



United States
Department of
Agriculture

Forest Service

Southern Forest
Experiment Station

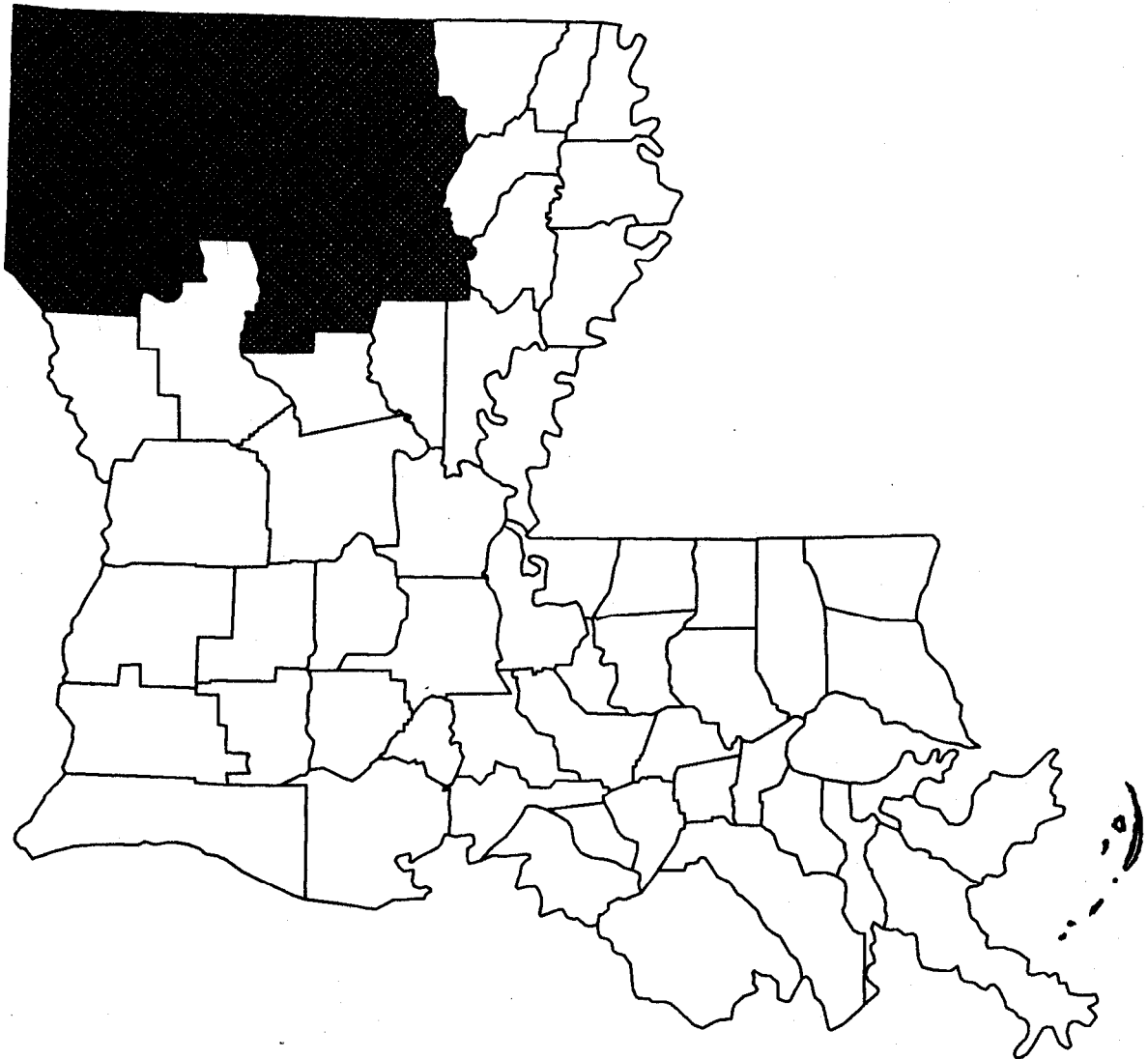
New Orleans,
Louisiana

Resource Bulletin
SO-167
January 1992



Forest Statistics for Northwest Louisiana Parishes – 1991

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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 island 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 Southern Station gratefully acknowledges the cooperation of public agencies and private landowners in providing access to measurement plots. The SO-FIA gratefully acknowledges the cooperation and excellent assistance provided by **the Louisiana** Forestry Commission in collecting field data.

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¹Core 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.

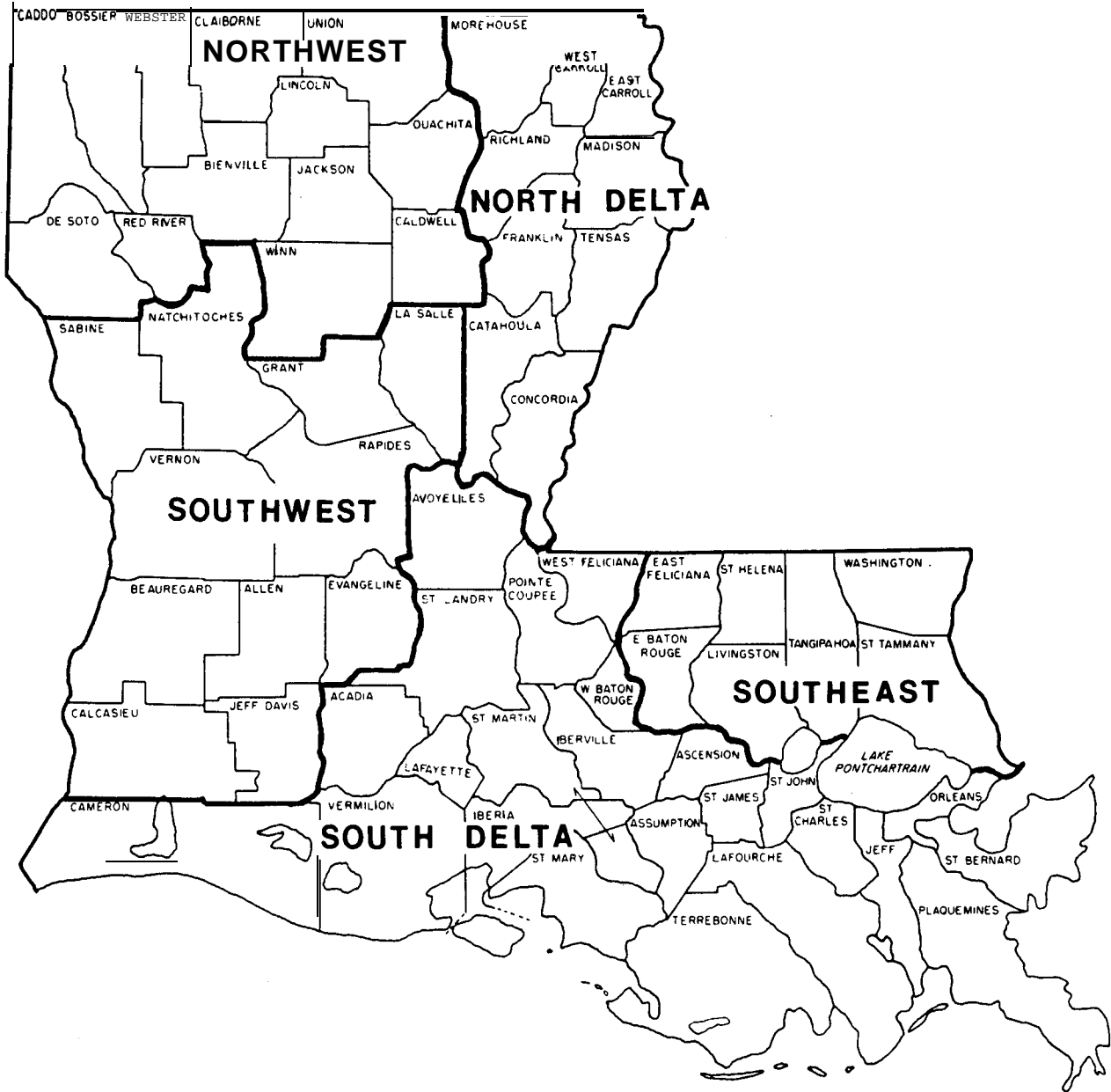


Figure 1-Forest survey units of Louisiana.

Forest Statistics for Northwest Louisiana Parishes – 1991

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INTRODUCTION

Tabulated results were derived from data obtained from a 1991 continuous forest inventory of Northwest Louisiana parishes (**fig.1**). Core tables (1 to 25) are compatible among Forest Inventory and Analysis units in the Eastern United States. Supplemental tables (26 to 43) provide information beyond that provided by the core tables. All comparisons between the 1991 and 1984 surveys are based upon reprocessed 1984 data.

METHODS

The estimates of timberland area, volume, growth, removals, and mortality for the Northwest Louisiana parishes are based upon the latest and most up-to-date inventory techniques available. There are important differences in the methods used between the 1984 and 1991 inventories. In many cases, improvements in methodology for deriving current estimates can raise concerns about trends between survey periods. Because these differences might appear to cloud the comparisons between 1984 and 1991 results, the major differences in procedures are documented below.

First, the 1984 inventory used 5 satellite points per plot, the 1991 inventory used 10 points. This should affect comparisons of the Northwest Louisiana unit totals very little, but caution should be used when analyzing smaller aggregations of data.

Second, the 1984 survey used regression equations to estimate volume. The coefficients were based upon deterministic tree measurements from a small number of sample plots. Volumes for the 1991 survey were derived from deterministic measurements made on all trees ≥ 5.0 inches diameter at breast height (d.b.h.) on all plots.

Third, the classification of trees into growing-stock, rough, or rotten classes has been modified in two ways to ensure compatibility among the eastern Forest Inventory and Analysis units. (1) Currently, any tree that contains or is capable of producing one **12-foot** or two 8-foot logs anywhere in the **sawlog** portion of the tree is classified as growing stock. The 1984 survey classified growing-stock trees as those that had or were capable of producing a **12-foot** log only in the butt 16-foot section. (2) The 1984 survey required that over one-half of the **sawlog** volume (or prospective volume) had to be utilizable. The current standard is that one-third of the sawlog volume in the **sawlog**

portion of the tree has to be utilizable in order for the tree to be classed as growing stock.

Using 5 or 10 satellite points per plot has little effect on volume totals for the unit because of the large sample size. Likewise, test runs comparing the results of volume equations and deterministic measurements have also demonstrated very little difference between methods. Here again, a large sample size enhances precision.

The first change in the growing-stock definition (log position) did affect direct comparisons between 1984 and 1991 estimates. To compensate for this definition change, the 1984 inventory data were reprocessed to be compatible with the 1991 growing-stock standard. The total number of trees affected by the definition change is small, and mostly hardwoods because of growth habit. It was not possible to classify all trees by the new growing-stock definition in the 1984 or 1991 data. Some trees died or were cut between measurement periods. Since these trees are gone, cruisers had no way of determining what the classification of these trees would be under the new standard. Therefore, the tree class previously assigned was maintained throughout the compilation process on mortality trees, on rough trees that were cut and not used, and on rotten trees that were cut. All rough trees that were cut and used were reclassified as growing stock.

The second growing-stock definition modification (changing from one-half to one-third sound) had virtually no impact. Only a small number of sawlog-sized sample trees had sound volume in the range of ≥ 33 percent but < 50 percent. Of these, most were reprocessed to resolve log position differences stated earlier. This left only a very few trees that were affected by this definition change, with subsequent little effect on growing-stock trends.

Users interested in trend analysis of growing-stock volume, growth, removals, and mortality between the 1984 and 1991 surveys should be aware of the impact of the growing-stock definition change. The incompatibility arises from trees that were cut or died, impacting growth, removals, and mortality estimates. The magnitude is, most likely, small but not possible to define with certainty.

Growing-stock comparisons between the 1984 reprocessed data and the 1991 data are valid for most general applications. However, in a more rigorous analysis it is important to make sure the changes are real and not due to definition changes. In such instances the comparisons between surveys should be done using all live trees. This procedure eliminates any uncertainties caused by the

Table II – *Components of annual change in the volume of live trees by inventory period and species group, Northwest Louisiana Parishes, 1991*

Inventory period and species group	Gross growth		
	Net growth	Mortality	Removals
	-----Million cubic feet-----		
1974 to 1983: softwoods	232.3	26.7	195.8
Hardwoods	109.3	35.3	80.0
Total	341.6	62.0	275.8
1984 to 1991: softwoods	216.4	32.8	270.6
Hardwoods	101.4	34.5	112.8
Total	317.8	67.3	383.4

Ownership

Nonindustrial private, forest industry, and public timberland acreage have all increased slightly between the 1984 and 1991 surveys. There were no noteworthy trends indicating shifting patterns of ownership in the Northwest unit.

Stand Size

Most of the timberland in the Northwest unit is in sawtimber stands, **2,363.9** thousand acres. This is 53 percent of total timberland in the unit and is a slight decrease from that reported in 1984. The acreage in poletimber and sapling-seedling stands is 764.8 and **1,331.3** thousand acres, respectively. Sapling-seedling stands increased by 132.0 thousand acres while there was no substantial change in poletimber acreage.

Artificial Regeneration

There are 689.0 thousand acres of pine forest types that originated from artificial regeneration, an increase of 220.1 thousand acres since 1984. These artificially regenerated pine stands now account for 15 percent of total timberland.

Softwood Volume

Softwood live-tree volume is currently **3,738.5** million cubic feet, a 326.4 million cubic feet decrease from the **4,064.9** million cubic feet reported in 1984. Seventy-eight percent of the softwood volume is in loblolly pine. Next in importance is shortleaf pine, 17 percent of the softwood resource. Both loblolly and shortleaf pine experienced volume losses in the survey period, 171.1 and 196.2 million cubic feet, respectively.

Hardwood Volume

Hardwood live-tree volume has decreased 188.0 million cubic feet from that reported in 1984. The current estimate is **2,651.3** million cubic feet. The plurality of volume is in the red oaks, 924.3 million cubic feet (35 percent of hardwood

volume). Another notable species is **sweetgum** with 608.1 million cubic feet. The white oaks have 398.9 million cubic feet of live-tree volume. Together, the red oaks, sweetgum, and white oaks make up 73 percent of the hardwood volume in the unit.

Growth

Softwood live-tree gross growth averages 249.2 million cubic feet per year, only a slight decrease of 4 percent from the previous survey period (table II). Softwood gross growth averages 56 cubic feet per acre per year for the current survey period.

Hardwood live-tree gross growth averages 135.9 million cubic feet per year, down 6 percent from the 144.6 million cubic feet per year reported in 1984 (table II). The per acre average for hardwood gross growth is currently 30 cubic feet per year.

Removals

The removal of live-tree softwood volume has increased from 195.8 to 270.6 million cubic feet annually (table II).

Hardwood live-tree removals have also increased, from 80.0 to 112.8 million cubic feet annually (table II).

Mortality

Live-tree mortality has increased slightly for softwoods and is unchanged for hardwoods. Currently, softwood mortality is averaging 32.8 million cubic feet per year; hardwood mortality is averaging 34.5 million cubic feet per year (table II).

Stand Structure

The average basal area of live trees on timberland in the Northwest unit has decreased, from 87.0 square feet per acre in 1984 to 81.7 square feet per acre, currently. The major components of total basal area are softwood sawtimber, hardwood sawtimber, and hardwood poletimber. Proportionately, they contributed 29, 22, and 16 percent, respectively, to the total basal area.

The total number of live trees has increased only slightly (4 percent) from the 1984 estimate. Softwoods increased in the 1.0- to 9.0-inch diameter range but decreased in the larger diameters. Hardwoods decreased in all diameter classes less than 17.0 inches (except for the 1.0- to 3.0-inch diameter class).

APPENDIX

Definition of Terms

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 one acre. Forest land is divided into a commercial category: timberland; and two noncommercial categories: reserved timberland or woodland.

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.

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

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

Ownership Classes

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.

Other federal land-Federal lands other than National Forests.

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

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

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.

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

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

Forest Types

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.

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

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

Oak-hickory – Forests in which upland oaks or hickories, singly or in combination, comprise a plurality of the stocking except where pines comprise 25-50 percent in which case the stand would be classified oak-pine. Common associates include yellow-poplar, elms, maples, and black walnut.

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 25-50 percent, in which case the stand would be classified oak-pine. Common associates include cottonwood, willow, ashes, elms, hackberries, and maples.

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

Nonfyped – Timberland currently unoccupied with any live trees or seedlings, e.g., very recent clearcut areas.

Tree Classes

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

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

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

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 growing-stock definition.

Rotten trees-Live trees of commercial species that are unmerchantable for sawlogs currently or potentially because

of rot deduction in the **sawlog** section. See growing-stock definition.

Cull trees-Rough or rotten trees.

Hardwoods— Dicotyledonous trees, usually broad leaved and deciduous.

Softwoods — Coniferous trees, usually evergreen, having needle or scalelike leaves.

Live trees -All trees alive. Included are all size classes (11.0 inch in d.b.h.), all tree classes, and both commercial and noncommercial species.

Salvable dead trees-Standing or downed dead trees that were formerly growing stock and are considered merchantable. Trees must be ≥ 5.0 inches in d.b.h. to qualify.

Dimension Classes of Trees

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

Poletimber trees — 5.0 to 8.9 inches in d.b.h. for softwoods and 5.0 to 10.9 inches in d.b.h. for hardwoods.

Saplings -Trees 1.0 inch to 4.9 inches in d.b.h.

Seedlings-Trees which are 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 $1/2$ inch in diameter at ground level for **longleaf** pine.

Rough, rotten, and salvable dead trees -See “tree classes.”

Stand-Size Classes

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

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

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

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 following tabulation by size class shows the density standard in terms of trees required per acre, 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

Volume

Volume of cull-Volume of sound wood in the bole of rough and rotten trees.

Volume of growing stock — Volume of sound wood in the bole of growing-stock trees from a 1-foot stump to a minimum **4.0-inch** top outside bark or to the point where the central stem breaks into limbs. Rough, rotten, and noncommercial trees are excluded. By definition, trees must be ≥ 5.0 inches in d.b.h.

Volume of sawtimber- Net volume of the **sawlog** portion of live sawtimber trees in board feet of the International 1/Cinch rule. Net volume equals gross volume less deductions for rot, sweep, and other defects that affect use for lumber to the point where the central stem breaks into limbs. Rough, rotten, and noncommercial trees are excluded.

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

Growth Classes

Grossgrowth -Total increase in stand volume computed on growing-stock trees or live trees ≥ 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 plus mortality.

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

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

Miscellaneous Definitions

Basal urea- 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.

D.b.h. (diameter at breast height) -Tree diameter in inches, outside bark, measured at 4 $1/2$ feet above ground.

Diameter classes — The **2-inch** diameter classes extend from 1.0 inch below to 0.9 inches 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.

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

Plantations-Stands evidenced by regeneration from planting or artificial seeding.

Sawlog portion -That part 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 in d.o.b. for softwoods and 9.0 inches in d.o.b. for hardwoods.

Select red oaks—A classification of several red oak species composed of: cherrybark, Shumard, and northern red oaks.

Select white oaks-A classification of several white oak species composed of: white, swamp chestnut, swamp white, chinkapin, Durand, and bur oaks.

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

Timber removals-The net volume of growing-stock trees removed from the inventory by harvesting or cultural operations such as timber-stand improvement, land clearing, or change in land use.

Tree grade-The grade classification assigned to a sawtimber tree, which is based upon: (1) the log grade of the butt log portion (the best 12 feet of first 16 feet), or (2) the presence of at least one 12-foot or two 8-foot logs in the upper **sawlog** portion when no butt log is present.

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

Table 1-Area by parish and land class, Northwest Louisiana Parishes, 1991

Parish	All land ¹	Forest land			Reserved timberland	Nonforest Land
		Total	Timberland ²	Woodland ³		
----- <i>Thousand acres</i> -----						
Bienville	522.0	445.6	445.6	...	...	76.4
Bossier	540.7	388.0	388.0	...	...	152.7
Caddo	572.2	317.2	317.2	...	...	255.0
Caldwell	345.9	254.0	254.0	...	...	92.0
Claiborne	489.4	396.9	396.9	...	...	92.6
De Soto	563.5	369.7	369.7	...	...	193.8
Jackson	370.3	325.9	325.9	...	...	44.3
Lincoln	302.2	225.8	225.8	...	...	76.4
Ouachita	401.2	256.5	256.5	...	...	144.7
Red River	252.1	151.3	151.3	...	...	100.8
Union	565.7	478.4	478.4	...	...	87.4
Webster	385.5	299.3	299.3	...	...	86.2
Winn	609.9	561.9	561.9	...	...	47.9
All parishes	5920.5	4470.5	4470.5	...	...	1450.1

¹From U.S. Bureau of the Census.

²**Forest** land (formerly termed commercial forest land) that is producing or capable of producing at least 20 cubic feet of industrial wood per acre per year. Includes areas which may be inaccessible or inoperable by current standards. Excludes reserved timberlands.

³**Forest** land incapable of producing 20 cubic feet of industrial wood per acre per year under natural conditions because of adverse site conditions.

Table 2-Area of timberland by parish and ownership class, Northwest Louisiana Parishes, 1991

Parish	All ownerships	National forest	Misc. federal	State	Parish and municipal	Forest industry ¹	Farmer	Corporate ¹	Individual ²
----- <i>Thousand acres</i> -----									
Bienville	445.6	...	...	...	...	278.5	22.3	...	144.8
Bossier	388.0	...	26.9	...	10.8	86.2	21.6	32.3	210.2
Caddo	317.2	...	...	10.9	5.5	5.5	21.9	43.8	229.7
Caldwell	254.0	...	...	38.6	11.0	104.9	22.1	...	77.3
Claiborne	396.9	16.2	...	...	...	19.7	...	45.9	315.0
De Soto	369.7	...	...	...	5.5	66.2	38.6	33.1	226.2
Jackson	325.9	...	...	...	...	196.6	...	5.2	124.2
Lincoln	225.8	...	...	...	...	11.6	...	...	214.2
Ouachita	256.5	...	13.5	13.5	13.5	54.0	6.7	13.5	141.7
Red River	151.3	...	...	...	...	40.7	5.8	23.3	81.5
Union	478.4	...	30.3	6.1	6.1	145.3	30.3	24.2	236.2
Webster	299.3	10.3	19.3	...	12.8	51.4	25.7	12.8	167.0
Winn	561.9	111.3	...	...	...	298.7	...	10.5	141.5
All parishes	4470.5	137.7	90.0	69.1	65.2	1359.3	195.0	244.6	2309.5

¹Includes land leased to forest industry.

²**Indian** land will be classed as corporate or individual as defined by the Bureau of Indian Affairs.

Table 3 -Area of timberland by parish and forest type group, Northwest Louisiana Parishes, 1991

Parish	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>Thousand acres</i> -----									
Bienville	388.0	...	...	105.8	89.1	122.5	72.4	55.7	...
Bossier	317.2	...	...	32.3	150.9	59.3	75.4	59.3	10.8
Caddo	...	...	...	...	82.0	82.0	82.0	71.1	...
Caldwell	254.0	...	...	44.2	38.6	33.1	55.2	82.8	...
Claiborne	396.9	...	2.7	48.6	134.0	84.2	85.3	42.1	...
De Soto	369.7	...	...	33.1	104.8	88.3	662	77.3	...
Jackson	325.9	5.2	...	93.1	98.3	56.9	46.6	25.9	...
Lincoln	225.8	...	...	28.9	75.3	69.5	40.5	11.6	...
Ouachita	2565	...	...	5.8	33.7	60.7	47.2	87.7	...
Red River	151.3	5.8	...	78.7	29.1	34.9	29.1	34.9	11.6
Union	478.4	...	...	...	90.8	109.0	60.4	96.9	...
Webster	299.3	...	...	43.7	89.9	57.8	107.2	47.5	...
Winn	561.9	...	8.6	136.7	147.6	96.7	...	65.2	...
All parishes	4470.5	11.0	11.3	678.0	1164.3	955.0	870.6	758.0	22.4

Table 4 -Area of timberland by parish and stand-size class, Northwest Louisiana Parishes, 1991

Parish	All classes	Stand-size class			Nonstocked ¹ areas
		Sawtimber	Poletimber	Sapling-seedling	
----- <i>Thousand acres</i> -----					
Bienville	445.6	200.5	89.1	155.9	...
Bossier	388.0	253.3	32.3	102.4	...
Caddo	317.2	196.9	38.3	82.0	...
Caldwell	254.0	121.5	44.2	88.3	...
Claiborne	396.9	217.0	52.5	127.4	...
De Soto	369.7	226.2	44.1	99.3	...
Jackson	325.9	129.3	72.4	124.2	...
Lincoln	225.8	115.8	57.9	52.1	...
Ouachita	256.5	141.7	47.2	67.5	...
Red River	151.3	99.0	17.5	34.9	...
Union	478.4	254.3	96.9	127.2	...
Webster	299.3	137.4	64.2	97.6	...
Winn	561.9	270.9	108.1	172.4	10.5
All parishes	4470.5	2363.9	764.8	1331.3	10.5

¹Timberland less than 16.7 percent stocked.

Table 5 -Area of timberland by parish and site class, Northwest Louisiana Parishes, 1991

Parish	All classes	Site class (cubic feet/acre&ear)				
		> 165	120-165	85-120	50-85	< 50
----- <i>Thousand acres</i> -----						
Bienville	445.6	66.8	183.8	150.4	39.0	5.6
Bossier	388.0	80.8	140.1	107.8	59.3	...
Caddo	254.0	60.2	98.4	103.9	54.7	...
Caldwell	396.9	91.1	165.677.3	107.7 n3	11.11.1	5.5
Claiborne	369.7	...	160.0	99.3	22.1	...
De Soto	...	88.3	...	...	...	...
Jackson	325.9	56.9	129.3	113.8	25.9	...
Lincoln	225.8	40.5	75.3	69.5	40.5	...
Ouachita	256.5	20.2	128.2	74.2	33.7	...
Red River	151.3	23.3	29.1	46.6	46.6	5.8
Union	478.4	36.3	175.6	175.6	84.8	6.1
Webster	299.3	21.8	122.0	105.3	37.3	12.8
Winn	561.9	74.8	190.5	241.9	49.5	5.2
All parishes	4470.5	671.8	1675.4	1473.4	608.9	41.1

Table 6 -Area of timberland by parish and stocking classes of growing-stock trees, Northwest Louisiana Parishes, 1991

Parish	All classes	Stocking class (percent)				
		> 130	100-130	60-100	16.7-60	< 16.7
----- <i>Thousand acres</i> -----						
Bienville	445.6	22.3	178.2	194.9	50.1	...
Bossier	388.0	16.2	75.4	231.7	59.3	5.4
Caddo	317.2	10.9	60.2	180.5	60.2	5.5
Caldwell	254.0	11.0	55.2			5.5
Claiborne	396.9	39.4	138.2	166.9	58.3	6.6
De Soto	369.7	22.1	115.9	182.1	49.7	-
Jackson	325.9	31.0	108.6	139.7	41.4	5.2
Lincoln	225.8	5.8	75.3	121.6	23.2	-
Ouachita	256.5	27.0	40.5	148.5	27.0	13.5
Red River	151.3	...	23.3	81.5	46.6	-
Union	478.4	24.2	157.4	248.3	48.4	-
Webster	299.3	12.8	95.1	169.5	21.8	-
Winn	561.9	48.6	158.1	263.9	75.7	15.7
All parishes	4470.5	271.3	1281.4	2238.3	622.1	57.3

Table 7 -Area of timberland by forest type and ownership class, Northwest Louisiana Parishes, 1991

Forest type ¹	All ownerships	National forest	Other public	Forest industry	Forest ownership	
					Forest industry-leased	Other private
----- <i>Thousand acres</i> -----						
Longleaf-slash pine	22.3	11.3	-	...	...	11.0
Loblolly-shortleaf pine	1842.3	74.7	51.9	670.1	33.7	1011.9
Softwood total	1864.5	86.0	51.9	670.1	33.7	1022.9
Oak-pine	955.0	18.2	18.3	267.3	18.5	632.6
Oak-hickory	870.6	15.4	30.6	239.3	17.4	567.7
Oak-gum-cypress	758.0	18.1	123.6	112.9	...	503.4
Elm-ash-cottonwood	22.4	...	...	...	...	22.4
Hardwood total	2605.9	51.8	172.5	619.5	36.0	1726.2
All types	4470.5	137.7	224.3	1289.6	69.7	2749.1

¹Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood types.

Table 8 -Area of timberland by ownership class and stocking classes of growing-stock trees, Northwest Louisiana Parishes, 1991

Ownership class	All classes	Stocking class (percent)				
		> 130	100-130	60-100	16.7-60	< 16.7
----- <i>Thousand acres</i> -----						
National forest	137.7	17.1	61.4	43.8	15.4	-
Other public	224.3	5.4	41.4	125.7	51.9	...
Forest industry	1289.6	126.9	357.6	619.8	154.5	20.9
Forest industry-leased	2749.1	105.5	708.3	1485.0	394.8	36.4
All ownerships	4470.5	271.3	1281.4	2238.3	622.1	57.3

Table 9 -Area of timberland by forest type and stand-size class, Northwest Louisiana Parishes, 1991

Forest type ¹	All classes	Stand-size class			Nonstocked ² areas
		Sawtimber	Poletimber	Sapling-seedling	
----- <i>Thousand acres</i> -----					
Longleaf-slash pine	22.3	22.3	...	...	...
Loblolly-shortleaf pine	1842.3	1008.5	388.1	440.4	5.2
Softwood total	1864.5	1030.8	388.1	440.4	5.2
Oak-pine	955.0	481.9	143.4	329.6	...
Oak-hickory	870.6	285.4	128.3	451.7	5.2
Oak-gum-cypress	758.0	548.7	105.0	104.3	...
Elm-ash-cottonwood	22.4	17.0	...	5.4	...
Hardwood total	2605.9	1333.1	376.7	890.9	5.2
All types	44705	2363.9	764.8	1331.3	10.5

¹Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood types.

²Timberland less than 16.7 percent stocked.

Table 10 -Number of live trees on timberland by species and diameter class, Northwest Louisiana Parishes, 1991

Species	All classes	Diameter class (inches at breast height)											
		3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger	
----- <i>Thousand trees</i> -----													
Longleaf-slash pines	3658	1067	392	213	282	325	593	299	243	106	92	46	...
Shortleaf-loblolly pines	904655	428092	198092	105808	68530	37723	26391	17285	11009	6008	2884	2659	171
Cypress	9732	511	2151	1413	1560	912	805	736	683	388	242	267	6.5
Other softwoods	11152	8716	1497	5%	154	127	30	25	...	...	...	...	5
Total softwoods	929197	438385	202133	108030	70527	39088	27819	18345	11935	6503	3218	2973	241
Select white oaks	79744	51281	13462	6073	2927	2064	1348	952	493	479	246	346	24
Select red oaks	30838	20352	3125	1745	1361	1395	648	571	330	360	369	91	...
Other white oaks	54340	27349	10486	5083	3439	2371	1727	1164	784	624	405	820	89
Other red oaks	300345	219012	30377	13492	11167	8692	5327	4443	2635	1943	1025	1856	377
Hickory	72043	46403	11188	4594	3112	2714	1275	1123	685	370	209	330	40
Hard maple	8692	7759	...	554	304	...	...	...	...	...	...	23	...
Soft maple	177815	146316	21391	5961	2524	1014	...	...	28	35	10	...	...
Beech	12744	9260	619	337	184	487	426	113	447	277	183	394	5s
Sweetgum	571110	412760	86652	35317	15591	9823	4399	2843	1623	984	645	442	32
Tupelo-blackgum	116669	90638	11052	7473	3431	1717	965	455	341	257	144	180	16
Ash	54275	39453	8319	2921	1633	656	527	337	142	128	84	68	8
Cottonwood-aspen	482	...	...	...	65	107	83	101	31	36	9	23	27
Basswood	2344	1017	506	582	135	...	64	19	...	13	...	...	8
Yellow-poplar	777	474	...	...	184	32	47	39	...	...	...	...	...
Black walnut	161	...	...	114	...	...	...	23	17	...	...	7	...
Other hardwoods	376483	280123	65168	16992	7014	3120	1746	1127	558	267	142	189	37
Total hardwoods	1858860	1352111	262343	101237	53070	34194	18857	13585	8325	5742	3463	5045	802
Noncommercial	2838%	219729	47043	12405	3300	932	225	200	30	24	...	7	...
All species	3071953	2010311	511518	221672	126898	74213	46902	32130	20290	12269	6681	8024	1044

Table 11 -Number of growing-stock trees on timberland by species and diameter class, Northwest Louisiana Parishes, 1991

Species	All classes	Diameter class (inches at breast height)											
		1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
<i>-----Thousand trees-----</i>													
Longleaf-slash pines	3544	1067	392	99	282	325	593	299	243	106	92	46	...
Shortleaf-loblolly pines	780546	341016	171200	98957	66860	36547	26294	17224	10980	5921	2845	2536	168
Cypress	7332	...	1532	869	1223	589	767	736	667	388	242	262	56
Other softwoods	9459	7136	1497	5%	90	85	30	25	...	...	...	...	...
Total softwoods	800881	349219	174621	100522	68455	37546	27684	18284	11890	6415	3178	2845	224
Select white oaks	51021	28993	8977	5108	2657	1939	1087	854	497	439	206	258	6
Select red oaks	19340	11897	1113	1185	1210	1322	594	505	459	295	342	342	75
Other white oaks	32192	12008	6730	3947	3081	2023	1432	1010	585	456	306	562	51
Other red oaks	184493	119905	20756	11061	9989	7870	4677	3800	2239	1792	849	1387	168
Hickory	37363	20086	5643	3378	2453	2448	888	984	632	346	190	304	12
Hard maple	3682	3005	...	333	304	...	27	...	...	...	...	14	...
Soft maple	60317	47450	7268	3270	1319	704	227	41	13	24	...	...	...
Beech	5243	3633	...	100	74	368	175	173	288	132	107	179	13
Sweetgum	330690	220643	49387	28407	13973	9121	3457	2423	1456	862	564	366	32
Tupelo-blackgum	33756	20271	3022	4454	2843	1490	668	342	244	207	124	91	...
Ash	29501	19608	4822	2021	1471	498	469	270	79	128	84	47	4
Cottonwood-aspen	454	...	...	...	65	107	83	101	31	24	9	23	11
Basswood	1453	511	506	267	64	...	64	19	...	13	...	...	8
Yellow-poplar	777	474	...	...	184	32	47	39	...	...	...	...	...
Black walnut	137	...	...	114	...	...	...	23	...	...	...	...	...
Other hardwoods	127333	82019	25560	10063	4897	2052	1346	653	414	120	96	106	7
Total hardwoods	917751	590502	133784	73709	44585	29974	15242	11237	6937	4838	2878	3676	388
All species	1718631	939721	308405	174230	113040	67519	42925	29521	18827	11253	6057	6521	612

Table 12-- Volume of growing stock on timberland by species and diameter class, Northwest Louisiana Parishes, 1991

Species	All classes	Diameter class (inches at breast height)										
		5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger	
<i>-----Million cubic feet-----</i>												
Longleaf-slash pines	...	...	...	...	...	...	...	...	...	...	4.3	...
Shortleaf-loblolly pines	3402.6	241.9	402.3	466.6	563.7	540.6	400.8	338.3	197.0	250.8	31.3	...
Cypress	129.6	1.3	5.8	0.6	13.8	16.9	23.1	17.9	14.5	21.1	8.0	...
Other softwoods	3.1	0.3	...	0.4	0.4	...	...	...	...	...	...	...
Total softwoods	3686.8	2455	409.6	475.6	592.8	569.3	503.2	356.4	218.7	276.3	39.3	...
Select white oaks	165.9	14.1	16.7	21.6	20.0	22.4	17.6	20.9	13.6	18.0	0.9	...
Select red oaks	140.1	3.1	7.7	14.7	12.0	13.2	16.4	14.8	18.3	27.9	11.9	...
Other white oaks	180.8	9.4	16.2	20.7	22.1	21.8	17.3	16.0	15.2	35.7	6.5	...
Other red oaks	689.5	30.3	62.6	92.5	82.3	96.0	74.2	79.9	47.4	103.2	21.1	...
Hickory	152.4	7.6	14.1	25.2	14.6	22.9	19.8	15.2	10.2	20.8	2.0	...
Hard maple	4.0	1.3	1.4	...	0.4	...	...	...	...	0.8	...	...
Soft maple	28.8	9.0	7.2	7.3	3.4	0.7	0.4	...	...	...	...	...
Beech	47.2	0.2	0.5	3.9	3.0	3.5	10.0	0.8	6.6	12.8	1.4	...
Sweetgum	588.6	64.8	81.2	102.6	66.0	77.9	56.0	41.9	34.0	33.0	3.9	...
Tupelo-blackgum	46.6	11.49	14.7	15.4 57	115 70	5.5	11 11	11 11	11 11	11 11	11 11	11 11
Ash	...	...	8.3	...	...	...	...	...	...	...	...	...
Cottonwood-aspen	10.9	...	0.3	0.8	1.1	1.9	0.8	0.9	0.5	2.3	2.0	...
Basswood	4.2	0.8	0.4	...	1.6	0.5	...	0.6	...	...	0.7	...
Yellow-poplar	4.0	...	0.8	0.6	...	1.1	...	...	...	...	...	...
Black walnut	0.9	0.3	...	...	...	0.6	...	...	...	...	...	...
Other hardwoods	140.8	24.7	27.5	21.0	23.7	15.6	12.5	4.4	4.2	6.6	0.6	...
Total hardwoods	2258.7	180.7	259.7	331.9	270.1	284.3	235.0	215.4	160.2	270.2	51.3	...
All species	5945.5	426.1	669.3	807.5	862.9	853.6	738.2	571.8	378.9	546.5	90.6	...

Table 13 -- Volume of growing stock in the sawlog portion of sawtimber¹ trees on timberland by species and diameter class, Northwest Louisiana Parishes, 1991

Species	All classes	Diameter class (inches at breast height)							
		9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
-----Million cubic feet-----									
Cypress slash pines	2537.4	5.0	51.7	490.7	9.3	5.9	6.3	4.0	...
Other softwoods	108.6	4.6	0.3	15.0	20.7	15.8	13.7	19.7	7.5
Total softwoods	2691.0	380.9	526.8	518.4	458.7	324.0	199.6	247.8	34.8
Select white oaks	91.0	...	8.0	17.4	14.8	17.6	11.0	14.3	0.7
Select red oaks	95.1	...	17.3	10.8	13.3	...	15.4	23.8	10.8
Other white oaks	108.4	...	...	17.4	14.4	12.9	12.3	28.3	5.8
Other red oaks	409.8	...	60.1	77.6	62.1	67.0	39.2	86.0	17.9
Hickory	84.3	...	10.9	17.9	15.9	12.2	8.7	17.0	1.7
Hard maple	1.2	...	...	...	...	...	...	0.8	...
Soft maple	4.2	...	0.3	0.6	0.2	0.7	...	...	...
Beech	34.5	...	2.2	2.6	8.1	4.6	5.6	10.2	1.2
Sweetgum	251.1	...	45.4	57.9	46.9	37.6	29.8	30.0	3.6
Tupelo-blackgum	39.6	...	7.7	6.4	6.0	8.1	5.5	5.8	...
Ash	22.0	...	4.8	4.1	2.4	4.5	3.7	2.4	0.2
Cottonwood-aspens	7.8	...	...	1.4	0.5	0.4	0.4	2.2	1.8
Basswood	2.4	...	0.9	0.4	...	0.5	...	...	0.7
Yellow-poplar	2.3	...	1.4	0.9	...	...	...	...	...
Black walnut	0.4	...	...	10.4	...	...	...	...	...
Other hardwoods	52.3	...	17.1	...	10.2	3.5	3.5	5.6	0.5
Total hardwoods	1206.3	...	194.8	228.0	194.8	182.4	134.9	226.4	44.9
All species	3897.3	380.9	721.6	746.5	653.5	506.5	334.5	474.3	79.7

¹That part of the bole of sawtimber trees between a 1-foot stump and sawlog top.

Table 14 -- Volume of sawtimber on timberland by species and diameter class, Northwest Louisiana Parishes, 1991

Species	All classes	Diameter class (inches at breast height)							
		9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
-----Million board feet-----									
Longleaf-slash pines	350.7	30.2	79.3	72.3	60.1	37.9	43.9	27.0	...
Cypress slash pines	15821.4	...	...	...	...	1979.2	1189.6	1522.3	198.6
Other softwoods	6253.6	22.2	65.5	81.6	120.9	92.6	79.5	116.8	46.2
Total softwoods	16803.4	2092.8	3176.6	3260.2	2940.3	2109.7	1313.0	1666.1	244.9
Select white oaks	568.0	...	44.1	102.8	92.9	...	...	...	4.0
Select red oaks	592.6	...	...	...	80.4	188.1	95.9	195.8	73.4
Other white oaks	661.9	...	93.8	62.8	88.4	80.9	...	183.8	37.2
Other red oaks	2472.7	...	...	98.0	...	419.4	79.6	...	102.5
Hickory	522.7	...	389.4	405.1	398.8	79.4	257.2	554.3	108.7
Hard maple	6.8	...	1.9	3.8	...	...	...	4.9	...
Soft maple	24.9	...	15.1	15.3	1.5	...	...	...	...
Beech	223.1	...	...	...	51.8	...	...	...	8.7
Sweetgum	1507.0	...	...	342.0	284.2	24.5	130.8	1.9	19.1
Tupelo-blackgum	2155	...	253.5	35.3	31.2	49.7	20.6	31.3	...
Ash	123.3	...	25.5	27.9	14.4	...	...	...	0.6
Cottonwood-aspens	46.1	...	4.0	2.2	3.2	22.7	...	13.8	10.9
Basswood	13.3	...	...	...	...	3.2	2.5	13.3	3.8
Yellow-poplar	14.7	...	9.1	5.6	...	...	...	...	...
Black walnut	2.7	...	...	2.7	...	...	...	...	...
Other hardwoods	304.1	...	96.8	...	61.4	20.4	20.8	32.7	2.7
Total hardwoods	7299.4	...	1079.0	1321.3	1176.4	1139.8	854.5	1453.2	275.1
All species	24102.8	2092.8	4255.6	4581.5	4116.7	3249.5	2167.5	3119.3	520.0

Table 15— Volume of growing stock and sawtimber on timberland by parish and species group, Northwest Louisiana Parishes, 1991

Parish	Growing stock						Saw-timber					
	All species	softwood			Hardwood		All species	softwood			Hardwood	
		Pine			Soft ¹	Hard ²		Pine			Soft'	Hard ²
		Planted	Natural	Other				Planted	Natural	Other		
----- <i>Million cubic feet</i> -----												
----- <i>Million board feet</i> -----												
Bienville	593.5	138.7	253.8	6.5	78.9	115.6	2287.6	411.6	1237.4	25.8	207.3	405.4
Bossier	583.8	38.9	332.9	4.1	67.9	140.1	2,527.5	185.6	1646.5	19.7	187.9	487.8
Caddo	380.2	...	187.6	4.1	63.1	125.4	1539.3	...	868.9	21.7	188.3	460.4
Caldwell	268.2	27.7	59.1	6.5	47.5	127.5	1142.2	66.9	290.8	37.6	165.9	581.0
Claiborne	608.1	95.7	320.6	3.7	84.1	103.9	2501.7	449.0	1529.9	15.8	157.6	349.3
De Soto	543.8	27.9	327.8	15.8	77.1	95.3	2355.5	47.3	1697.0	86.1	206.7	318.5
Jackson	361.6	76.5	175.6	0.8	37.7	71.0	1452.9	191.8	886.6	4.0	112.1	258.4
Lincoln	357.1	38.7	201.4	...	46.5	70.5	1382.6	1795	845.4	...	97.2	260.5
Ouachita	363.1	40.9	114.8	1.3	35.7	136.8	1336.5	68.4	534.0	166.9	69.5	497.7
Red River	171.5	9.0	62.8	22.1	43.1	55.2	699.7	40.5	311.3	7.5	131.8	208.6
Union	632.2	141.6	232.0	---	77.4	159.2	2555.2	595.9	1135.3	101.4	219.1	503.4
Webster	413.3	25.7	200.6	13.1	70.7	103.3	1602.1	38.2	1057.7	42.9	141.2	322.2
Winn	669.0	138.0	285.9	19.9	83.6	141.7	2720.0	426.8	1429.8	101.9	222.2	539.4
All parishes	5945.5	799.3	2754.8	132.7	813.2	1445.5	24102.8	2701.4	13470.6	631.4	2106.8	5192.5

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

²Hardwood 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, Northwest Louisiana Parishes, 1991

Class of timber	All species	softwood			Hardwood	
		Pine			Soft ¹	Hard ²
		Planted	Natural	Other		
----- <i>Million cubic feet</i> -----						
Sawtimber trees:						
Saw-log portion	3897.3	449.1	2132.2	109.8	356.3	850.0
Upper-stem portion	620.8	72.6	254.5	13.6	81.5	198.7
Total	4518.1	521.7	2386.6	123.4	437.7	1048.7
Poletimber trees	1427.4	277.6	368.2	9.3	375.5	396.8
All growing-stock trees	5945.5	799.3	2754.8	132.7	813.2	1445.5
Rough trees:						
Sawtimber size	193.0	8.8	12.4	4.5	55.3	111.9
Poletimber size	168.1	5.7	16.7	2.1	60.0	83.6
Total	361.0	14.5	29.1	6.5	115.3	195.5
Rotten trees:						
Sawtimber size	77.8	...	0.7	0.8	16.4	59.9
Poletimber size	5.4	...	...	...	3.0	2.4
Total	83.2	...	0.7	0.8	19.3	62.3
Salvable dead trees:						
Sawtimber size	5.9	...	3.7	...	1.2	1.0
Poletimber size	2.7	...	0.7	...	1.7	0.3
Total	8.6	...	4.5	...	2.9	1.3
All classes	6398.4	813.8	2789.1	140.0	950.8	1704.7

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

²Hardwood 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, North west Louisiana Parishes, 1991

Ownership class	Live trees						Growing stock					
	All species	Softwood			Hardwood		All species	softwood			Hardwood	
		Pine		Other	Soft ¹	Hard ²		Pine			Soft ¹	Hard ²
		Planted	Natural					Planted	Natural	Other		
National forest	275.2	40.7	150.7	9.8	23.0	202.4	365.5	3.4	150.7	9.5	20.1	53.3
Other public	408.0	3.4	133.8	21.2	58.6	60.4	265.0	366.6	133.2	19.3	45.5	174.0
Forest industry	1499.2	26.4	572.7	...	176.3	353.5	1403.7	...	567.5	...	151.3	299.1
Forest industry-leased	105.7	367.9	57.0	...	11.1	11.3	101.9	26.4	57.0	...	8.6	9.9
Other private	4101.6	...	1870.4	108.6	679.0	1075.7	3809.3	362.5	1846.4	103.5	587.7	909.2
All ownerships	6389.7	813.8	2784.6	140.0	947.9	1703.3	5945.5	799.3	2754.8	132.7	813.2	1445.5

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

²Hardwood 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 parish and species group, Northwest Louisiana Parishes, 1991

Parish	Growing stock						Sawtimber					
	All species	softwood			Hardwood		All species	softwood			Hardwood	
		Pine		Other	Soft ¹	Hard ²		Pine			Soft ¹	Hard ²
		Planted	Natural					Planted	Natural	Other		
	-Million cubic feet-						-Million board feet-					
Bienville	36.7	13.8	15.1	0.3	3.6	3.9	136.2	41.9	76.7	1.6	5.9	10.1
Bossier	26.1	1.5	15.5	0.1	1.9	4.9	134.1	7.4	96.2	0.4	5.3	24.7
Caddo	18.4	...	11.1	0.1	2.3	5.7	91.5	...	64.7	...	3.9	22.9
Caldwell	12.7	3.3	2.4	...	1.3	...	36.8	1.6	13.9	...	1.8	19.5
Claiborne	30.4	6.5	18.4	-0.3	3.4	2.4	161.9	42.8	101.4	-0.3	7.9	10.2
De Soto	25.6	4.4	12.3	0.7	2.6	5.6	114.7	10.2	77.6	3.6	5.9	17.5
Jackson	20.9	7.7	9.6	...	0.9	2.8	91.1	17.5	56.7	0.3	2.8	13.9
Lincoln	16.2	2.0	10.8	...	2.0	1.4	75.7	10.2	52.5	...	6.0	6.9
Ouachita	19.1	4.8	7.2	0.3	0.7	6.1	74.5	9.8	34.1	1.9	4.8	23.9
Red River	6.4	0.9	2.7	...	2.1	0.8	26.2	5.4	13.0	...	3.6	4.3
Union	26.1	7.8	12.1	1.1	1.9	3.2	107.4	32.4	56.6	5.9	4.7	7.8
Webster	19.8	1.8	9.7	0.6	2.0	5.7	76.9	2.4	53.1	1.5	2.1	17.8
Winn	37.7	13.9	15.2	0.9	3.7	4.0	144.6	41.5	72.1	4.3	8.8	17.7
All parishes	296.0	68.2	142.1	3.7	28.3	53.7	1271.7	223.0	768.7	19.2	63.6	197.2

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

²Hardwood 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 parish and species group, Northwest Louisiana Parishes, 1991

Parish	Growing stock						Sawtimber					
	All species	Softwood			Hardwood		All species	Softwood			Hardwood	
		Pine		Other	Soft ¹	Hard ²		Pine			Soft ¹	Hard ²
		Planted	Natural					Planted	Natural	Other		
		<i>-----Million cubic feet-----</i>						<i>-----Million board feet-----</i>				
Bienville	49.1	18.3	21.4	0.2	4.0	5.1	192.9	63.2	100.1	0.7	9.0	19.9
Bossier	40.4	...	25.2	...	2.9	12.3	176.9	...	131.3	...	9.1	36.5
Caddo	22.9	...	11.9	...	1.3	5.6	89.1	...	54.1	...	14.1	20.8
Caldwell	20.7	6.7	10.7	...	5.3	5.5	88.1	13.6	57.2	...	1.3	16.0
Claiborne	35.0	3.6	19.0	...	...	4.1	141.4	32.0	8.7	...	11.9	11.8
De Soto	28.0	1.1	16.5	...	2.0	5.1	101.6	18.1	63.0	...	6.2	14.4
Jackson	34.8	0.2	23.1	...	3.7	8.5	150.4	2.7	115.8	...	5.0	26.9
Lincoln	...	...	...	...	...	1.1	66.1	...	49.2	...	12.3	4.6
Ouachita	15.1	0.8	10.0	...	0.3	4.1	66.2	...	51.9	...	1.1	13.2
Red River	10.3	1.5	7.1	...	1.5	0.2	32.1	6.1	25.4	...	0.7	...
Union	37.2	4.6	22.9	0.2	5.2	4.4	146.6	23.4	98.3	0.8	12.0	12.1
Webster	22.0	...	15.6	...	1.6	4.8	89.4	...	74.5	...	3.1	11.9
Winn	44.4	3.9	29.5	...	3.1	7.9	183.3	2.9	149.9	...	6.5	24.0
All parishes	377.2	43.9	225.0	0.3	39.1	68.8	1524.2	162.0	1056.2	1.5	92.3	212.2

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

²Hardwood 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, Northwest Louisiana Parishes, 1991

Species	Growth	Removals
	<i>----- Million cubic feet -----</i>	
Yellow pines	210.3	268.9
Other softwoods	3.7	0.3
Total softwoods	214.0	269.3
Select white-red oaks	14.3	13.6
Other white-red oaks	32.4	46.8
Hickory	3.3	6.1
Hard maple	0.4	0.1
Sweetgum	18.0	30.8
Ash-walnut-black cherry	1.8	1.4
Yellow-poplar	0.1	...
Other hardwoods	11.7	9.1
Total hardwoods	82.0	107.9
All species	296.0	377.2

Table 21 -Average net annual growth and average annual removals of sawtimber on timberland by species, Northwest Louisiana Parishes, 1991

Species	Growth	Removals
	<i>----- Million board feet -----</i>	
Yellow pines	991.7	1218.2
Other softwoods	19.2	1.5
Total softwoods	1010.8	1219.7
Select white-red oaks	49.7	44.4
Other white-red oaks	136.5	147.0
Hickory	6.0	17.1
Hard maple	-0.3	0.5
Sweetgum	46.0	71.6
Ash-walnut-black cherry	3.8	1.5
Yellow-poplar	0.2	...
Other hardwoods	18.9	22.3
Total hardwoods	260.8	304.5
All species	1271.7	1524.2

Table 22 -Average annual mortality of growing stock and sawtimber on timberland by species, Northwest Louisiana Parishes, 1991

Species	Growing stock	Sawtimber
	- Million cubic feet - - - Million board feet - -	
Yellow pines	31.1	122.8
Other softwoods	0.1	...
Total softwoods	31.2	122.8
Select white-red oaks	1.3	5.3
Other white-red oaks	9.8	33.4
Hickory	1.3	5.1
Sweetgum	4.9	12.4
Ash-walnut-black cherry	0.6	1.5
Other hardwoods	4.2	10.5
Total hardwoods	22.2	68.2
All species	53.4	191.0

Table 23 -Average net annual growth and average annual removals of growing stock on timberland by ownership class and species group, Northwest Louisiana Parishes, 1991

Ownership class	Growth						Removals					
	All species	Softwood			Hardwood		All species	Softwood			Hardwood	
		Pine			Soft ¹	Hard ²		Pine			Soft ¹	Hard ²
		Planted	Natural	Other				Planted	Natural	Other		
	----- Million cubic feet -----											
National forest	7.2	3.2	3.3	...	0.3	0.4	7.6	0.6	5.7	...	0.5	0.8
Other public	8.9	0.8	2.6	...	1.1	4.4	4.1	...	4.0	...	...	0.1
Forest industry	94.1	36.4	38.6	0.5	6.9	0.1	144.3	21.9	86.0	0.2	11.3	25.0
Forest industry-leased	4.4	2.4	1.8	...	0.1	37.3	9.2	6.4	2.4	...	0.5	...
Other private	181.5	25.4	95.7	3.1	20.0	...	211.9	15.0	126.9	0.2	26.9	42.9
All ownerships	296.0	68.2	142.1	3.7	28.3	53.7	377.2	43.9	225.0	0.3	39.1	68.8

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

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

Table 24 -Average net annual growth and average annual removals of sawtimber on timberland by ownership class and species group, Northwest Louisiana Parishes, 1991

Ownership class	Growth						Removals					
	All species	Softwood			Hardwood		All species	Softwood			Hardwood	
		Pine			Soft ¹	Hard ²		Pine			Soft ¹	Hard ²
		Planted	Natural	Other				Planted	Natural	Other		
	----- Million board feet -----											
National forest	47.6	20.8	19.7	0.1	1.8	5.2	34.9	...	29.5	...	1.2	4.2
Other public	44.1	...	19.6	...	5.9	18.6	21.8	...	21.1	...	...	0.7
Forest industry	311.0	79.4	183.4	2.6	8.7	36.9	580.9	66.8	405.0	0.7	26.3	82.1
Forest industry-leased	23.9	10.8	10.3	...	1.6	1.2	45.6	33.1	11.8	...	0.6	...
Other private	845.1	112.0	535.6	16.4	45.6	135.4	841.0	62.1	588.8	0.8	64.2	125.2
All ownerships	1271.7	223.0	768.7	19.2	63.6	197.2	1524.2	162.0	1056.2	1.5	92.3	212.2

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

²Hardwood 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, Northwest Louisiana Parishes, 1991

Species	All grades	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
-----Million board feet-----						
Yellow pines	16172.1	3370.8	3324.1	9293.8	...	183.4
Cypress	625.3	276.9	130.3	193.5	...	24.6
Redcedar	6.1	4.1	...	2.0	...	...
Total softwoods	16803.4	3651.7	3454.4	9489.3	...	208.1
Select white-red oaks	1160.6	172.1	291.8	499.1	129.8	67.8
Other white-red oaks	3134.6	205.0	568.8	1516.2	584.2	260.4
Hickory	522.7	42.4	88.6	275.4	78.4	37.9
Hard maple	6.8	...	...	...	5.7	1.1
Sweetgum	1507.0	155.6	368.9	715.8	147.8	118.9
Tupelo and blackgum	215.5	34.0	45.2	98.0	13.6	24.8
Ash-walnut-black cherry	143.2	11.1	43.2	60.2	6.3	22.4
Yellow-poplar	14.7	...	...	14.7	...	...
Other hardwoods	594.1	22.8	36.4	357.3	107.2	70.4
Total hardwoods	7299.4	643.0	1443.0	3536.7	1073.0	603.7
All species	24102.8	4294.7	4897.3	13026.0	1073.0	811.7

Supplemental Tables 26-43

Table 26 -Area of timberland by stand age, forest type group and stand origin, Northwest Louisiana Parishes, 1991

Stand age class	Pine		Oak-pine		Other hardwood types	
	Artificial	Natural	Artificial	Natural	Artificial	Natural
-----Thousand acres-----						
1-10	181.2	63.6	97.9	39.3	16.9	83.9
11-20	219.8	59.0	35.8	5.5	11.1	5.2
21-30	71.3	22.5	...	...	...	...
31-40	69.5	53.4	...	5.5	...	5.5
41-50	30.2	48.0	...	5.4	...	...
> 50	...	14.8	...	...	...	...
Mixed	117.0	914.1	24.6	740.9	29.0	1499.4
Total	689.0	117.55	158.3	796.7	56.9	1594.0

Table 27 – Volume of softwood growing stock on timberland by parish and forest type group, Northwest Louisiana Parishes, 1991

Parish	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>								
Bienville	399.0	...	..	135.0	176.0	64.3	4.0	19.7
Bossier	375.9	...	..	38.9	266.8	47.1	15.2	7.9
Caddo	191.7	...	..	...	1105	58.7	15.4	7.0
Caldwell	93.2	...	..	20.4	21.6	31.3	13.3	6.5
Claiborne	420.1	...	13.0	79.7	219.3	90.0	12.6	5.5
De Soto	371.4	...	..	26.9	222.9	76.3	18.9	26.3
Jackson	252.9	11.1	..	6.5.4	128.6	35.0	10.1	2.8
Lincoln	240.1	...	..	35.8	147.1	51.3	5.9	...
Ouachita	190.5	...	..	37.5	56.2	47.8	13.9	3.5.1
Red River	73.2	7.6	..	...	25.9	22.7	10.0	7.0
Union	395.7	...	..	135.9	157.2	64.5	18.4	19.8
Webster	239.4	...	..	25.4	155.4	32.7	13.0	13.0
Winn	443.7	...	16.8	137.7	181.3	64.3	14.4	29.2
All parishes	3686.8	18.7	29.7	738.6	1868.8	686.1	165.1	179.7

Table 28 – Volume of hardwood growing stock on timberland by parish and forest type group, Northwest Louisiana Parishes, 1991

Parish	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>									
Bienville	194.5	...	...	3.9	20.2	65.2	30.1	75.2	...
Bossier	207.9	...	...	2.5	55.7	37.1	51.5	56.4	4.7
Caddo	188.5	...	...	...	195	43.8	60.7	64.5	...
Caldwell	175.0	...	...	2.7	55	17.9	76.6	72.2	...
Claiborne	188.0	...	...	5.4	33.0	41.3	36.1	72.2	...
De Soto	172.4	...	...	...	18.9	42.5	31.0	80.0	...
Jackson	108.7	2.4	...	4.7	17.0	32.7	21.1	30.7	...
Lincoln	117.0	...	...	4.2	16.7	30.6	31.1	34.5	...
Ouachita	172.6	...	...	1.6	12.1	35.2	32.9	90.8	...
Red River	98.3	0.6	...	...	2.6	185	24.9	38.8	13.0
Union	236.5	...	...	4.3	15.1	53.7	44.8	118.7	...
Webster	173.9	...	...	2.9	39.2	27.1	65.6	39.0	...
Winn	225.3	...	2.0	8.6	28.6	61.9	45.7	78.4	...
All parishes	2258.7	3.0	2.0	40.8	284.0	507.5	552.1	851.5	17.8

Table 29 -- Volume of softwood growing stock in the sawlogportion of sawtimber trees on timberland by forest type, Northwest Louisiana Parishes, 1991

Parish	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>								
Bienville	276.2	...	...	70.1	140.5	48.4	2.4	14.6
Bossier	296.5	...	...	29.1	212.7	35.5	12.0	7.1
Caddo	141.8	...	...	...	80.6	42.6	12.1	6.4
Caldwell	57.7	...	...	4.1	14.2	21.6	11.8	5.9
Claiborne	315.8	...	12.2	57.3	163.5	68.5	9.3	5.0
De Soto	288.5	...	...	9.2	183.9	57.4	15.6	22.4
Jackson	1775	9.3	...	23.5	105.2	27.4	9.4	2.7
Lincoln	171.0	...	...	28.7	97.3	42.4	2.5	...
Ouachita	125.6	...	...	11.9	38.7	32.2	12.9	29.9
Red River	57.1	6.2	...	...	17.6	19.5	7.5	6.3
Union	293.1	...	...	92.8	124.7	47.0	11.9	16.7
Webster	183.9	...	...	7.1	130.6	27.0	10.9	8.3
Winn	306.3	...	15.1	71.4	132.0	52.0	11.6	24.2
All parishes	2691.0	155	27.2	405.3	1441.8	521.6	130.0	149.6

Table 30 -- Volume of hardwood growing stock in the sawlogportion of sawtimber trees on timberland by forest type, Northwest Louisiana Parishes, 1991

Parish	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>									
Bienville	102.2	...	...	0.3	7.7	20.8	13.3	36.1	...
Bossier	113.0	...	...	0.9	25.3	25.5	27.3	41.7	2.6
Caddo	108.4	...	...	...	1.9	35.8	...	...	...
Caldwell	117.5	...	...	1.6	7.8	6.9	56.0	51.1	...
Claiborne	84.0	...	...	1.3	7.0	14.2	15.6	45.0	...
De Soto	87.5	...	...	...	8.6	19.8	12.1	48.6	...
Jackson	61.4	0.5	...	2.1	...	14.2	12.8	23.2	...
Lincoln	58.5	...	...	2.0	4.3	14.2	105	27.6	...
Ouachita	92.9	...	...	...	3.6	21.4	19.3	48.7	...
Red River	154.6	...	...	...	...	2209.6	...	1111.1	8.7
Union	...	...	...	...	...	...	...	...	...
Webster	77.7	...	...	1.0	16.8	9.2	32.9	17.7	...
Winn	126.5	...	0.2	4.8	14.3	33.4	22.1	51.8	...
All parishes	1206.3	05	0.2	15.8	107.1	247.0	290.2	534.2	11.3

Table 31 -- Volume of timber on timberland by parish, class of timber and species group, Northwest Louisiana Parishes, 1991

Parish	All classes	Growing stock		Rough		Rotten	
		softwood	Hardwood	softwood	Hardwood	softwood	Hardwood
		<i>Million cubic feet</i>					
Bienville	623.9	399.0	1945	5.7	24.2	...	7.4
Bossier	618.4	375.9	207.9	35	26.3	0.4	6.6
Caddo	417.7	191.7	1885	2.7	24.0	...	8.5
Caldwell	298.6	93.2	175.0	15	30.9	0.4	4.5
Claiborne	650.8	420.1	188.0	5.6	...	...	6.2
De Soto	584.7	371.4	172.4	4.4	28.9	...	7.5
Jackson	391.8	252.9	108.7	7.6	18.0	...	4.6
Lincoln	378.0	240.1	117.0	4.8	13.0	0.4	2.8
Ouachita	3995	1905	172.6	1.8	195	...	15.1
Red River	195.7	73.2	98.3	2.0	16.4	...	5.8
Union	673.1	395.7	236.5	1.2	34.9	...	4.8
Webster	444.7	239.4	173.9	5.1	24.5	...	1.8
Winn	712.7	443.7	225.3	4.3	32.9	0.4	6.1
All parishes	6389.7	3686.8	2258.7	50.2	310.9	1.5	81.7

Table 32-Number of live trees on timberland by detailed species and diameter class, Northwest Louisiana Parishes, 1991

Species	Diameter class (inches at breast height)												
	All classes	1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
----- <i>Thousand trees</i> -----													
Longleaf pine	995	...	392	...	60	59	70	...	128	66	92	42	...
Slash pine	...	...	...	...	265	...	...	85	40	...	...	...	...
Shortleaf pine	2663	1067	10915	11512	223	882	222	7249	688	32	3214	180	115
Loblolly pine	868138	416886	187178	94297	59648	30475	20208	13594	9189	5282	2692	2517	171
Redcedar	...	...	...	...	154	...	...	...	...	...	...	...	5
Cypress	19732	8716	2197	1113	1560	922	880	736	683	388	242	267	65
Total softwoods	929197	438385	202133	108030	70527	39088	27819	18345	11935	6503	3218	2973	241
Select white oaks	79744	51281	13462	6073	2927	2064	1348	952	541	479	246	346	24
Select red oaks	30838	20352	3125	1745	1361	1395	648	571	493	330	360	369	91
Other white oaks	54340	27349	10486	5083	3439	2371	1727	1164	784	624	405	820	89
Other red oaks	300345	219012	30377	13492	11167	8692	5327	4443	2635	1943	1025	1856	377
Sweet pecan	227	...	...	...	75	34	62	...	...	...	...	41	14
Water hickory	21054	11336	4997	1818	666	704	453	397	284	150	90	158	...
Other hickories	50762	35067	6192	2775	2370	1976	760	726	401	220	119	131	26
Persimmon	19897	16059	2843	545	399	51	...	...	...	...	...	...	...
Hard maple	8692	7759	...	554	304	...	52	...	...	...	...	23	...
Soft maple	174714	144301	20889	5631	2453	898	397	93	28	24	...	...	...
Boxelder	3101	2015	501	330	71	116	26	20	...	11	10	...	...
Beech	12744	9260	619	337	184	487	226	275	447	277	183	394	55
Sweetgum	571110	412760	86652	35317	15591	9823	4399	2843	1623	984	645	442	32
Blackgum	111332	88998	10546	6252	2579	1322	655	387	222	170	59	127	16
Other gums/tupelos	5336	1640	506	121	852	394	310	68	119	87	85	53	...
White ash	14944	10936	2277	1033	378	33	87	103	47	25	9	15	...
Other ashes	39332	28517	6041	1888	1255	623	439	234	95	103	75	53	8
Sycamore	3687	2883	...	212	268	...	190	75	17	12	9	21	...
Cottonwood	482	...	...	...	65	107	83	101	31	36	9	23	27
Basswood	2344	1017	506	582	135	...	64	19	...	13	...	...	8
Yellow-poplar	777	474	...	...	184	32	47	39	...	...	...	...	...
Magnolia	55	...	...	...	...	44	...	...	...	...	...	6	5
Sweetbay	11436	9171	511	614	512	298	84	137	76	12	...	22	...
Willow	1681	1083	...	163	52	...	29	82	76	73	48	57	19
Black walnut	161	...	...	114	...	...	...	23	17	...	...	7	...
Black cherry	23284	17741	4157	686	381	114	89	38	67	13	...	...	...
American elm	19812	14695	2115	1609	568	199	302	198	31	34	27	20	13
Other elms	143745	112772	20280	6402	2003	1178	521	325	140	63	30	31	...
River birch	791	589	...	...	...	87	88	...	...	11	...	17	...
Hackberry	16831	7578	6485	966	1032	357	168	81	88	49	19	7	...
Black locust	3339	2190	589	387	154	...	...	20	...	...	...	...	...
Other locusts	2190	...	1003	332	288	236	162	106	64	...	...	...	...
Sassafras	23053	19684	2638	361	180	155	35	...	...	...	...	...	...
Dogwood	65988	45272	18140	2221	308	47	...	...	...	...	...	...	...
Holly	30199	22992	4649	1866	510	110	22	41	...	...	...	8	...
Other commercial	10495	7415	1759	629	360	243	57	24	...	...	9	...	...
Total hardwoods	1858860	13521%	262343	101237	53070	34194	18857	13585	8325	5742	3463	5045	802
Noncommercial	2838%	219729	47043	12405	3300	932	225	200	30	24	...	7	...
All species	3071953	2010311	511518	221672	126898	74213	46902	32130	20290	12269	6681	8024	1044

Table 33-Number of growing-stock trees on timberland by detailed species and diameter class, Northwest Louisiana Parishes, 1991

Species	Diameter class (inches at breast height)										
	All classes	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
----- <i>Thousand trees</i> -----											
Longleaf pine	603	...	60	59	70	85	128	66	92	42	...
Slash pine	1481	99	222	265	522	214	115	40	...	4	...
Shortleaf pine	39489	10737	8812	7203	6183	3691	1820	716	192	135	...
Loblolly pine	228841	88220	58048	29344	20110	13533	9160	5206	2652	2401	168
Redcedar	826	5%	90	85	30	25	...	...	...	...	...
Cypress	5800	869	1223	589	767	736	667	388	242	262	56
Total softwoods	277041	100522	68455	37546	27684	18284	11890	6415	3178	2845	224
Select white oaks	13051	5108	2657	1939	1087	854	497	439	2%	258	6
Select red oaks	6330	1185	1210	1322	594	505	459	295	342	342	75
Other white oaks	13453	3947	3081	2023	1432	1010	585	456	306	562	51
Other red oaks	43833	11061	9989	7870	4677	3800	2239	1792	849	1387	168
Sweet pecan	61	...	...	...	30	...	...	...	...	31	...
Water hickory	3360	1081	429	592	313	319	267	126	81	153	...
Other hickories	8213	2297	2025	1856	545	665	365	220	109	120	12
Persimmon	741	428	262	51	...	...	...	...	...	...	...
Hard maple	677	333	304	...	27	...	...	...	...	14	...
Soft maple	5413	3188	1319	658	201	21	13	12	...	...	...
Boxelder	185	81	...	46	26	20	...	11	...	...	...
Beech	1609	100	74	368	175	173	288	132	107	179	13
Sweetgum	60661	28487	13973	9121	3457	2423	1456	862	564	366	32
Blackgum	7899	3673	1992	1096	514	274	142	119	39	51	...
Other gums/tupelos	2564	781	852	394	154	68	103	87	85	40	...
White ash	1388	738	378	33	87	84	19	2.5	9	15	...
Other ashes	3683	1283	1093	464	381	186	61	103	75	32	4
Sycamore	6%	125	268	...	190	54	17	12	9	21	...
Cottonwood	454	...	65	107	83	101	31	24	9	23	11
Basswood	436	267	64	...	64	19	...	13	...	...	8
Yellow-poplar	303	...	184	32	47	39	...	...	...	...	...
Magnolia	51	...	...	44	...	...	...	...	...	6	...
Sweetbay	1272	372	408	215	84	92	76	12	...	13	...
Willow	316	...	52	...	29	82	76	11	39	24	4
Black walnut	137	114	...	...	...	23	...	...	...	...	...
Black chery	672	236	243	35	55	38	52	13	...	...	...
American elm	2524	1392	401	199	272	181	15	21	18	20	4
Other elms	8143	4665	1799	963	415	163	90	24	11	14	...
River birch	154	...	...	87	59	...	...	...	...	8	...
Hackberry	1303	305	539	280	100	...	42	26	10	...	...
Black locust	263	178	85	...	...	...	...	...	...	...	...
Other locusts	661	228	157	100	85	43	48	...	...	...	...
Sassafras	160	...	122	38	...	...	...	...	...	...	...
Dogwood	502	457	45	...	...	...	...	...	...	...	...
Holly	1644	1276	368	...	...	...	...	...	...	...	...
Other commercial	652	400	147	39	57	...	...	9	...	...	...
Total hardwoods	193464	73789	44585	29974	15242	11237	6937	4 8 3 8	2878	3676	388
All species	470505	174238	113040	67519	42925	29521	18827	11253	6057	6521	612

Table 34 – Volume of growing stock on timberland by detailed species and diameter class, Northwest Louisiana Parishes, 1991

Species	Diameter class (inches at breast height)										
	All classes	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
----- <i>Million cubic feet</i> -----											
Longleaf pine	27.1	...	2.0	1.1	1.9	3.4	5.9	3.8	7.0	3.9	...
Slash pine	34.4	0.3	...	4.7	12.0	8.0	4.5	2.4	...	0.4	...
Shortleaf pine	623.8	31.6	62.7	106.5	1455	125.1	83.3	43.4	13.0	12.7	...
Loblolly pine	2868.8	210.4	338.6	356.1	419.2	4155	3865	288.9	184.3	238.1	31.3
Redcedar	3.1	1.3	0.3	0.6	0.4	0.4	...	...	...	...	...
Cypress	129.6	1.9	5.8	6.6	13.8	16.9	23.1	17.9	14.5	21.1	8.0
Total softwoods	3686.8	2455	409.6	475.6	592.8	569.3	503.2	356.4	218.7	276.3	39.3
Select white oaks	165.9	14.1	16.7	21.6	20.0	22.4	17.6	20.9	13.6	18.0	0.9
Select red oaks	140.1	3.1	7.7	14.7	12.0	13.2	16.4	14.8	18.3	27.9	11.9
Other white oaks	180.8	9.4	16.2	20.7	22.1	21.8	17.3	16.0	15.2	35.7	6.5
Other red oaks	6895	30.3	62.6	92.5	82.3	96.0	74.2	79.9	47.4	103.2	21.1
Sweet pecan	2.6	...	...	...	0.4	...	...	...	...	2.2	...
Water hickory	49.0	2.5	2.4	5.8	45	6.8	8.1	5.3	4.0	9.6	...
Other hickories	100.8	5.1	11.7	19.4	9.8	16.1	11.8	9.9	6.2	a.9	2.0
Persimmon	2.8	1.1	1.4	0.3	...	...	...	...	...	...	...
Hard maple	4.0	1.3	1.4	...	0.4	...	...	...	...	0.8	...
Soft maple	27.0	8.7	7.2	6.9	2.9	0.3	0.4	0.5	...	...	...
Boxelder	1.8	0.3	...	0.4	0.5	0.4	...	0.3	...	...	...
Beech	47.2	0.2	0.5	3.9	3.0	3.5	10.0	5.2	6.6	12.8	1.4
Sweetgum	553.8	64.8	81.2	102.6	66.0	705	56.0	41.9	34.0	33.0	3.9
Blackgum	60.2	a.4	10.3	10.7	9.0	6.0	4.1	5.3	2.3	4.0	...
Other gums/tupelos	285	1.7	4.4	4.7	2.5	1.9	3.1	4.0	3.8	2.4	...
White ash	10.5	2.1	2.4	0.4	1.3	1.7	0.5	1.0	0.4	0.6	...
Other ashes	36.1	2.8	5.9	5.3	5.7	3.8	2.2	4.4	3.6	2.2	0.2
Sycamore	10.7	0.2	2.0	...	3.6	1.7	0.4	0.5	0.4	1.8	...
Cottonwood	10.9	...	0.3	0.8	1.4	1.9	0.8	0.9	0.5	2.3	2.0
Basswood	4.2	0.8	0.4	...	1.1	0.5	...	0.6	...	...	0.7
Yellow-poplar	4.0	...	0.8	0.6	1.6	1.1	...	...	...	...	...
Magnolia	0.9	...	...	0.4	...	...	...	...	...	0.5	...
Sweetbay	15.2	1.3	2.1	3.2	2.0	2.6	2.7	0.6	...	0.7	...
Willow	a.3	...	0.2	...	0.4	2.2	2.0	0.4	15	1.3	0.2
Black walnut	0.9	0.3	...	...	...	0.6	...	...	...	...	...
Black cherry	6.4	0.6	1.4	0.5	1.0	0.9	1.7	0.3	...	...	...
American elm	195	3.0	2.8	2.2	4.2	3.8	0.5	0.9	1.0	0.8	0.4
Other elms	48.6	11.0	10.9	9.5	7.7	3.7	3.2	1.1	0.6	0.9	...
River birch	2.1	...	...	0.8	0.8	...	...	...	...	0.5	...
Hackberry	9.5	0.8	2.4	2.6	1.6	...	1.1	0.6	0.4	...	...
Black locust	1.4	0.9	0.5	...	...	...	...	...	...	...	...
Other locusts	5.1	0.5	0.6	1.0	1.2	0.8	1.0	...	...	...	...
Sassafras	1.0	...	0.8	0.2	...	...	...	...	...	...	...
Dogwood	1.4	1.1	0.3	...	...	...	...	...	...	...	...
Holly	4.7	3.1	1.7	...	...	...	...	...	...	...	...
Other commercial	3.3	1.1	0.4	0.4	1.2	...	...	...	0.3	...	...
Total hardwoods	2258.7	180.7	259.7	331.9	270.1	284.3	235.0	215.4	160.2	270.2	51.3
All species	59455	426.1	669.3	8075	862.9	853.6	738.2	571.8	378.9	546.5	90.6

Table 35 — Volume of growing stock in the sawlog portion of sawtimber trees on timberland by detailed species and diameter class, Northwest Louisiana Parishes, 1991

Species	All classes	Diameter class (inches at breast height)							
		9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
.....3.1-Million cubic feet.....									
Longleaf pine	24.4	0.9	1.6	7.6	5.2	3.6	6.3	3.6	...
Slash pine	295	4.1	10.9	...	4.2	2.3	...	0.4	...
Shortleaf pine	475.9	885	131.8	116.0	76.9	39.9	11.8	11.0	...
Loblolly pine	2051.4	282.3	370.4	376.3	351.8	262.4	167.8	213.2	27.3
Redcedar	1.2	0.4	0.3	0.4	...	...	...	...	...
Cypress	108.6	4.6	11.7	15.0	20.7	15.8	13.7	19.7	7.5
Total softwoods	2691.0	380.9	526.8	518.4	458.7	324.0	199.6	247.8	34.8
Select white oaks	91.0	...	15.2	17.4	14.8	17.6	11.0	14.3	0.7
Select red oaks	95.1	...	8.0	10.8	13.3	12.8	15.4	28.3	10.8
Other white oaks	108.4	...	17.3	17.4	14.4	12.9	12.3	86.0	17.95.8
Other red oaks	409.8	...	60.1	77.6	62.1	67.0	39.2	...	...
Sweet pecan	1.7	...	0.4	...	...	...	...	1.3	...
Water hickory	30.9	...	3.3	5.0	6.7	4.1	3.6	8.3	...
Other hickories	51.7	...	7.3	12.9	9.2	8.1	5.1	7.4	1.7
Hard maple	1.2	...	0.3	...	...	...	...	0.8	...
Soft maple	3.4	...	2.3	0.3	0.2	0.5	...	...	...
Boxelder	0.8	...	0.3	0.3	...	0.2	...	...	...
Beech	34.5	...	2.2	2.6	8.1	4.6	5.6	10.2	1.2
Sweetgum	251.1	...	45.4	57.9	46.9	37.6	29.8	30.0	3.6
Blackgum	25.0	...	6.3	4.9	3.5	4.6	2.2	3.7	...
Other gums/tupelos	14.6	...	1.5	1.5	2.5	3.6	3.4	2.2	...
White ash	4.6	...	0.9	1.3	0.5	1.0	0.4	0.5	...
Other ashes	17.5	...	3.8	2.8	1.9	3.5	3.3	1.9	0.2
Sycamore	6.6	...	2.6	1.5	0.4	0.4	0.3	1.5	...
Cottonwood	7.8	...	1.0	1.4	0.5	0.4	0.4	2.2	1.8
Basswood	2.4	...	0.8	0.4	...	0.5	...	...	0.7
Yellow-poplar	2.3	...	1.4	0.9	...	...	...	...	...
Magnolia	0.4	...	...	...	...	...	...	0.4	...
Sweetbay	6.9	...	1.3	2.1	2.4	0.5	...	0.5	...
Willow	6.6	...	0.3	1.7	1.7	0.3	1.4	1.1	0.2
Black walnut	0.4	...	...	0.4	...	...	...	...	...
Black cherry	3.0	...	0.8	0.6	1.4	0.2	...	...	...
American elm	9.1	...	3.1	2.9	0.5	0.8	0.8	0.7	0.3
Other elms	12.6	...	5.5	2.8	2.2	0.8	0.4	0.8	...
River birch	1.2	...	0.7	...	...	...	...	0.5	...
Hackberry	2.7	...	1.2	...	0.8	0.4	0.3	...	...
Other locusts	2.3	...	0.9	0.5	0.8	...	...	...	...
Other commercial	1.1	...	0.8	...	...	...	0.3	...	...
Total hardwoods	1206.3	...	194.8	228.0	194.8	182.4	134.9	226.4	44.9
All species	3897.3	380.9	721.6	7465	6535	506.5	3345	474.3	79.7

Table 36 – Volume of timber on timberland by &tailed species and class of timber, Northwest Louisiana Parishes. 1991

Species	All live	Growing stock	Rough	Rotten
----- <i>Million cubic feet</i> -----				
Longleaf pine	27.1	27.1	...	...
Slash pine	34.6	34.4	0.3	...
Shortleaf pine	626.4	623.8	2.6	...
Loblolly pine	2910.3	2868.8	40.8	0.7
Redcedar	4.0	3.1	0.9	...
Cypress	136.0	129.6	5.6	0.8
Total softwoods	37385	3686.8	50.2	1.5
Select white oaks	183.8	165.9	15.7	2.3
Select red oaks	148.0	140.1	8.9	2.0
Other white oaks	215.1	180.8	22.7	115
Other red oaks	776.3	689.5	57.6	29.1
Sweet pecan	5.6	2.6	2.5	0.5
Water hickory	55.8	49.0	6.4	0.4
Other hickories	109.9	100.8	5.8	3.3
Persimmon	3.6	2.8	0.5	0.3
Hard maple	5.2	4.0	1.1	...
Soft maple	41.9	27.0	13.3	1.6
Boxelder	3.7	1.8	1.9	...
Beech	74.3	47.2	16.7	105
Sweetgum	608.1	553.8	45.8	8.4
Blackgum	79.1	68.2	13.8	5.1
Other gums/tupelos	31.6	28.5	2.9	0.2
White ash	12.2	10.5	1.8	...
Other ashes	41.8	36.1	4.2	1.6
Sycamore	11.3	10.7	0.6	...
Cottonwood	13.2	10.9	1.7	0.6
Basswood	5.9	4.2	1.6	...
Yellow-poplar	1.0	4.0	...	...
Magnolia	17.0	0.9	...	0.1
Sweetbay		15.2	1.5	0.3
Willow			2.1	1.8
Black walnut	11.2	0.9	0.2	0.1
Black cherry	9.5	6.4	3.0	...
American elm	22.9	19.5	3.2	0.1
Other elms	62.0	48.6	13.2	0.2
River birch	3.0	2.1	0.9	...
Hackberry	17.7	9.5	0.7	0.6
Black locust	2.2	1.4	2.6	0.1
Other locusts	8.0	5.1	...	0.3
Sassafras	2.7	...	1.6	0.2
Dogwood				...
Holly	0.2	4.7	3.4	0.1
Other commercial	5.3	3.3	1.7	0.2
Total hardwoods	2607.6	2258.7	267.2	81.7
Noncommercial	43.6	...	43.6	...
All species	6389.7	5945.5	361.0	83.2

Table 37 — Volume of sawtimber for tree grade 1 on timberland by detailed species and diameter class, Northwest Louisiana Parishes, 1991,

Species	All classes	Diameter class (inches at breast height)							
		9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
-----Million board feet-----									
Longleaf pine	32.6	...	...	...	...	13.0	19.6	...	...
Slash pine	15.3	...	...	9.8	2.8	...	...	2.7	...
Shortleaf pine	845.3	60.6	226.9	217.1	183.9	97.3	48.8	10.7	...
Loblolly pine	2477.6	108.4	263.0	392.3	424.8	409.4	306.3	518.5	54.9
Red cedar	276.9	2.6	29.0	22.0	61.5	33.6	42.2	60.7	25.4
Total softwoods	3651.7	173.6	518.9	643.1	673.0	553.2	417.0	592.7	80.3
Select white oaks	43.9	...	...	...	...	14.1	6.1	23.7	...
Select red oaks	128.2	...	...	...	10.5	14.8	11.1	47.4	44.4
Other white oaks	32.1	...	...	...	4.9	6.4	6.0	14.8	...
Other red oaks	172.9	...	...	...	11.2	28.9	26.7	95.8	10.2
Sweet pecan	4.8	...	...	...	...	...	...	4.8	...
Water hickory	6.0	...	...	...	...	...	2.5	3.5	...
Other hickories	31.5	...	...	...	...	11.5	...	20.0	...
Beech	4.5	...	...	...	...	...	...	4.5	...
Sweetgum	155.6	...	...	...	30.7	34.8	28.8	58.0	3.3
Blackgum	20.6	...	...	...	2.1	9.4	6.8	2.3	...
Other gums/tupelos	13.4	...	...	...	...	7.9	3.9	1.6	...
White ash	8.2	...	...	...	...	3.2	2.5	2.4	...
Other ashes	3.0	...	...	...	...	...	...	3.0	...
Sycamore	6.4	...	...	...	...	...	...	6.4	...
Cottonwood	9.4	...	...	...	...	1.5	2.5	5.3	...
Willow	2.4	...	...	...	...	...	...	2.4	...
Total hardwoods	643.0	...	...	...	59.4	132.5	97.0	296.1	58.0
All species	4294.7	173.6	518.9	643.1	732.4	685.7	514.0	888.8	138.3

Table 38 — Volume of sawtimber for tree grade 2 on timberland by detailed species and diameter class, Northwest Louisiana Parishes, 1991

Species	All classes	Diameter class (inches at breast height)							
		9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
-----Million board feet-----									
Longleaf pine	54.1	...	2.6	13.0	12.3	3.0	135	9.7	...
Slash pine	42.1	5.6	15.4	145	3.1	3.5	...	...	...
Shortleaf pine	690.1	123.1	166.5	196.1	122.1	52.8	3.5	26.0	...
Loblolly pine	2537.8	123.0	338.7	493.8	546.2	353.1	284.4	315.9	82.5
Cypress	130.3	4.3	12.4	12.9	25.0	27.6	6.2	28.3	13.6
Total softwoods	3454.4	256.1	535.7	730.3	708.7	440.0	307.6	379.8	96.2
Select white oaks	130.4	...	...	20.5	23.4	44.8	20.1	21.4	...
Select red oaks	161.4	...	...	16.1	23.1	23.8	27.3	52.8	18.2
Other white oaks	135.7	...	...	18.7	14.1	26.0	18.3	46.0	12.6
Other red oaks	433.1	...	...	66.5	65.1	101.7	52.8	114.7	32.2
Sweet pecan	1.5	...	...	...	...	...	...	1.5	...
Water hickory	31.2	...	...	...	7.9	7.4	9.0	6.9	...
Other hickories	55.9	...	...	13.3	16.9	14.6	2.6	2.3	6.1
Beech	3.7	...	...	2.2	...	...	...	1.4	...
Sweetgum	368.9	...	...	89.6	93.0	77.5	44.4	64.4	...
Blackgum	29.8	...	...	12.2	4.6	1.6	3.1	8.3	...
Other gums/tupelos	15.4	...	...	2.2	6.1	2.9	2.7	1.4	...
White ash	5.3	...	...	2.3	3.0	...	...	...	...
Other ashes	33.1	...	...	8.0	5.9	8.7	7.0	3.5	...
Sycamore	3.7	...	...	3.1	...	...	...	...	...
Cottonwood	8.7	...	...	...	1.8	...	...	3.7	3.2
Sweetbay	1.7	...	...	...	1.7	...	...	...	...
Willow	3.9	...	...	...	3.9	...	...	...	...
Black cherry	4.8	...	...	2.3	2.5	...	...	...	...
American elm	5.9	...	...	4.0	...	1.9	...	...	...
Other elms	4.9	...	...	1.8	3.0	...	...	...	...
River birch	2.6	...	...	...	...	...	...	2.6	...
Hackberry	1.3	...	...	...	1.3	...	...	...	...
Total hardwoods	1443.0	...	...	263.7	277.6	310.8	187.5	331.1	72.4
All species	4897.3	256.1	535.7	993.9	986.3	750.8	495.1	710.9	168.6

Table 39 – Volume of sawtimber for tree grade 3 on timberland by &tailed species and diameter class, Northwest Louisiana Parishes, 1991

Species	Diameter class (inches at breast height)								
	All classes	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
<i>----- Million board feet -----</i>									
Longleaf pine	72.5	6.0	8.0	7.7	215	3.8	10.8	14.6	...
Slash pine	128.4	185	53.2	27.3	17.4	12.1	...	...	...
Shortleaf pine	1472.3	331.6	430.2	326.2	200.6	117.9	28.1	37.7	...
Loblolly pine	7620.6	1251.1	1578.9	1427.9	1264.8	935.6	513.6	593.6	55.1
Redcedar	2.0	...	2.0	...	...	...	...	...	...
Cypress	1935	15.3	24.1	46.9	29.9	28.1	25.9	23.2	...
Total softwoods	9489.3	16225	20965	1835.9	1534.2	10975	578.4	669.2	55.1
Select white oaks	2855	...	56.6	48.2	58.4	46.3	45.7	27.4	2.9
Select red oaks	213.6	...	34.6	34.1	35.2	36.2	36.0	375	...
Other white oaks	329.7	...	47.8	46.1	455	35.4	40.7	97.1	17.1
Other red oaks	11865	...	183.4	228.9	203.6	201.3	1245	217.1	27.8
Sweet pecan	2.1	...	2.1	...	...	...	...	...	...
Water hickory	92.4	...	14.1	14.6	27.2	95	11.0	15.9	...
Other hickories	181.0	...	41.2	47.0	23.4	17.4	28.3	195	4.0
Soft maple	16.3	...	9.9	1.8	1.5	3.2	...	...	...
Boxelder	2.9	...	1.5	...	...	1.3	...	...	...
Beech	128.2	...	5.8	6.2	34.0	16.9	25.2	36.3	3.9
Sweetpm	715.8	...	191.4	199.2	111.7	70.8	85.2	49.2	8.2
Blackgum	61.1	...	29.1	115	5.1	8.9	...	6.5	...
Other gums/tupelos	36.8	...	7.2	6.1	5.0	7.1	6.8	4.6	...
White ash	10.0	...	3.6	3.8	...	2.6	...	...	...
Other ashes	39.4	...	12.9	1.2	55	9.2	8.4	2.3	...
Sycamore	22.9	...	14.2	45	1.8	2.3	...	...	...
Cottonwood	245	...	55	7.0	...	...	...	4.3	7.7
Basswood	7.7	...	2.3	2.2	...	3.2	...	...	...
Yellow-poplar	14.7	...	9.1	5.6	...	...	...	...	...
Magnolia	2.4	...	...	...	...	...	...	2.4	...
Sweetbay	33.4	...	75	10.0	13.0	2.9	...	...	...
Willow	21.0	...	1.4	10.1	3.4	2.0	2.6	15	...
Black walnut	2.7	...	...	2.7	...	...	...	...	...
Black cherry	8.2	...	2.3	05	4.3	1.0	...	...	...
American elm	21.8	...	12.0	7.8	...	...	...	...	2.0
Other elms	56.0	...	27.8	10.4	9.2	3.6	2.6	2.4	...
River birch	4.0	...	4.0	...	...	...	...	...	...
Hackberry	2.0	...	2.0	...	...	...	...	...	...
Other locusts	75	...	4.7	2.9	...	...	...	...	...
Other commercial	6.6	...	4.9	...	...	...	1.7	...	...
Total hardwoods	3536.7	...	738.9	712.2	587.8	481.4	418.8	523.9	73.6
All species	13026.0	16225	2835.4	2548.2	2122.0	1578.9	997.3	1193.2	128.7

Table 40 — Volume of sawtimber for tree grade 4 on timberland by detailed species and diameter class, Northwest Louisiana Parishes, 1991

Species	All classes	Diameter class (inches at breast height)							
		9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 & larger
----- Million board feet -----									
Select white oaks	74.1	...	26.0	25.7	10.0	4.7	...	7.7	...
Select red oaks	55.7	...	9.5	8.5	6.6	5.3	16.9	8.9	...
Other white oaks	130.7	...	45.6	27.3	17.7	6.8	14.6	18.7	...
Other red oaks	453.4	...	122.5	130.5	69.5	57.6	21.8	51.6	...
Sweet pecan	2.7	...	...	...	...	...	...	2.7	...
Water hickory	38.7	...	4.0	8.7	1.3	5.5	...	19.2	...
Other hickories	37.0	...	...	11.3	13.8	5.5	2.7	3.6	...
Hard maple	5.7	...	1.9	...	...	...	...	3.8	...
Soft maple	3.7	...	3.7	...	...	...	...	...	...
Boxelder	2.0	...	...	2.0	...	...	...	...	...
Beech	53.2	...	5.9	3.5	13.4	5.9	14.3	7.0	3.3
Sweetgum	147.8	...	49.7	35.9	31.7	23.8	4.6	2.2	...
Blackgum	13.6	...	3.2	1.4	5.9	...	3.2	...	...
Other ashes	6.3	...	4.1	...	...	2.1	...	...	...
Sycamore	4.9	...	...	...	...	...	1.8	3.1	...
Cottonwood	2.1	...	...	0.9	...	1.2	...	...	...
Sweetbay	...	...	...	1.8	...	...	...	...	...
Willow	1.8	...	...	...	...	...	2.8	3.1	...
American elm	15.9	...	2.3	3.2	...	2.9	4.6	...	...
Other elms	10.0	...	2.9	5.0	...	...	...	2.1	...
Hackberry	6.0	...	1.2	...	1.4	1.5	1.8	...	...
Other locusts	4.7	...	...	...	4.7	...	...	...	...
Total hardwoods	1073.0	...	282.4	26.55	176.0	122.9	89.0	133.9	3.3
All species	1073.0	...	282.4	265.5	176.0	122.9	89.0	133.9	3.3

Table 41 — Volume of sawtimber on timberland by species and ownership class, Northwest Louisiana Parishes, 1991

Species	All ownerships	National forest	Other public	Forest industry	Forest ownership	
					industry-leased	Other private
----- Million board feet -----						
Yellow pines	16172.1	1100.6	759.0	3717.5	498.8	10186.1
Cypress	625.3	0.8	38.9	98.2	...	487.4
Redcedar	6.1	...	...	...	...	6.1
Total softwoods	16803.4	1101.4	797.9	3815.7	408.8	10679.7
Select white-red oaks	1160.6	45.1	88.8	269.1	10.8	746.8
Other white-red oaks	3134.6	153.5	53.5	566.7	18.0	1860.8
Hickory	522.7	4.7	99.8	89.1	...	329.2
Hard maple	6.8	...	...	3.8	...	3.0
Sweetgum	1507.0	60.5	77.9	329.4	16.4	1022.7
Tupelo and blackgum	215.5	4.5	...	62.0	4.6	144.5
Ash-walnut-black cherry	143.2	2.1	4.7	41.4	2.0	92.9
Yellow-poplar	14.7	...	...	14.7	...	...
Other hardwoods	594.1	11.8	100.7	106.4	...	375.2
Total hardwoods	7299.4	282.2	907.5	1482.7	51.9	4575.1
All species	24192.8	1383.6	1705.4	5298.4	469.6	15254.7

Table 42-Average net annual growth, average annual removals, and average annual mortality of live trees¹ by parish and species group, Northwest Louisiana Parishes, 1991

Parish	Net growth			Removals			Mortality		
	All species	Softwood	Hardwood	All species	Softwood	Hardwood	All species	Softwood	Hardwood
<i>----- Million cubic feet -----</i>									
Bienville	38.3	29.7	8.6	50.8	40.8	9.9	3.8	1.6	2.2
Bossier	29.0	17.5	11.5	40.7	25.3	15.4		3.8	2.1
Caddo	19.7	5.9	7.0	23.6	11.9	17.2	8.8	4.2	4.7
Caldwell	12.8	25.1	9.6	21.3	14.1	9.7	5.5	2.8	2.7
Claiborne	34.7	---	---	35.3	25.7	---	5.2	3.8	1.4
De Soto	26.3	16.3	10.0	28.2	20.1	8.1	7.3	4.4	2.9
Liaison	28.9	18.2	8.5	34.9	24.2	10.9	4.6	2.5	2.2
Ouachita	20.8	12.3		17.4	12.8	4.6		OS	3.3
		3.7	3.5		8.6		3.8		1.8
Redon River	28.2	20.9	7.3	37.8	27.6	10.8	6.3	2.9	3.4
Webster	22.0	12.4	9.7	22.5	15.6	6.9	3.5	2.0	1.6
Winn	38.6	29.5	9.1	45.1	33.6	11.6	7.3	2.4	4.9
All parishes	317.8	216.4	101.4	383.4	270.6	112.8	67.3	32.8	34.5

¹Excludes 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 trees¹ by ownership class and species group, Northwest Louisiana Parishes, 1991

Ownership class	Net growth			Removals			Mortality		
	All classes	softwood	Hardwood	All species	softwood	Hardwood	All species	Softwood	Hardwood
<i>----- Million cubic feet -----</i>									
National forest	7.7	6.5	1.3	7.9	6.3	0.1	2.4	0.9	1.6
Other public	9.5	3.3	6.2	4.2	4.1	38.0	5.0	6.1	3.9
Forest industry	99.0	77.1	21.9	9.8	109.1		14.2	0.7	8.1
Forest industry-leased	5.0	4.2	0.8	214.5	8.8	1.0	1.0		0.3
Other private	196.5	125.3	71.2		142.3	72.1	44.6	24.0	20.6
All ownerships	317.8	216.4	101.4	383.4	270.6	112.8	67.3	32.8	34.5

¹Excludes trees less than 5.0 inches in diameter at breast height.

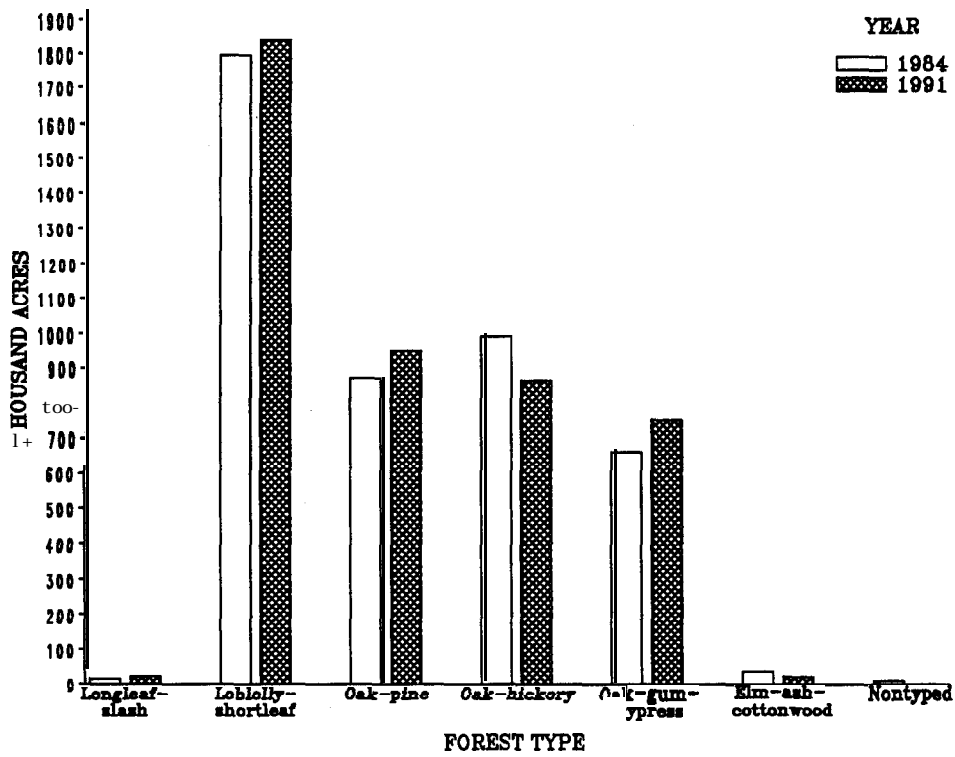


Figure 1. -Area of timberland by forest type, Northwest Louisiana Parishes, 1984 and 1991.

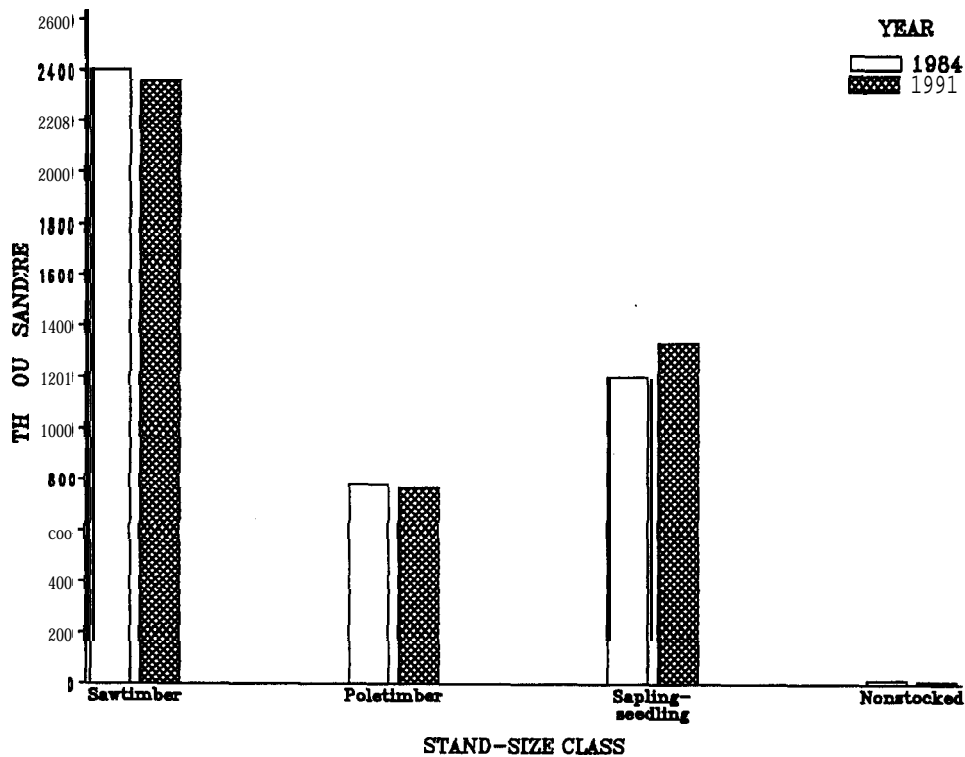


Figure 2. -Area of timberland by stand-size class, Northwest Louisiana Parishes, 1984 and 1991.

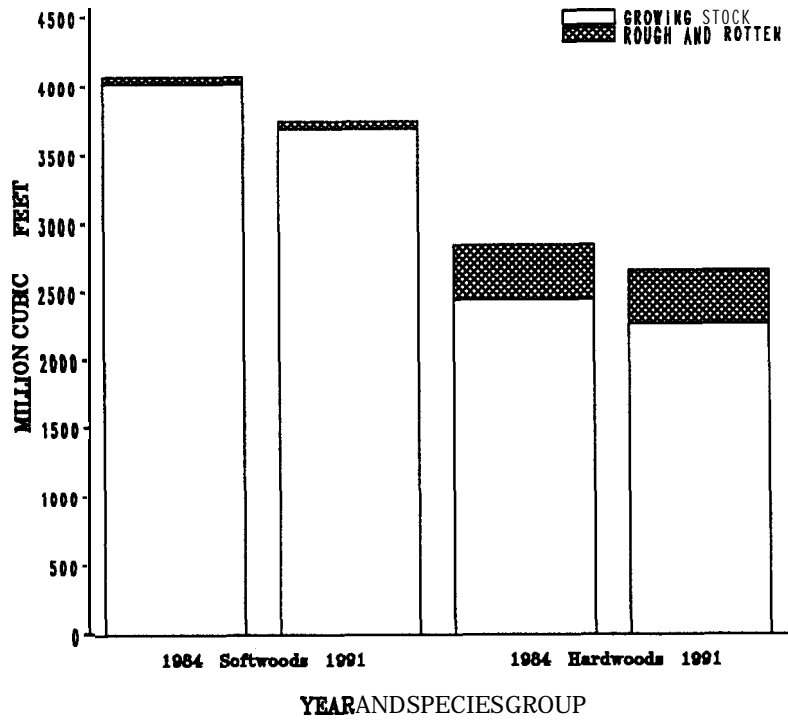


Figure 3. - Volume of live trees on timberland by species group and class of timber, Northwest Louisiana Parishes, 1984 and 1991.

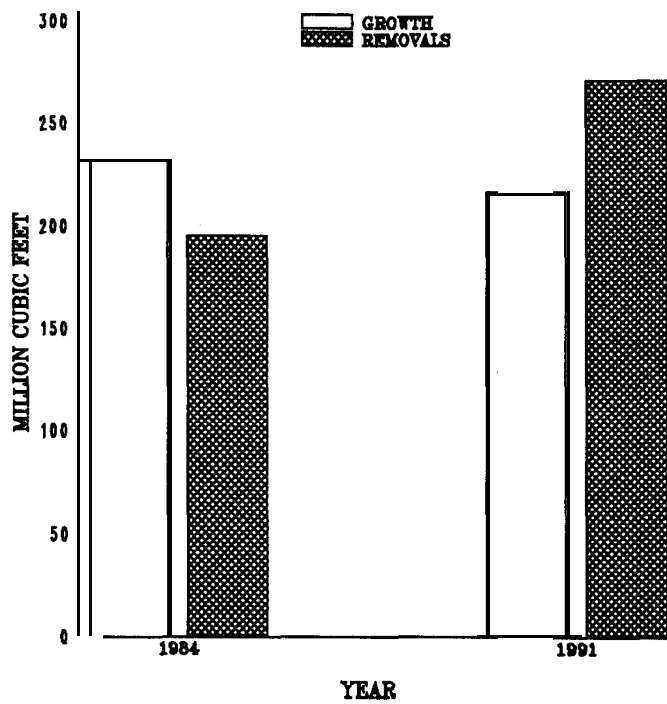


Figure 4. -Average net annual growth and average annual removals of live softwood trees on timberland, Northwest Louisiana Parishes, 1984 and 1991.

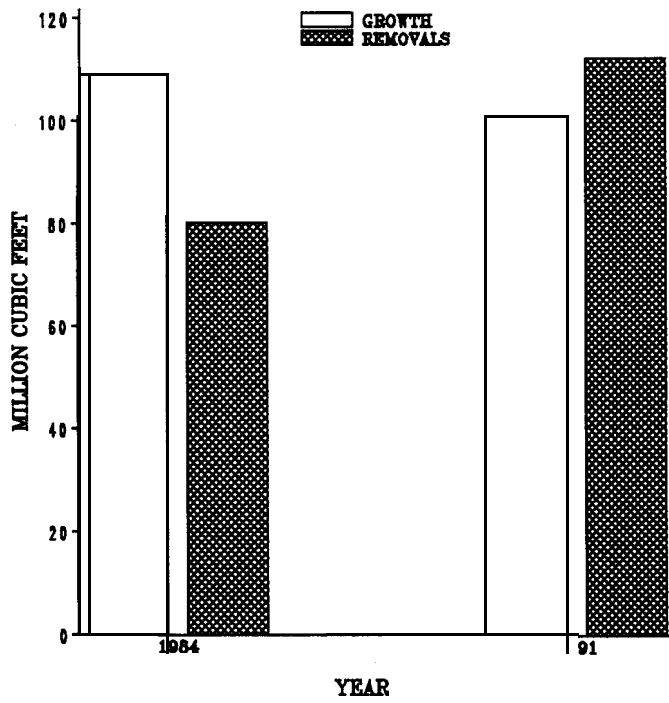


Figure 5. -Average net annual growth and average annual removals of live hardwood trees on timberland, Northwest Louisiana Parishes, 1984 and 1991.

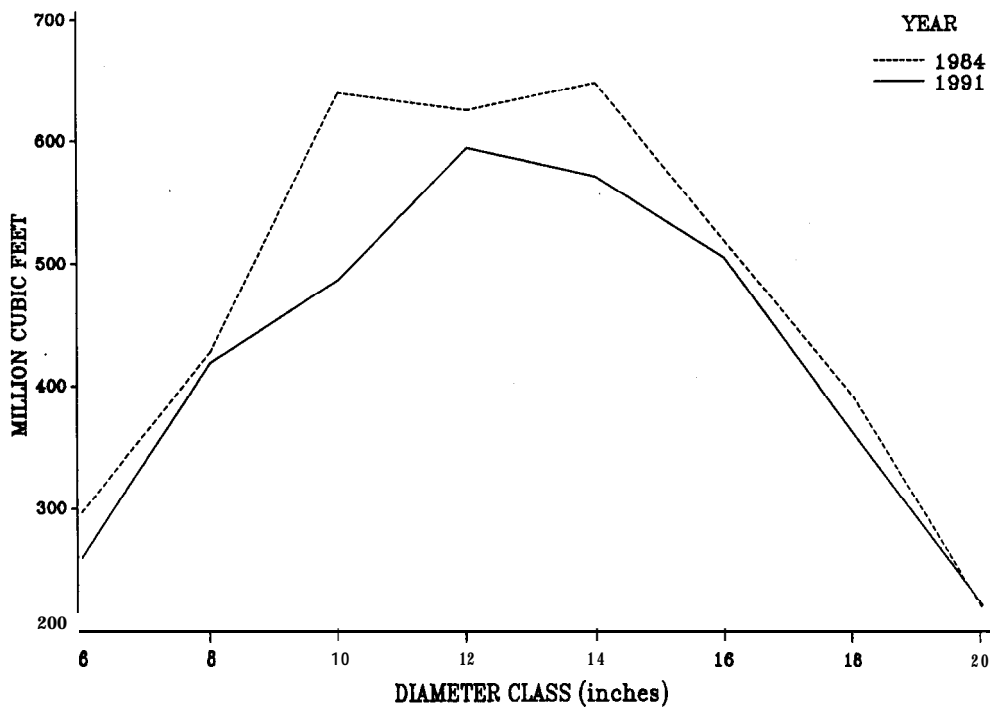


Figure 6. -Volume of live softwood trees on timberland by diameter class, Northwest Louisiana Parishes, 1984 and 1991.

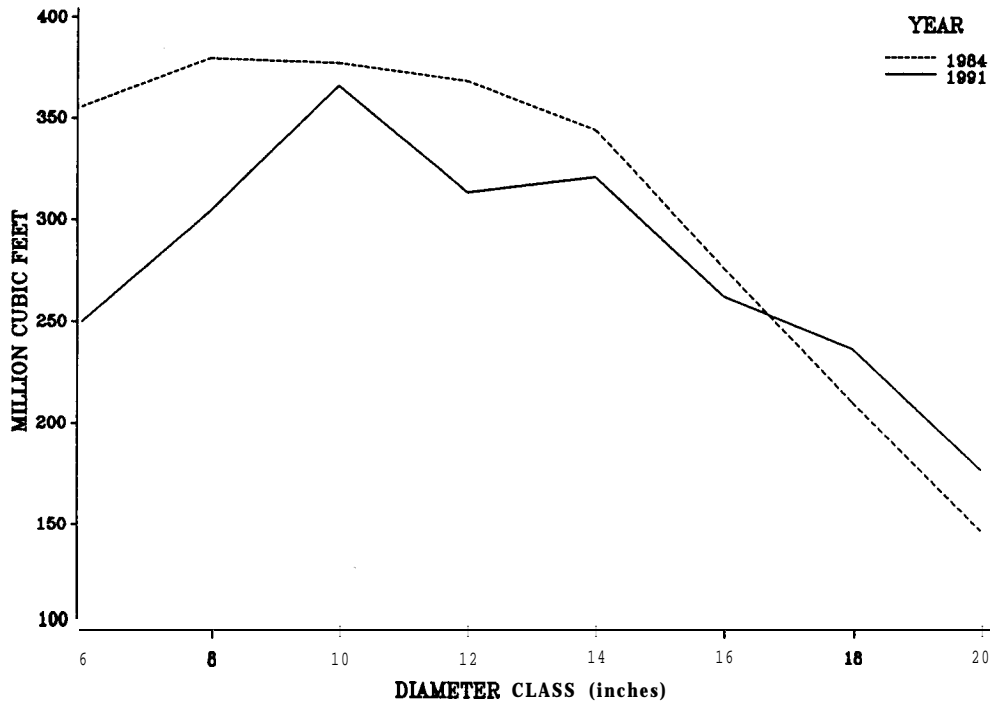


Figure 7. — Volume of live hardwood trees on timberland by diameter class, Northwest Louisiana Parishes, 1984 and 1991.

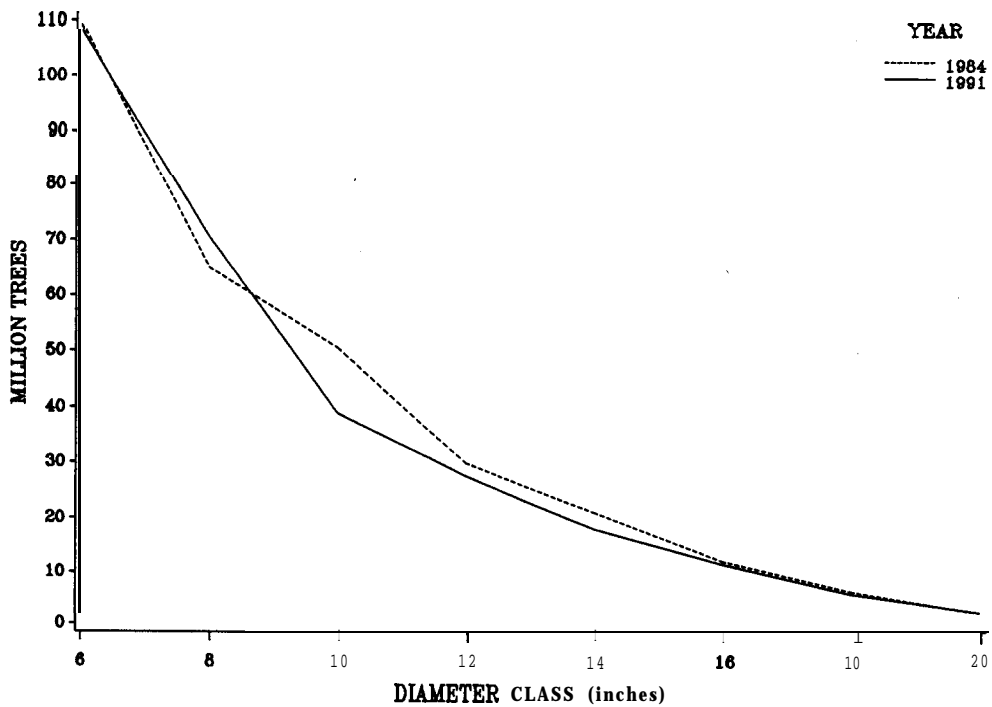


Figure 8. -Number of live softwood trees on timberland by diameter class, Northwest Louisiana Parishes, 1984 and 1991.

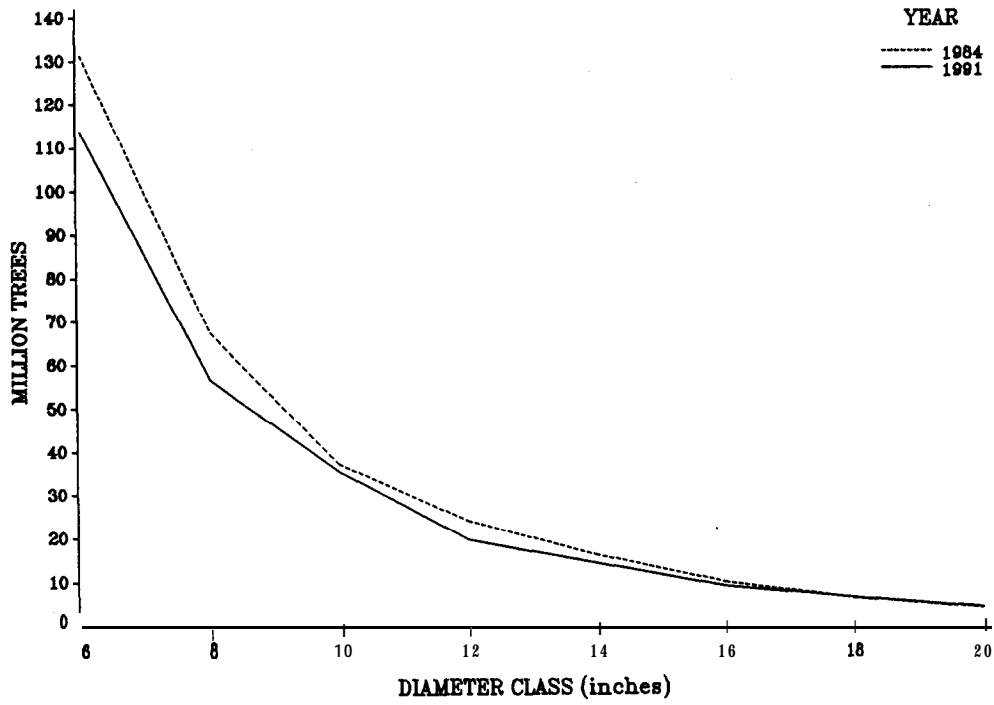


Figure 9. -Number of live hardwood trees on timberland by diameter class, Northwest Louisiana Parishes, 1984 and 1991.

Rosson, James F., Jr.; Miller, Patrick E.; Vissage, John S. 1992. Forest statistics for Northwest Louisiana Parishes — 1991. Resour. Bull. SO-16 7. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station. 34 p.

Tabulates forest resource information from a new inventory of the Northwest Parishes of Louisiana.

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

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