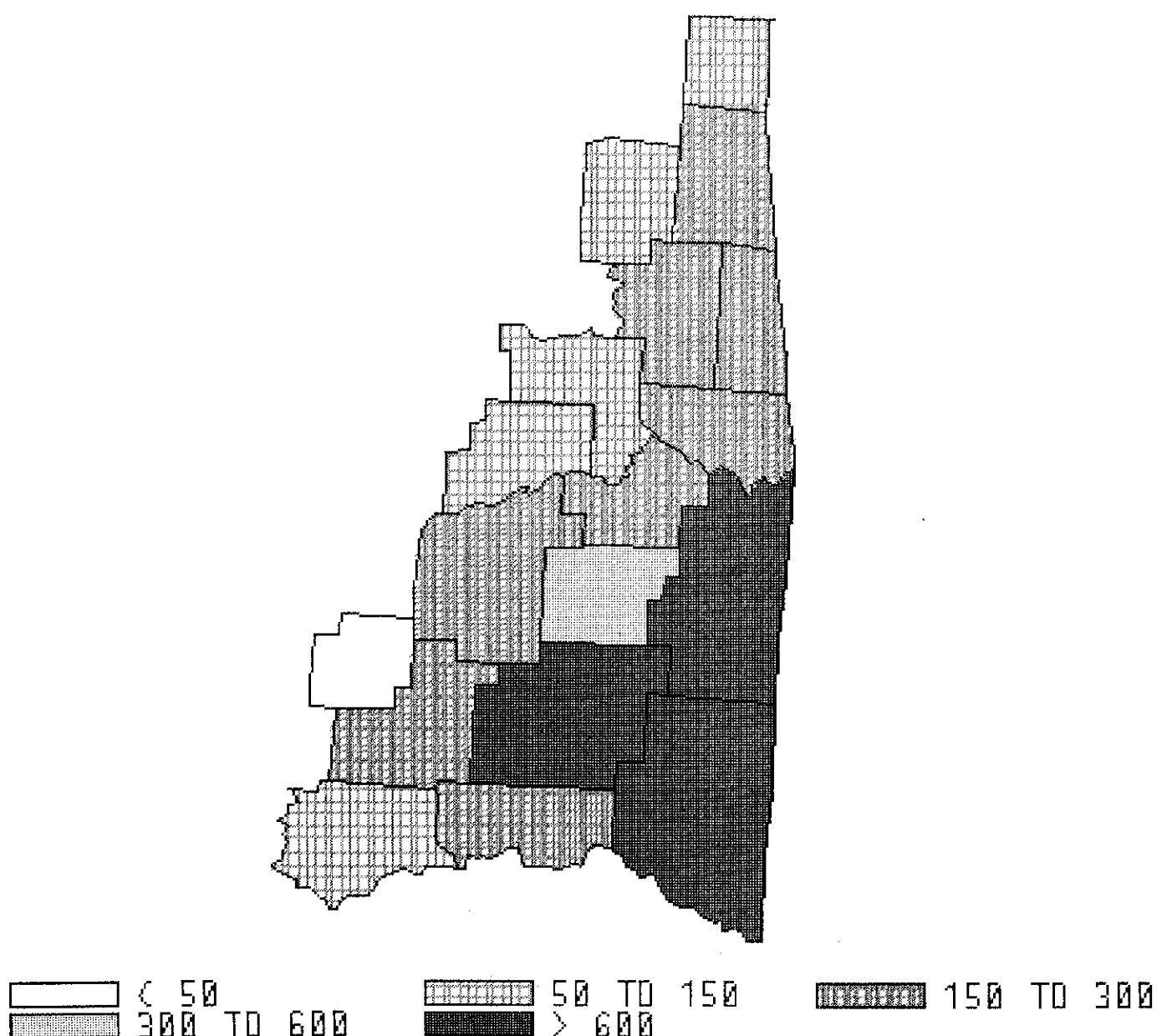
Species	All live	Growing stock	Rough	Rotten
----- Million cubic feet -----				
Shortleaf pine	902.9	875.8	24.9	2.2
Loblolly pine	115.3	110.8	4.5	...
Redcedar	14.8	10.8	3.7	0.3
Cypress	0.4	...	0.4	...
Total softwoods	1033.3	997.4	33.4	2.5
Select white oaks	161.0	115.8	37.2	8.0
Select red oaks	118.9	88.5	22.0	8.4
Other white oaks	515.6	310.6	169.3	35.6
Other red oaks	394.2	272.3	79.1	42.8
Sweet pecan	15.8	10.1	4.5	1.2
Water hickory	0.8	0.5	...	0.3
Other hickories	231.8	145.9	73.2	12.7
Persimmon	2.7	1.6	1.2	...
Hard maple	4.9	1.5	2.2	1.2
Soft maple	23.3	11.1	10.3	1.9
Boxelder	11.9	3.2	7.3	1.4
Sweetgum	31.1	24.0	5.0	2.1
Blackgum	25.9	16.9	5.2	3.8
White ash	31.6	16.8	13.9	0.8
Other ashes	56.3	38.1	16.3	1.9
Sycamore	30.6	23.8	5.2	1.6
Cottonwood	41.8	40.9	0.3	0.6
Basswood	0.7	0.2	0.3	0.3
Willow	8.2	4.1	4.0	0.2
Black walnut	7.9	3.8	3.4	0.6
Black cherry	4.7	2.9	1.1	0.7
American elm	28.3	14.3	12.1	1.8
Other elms	85.2	45.2	38.6	1.4
River birch	6.9	2.5	3.1	1.3
Hackberry	34.7	18.9	13.1	2.6
Black locust	0.9	0.3	0.2	0.4
Other locusts	13.3	5.1	7.5	0.6
Sassafras	2.4	1.4	0.5	0.4
Dogwood	0.9	...	0.9	...
Holly	0.4	...	0.2	0.2
Other commercial	9.2	1.4	7.0	0.8
Total hardwoods	1901.9	1221.7	544.5	135.7
Noncommercial	127.8	...	127.8	...
All species	3063.0	2219.1	705.7	138.2

GRAPHICS

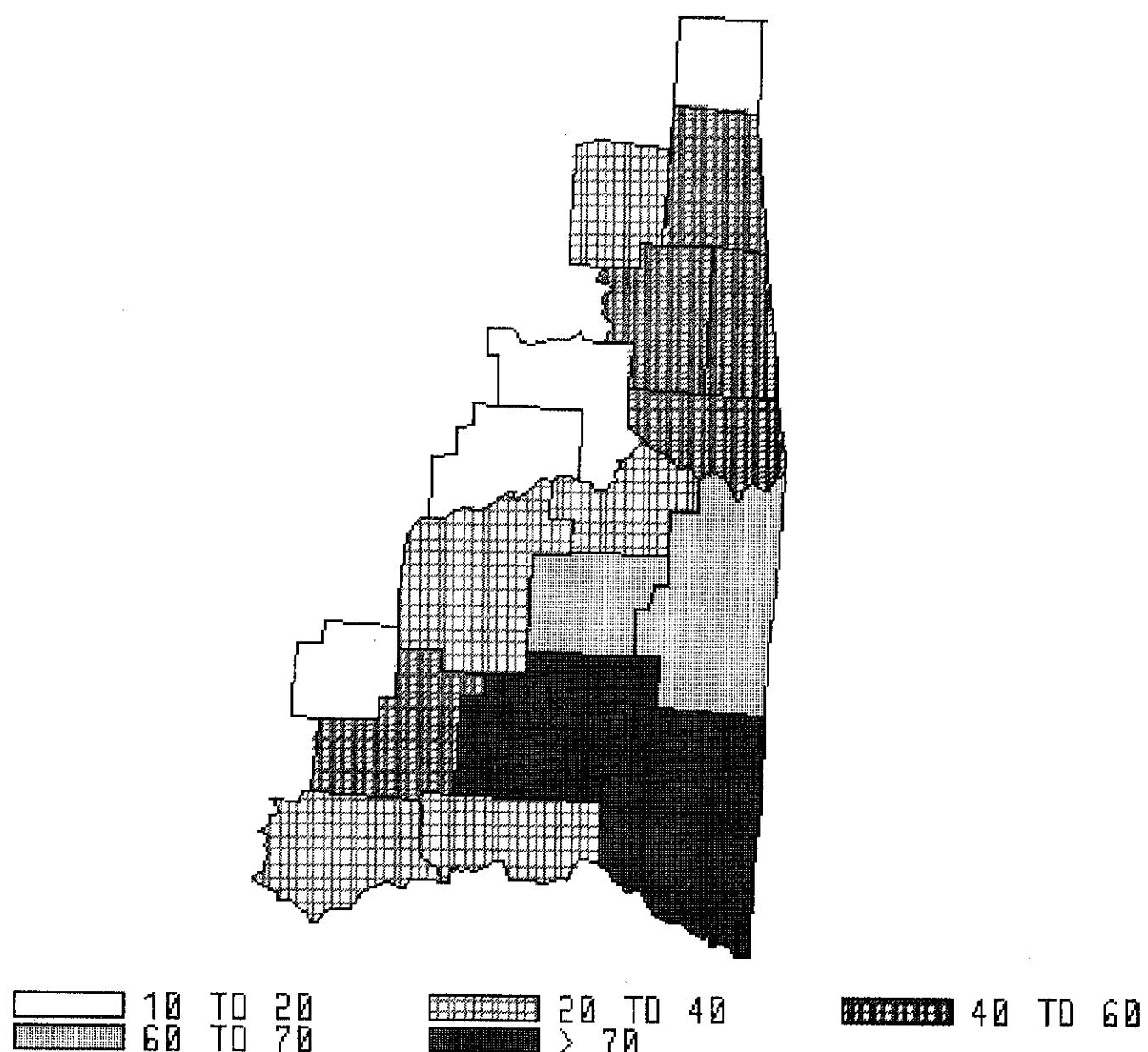
EAST OKLAHOMA TIMBERLAND PLOT LOCATIONS



TOTAL TIMBERLAND BY COUNTY (IN THOUSAND ACRES)



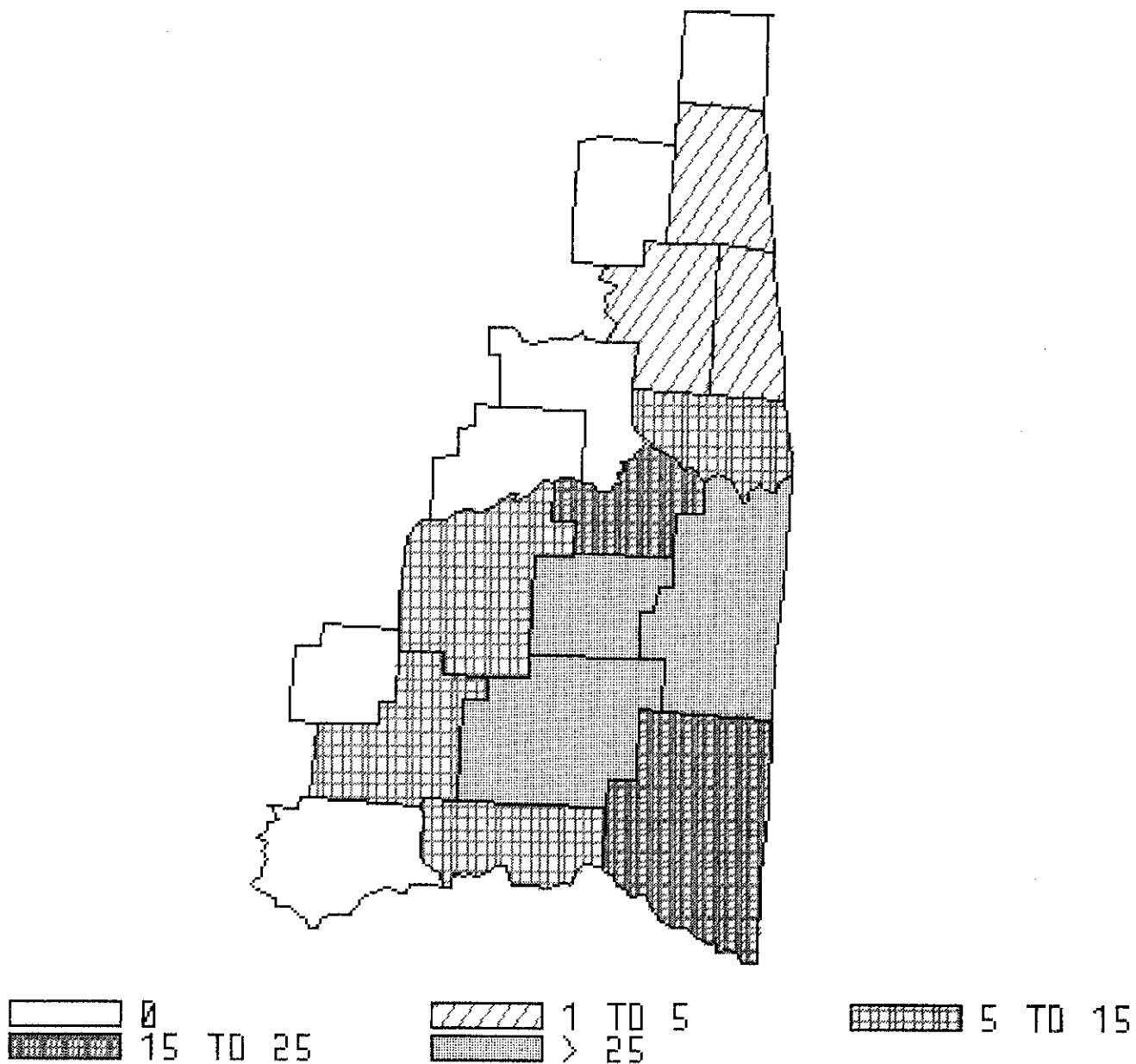
PERCENT TIMBERLAND BY COUNTY



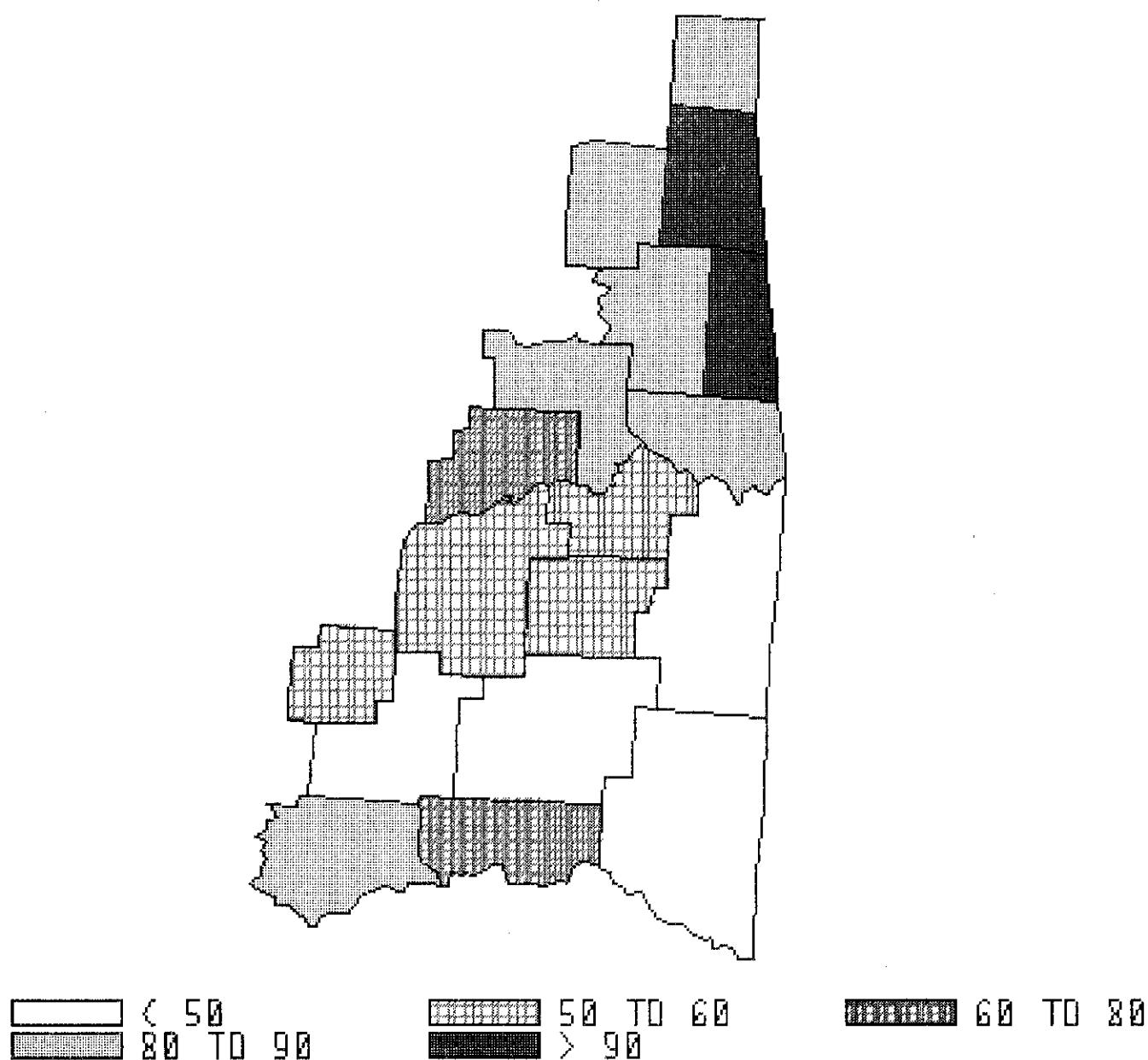
PERCENT TIMBERLAND BY COUNTY LOBLOLLY/SHORTLEAF FOREST TYPE



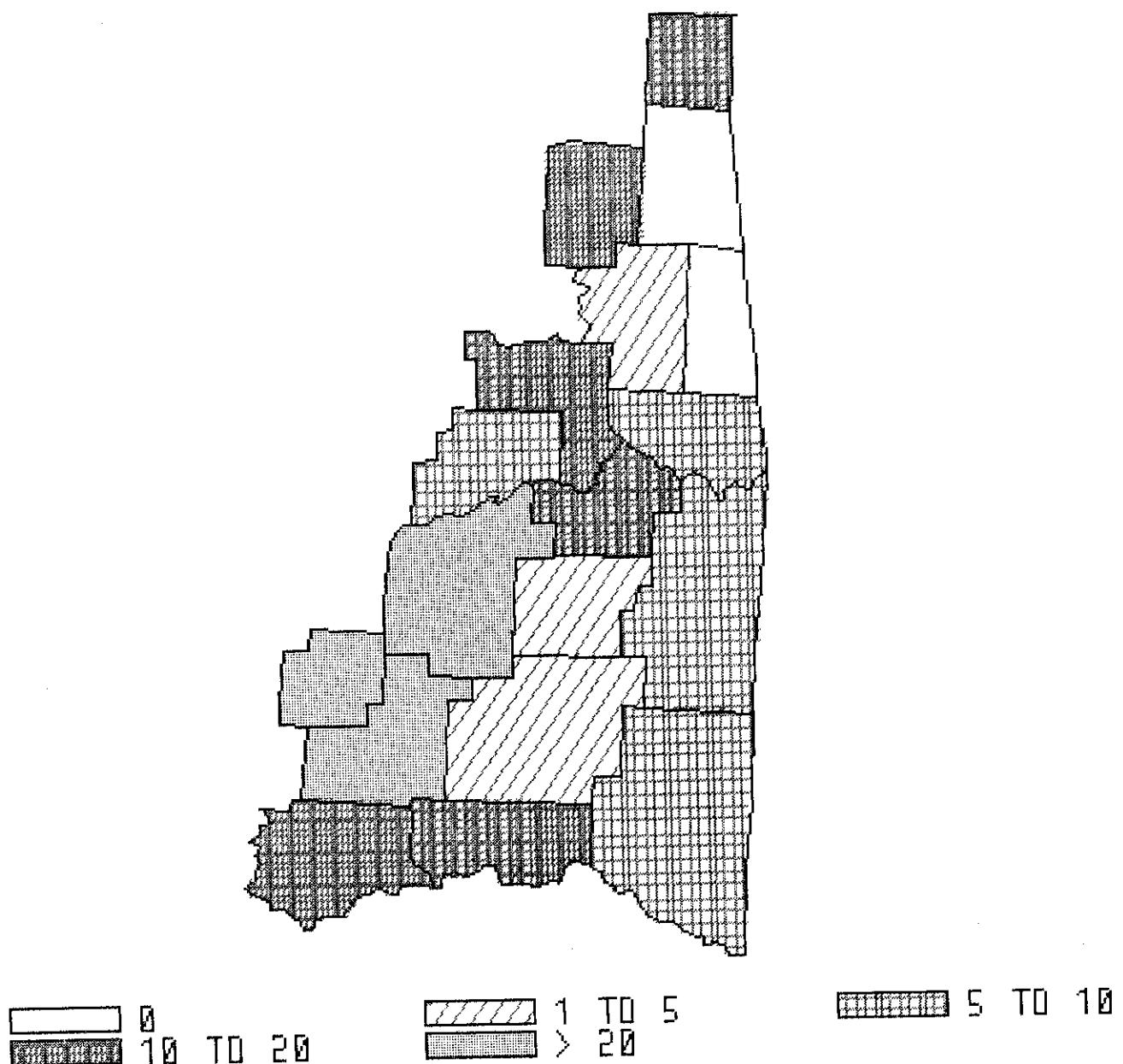
PERCENT TIMBERLAND BY COUNTY DAK/PINE FOREST TYPE



PERCENT TIMBERLAND BY COUNTY OAK/HICKORY FOREST TYPE

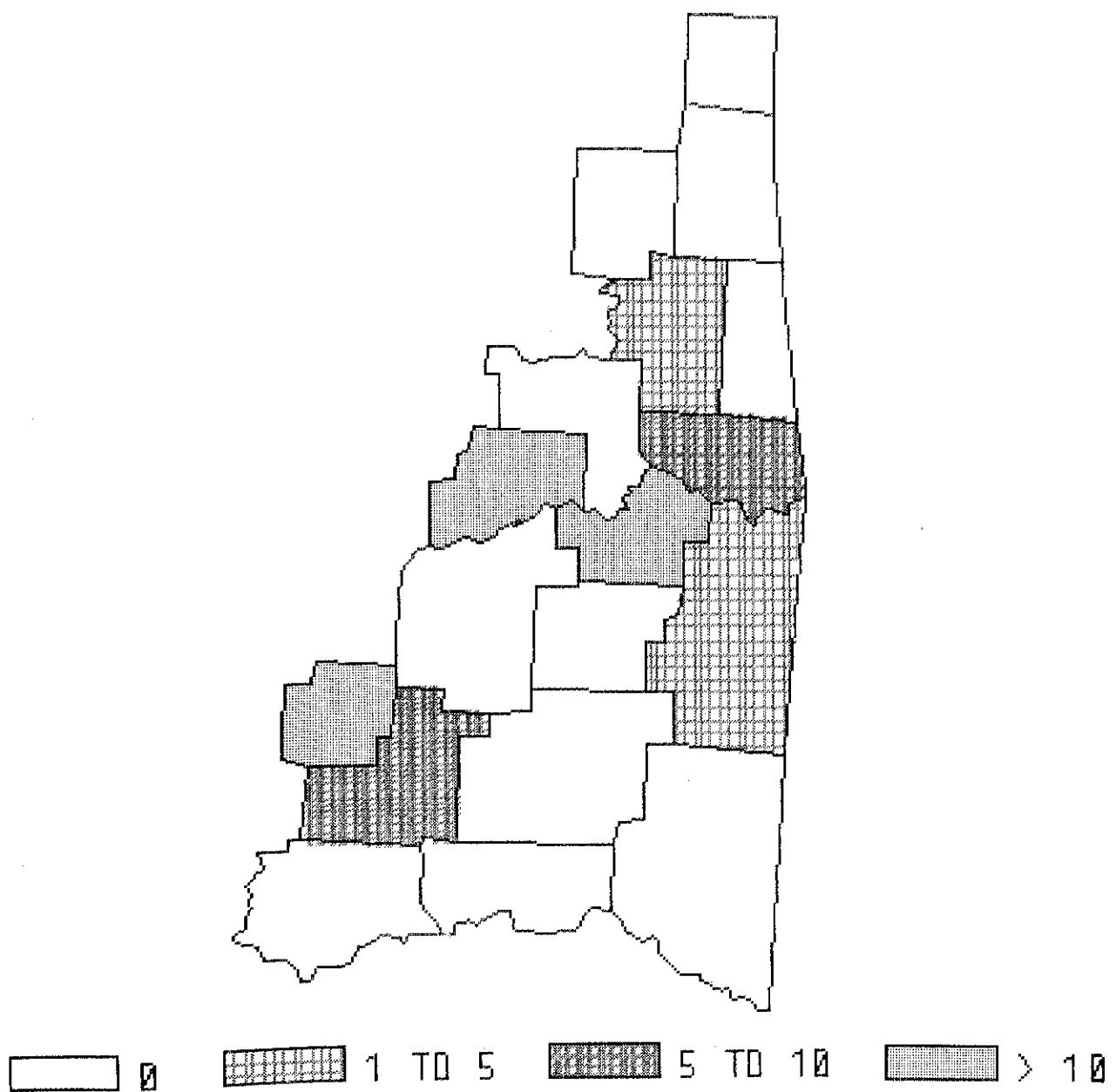


PERCENT TIMBERLAND BY COUNTY OAK/GUM/CYPRESS FOREST TYPE



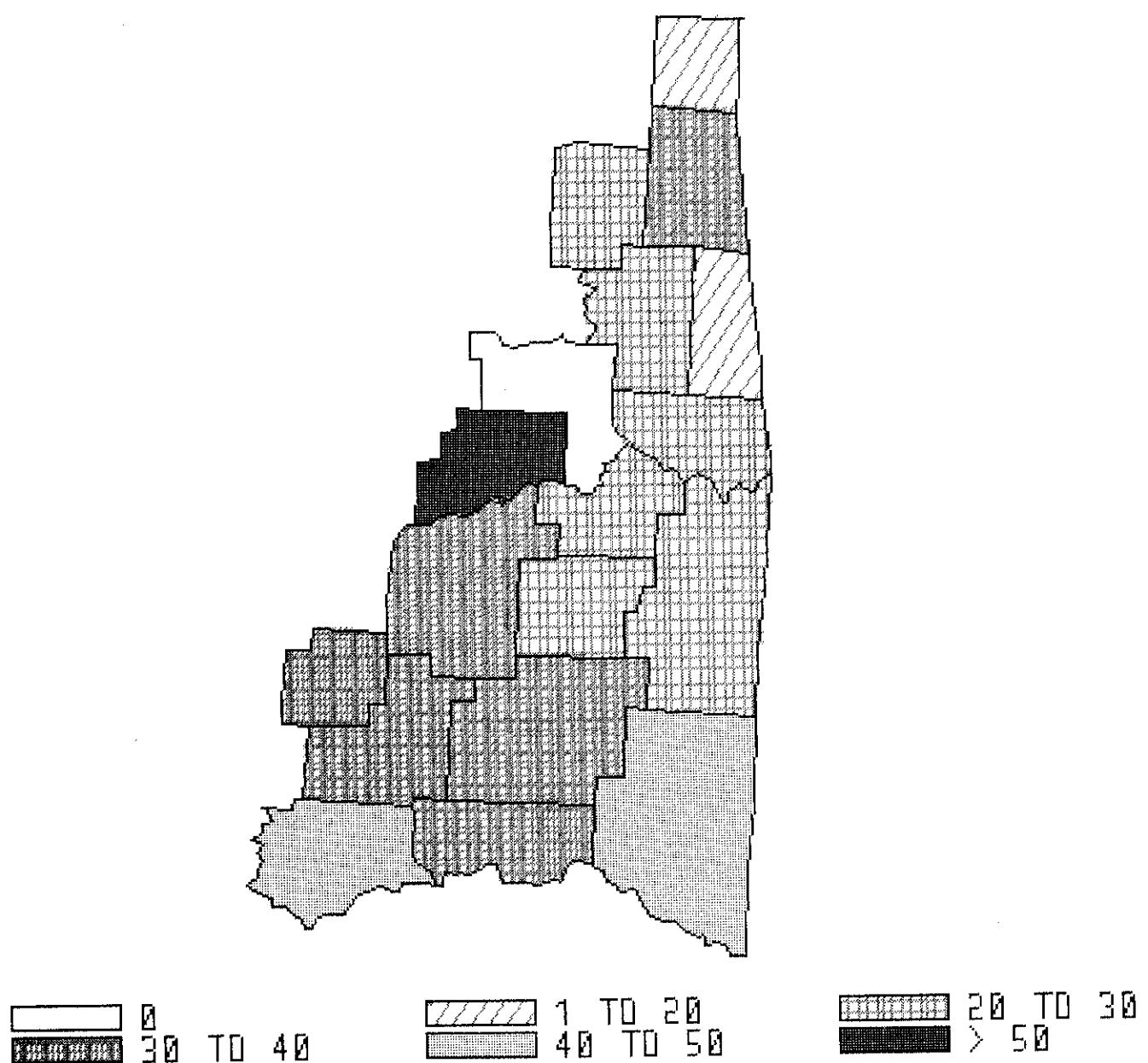
PERCENT TIMBERLAND BY COUNTY

ELM/ASH/COTTONWOOD FOREST TYPE



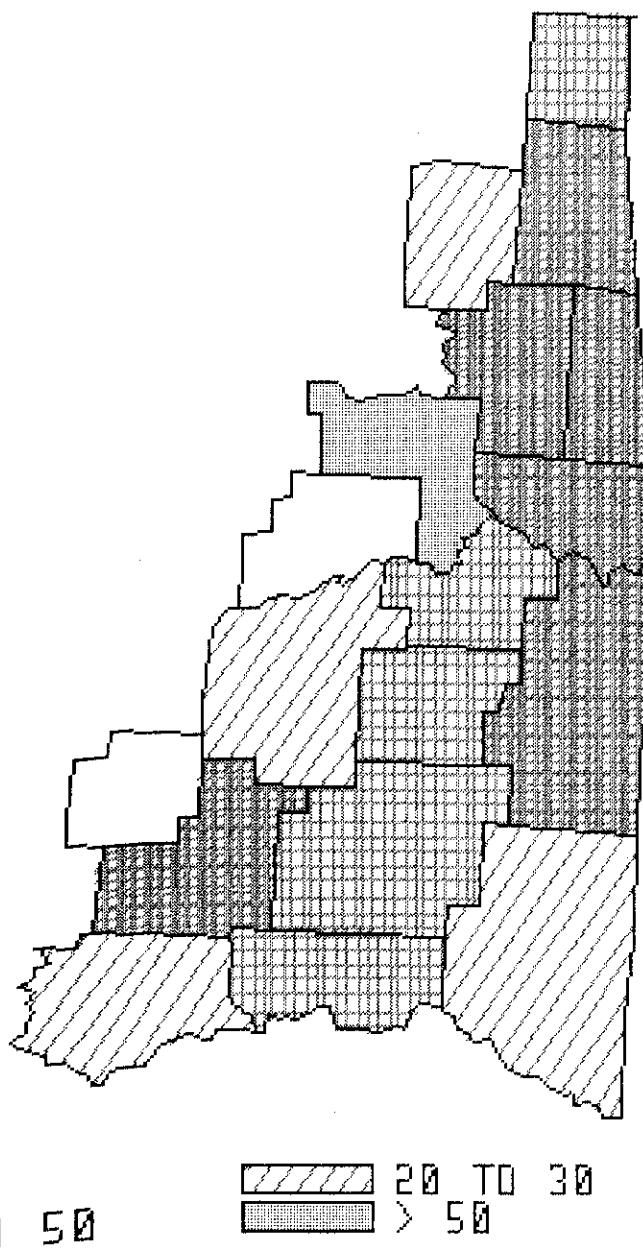
PERCENT TIMBERLAND BY STAND SIZE CLASS

SAPLINGS



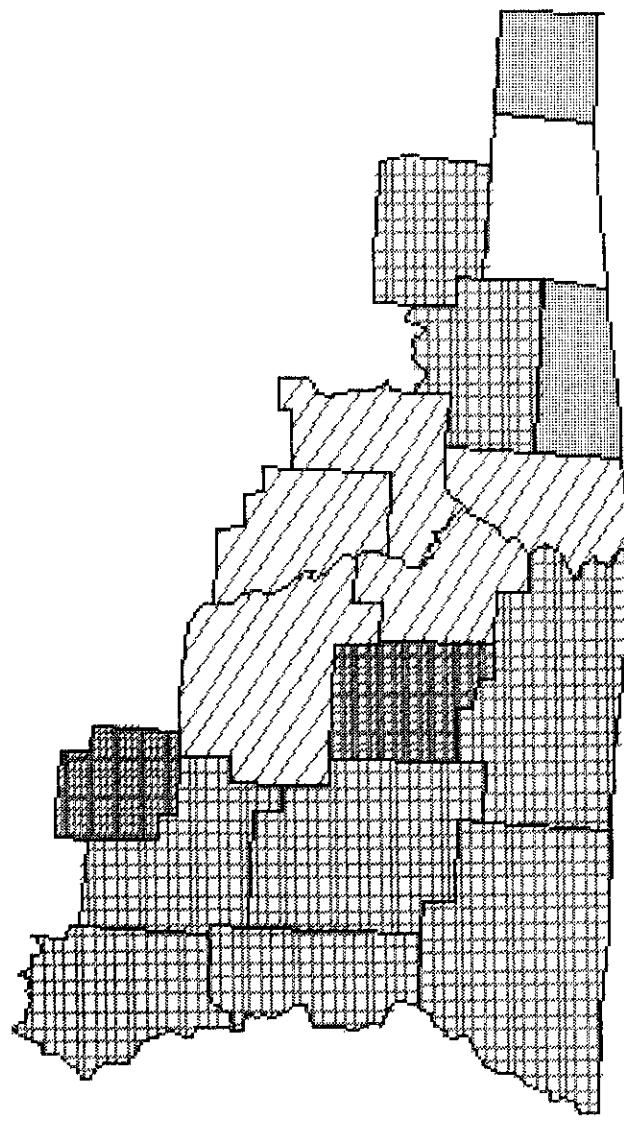
PERCENT TIMBERLAND BY STAND SIZE CLASS

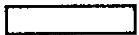
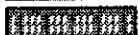
POLETIMBER

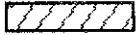


PERCENT TIMBERLAND BY STAND SIZE CLASS

SAWTIMBER



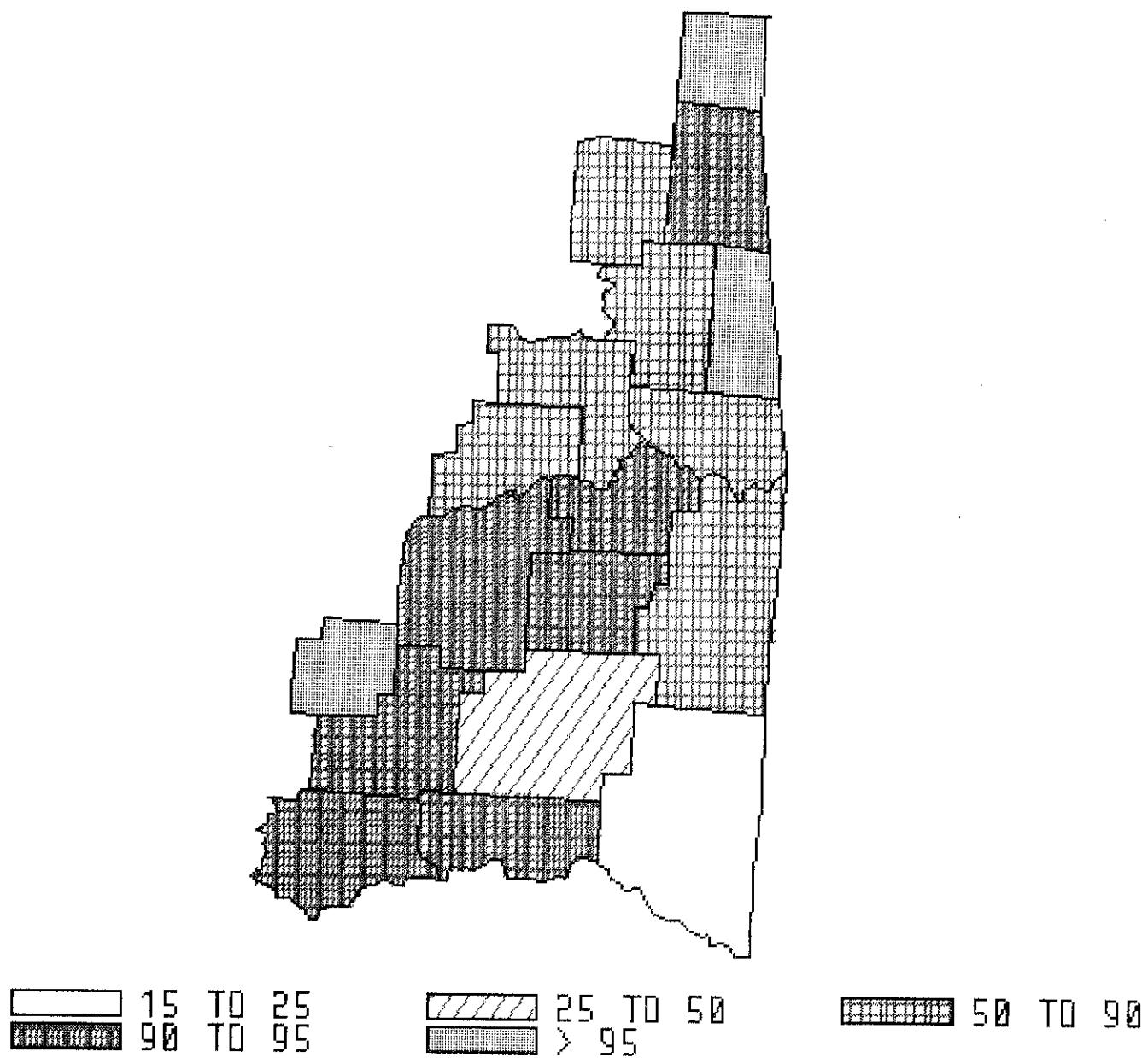
 < 10
 30 TO 40

 10 TO 20
 40 TO 50

 20 TO 30

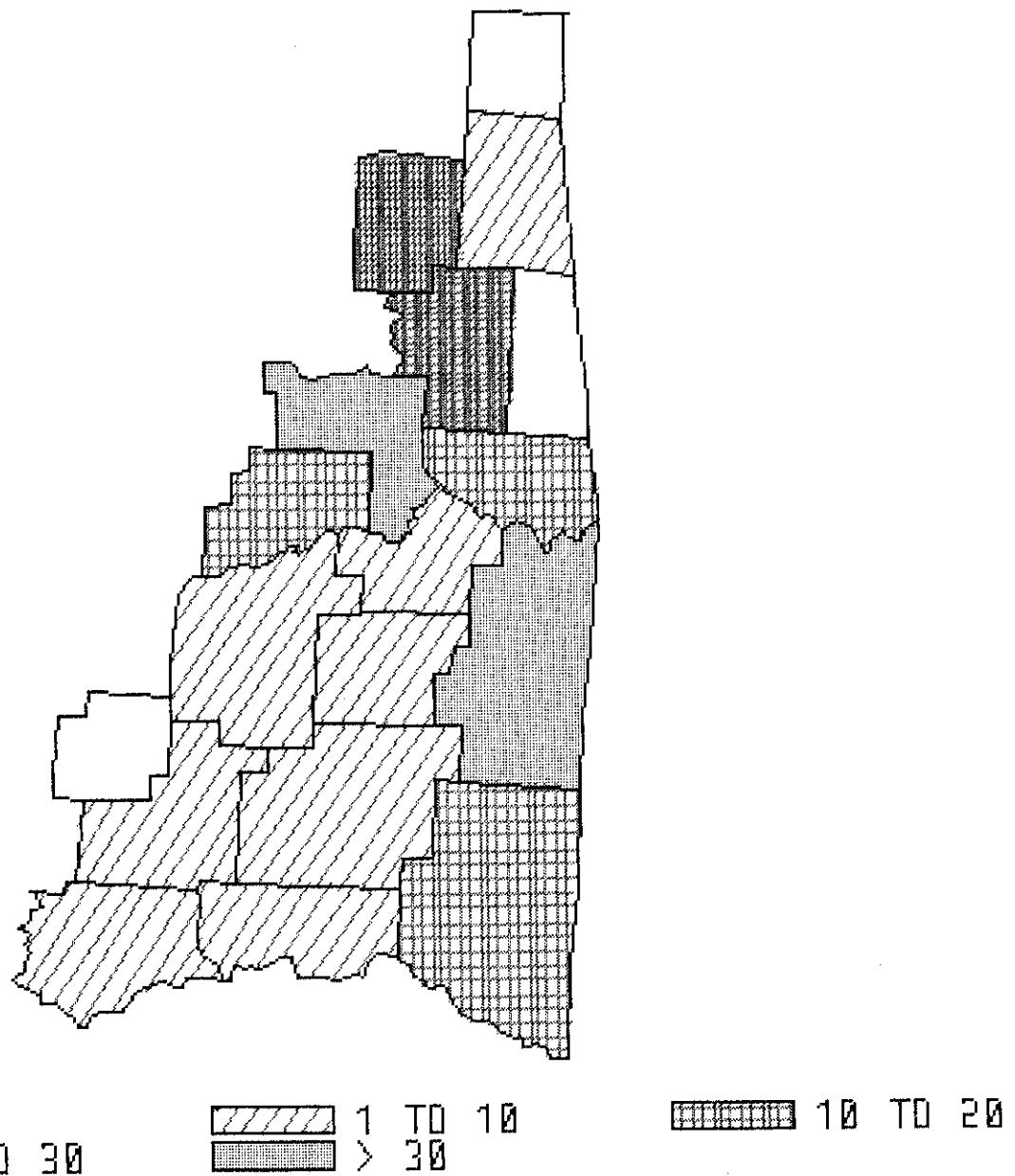
PERCENT TIMBERLAND BY OWNERSHIP CLASS

PRIVATE NONINDUSTRIAL

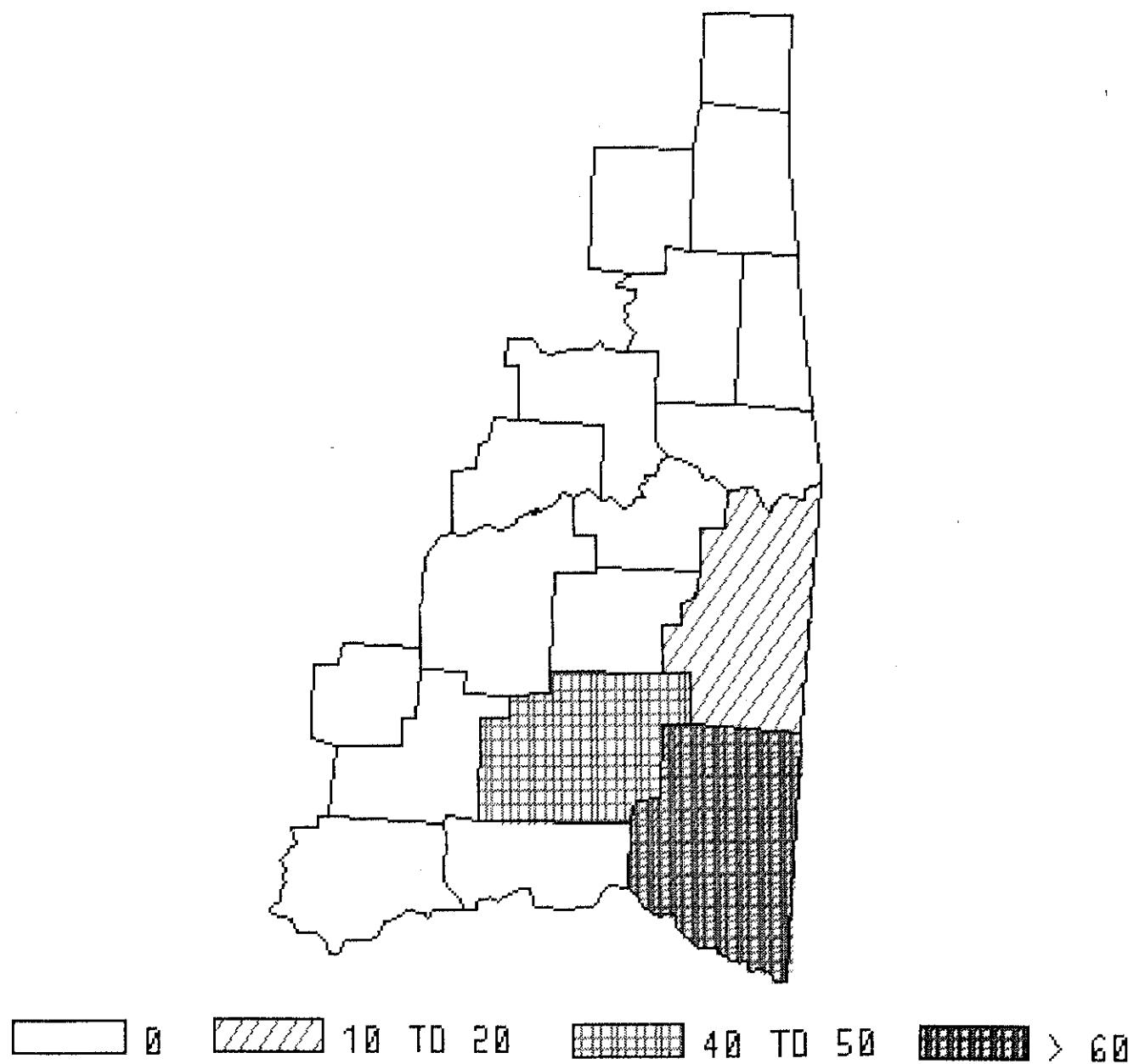


PERCENT TIMBERLAND BY OWNERSHIP CLASS

PUBLIC



PERCENT TIMBERLAND BY OWNERSHIP CLASS FOREST INDUSTRY

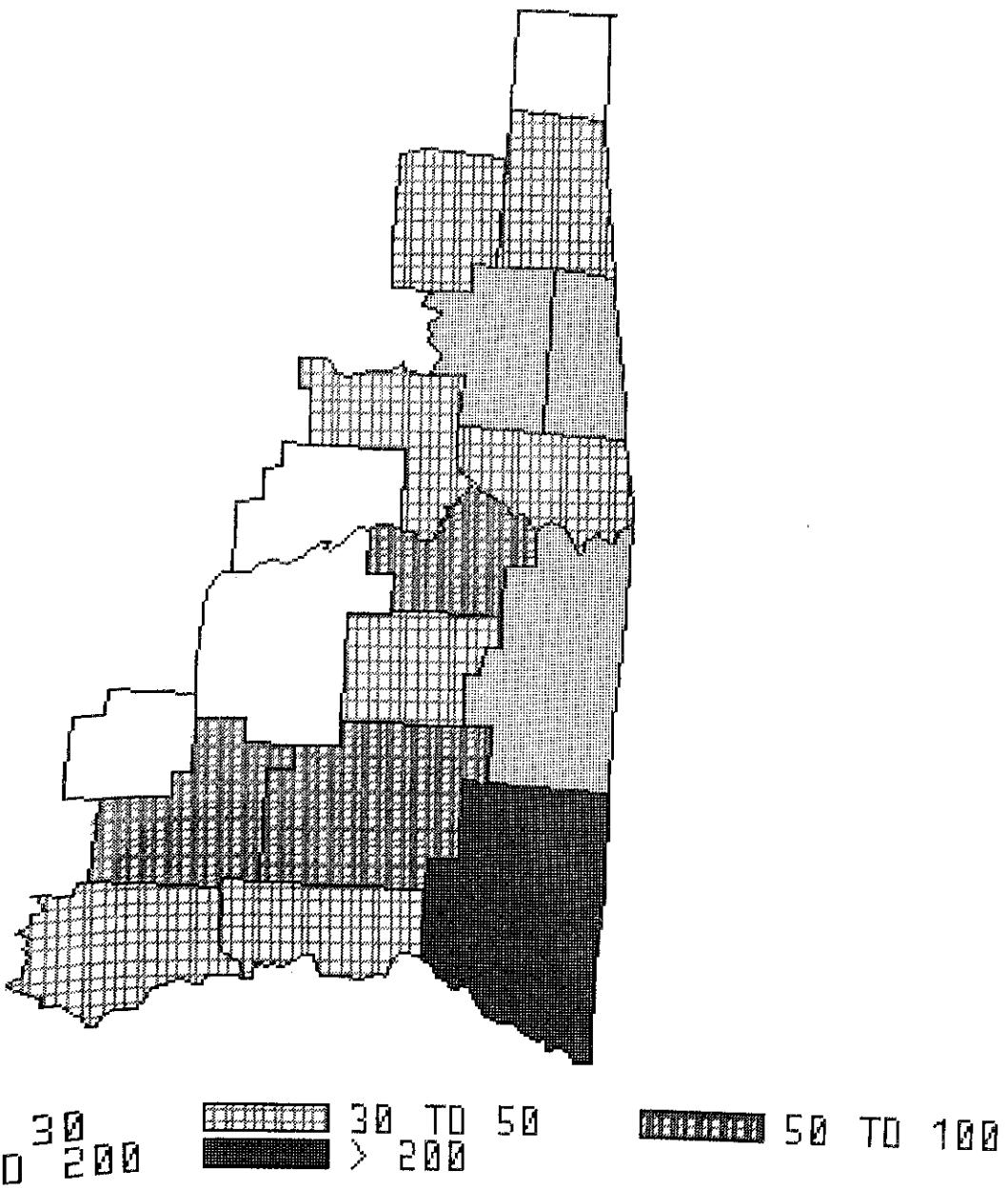


SOFTWOOD GROWING STOCK VOLUME
BY COUNTY
(MILLION CUBIC FEET)

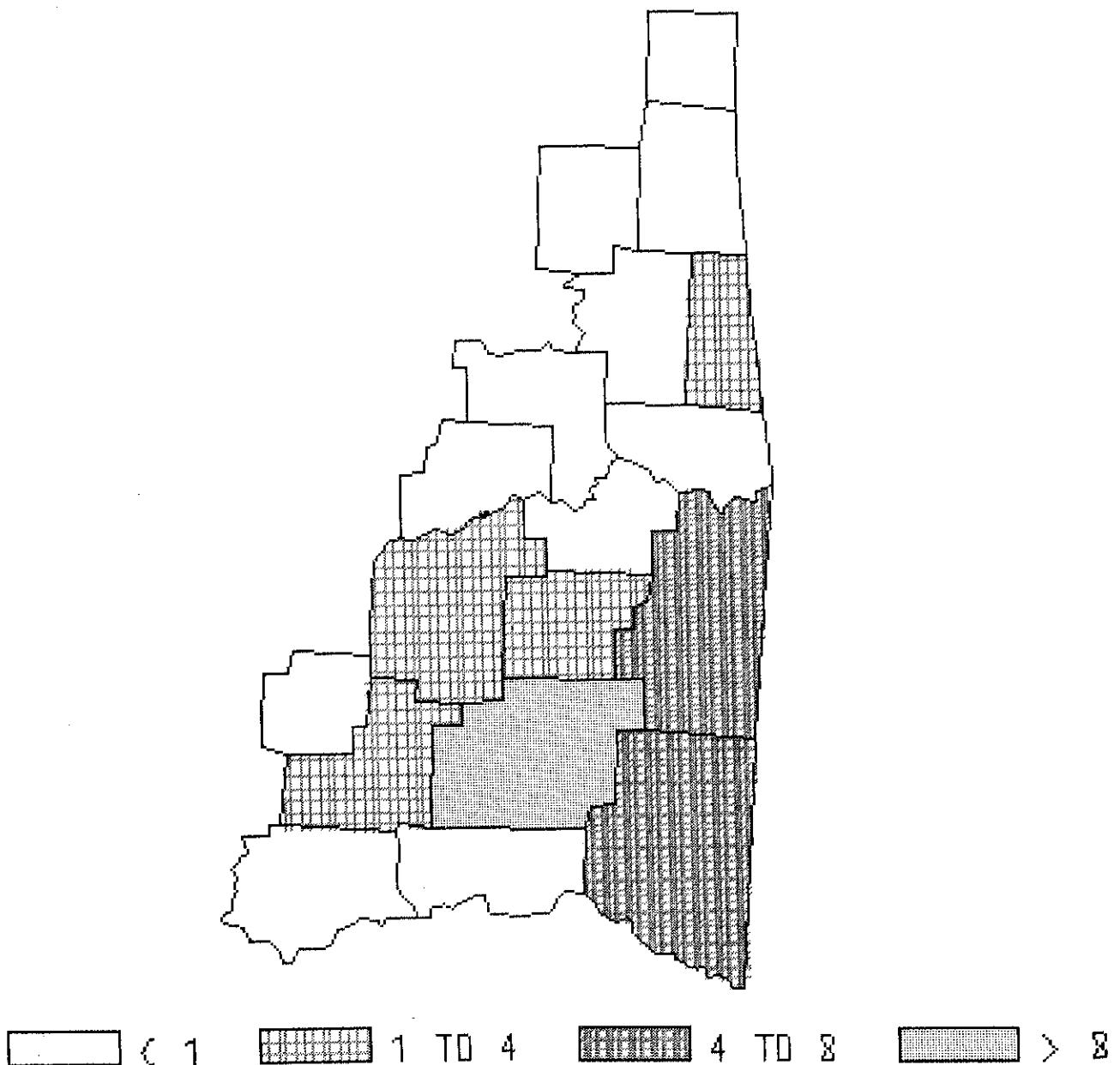


HARDWOOD GROWING STOCK VOLUME BY COUNTY

(MILLION CUBIC FEET)

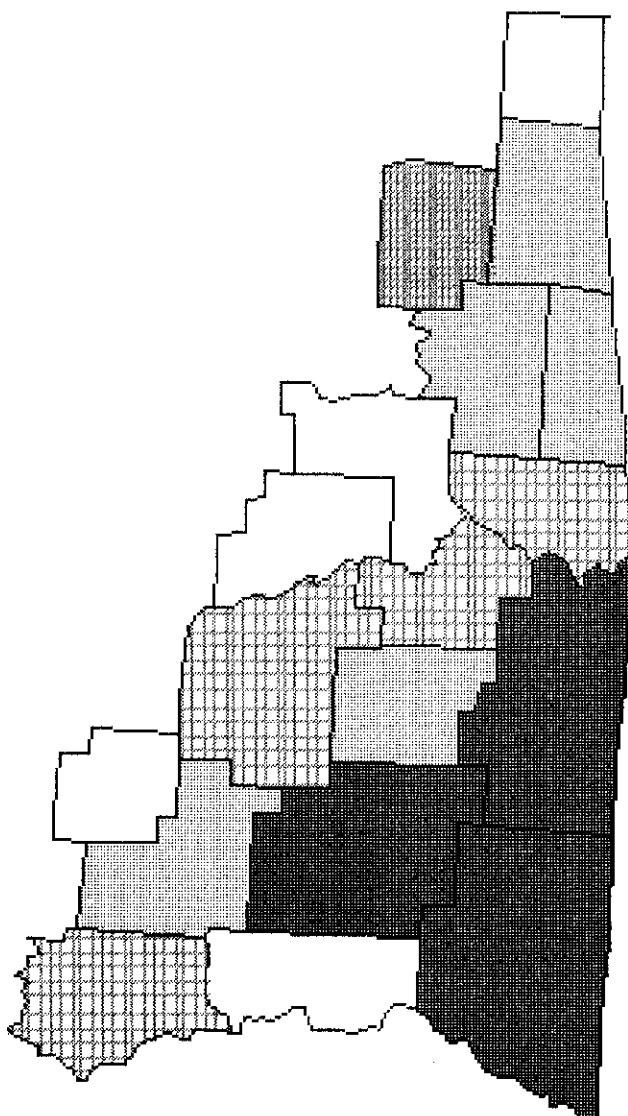


SOFTWOOD ROUGH & ROTTEN VOLUME
BY COUNTY
(MILLION CUBIC FEET)



HARDWOOD ROUGH & ROTTEN VOLUME BY COUNTY

(MILLION CUBIC FEET)

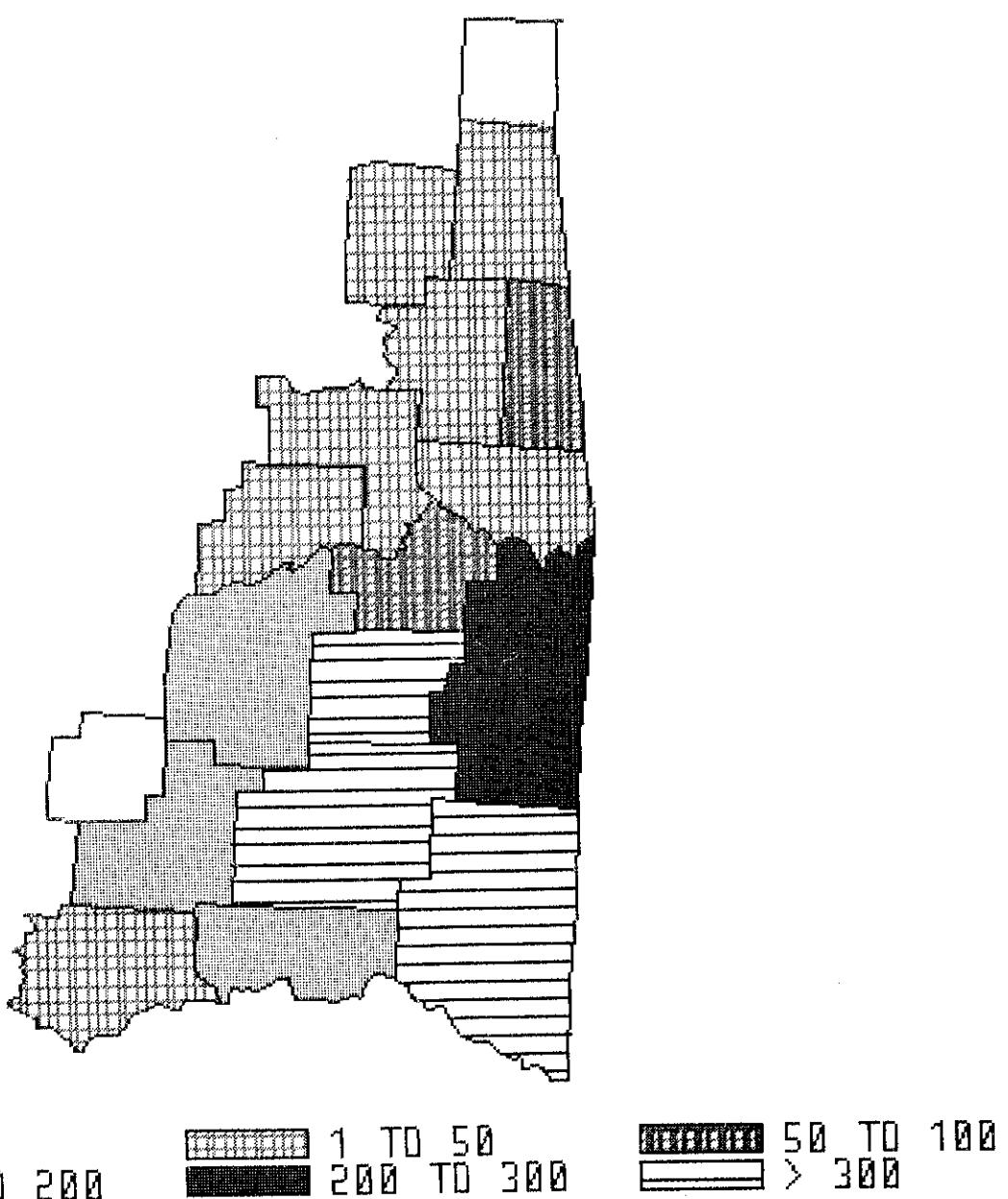


10 TO 30
50 TO 60

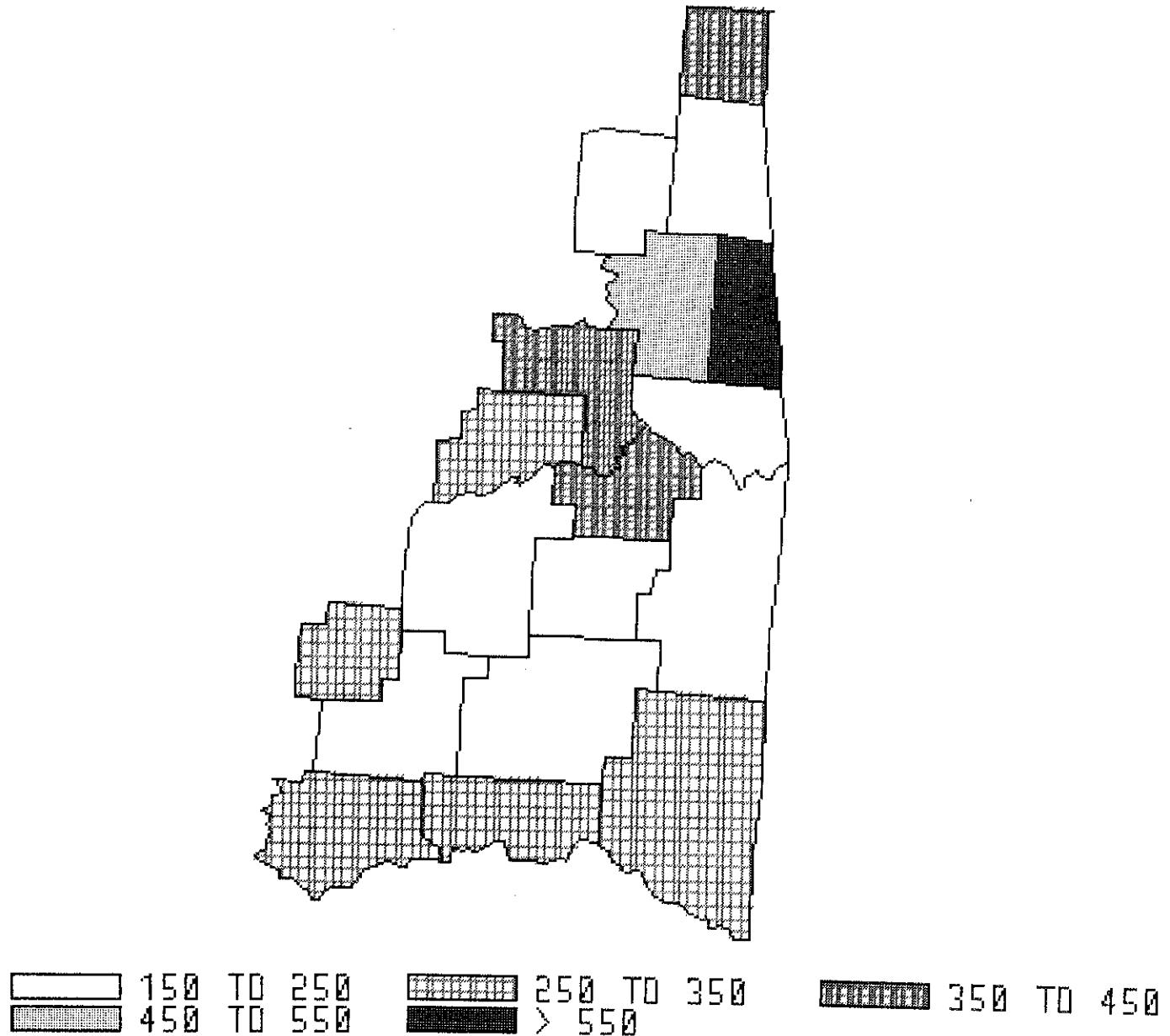
30 TO 40
> 60

40 TO 50

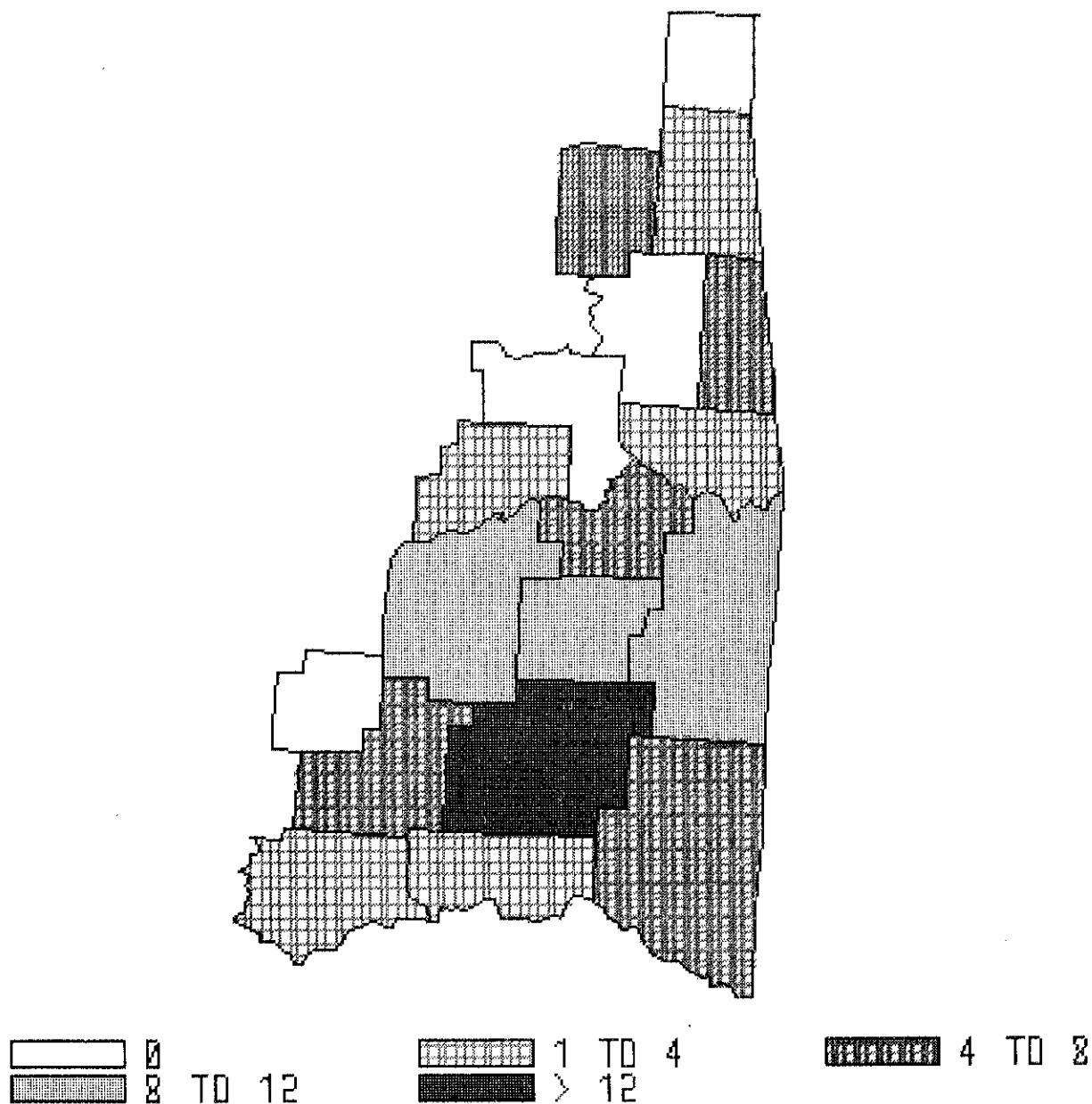
AVERAGE SOFTWOOD GROWING STOCK VOLUME (CUBIC FEET PER ACRE)



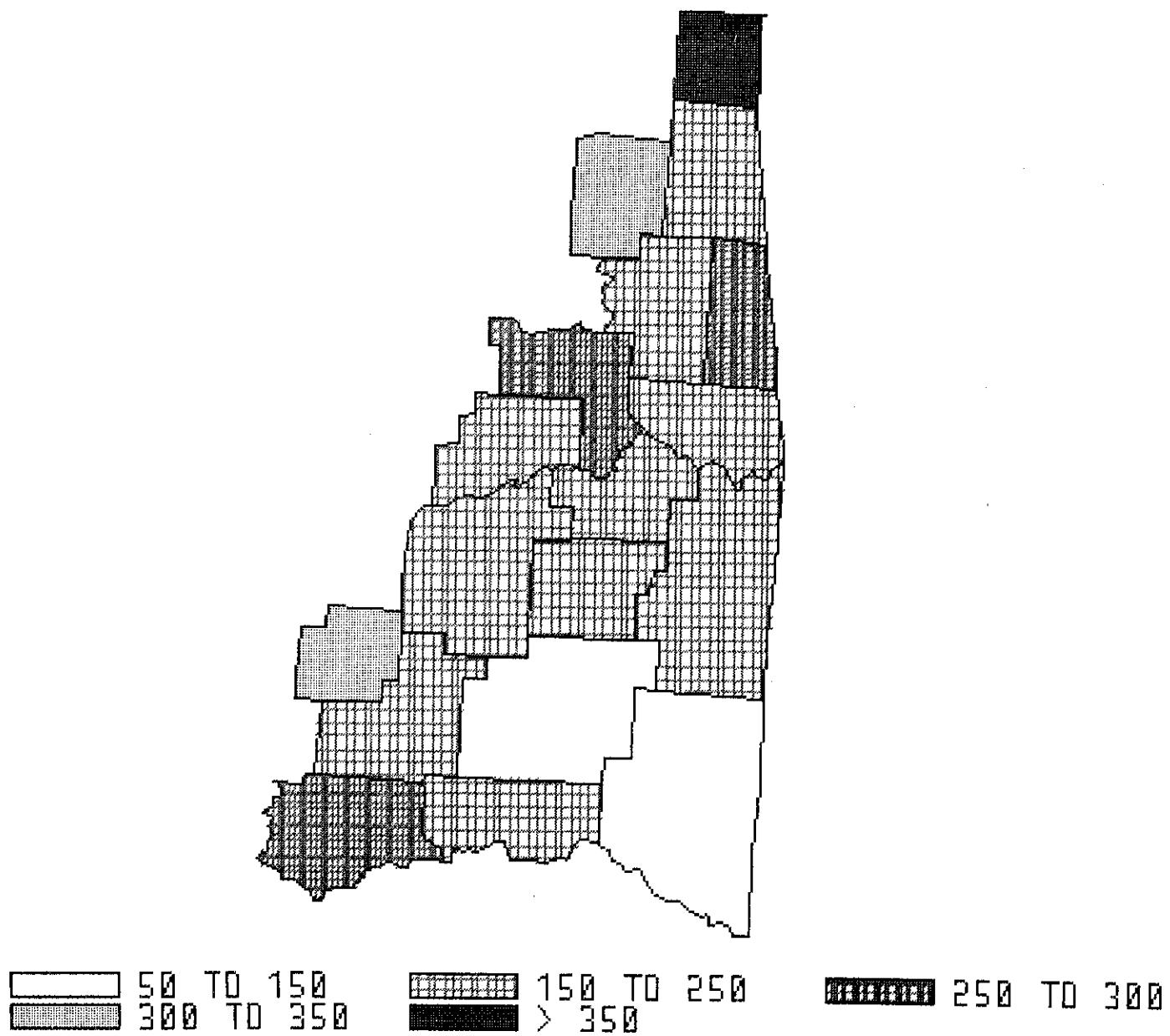
AVERAGE HARDWOOD GROWING STOCK VOLUME (CUBIC FEET PER ACRE)



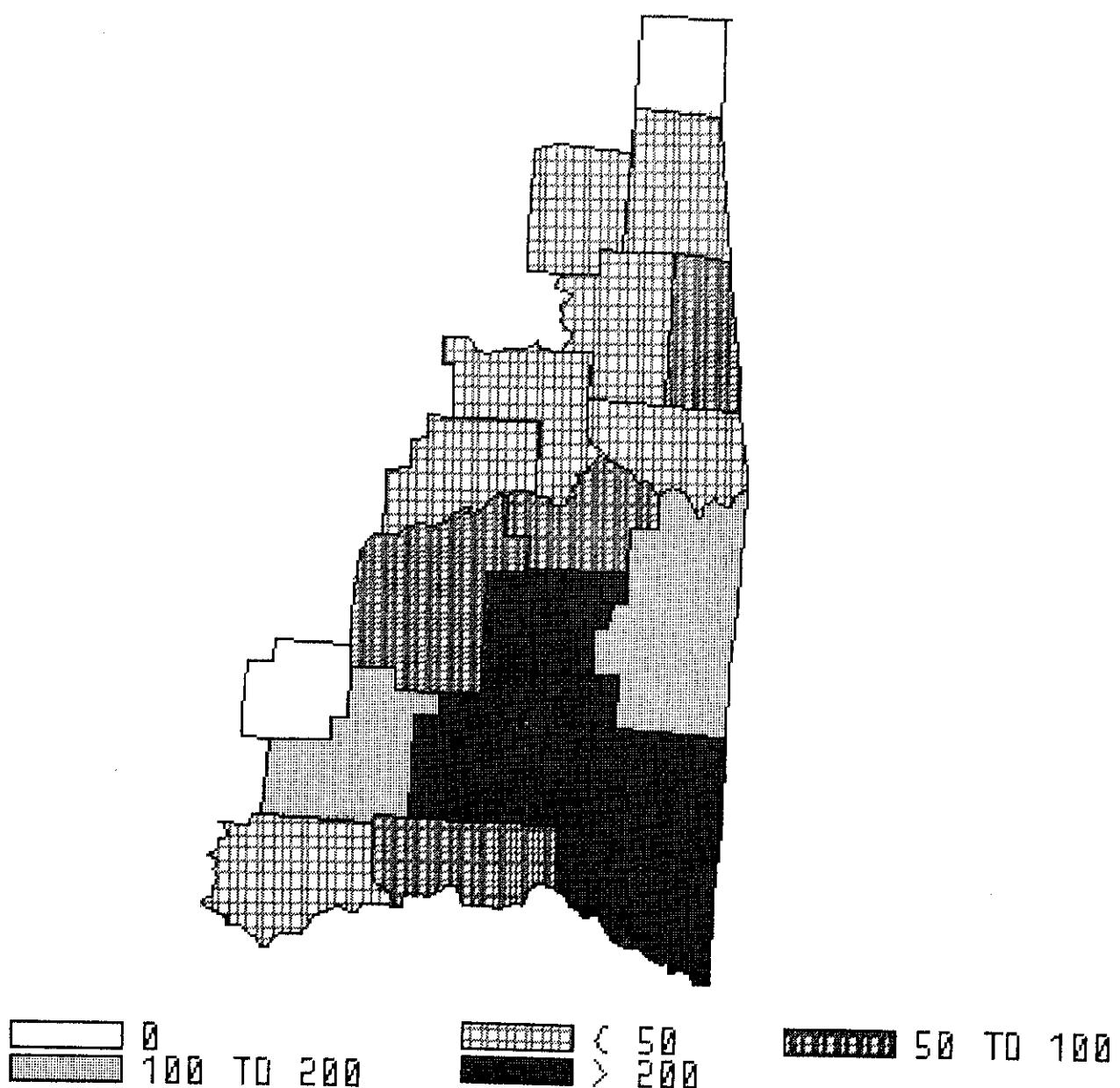
AVERAGE SOFTWOOD ROUGH & ROTTEN VOLUME (CUBIC FEET PER ACRE)



AVERAGE HARDWOOD ROUGH & ROTTEN VOLUME (CUBIC FEET PER ACRE)

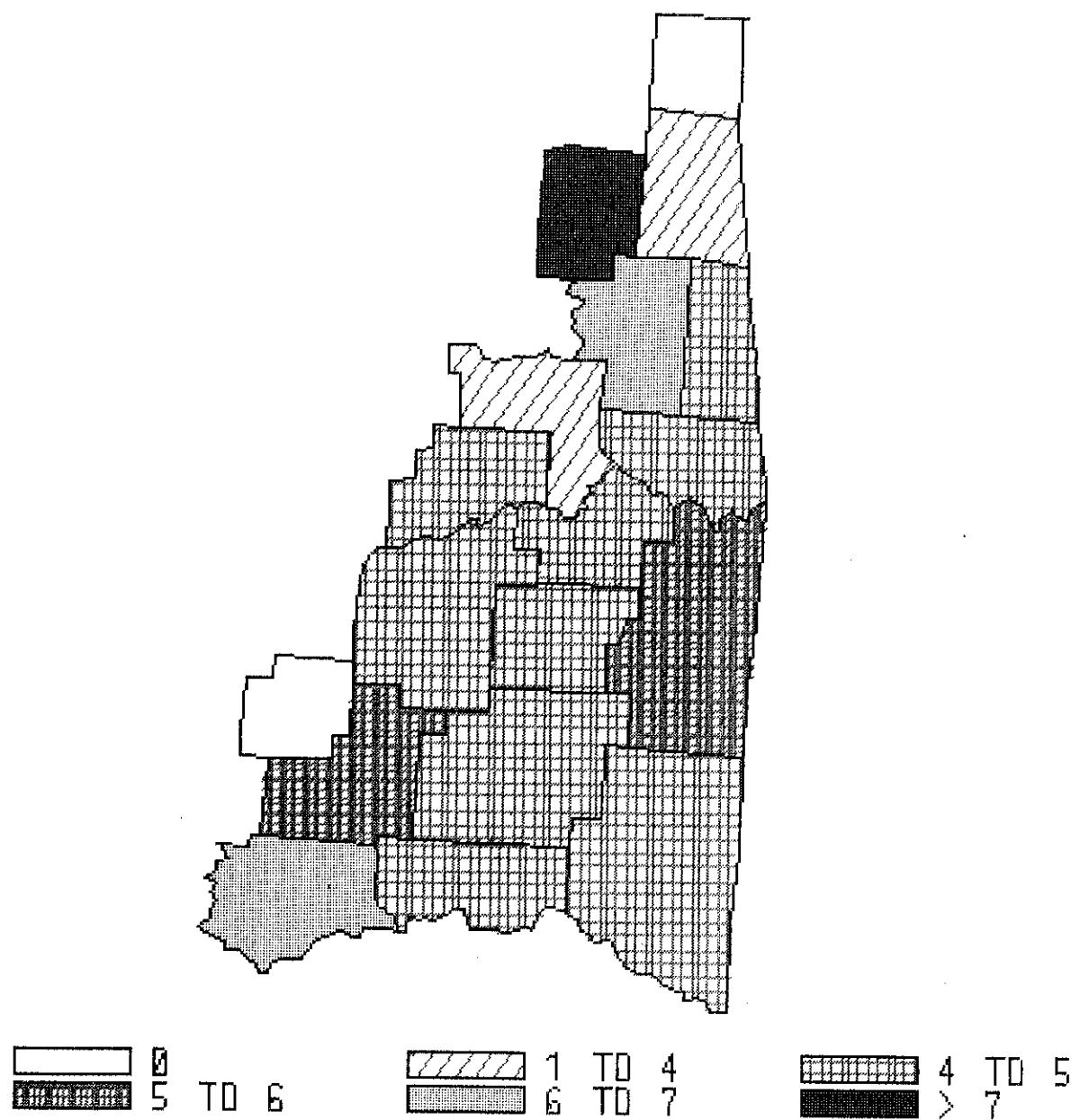


AVERAGE NUMBER LIVE TREES/
ACRE BY COUNTY
SOFTWOOD

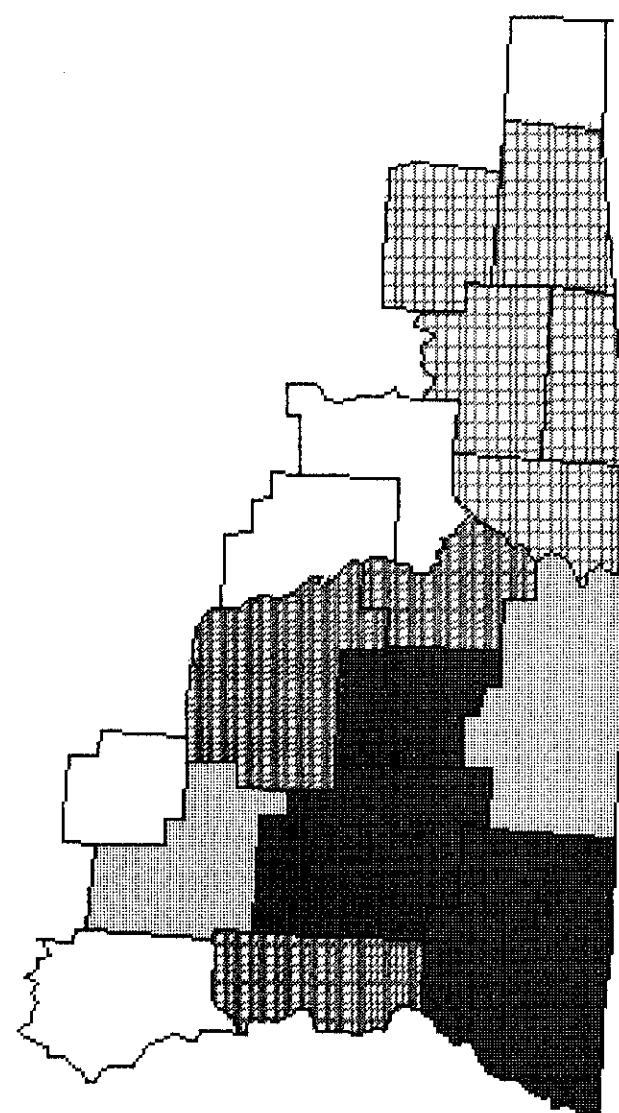


AVERAGE SOFTWOOD DBH BY COUNTY

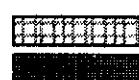
(QUADRATIC MEAN DIAMETER)
(INCHES)

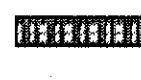


AVERAGE SOFTWOOD BASAL AREA/
ACRE BY COUNTY
(IN SQUARE FEET)



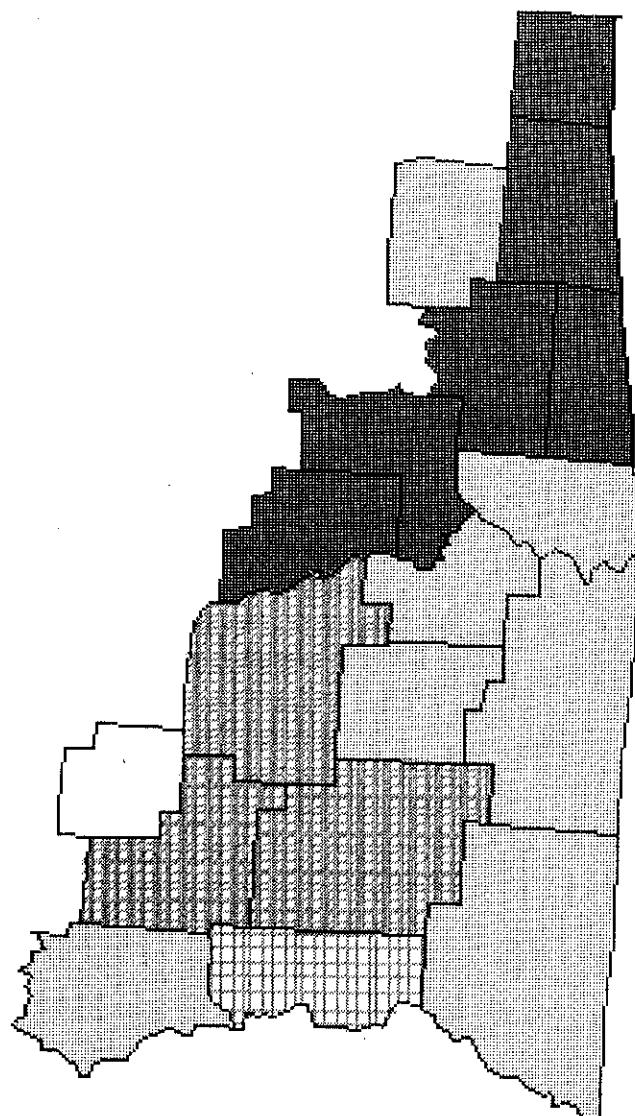
 < 2
12 TO 24

 2 TO 6
> 24

 6 TO 12

AVERAGE NUMBER LIVE TREES/ ACRE BY COUNTY

HARDWOOD

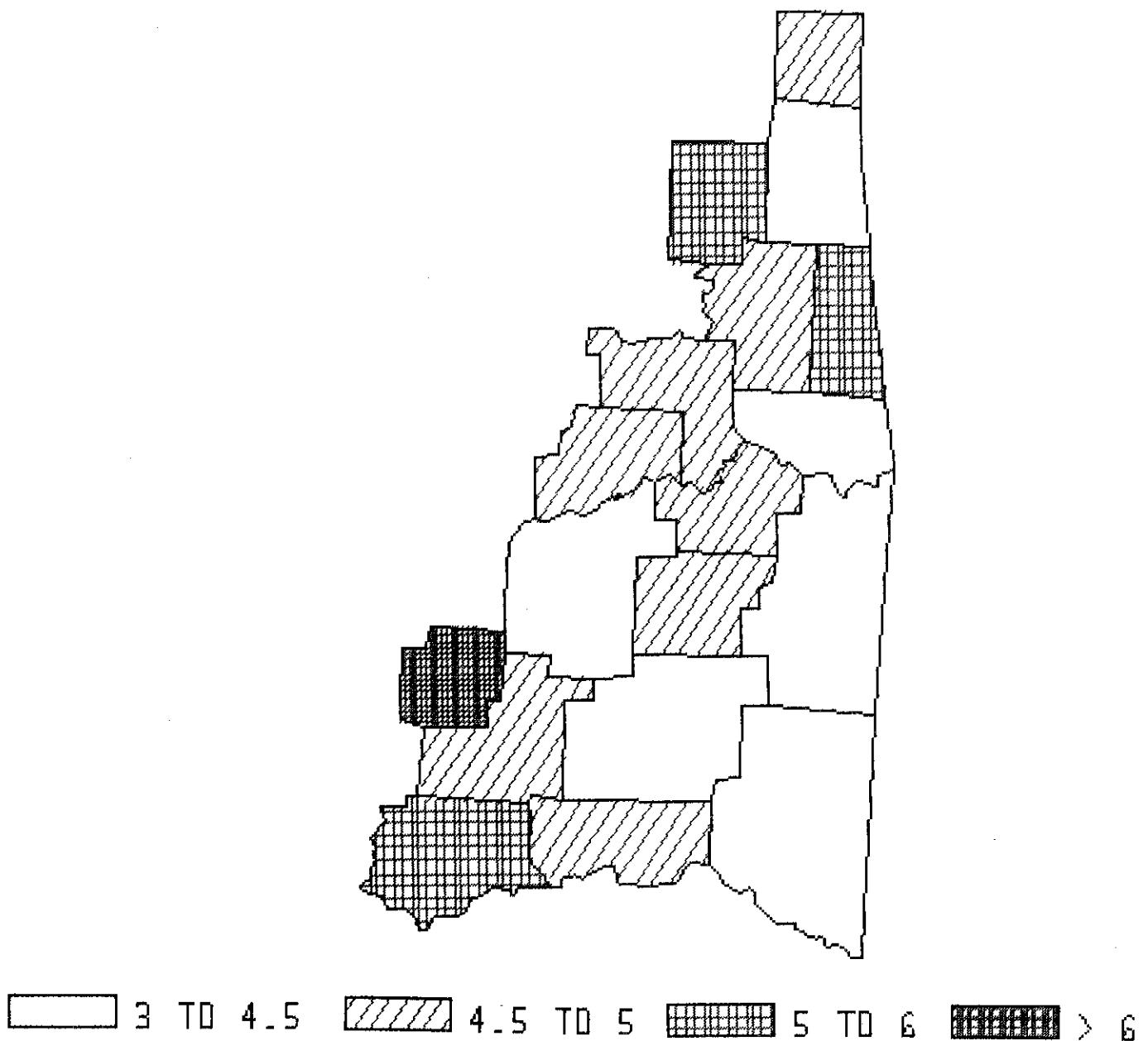


200 TO 300
450-500

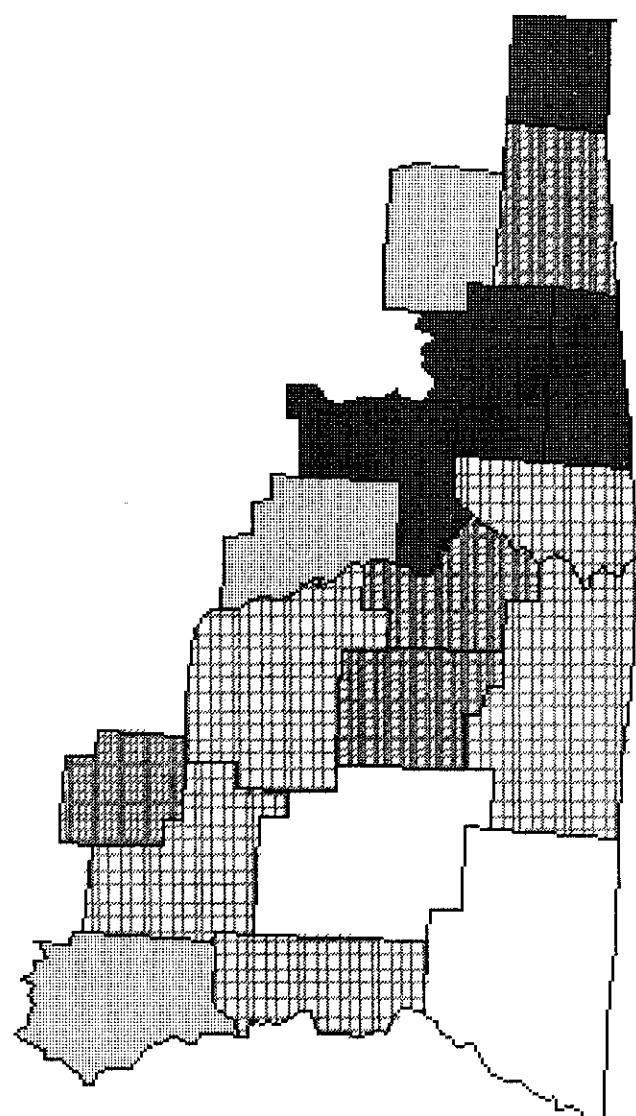
300 TO 400
500-600

400 TO 450
> 600

AVERAGE HARDWOOD DBH BY COUNTY
(QUADRATIC MEAN DIAMETER)
(INCHES)



AVERAGE HARDWOOD BASAL AREA/
ACRE BY COUNTY
(IN SQUARE FEET)



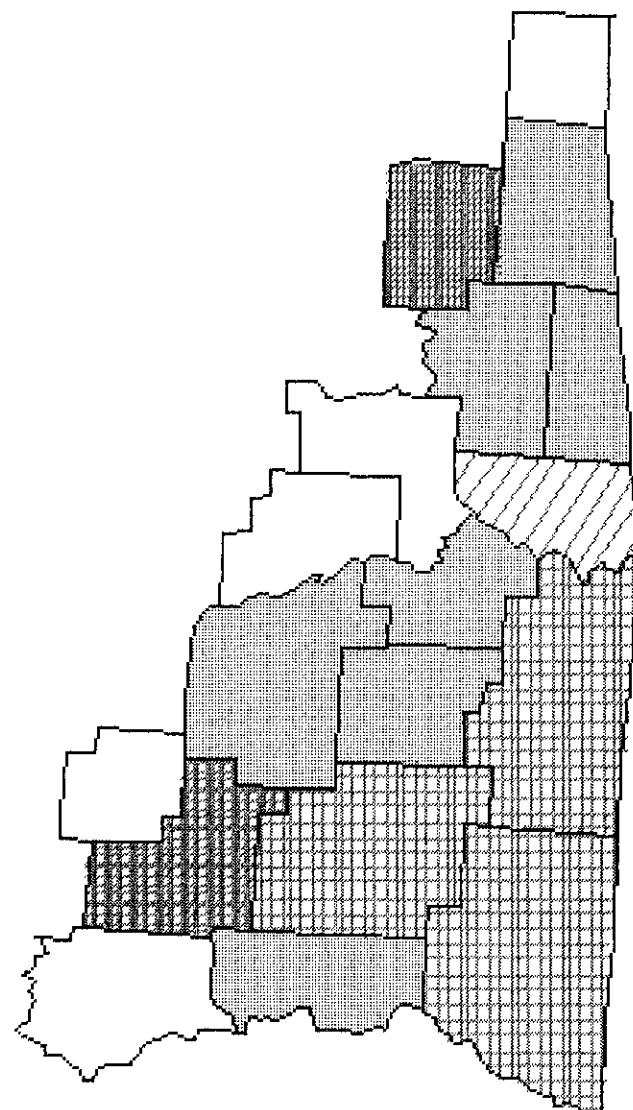
30 TO 40
60 TO 70

40 TO 50
> 70

50 TO 60

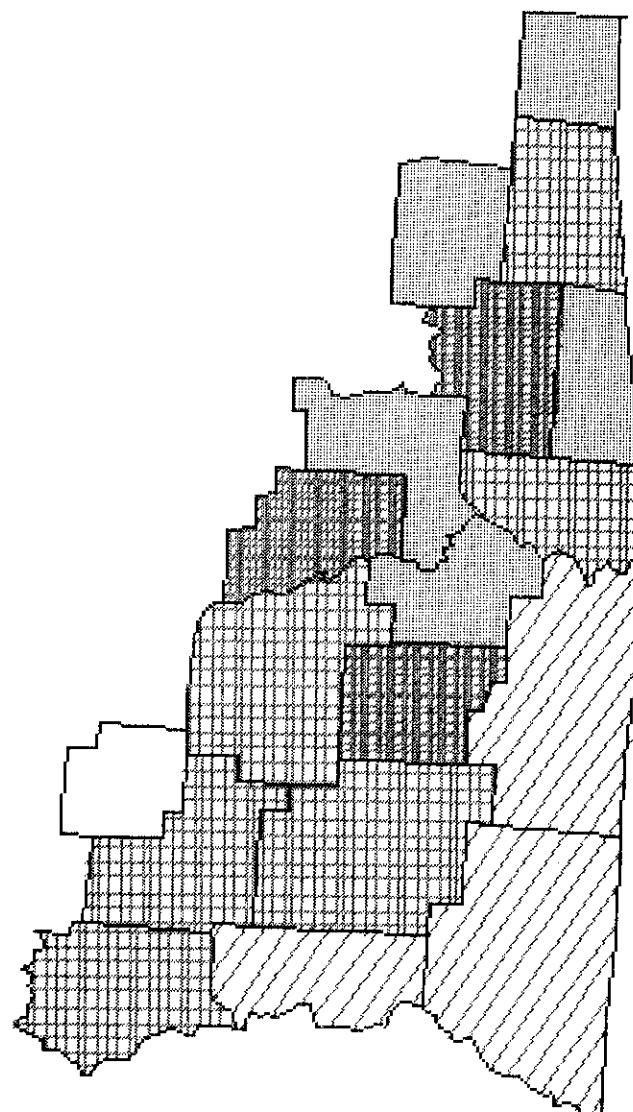
GROWTH/REMOVALS

SOFTWOOD



0 1.0 TO 3.99 0.1 TO 0.49 0.5 TO 0.99
1.0 TO 3.99 > 4.0

GROWTH/REMOVALS HARDWOOD



*U.S. GOVERNMENT PRINTING OFFICE:1987 -761 -086/ 60013

Hines, Franklin D. and Bertelson, Daniel F., Forest statistics for east Oklahoma counties - 1986. Resour. Bull. SO-121. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1987. 57p.

Tabulates forest resource information from a new inventory of East Oklahoma counties.

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