



United States
Department of
Agriculture

Forest Service

Southern Forest
Experiment Station

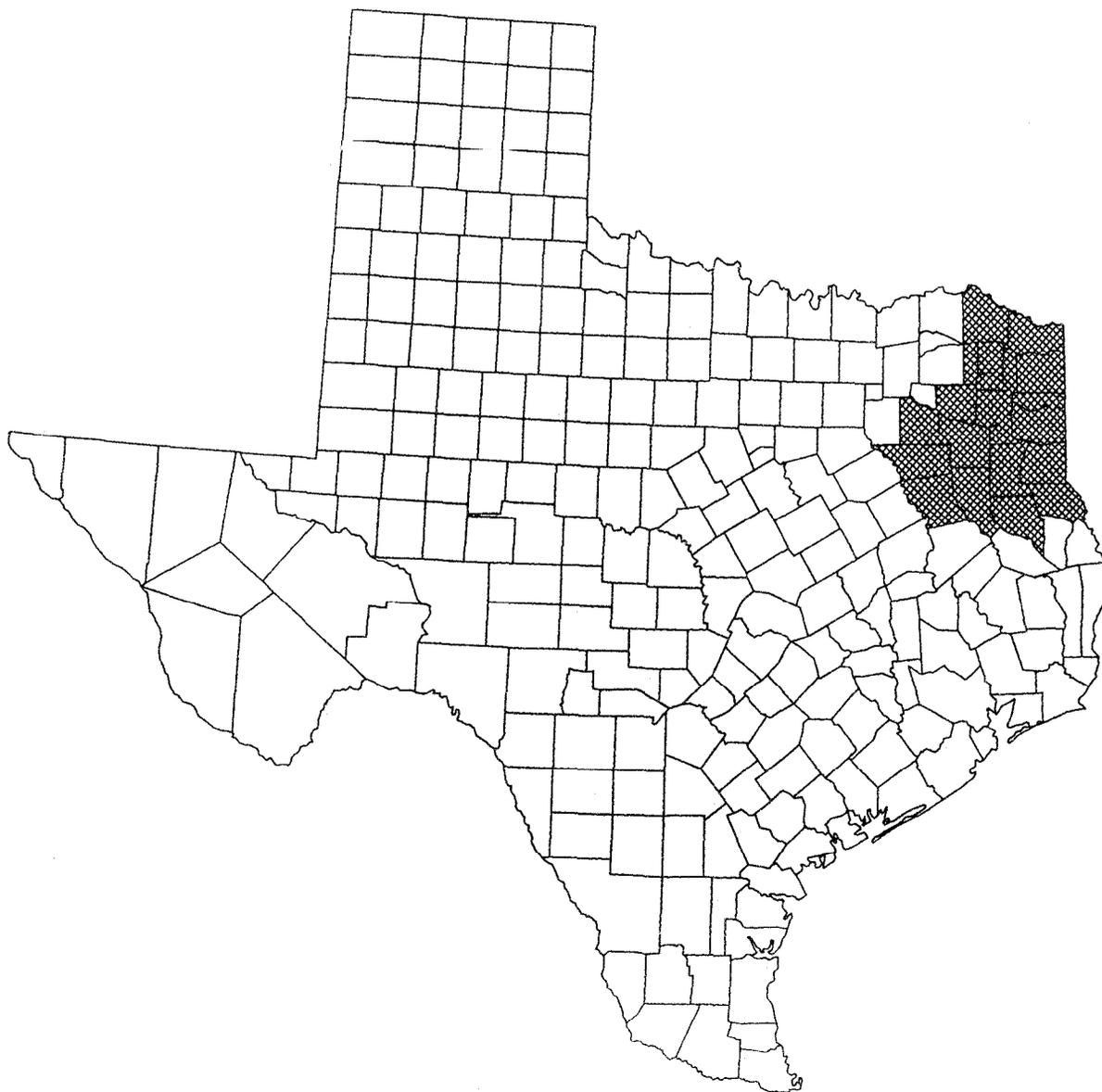
New Orleans,
Louisiana

Resource Bulletin
SO-1 71
November 1992



Forest Statistics for Northeast Texas Counties—1992

John F. Kelly, Patrick E. Miller, and Andrew J. Hartsell



FOREWORD

The USDA-Forest Service, Southern Forest Experiment Station, Forest Inventory and Analysis unit (SO-FIA), conducts forest inventories covering the States of Alabama, Arkansas, Louisiana, Mississippi, east Oklahoma, Tennessee, and east Texas and the Commonwealth of Puerto Rico.

The SO-FIA forest inventories are part of a nationwide effort originally authorized by the McSweeney-McNary Act of 1928. More recent legislation pertinent to the SO-FIA mission includes the Forest and Rangeland Renewable Resources Planning Act of 1974 and the Forest and Rangeland Renewable Resources Research Act of 1978. The SO-FIA mission is to develop, analyze, and maintain forest resource information that is essential for formulation of forest policies and programs.

ACKNOWLEDGMENTS

The SO-FIA gratefully acknowledges the cooperation and excellent assistance provided by the Texas Forest Service, International Paper Company, Champion International, and Temple-Inland in collecting field data. Appreciation is also expressed for the cooperation of other public agencies and private landowners in providing access to measurement plots.

The following members of the SO-FIA staff completed the field measurements:

Ben Baumgart
Karla Bumley
Keith Coursey
James Flue
Tony Holland
Jack London

Larry Mahler
Rick Marcum
Jan Moore
Randy Prewitt
Thomas Shipkey
Brian Slagle

Gary Sullivan
Blaine Tarbell
Marty Wallace
Ernest Walley
Larry Westrick

CONTENTS

INTRODUCTION	1
METHODS	1
STATISTICAL RELIABILITY	1
HIGHLIGHTS	2
Area	2
Stand Structure	3
Inventory	3
Components of Change	3
Conclusions	3
APPENDIX..	4
Definitions of Terms	4
Core Tables 1 through 25*	7
Supplemental Tables 26 through 43	20
Figures 1 through 8	33

*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.

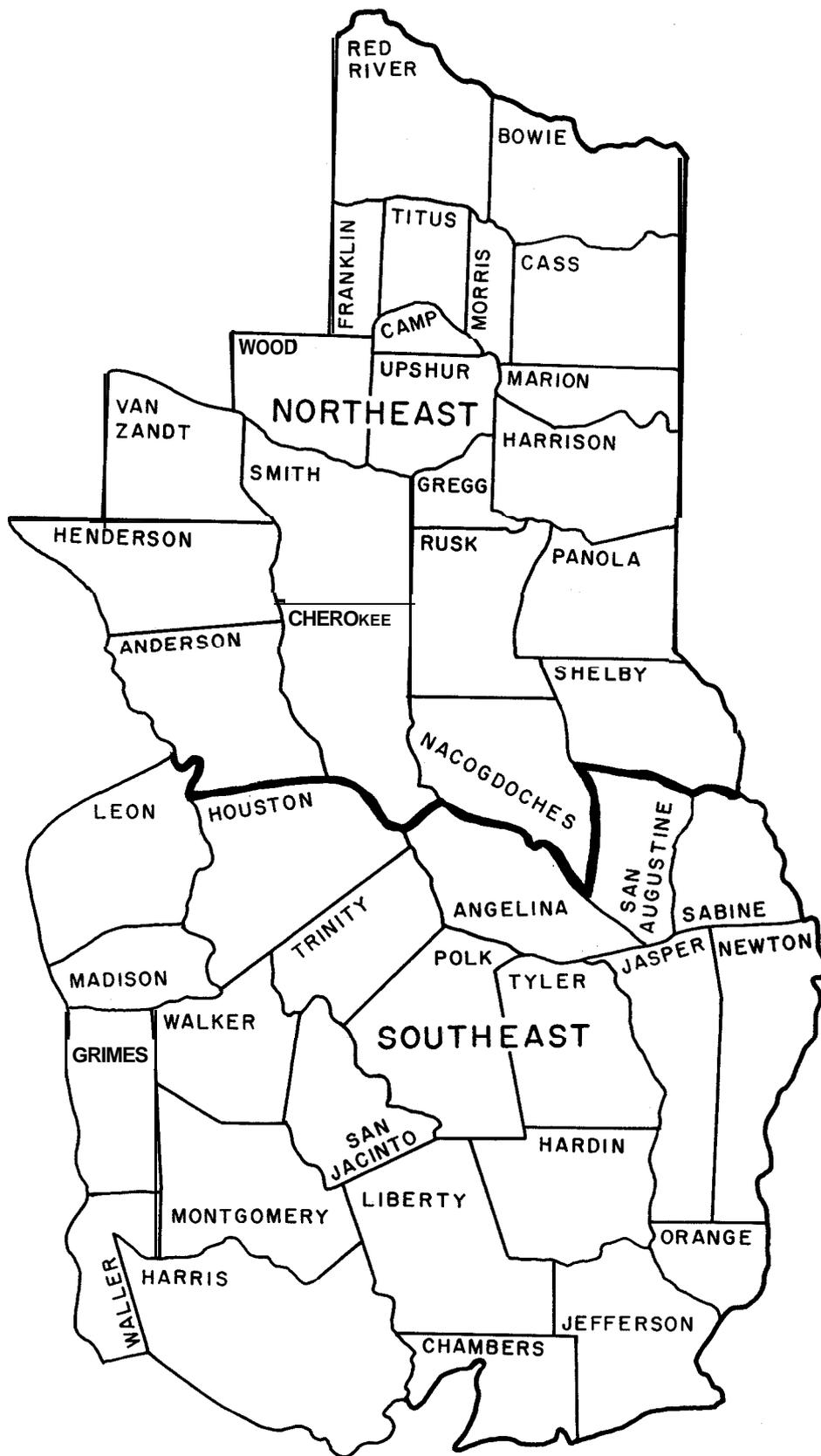


Figure 1.-Forest survey regions in Texas.

Forest Statistics for Northeast Texas Counties-1992

John F. Kelly, Patrick E. Miller, and Andrew J. Hartsell

INTRODUCTION

Tabulated results were derived from data obtained during a 1992 forest inventory of northeast Texas counties (fig. 1). Core tables (1 through 25) are compatible among Forest Inventory and Analysis units in the Eastern United States. Supplemental tables (26 through 43) provide information beyond that provided by the core tables. Comparisons are made between results of the 1992 inventory and previous inventories conducted in 1986 and 1975.

METHODS

The Southern Forest Experiment Station, Forest Inventory and Analysis unit (SOFIA) uses a two-phase sample of temporary aerialphoto points and a systematic grid of permanent ground plots. The area of forested land was determined by photointerpretation of temporary points and field checks of permanent plots. Field measurements were conducted on a subset of permanent plots spaced 3 miles apart. Trees were measured on plots that were forested at the time of the current inventory or were forested at the time of the previous inventory.

Each plot consisted of 10 satellite points spread over about 1 acre. At each point, trees 5.0 inches in diameter at breast height (d.b.h.) and larger were selected for measurement on a **variable-radius** plot defined by a 37.5factor prism. Thus each tree selected with the prism represented 3.75 square feet of basal area per acre. Trees from 1.0 to 4.9 inches in d.b.h. were tallied on a 1/275-acre fixed plot at each of the first three points and at any remaining points where fewer than two trees 5.0 inches in d.b.h. or larger were tallied. If no trees greater than 1.0 inch were tallied at a point, then seedlings were tallied. Several plot-level measurements relating to timber and other forest resources were also collected.

Tree data were used to estimate volumes, basal area, number of trees, and other plot-level variables. Ownership information was obtained for each measurement plot using tax records and other sources. Plot-level estimates were expanded using county-level factors derived as part of the forest area determination.

Over successive inventories, techniques have evolved so that some changes have been instituted. In recent inventories these changes have been mostly minor in scale and have been instituted because of the availability of better methods or to achieve greater compatibility among Forest Inventory and

Analysis units. These changes may, in some cases, affect the ability to discern minor shifts in resource trends.

The major change affecting the 1992 inventory is the modified tree classification system that has been in effect since the 1988 inventory of Arkansas. Tree grade 5 is used to designate trees capable of producing at least one **12-foot** log or two 8-foot logs in the **sawlog** portion, but not capable of producing a **gradable 12-foot** log in the butt 16-foot section. These trees-formerly classed as rough or rotten culls-are now included in growing stock. In previous States where this revision has been in effect, these trees have increased softwood growing-stock volume 1 to 2 percent, and hardwood 6 to 8 percent. Comparisons of current inventory with previous estimates of growing stock are based on data that has been reprocessed to account for the change in definition as far as possible.

Another change affecting the classification of **growing-stock** trees is the requirement that at least one-third of the **saw-log** volume (or prospective volume, in the case of smaller-than-sawtimber size trees) has to be utilizable. Previously, one-half the volume had to be utilizable. In the previous States where this revision in utilizable volume has been in effect, few trees have been affected.

Because of the revised definitions, and to better assess trends, analysis of trends in inventory volume, growth, removals, and mortality will focus on live trees.

STATISTICAL RELIABILITY

The sampling methods were designed to achieve suitable sampling errors for estimates of area and volume at the State level. Sampling error increases as the area or volume considered decreases. The sampling errors presented in table I are equal to one standard deviation for the sample estimates and may be used to compute confidence intervals for population data.

As an example, the **95-percent** confidence interval for growing-stock volume in northeast Texas counties is computed as follows:

$$6,102.2 \pm 1.96(0.032 \times 6,102.2) = 6,102.2 \pm 382.7$$

where 1.96 is the number of standard deviations. The **95-percent** confidence interval is thus **5,719.5** to **6,484.9** million cubic feet. This interval captures the true growing-stock inventory volume for the region unless a 1-in-20 chance of a random event has occurred.

John F. Kelly is a research forester and Patrick E. Miller and Andrew J. Hartsell are foresters, U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station, Starkville, MS 39759.

Table 1.-Sampling errors* for timberland, live trees, growing stock, and sawtimber, northeast Texas counties, 1992

County	Timberland	Live trees			Growing stock			Sawtimber volume
		Volume	Growth	Removals	Volume	Growth	Removals	
-----Percent-----								
Anderson	1.8	7.6	10.4	39.0	9.0	9.8	39.5	11.5
Bowie	1.7	16.0	19.4	26.9	18.3	23.9	26.8	25.0
Camp	3.6	38.7	26.1	t	42.5	36.6	t	45.5
Cass	1.6	10.3	9.5	27.7	10.7	9.5	27.9	14.5
Cherokee	1.4	10.1	11.4	23.8	10.5	9.7	24.1	14.7
Franklin	4.0	27.9	38.9	t	27.6	30.6	t	34.6
Gregg	4.4	22.9	21.5	t	26.1	25.4	t	34.5
Harrison	2.1	8.4	10.8	24.5	8.9	10.6	24.7	12.7
Henderson	3.0	12.6	18.9	47.1	14.9	12.8	48.6	21.1
Marion	1.2	10.7	11.7	20.7	11.1	10.3	20.7	14.7
Morris	4.3	20.7	26.2	t	22.9	29.4	t	30.2
Nacogdoches	1.5	9.7	9.4	18.1	10.2	9.2	18.2	14.0
Panola	2.0	11.5	17.6	26.0	12.4	14.9	26.4	18.7
Red River	1.9	11.4	13.2	30.9	13.2	13.8	31.1	18.3
Rusk	2.0	14.9	12.7	28.5	15.8	13.1	29.0	20.5
Shelby	1.7	10.2	10.5	25.5	9.8	10.9	25.7	12.7
Smith	2.3	12.5	18.8	30.4	15.6	19.5	31.2	24.0
Titus	2.5	12.4	29.6	t	15.2	27.6	t	17.0
Upshur	2.5	12.3	10.5	40.7	13.9	13.0	40.7	19.9
Van Zandt	1.3	15.6	34.1	t	18.4	18.9	t	29.2
Wood	1.9	12.8	9.8	38.9	14.4	11.7	43.7	19.1
All counties	0.5	2.8	3.2	7.3	3.2	3.2	7.4	4.5

*By random-sampling formula.

†Sampling error greater than 50.

The results are reported for individual counties, thereby allowing computation of statistical confidence for any combination of counties. Values for individual counties are subject to high sampling errors; users are cautioned about using data for single counties. Sampling error may be estimated for any group of counties by the following formula:

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

where

SE_g = standard error of estimate (expressed as a percent) for the group of counties desired

SE_t = standard error of estimate (expressed as a percent) for the unit

X_g = sum of values for the variable of interest (area or volume) for group of counties to be combined

X_t = total area or volume for the unit.

For example, the estimate of sampling error for growing-stock volume in Gregg, Harrison, Nacogdoches, Panola, Rusk, and Shelby Counties is computed as:

$$SE_g = 3.2 \frac{\sqrt{5,458.0}}{\sqrt{2,394.0}} = 4.8$$

Thus the sampling error is 4.8 percent and the resulting **95-percent** confidence interval for growing-stock volume in the six-county area is 2,394.0 ± 225.2 million cubic feet.

HIGHLIGHTS

Area

There are **5,098,200** acres of forest land in northeast Texas counties, with most of this being timberland. There are only 27,800 acres of woodland and no reserved timberland. The area of timberland increased by 3 percent to **5,070,500** acres for 1992. The ownership of timberland changed little, although there was a small **4-percent** increase in forest industry-owned timberland (including land under long-term lease).

The oak-hickory forest type continues to dominate northeast Texas forests, covering 35 percent of the timberland. However, the amount of oak-hickory type has decreased 6 percent since the 1986 survey. A big change has been the **16-percent** increase in pine forest types over the past 6 years; these pine types now account for 28 percent of the timberland. **Bottomland** forest types have also increased by 15 percent.

Planted pine stands have more than doubled since the previous survey and now account for 1 of every 3 acres of pine forest type.

Table 1L-Components of annual change in the volume of live trees by inventory period and species group, northeast Texas counties, 1992

Inventory period and species group	Gross growth		
	Net growth	Mortality	Removals
	----- Million cubic feet -----		
1975 to 1985			
Softwoods	188.8	15.2	172.2
Hardwoods	114.5	39.8	85.2
Total	303.3	55.0	257.4
1986 to 1992			
Softwoods	200.5	24.6	171.9
Hardwoods	105.9	32.9	81.8
Total	306.4	57.5	253.7

A notable change in the area of timberland by stand size is the increase for sapling-seedling stands. These have increased by 6 percent since 1986, due partly to newly planted stands. Sapling-seedling stands account for 29 percent of total timberland. Poletimber and sawtimber stands have also increased, but by smaller amounts.

Stand Structure

While the number of live trees at least 5.0 inches in d.b.h. has increased a small amount, softwoods and hardwoods show somewhat different trends. Softwoods have increased 8 percent, while hardwoods have decreased slightly. The increases in merchantable-size softwoods have been notable for both poletimber-size trees and large trees (those at least 15.0 inches in d.b.h.). The number of large hardwoods has also increased.

The same trend is evident in basal area. Softwood basal area has increased 5 percent; hardwood basal area has decreased 1 percent (which is not statistically significant). Average basal area is 80.1 square feet per acre; about one-third of this is softwood and two-thirds hardwood.

Inventory

Softwood live-tree volume has increased 9 percent since 1986. Most of the increase is attributable to loblolly pine; short-leaf pine has decreased 10 percent. Both eastern redcedar and cypress have also increased but remain minor components of the inventory.

Hardwood live-tree volume has increased 6 percent. Among the species showing increases are the red oaks and sweetgum.

The average acre in northeast Texas now has 1,203 cubic feet of live timber volume. Hardwoods account for 51 percent of total live-tree inventory.

Components of Change

The average net annual growth of live-tree volume for the period 1986-1992 was 60 cubic feet per acre per year, about the same as for the 1975-1986 period. On all timberland, total softwood live-tree net growth increased 6 percent over the previous period, while hardwood growth decreased 8 percent.

Live-tree removals changed little over the previous period for both softwoods and hardwoods.

Mortality did show a notable change over the previous period, but with diverging trends for softwoods and hardwoods. Softwood live-tree mortality increased 62 percent over the previous period, while hardwood mortality decreased by 17 percent. Hardwood mortality, however, remains higher than softwood mortality by about one-third.

The net growth and removals trends indicate an increasing inventory. Softwoods are changing at an annual average of 28.6 million cubic feet, hardwoods by 24.1 million cubic feet.

Conclusions

Many components of the forest resource of northeast Texas counties are showing modest increases over the 1986 inventory: forest and timberland area, the area of pine forest types, the area of bottomland hardwoods, the number of softwood trees, both softwood and hardwood timber volumes, and net growth of softwood volume. Softwood mortality is higher by a rather large amount.

Other components are showing decreases, including the area of upland hardwoods, the number of poletimber-size hardwoods, and the net growth of hardwood live trees. Hardwood mortality is also decreasing.

Some of the observed changes are probably due to forest management activities, such as tree planting on harvested pine sites. Despite increases of pine forest types, and decreases for upland hardwood forest types and numbers of hardwood trees, the forests continue to be dominated by hardwoods, with their basal area more than two-thirds higher than softwood basal area.

APPENDIX

Definitions of Terms

Dimension Classes of Trees

Poletimber trees-Softwoods 5.0 inches to 8.9 inches in diameter at breast height (d.b.h.) and hardwoods 5.0 to 10.9 inches in d.b.h.

Rough, rotten, and salvable dead trees-See "tree classes."
Saplings-Trees 1.0 inches to 4.9 inches in d.b.h.

Sawtimber trees-Trees 9.0 inches and larger in d.b.h. for softwoods and 11.0 inches and larger for hardwoods.

Seedlings-Trees less than 1.0 inch in d.b.h. and greater than 1 foot tall for hardwoods, greater than 6 inches tall for softwoods, and greater than 0.5 inch in diameter at ground level for **longleaf** pine.

Forest Land Classes

Forest land-Land at least **16.7-percent** stocked by forest trees of any size, or formerly having such tree cover, and not currently developed for nonforest uses. Minimum area considered for classification is 1 acre. Forest land is divided into timberland, reserved timberland, and woodland.

Reserved timberland-Public timberland withdrawn from timber utilization through statute or administrative regulations.

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.

Forest Types

Elm-ash-cottonwood-Forests in which elms, ashes, or cottonwoods, singly or in combination, comprise a plurality of the stocking. Common associates include willows, sycamore, American beech, and maples.

Loblolly-shortleaf pine-Forest in which pines (except **longleaf** and slash pine) and eastern redcedar, singly or in combination, comprise a plurality of the stocking. Common associates include oaks, hickories, and gums.

Longleaf-slash pine-Forests in which **longleaf** or slash pine, singly or in combination, comprise a plurality of the stocking. Common associates include other southern pines, oaks, and gums.

Nontyped-Timberland currently unoccupied by any live trees or seedlings; for example, very recent **clearcut** areas.

Oak-gum-cypress-Bottomland forests in which tupelo, blackgum, sweetgum, oaks, or southern cypress, singly or in combination, comprise a plurality of the stocking except where pines comprise 25 to 49 percent, in which case the stand would be classified oak-pine. Common associates include cottonwoods, willows, ashes, elms, hackberry, and maples.

Oak-hickory—Forests in which upland oaks or hickories, singly or in combination, comprise a plurality of the stocking, except where pines comprise 25 to 49 percent, in which case the stand would be classified oak-pine. Common associates include yellow-poplar, elms, maples, and black walnut.

Oak-pine-Forests in which hardwoods (usually upland oaks) comprise a plurality of the stocking, but in which softwoods, except cypress, comprise 25 to 49 percent of the stocking. Common associates include gums, hickories, and yellow-poplar.

Growth Classes

Grossgrowth-Total increase in stand volume computed on growing-stock trees or live trees at least 5.0 inches in d.b.h. Gross growth equals survivor growth, plus ingrowth, plus growth on removals, plus growth on mortality, plus cull increment (for growing stock computations). Gross growth includes mortality.

Net change-Increase or decrease in stand volume computed on growing-stock trees or live trees at least 5.0 inches in d.b.h. Net change is equal to net growth minus removals.

Net growth-Increase in stand volume computed on growing-stock trees or live trees at least 5.0 inches in d.b.h. Net growth is equal to gross growth minus mortality.

Miscellaneous Definitions

Average annual mortality-Average annual sound-wood volume of growing-stock or live trees dying **from** natural causes for the intersurvey period.

Average annual removals-Average net annual volume of growing-stock or live trees removed from the inventory by harvesting, cultural operations (such as timber-stand improvement), land clearing, or changes in land use for the intersurvey period.

Average net annual growth-Average net annual volume increase of growing-stock or live trees for the intersurvey period.

Basal area-The area in square feet of the cross section at breast height of a single tree or of all the trees in a stand, usually expressed in square feet per acre.

Cull increment-The change in growing-stock volume due to growing-stock, rough, or rotten trees changing tree class between surveys.

D. b. h. (diameter at breast height)-Tree diameter in inches, outside bark, usually measured at 4.5 feet above ground.

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

D.o.b. (diameter outside bark)-Stem diameter including bark.

Log grades—A classification of logs based on external characteristics as indicators of quality or value.

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

Natural stands-Stands with no evidence of artificial regeneration. This includes those stands established by seed-tree regeneration methods.

Plantations-Planted or artificially seeded stands.

Removals-The net volume of growing-stock or live trees removed from the inventory by harvesting, cultural operations (such as timber stand improvement), land clearing, or changes in land use.

Sawlog portion-That portion of the bole of a sawtimber tree between a 1-foot stump and the **sawlog** top.

Sawlog top-The point on the bole of a sawtimber tree above which a **sawlog** cannot be produced. The minimum **sawlog** top is 7.0 inches d.o.b. for softwoods and 9.0 inches d.o.b. for hardwoods.

Select red oaks—A group of several red oak species composed of cherrybark, Shumard, and northern red oaks. Other red oak species are included in the “other red oaks” group.

Select white oaks-A group of several white oak species composed of white, swamp chestnut, swamp white, chinkapin, Durand, and bur oaks. Other white oak species are included in the “other white oaks” group.

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

Tree grade—A classification of the **sawlog** portion of **saw-timber** trees based on: (1) the grade of the butt log or (2) the ability to produce at least one **12-foot** or two 8-foot logs in the upper section of the **sawlog** portion.

Upper-stem portion-That part of the main stem of a **saw-timber** tree above **the sawlog** top to a diameter outside bark of 4.0 inches or to the point where the main stem breaks into limbs.

Ownership Classes

Farmer-owned land-Lands operated as a unit of 10 acres or more and from which the sale of agricultural products totals \$1,000 or more annually.

Forest industry land-Lands owned by companies or individuals operating wood-using plants (either primary or secondary).

National forest land-Federal lands that have been legally designated as national forests or purchase units and other lands under the administration of the Forest Service, including experimental areas.

Nonindustrial private land (corporate)-Lands privately owned by private corporations other than forest industries and incorporated farms.

Nonindustrial private land (individual)-Lands privately owned by individuals other than forest industries or farmers.

Other Federal land—**Federal** lands other than National Forests.

State, county, and municipal land--lands owned by States, counties, and local public agencies or municipalities or lands leased to these governmental units for 50 years or more.

Stand-size Classes

Nonstocked stands-Stands less than 16.7 percent stocked with live trees.

Poletimber stands—**Stands** at least 16.7 percent stocked with live 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 16.7 percent stocked with live trees, with more than half of this stocking in saplings or seedlings.

Sawtimber stands-Stands at least 16.7 percent stocked with live trees, with half or more of this stocking in sawtimber or poletimber trees, and with sawtimber stocking at least equal to poletimber stocking.

Stocking

Stocking is a measure of the extent to which the growth potential of the site is utilized by trees or preempted by vegetative cover. Stocking is determined by comparing the stand density in terms of number of trees or basal area with a specified standard. Therefore, full stocking is 100 percent of the stocking standard.

The tabulation below shows the density standard in terms of trees per acre by size class required for full stocking.

D.b.h. (Inches)	Number of trees	D.b.h. (Inches)	Number of trees
Seedlings	600	16	72
2	560	18	60
4	460	20	51
6	340	22	42
8	240	24	36
10	155	26	31
12	115	28	27
14	90	30	24

Arbitrarily defined stocking categories are defined as follows.

Optimally stocked-Stands 61 to 100 percent stocked with growing-stock trees. These stands are growing toward a fully stocked condition (ideal space required for each tree increases with age). Optimum growth and bole form occur in this range.

Overstocked-Stands greater than 100 percent stocked with growing-stock trees. These stands will become stagnant with mortality of individuals increasing as stocking increases over 100 percent.

Understocked—**Stands** 0 to 60 percent stocked with growing-stock trees. These stands will take a very long time to reach full stocking. Meanwhile, poor bole form will result, and much of the productivity will be placed on heavy limbs instead of on the bole.

Tree Classes

Commercial species-Tree species currently or potentially suitable for industrial wood products.

Cull trees-Rough or rotten trees.

Growing-stock trees-Living trees of commercial species classified as sawtimber, poletimber, saplings, and seedlings. Trees must contain at least one 12-foot or two **8-foot** logs in the **sawlog** portion currently or potentially (if too small to qualify) to be classed as growing stock. The log(s) must meet dimension and merchantability standards to qualify. Trees must also have currently or potentially one-third of the gross board-foot volume in sound wood.

Hardwoods-Dicotyledonous trees, usually broad leaved and deciduous.

Live trees-All trees that are alive. Included are all size classes, all tree classes, and both commercial and noncommercial species.

Noncommercial species-Tree species of typically small size, poor form, or inferior quality that normally do not develop into trees suitable for industrial wood products.

Rotten trees-Live trees of commercial species that are unmerchantable for **sawlogs** currently or potentially because of rot deduction in the **sawlog** section. See definition of **growing-stock trees**.

Rough trees-Live trees of commercial species that are unmerchantable for **sawlogs** currently or potentially because of roughness or poor form in the **sawlog** section. Also included are all live trees of noncommercial species. See definition of **growing-stock trees**.

Salvable dead trees-Standing or downed dead trees that were formerly growing stock and are considered merchantable.

Trees must be at least 5.0 inches in d.b.h. to qualify.

Softwoods-Coniferous trees, usually evergreen, having leaves that are needles or scalelike.

Volume

Volume of cull—The cubic-foot volume of sound wood in rough and rotten trees at least 5.0 inches in d.b.h. from a 1-foot stump to a minimum 4.0-inch top d.o.b. of the central stem or to the point where the central stem breaks into limbs.

Volume of growing stock-The cubic-foot volume of sound wood in growing-stock trees at least 5.0 inches in d.b.h. from a 1-foot stump to a minimum 4.0-inch top d.o.b. of the central stem or to the point where the central stem breaks into limbs.

Volume of live trees-The cubic-foot volume of sound wood in growing-stock, rough, and rotten trees at least 5.0 inches in d.b.h. from a 1-foot stump to a minimum 4.0-inch top d.o.b. of the central stem or to the point where the central stem breaks into limbs.

Volume of sawlog portion of sawtimber trees-The cubic-foot volume of sound wood in the **sawlog** portion of sawtimber trees. Volume is net of deductions for rot, sweep, and other defects that affect use for lumber.

Volume of sawtimber-The board-foot volume (International 1/4-inch Rule) of sound wood in the **sawlog** portion of sawtimber trees. Volume is net of deductions for rot, sweep, and other defects that affect use for lumber.

Volume of timber-The cubic-foot volume of sound wood in growing-stock, rough, rotten, and salvable dead trees at least 5.0 inches in d.b.h. from a 1-foot stump to a minimum **4.0-inch** top d.o.b. of the central stem or to the point where the central stem breaks into limbs.

Table 1 --Area by county and land class, northeast Texas counties, 1992

County	All land*	Forest land			Nonforest land
		Total	Timberland	Woodland		Reserved timberland
----- <i>Thousand acres</i> -----					
Anderson	689.2	341.1	341.1	...	348.1
Bowie	570.1	261.3	261.3	...	308.8
Camp	129.7	48.1	48.1	...	81.6
Cass	599.5	433.8	433.8	...	165.6
Cherokee	673.3	411.2	411.2	...	262.1
Franklin	188.3	54.5	54.5	...	133.8
Gregg	174.6	79.5	79.5	...	95.1
Harrison	581.4	374.0	374.0	...	207.5
Henderson	568.6	227.7	199.9	27.8	340.9
Marion	246.4	207.1	207.1	...	39.3
Morris	163.7	83.4	83.4	...	80.3
Nacogdoches	601.1	379.7	379.7	...	221.4
Panola	519.4	337.1	337.1	...	182.3
Red River	674.3	294.8	294.8	...	379.5
Rusk	596.7	336.7	336.7	...	260.0
Shelby	506.0	357.7	357.7	...	148.3
Smith	596.6	255.8	255.8	...	340.8
Titus	263.9	88.5	88.5	...	175.4
Upshur	375.8	223.9	223.9	...	151.9
Van Zandt	547.0	96.5	96.5	...	450.5
Wood	440.9	205.8	205.8	...	235.1
All counties	9,706.6	5,098.2	5,070.5	27.8	4,608.4

*From the U.S. Bureau of the Census.

Table 2.-Area of timberland by county and ownership class, northeast Texas counties, 1992

County	All Ownerships	National forest	Misc. Federal	State	County and municipal	Forest industry*	Farmer	Corporate†	Individual+
Anderson	341.1	...	...	...	...	66.2	56.0	20.4	198.5
Bowie	261.3	...	47.0	5.2	...	36.6	26.1	10.5	135.9
Camp	48.1	...	...	...	...	...	...	...	48.1
Cass	433.8	...	17.6	...	...	82.1	140.7	5.9	187.6
Cherokee	411.2	...	...	5.9	11.7	141.0	64.6	17.6	170.4
Franklin	54.5	...	...	...	...	...	...	...	54.5
Gregg	79.5	...	...	...	...	...	14.5	7.2	57.8
Harrison	374.0	...	...	...	...	27.9	55.8	27.9	262.3
Henderson	199.9	...	...	...	...	22.2	72.2	16.7	88.8
Marion	207.1	...	...	...	...	38.8	25.9	19.4	123.0
Morris	83.4	...	6.4	...	...	...	...	12.8	64.2
Nacogdoches	379.7	9.2	...	...	5.9	117.6	5.9	5.9	235.2
Panola	337.1	...	...	...	...	79.7	6.1	24.5	226.8
Red River	294.8	...	...	...	...	57.8	28.9	34.7	173.4
Rusk	336.7	...	...	...	...	17.7	26.6	8.9	283.5
Shelby	357.7	58.2	...	...	...	61.3	27.2	...	211.0
smith	255.8	...	...	6.2	...	6.2	87.3	43.7	112.3
Titus	88.5	...	...	...	...	...	15.6	10.4	62.5
Upshur	223.9	...	...	...	...	17.7	70.7	17.7	117.8
Van Zandt	96.5	...	...	...	...	...	13.8	...	82.7
Wood	205.8	...	...	...	...	5.7	34.3	34.3	131.5
All counties	5,070.5	67.4	71.0	17.3	17.6	778.5	772.3	318.4	3,027.9

*Includes land leased to forest industry.

†Indian land will be classified as corporate or individual as defined by the Bureau of Indian Affairs.

Table J.-Area of timberland by county and forest type group, northeast Texas counties, 1992

County	Total	Forest type group							
		Longleaf-slash pine		Loblolly-shortleaf pine		Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
		Planted	Natural	Planted	Natural				
----- Thousand acres -----									
Anderson	341.1	...	...	15.3	66.2	50.9	117.1	71.3	20.4
Bowie	261.3	...	...	36.6	31.4	36.6	104.5	41.8	10.5
Camp	48.1	...	...	...	...	24.0	24.0	...	...
Cass	433.8	...	...	52.8	46.9	99.7	152.4	76.2	5.9
Cherokee	411.2	5.9	...	52.9	70.5	94.0	141.0	47.0	...
Franklin	54.5	...	...	...	15.6	7.8	15.6	15.6	...
Gregg	79.5	...	...	14.5	7.2	14.5	7.2	36.1	...
Harrison	374.0	...	...	33.5	89.3	106.1	78.1	67.0	...
Henderson	199.9	...	...	5.6	11.1	33.3	122.2	27.8	...
Marion	207.1	...	...	19.4	45.3	64.7	51.8	25.9	...
Morris	83.4	...	...	...	12.8	25.7	19.2	25.7	...
Nacogdoches	379.7	...	5.9	52.9	97.2	73.6	111.7	38.3	...
Panola	337.1	...	...	55.2	67.4	79.7	79.7	55.2	...
Red River	294.8	...	...	34.7	5.8	34.7	133.0	86.7	...
Rusk	336.7	...	...	26.6	97.5	62.0	106.3	44.3	...
Shelby	357.7	...	...	43.7	66.0	74.5	146.2	27.2	...
smith	255.8	...	6.2	12.5	49.9	43.7	106.1	31.2	6.2
Titus	88.5	...	...	5.2	26.0	...	31.2	26.0	...
Upshur	223.9	5.9	...	17.7	53.0	76.6	47.1	23.6	...
Van Zandt	96.5	...	...	...	...	13.8	75.8	6.9	...
Wood	205.8	...	...	5.7	51.4	28.6	85.7	28.6	5.7
All counties	5,070.5	11.8	12.1	484.6	910.6	1,044.4	1,756.1	802.3	48.6

Table 4.—Area of timberland by county and stand-size class, northeast Texas counties, 1992

County	All classes	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling-seedling	
----- Thousand acres -----					
Anderson	341.1	203.6	71.3	66.2	...
Bowie	261.3	109.7	57.5	94.1	...
Camp	48.1	16.0	...	32.1	...
Cass	433.8	152.4	117.2	158.3	5.9
Cherokee	411.2	158.6	105.7	146.9	...
Franklin	54.5	23.3	7.8	23.3	...
Gregg	79.5	43.4	14.5	21.7	...
Harrison	374.0	195.4	89.3	89.3	...
Henderson	199.9	77.7	72.2	50.0	...
Marion	207.1	110.0	45.3	51.8	...
Morris	83.4	44.9	6.4	32.1	...
Nacogdoches	379.7	173.9	94.1	111.7	...
Panola	337.1	171.6	91.9	73.6	...
Red River	294.8	133.0	46.2	115.6	...
Rusk	336.7	150.6	70.9	115.2	...
Shelby	357.7	147.7	101.7	108.2	...
Smith	255.8	99.8	74.9	81.1	...
Titus	88.5	52.1	26.0	10.4	...
Upshur	223.9	117.8	47.1	58.9	...
Van Zandt	96.5	62.0	27.6	6.9	...
Wood	205.8	108.6	45.7	45.7	5.7
All counties	5,070.5	2,352.4	1,213.5	1,493.0	11.6

Table 5.—Area of timberland by county and site class, northeast Texas counties, 1992

County	All classes	Site Class (Cubic feet/acre/year)				
		>165	120-165	85-120	50-85	<50
----- Thousand acres -----						
Anderson	341.1	45.8	96.7	56.0	117.1	25.5
Bowie	261.3	31.4	62.7	94.1	62.7	10.5
Camp	48.1	...	24.0	...	24.0	...
Cass	433.8	29.3	158.3	164.1	82.1	...
Cherokee	411.2	88.1	170.4	117.5	35.2	...
Franklin	54.5	...	15.6	38.9	...	...
Gregg	79.5	7.2	28.9	21.7	21.7	...
Harrison	374.0	67.0	150.7	122.8	33.5	...
Henderson	199.9	...	16.7	16.7	99.9	66.6
Marion	207.1	25.9	142.4	25.9	12.9	...
Morris	83.4	12.8	25.7	19.2	25.7	...
Nacogdoches	379.7	53.2	173.6	111.7	41.2	...
Panola	337.1	49.0	134.9	104.2	42.9	6.1
Red River	294.8	11.6	57.8	80.9	121.4	23.1
Rusk	336.7	88.6	132.9	70.9	35.4	8.9
Shelby	357.7	67.1	125.1	111.5	54.1	...
Smith	255.8	12.5	68.6	74.9	93.6	6.2
Titus	88.5	5.2	31.2	26.0	26.0	...
Upshur	223.9	17.7	64.8	123.7	17.7	...
Van Zandt	96.5	...	13.8	20.7	27.6	34.5
Wood	205.8	5.7	57.2	85.7	57.2	...
All counties	5,070.5	618.0	1,751.9	1,487.2	1,032.0	181.4

Table 6.-Area of timberland by county and stocking class of growing-stock trees, northeast Texas counties, 1992

County	All classes	Stocking class (Percent)				
		>130	100-130	60-100	16.7-60	<16.7
-- Thousand acres --						
Anderson	341.1	...	35.6	162.9	132.4	10.2
Bowie	261.3	10.5	36.6	99.3	109.7	5.2
Camp	48.1	..	...	24.0	24.0	...
Cass	433.8	17.6	134.8	222.8	46.9	11.7
Cherokee	411.2	17.6	99.9	229.1	58.7	5.9
Franklin	54.5		7.8	38.9	...	7.8
Gregg	79.5	...	...	57.8	21.7	...
Harrison	374.0	11.2	122.8	167.5	67.0	5.6
Henderson	199.9	5.6	5.6	99.9	88.8	...
Marion	207.1		38.8	155.4	12.9	...
Morris	83.4	...	12.8	51.3	19.2	...
Nacogdoches	379.7	17.6	88.2	232.7	41.2	...
Panola	337.1	30.6	98.1	147.1	61.3	...
Red River	294.8	5.8	23.1	179.2	86.7	...
Rusk	336.7	17.7	88.6	124.0	106.3	...
Shelby	357.7	20.4	63.1	203.2	64.2	6.8
Smith	255.8	...	31.2	106.1	112.3	6.2
Titus	88.5	...	15.6	41.7	26.0	5.2
Upshur	223.9	11.8	47.1	112.0	53.0	...
Van Zandt	96.5	...	...	55.1	41.4	...
Wood	205.8	11.4	28.6	97.2	62.9	5.7
All counties	5,070.5	177.8	978.4	2,607.1	1,236.8	70.3

Table 7.—Area of timberland by forest type and ownership class, northeast Texas counties, 1992

Forest type	All ownerships	National forest	Other public	Forest industry	Forest industry- leased	Other private
Longleaf-slash pine	23.9	...	...	5.9	...	18.0
Loblolly-shortleaf pine	1,395.2	51.6	15.7	300.6	...	1,027.3
Softwood total	1,419.1	51.6	15.7	306.5	...	1,045.3
Oak-pine	1,044.4	0.5	15.1	158.6	11.4	852.7
Oak-hickory	1,756.1	3.2	49.6	180.1	16.9	1,506.2
Oak-gum-cypress	802.3	3.1	23.4	99.5	5.6	670.9
Elm-ash-cottonwood	48.6	...	5.2	...	...	43.4
Hardwood total	3,651.4	15.8	90.3	438.2	33.9	3,073.2
All types	5,070.5	67.4	106.0	744.6	33.9	4,118.6

Table 8.—Area of timberland by ownership and stocking class of growing-stock trees, northeast Texas counties, 1992

Ownership class	All classes	Stocking class (Percent)				
		>130	100-130	60-100	16.7-60	<16.7
----- Thousand acres -----						
National forest	67.4	...	29.1	28.6	9.7	...
Other public	106.0	5.2	17.0	44.7	33.3	5.9
Forest industry	744.6	48.2	191.5	375.7	118.4	11.0
Forest industry-leased	33.9	...	...	28.1	5.8	...
Other private	4,118.6	124.4	740.9	2,130.1	1,069.6	53.5
All ownerships	5,070.5	177.8	978.4	2607.1	1,236.8	70.3

Table 9.—Area of timberland by forest type and stand-size class, northeast Texas counties, 1992

Forest type	All classes	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling- seedling	
----- Thousand acres -----					
Longleaf-slash pine	23.9	5.9	...	18.0	...
Loblolly-shortleaf pine	1,395.2	757.1	323.2	314.9	...
Softwood total	1,419.1	762.9	323.2	332.9	...
Oak-pine	1,044.4	536.2	201.7	306.5	...
Oak-hickory	1,756.1	544.8	467.2	744.1	...
Oak-gum-cypress	802.3	477.7	215.2	103.6	5.9
Elm-ash-cottonwood	48.6	30.8	6.2	5.9	5.7
Hardwood total	3,651.4	1,589.5	890.3	1,160.1	11.6
All types	5,070.5	2,352.4	1,213.5	1,493.0	11.6

Table 10.—Number of live trees on timberland by species and diameter class, northeast Texas counties, 1992

Species	All classes	Diameter class (Inches at breast height)											x9.0
		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	
<i>Thousand trees</i>													
Longleaf-slash pines	18,683	10,244	4,883	1,501	1,181	425	222	112	66	28	21	...	...
Shortleaf-loblolly pines cypress	669,940	281,919	157,081	79,609	59,613	34,323	23,462	15,144	9,099	4,649	2,597	2,217	225
Other softwoods	4,043	...	512	1,028	765	495	368	311	196	160	52	130	25
Total softwoods	48,157	31,153	9,073	4,296	1,629	1,145	486	280	30	53	9	...	4
Select white oaks	740,824	323,317	171,549	86,435	63,189	36,388	24,537	15,847	9,392	4,889	2,679	2,347	255
Select red oaks	51,352	31,051	9,029	3,655	2,339	2,003	1,024	580	430	511	280	398	53
Other white oaks	27,980	16,993	4,374	1,591	1,500	985	784	553	440	135	199	364	63
Other red oaks	187,268	98,017	30,257	20,161	13,537	8,790	6,438	3,517	2,408	1,820	964	1,209	151
Hickory	298,409	181,589	48,217	20,759	13,692	11,001	8,202	4,569	3,650	2,352	1,660	2,334	383
Hard maple	120,968	78,916	20,006	8,501	5,022	3,864	2,190	1,083	735	345	173	115	17
Soft maple	8,087	5,255	1,810	272	480	77	104	47	15	26	...	...	...
Beech	68,989	45,163	12,879	7,038	1,895	1,347	223	236	109	52	21	16	12
Sweetgum	3,454	2,119	539	454	209	37	...	...	19	14	23	38	...
Tupelo-blackgum	552,592	368,359	96,472	39,909	21,879	12,529	6,198	3,907	1,655	771	429	446	39
Ash	55,330	34,863	9,312	3,901	2,942	1,740	1,258	490	362	244	51	142	27
Cottonwood-aspen	83,329	56,063	13,131	5,801	3,380	1,748	1,323	883	4 %	247	117	108	31
Basswood	580	...	...	...	...	67	146	80	73	55	73	68	18
Black walnut	2,154	2,073	...	...	...	39	...	...	...	11	27	5	...
Other hardwoods	1,199	537	...	97	221	207	108	21	...	...	9	...	...
Total hardwoods	632,442	464,327	103,796	33,246	15,021	7,823	3,291	2,305	1,272	750	262	284	64
All species	2,094,134	1,385,327	349,822	145,385	82,117	52,255	31,288	18,269	11,664	7,334	4,287	5,527	858
Noncommercial	284,543	211,674	48,806	13,888	5,220	2,404	1,080	701	302	330	68	55	16

Table 11.—Number of growing-stock trees on timberland by species and diameter class, northeast Texas counties, 1992

Species	All classes	Diameter class (Inches at breast height)											≥29.0
		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	
<i>Thousand trees</i>													
Longleaf-slash pines	9,927	1,618	4,883	1,501	1,181	350	191	88	66	28	21	...	...
Shortleaf-loblolly pines cypress	549,730	211,183	120,649	72,162	56,885	32,716	23,036	14,830	8,911	4,563	2,514	2,076	207
Other softwoods	2,886	...	...	594	714	456	340	286	166	160	42	121	9
Total softwoods	37,581	23,988	7,373	3,604	1,260	849	238	212	30	27	...	...	...
Select white oaks	600,124	236,788	132,906	77,862	60,039	34,370	23,805	15,416	9,173	4,777	2,577	2,196	216
Select red oaks	33,492	19,431	4,447	2,849	2,224	1,701	838	516	414	485	238	307	41
Other white oaks	17,291	9,101	3,098	819	1,262	920	676	470	351	123	153	265	51
Other red oaks	101,382	42,611	15,693	13,970	10,883	7,351	4,311	2,490	1,735	1,107	598	610	22
Hickory	201,198	109,470	34,215	17,602	11,898	9,834	6,282	3,815	3,019	1,972	1,336	1,570	186
Hard maple	63,836	36,864	11,698	5,268	3,889	3,111	1,372	811	506	162	77	62	17
Soft maple	2,070	1,077	562	...	350	...	42	26	...	13	...	...	...
Beech	25,754	15,247	4,299	4,143	1,129	735	65	109	15	12	...	...	...
Sweetgum	2,764	1,557	539	359	209	37	...	...	19	14	23	7	...
Tupelo-blackgum	359,700	224,120	63,796	29,487	19,359	11,752	4,996	3,422	1,385	722	353	286	21
Ash	21,571	9,767	3,804	2,115	2,355	1,561	908	444	312	158	41	103	4
Cottonwood-aspen	38,558	20,478	7,791	3,965	2,429	1,482	930	784	394	148	66	78	14
Black walnut	565	...	...	...	...	67	146	80	73	55	73	68	3
Other hardwoods	901	537	...	...	44	207	83	21	...	...	9	...	...
Total hardwoods	205,274	128,076	37,563	19,948	9,187	5,604	1,802	1,539	783	487	108	164	13
All species	1,074,357	618,337	187,507	100,524	65,218	44,363	22,450	14,526	9,005	5,460	3,076	3,519	372

Table 12.--Volume of *growing stock on timberland by species and diameter class, northeast Texas counties, 1992*

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
----- Million cubic feet -----											
Longleaf-slash pines	24.2	3.2	5.5	4.0	3.6	2.6	2.7	1.5	1.2	...	...
Shortleaf-loblolly pines	2,817.9	179.9	329.0	397.6	468.7	455.7	368.8	242.5	163.7	179.8	32.2
Cypress	56.4	1.4	5.3	6.0	5.8	6.1	6.4	7.4	2.9	13.3	1.8
Other softwoods	28.5	8.1	5.6	7.3	2.7	3.4	0.8	0.5	...	...	...
Total softwoods	2,927.0	192.6	345.4	414.9	480.9	467.9	378.7	251.9	167.8	193.1	34.0
Select white oaks	135.4	8.3	13.7	18.5	14.3	12.7	14.3	19.2	13.0	18.1	3.4
Select red oaks	85.1	2.8	6.8	9.0	9.5	11.5	10.1	5.6	6.9	17.1	6.0
Other white oaks	378.4	29.5	51.9	62.5	56.9	46.3	42.5	33.7	22.2	30.8	2.2
Other red oaks	736.4	40.7	65.0	96.0	102.0	87.7	89.2	75.0	62.1	99.5	19.3
Hickory	120.7	11.3	18.9	27.0	19.7	15.6	13.1	5.5	3.6	4.0	2.0
Hard maple	3.4	...	1.9	...	0.5	0.5	...	0.6	...	...	...
Soft maple	29.8	12.2	6.8	7.0	0.9	2.3	0.4	0.3	...	...	...
Beech	4.2	0.7	1.2	0.3	...	...	0.5	0.1	0.9	0.5	...
Sweetgum	582.8	63.7	108.0	126.0	86.0	84.9	43.0	31.4	20.1	17.8	1.9
Tupelo-blackgum	83.1	5.9	12.6	16.1	14.6	10.1	9.2	6.1	2.0	6.2	0.2
Ash	94.6	9.6	14.7	14.8	15.0	17.3	10.5	4.6	3.1	4.0	1.0
Cottonwood-aspen	24.9	...	...	1.0	2.6	2.3	3.0	3.2	5.2	7.1	0.4
Black walnut	4.2	...	0.3	1.9	1.2	0.4	...	...	0.4	...	...
Other hardwoods	247.8	45.3	45.8	49.9	25.7	30.6	19.7	16.5	3.9	9.3	1.0
Total hardwoods	2,531.0	229.9	347.6	430.1	348.8	322.1	255.3	201.9	143.3	214.6	37.3
All species	5,458.0	422.5	693.0	845.0	829.6	790.0	634.0	453.7	311.1	407.7	71.4

Table 13.—Volume of growing stock in the sawlogportion of sawtimber trees on timberland by species and diameter class, northeast Texas counties, 1992

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	x29.0	
----- Million cubic feet -----										
Longleaf-slash pines	13.9	3.2	3.2	2.4	2.5	1.4	1.1	...	...
Shortleaf-loblolly pines	2,046.3	314.7	416.4	418.5	334.2	220.1	149.8	163.4	29.3	
cypress	44.2	4.0	4.5	5.5	5.9	6.9	2.8	12.8	1.8	
Other softwoods	12.3	5.7	2.3	3.1	0.7	0.5	...	...	...
Total softwoods	2,116.8	327.6	426.4	429.6	343.4	228.9	153.7	176.2	31.1	
Select white oaks	80.9	...	11.5	9.9	12.2	16.3	11.3	16.3	3.3	
Select red oaks	57.4	...	6.6	9.7	8.9	5.3	5.3	15.9	5.8	
Other white oaks	198.6	...	44.6	39.4	36.8	29.1	19.5	27.0	2.2	
Other red oaks	448.2	...	75.9	72.0	77.3	63.6	54.6	87.7	17.1	
Hickory	53.0	...	15.7	12.8	11.2	4.9	3.2	3.5	1.8	
Hard maple	1.3	...	0.5	0.4	...	0.4	...	...	...
Soft maple	3.3	...	0.7	2.0	0.2	0.3	...	...	...
Beech	1.8	...	...	...	0.4	0.1	0.9	0.5	...
Sweetgum	231.0	...	59.0	69.2	37.0	28.7	18.5	16.7	1.9	
Tupelo-blackgum	38.9	...	9.4	8.4	7.7	5.5	1.9	5.7	0.2	
Ash	46.3	...	10.7	14.6	9.7	4.1	2.7	3.5	1.0	
Cottonwood-aspen	18.7	...	1.7	1.7	2.1	2.8	4.3	5.7	0.4	
Black walnut	1.6	...	1.0	0.3	...	...	0.4	...	...
Other hardwoods	86.2	...	18.9	24.7	16.6	13.6	3.3	8.1	1.0	
Total hardwoods	1,267.2	...	256.0	265.1	219.9	174.9	125.9	190.6	34.7	
All species	3,384.0	327.6	682.4	694.7	563.3	403.8	279.6	366.7	65.9	

Table 14.-Volume of sawtimber on timberland by species and diameter class, northeast Texas counties, 1992

Species	Diameter class (Inches <i>at breast height</i>)								
	All classes	9.0-10.9	11.0-12.9	13.0-14.9	1.5.&16.9	17.0-18.9	19.0-20.9	21.0-28.9	≥29.0
----- <i>Million board feet</i> -----									
Longleaf-slash pines	83.4	16.9	19.0	15.0	16.5	9.6	6.5	...	...
Shortleaf-loblolly pines	12,504.2	1,683.5	2,468.5	2,582.6	2,117.5	1,411.1	965.1	1,078.1	197.8
Cypress	259.8	19.2	21.5	27.7	33.9	38.9	17.0	88.3	13.4
Other softwoods	61.2	27.5	11.5	16.0	4.0	2.2	...	...	...
Total softwoods	12908.7	1,747.0	2,520.4	2,641.4	2,171.9	1,461.8	988.6	1,166.4	211.2
Select white oaks	501.0	...	63.1	57.8	75.5	105.2	75.5	103.0	20.9
Select red oaks	330.8	"	33.4	54.8	52.3	29.5	31.9	96.3	32.6
Other white oaks	1,167.8	...	241.6	222.3	219.4	177.3	122.0	173.1	12.1
Other red oaks	2,623.1	...	409.2	407.4	454.4	382.9	327.3	541.0	101.0
Hickory	316.1	...	85.7	74.9	67.2	30.5	21.5	22.8	13.5
Hard maple	7.6	...	2.8	1.8	...	3.1	...	...	...
Soft maple	17.8	...	3.9	10.9	1.5	1.5	...	...	...
Beech	12.3	...	...	...	2.2	1.2	5.3	3.6	...
Sweetgum	1,318.4	...	317.1	392.9	209.1	172.8	112.8	101.4	12.2
Tupelo-blackgum	215.7	...	48.5	45.9	42.8	32.9	11.4	33.0	1.2
Ash	257.8	...	57.9	81.8	54.5	22.0	15.4	20.3	5.9
Cottonwood-aspens	114.2	...	8.9	10.2	12.3	16.5	26.3	38.1	1.9
Black walnut	8.0	...	4.1	1.8	...	...	2.1	...	...
Other hardwoods	492.8	...	104.7	141.6	93.2	81.5	19.2	48.4	4.1
Total hardwoods	7,383.3	...	1,380.6	1,504.0	1,284.5	1,057.0	770.7	1,180.9	205.6
All species	20,292.0	1,747.0	3901.0	4,145.4	3,456.4	2,518.8	1,759.3	2,347.4	416.7

Table 15.—Volume of growing stock and sawtimber on timberland by county and species group, northeast Texas counties, 1992

County	All species	Growing stock					Sawtimber					
		Softwood			Hardwood		Softwood			Hardwood		
		Pine			Soft*	Hard+	Pine			Soft*	Hard+	
		Planted	Natural	Other			Planted	Natural	Other			
----- <i>Million cubic feet</i> -----												
----- <i>Million board feet</i> -----												
Anderson	329.2	16.4	121.5	1.9	79.7	109.7	1,274.3	62.4	560.7	4.4	233.7	412.9
Bowie	241.1	6.7	94.1	0.2	58.3	81.7	873.0	2.2	420.0	...	178.2	272.6
Camp	28.6	...	16.9	0.5	4.0	1.2	123.1	...	88.4	2.1	10.9	21.7
Cass	509.1	36.6	175.0	4.1	123.1	170.4	1,860.4	52.8	865.5	7.8	295.9	638.4
Cherokee	433.0	39.4	187.3	4.7	91.5	110.1	1,574.4	64.3	922.4	11.2	187.1	389.3
Franklin	33.6	...	7.9	1.3	10.7	13.7	97.2	...	25.9	2.7	33.2	35.3
Gregg	72.2	10.9	20.7	...	17.8	22.9	271.2	24.7	101.5	...	51.8	93.2
Harrison	460.7	33.0	238.5	13.1	79.6	96.4	1,625.6	60.4	1,043.8	31.5	178.4	311.5
Henderson	115.8	0.6	33.3	6.9	12.9	62.1	338.7	...	134.0	19.8	21.3	163.7
Marion	247.9	7.7	119.4	17.1	38.2	65.6	891.5	19.0	578.7	68.7	66.6	164.5
Morris	78.4	...	37.1	...	19.1	22.2	266.1	...	142.4	...	56.5	67.1
Nacogdoches	521.5	44.9	286.8	0.4	79.3	110.1	2,009.6	69.5	1,390.6	1.9	151.3	396.3
Panola	427.0	55.1	201.0	23.3	49.8	97.8	1,776.0	102.2	1,070.0	144.2	77.9	381.6
Red River	205.9	14.0	38.6	1.2	20.9	131.3	646.9	45.1	168.1	4.2	52.3	371.2
Rusk	447.1	0.5	293.6	1.9	52.1	98.9	1,802.9	...	1,416.4	1.8	115.1	269.7
Shelby	465.5	62.4	210.3	3.4	56.9	132.4	1,978.4	200.3	1,111.9	13.1	110.5	542.7
Smith	207.6	23.8	89.4	1.7	36.2	56.5	678.5	64.9	395.0	3.4	56.0	159.2
Titus	71.4	...	20.5	0.5	14.4	36.0	212.3	...	59.4	...	25.3	127.6
Upshur	292.7	37.3	154.0	0.4	62.7	38.2	1,107.0	177.7	690.6	1.3	121.9	115.5
Van Zandt	74.1	...	8.1	1.1	15.6	49.4	241.4	...	38.7	...	46.5	156.2
Wood	195.7	4.3	94.5	1.3	29.2	66.4	649.5	9.3	408.7	2.8	63.6	165.0
All counties	5,458.0	393.7	2,448.5	84.9	952.0	1,579.0	20,292.0	955.0	11,632.7	321.0	2,127.9	5,255.4

*Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.
 †Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 16.—Volume of timber on timberland by class of timber and species group, northeast Texas counties, 1992

Class of timber	All species	Softwood			Hardwood	
		Pine			soft*	Hard+
		Planted	Natural	Other		
----- Million cubic feet -----						
Sawtimber trees						
Sawlog portion	3,384.0	170.1	1,890.1	56.5	372.8	894.4
Upper-stem portion	528.4	31.1	233.3	7.9	88.5	167.7
Total	3,912.4	201.2	2,123.4	64.4	461.3	1,062.1
Poletimber trees	1,545.6	192.4	325.1	20.5	490.7	516.9
All growing-stock trees	5,458.0	393.7	2,448.5	84.9	952.0	1,579.0
Rough trees						
Sawtimber size	324.3	11.7	21.0	5.6	72.6	213.4
Poletimber size	250.9	5.9	19.4	3.2	90.0	132.3
Total	575.3	17.6	40.5	8.7	162.7	345.8
Rotten trees						
Sawtimber size	61.3	..	1.4	1.2	18.2	40.5
Poletimber size	7.7	...	0.1	...	4.9	2.6
Total	69.0	...	1.5	1.2	23.2	43.1
Salvable dead trees						
Sawtimber size	15.8	...	12.0	...	0.4	3.3
Poletimber size	3.6	0.5	2.0	...	0.3	0.9
Total	19.4	0.5	14.0	...	0.8	4.2
All classes	6,121.6	411.8	2,504.4	94.8	1,138.6	1,972.0

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

†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, northeast Texas counties, 1992

Ownership class	Live trees						Growing stock					
	All species	Softwood			Hardwood		All species	Softwood			Hardwood	
		Pine			Soft†	Hard+		Pine			Soft*	Hard+
		Planted	Natural	Other				Planted	Natural	Other		
----- Million cubic feet -----												
National forest	142.0	5.4	107.4	...	6.9	22.3	137.3	5.4	106.0	...	6.0	19.9
Other public	157.7	...	60.7	...	31.1	65.9	142.6	...	59.9	...	25.5	57.2
Forest industry	869.8	178.3	283.7	28.8	130.1	248.8	809.7	175.0	279.7	27.8	109.9	217.5
Forest industry-leased	30.7	...	5.7	0.5	4.8	19.9	23.2	...	5.7	0.5	3.6	13.5
Other private	4902.0	227.5	2,032.9	65.5	965.0	1,611.1	4,345.2	213.3	1,997.3	56.6	807.1	1,270.9
All ownerships	6,102.2	411.3	2,490.4	94.8	1,137.8	1,967.8	5,458.0	393.7	2,448.5	84.9	952.0	1,579.0

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

†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, northeast Texas counties, 1986–1992

county	Growing stock						Sawtimber					
	Softwood			Hardwood			Softwood			Hardwood		
	All species	Pine		Other	Soft*	Hard†	All species	Pine		Other	Soft*	Hard†
		Planted	Natural					Planted	Natural			
Million cubic feet						Million board feet						
Anderson	21.4	0.3	11.0	...	4.0	6.1	102.5	0.5	64.9	0.2	10.5	26.5
Bowie	9.7	1.0	5.9	...	...	2.7	30.7	0.2	24.5	...	-6.4	12.5
Camp	1.8	.	1.4	0.1	0.2	0.1	11.2	...	9.4	0.3	1.0	0.5
Cass	31.1	6.4	10.8	0.2	6.2	7.5	127.4	17.0	62.0	0.2	16.0	32.2
Cherokee	22.8	5.8	8.0	0.2	4.3	4.5	96.1	12.2	47.3	0.1	16.5	20.1
Franklin	2.1	.	0.9	0.1	0.9	0.8	8.1	...	2.6	0.2	4.0	1.2
Gregg	4.2	0.2	1.9	...	0.5	1.5	19.1	1.0	7.7	...	2.3	8.0
Harrison	25.1	3.9	15.4	0.6	2.0	3.3	112.8	6.2	82.4	3.5	7.3	13.3
Henderson	9.5	0.4	2.5	0.3	0.9	5.4	25.2	0.5	9.9	0.6	1.6	12.4
Marion	14.7	0.6	8.3	0.4	2.1	3.4	65.4	1.8	42.8	2.5	5.3	13.0
Morris	5.3	.	4.0	...	0.2	1.2	21.8	...	17.2	...	0.9	3.7
Nacogdoches	29.7	6.4	15.8	...	2.0	5.5	130.8	13.4	86.0	0.1	6.6	24.8
Panola	20.7	7.4	9.5	0.3	1.3	2.4	92.0	17.5	58.7	2.2	1.3	12.2
Red River	12.4	0.8	4.8	0.1	0.4	6.3	50.5	4.1	22.5	0.3	1.0	22.6
Rusk	18.4	.	12.1	0.1	1.8	4.3	79.4	...	61.8	-0.1	5.0	12.7
Shelby	23.5	1.6	13.4	0.3	2.2	6.0	113.0	8.2	59.0	0.8	8.0	37.0
Smith	13.6	3.0	6.8	0.1	1.2	2.4	54.8	10.6	33.8	0.3	4.3	5.8
Titus	2.7	.	0.7	0.1	0.6	1.3	10.6	...	3.0	...	1.1	6.5
Upshur	20.8	3.8	11.4	...	3.9	1.7	87.0	19.3	52.2	...	10.7	4.8
Van Zandt	2.6	.	0.4	-0.1	0.7	1.6	12.2	...	2.3	-0.5	3.0	7.4
Wood	13.6	0.7	6.9	...	1.7	4.2	46.9	1.7	30.3	...	3.2	11.7
All counties	306.5	42.2	152.0	2.7	37.3	72.3	1,297.3	114.2	780.4	10.6	103.3	288.8

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

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

Table 19.—Average annual removals of growing stock and sawtimber on timberland by county and species group, northeast Texas counties, 19861992

County	Growing stock						Sawtimber					
	Softwood			Hardwood			Softwood			Hardwood		
	Pine			Soft*	Hard+	Pine			Soft*	Hard+		
	All species	Planted	Natural			Other	All species	Planted			Natural	Other
	----- Million cubic feet -----						----- Million board feet -----					
Anderson	14.2	...	12.6	...	1.0	0.6	65.0	...	60.8	...	3.3	1.0
Bowie	12.3	...	5.3	0.1	1.5	5.4	40.0	...	22.1	0.5	1.8	15.6
Camp	3.5	...	3.2	...	0.2	0.2	17.8	...	17.4	...	0.4	...
Cass	19.4	2.9	8.5	0.1	3.4	4.6	77.8	13.0	43.1	0.3	5.1	16.4
Cherokee	24.6	1.8	15.3	...	3.5	4.0	113.6	9.3	83.6	...	9.3	11.4
Franklin	0.5	...	...	...	0.1	0.3	1.8	...	...	...	0.2	1.5
Gregg	3.6	...	0.7	...	0.2	2.7	12.9	...	4.4	...	0.1	8.5
Harrison	13.2	...	9.4	...	1.4	2.4	48.0	...	41.6	...	1.2	5.3
Henderson	1.5	...	0.5	...	...	1.1	3.3	...	1.2	...	...	2.1
Marion	14.5	0.2	8.8	0.1	2.8	2.7	54.5	0.8	37.5	0.3	1.2	8.7
Morris	3.3	...	1.7	...	0.3	1.3	9.7	...	6.7	...	0.9	2.1
Nacogdoches	32.1	3.2	21.3	...	3.6	4.0	137.2	9.9	105.7	...	7.7	13.9
Panola	23.6	5.4	14.0	...	1.2	2.9	97.5	15.1	69.3	...	3.7	9.4
Red River	19.1	1.3	12.1	...	1.0	4.7	73.5	6.8	48.6	...	2.3	15.7
Rusk	15.6	...	9.5	0.1	1.4	4.6	55.7	...	41.9	...	2.1	11.7
Shelby	22.1	3.3	15.8	...	1.2	1.7	94.1	14.5	72.7	...	1.3	5.6
Smith	12.0	2.2	4.4	...	2.4	3.0	45.1	10.4	15.8	...	8.4	10.4
Titus	...	...	...	...	...	...	...	...	...	...	...	...
Upshur	5.5	...	3.1	...	0.2	2.2	25.7	...	17.0	...	0.6	8.0
Van Zandt	0.4	...	...	...	...	0.4	...	...	...	...	...	...
Wood	4.4	...	3.5	...	0.1	0.8	18.7	...	16.6	...	0.3	1.8
AU counties	245.7	20.3	149.8	0.5	25.3	49.8	991.8	79.8	706.1	1.0	56.0	148.9

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

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

Table 20.—Average net annual growth and average annual removals of growing stock on timberland by species, northeast Texas counties, 1984-1 992

Species	Growth	Removals
----- Million cubic feet -----		
Yellow pines	194.2	170.1
Other softwoods	2.7	0.5
Total softwoods	196.9	170.5
Select white-red oaks	9.9	7.2
Other white-red oaks	51.3	37.2
Hickory	5.4	3.6
Hard maple	0.2	...
Sweetgum	26.7	19.4
Ash-walnut-black cherry	4.7	1.8
Other hardwoods	11.3	5.9
Total hardwoods	109.6	75.2
All species	306.5	245.7

Table 21 .-Average net annual growth and average annual removals of sawtimber on timberland by species, northeast Texas counties, 19861992

Species	Growth	Removals
----- Million board feet -----		
Yellow pines	894.6	785.9
Other softwoods	10.6	1.0
Total softwoods	905.2	786.9
Select white-red oaks	41.5	22.7
Other white-red oaks	212.7	199.3
Hickory	14.6	11.0
Hard maple	0.8	...
Sweetgum	89.1	40.5
Ash-walnut-black cherry	18.3	5.9
Other hardwoods	15.2	15.6
Total hardwoods	392.1	294.9
All species	1,297.3	991.8

Table 22.-Average annual mortality of growing stock and sawtimber on timberland by species, northeast Texas counties, 1986-1992

Species	Growing stock	Sawtimber
	Million cubic feet	Million board feet
Yellow pines	22.0	91.0
Other softwoods	0.1	0.4
Total softwoods	22.1	91.4
Select white-red oaks	1.0	3.3
Other whim-red oaks	6.5	22.5
Hickory	0.7	2.0
Sweetgum	3.8	7.0
Ash-walnut-black cherry	0.7	1.8
Other hardwoods	4.1	9.1
Total hardwoods	16.8	45.7
All species	38.9	137.1

Table 23.—Average net annual growth and average annual removals of growing stock on timberland by ownership class and species group, northeast Texas counties, 1986-1 992

Ownership class	Growth						Removals					
	Softwood			Hardwood			Softwood			Hardwood		
	Pine			Soft*	Hard+	Pine			Soft*	Hard+		
	All species	Planted	Natural			Other	All species	Planted			Natural	Other
----- Million cubic feet -----												
National forest	4.5	0.5	3.1	...	0.4	0.5	4.1	...	3.7	...	0.3	0.7
Other public	5.0	0.4	2.5	...	0.9	1.1	4.9	1.8	1.9	...	0.8	0.4
Forest industry	54.9	23.2	17.5	0.7	4.0	9.6	52.4	6.3	37.1	0.1	3.1	5.7
Forest industry-leased	1.0	...	0.4	0.1	0.2	0.3	0.3	...	0.2	...	...	0.1
Other private	241.0	18.0	128.6	2.0	31.8	60.7	183.4	12.2	106.8	0.3	21.1	42.9
All ownerships	306.5	42.2	152.0	2.7	37.3	72.3	245.7	20.3	149.8	0.5	25.3	49.8

*Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.
†Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table M-Average net annual growth and average annual removals of sawtimber on timberland by ownership class and species group, northeast Texas counties, 1986-1 992

Ownership class	Growth						Removals					
	softwood			Hardwood			Softwood			Hardwood		
	Pine			Soft'	Hard+	Pine			Soft'	Hard+		
	All species	Planted	Natural			Other	All species	Planted			Natural	Other
----- Million cubic feet -----												
National forest	22.7	0.2	18.1	...	1.2	3.1	22.8	...	20.6	...	...	2.2
Other public	18.6	2.6	10.7	...	1.2	4.1	20.1	9.3	8.0	...	1.0	2.3
Forest industry	207.0	45.4	100.1	4.0	14.1	43.3	231.9	23.4	179.0	0.5	8.8	20.2
Forest industry-leased	4.2	...	1.5	0.2	0.1	2.4	1.0	...	0.5	...	...	0.4
Other private	1,044.9	66.0	650.1	6.3	86.7	235.8	715.5	47.1	497.9	0.5	46.2	123.8
All ownerships	1,297.3	114.2	780.4	10.6	103.3	288.8	991.8	79.8	706.1	1.0	56.0	148.9

*Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.
†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, northeast Texas counties, 1992

Species	All grades	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
----- Million board feet -----						
Yellow pines	12,587.7	1,981.9	2,276.8	8,190.8	...	138.1
cypress	259.8	81.4	37.4	123.6	...	17.4
Redcedar	61.2	55.6	...	...	...	5.6
Total softwoods	12908.7	2,118.9	2,314.2	8,314.4	...	161.1
Select white-red oaks	831.8	79.1	110.8	302.2	263.4	76.4
Other white-red oaks	3,790.8	252.7	509.1	1,464.2	1,246.5	318.3
Hickory	316.1	6.6	31.4	126.1	129.7	22.3
Hard maple	7.6	...	1.8	...	2.8	3.1
Sweetgum	1,318.4	71.5	175.2	557.2	400.6	113.9
Tupelo and blackgum	215.7	26.2	43.6	81.1	51.3	13.5
Ash-walnut-black cherry	269.8	13.3	90.0	104.9	26.6	35.0
Other hardwoods	632.9	17.2	91.2	286.9	162.9	74.8
Total hardwoods	7,383.3	466.7	1,052.9	2,922.7	2,283.7	657.3
All species	20,292.0	2,585.6	3,367.1	11,237.1	2,283.7	818.4

Table 26.—Area of timberland by stand age, forest type group, and stand origin, northeast Texas counties, 1992

Stand age class	pine		Oak-pine		Other hardwood types	
	Planted	Natural	Planted	Natural	Planted	Natural
Years	----- <i>Thousand acres</i> -----					
1-10	218.7	42.6	31.1	5.9	29.1	112.2
11-20	158.1	5.9	22.7	..	..	5.9
21-30	6.8	..	..	..	..	..
31-40	11.7	..	..	5.9	..	..
41-50	..	6.1	..	..	..	..
>50	..	..	..	..	..	..
Mixed	101.1	868.2	73.6	905.2	18.2	2,441.7
Total	496.4	922.7	127.4	917.0	47.3	2,559.7

Table 27.—Volume of softwood growing stock on timberland by county and forest type group, northeast Texas counties, 1992

County	Total	Forest type group						
		Longleaf-slash pine		Loblolly-shortleaf pine		Oak-Pine	Oak-hickory	Oak-gum-cypress
		Planted	Natural	Planted	Natural			
----- <i>Million cubic feet</i> -----								
Anderson	139.8	..	..	14.8	81.7	34.4	6.5	2.4
Bowie	101.0	..	..	6.7	73.4	15.1	5.8	..
Camp	17.4	..	..	..	..	11.5	5.9	..
Cass	215.7	..	..	34.3	83.6	65.5	31.0	1.3
Cherokee	231.3	1.5	..	33.3	108.0	62.9	20.5	5.1
Franklin	9.1	..	..	..	8.5	0.6	..	..
Gregg	31.6	..	..	6.3	15.1	4.6	0.6	5.0
Harrison	284.6	..	..	33.0	163.2	64.3	8.5	15.6
Henderson	40.8	..	..	0.6	16.3	20.1	1.5	2.3
Marion	144.2	..	..	4.5	60.0	52.8	6.2	20.6
Morris	37.1	..	..	..	21.2	14.2	0.4	1.2
Nacogdoches	332.2	..	0.8	43.5	210.6	54.4	19.7	3.1
Panola	279.4	..	..	47.5	120.3	71.4	13.5	26.7
Red River	53.7	..	..	14.0	14.5	19.1	4.5	1.7
Rusk	296.1	..	..	0.5	222.1	43.2	11.9	18.3
Shelby	276.2	..	..	51.8	140.0	55.8	23.5	4.9
Smith	114.9	..	4.7	23.4	58.5	19.4	8.9	..
Titus	21.0	..	..	..	19.1	..	0.5	1.4
Upshur	191.7	1.8	..	35.6	99.0	53.2	2.2	..
Van Zandt	9.2	..	..	..	..	6.5	2.6	..
Wood	100.1	..	..	4.3	66.9	23.5	5.4	..
All counties	2,927.0	3.3	5.6	354.0	1,582.0	692.7	179.6	109.7

Table 28.-Volume of hardwood growing stock on timberland by county and forest type group, northeast Texas counties, 1992

County	Total	Forest type group							
		Longleaf-slash pine		Loblolly-shortleaf pine		Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
		Planted	Natural	Planted	Natural				
<i>Million cubic feet</i>									
Anderson	189.4	...	..	2.9	8.7	24.4	58.0	81.4	14.0
Bowie	140.1	..	..	0.7	10.0	12.5	60.7	28.1	28.1
Camp	11.2	..	..	..	..	4.0	7.2	..	..
Cass	293.5	..	..	4.4	7.8	62.7	112.1	105.7	0.7
Cherokee	201.7	..	..	1.8	16.4	42.1	99.5	42.0	..
Franklin	24.5	..	..	..	1.2	5.1	1.6	16.5	..
Gregg	40.7	..	..	..	..	2.6	2.1	0.8	35.2
Harrison	176.1	..	..	1.3	17.5	38.8	50.6	67.8	..
Henderson	75.0	..	..	..	0.7	7.5	56.3	10.5	..
Marion	103.7	..	..	1.7	9.1	42.5	28.2	22.3	..
Morris	41.3	..	..	..	0.9	16.5	0.4	23.4	..
Nacogdoches	189.3	..	0.3	2.7	22.9	34.5	75.3	53.5	..
Panola	147.6	..	..	0.6	20.9	49.0	29.6	47.5	..
Red River	152.2	..	..	1.9	1.0	13.6	59.8	75.9	..
Rusk	151.0	..	..	0.9	25.8	22.9	32.9	68.4	..
Shelby	189.3	..	..	4.7	22.5	16.4	108.1	37.7	..
Smith	92.7	..	..	1.9	9.8	19.4	34.4	25.2	2.0
Titus	50.4	..	..	..	4.2	..	21.1	25.1	..
Upshur	100.9	0.8	..	1.4	18.3	33.4	12.6	34.4	..
Van Zandt	65.0	..	..	..	..	6.5	51.4	7.1	..
Wood	95.6	..	..	..	10.7	19.8	48.6	16.5	..
All counties	2,531.0	0.8	0.3	26.9	210.9	474.0	949.1	824.2	44.8

Table 29.-Volume of softwood growing stock in the sawlog portion of sawtimber trees on timberland by forest type group, northeast Texas counties, 1992

County	Total	Forest type group						
		Longleaf-slash pine		Loblolly-shortleaf pine		Oak-pine	Oak-hickory	Oak-gum-cypress
		Planted	Natural	Planted	Natural			
<i>Million cubic feet</i>								
Anderson	106.1	..	..	11.1	61.7	26.1	5.0	2.2
Bowie	68.9	..	..	0.4	55.4	10.4	2.7	..
Camp	14.6	..	..	..	..	..	9.2	5.4
Cass	146.0	..	..	9.0	60.7	51.3	23.9	1.2
Cherokee	169.1	..	..	12.3	88.6	46.6	16.7	5.0
Franklin	5.4	..	..	..	4.9	0.5	..	..
Gregg	21.5	..	..	2.6	12.5	2.0	0.5	3.9
Harrison	191.7	..	..	11.0	123.4	43.1	5.3	8.8
Henderson	27.7	..	..	..	11.8	13.5	0.6	1.9
Marion	112.2	..	..	2.2	45.4	44.1	4.0	16.4
Morris	23.3	..	..	..	13.0	9.4	..	0.9
Nacogdoches	237.4	..	0.4	13.3	166.3	41.0	14.2	2.3
Panola	212.0	..	..	14.3	99.7	62.6	10.6	24.8
Red River	36.4	..	..	7.6	12.0	12.9	3.1	0.8
Rusk	236.3	..	..	..	181.9	30.2	8.2	16.0
Shelby	205.7	..	..	26.3	119.7	39.9	16.0	3.8
Smith	75.9	..	3.3	11.3	43.8	15.1	2.4	..
Titus	10.3	..	..	..	9.8	..	..	0.5
Upshur	136.0	1.1	..	27.4	71.8	34.4	1.3	..
Van Zandt	6.3	..	..	..	..	5.2	1.1	..
Wood	73.9	..	..	2.1	49.2	18.5	4.1	..
All counties	2,116.8	1.1	3.7	150.9	1,231.4	516.1	125.0	88.5

Table 30.—Volume of hardwood growing stock in the sawlog portion of sawtimber on timberland by forest type group, northeast Texas counties, 1992

County	Forest type group						
	Total	Loblolly-shortleaf pine		Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
		Planted	Natural				
				<i>Million cubic feet</i>			
Anderson	110.5	1.9	2.9	13.6	33.5	50.2	8.5
Bowie	16.4	0.3	4.4	4.9	32.4	14.2	20.2
Camp	5.5	..	..	2.5	2.9	...	..
Cass	153.2	2.2	1.0	29.6	51.5	68.8	..
Cherokee	99.9	0.4	7.6	15.0	53.5	23.4	...
Franklin	12.4	.	0.4	2.6	0.4	9.0	..
Gregg	24.8	...	2.3	0.4	0.5	21.7	..
Harrison	84.7	0.5	6.2	18.3	21.8	37.9	...
Henderson	32.3	..	..	2.2	26.2	3.9	..
Marion	41.1	0.4	3.0	17.0	6.7	14.0	...
Morris	21.3	..	..	9.6	..	11.7	..
Nacogdoches	95.5	0.6	10.3	14.1	39.1	31.4	...
Panola	76.0	..	7.6	28.2	12.8	27.5	..
Red River	73.4	0.3	0.3	6.3	27.0	39.6	...
Rusk	70.2	0.6	12.3	9.0	11.3	37.0	..
Shelby	109.1	2.7	11.5	8.8	59.5	26.8	...
Smith	37.4	0.5	4.4	10.2	11.8	9.6	0.9
Titus	25.7	..	1.5	..	9.8	14.4	..
Upshur	41.5	0.7	9.6	13.9	4.6	12.7	..
Van Zandt	34.4	...	..	2.8	29.5	2.1	...
Wood	41.8	...	4.2	8.5	23.9	5.2	..
All counties	1,267.2	11.2	89.3	217.4	458.6	461.0	29.6

Table 31.—Volume of timber on timberland by county, class of timber, and species group, northeast Texas counties, 1992

County	All classes	Growing stock		Rough		Rotten	
		softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood
				<i>Million cubic feet</i>			
Anderson	385.2	139.8	189.4	2.7	44.5	0.1	8.7
Bowie	278.7	101.0	140.1	2.7	30.3	0.2	4.5
Camp	36.4	17.4	11.2	1.2	6.6	..	..
Cass	547.9	215.7	293.5	5.4	24.9	..	8.5
Cherokee	469.3	231.3	201.7	2.8	31.3	...	2.3
Franklin	40.1	9.1	24.5	0.3	3.8	..	2.4
Gregg	84.8	31.6	40.7	0.7	9.3	..	2.6
Harrison	500.6	284.6	176.1	8.0	28.3	0.1	3.4
Henderson	151.8	40.8	75.0	1.4	33.3	0.1	1.2
Marion	260.7	144.2	103.7	1.5	8.2	1.2	1.9
Morris	91.6	37.1	41.3	2.0	10.3	..	0.9
Nacogdoches	553.7	332.2	189.3	1.7	28.3	..	2.2
Panola	464.9	279.4	147.6	6.0	25.5	..	6.5
Red River	256.1	53.7	152.2	1.6	43.5	..	5.1
Rusk	483.4	296.1	151.0	5.7	28.7	..	1.9
Shelby	497.5	276.2	189.3	3.1	27.1	..	1.8
Smith	260.3	114.9	92.7	4.7	44.1	..	3.9
Titus	83.3	21.0	50.4	1.9	9.3	..	0.8
Upshur	338.4	191.7	100.9	11.5	30.8	0.8	2.6
Van Zandt	93.2	9.2	65.0	0.5	17.2	..	1.3
Wood	224.3	100.1	95.6	1.4	23.4	..	3.8
All counties	6,102.2	2,927.0	2,531.0	66.8	508.4	2.7	66.3

Table 32.-Number Of live trees on timberland by detailed species and diameter class, northeast Texas counties, 1992

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
----- Thousand trees -----													
Longleaf pine	427	...	...	335	93	...	...	...	...	...	...	...	...
Slash pine	18,256	10,244	4,883	1,166	1,088	425	222	112	66	28	21	...	...
Shortleaf pine	163,548	43,487	39,774	23,623	18,025	12,922	11,616	7,188	3,941	1,680	838	442	11
Loblolly pine	506,392	238,432	117,307	55,987	41,588	21,401	11,846	7,957	5,159	2,969	1,759	1,775	214
Redcedar	48,157	31,153	9,073	4,296	1,629	1,145	486	280	30	53	9	...	4
Cypress	4,043	...	512	1,028	765	495	368	311	1%	160	52	130	25
Total softwoods	740,824	323,317	171,549	86,435	63,189	36,388	24,537	15,847	9,392	4,889	2,679	2,347	255
Select white oaks	51,352	31,051	9,029	3,655	2,339	2,003	1,024	580	430	511	280	398	53
Select red oaks	27,980	16,993	4,374	1,591	1,500	985	784	553	440	135	199	364	63
Other white oaks	187,268	98,017	30,257	20,161	13,537	8,790	6,438	3,517	2,408	1,820	964	1,209	151
Other red oaks	298,409	181,589	48,217	20,759	13,692	11,001	8,202	4,569	3,650	2,352	1,660	2,334	383
Sweet pecan	922	539	...	172	50	80	49	...	...	11	11	11	...
Water hickory	5,458	1,674	1,716	635	603	318	272	93	60	47	10	15	17
Other hickories	114,588	76,703	18,291	7,695	4,370	3,466	1,869	990	676	287	152	89	...
Persimmon	24,938	18,468	5,634	548	138	88	63	...	...	...	...	...	...
Hard maple	8,087	5,255	1,810	272	480	77	104	47	15	26	...	...	...
Soft maple	61,356	40,888	10,879	6,215	1,661	1,147	193	236	47	40	21	16	12
Boxelder	7,633	4,276	2,000	822	234	199	29	...	61	12	...	...	...
Beech	3,454	2,119	539	454	209	37	...	...	19	14	23	38	...
Sweetgum	552,592	368,359	96,472	39,909	21,879	12,529	6,198	3,907	1,655	771	429	446	39
Blackgum	55,330	34,863	9,312	3,901	2,942	1,740	1,258	490	362	244	51	142	27
White ash	24,014	15,861	5,624	620	774	277	299	250	150	92	52	13	2
Other ashes	59,315	40,202	7,507	5,181	2,606	1,471	1,024	634	346	155	65	95	29
Sycamore	506	...	...	239	50	118	27	23	17	16	...	7	10
Cottonwood	580	...	...	...	...	67	146	80	73	55	73	68	18
Basswood	2,154	2,073	...	...	...	39	...	...	...	11	27	5	...
Magnolia	53	...	...	53	...	...	...	...	...	...	...	...	...
Sweetbay	202	...	...	...	105	72	25	...	...	...	...	...	...
Willow	4,398	2,349	...	869	436	343	155	57	112	23	20	26	7
Black walnut	1,199	537	...	97	221	207	108	21	...	...	9	...	...
Black cherry	20,844	15,701	4,314	363	297	142	26	...	...	...	...	...	...
American elm	25,441	15,991	3,776	3,001	845	920	184	383	87	168	24	54	8
Other elms	314,590	233,054	47,714	18,330	7,811	3,952	1,677	1,163	469	257	56	79	28
River birch	7,270	1,618	2,084	1,526	725	568	236	216	134	79	38	39	6
Hackberry	45,743	29,865	7,142	3,257	2,665	1,169	610	321	373	184	92	58	6
Black locust	5,785	4,582	1,018	113	71	...	...	...	...	...	...	...	...
Other locusts	6,512	3,258	1,803	107	636	324	202	81	34	24	20	21	...
Sassafras	57,198	48,331	7,183	1,277	350	...	28	...	30	...	...	...	...
Dogwood	93,229	75,253	16,129	1,638	163	46	...	...	...	...	...	...	...
Holly	10,580	7,333	2,135	921	190	...	...	...	...	...	...	...	...
Other commercial	15,154	8,523	4,863	1,003	537	81	59	60	15	...	12	...	...
Total hardwoods	2,094,134	1,385,327	349,822	145,385	82,117	52,255	31,288	18,269	11,664	7,334	4,287	5,527	858
Noncommercial	284,543	211,674	48,806	13,888	5,220	2,404	1,080	701	302	330	68	55	16
All species	3,119,501	1,920,317	570,177	245,709	150,526	91,047	56,905	34,817	21,357	12,553	7,035	7,929	1,129

Table 33.-Number of growing-stock trees on timberland by &tailed species and diameter class, northeast Texas counties, 1992

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	229.0
----- <i>Thousand trees</i> -----											
Longleaf pine	427	335	93	...	...	...	...	...	...	...	...
Slash pine	2,998	1,166	1,088	350	191	88	66	28	21	...	...
Shortleaf pine	75,141	20,023	17,095	12,634	11,474	7,147	3,912	1,645	799	409	4
Loblolly pine	142,757	52,139	39,789	20,082	11,562	7,683	4,999	2,918	1,716	1,666	202
Redcedar	6,220	3,604	1,260	849	238	212	30	27	...	...	...
cypress	2,886	594	714	456	340	286	166	160	42	121	9
Total softwoods	230,430	77,862	60,039	34,370	23,805	15,416	9,173	4,777	2,577	2,196	216
Select white oaks	9,613	2,849	2,224	1,701	838	516	414	485	238	307	41
Select red oaks	5,092	819	1,262	920	676	470	351	123	153	265	51
Other white oaks	43,077	13,970	10,883	7,351	4,311	2,490	1,735	1,107	598	610	22
Other red oaks	57,513	17,602	11,898	9,834	6,282	3,815	3,019	1,972	1,336	1,570	186
Sweet pecan	131	...	50	40	25	...	...	11	...	5	...
Water hickory	1,598	544	420	282	189	44	42	47	...	15	17
Other hickories	13,544	4,725	3,419	2,789	1,158	767	464	104	77	42	...
Persimmon	478	190	138	88	63	...	...	...	...	...	...
Hard maple	431	...	350	...	42	26	...	13	...	...	...
Soft maple	5,572	3,831	1,019	578	35	109	...	...	...	...	...
Boxelder	635	312	110	157	29	...	15	12	...	...	...
Beech	668	359	209	37	...	...	19	14	23	7	...
Sweetgum	71,784	29,487	19,359	11,752	4,996	3,422	1,385	722	353	286	21
Blackgum	8,000	2,115	2,355	1,561	908	444	312	158	41	103	4
White ash	1,736	360	427	277	277	188	95	63	35	13	...
Other ashes	8,553	3,604	2,002	1,205	652	595	299	85	31	65	14
Sycamore	469	239	50	118	...	23	17	16	...	7	...
Cottonwood	565	...	...	67	146	80	73	55	73	68	3
Magnolia	53	53	...	...	...	...	...	...	...	...	...
Sweetbay	202	...	105	72	25	...	...	...	...	...	...
Willow	1,547	766	287	274	46	57	79	10	8	11	7
Black walnut	364	...	44	207	83	21	...	...	9	...	...
Black cherry	136	...	...	109	26	...	...	...	...	...	...
American elm	3,913	1,912	728	630	156	249	71	120	...	46	...
Other elms	21,453	11,269	5,191	2,746	985	811	254	148	18	30	...
River birch	2,774	1,323	439	496	115	184	100	58	29	23	6
Hackberry	4,893	1,793	1,483	782	289	171	197	110	41	26	...
Black locust	71	...	71	...	...	...	...	...	...	...	...
Other locusts	819	107	319	196	64	43	34	24	11	21	...
Sassafras	1,180	970	180	...	...	...	30	...	...	...	...
Dogwood	451	406	...	46	...	...	...	...	...	...	...
Holly	990	921	68	...	...	...	...	...	...	...	...
Other commercial	208	...	127	47	35	...	...	...	...	...	...
Total hardwoods	268,513	100,524	65,218	44,363	22,450	14,526	9,005	5,460	3,076	3,519	372
All species	498,944	178,386	125,257	78,733	46,255	29,942	18,178	10,236	5,653	5,715	588

Table 34.—*Volume Of growing stock on timberland by detailed species and diameter class, northeast Texas counties, 1992*

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	19.6-20.9	21.0-28.9	229.0
<i>Million cubic feet</i>											
Longleaf pine	0.8	0.5	0.3	...	...	...	...	...	...	...	...
Slash pine	23.4	2.7	5.1	4.0	3.6	2.6	2.7	1.5	1.2	...	...
Shortleaf pine	1,168.8	53.2	119.6	172.6	246.3	231.9	169.0	90.4	51.7	33.7	0.3
Loblolly pine	1,649.1	126.7	209.4	225.0	222.5	223.8	199.7	152.1	112.0	146.0	31.9
Redcedar	28.5	8.1	5.6	7.3	2.7	3.4	0.8	0.5	...	...	...
cypress	56.4	1.4	5.3	6.0	5.8	6.1	6.4	7.4	2.9	13.3	1.8
Total softwoods	2,927.0	192.6	345.4	414.9	480.9	467.9	378.7	251.9	167.8	193.1	34.0
Select white oaks	135.4	8.3	13.7	18.5	14.3	12.7	14.3	19.2	13.0	18.1	3.4
Select red oaks	85.1	2.8	6.8	9.0	9.5	11.5	10.1	5.6	6.9	17.1	6.0
Other white oaks	378.4	29.5	51.9	62.5	56.9	46.3	42.5	33.7	22.2	30.8	2.2
Other red oaks	736.4	40.7	65.0	96.0	102.0	87.7	89.2	75.0	62.1	99.5	19.3
Sweet pecan	2.1	...	0.5	0.2	0.3	...	...	0.4	...	0.6	...
Water hickory	16.4	1.3	2.4	3.5	2.6	1.0	1.1	1.8	...	0.7	2.0
Other hickories	102.2	10.0	16.0	23.3	16.8	14.7	11.9	3.3	3.6	2.7	...
Persimmon	2.4	0.3	0.8	0.5	0.8	...	...	...	...	...	...
Hard maple	3.4	...	1.9	...	0.5	0.5	...	0.6	...	...	...
Soft maple	26.0	11.5	6.2	5.5	0.5	2.3	...	...	...	...	...
Boxelder	3.8	0.7	0.5	1.5	0.4	...	0.4	0.3	...	...	...
Beech	4.2	0.7	1.2	0.3	...	...	0.5	0.1	0.9	0.5	...
Sweetgum	582.8	63.7	108.0	126.0	86.0	84.9	43.0	31.4	20.1	17.8	1.9
Blackgum	83.1	5.9	12.6	16.1	14.6	10.1	9.2	6.1	2.0	6.2	0.2
White ash	22.4	1.1	2.4	2.9	4.6	4.2	2.5	2.2	1.8	0.6	...
Other ashes	72.3	8.6	12.3	11.9	10.4	13.0	8.0	2.5	1.2	3.4	1.0
Sycamore	4.4	0.5	0.4	1.4	...	0.4	0.4	0.7	...	0.5	...
Cottonwood	24.9	...	...	1.0	2.6	2.3	3.0	3.2	5.2	7.1	0.4
Magnolia	0.2	0.2	...	...	...	...	...	...	...	...	...
Sweetbay	1.5	...	0.4	0.7	0.3	...	...	...	...	...	...
Willow	11.0	1.5	1.1	2.3	0.7	1.1	1.7	0.4	0.5	1.0	0.7
Black walnut	4.2	...	0.3	1.9	1.2	0.4	...	...	0.4	...	...
Black cherry	1.7	...	...	1.0	0.7	...	...	...	...	...	...
American elm	29.6	4.7	3.2	5.9	2.1	5.4	2.0	3.9	...	2.6	...
Other elms	116.4	24.4	26.3	23.6	13.7	15.8	6.1	4.6	0.5	1.4	...
River birch	24.4	4.3	2.9	4.8	1.7	3.9	2.9	1.9	0.8	1.0	0.3
Hackberry	38.6	4.7	7.0	7.0	4.3	3.1	5.1	4.4	1.7	1.3	...
Black locust	0.4	...	0.4	...	...	...	...	...	...	...	...
Other locusts	9.4	0.2	1.7	2.0	1.0	1.0	0.8	0.7	0.4	1.6	...
Sassafras	3.6	2.2	0.8	...	...	...	0.7	...	...	...	...
Dogwood	0.9	0.5	...	0.4	...	...	...	...	...	...	...
Holly	1.9	1.7	0.2	...	...	...	...	...	...	...	...
Other commercial	1.5	...	0.6	0.3	0.5	...	...	...	...	...	...
Total hardwoods	2,531.0	229.9	347.6	430.1	348.8	322.1	255.3	201.9	143.3	214.6	37.3
All species	5,458.0	422.5	693.0	845.0	829.6	790.0	634.0	453.7	311.1	407.7	71.4

Table 35.—*Volume Of growing stock in the sawlog portion of sawtimber trees on timberland by detailed species and diameter class, northeast Texas counties, 1992*

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.& 20.9	21.0- 28.9	≥29.0
	----- <i>Million cubic feet</i> -----								
Slash pine	13.9	3.2	3.2	2.4	2.5	1.4	1.1	...	...
Shortleaf pine	883.7	139.9	221.0	212.7	151.4	81.1	46.4	30.9	0.3
Loblolly pine	1,162.7	174.8	195.4	205.7	182.8	139.0	103.4	132.5	29.0
Redcedar	12.3	5.7	2.3	3.1	0.7	0.5	...	...	...
cypress	44.2	4.0	4.5	5.5	5.9	6.9	2.8	12.8	1.8
Total softwoods	2,116.8	327.6	426.4	429.6	343.4	228.9	153.7	176.2	31.1
Select white oaks	80.9	...	11.5	9.9	12.2	16.3	11.3	16.3	3.3
Select red oaks	57.4	...	6.6	9.7	8.9	5.3	5.3	15.9	5.8
Other white oaks	198.6	...	44.6	39.4	36.8	29.1	19.5	27.0	2.2
Other red oaks	448.2	...	75.9	72.0	77.3	63.6	54.6	87.7	17.1
sweet pecan	1.2	...	0.3	...	...	0.4	...	0.4	...
Water hickory	7.6	...	1.7	0.7	0.9	1.7	...	0.7	1.8
Other hickories	44.3	...	13.6	12.1	10.2	2.7	3.2	2.5	...
Persimmon	0.4	...	0.4	...	...	...	...	...	...
Hard maple	1.3	...	0.5	0.4	...	0.4	...	...	...
Soft maple	2.5	...	0.5	2.0	...	...	...	...	...
Boxelder	0.8	...	0.2	...	0.2	0.3	...	...	...
Beech	1.8	...	...	...	0.4	0.1	0.9	0.5	...
Sweetgum	231.0	...	59.0	69.2	37.0	28.7	18.5	16.7	1.9
Blackgum	38.9	...	9.4	8.4	7.7	5.5	1.9	5.7	0.2
White ash	13.0	...	3.4	3.3	2.3	1.9	1.6	0.5	...
Other ashes	33.3	...	7.3	11.3	7.4	2.2	1.1	3.0	1.0
Sycamore	1.5	...	...	0.3	0.4	0.5	...	0.3	...
Cottonwood	18.7	...	1.7	1.7	2.1	2.8	4.3	5.7	0.4
Sweetbay	0.2	...	0.2	...	...	...	...	...	...
Willow	5.5	...	0.5	0.9	1.5	0.4	0.4	1.0	0.7
Black walnut	1.6	...	1.0	0.3	...	...	0.4	...	...
Black cherry	0.6	...	0.6	...	...	...	...	...	...
American elm	12.1	...	1.4	4.1	1.6	3.0	...	2.0	...
Other elms	35.3	...	10.8	13.3	5.2	4.2	0.5	1.4	...
River birch	10.1	...	1.2	3.0	2.4	1.6	0.8	1.0	0.3
Hackberry	14.9	...	2.8	2.3	4.1	3.4	1.2	1.1	...
Other locusts	4.5	...	0.6	0.7	0.8	0.7	0.4	1.3	...
Sassafras	0.7	...	...	...	0.7	...	...	...	...
Other commercial	0.3	...	0.3	...	...	...	...	...	...
Total hardwoods	1,267.2	...	256.0	265.1	219.9	174.9	125.9	190.6	34.7
All species	3,384.0	327.6	682.4	694.7	563.3	403.8	279.6	366.7	65.9

Table 36.—*Volume of live trees on timberland by detailed species and class of timber, northeast Texas counties, 1992*

Species	All live	Crowing stock	Rough	Rotten
----- Million cubic feet -----				
Longleaf pine	0.8	0.8	..	..
Slash pine	24.4	23.4	1.0	..
Shortleaf pine	1,189.0	1,168.8	19.2	1.0
Loblolly pine	1,687.5	1,649.1	37.9	0.5
Redcedar	35.2	28.5	6.6	..
cypress	59.7	56.4	2.1	1.2
Total softwoods	2,996.5	2,927.0	66.8	2.7
Select white oaks	146.5	135.4	9.3	1.8
Select red oaks	95.9	85.1	8.7	2.1
Other white oaks	483.3	378.4	91.1	13.7
Other red oaks	843.5	736.4	90.2	16.8
Sweet pecan	3.2	2.1	1.1	..
Water hickory	19.6	16.4	2.9	0.3
Other hickories	129.4	102.2	23.4	3.8
Persimmon	2.9	2.4	0.4	..
Hard maple	6.5	3.4	2.4	0.7
Soft maple	38.9	26.0	10.2	2.7
Boxelder	6.4	3.8	2.1	0.5
Beech	5.1	4.2	0.2	0.7
Sweetgum	643.6	582.8	51.3	9.4
Blackgum	100.1	83.1	13.5	3.4
White ash	27.0	22.4	4.4	0.2
Other ashes	88.1	72.3	13.8	2.0
Sycamore	5.1	4.4	0.4	0.3
Cottonwood	25.4	24.9	..	0.5
Basswood	1.5	..	0.5	1.0
Magnolia	0.2	0.2	..	..
Sweetbay	1.5	1.5	..	..
willow	14.2	11.0	2.9	0.3
Black walnut	4.9	4.2	0.6	0.1
Black cherry	4.1	1.7	2.3	..
American elm	39.4	29.6	9.3	0.5
Other elms	163.3	116.4	44.8	2.1
River birch	31.3	24.4	6.2	0.7
Hackberry	58.3	38.6	17.9	1.8
Black locust	0.6	0.4	0.2	..
Other locusts	12.4	9.4	2.5	0.6
Sassafras	4.8	3.6	1.1	..
Dogwood	2.8	0.9	1.9	..
Holly	2.2	1.9	0.3	..
Other commercial	5.2	1.5	3.5	0.2
Total hardwoods	3,016.9	2,531.0	419.7	66.3
Noncommercial	88.8	..	88.8	..
All species	6,102.2	5,458.0	575.3	69.0

Table 37.—Volume of sawtimber for tree grade I on timberland by detailed species and diameter class, northeast Texas counties, 1992

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
----- Million board feet -----									
Shortleaf pine	1,072.0	95.0	188.2	236.8	203.1	192.9	96.5	59.5	...
Loblolly pine	909.9	23.9	53.4	105.4	162.8	105.6	139.8	226.9	92.0
Redcedar	55.6	23.6	11.5	14.4	4.0	2.2	...	...	...
Cypress	81.4	6.5	5.4	15.1	12.4	14.2	4.4	23.5	...
Total softwoods	2,118.9	148.9	258.5	371.6	382.3	314.9	240.7	309.9	92.0
Select white oaks	39.4	...	...	...	...	16.2	13.4	9.8	...
Select red oaks	39.7	...	...	...	...	12.2	4.4	23.2	...
Other white oaks	47.0	...	...	...	2.6	12.7	9.2	22.5	...
Other red oaks	205.7	...	...	...	16.0	40.4	48.9	82.0	18.5
sweet pecan	3.0	...	...	...	...	...	...	3.0	...
Water hickory	3.6	...	...	...	...	...	...	...	3.6
Sweetgum	71.5	...	...	...	8.8	29.3	22.3	11.1	...
Blackgum	26.2	...	...	...	3.3	6.1	3.3	13.5	...
White ash	2.5	...	...	...	...	...	2.5	...	...
Other ashes	10.8	...	...	...	...	2.4	1.5	6.9	...
sycamore	2.0	...	...	...	...	...	...	2.0	...
American elm	4.8	...	...	...	...	...	...	4.8	...
Other elms	5.2	...	...	...	2.5	...	...	2.7	...
Hackberry	2.1	...	...	...	...	...	2.1	...	...
Other locusts	3.1	...	...	...	...	...	...	3.1	...
Total hardwoods	466.7	...	...	...	33.2	119.2	107.5	184.7	22.1
All species	2,585.6	148.9	258.5	371.6	415.5	434.1	348.2	494.6	114.2

Table 38.—Volume of sawtimber for tree grade 2 on timberland by &tailed species and diameter class, northeast Texas counties, 1992

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	229.0
	----- Million board feet -----								
Slash pine	5.9	...	2.6	...	3.3	...	...	...	...
Shortleaf pine	1,298.8	89.8	316.4	343.2	269.7	138.8	92.1	49.0	...
Loblolly pine	972.0	61.7	85.4	223.7	172.1	146.7	121.1	144.7	16.6
Cypress	37.4	3.9	...	...	5.0	3.2	...	25.3	...
Total softwoods	2,314.2	155.4	404.4	566.8	450.0	288.8	213.1	219.0	16.6
Select white oaks	73.0	...	...	8.0	15.6	6.9	15.7	22.9	4.0
Select red oaks	37.8	...	...	12.0	6.3	...	7.3	12.1	...
Other white oaks	134.3	...	...	34.5	27.6	31.6	11.0	29.5	...
Other red oaks	374.8	...	...	46.5	70.9	65.5	46.9	107.6	37.4
Water hickory	2.5	...	...	...	0.9	...	...	1.6	...
Other hickories	29.0	...	...	1.5	16.5	2.1	2.7	6.1	...
Hard maple	1.8	...	...	1.8	...	...	...	...	...
Boxelder	1.5	...	...	...	...	1.5	...	...	...
Sweetgum	175.2	...	...	60.8	28.4	35.5	27.8	22.7	...
Blackgum	43.6	...	...	10.7	9.8	14.5	...	8.6	...
White ash	23.3	...	...	5.8	10.3	1.7	2.2	3.3	...
Other ashes	66.7	...	...	37.2	21.0	0.8	2.5	5.1	...
Sycamore	2.9	...	...	...	...	2.9	...	...	...
Cottonwood	13.1	...	...	...	3.2	2.1	...	7.2	...
American elm	9.9	...	...	5.3	...	4.6	...	...	...
Other elms	20.0	...	...	9.4	4.1	6.4	...	...	...
River birch	19.1	...	...	5.8	6.8	1.8	1.8	3.0	...
Hackberry	18.1	...	...	...	7.6	9.0	1.4	...	...
Other locusts	4.8	...	...	2.2	2.6	...	...	...	...
Sassafras	1.8	...	...	...	1.8	...	...	...	...
Total hardwoods	1,052.9	...	...	241.6	233.4	187.5	119.3	229.7	41.4
All species	3,367.1	155.4	404.4	808.4	683.5	476.2	332.4	448.7	58.0

Table 39.-Volume of sawtimber for tree grade 3 on timberland by detailed species and diameter class, northeast Texas counties, 1992

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	129.0
-----Million board feet-----									
Slash pine	77.5	16.9	16.4	15.0	13.2	9.6	6.5	...	...
Shortleaf pine	3,082.5	589.5	819.4	752.1	507.7	201.7	113.8	98.4	...
Loblolly pine	5,030.8	805.4	981.3	904.2	771.9	619.3	389.0	478.5	81.2
Cypress	123.6	8.8	16.1	11.6	14.1	15.9	12.6	31.2	13.4
Total softwoods	8,314.4	1,420.5	1,833.2	1,682.9	1,306.8	846.5	521.9	608.1	94.6
Select white oaks	208.9	..	29.5	23.5	33.7	45.7	32.8	39.0	4.6
Select red oaks	93.4	...	6.8	18.0	21.7	8.8	3.8	32.8	1.5
Other white oaks	411.1	..	79.8	63.5	74.3	67.9	55.4	61.1	9.1
Other red oaks	1,053.2	...	198.0	182.4	203.4	157.4	118.6	175.5	18.0
Sweet pecan	4.7	...	1.7	...	...	3.1	...	...	...
Water hickory	15.1	..	4.8	3.6	4.5	2.1	...	...	...
Other hickories	106.3	...	50.0	25.3	10.2	11.0	6.7	3.1	...
Persimmon	2.0	..	2.0	...	...	...	...	...	...
Soft maple	6.0	...	...	6.0	...	...	...	...	...
Boxelder	1.1	...	1.1	...	...	...	...	...	...
Beech	3.6	...	...	...	...	...	...	3.6	...
Sweetgum	557.2	...	184.7	153.4	79.9	52.6	41.7	32.7	12.2
Blackgum	81.1	...	30.0	21.6	11.3	6.0	8.1	4.1	...
White ash	33.9	..	16.1	8.3	2.5	4.3	2.7	...	...
Other ashes	65.3	...	31.7	12.9	10.8	4.5	2.2	3.3	...
Cottonwood	80.4	..	3.3	4.0	7.4	10.2	22.7	30.8	1.9
Sweetbay	1.4	..	1.4	...	...	...	...	...	...
Willow	9.6	...	1.9	...	2.2	...	2.2	3.3	...
Black walnut	1.8	...	...	1.8	...	...	...	...	...
Black cherry	4.0	...	4.0	...	...	...	...	...	...
American elm	25.9	..	1.7	8.7	...	10.4	...	5.1	...
Other elms	88.7	...	32.3	44.0	5.4	3.0	...	3.9	...
River birch	14.4	...	4.0	5.0	3.9	1.6	...	...	...
Hackberry	36.2	...	12.1	3.5	4.5	7.7	3.4	5.0	...
Other locusts	14.3	...	3.6	1.8	...	3.8	2.4	2.7	...
Sassafras	1.8	...	...	...	1.8	...	...	...	...
Other commercial	1.5	...	1.5	...	...	...	...	...	...
Total hardwoods	2,922.7	...	701.9	587.4	477.5	400.0	302.6	406.0	47.2
All species	11,237.1	1,420.5	2,535.1	2,270.3	1,784.3	1,246.4	824.6	1,014.0	141.8

Table 40.—Volume of sawtimber for tree grade 4 on timberland by detailed species and diameter class, northeast Texas counties, 1992

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
----- Million board feet -----									
Select white oaks	140.3	...	33.5	24.5	24.0	29.3	12.7	16.2	...
Select red oaks	123.1	...	23.5	24.8	23.0	3.8	11.7	15.7	20.6
Other white oaks	501.4	...	144.6	114.0	106.8	55.7	33.2	47.2	...
Other red oaks	745.1	...	181.8	157.7	132.2	94.2	74.8	104.5	...
Water hickory	22.1	...	2.4	...	...	8.6	...	1.3	9.9
Other hickories	107.5	...	16.4	40.6	30.3	2.8	12.1	5.2	...
Hard maple	2.8	...	2.8	...	...	...	...	...	...
Soft maple	6.3	...	2.8	3.5	...	...	...	...	...
Boxelder	1.5	...	...	...	1.5	...	...	...	...
Beech	5.8	...	...	...	2.2	...	3.5	...	...
Sweetgum	400.6	...	120.5	146.3	62.8	39.2	12.7	19.2	...
Blackgum	51.3	...	17.7	13.6	14.5	5.6	...	...	...
White ash	8.9	...	1.5	5.5	...	...	1.9	...	...
Other ashes	15.7	...	3.1	6.7	...	...	...	...	5.9
Sycamore	1.7	...	...	1.7	...	...	...	...	...
Cottonwood	18.7	...	3.7	6.2	1.7	3.6	3.6	...	...
willow	11.9	...	1.0	4.7	2.1	2.2	...	...	1.9
Black walnut	2.1	...	...	...	...	...	2.1	...	...
American elm	19.2	...	6.1	5.5	5.0	1.0	...	1.5	...
Other elms	73.2	...	23.8	24.3	13.8	9.5	1.8	...	...
River birch	6.9	...	2.6	1.6	2.6	...	...	...	...
Hackberry	12.9	...	2.7	5.3	5.0	...	...	...	...
Other locusts	5.1	...	...	...	2.0	...	...	3.1	...
Total hardwoods	2,283.7	...	590.4	586.2	429.4	255.5	170.1	214.0	38.2
All species	2,283.7	...	590.4	586.2	429.4	255.5	170.1	214.0	38.2

Table 41.—Volume of sawtimber on timberland by species and ownership class, northeast Texas counties, 1992

Species	All ownerships	National forest	Other public	Forest industry	Forest industry-leased	Other private
----- Million board feet -----						
Yellow pines	12,587.7	648.7	312.1	1,740.0	20.5	9,866.3
Cypress	259.8	...	...	164.6	...	95.3
Redcedar	61.2	...	...	...	1.1	60.1
Total softwoods	12908.7	648.7	312.1	1904.6	21.6	10,021.7
Select white-red oaks	831.8	29.0	45.2	102.2	1.1	654.3
Other white-red oaks	3,790.8	41.0	128.9	650.0	34.7	2,936.2
Hickory	316.1	6.2	13.0	36.3	1.0	259.5
Hard maple	7.6	...	...	3.1	...	4.5
Sweetgum	1,318.4	8.8	36.6	209.8	...	1,063.2
Tupelo and blackgum	215.7	8.2	5.8	14.5	...	187.2
Ash-walnut-black cherry	269.8	1.9	18.2	31.5	...	218.2
Other hardwoods	632.9	1.7	10.7	67.3	1.9	551.2
Total hardwoods	7,383.3	96.8	258.4	1,114.8	38.8	5,874.5
All species	20,292.0	745.5	570.5	3,019.4	60.4	15,896.2

Table 42.—Average net annual growth, average annual removals, and average annual mortality of live trees* by county and species group, northeast Texas counties, 1992

County	Net Growth			Removals			Mortality		
	All species	Softwood	Hardwood	All species	Softwood	Hardwood	All species	Softwood	Hardwood
-----Million cubic feet-----									
Anderson	21.0	11.7	9.3	14.7	12.9	1.8	2.8	0.6	2.2
Bowie	11.3	7.4	3.9	12.4	5.5	6.9	2.8	0.7	2.0
Camp	2.4	1.6	0.9	3.8	3.2	0.6	0.1	...	0.1
Cass	30.5	17.5	13.1	20.0	11.5	8.5	5.2	1.6	3.7
Cherokee	21.7	14.3	7.4	25.1	17.2	7.9	6.1	3.0	3.1
Franklin	2.1	1.1	1.0	0.6	0.1	0.5	0.5	0.2	0.3
Gregg	4.3	2.3	2.1	4.0	0.7	3.3	1.4	0.3	1.1
Harrison	25.5	19.9	5.5	13.5	9.5	4.1	4.3	2.5	1.8
Henderson	6.7	3.1	3.7	2.3	0.5	1.8	2.5	0.5	2.0
Marion	13.7	9.2	4.5	14.6	9.0	5.6	2.7	1.7	1.0
Morris	5.9	4.2	1.7	3.5	1.7	1.8	0.5	0.2	0.2
Nacogdoches	30.6	22.2	8.4	33.2	24.5	8.7	4.5	2.6	1.9
Panola	19.0	16.9	2.1	24.2	19.7	4.5	5.2	2.8	2.4
Red River	13.0	6.0	7.0	19.6	13.5	6.1	1.7		1.7
Rusk	18.1	12.4	5.7	15.9	9.5	6.3	6.3	3.4	2.9
Shelby	21.7	15.0	6.8	22.5	19.3	3.2	2.8	1.6	1.2
Smith	15.0	10.4	4.6	12.6	6.8	5.8	3.4	0.7	2.7
Titus	2.5	0.7	1.8	0.1	...	0.1	0.7	0.1	0.6
Upshur	24.7	16.7	8.0	5.6	3.1	2.5	1.9	0.6	1.2
Van Zandt	1.6	0.4	1.2	0.5	...	0.5	0.5	0.1	0.4
Wood	14.8	7.7	7.1	5.0	3.5	1.5	1.7	1.2	0.5
All counties	306.4	200.5	105.9	253.7	171.9	81.8	57.5	24.6	32.9

*Excludes trees less than 5.0 inches in diameter at breast height.

Table 43.—Average net annual growth, average annual removals, and average annual mortality of live trees* by ownership class and species group, northeast Texas counties, 1992

Ownership class	Net Growth			Removals			Mortality		
	All species	Softwood	Hardwood	All species	Softwood	Hardwood	All species	Softwood	Hardwood
-----Million cubic feet-----									
National forest	4.1	3.7	0.4	4.7	3.7	1.0	1.0	0.4	0.6
Other public	5.3	3.0	2.2	5.4	3.8	1.6	1.6	0.4	1.3
Forest industry	52.4	42.4	10.0	53.8	44.0	9.8	8.7	3.3	5.4
Forest industry-leased	1.2	0.5	0.8	0.3	0.2	0.1	0.2	...	0.2
Other private	243.4	151.0	92.4	189.5	120.2	69.4	45.9	20.6	25.4
All ownerships	306.4	200.5	105.9	253.7	171.9	81.8	57.5	24.6	32.9

*Excludes trees less than 5.0 inches in diameter at breast height.

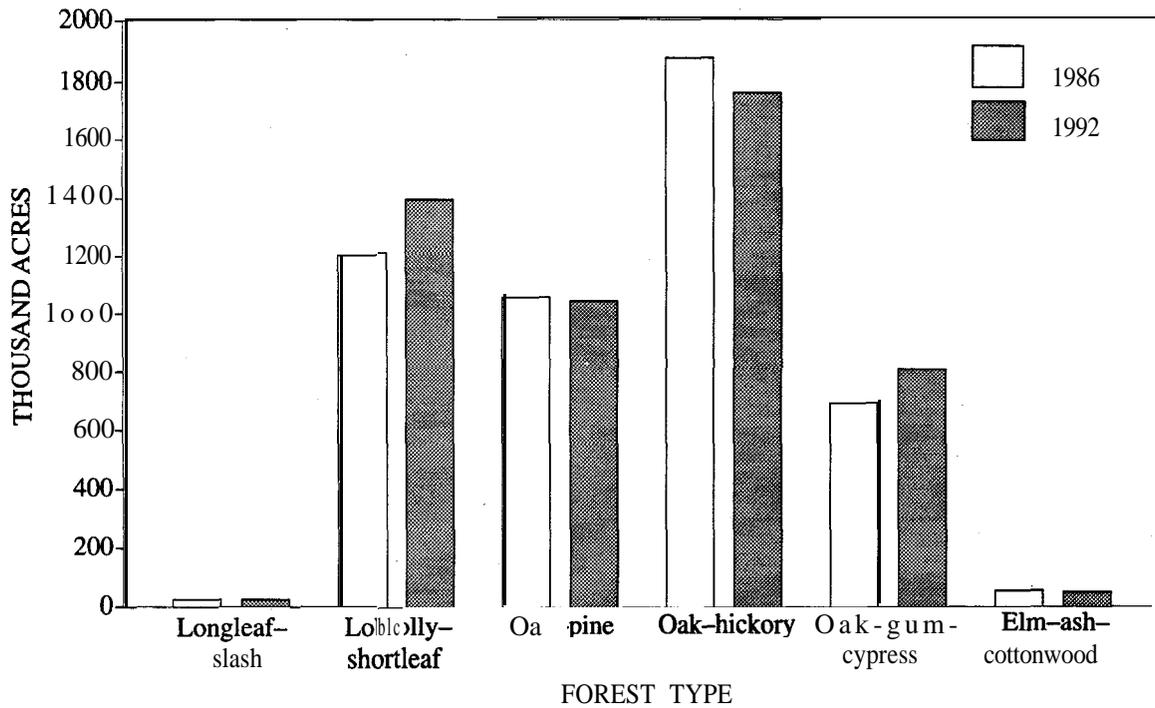


Figure 1.-Area of timberland by forest type, northeast Texas, 1986 and 1992.

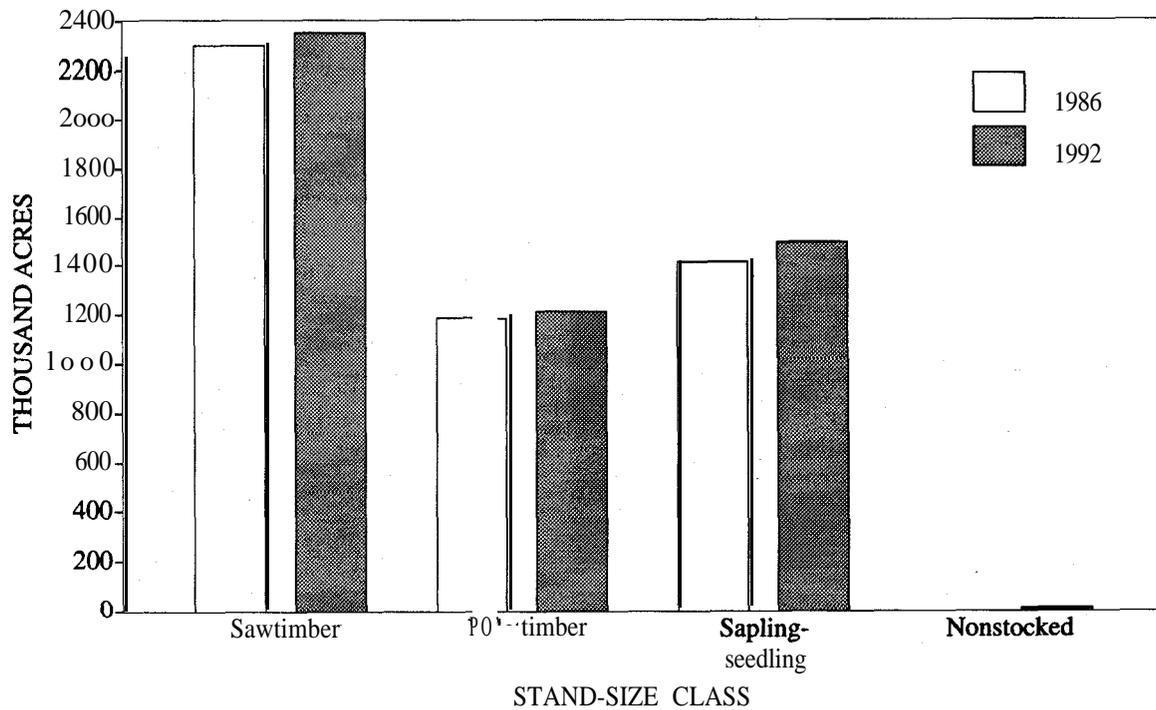


Figure 2.-Area of timberland by stand-size class, northeast Texas, 1986 and 1992.

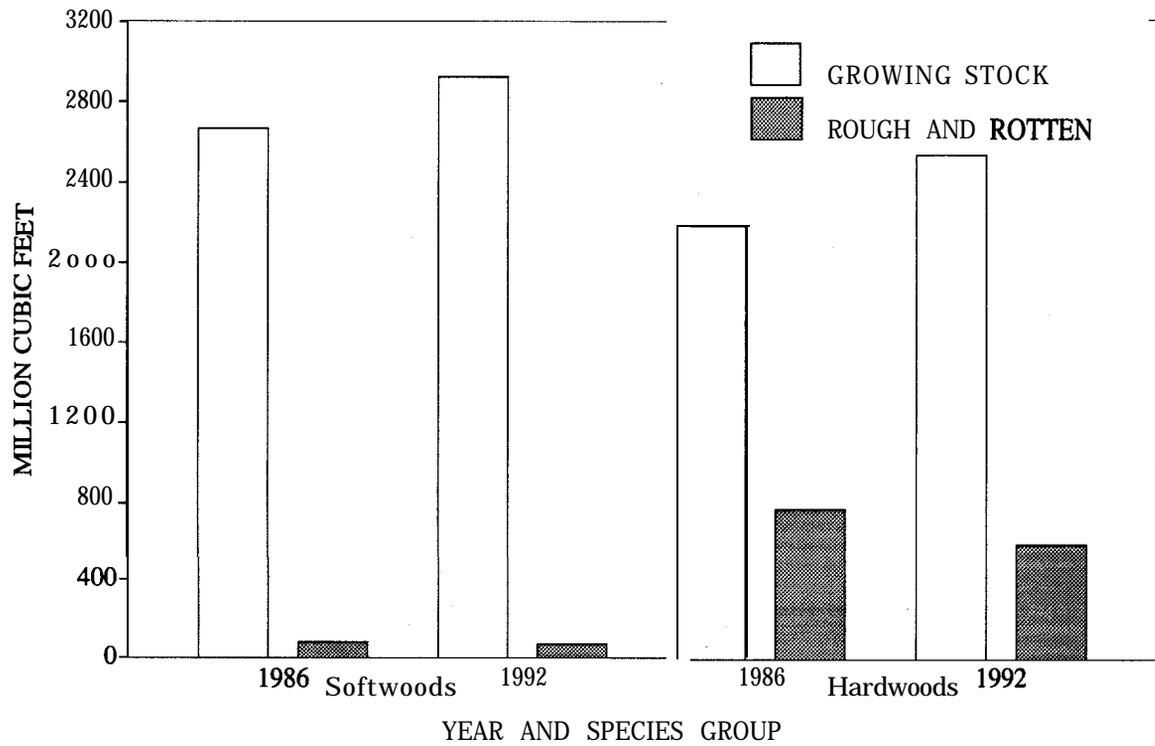


Figure 3.-Volume of live trees on timberland by species group and class of timber, northeast Texas, 1986 and 1992.

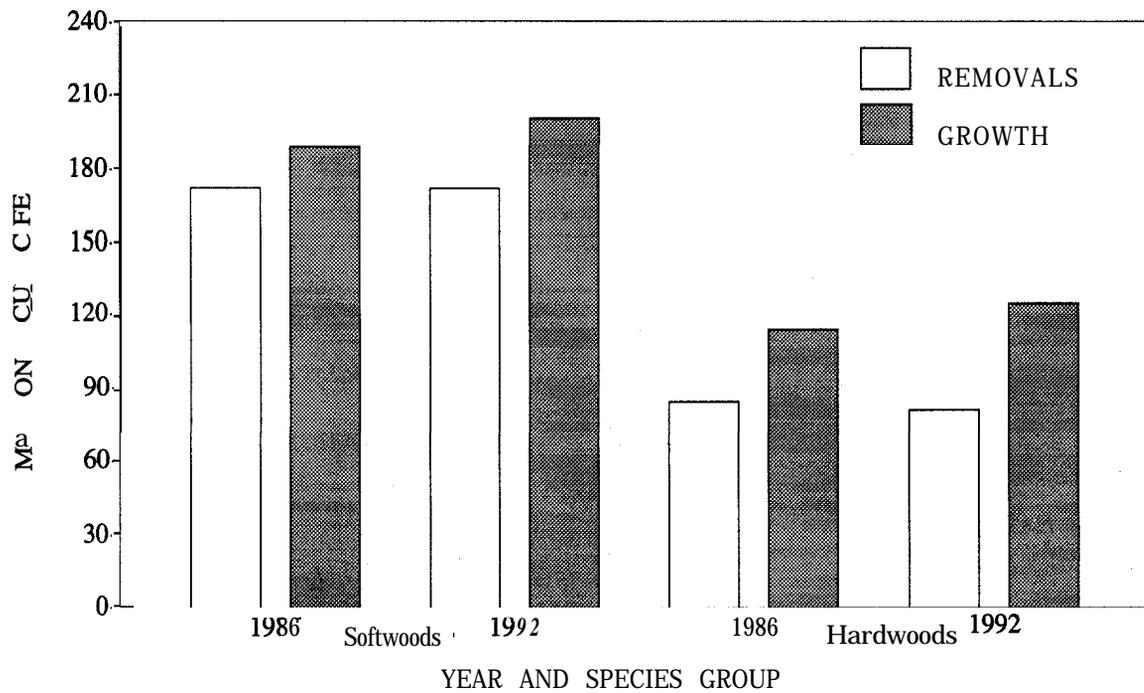


Figure 4.-Average net annual growth and average annual removals of live trees on timberland by species group, northeast Texas, 1986 and 1992.

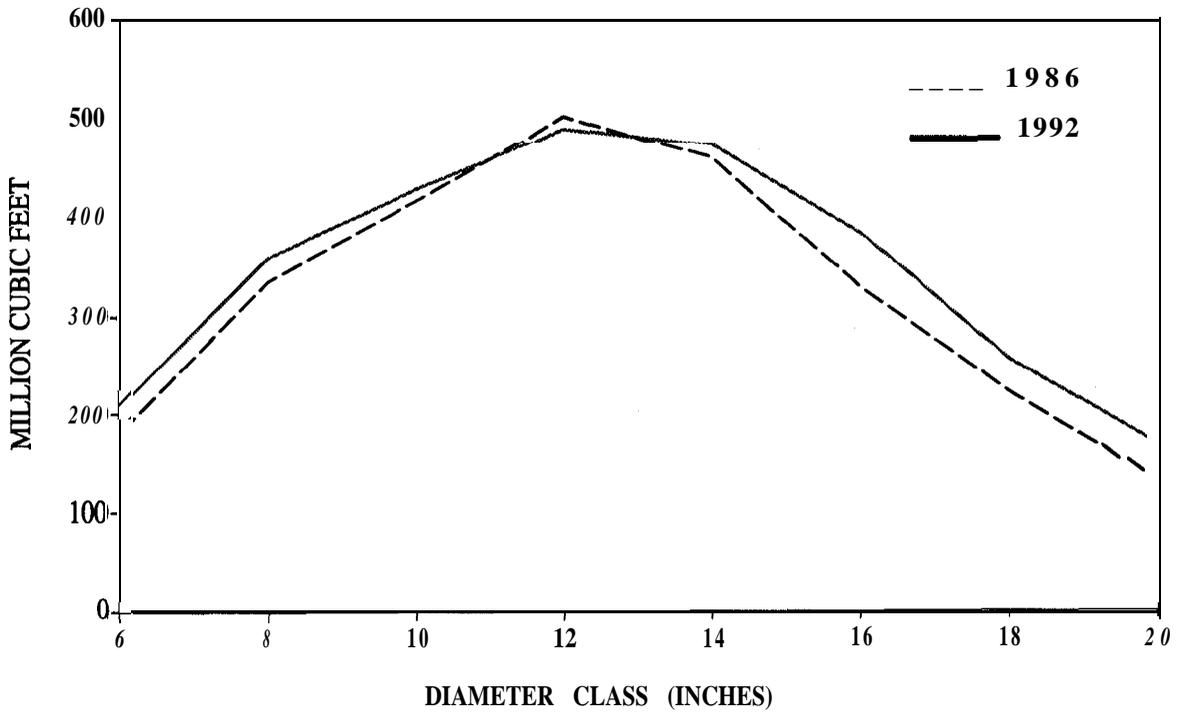


Figure 5.-Volume of live *softwood* trees on timberland by diameter class, northeast Texas, 1986 and 1992.

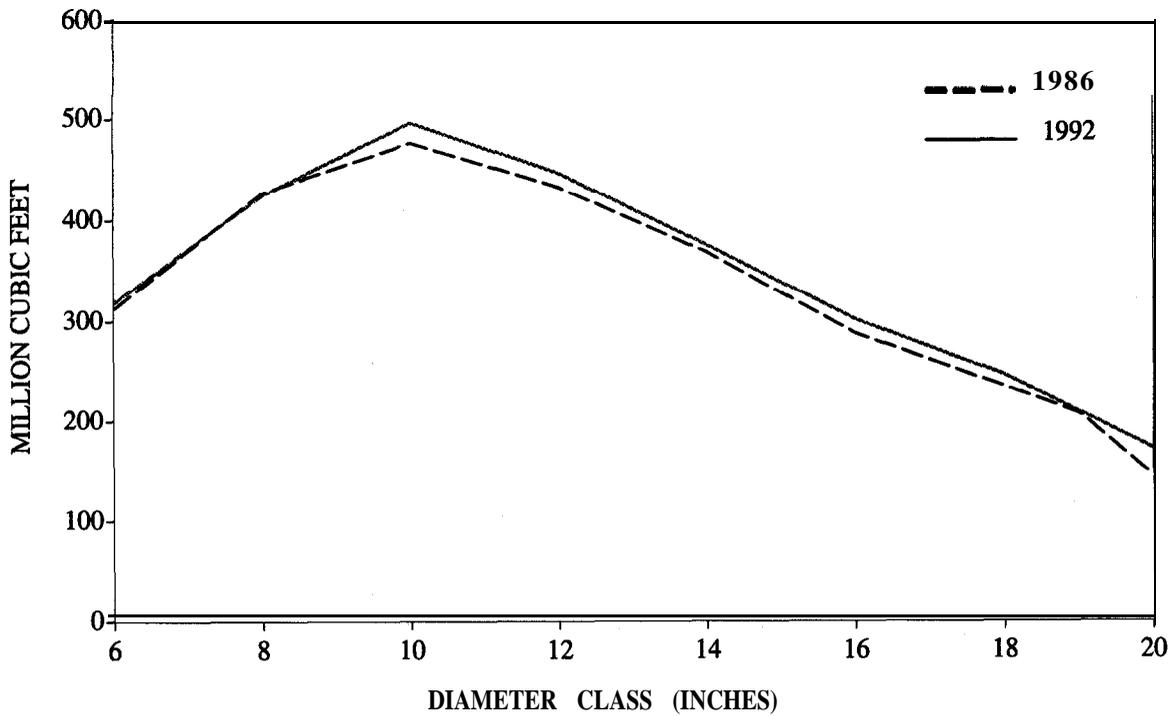


Figure 6.-Volume of live *hardwood* trees on timberland by diameter class, northeast Texas, 1986 and 1992.

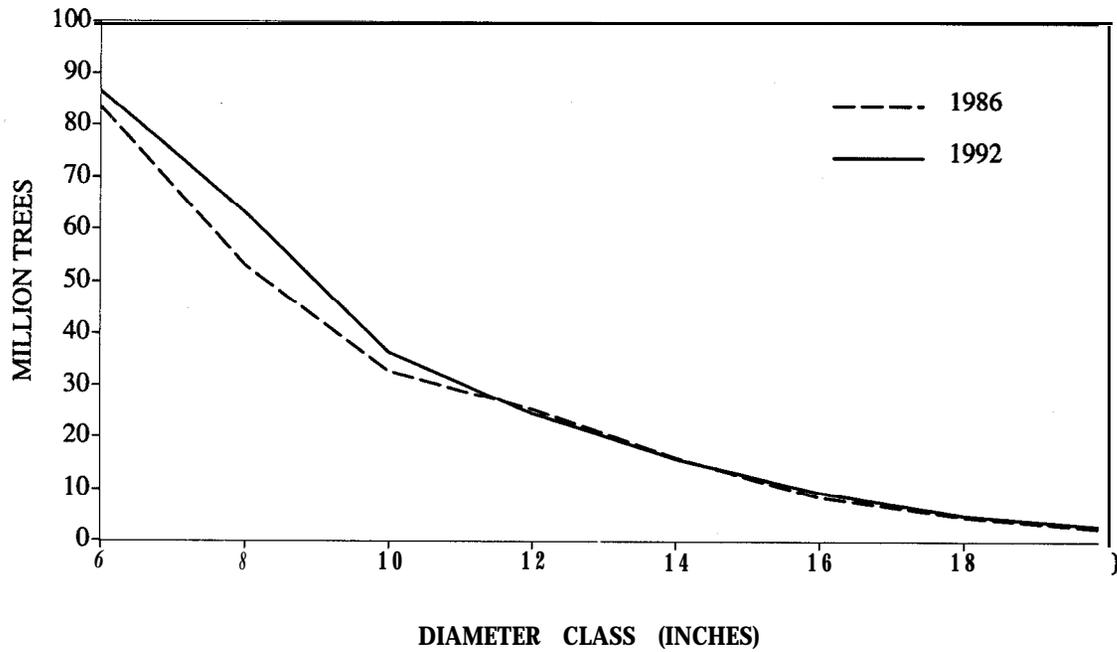


Figure 1.—Number of live softwood trees on timberland by diameter class, northeast Texas, 1986 and 1992.

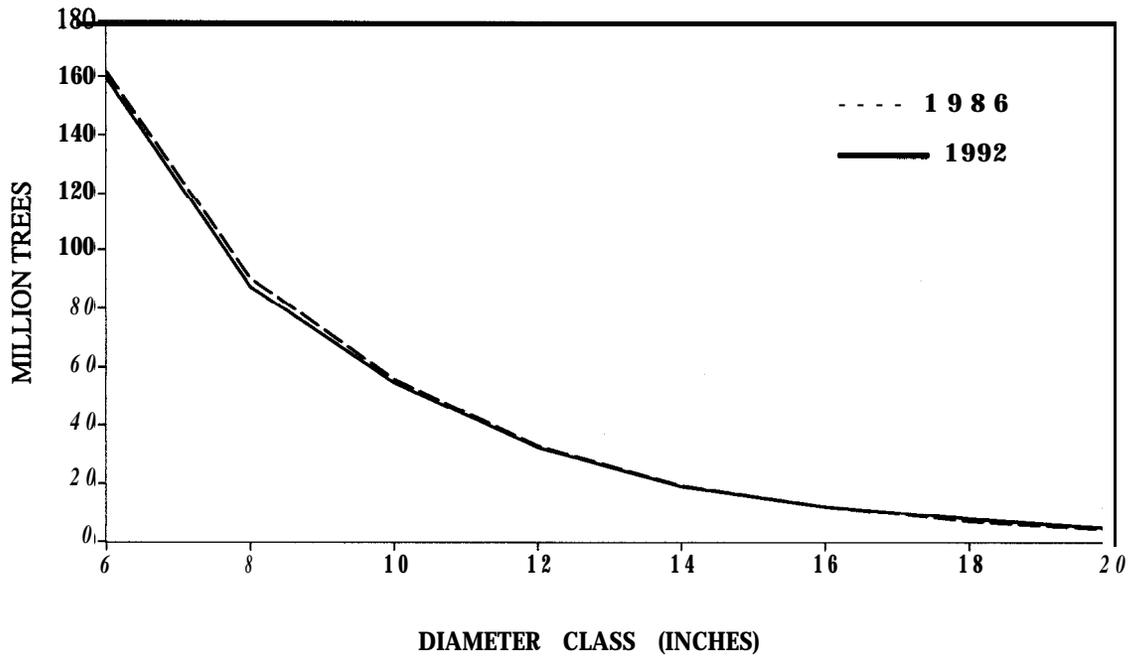


Figure 8.—Number of live hardwood trees on timberland by diameter class, northeast Texas, 1986 and 1992.

Kelly, John F.; Miller, Patrick E.; Hartsell, Andrew J. 1992. Forest statistics for northeast Texas counties-1992. Resour. Bull. SO-171. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station. 36 p.

Tabulates forest resource information from a new inventory of the northeast counties of Texas.

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

Persons of any race, color, national origin, sex, age, religion, or with any handicapping condition are welcome to use and enjoy all facilities, programs, and services of the USDA. Discrimination in any form is strictly against agency policy, and should be reported to the Secretary of Agriculture, Washington, DC 20250.



