

EAST TEXAS POST OAK REGION

Herbert S. Sternitzke

**SOUTHERN FOREST EXPERIMENT STATION
New Orleans, Louisiana
Forest Service, U.S. Department of Agriculture**

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**U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE**



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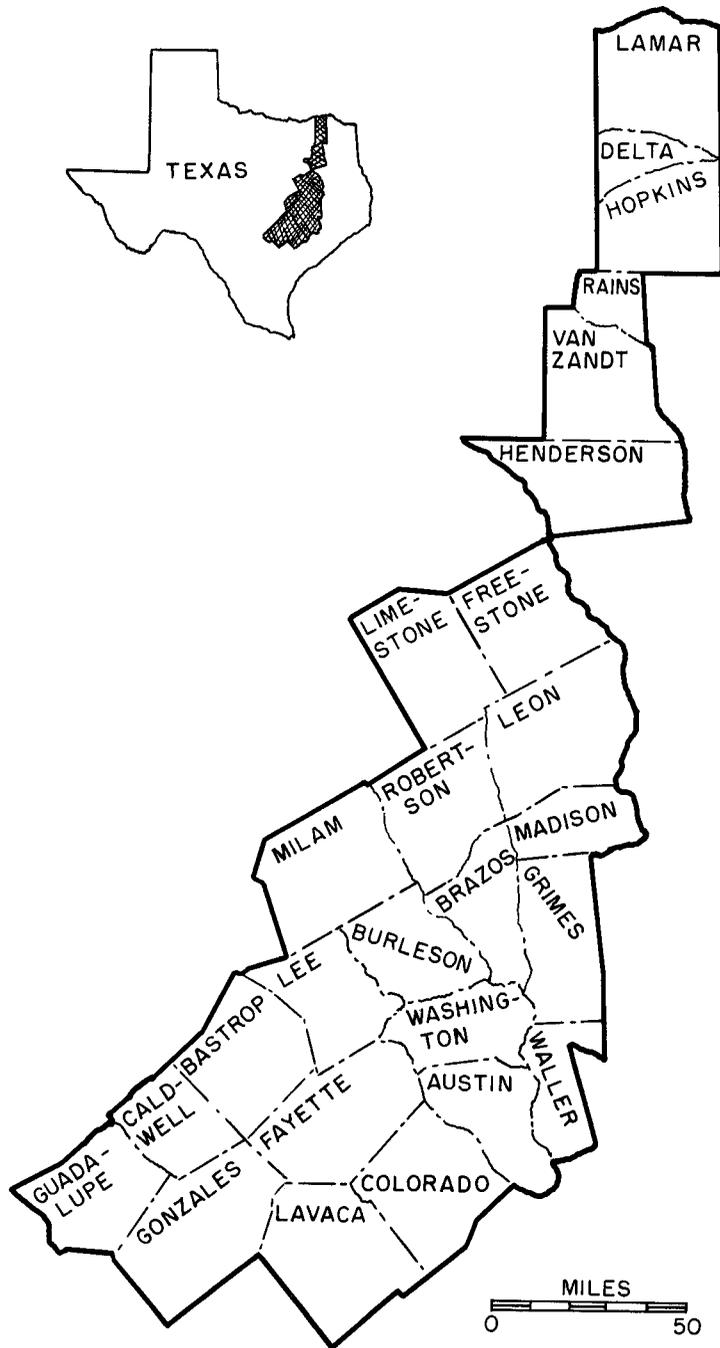


Figure 1.—Counties included in forest survey of east Texas post oak region.

EAST TEXAS POST OAK REGION

This report summarizes information on forest area and timber volume in a 26-county area designated as the post oak region of east Texas (fig. 1). These counties are on the western fringe of lands capable of supporting productive southern forests. The information here is from the first detailed forest inventory of the region, made during 1965 in cooperation with the Texas Forest Service.

From Lamar County on the north the region extends more than 300 miles to Lavaca County in the south. On the east, it is largely bounded by the forests of the Pineywoods; on the west, by the Blackland Prairies. Upland hardwood types dominated by post oak make up three-fourths of the forest.

Although the proportion of land in forest varies from locality to locality, the region as a whole is lightly wooded. Forests occupy a scant 3 million acres, or 24 percent of the total land. About 1.5 million acres are classed as commercial forest land, in the sense that they are estimated to have the capacity to grow crops of industrial wood in excess of 20 cubic feet per acre annually. The rest of the forest area is classed as noncommercial, since it has a lower growth potential and hence is regarded as unsuitable for the sustained production of timber crops.

The noncommercial stands are almost all upland hardwoods; the species are chiefly post oak and blackjack oak.

Hardwood cover types also prevail on most of the commercial forest. Forests in which softwoods, either pine or redcedar, make up at least 25 percent of the stand are limited to 178,000 acres. By contrast, upland hardwoods dominate some 800,000 acres, and along the streams are stands of bottom-land hardwoods that aggregate 490,000 acres.

Three-fourths of the commercial forest land is concentrated in the 11 easternmost counties. The remainder is of sporadic occurrence over the rest of the area.

The volume of growing stock on the commercial forest area is 521 million cubic feet. Hardwoods comprise 80 percent of the total. Post oak alone makes up 20 percent of the total; other oaks, 13 percent; hickory, 11 percent; and other hardwoods, 36 percent. The volume of softwoods is relatively small: loblolly pine is 11 percent of the total; shortleaf pine, 8 percent; and redcedar, 1 percent. Overall, more than two-fifths of the growing stock is in trees below sawtimber size.

The sawtimber portion of the growing stock inventory totals 1.4 billion board feet, of which about half is in trees 16 inches and larger in diameter. Sawtimber volume averages 970 board feet per acre, considerably less than the corresponding average of 2,880 found in the adjacent forests to the east.

Commercial forests have an additional sound volume of 303 million cubic feet in rough and rotten trees. Such trees occupy about 30 percent of the commercial forest area. Although they are unmarketable for sawn products, many contain usable amounts of boltwood.

Because the productive capacity of much of the forest land is low, the task of improving the timber resource in the post oak region is challenging. The findings of this survey suggest that the most favorable opportunities are within the 11 easternmost counties extending from Lamar southward to Waller. These counties encompass the heaviest concentration of commercial forest land in the region, and they are also nearest the major wood-using plants of east Texas. Moreover, it appears that forest management can best be directed towards areas that are capable of supporting pine, and the 11 counties include most of the acreage on which pine occurs now or did occur in the recent past. These pine sites add up to more than a quarter million acres of commercial forest land. Intensification of management would in time enable the region to provide more forest products for expanding wood-using industries of Texas.

ACCURACY OF THE SURVEY

The data on forest acreage and timber volume in this report 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. At each location, 10 small plots were systematically distributed on an area of about 1 acre.

Statistical analysis of the data indicates a sampling error of plus or minus 1.0 percent for the estimate of total commercial forest area, 1.2 percent for total unproductive forest area, 8.3 percent for total cubic volume, and 10.3 percent for total board-foot volume. As these totals are broken down by forest type, species, tree diameter, and other subdivisions, the possibility of error increases and is greatest for the smallest items. The order of this increase is suggested in the following tabulation, which shows the sampling error to which the estimates are liable, two chances out of three.

DEFINITIONS OF TERMS

Forest Land Class

Forest land.—Land at least 10 percent stocked by forest trees of any size, or formerly having such tree cover, and not currently developed for non-forest use.

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

Productive-reserved forest land.—Productive public forest land withdrawn from timber utilization through statute or administrative regulation.

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

Forest Type

Loblolly-shortleaf pine.—Forests in which 50 percent or more of the stand is southern yellow pine or redcedar, and in which loblolly and shortleaf pines, or redcedar, singly or in combination, predominate.

Oak-pine.—Forests in which 50 percent or more of the stand is hardwoods (usually upland oaks, hickory, or gum), but in which pines or redcedar make up 25-49 percent of the stand.

Oak-hickory.—Forests in which 50 percent or more of the stand is upland hardwoods (usually oaks, hickory, and gum) and in which pines or redcedar comprise less than 25 percent of the stand.

Oak-gum-cypress.—Bottom-land forests in which 50 percent or more of the stand is tupelo, sweetgum, oaks, southern cypress, or associated species, singly or in combination, and pines comprise less than 25 percent of the stand.

Elm-ash-cottonwood.—Forests in which 50 percent or more of the stand is elm, ash, cottonwood, or willow, singly or in combination.

Class of Timber

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

Desirable trees.—Growing-stock trees that have no serious defects to limit present or prospective use, are of relatively high vigor, and contain no pathogens that may result in death or serious deterioration before rotation age. They comprise the type of trees that forest managers aim to grow; that is, the trees left in silvicultural cutting or favored in cultural operations.

Commercial forest area	Sampling error ¹	Unproductive forest area	Sampling error ¹	Cubic-foot volume ²	Sampling error ¹	Board-foot volume ²	Sampling error ¹
Thousand acres	Percent	Thousand acres	Percent	Million cu. ft.	Percent	Million bd. ft.	Percent
1,468.5	1.0	1,525.1	1.2	...	...	...	...
367.1	2.0	549.0	2.0	...	...	...	...
163.2	3.0	244.0	3.0	...	...	...	...
91.8	4.0	137.3	4.0	...	...	...	...
58.7	5.0	87.8	5.0	521.0	8.3	...	...
14.7	10.0	22.0	10.0	358.9	10.0	1,428.6	10.3
6.5	15.0	9.8	15.0	159.5	15.0	673.6	15.0
3.7	20.0	5.5	20.0	89.7	20.0	378.9	20.0
2.3	25.0	3.5	25.0	57.4	25.0	242.5	25.0

¹ By random-sampling formula.

² Growing stock volume on commercial forest land.

³ Sawtimber volume on commercial forest land.

Acceptable trees.—Trees meeting the specifications for growing stock but not qualifying as desirable trees.

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

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

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

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

Stand-Size Class

Sawtimber stands.—Stands at least 10 percent stocked with growing-stock trees, with half or more of this stocking in sawtimber or poletimber trees, and with sawtimber stocking at least equal to poletimber stocking.

Poletimber stands.—Stands at least 10 percent stocked with growing-stock trees, with half or more of this stocking in sawtimber or poletimber trees, and with poletimber stocking exceeding that of sawtimber stocking.

Sapling-seedling stands.—Stands at least 10 percent stocked with growing-stock trees, with more than half of this stocking in saplings or seedlings.

Nonstocked areas.—Commercial forest lands less than 10 percent stocked with growing-stock trees.

Stocking

A measure of area occupancy by trees of specified classes. Three categories of stocking are considered in the Survey: (1) all live trees, (2) growing-stock trees, and (3) desirable trees. Stocking in terms of all trees is used in the delineation of forest land and forest types. Stocking in terms of growing-stock trees is used in stand-size classifications. Stocking in terms of desirable trees is used in delineating area-condition classes.

Volume

Volume of sawtimber.—Net volume of the saw-log portion of live sawtimber trees, in board feet of the International rule, $\frac{1}{4}$ -inch kerf.

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

Volume of timber.—The volume of sound wood in the bole of growing stock, rough, rotten, and salvable dead trees 5.0 inches and larger in d.b.h., from stump to a minimum 4.0-inch top outside bark or to the point where the central stem breaks into limbs.

Log Grades

Log grades are based on the standards presented by the U. S. Forest Service in "Interim Log Grades for Southern Pines," issued by the Southern Forest Experiment Station in 1953, and "Hardwood Log Grades for Standard Lumber," issued by the Forest Products Laboratory under the designation D1737 in 1949.

Hardwood log grades include, in addition to the grades for standard lumber, a grade 4 tie and timber log. Specifications for tie and timber logs are based chiefly on knot size and log soundness; clear cuttings are not required.

Area-Condition Class

Class 1.—Areas 70% or more stocked with desirable trees.

Class 2.—Areas 40 to 70% stocked with desirable trees, and with 30% or less of the area controlled by acceptable growing-stock trees, rough and rotten trees, inhibiting vegetation, slash, or nonstockable conditions.

Class 3.—Areas 40 to 70% stocked with desirable trees and with more than 30% of the area controlled by other trees or conditions that ordinarily prevent occupancy by desirable trees.

Class 4.—Areas less than 40% stocked with desirable trees, but with 70% or more stocking with growing-stock trees.

Class 5.—Areas less than 40% stocked with desirable trees, but with 40 to 70% stocking with growing-stock trees.

Class 6.—Areas less than 40% stocked with desirable trees and with less than 40% stocking with growing-stock trees.

Miscellaneous Definitions

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

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

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

TABLES

Table 1. *Area by land classes, Post Oak Region, Texas, 1965*

Land class	Area
	<i>Thousand acres</i>
Forest:	
Commercial	1,468.5
Unproductive	1,525.1
Productive-reserved	...
Total forest	<u>2,993.6</u>
Nonforest ¹	<u>9,678.5</u>
All land ²	<u>12,672.1</u>

¹ Includes some acreage of water according to survey standards of area classification but defined by Bureau of the Census as land.

² From U. S. Bureau of the Census, Land and Water Area of the United States, 1960.

Table 2. *Area of commercial forest land by ownership classes, Post Oak Region, Texas, 1965*

Ownership class	Area
	<i>Thousand acres</i>
Public:	
National forest	...
Miscellaneous federal	5.0
State	6.3
County and municipal	.6
Total public	<u>11.9</u>
Private:	
Forest industry	32.3
Farmer	635.8
Miscellaneous private	788.5
Total private	<u>1,456.6</u>
All ownerships	<u>1,468.5</u>

Table 3. *Area of commercial forest land by stand-size and ownership classes, Post Oak Region, Texas, 1965*

Stand-size class	All owner-ships	Public	Forest industry	Farmer and misc. private
	<i>Thousand acres</i>			
Sawtimber	523.1	...	26.8	496.3
Poletimber	408.5	6.1	5.5	396.9
Sapling and seedling	513.8	5.8	...	508.0
Nonstocked areas	23.1	...	...	23.1
All classes	<u>1,468.5</u>	<u>11.9</u>	<u>32.3</u>	<u>1,424.3</u>

Table 4. *Area of commercial forest land by stand-volume classes for sawtimber and other stand-size classes, Post Oak Region, Texas, 1965*

Stand volume per acre	All stands	Sawtimber stands	Other stands
	<i>Thousand acres</i>		
Less than 1,500 board feet	1,180.3	240.0	940.3
1,500 to 5,000 board feet	249.0	243.9	5.1
More than 5,000 board feet	39.2	39.2	...
All classes	<u>1,468.5</u>	<u>523.1</u>	<u>945.4</u>

Table 5. *Area of commercial forest land by stocking classes based on alternative stand components, Post Oak Region, Texas, 1965*

Stocking percentage	Stocking classified in terms of		
	All trees	Growing stock trees	Desirable trees
	<i>Thousand acres</i>		
90 to 100	364.3	26.3	5.5
80 to 90	422.0	46.4	...
70 to 80	346.8	144.8	30.1
60 to 70	122.9	178.1	16.5
50 to 60	108.6	260.1	64.7
40 to 50	88.2	352.3	54.7
30 to 40	10.2	218.6	102.1
20 to 30	...	114.6	177.7
10 to 20	5.5	104.2	367.0
Less than 10	...	23.1	650.2
All areas	<u>1,468.5</u>	<u>1,468.5</u>	<u>1,468.5</u>

Table 6. Area of commercial forest land by stocking classes of growing stock trees and by stand-size classes, Post Oak Region, Texas, 1965

Stocking class	All stands	Saw-timber	Pole-timber	Sapling and seedling	Non-stocked
----- Thousand acres -----					
70 percent or more	217.5	84.7	50.0	82.8	...
40 to 70 percent	790.5	290.2	223.4	276.9	...
10 to 40 percent	437.4	148.2	135.1	154.1	...
Less than 10 percent	23.1	...	...	...	23.1
All classes	1,468.5	523.1	408.5	513.8	23.1

Table 7. Area of commercial forest land, by area-condition and ownership classes, Post Oak Region, Texas, 1965

Area-condition class	All ownerships	Public	Forest industry	Farmer and misc. private
----- Thousand acres -----				
1	35.6	3.0	11.0	21.6
2	58.0	...	16.2	41.8
3	77.9	...	5.1	72.8
4	92.6	...	...	92.6
5	743.9	6.1	...	737.8
6	460.5	2.8	...	457.7
All classes	1,468.5	11.9	32.3	1,424.3

Table 8. Area of commercial forest land by area-condition and stocking classes, Post Oak Region, Texas, 1965

Area-condition class	All classes		Stocking class									
			Growing stock				Rough and rotten trees		Shrubs		Other	
			Desirable		Acceptable		Thousand acres	Percent	Thousand acres	Percent	Thousand acres	Percent
1	35.6	100.0	27.1	76.1	3.4	9.6	2.7	7.6	...	...	2.4	6.7
2	58.0	100.0	30.7	53.0	6.0	10.3	6.4	11.0	0.4	0.7	14.5	25.0
3	77.9	100.0	36.3	46.6	18.8	24.1	14.2	18.2	.2	.3	8.4	10.8
4	92.6	100.0	12.3	13.3	57.7	62.3	13.4	14.5	...	...	9.2	9.9
5	743.9	100.0	91.0	12.2	281.8	37.9	212.1	28.5	14.9	2.0	144.1	19.4
6	460.5	100.0	24.2	5.3	85.5	18.6	189.8	41.2	17.9	3.9	143.1	31.0
All classes	1,468.5	100.0	221.6	15.1	453.2	30.8	438.6	29.9	33.4	2.3	321.7	21.9

Table 9. Area of commercial forest land by site and ownership classes, Post Oak Region, Texas, 1965

Site class	All ownerships	Public	Forest industry	Farmer and misc. private
----- Thousand acres -----				
85 to 120 cu. ft.	324.3	...	16.2	308.1
50 to 85 cu. ft.	450.5	2.7	10.6	437.2
Less than 50 cu. ft.	693.7	9.2	5.5	679.0
All classes	1,468.5	11.9	32.3	1,424.3

Table 10. Area of commercial forest land by forest types and ownership classes, Post Oak Region, Texas, 1965

Type	All ownerships	Public	Private
----- Thousand acres -----			
Loblolly-shortleaf pine	129.7	3.0	126.7
Oak-pine	47.9	...	47.9
Oak-hickory	800.5	5.5	795.0
Oak-gum-cypress	457.1	3.4	453.7
Elm-ash-cottonwood	33.3	...	33.3
All types	1,468.5	11.9	1,456.6

Table 11. Area of noncommercial forest land by forest types, Post Oak Region, Texas, 1965

Type	All areas	Productive-reserved areas	Un-productive areas
--- Thousand acres ---			
Loblolly-shortleaf pine	19.0	...	19.0
Oak-pine	19.2	...	19.2
Oak-hickory	1,444.9	...	1,444.9
Oak-gum-cypress	42.0	...	42.0
All types	1,525.1	...	1,525.1

Table 12. Number of growing-stock trees on commercial forest land by diameter classes and by softwoods and hardwoods, Post Oak Region, Texas, 1965

D.b.h. class (inches)	All species	Softwood	Hardwood
--- Thousand trees ---			
1.0- 2.9	258,420	73,717	184,703
3.0- 4.9	82,414	15,847	66,567
5.0- 6.9	34,660	7,765	26,895
7.0- 8.9	20,485	3,632	16,853
9.0-10.9	12,559	2,624	9,935
11.0-12.9	5,221	1,217	4,004
13.0-14.9	3,219	836	2,383
15.0-16.9	1,439	167	1,272
17.0-18.9	933	102	831
19.0 and larger	1,496	63	1,433
All classes	420,846	105,970	314,876

Table 13. Number of rough and rotten trees on commercial forest land by diameter groups and by softwoods and hardwoods, Post Oak Region, Texas, 1965

D.b.h. class (inches)	Rough and rotten trees
Thousand trees	
Softwood:	
5.0- 8.9	448
9.0-18.9	61
19.0 and larger	7
Total	516
Hardwood:	
5.0-10.9	50,301
11.0-18.9	11,735
19.0 and larger	1,737
Total	63,773
All species	64,289

Table 14. Volume of timber on commercial forest land by class of timber and by softwoods and hardwoods, Post Oak Region, Texas, 1965

Class of timber	All species	Softwood	Hardwood
-- Million cubic feet --			
Sawtimber trees:			
Saw-log portion	241.8	62.5	179.3
Upper-stem portion	50.9	9.2	41.7
Total	292.7	71.7	221.0
Poletimber trees	228.3	34.6	193.7
All growing stock	521.0	106.3	414.7
Rough trees:			
Sawtimber-size	152.3	.3	152.0
Poletimber-size	101.3	.5	100.8
Total	253.6	.8	252.8
Rotten trees:			
Sawtimber-size	37.6	.1	37.5
Poletimber-size	11.7	...	11.7
Total	49.3	.1	49.2
All timber	823.9	107.2	716.7

Table 15. *Volume of growing stock and sawtimber on commercial forest land by ownership classes and by softwoods and hardwoods, Post Oak Region, Texas, 1965*

Ownership class	Growing stock			Sawtimber		
	All species	Soft-wood	Hard-wood	All species	Soft-wood	Hard-wood
	- Million cubic feet -			- Million board feet -		
Public	2.9	0.8	2.1	6.0	2.7	3.3
Forest industry	40.6	38.2	2.4	144.6	142.9	1.7
Farmer and misc. private	477.5	67.3	410.2	1,278.0	193.5	1,084.5
All ownerships	521.0	106.3	414.7	1,428.6	339.1	1,089.5

Table 16. *Volume of growing stock and sawtimber on commercial forest land by stand-size classes and by softwoods and hardwoods, Post Oak Region, Texas, 1965*

Stand-size class	Growing stock			Sawtimber		
	All species	Soft-wood	Hard-wood	All species	Soft-wood	Hard-wood
	- Million cubic feet -			- Million board feet -		
Sawtimber	307.9	70.4	237.5	1,110.7	263.1	847.6
Poletimber	153.1	27.4	125.7	191.9	50.3	141.6
Sapling and seedling	59.6	8.5	51.1	126.0	25.7	100.3
Nonstocked areas	.4	...	.4	...	...	...
All classes	521.0	106.3	414.7	1,428.6	339.1	1,089.5

Table 17. *Volume of growing stock on commercial forest land by species and diameter classes, Post Oak Region, Texas, 1965*

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 and larger
	----- Million cubic feet -----								
Softwood:									
Shortleaf pine	43.5	7.7	7.1	6.8	9.4	9.3	1.2	0.6	1.4
Loblolly pine	58.4	8.7	9.3	16.7	8.4	8.3	2.8	2.8	1.4
Other softwoods	4.4	.7	1.1	1.0	.9	...	...	.7	...
Total	106.3	17.1	17.5	24.5	18.7	17.6	4.0	4.1	2.8
Hardwood:									
Post oak	101.6	19.5	23.4	20.5	13.2	9.6	7.1	1.6	6.7
Other white oaks	3.9	.4	.6	.8	...	.3	.4	.5	.9
Red oaks	64.3	5.0	7.3	8.7	6.4	8.4	5.3	6.3	16.9
Hickory	59.6	6.0	10.3	10.5	3.8	2.0	3.9	1.5	21.6
Sweetgum	18.9	1.9	3.6	3.2	4.0	2.1	1.4	1.4	1.3
Blackgum	9.6	.2	.5	1.1	1.9	2.0	.3	.5	3.1
Elm	49.0	5.5	11.2	12.0	5.5	4.5	4.3	2.8	3.2
Ash	43.7	6.8	9.3	6.9	7.0	3.3	3.3	2.6	4.5
Cottonwood	5.0	...	.8	.4	.6	1.7	...	.4	1.1
Other hardwoods	59.1	6.3	5.6	5.4	7.3	8.3	2.3	7.2	16.7
Total	414.7	51.6	72.6	69.5	49.7	42.2	28.3	24.8	76.0
All species	521.0	68.7	90.1	94.0	68.4	59.8	32.3	28.9	78.8

Table 18. Volume of sawtimber on commercial forest land by species and diameter classes, Post Oak Region, Texas, 1965

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 and larger
----- Million board feet -----							
Softwood:							
Shortleaf pine	140.3	27.6	47.4	46.1	7.0	3.9	8.3
Loblolly pine	186.9	66.7	40.7	43.1	13.4	15.6	7.4
Other softwoods	11.9	4.0	3.2	...	...	4.7	...
Total	<u>339.1</u>	<u>98.3</u>	<u>91.3</u>	<u>89.2</u>	<u>20.4</u>	<u>24.2</u>	<u>15.7</u>
Hardwood:							
Post oak	187.6	...	59.1	45.0	37.9	7.5	38.1
Other white oaks	11.3	...	...	.9	1.6	2.8	6.0
Red oaks	210.5	...	23.6	40.3	26.5	32.0	88.1
Hickory	171.7	...	17.5	8.9	19.4	7.5	118.4
Sweetgum	44.0	...	17.0	7.9	6.6	6.4	6.1
Blackgum	34.2	...	7.4	8.0	1.3	2.7	14.8
Elm	95.3	...	22.8	18.3	22.7	13.6	17.9
Ash	101.2	...	29.1	17.6	15.4	13.3	25.8
Cottonwood	17.3	...	3.1	3.9	...	2.5	7.8
Other hardwoods	216.4	...	30.6	42.1	12.2	41.3	90.2
Total	<u>1,089.5</u>	<u>...</u>	<u>210.2</u>	<u>192.9</u>	<u>143.6</u>	<u>129.6</u>	<u>413.2</u>
All species	1,428.6	98.3	301.5	282.1	164.0	153.8	428.9

Table 19. Volume of sawtimber on commercial forest land by species and log grade, Post Oak Region, 1965

Species	All grades	Grade 1 ¹	Grade 2	Grade 3	Lower grades
----- Million board feet -----					
Softwood:					
Yellow pines	327.2	3.3	30.1	188.2	105.6
Other softwoods	11.9	11.9	...	...	...
Total	<u>339.1</u>	<u>15.2</u>	<u>30.1</u>	<u>188.2</u>	<u>105.6</u>
Hardwood:					
Post oak	187.6	3.0	7.6	126.6	50.4
Other white oaks	11.3	...	8.8	2.5	...
Red oaks	210.5	22.9	36.2	105.8	45.6
Hickory	171.7	49.2	32.1	77.1	13.3
Sweetgum	44.0	1.3	3.2	22.0	17.5
Ash	101.2	20.6	32.4	42.2	6.0
Other hardwoods	363.2	68.8	75.1	183.1	36.2
Total	<u>1,089.5</u>	<u>165.8</u>	<u>195.4</u>	<u>559.3</u>	<u>169.0</u>
All species	1,428.6	181.0	225.5	747.5	274.6

¹ All cedar saw logs were graded as No. 1.