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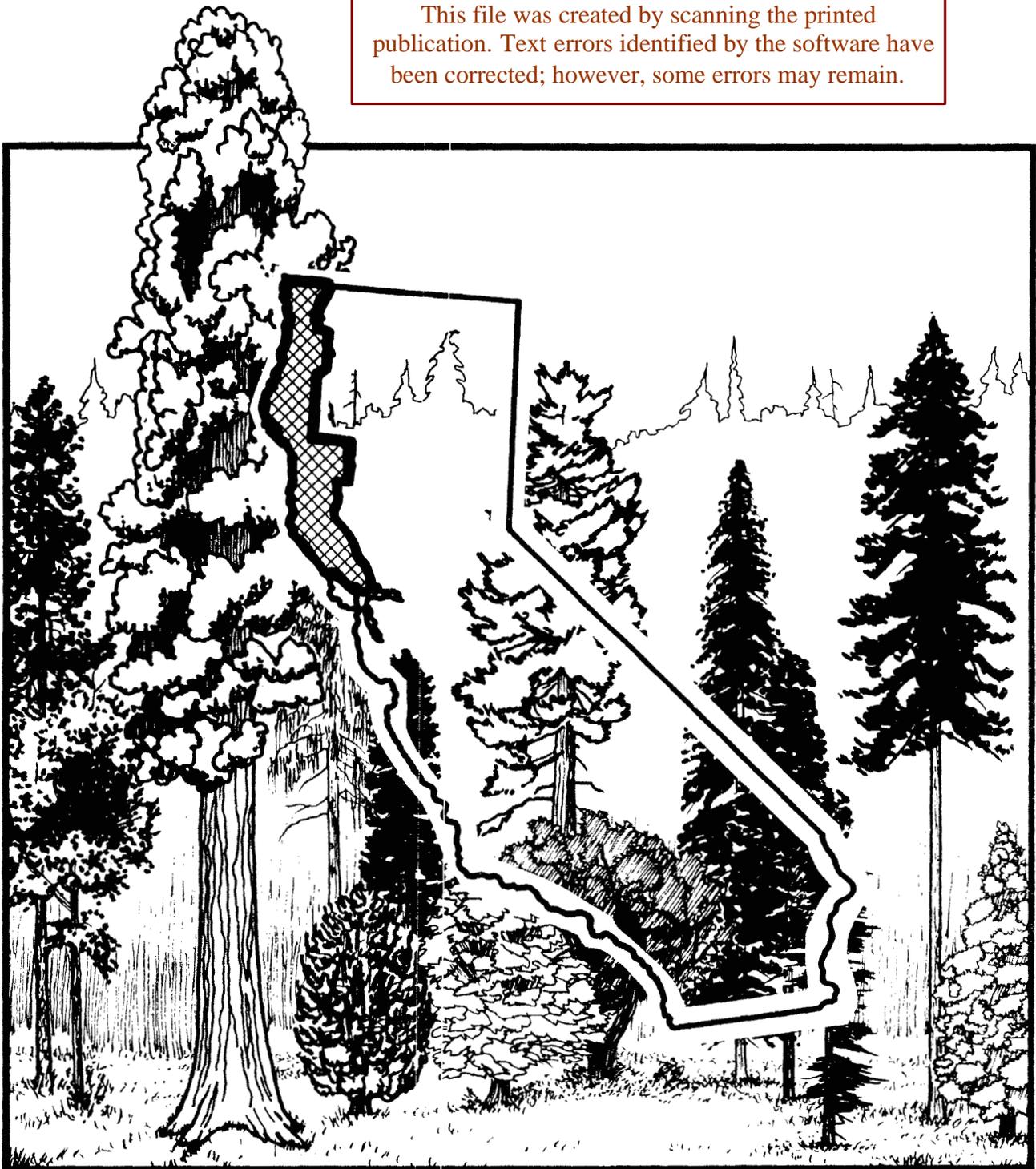
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# Timber Resource Statistics for the North Coast Resource Area of California

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## **Abstract**

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This report is one of five that provide timber resource statistics for 57 of the 58 counties in California (San Francisco is excluded). This report presents statistics from a 1981-84 inventory of the timber resources of Del Norte, Humboldt, Mendocino, and Sonoma Counties. Tables presented are of forest area and of timber volume, growth, and mortality.

The north coast resource area contains an estimated 3.6 million acres of timberland and 13.8 billion cubic feet of standing timber. This is 22 percent of the total area of timberland in the State and 25 percent of the total volume.

Keywords: Forest surveys, statistics (forest), timber resources, resources (forest), California.

## **Preface**

Forest Inventory and Analysis is a nationwide project of the USDA Forest Service authorized by the Forest and Rangeland Renewable Resources Research Act of 1978. Work units of the project, located at Forest Service Experiment Stations, conduct forest inventories throughout the 50 States. The Pacific Northwest Research Station at Portland, Oregon, is responsible for inventories in California, Hawaii, Oregon, and Washington.

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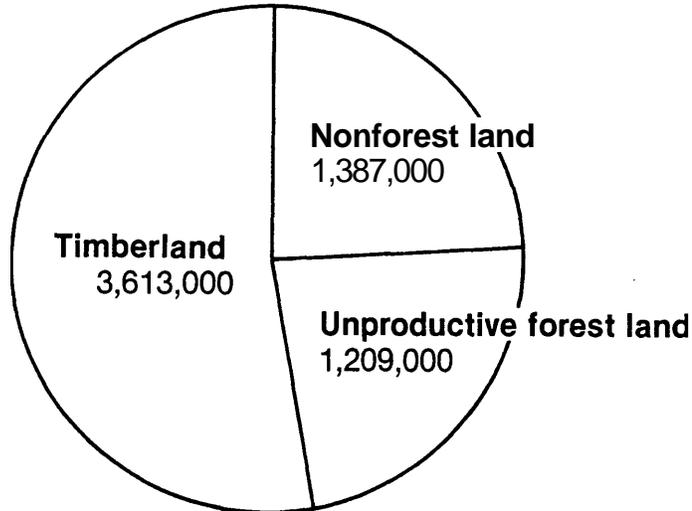
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## Highlights

- o The north coast resource area contains 6 percent of the State's land area, 22 percent of the timberland, and 25 percent of the growing stock volume.
- o Seventy-eight percent of the resource area is classified as forest land and of that timberland makes up 75 percent.

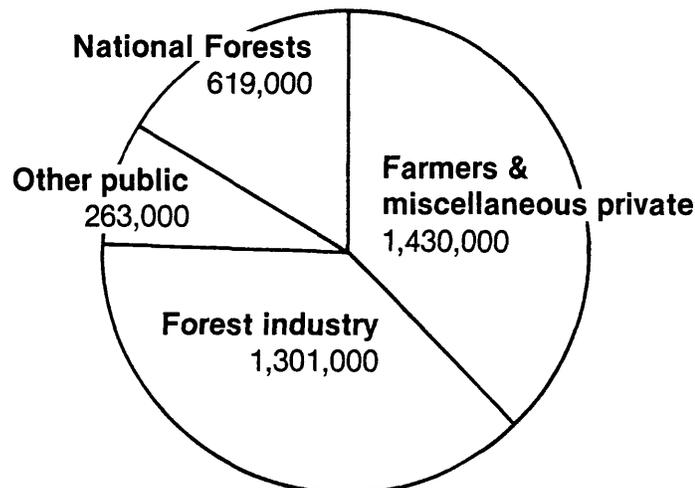
### In acres



*Classification of land area in millions of acres for the north coast resource area.*

- o Of the estimated 3.6 million acres of timberland, 36 percent belongs to forest industry and 40 percent belongs to farmers and miscellaneous private owners. This is 31 percent of all forest industry lands and 44 percent of all farmer and miscellaneous private lands in the State.

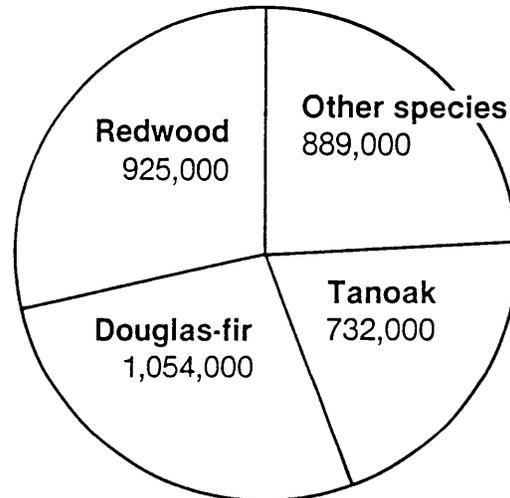
### In acres



*Seventy-five percent of the timberland is in private ownership.*

- o Sawtimber stands occupy two-thirds of all timberland in the resource area.
- o The Douglas-fir forest type occupies 29 percent of the total timberland, redwood occupies 26 percent, and tanoak occupies 20 percent.

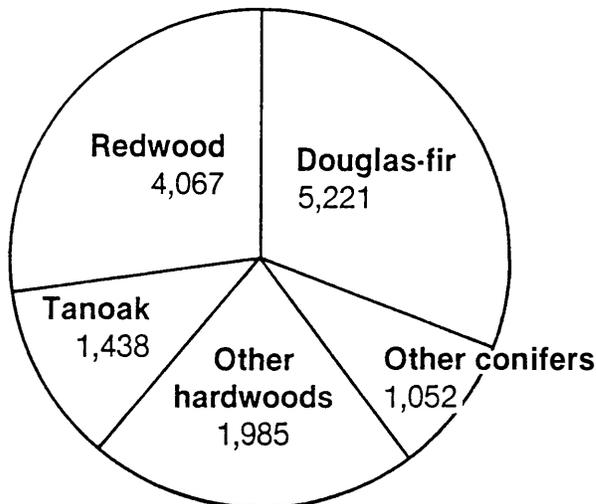
### In acres



Three forest types occupy about 75 percent of all timberland.

- o Ninety-four percent of the redwood type on timberland is in private ownership.
- o Total area in redwood type includes 925 thousand acres of timberland plus **113** thousand acres in national, state, and county parks.
- o Total volume of growing stock on timberland is an estimated **13.8** billion cubic feet, 75 percent of which is conifer.

### In million cubic feet



Douglas-fir, redwood, and tanoak make up 78 percent of growing stock volume.

- o Douglas-fir makes up 50 percent of the conifer volume and redwood makes up about 40 percent. The remaining 10 percent consists of 21 conifer species.
- o Seventy-five percent of the conifer volume is in trees 19 inches d.b.h. and larger.
- Forty-eight percent of the 3.4 billion cubic feet of hardwood volume is on farmer and miscellaneous private lands.
- o The most common hardwood species are tanoak—42 percent of the hardwood volume—and Pacific madrone—21 percent.
- o Conifer growth on timberland averages 258 million cubic feet annually. Mortality is 33 million annually. Timber harvest over the last 10 years averaged 207 million cubic feet annually.\*

### **Volume Change**

Data from 219 forest plots, outside National Forests, originally established in 1964-67 and remeasured in the current inventory were analyzed to determine volume change. For each tree, volume was calculated for both occasions using the current gross volume equations, culling procedures, and expansion factors. In-growth trees and trees that died or were cut during the period were also accounted for using the current procedures. The results of this analysis show that cubic volume of softwood growing stock decreased 20.9 percent over 15.5 growing seasons, and hardwood volume increased 41 percent. On an annual basis this is a 1.35-percent decrease for softwoods and a 2.65-percent increase for hardwoods.

### **1984 California Wilderness Bill**

At the time the information for this report was compiled, specific data for lands dedicated as wilderness in the 1984 California Wilderness Bill were not available. For most National Forests the 1984 wilderness additions correspond closely to the area of deferred forest shown in table 1.

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<sup>1/</sup>Timber harvest was reported in Scribner board feet, which were converted to cubic feet with a ratio of 6.24 board feet per cubic foot.

## Introduction

The information contained in this report summarizes the results of the **1981-84** inventory of the forest lands outside the National Forests and the most recent inventory of National Forest lands for the north coast resource area of California. Included in this resource area are Del Norte, Humboldt, Mendocino, and Sonoma Counties (**fig. 1**).

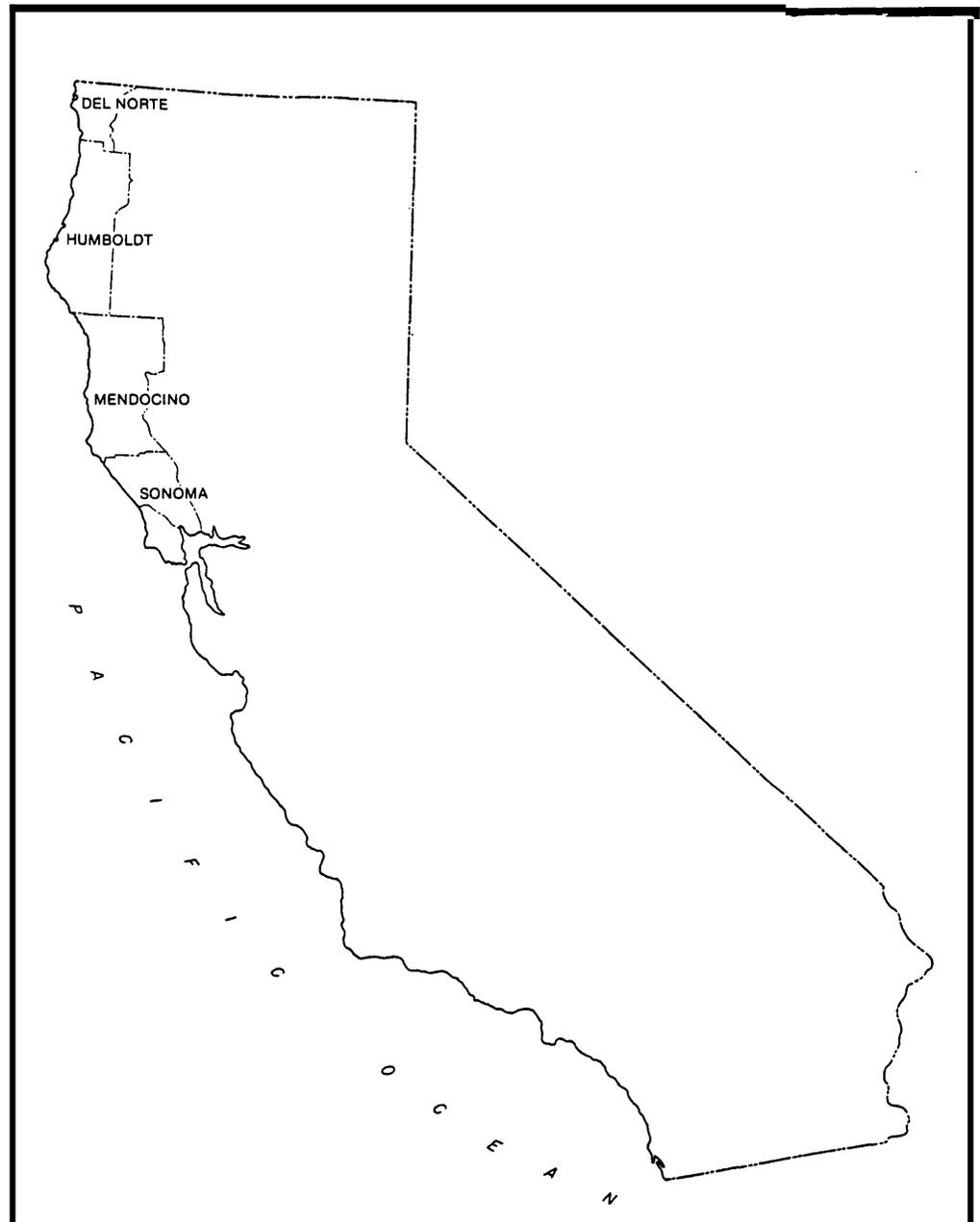


Figure 1.—Counties included in the north coast resource area of California.

## **Inventory Procedures**

This report presents inventory data collected by the National Forest System for the four National Forests (Mendocino, Siskiyou, Six Rivers, and Trinity) in the north coast resource area with inventory data for State, county, municipal, Indian trust, other Federal, and private forest lands as collected by the Forest Inventory and Analysis Work Unit of the Pacific Northwest Research Station.

Inventorying National Forests involved two steps. In the first step, the area of each National Forest was classified into land class, broad forest type, stand size, and tree density using aerial photographs. The second step was sampling on the ground to determine volume per acre within forest type, stand size, and tree density classes. The ground sample consisted of five points, 2 chains (132 feet) apart, arranged in an L-shape. At each of the five points, tree attributes were collected on a variable-radius plot, and a seedling count was done on a fixed-radius plot.

For lands outside National Forests and outside National, State, county, and regional parks, forest statistics were obtained by using Cochran's (1963) double sampling for stratification. The primary sample consisted of aerial photo points located as follows: A computer-generated grid was projected over the State, which divided the area into squares 0.85 mile on a side. Within each square a randomly located point was plotted on a U.S. Geological Survey quadrangle map. Each point was transferred to an aerial photograph. Each point was classified by major land class (timberland, unproductive forest, and nonforest). Forest points were classified by owner group from county assessors' records. Timberland points were further stratified into stand volume classes, and unproductive forest points were classified into broad types (such as oak woodland, chaparral, and pinyon-juniper).

The secondary sample, a subsample of about 1 out of 16 of the aerial photo points, was selected on a systematic grid with a 3.4-mile interval. Each selected point was examined to determine the accuracy of the aerial photo classification. At each of the 3.4 mile grid points in timberland, ground plots were established to obtain detailed information on trees, other vegetation and site characteristics. In unproductive forest, ground plots were established on every other grid point (6.8 miles).

Timberland plots consisted of five subplots distributed over a 5-acre area. Unproductive forest plots had either five or three subplots. Trees were tallied and attribute data were recorded on a series of fixed- and variable-radius plots. In addition, ground vegetation and physical attribute data were recorded from a fixed-radius plot.

Some of the plot locations in timberland were established during previous inventories and were remeasured to determine growth and mortality rates. Regression estimators of growth and mortality that were developed from these plots were applied to all trees tallied in the inventory to estimate total growth and mortality. Tree and stand characteristics and environmental factors were used as variables in the growth and mortality estimators.

The following tabulation shows the number of photo points and ground plots outside National Forests, by category, for the north coast resource area:

	<u>Number of points or plots</u>	
	Forest photo points	8,301
Forest ground plots (examined to verify land class)	477	
Timberland ground plots with tree and vegetation tally (including 219 plots remeasured)	380	
Unproductive forest ground plots with tree and vegetation tally	20	

### Reliability of Inventory Data

#### Data From National Forests

The forest resource statistics for National Forests were collected by National Forest System personnel. The Pacific Southwest Region of the National Forest System, headquartered at San Francisco, administers most of the timberland in National Forests in the north coast resource area. A small portion is administered by the Pacific Northwest Region at Portland, Oregon.

Timber inventories in these National Forests have been designed to estimate total growing stock and sawtimber volume within a  $\pm 10$ -percent confidence band at the 68-percent probability level.

Area of forest land by broad type (stratum) is determined by mapping technique and, hence, has no sampling error. A check of the classification for two National Forests determined that the strata were accurately defined as to type 85 percent of the time.<sup>2/</sup>

#### Data From Outside National Forests

For lands outside National Forests, all area and volume statistics reported are based on sampling and are subject to sampling error. The following are estimates of timberland area, volume, and growth with associated confidence intervals (68-percent probability level):

<u>Owner group</u>	<u>Timberland area</u> (Thousand acres)	<u>Volume</u> (Million cubic feet)	<u>Gross growth</u> (Thousand cubic feet)
Other public	263 $\pm$ 20	1,099 $\pm$ 140	29,120 $\pm$ 4,564
Forest industry with mill	1,160 $\pm$ 29	4,771 $\pm$ 346	52,939 $\pm$ 1,084
Forest industry without mill	141 $\pm$ 10	570 $\pm$ 221	17,158 $\pm$ 6,115
Farmer and miscellaneous private	<del>1,430 <math>\pm</math> 47</del>	<del>4,155 <math>\pm</math> 257</del>	<del>32,530 <math>\pm</math> 7,648</del>
Total	2,995 $\pm$ 55	10,595 $\pm$ 498	331,741 $\pm$ 15,098

<sup>2/</sup>For more information contact **USDA** Forest Service, 630 Sansome Street, San Francisco, California 94111, or 319 S.W. Pine Street, P.O. **Box** 3623, Portland, Oregon 97208.

Confidence intervals vary with both size of the estimate and variance of the item being estimated. Actual confidence intervals have been calculated for most of the tabular data in this report; they are available on request. The confidence intervals that follow are examples taken from the actual data for this report. Owner and land class data are based on the primary sample, and the data by type or class and the volume data are based on the double sample of photo and field plots.

<u>Forest land area by owner and land class</u>	<u>Estimated area</u> (Thousand acres)	<u>Confidence interval</u> (Thousand acres)
Timberland, Mendocino County Farmer and miscellaneous private	1,226	± 35
timberland, Humboldt County	567	± 18
Timberland, forest industry with mill, Mendocino County Farmer and miscellaneous private	407	± 19
timberland, Sonoma County	261	± 14
Timberland, forest industry with mill, Del Norte County	100	± 7
Timberland, forest industry without mill, Sonoma County	19	± 3
<u>Timberland area by type or class</u>	<u>Estimated area</u> (Thousand acres)	<u>Confidence interval</u> (Thousand acres)
Total sawtimber	1,979	± 77
Total redwood <sup>3</sup> /type	923	± 68
Small sawtimber, farmer and miscellaneous private	730	± 59
Site class 50-84, farmer and miscellaneous private	392	± 51
Pacific madrone type, all owners	120	± 30
Mixed conifer type, all owners	14	± 10
<u>Timber volume</u>	<u>Estimated volume</u> (Million cubic feet)	<u>Confidence interval</u> (Million cubic feet)
Total conifer	7,520	± 465
Conifer, forest industry with mill	3,893	± 327
Conifer, farmer and miscellaneous private	2,513	± 250
Douglas-fir, farmer and miscellaneous private	1,320	± 143
Conifer, other public	707	± 120
Douglas-fir, other public	465	± 98
Canyon live oak, all owners	223	± 47
Red alder, all owners	121	± 31
Grand fir, forest industry with mill	44	± 15
Grand fir, other public	5	± 3

<sup>3</sup>Scientific names of species are given at end of text.

## Terminology

Bureau of Land Management lands—Federal lands administered by the Bureau of Land Management, U.S. Department of the Interior.

Chaparral—Areas covered with heavily branched dwarf trees or shrubs, usually evergreen, the crown canopy of which at maturity usually covers more than 50 percent of the ground. The principal genera are *Adenostoma*, *Arctostaphylos*, *Ceanothus*, *Cercocarpus*, *Garrya*, and *Quercus*. Areas in which the predominant cover is *Artemisia*, *Gutierrezia*, *Opuntia*, *Salvia*, or semidesert species are considered nonforest.

Class of timber—A classification of trees as growing stock, cull, and salvable dead. Growing stock trees are subdivided into poletimber and sawtimber trees.

County and municipal lands—Lands owned by county or other local public agencies.

Cull trees—Live trees that are more than 75-percent defective and are unlikely to become growing stock.

Cull trees, rotten—Cull trees with defect caused primarily by rot.

Cull trees, sound—Trees with defect caused primarily by poor form.

Diameter class—A classification of trees based on diameter outside the bark measured at breast height, 4½ feet above the ground. D.b.h. is the common abbreviation for “diameter at breast height.”

Farmer and miscellaneous private lands—All privately owned lands except those classed as forest industry lands, with or without mills.

Forest industry lands:

With mills—Lands owned **by** companies or individuals operating wood-using plants.

**Without** mills—Lands owned by companies or individuals that manage forests for timber production but do not operate mills.

Forest land—Land at least 10 percent covered by crowns of live trees, or 50 percent crown cover in chaparral species (see definition of chaparral); or land formerly having such cover and not currently developed for nonforest use.

Forest land, administratively withdrawn—National Forest lands withdrawn from resource management and utilization by local administrative order (but not by statute or ordinance).

Forest land, deferred—National Forest forest land that was under study for wilderness designation at the time the information for this report was collected. Most of this land was in fact dedicated as wilderness in the October 1984 California Wilderness Bill.

Forest land, reserved—Forest land withdrawn from forest management through statute or ordinance. Included are National Forest wilderness; National, State, and county parks; and other reservations.

Forest types—Stands in which 50 percent or more of the cover is in live conifer trees are classed as softwood types. Stands with a majority of the cover in live hardwood trees are classed as hardwood types. Within these two groups, the individual forest type is determined by plurality of species, with the exception of the mixed-conifer type. Mixed conifer includes stands containing two or more of the following species when no single species makes up 80 percent of the cover: Douglas-fir, white fir, red fir, ponderosa pine, Jeffrey pine, sugar pine, and incense-cedar.

Gross annual growth—The increase in volume of trees during a specified year. Components of gross annual growth of trees: (a) the increment in sound volume of trees alive at the beginning of the specified year and surviving to the year's end, plus (b) the sound volume of trees reaching sawtimber or poletimber size during the year.

Growing stock trees—All live trees with the exception of cull trees.

Growing stock volume—Net volume in cubic feet of live sawtimber and poletimber growing stock trees from stump to a minimum 4-inch top (of central stem) outside the bark. Net volume equals gross volume less deduction for rot and missing bole sections.

Hardwoods—Trees that are angiosperms, usually broad-leaved.

Indian lands—Tribal lands held in fee by the Federal Government but administered for Indian tribal groups, and Indian trust allotments.

Industrial wood—All commercial roundwood products except fuelwood. Roundwood includes logs or bolts that are in straight sections at least 8 feet long in hardwoods and 12 feet long in softwoods.

International **¼-inch** rule—The standard board-foot log rule adopted nationally by the USDA Forest Service for the presentation of inventory volume statistics.

Land area—Area reported as land by the Bureau of the Census. Total land area includes dry land and land temporarily or partially covered by water, such as marshes, swamps, and river flood plains, streams, sloughs, and canals less than  $\frac{1}{8}$  mile wide; and lakes, reservoirs, and ponds less than **40** acres in area.

Land class—A classification of land by major use. The minimum size area for classification is 1 acre.

Mean annual increment—A measure of the productivity of forest land in terms of the average increase in cubic-foot volume per acre per year. For a given species and site index the average is based on the age at which the mean annual increment culminates for fully stocked stands.

**Mortality**—Volume of sound wood in growing stock trees that died from natural causes during a specified period.

**National Forest lands**—Federal lands that have been designated by Executive order or statute as National Forest or purchase units and other lands under the administration of the Forest Service, including experimental areas and Bankhead-Jones Title III lands.

**Nonforest land**—Land that has never supported forests or was formerly forested and is currently developed for nonforest use. Included are lands used for agricultural crops, Christmas tree farms, improved pasture, residential areas, improved roads, operating railroads and their right-of-way clearings, powerline and pipeline clearings, streams over 30 feet wide, and 1- to 40-acre areas of water classified by the Bureau of the Census as land. If intermingled in forest areas, unimproved roads and other nonforest strips must be more than 120 feet wide, and clearings or other areas must be 1 acre or larger to qualify as nonforest land.

**Nonstocked areas**—In mapped areas, timberland with less than 10 percent crown cover; in sampled areas, timberland with no tally trees on 4 or 5 of the 5 subplots (see “Inventory Procedures”).

**Other Federal lands**—Federal lands other than those administered by the USDA Forest Service.

**Other public lands**—Lands administered by public agencies other than the USDA Forest Service.

**Poletimber stands**—In National Forests, stands with less than 10 percent crown cover in sawtimber-sized trees and more than 10 percent crown cover in smaller trees, the predominance of which have crowns 6 to 12 feet in diameter. Outside National Forests, stands with a mean diameter (weighted by basal area) from 5.0 to 9.0 inches, if softwood, and from 5.0 to 11.0 inches, if hardwood.

**Poletimber trees**—Live trees at least 5.0 inches in d.b.h. but smaller than sawtimber size, and of good form and vigor.

**Productive forest**—Forest land capable of producing 20 cubic feet or more per acre per year in continuous crops of industrial wood.

**Salvable dead trees**—Dead, standing or downed trees, at least 9.0 inches in d.b.h. for softwoods and at least 11.0 inches in d.b.h. for hardwoods, containing 25 percent or more sound wood volume and at least one straight, sound, 12-foot log, if softwood, or one straight, sound, 8-foot log, if hardwood.

**Sapling and seedling stands**—In National Forests, stands with less than 10 percent crown cover in sawtimber-sized trees and more than 10 percent crown cover in smaller trees, the predominance of which have crowns less than 5 feet in diameter. Outside National Forests, stands with a mean diameter (weighted by basal area) less than 5.0 inches.

**Sapling and seedling trees**—Live trees less than 5.0 inches in d.b.h. with no disease, defects, or deformities likely to prevent their becoming poletimber trees.

Saw-log portion—The bole of sawtimber trees between the stump and the saw-log top.

Sawtimber stands—In National Forests, stands with 10 percent or more crown cover and the predominance of the trees having crowns 13 or more feet in diameter. Outside National Forests, stands with a mean diameter (weighted by basal area) at least 9.0 inches in d.b.h., if softwood, and at least 11.0 inches in d.b.h., if hardwood.

Sawtimber trees—Live softwood trees at least 9.0 inches in d.b.h. and hardwood trees at least 11.0 inches in d.b.h. At least 25 percent of the board-foot volume in a sawtimber tree must be free from defect. Softwood trees must contain at least one 12-foot saw log with a top diameter of not less than 6 inches inside bark; hardwood trees must contain at least one 8-foot saw log with a top diameter of not less than 8 inches inside bark.

Sawtimber volume—Net volume of sawtimber trees measured in board feet. Net volume equals gross volume less deduction for rot, sweep, crook, and other defects that affect use for lumber.

Scribner rule—The common board-foot log rule used locally in determining volume of sawtimber. Scribner volume is estimated in terms of 16-foot logs (short-log rule).

Site class—A classification of the potential productivity of forest land in terms of mean annual increment.

Softwoods—Coniferous trees, usually evergreen, with needles or scalelike leaves.

State lands—Lands owned or administered by State agencies.

Timber harvest—Volume of roundwood removed from forest land for products.

Timber volume—Includes the net volume in cubic feet of live poletimber and sawtimber trees, salvable dead sawtimber trees, and rotten cull trees; and the gross volume in sound cull trees. Volume is measured from stump to a minimum 4-inch top outside the bark.

Timberland (productive forest)—Forest land capable of continuously producing 20 cubic feet or more per acre per year of industrial wood, and not withdrawn by statute, ordinance, or administrative order from timber utilization.

Unproductive forest—Forest land incapable of continuously producing 20 cubic feet per acre per year of industrial wood because of adverse site conditions such as sterile soils, dry climate, poor drainage, high elevation, steepness, or rockiness. Includes low site and steep rocky areas supporting stands of conifers, such as ponderosa pine and Douglas-fir, and areas of oak, pinyon, juniper, and cypress woodlands, and chaparral.

Upper-stem portion—The bole of sawtimber trees above the saw-log top—7.0 inches outside bark for softwoods and 9.0 inches outside bark for hardwoods—to a minimum top diameter of 4.0 inches outside bark, or to the point where the central stem breaks into limbs.

## Names of Trees<sup>4/</sup>

### Scientific name

### Common name

#### Softwoods:

<i>Abies concolor</i> (Gord. & Glend.) Lindl. ex Hildebr.	white fir
<i>Abies grandis</i> (Dougl. ex D. Don) Lindl.	grand fir
<i>Abies magnifica</i> A. Murr.	California red fir
<i>Chamaecyparis lawsoniana</i> (A. Murr.) Parl.	Port-Orford-cedar
<i>Cupressus</i> L.	cypress
<i>Libocedrus decurrens</i> Torr.	incense-cedar
<i>Picea brewerana</i> Wats.	Brewer spruce
<i>Picea sifchensis</i> (Bong.) Carr.	Sitka spruce
<i>Pinus attenuata</i> Lemm.	knobcone pine
<i>Pinus conforfa</i> Dougl. ex Loud.	lodgepole pine <sup>3</sup>
<i>Pinus conforfa</i> Dougl. ex Loud. var. <i>conforfa</i>	shore pine <sup>5/</sup>
<i>Pinus jeffreyi</i> Grev. & Balf.	Jeffrey pine
<i>Pinus lamberfiana</i> Dougl.	sugar pine
<i>Pinus monficola</i> Dougl. ex D. Don	western white pine
<i>Pinus muricafa</i> D. Don	bishop pine
<i>Pinus ponderosa</i> Dougl. ex laws.	ponderosa pine
<i>Pinus radiata</i> D. Don	Monterey pine
<i>Pinus sabiniana</i> Dougl.	Digger pine
<i>Pseudotsuga menziesii</i> (Mirb.) Franco	Douglas-fir
<i>Sequoia sempervirens</i> (D. Don) Endl.	redwood
<i>Taxus brevifolia</i> Nutt.	Pacific yew
<i>Thuja plicafa</i> Donn ex D. Don	western redcedar
<i>Torreya californica</i> Torr.	California torreyia
<i>Tsuga heferophylla</i> (Raf.) Sarg.	western hemlock
<i>Tsuga merfensiana</i> (Bong.) Carr.	mountain hemlock

#### Hardwoods:

<i>Acer macrophyllum</i> Pursh	bigleaf maple
<b><i>Aesculus californica</i></b> (Spach) Nutt.	California buckeye
<i>Alnus rhombifolia</i> Nutt.	white alder
<i>Alnus rubra</i> Bong.	red alder
<i>Arbutus menziesii</i> Pursh	Pacific madrone
<i>Casfanopsis chrysophylla</i> (Dougl.) A.DC.	giant chinkapin
<i>Eucalyptus</i> L'Her.	eucalyptus
<i>Lifhocarpus densiflorus</i> (Hook. & Arn.) Rehd.	tanoak
<i>Populus fremonfii</i> Wats.	Fremont cottonwood
<i>Populus frichocarpa</i> Torr. & Gray	black cottonwood
<i>Quercus agrifolia</i> Nee	coast live oak
<i>Quercus chrysolepis</i> Liebm.	canyon live oak
<i>Quercus douglasii</i> Hook. & Arn.	blue oak
<i>Quercus garryana</i> Dougl. ex Hook.	Oregon white oak
<i>Quercus kelloggii</i> Newb.	California black oak
<i>Quercus lobafa</i> Nee	valley oak
<i>Quercus wislizeni</i> A. DC.	interior live oak
<i>Salix</i> L.	willow
<i>Umbellularia californica</i> (Hook. & Arn.) Nutt.	California-laurel

<sup>4/</sup>Names according to Little (1978).

<sup>5/</sup>*Pinus conforfa* and *P. conforfa* var. *contorta* are combined as lodgepole pine in the tables.

Tables

**Table 1—Area by land class and county, north coast resource area, California, January 1, 19853**

LAND CLASS	DEL NORTE	HUMBOLDT	MENDOCINO	SONOMA	ALL COUNTIES
<u>THOUSAND ACRES</u>					
PRODUCTIVE FOREST:					
TIMBERLAND	395	1,554	1,340	324	3,613
RESERVED	25	103	14	3	146
DEFERRED <u>2/ 3/</u>	34	8	--	--	42
ADMINISTRATIVELY WITHDRAWN <u>2/</u>	10	<u>4/</u>	2	--	12
TOTAL	462	1,665	1,356	327	3,813
UNPRODUCTIVE FOREST:					
UNRESERVED	126	170	462	192	950
RESERVED	2	7	1	15	25
DEFERRED <u>2/ 3/</u>	15	6	--	--	21
ADMINISTRATIVELY WITHDRAWN <u>2/</u>	4	<u>4/</u>	2	--	6
TOTAL	147	183	465	207	1,002
NONFOREST	35	443	427	492	1,394
TOTAL LAND AREA	644	2,291	2,248	1,026	6,209

-- = none found

1/Totals may be off because of rounding.

2/This category used for National Forest lands only.

3/For most National Forests the area of deferred forest corresponds closely to the 1984 wilderness additions.

4/Less than 500 acres.

**Table 2—Area of timberland by ownership class and county, north coast resource area, California, January 1, 19853**

OWNERSHIP CLASS	DEL NORTE	HUMBOLDT	MENDOCINO	SONOMA	ALL COUNTIES
	<u>THOUSAND ACRES</u>				
NATIONAL FOREST	231	273	114	--	619
OTHER PUBLIC	1	124	127	11	263
FOREST INDUSTRY WITH MILL	100	541	487	33	1,160
FOREST INDUSTRY WITHOUT MILL	35	49	38	19	141
FARMER AND MISCELLANEOUS PRIVATE	27	567	575	261	1,430
ALL OWNERSHIPS	395	1,554	1,340	324	3,613

-- = none found.

1/Totals may be off because of rounding.

**Table 3—Area of timberland by cubic-foot site and ownership classes, north coast resource area, California, January 1, 19853**

SITE CLASS	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY		FARMER AND MISCELLANEOUS PRIVATE	ALL OWNERSHIPS
			WITH MILLS	WITHOUT MILLS		
<u>CUBIC FEET</u> - - - - - <u>THOUSAND ACRES</u> - - - - -						
225 OR MORE	--	38	284	6	110	438
165-224	57	26	251	50	129	513
120-164	195	59	277	12	286	829
85-119	173	86	258	47	454	1018
50-84	116	38	74	26	392	646
20-49	78	16	17	--	58	169
ALL CLASSES	619	263	1,160	141	1,430	3,613

-- = none found.

1/Totals may be off because of rounding.

**Table 4—Area of timberland by stand size and ownership classes, north coast resource area, California, January 1, 1985<sup>1/</sup>**

STAND SIZE CLASS	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY		FARMER AND MISCELLANEOUS PRIVATE	ALL OWNERSHIPS
			WITH MILLS	WITHOUT MILLS		
<u>THOUSAND ACRES</u>						
SAWTIMBER STANDS:						
LARGE SAWTIMBER <sup>2/</sup>	328	34	206	11	189	768
SMALL SAWTIMBER <sup>3/</sup>	140	149	604	54	731	1,678
TOTAL	468	183	810	65	920	2,446
POLETIMBER STANDS	74	40	186	22	301	623
SAPLING AND SEEDLINGS STANDS	74	40	157	54	200	525
NONSTOCKED AREAS	3	--	7	--	9	19
ALL CLASSES	619	263	1,160	141	1,430	3,613

-- = none found.

<sup>1/</sup>Totals may be off because of rounding.

<sup>2/</sup>Includes sawtimber stands with the majority of trees 21.0 inches in d.b.h. and larger (for National Forests, stands with the majority of trees having crown diameters 25 feet or larger).

<sup>3/</sup>Includes sawtimber stands with the majority of trees 9.0 to 20.9 inches in d.b.h. if conifer and 11.0 to 20.9 inches in d.b.h. if hardwood (for National Forests, stands with the majority of trees having crown diameters 13-24 feet).

**Table 5—Area of timberland by forest type and ownership class, north coast resource area, California, January 1, 1985<sup>1/</sup>**

FOREST TYPE	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY		FARMER AND MISCELLANEOUS PRIVATE	ALL OWNERSHIPS
			WITH MILLS	WITHOUT MILLS		
THOUSAND ACRES						
DOUGLAS-FIR	408	94	206	40	306	1,054
REDWOOD	2	50	551	53	269	925
MIXED CONIFER	167	--	14	--	--	181
GRAND FIR	--	--	17	--	14	32
PONDEROSA PINE	10	7	11	--	8	36
SITKA SPRUCE	--	--	--	--	15	15
WHITE FIR	13	--	--	--	--	13
MONTEREY PINE	--	--	--	8	--	8
BISHOP PINE	--	--	--	--	7	7
WESTERN REDCEDAR	--	--	--	--	7	7
CYPRESS	--	--	6	--	--	6
CALIFORNIA RED FIR	2	--	--	--	--	2
WESTERN WHITE PINE	1	--	--	--	--	1
TANOAK	7	43	271	29	382	732
CALIFORNIA BLACK OAK	1	13	--	--	112	126
PACIFIC MADRONE	2	19	17	11	73	122
CANYON LIVE OAK	2	20	6	--	66	94
OREGON WHITE OAK	1	16	--	--	55	72
CALIFORNIA-LAUREL	2/	--	17	--	44	61
INTERIOR LIVE OAK	--	--	9	--	16	25
BIGLEAF MAPLE	2/	--	14	--	8	22
RED ALDER	2/	--	13	--	7	20
COAST LIVE OAK	--	--	--	--	14	14
VALLEY OAK	--	--	--	--	8	8
COTTONWOOD	--	--	--	--	7	7
NONSTOCKED	3	--	7	--	9	19
ALL TYPES	619	263	1,160	141	1,430	3,613

-- = none found.

<sup>1/</sup>Totals may be off because of rounding.

<sup>2/</sup>Less than 500 Acres.

**Table 6A—Area of reserved, deferred, and administratively withdrawn forest land by land class, forest type, and ownership class, north coast resource area, California, January 1, 1985<sup>1/</sup>**

LAND CLASS AND FOREST TYPE	NATIONAL FOREST				OUTSIDE NATIONAL FOREST						TOTAL	ALL OWNERSHIPS
	RESERVED	DEFERRED <sup>2/</sup>	ADMINISTRATIVELY WITHDRAWN	TOTAL	NATIONAL PARKS	OTHER FEDERAL	STATE PARKS	OTHER STATE	COUNTY AND MUNICIPAL	PRIVATE		
THOUSAND ACRES												
PRODUCTIVE:												
MIXED CONIFER	--	12	4	16	--	--	5	--	--	--	5	21
REDWOOD	--	--	1	1	57	--	54	--	3/	--	112	113
DOUGLAS-FIR	--	27	8	34	1	--	4	--	3/	3	8	39
SITKA SPRUCE	--	--	--	--	4	--	4	--	--	--	8	8
TRUE FIRS	--	3/	--	3/	--	--	--	--	--	--	3/	3/
WHITE PINE	--	3/	--	3/	--	--	--	--	--	--	3/	3/
TANOAU	--	7	3/	7	--	--	12	--	--	--	12	13
RED ALDER	--	3/	--	3/	--	--	3/	--	--	--	3/	3/
BIGLEAF MAPLE	--	3/	--	3/	--	--	--	--	--	--	3/	3/
PACIFIC MADRONE	--	3/	3/	3/	--	--	--	--	--	--	3/	3/
ALL OAKS	--	7	3/	7	--	--	--	--	--	--	7	7
CALIFORNIA-LAUREL	--	3/	--	3/	--	--	--	--	--	--	3/	3/
TOTAL	--	42	12	54	62	--	79	--	1	3	145	199
UNPRODUCTIVE:												
MIXED CONIFER	--	5	3/	6	--	--	--	--	--	--	--	6
DOUGLAS-FIR	--	4	2	6	--	--	--	--	--	--	--	6
LOGSPOLE PINE	--	--	3/	3/	--	--	--	--	--	--	3/	3/
KNOBONE PINE	--	1	3/	7	--	--	1	--	--	--	1	7
BISHOP PINE	--	--	--	--	--	--	1	--	--	--	1	1
ALL OAKS	--	1	1	2	1	--	7	--	1	3/	9	11
CYPRESS	--	--	--	--	--	--	3/	--	--	--	3/	3/
BIGLEAF MAPLE	--	3/	3/	3/	--	--	--	--	--	--	3/	3/
PACIFIC MADRONE	--	3/	3/	3/	--	--	--	--	--	--	3/	3/
TANOAK	--	3/	3/	3/	--	--	--	--	--	--	3/	3/
CHAPARRAL	--	2	1	3	7	--	4	3/	1	3/	12	15
COTTONWOOD	--	--	--	--	--	--	1	--	--	--	1	1
UNCLASSIFIED	--	7	1	8	--	--	--	--	--	--	8	8
TOTAL	--	21	6	27	8	--	14	3/	2	1	24	51
TOTAL	--	64	17	81	70	--	92	3/	2	4	169	250

-- = none found.

<sup>1/</sup>Totals may be off because of rounding.

<sup>2/</sup>For most National Forests the area of deferred forest corresponds closely to the 1984 wilderness additions.

<sup>3/</sup>Less than 500 acres.

**Table 6B—Area of unreserved unproductive forest land by forest type and ownership class, north coast resource area, California, January 1, 19853**

FOREST TYPE	NATIONAL FOREST	OTHER PUBLIC	PRIVATE	ALL OWNERSHIPS
	THOUSAND ACRES			
UNCLASSIFIED	39	7	24	70
KNOBcone PINE	13	--	--	13
LODGEPOLE PINE	4	--	--	4
PONDEROSA PINE	2	--	--	2
DOUGLAS-FIR	58	--	--	58
MIXED CONIFER	14	--	--	14
BIGLEAF MAPLE	2/	--	--	2/
PACIFIC MADRONE	4	--	77	81
TANOAK	5	--	--	5
ALL OAKS	31	77	309	417
CHAPARRAL	32	67	147	246
TRUE FIR	2/	--	--	2/
BUCKEYE	--	--	39	39
ALL FOREST TYPES	202	151	596	949

-- = none found.

1/Totals may be off because of rounding.

2/Less than 500 acres.

**Table 7—Volume of timber on timberland by class of timber and by softwoods and hardwoods, north coast resource area, California, January 1, 19853**

CLASS OF TIMBER	SOFTWOODS	HARDWOODS	ALL SPECIES
	MILLION CUBIC FEET		
SAMTIMBER TREES:			
SAW-LOG PORTION	9,822	1,759	11,581
UPPER-STEM PORTION	177	721	898
TOTAL	9,999	2,480	12,479
POLETIMBER TREES	340	944	1,284
ALL GROWING STOCK	10,340	3,423	13,763
SOUND CULL TREES	295	305	599
ROTTEN CULL TREES	49	283	332
SALVABLE DEAD TREES	83	37	120
ALL TIMBER	10,767	4,048	14,814

1/Totals may be off because of rounding.

**Table 8—Volume of growing stock and sawtimber on timberland by ownership class and by softwoods and hardwoods, north coast resource area, California, January 1, 19853**

OWNERSHIP CLASS	AVERAGE VOLUME	SOFTWOODS	HARDWOODS	ALL SPECIES
	<u>CUBIC FEET PER ACRE</u>	<u>MILLION CUBIC FEET</u>		
GROWING STOCK:				
NATIONAL FOREST	5,118	2,820	348	3,168
OTHER PUBLIC	4,179	707	392	1,099
FOREST INDUSTRY WITH MILL	4,113	3,893	878	4,771
FOREST INDUSTRY WITHOUT MILL	4,043	407	163	570
FARMER AND MISCELLANEOUS PRIVATE	2,906	2,513	1,642	4,155
ALL OWNERSHIPS	3,809	10,340	3,423	13,763
	<u>BOARD FEET PER ACRE</u>	<u>MILLION BOARD FEET</u>		
SAWTIMBER (INTERNATIONAL 1/4-INCH RULE):				
NATIONAL FOREST	31,960	18,678	1,103	19,783
OTHER PUBLIC	20,490	4,286	1,103	5,389
FOREST INDUSTRY WITH MILL	21,480	22,558	2,359	24,917
FOREST INDUSTRY WITHOUT MILL	19,844	2,402	396	2,798
FARMER AND MISCELLANEOUS PRIVATE	13,035	14,600	4,037	18,640
ALL OWNERSHIPS	19,797	62,525	8,998	71,526
SAWTIMBER (SCRIBNER RULE):				
NATIONAL FOREST	29,937	17,543	989	18,531
OTHER PUBLIC	18,137	3,851	919	4,770
FOREST INDUSTRY WITH MILL	18,778	19,836	1,946	21,782
FOREST INDUSTRY WITHOUT MILL	17,525	2,146	325	2,471
FARMER AND MISCELLANEOUS PRIVATE	11,347	12,884	3,340	16,226
ALL OWNERSHIPS	17,653	56,260	7,519	63,779

1/Totals may be off because of rounding.

**Table 9—Volume of growing stock and sawtimber on timberland by county and ownership class, north coast resource area, California, January 1, 1985<sup>1/</sup>**

COUNTY	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY		FARMER AND MISCELLANEOUS PRIVATE	ALL OWNERSHIPS
			WITH MILLS	WITHOUT MILLS		
<u>MILLION CUBIC FEET</u>						
GROWING STOCK:						
DEL NORTE	1,102	5	328	151	98	1,684
HUMBOLDT	1,630	538	2,709	231	2,007	7,115
MENDOCINO	436	526	1,632	129	1,329	4,052
SONOMA	--	29	102	60	721	912
ALL COUNTIES	3,168	1,099	4,771	570	4,155	13,763
<u>MILLION BOARD FEET</u>						
SAWTIMBER (INTERNATIONAL 1/4-INCH RULE):						
DEL NORTE	6,842	26	1,666	742	471	9,747
HUMBOLDT	10,247	2,752	14,690	1,184	9,604	38,477
MENDOCINO	2,694	2,482	8,061	599	5,390	19,226
SONOMA	--	128	501	272	3,176	4,077
ALL COUNTIES	19,783	5,389	24,917	2,798	18,640	71,526
SAWTIMBER (SCRIBNER RULE):						
DEL NORTE	6,419	23	1,455	656	411	8,964
HUMBOLDT	9,616	2,447	12,876	1,055	8,426	34,420
MENDOCINO	2,496	2,189	7,015	524	4,633	16,857
SONOMA	--	110	435	237	2,756	3,538
ALL COUNTIES	18,531	4,770	21,782	2,471	16,226	63,779

-- - none found.

<sup>1/</sup>Totals may be off because of rounding.

**Table 10—Volume of growing stock on timberland by species and ownership class, north coast resource area, California, January 1, 1983**

SPECIES	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY		FARMER AND MISCELLANEOUS PRIVATE	ALL OWNERSHIPS
			WITH MILLS	WITHOUT MILLS		
<u>MILLION CUBIC FEET</u>						
SOFTWOODS:						
DOUGLAS-FIR	2,056	465	1,205	176	1,320	5,221
REDWOOD	47	205	2,544	218	1,053	4,067
WHITE FIR	361	--	5	--	--	365
SUGAR PINE	106	3	35	4	11	159
PONDEROSA PINE	93	22	12	--	5	133
GRAND FIR	--	5	44	3	32	83
INCENSE-CEDAR	81	--	--	--	1	82
BISHOP PINE	--	2	2	--	41	46
PORT-ORFORD-CEDAR	25	--	17	--	--	42
SITKA SPRUCE	--	--	4	--	32	36
CALIFORNIA RED FIR	32	--	--	--	--	32
WESTERN HEMLOCK	--	1	18	--	13	32
BREWER SPRUCE	10	--	--	--	--	10
CALIFORNIA TORREYA	--	3	1	2	1	7
PACIFIC YEW	2	--	2/	3	2/	6
NOBSCONE PINE	1	--	1	--	3	5
MONTEREY PINE	--	--	4	1	--	4
JEFFREY PINE	2	--	--	--	--	2
WESTERN WHITE PINE	2	--	--	--	--	2
DIGGER PINE	1	--	--	--	1	2
WESTERN REDCEDAR	--	--	1	--	--	1
CYPRESS	--	--	2/	--	--	2/
MOUNTAIN HEMLOCK	2/	--	--	--	--	2/
TOTAL	2,820	707	3,893	407	2,513	10,340
HARDWOODS:						
TANOAK	127	154	526	93	537	1,438
PACIFIC MADRONE	71	131	163	40	310	716
CALIFORNIA BLACK OAK	74	48	27	7	189	345
CANYON LIVE OAK	43	33	21	9	161	266
CALIFORNIA-LAUREL	--	8	34	2	161	204
OREGON WHITE OAK	11	10	2	--	125	148
RED ALDER	--	3	69	2	47	121
BIGLEAF MAPLE	13	2	14	5	37	72
INTERIOR LIVE OAK	--	--	10	--	21	31
CALIFORNIA WHITE OAK	--	2/	--	--	26	26
GIANT CHINKAPIN	4	2	6	4	5	21
COAST LIVE OAK	--	--	--	--	14	14
EUCALYPTUS	3	--	--	--	6	8
WILLOW	--	--	5	1	1	7
WHITE ALDER	3	--	--	--	--	3
COTTONWOOD <sup>3/</sup>	--	--	--	--	2	2
BUCKEYE	--	--	--	--	2/	2/
BLUE OAK	--	--	--	--	2/	2/
UNCLASSIFIED HARDWOODS	--	--	1	--	--	1
TOTAL	348	392	878	163	1,642	3,423
ALL SPECIES	3,168	1,099	4,771	570	4,155	13,763

-- - none found.

<sup>1/</sup>Totals may be off because of rounding.

<sup>2/</sup>Less than 500,000 cubic feet.

<sup>3/</sup>Includes black cottonwood and Fremont cottonwood

**Table 11—Volume of sawtimber, International 1/4-inch rule, on timberland by species and ownership class, north coast resource area, California, January 1, 1985<sup>1/</sup>**

SPECIES	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY		FARMER AND MISCELLANEOUS PRIVATE	ALL OWNERSHIPS
			WITH MILLS	WITHOUT MILLS		
MILLION BOARD FEET						
SOFTWOODS :						
DOUGLAS-FIR	13,685	2,913	7,015	1,094	7,810	32,516
REDWOOD	327	1,156	14,792	1,244	6,007	23,526
WHITE FIR	2,294	--	23	--	--	2,317
SUGAR PINE	738	20	229	27	71	1,084
PONDEROSA PINE	650	132	54	--	22	859
GRAND FIR	--	30	199	16	189	435
INCENSE-CEDAR	524	--	--	--	3	527
BISHOP PINE	--	13	12	--	246	271
PORT-ORFORD-CEDAR	162	--	80	--	--	242
SITKA SPRUCE	--	--	27	--	172	199
CALIFORNIA RED FIR	204	--	--	--	--	204
WESTERN HEMLOCK	--	8	94	--	69	171
BREWER SPRUCE	63	--	--	--	--	63
CALIFORNIA TORREYA	--	14	3	5	--	22
PACIFIC YEW	--	--	--	16	--	16
KNOBCONE PINE	--	--	3	--	5	8
MONTEREY PINE	--	--	23	--	--	23
JEFFREY PINE	17	--	--	--	--	17
WESTERN WHITE PINE	12	--	--	--	--	12
DIGGER PINE	2	--	--	--	7	9
WESTERN REDCEDAR	--	--	4	--	--	4
TOTAL	18,678	4,286	22,558	2,402	14,600	62,525
HARDWOODS :						
TANOAK	486	497	1,482	198	1,673	4,336
PACIFIC MADRONE	320	393	417	118	688	1,935
CALIFORNIA BLACK OAK	283	87	71	27	441	908
CANYON LIVE OAK	4	73	44	22	311	454
CALIFORNIA-LAUREL	--	21	66	3	388	479
OREGON WHITE OAK	--	11	1	--	144	156
RED ALDER	--	2	190	5	144	340
BIGLEAF MAPLE	1	6	32	2	98	139
INTERIOR LIVE OAK	--	--	31	--	39	70
VALLEY OAK	--	--	--	--	50	50
GIANT CHINKAPIN	11	13	26	18	6	74
COAST LIVE OAK	--	--	--	--	21	21
EUCALYPTUS	--	--	--	--	32	32
WILLOW	--	--	--	2	1	3
COTTONWOOD <sup>2/</sup>	--	--	--	--	2	2
TOTAL	1,103	1,103	2,359	396	4,037	8,998
ALL SPECIES	19,783	5,389	24,917	2,798	18,640	71,526

-- = none found.

<sup>1/</sup>Totals may be off because of rounding.

<sup>2/</sup>Includes black cottonwood and Fremont cottonwood.

**Table 12—Volume of sawtimber, Scribner rule, on timberland by species and ownership class, north coast resource area, California, January 1, 1985<sup>1/</sup>**

SPECIES	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY		FARMER AND MISCELLANEOUS PRIVATE	ALL OWNERSHIPS
			WITH MILLS	WITHOUT MILLS		
MILLION BOARD FEET						
SOFTWOODS:						
DOUGLAS-FIR	13,073	2,670	6,288	1,000	6,967	29,998
REDWOOD	294	991	12,897	1,091	5,228	20,501
WHITE FIR	2,028	--	19	--	--	2,047
SUGAR PINE	670	18	213	23	66	990
PONDEROSA PINE	587	116	44	--	19	765
GRAND FIR	--	26	171	13	170	380
INCENSE-CEDAR	476	--	--	--	2	478
BISHOP PINE	--	12	10	--	214	236
PORT-ORFORD-CEDAR	145	--	65	--	--	210
SITKA SPRUCE	--	--	24	--	149	174
CALIFORNIA RED FIR	189	--	--	--	--	189
WESTERN HEMLOCK	--	7	77	--	59	143
BREWER SPRUCE	57	--	--	--	--	57
CALIFORNIA TORREYA	--	12	3	4	--	19
PACIFIC YEW	--	--	--	14	--	14
KNOBCONE PINE	--	--	3	--	3	6
MONTEREY PINE	--	--	20	--	--	20
JEFFREY PINE	15	--	--	--	--	15
WESTERN WHITE PINE	7	--	--	--	--	7
DIGGER PINE	2	--	--	--	6	8
WESTERN REDCEDAR	--	--	3	--	--	3
TOTAL	17,543	3,851	19,836	2,146	12,884	56,260
HARDWOODS:						
TANOAK	466	415	1,217	160	1,402	3,660
PACIFIC MADRONE	260	328	348	97	568	1,601
CALIFORNIA BLACK OAK	257	71	59	24	360	771
CANYON LIVE OAK	4	60	36	19	251	370
CALIFORNIA-LAUREL	--	18	54	3	39	393
OREGON WHITE OAK	--	9	1	--	115	124
RED ALDER	--	1	158	4	121	284
BIGLEAF MAPLE	1	5	26	2	81	116
INTERIOR LIVE OAK	--	--	26	--	3	57
VALLEY OAK	--	--	--	--	4	4
GIANT CHINKAPIN	--	11	21	15	5	53
COAST LIVE OAK	--	--	--	--	17	17
EUCALYPTUS	--	--	--	--	27	27
WILLOW	--	--	--	2	1	2
COTTONWOOD <sup>2/</sup>	--	--	--	--	2	2
TOTAL	989	919	1,946	325	3,340	7,519
ALL SPECIES	18,531	4,770	21,782	2,471	16,226	63,779

-- = none found.

<sup>1/</sup>Totals may be off because of rounding.

<sup>2/</sup>Includes black cottonwood and Fremont cottonwood.

**Table 13—Volume of growing stock on timberland by species and diameter class, north coast resource area, California, January 1, 1985<sup>1/</sup>**

SPECIES	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 AND LARGER	ALL CLASSES
	MILLION CUBIC FEET										
<b>SOFTWOODS:</b>											
DOUGLAS-FIR	100	106	125	168	184	219	229	274	1,019	2,799	5,221
REDWOOD	26	57	102	146	168	210	305	335	1,165	1,555	4,069
WHITE FIR	5	9	7	14	16	17	20	14	73	191	365
SUGAR PINE	1	2	3	1	5	1	3	3	19	121	159
PONDEROSA PINE	2	4	4	7	7	6	5	5	38	55	133
GRAND FIR	2	10	7	5	3	4	5	4	17	27	83
INCENSE-CEDAR	1	1	4	2	2	3	4	3	15	48	82
BISHOP PINE	--	--	3	1	3	5	4	6	15	8	46
PORT-ORFORD-CEDAR	1	2	4	5	3	3	6	--	--	18	42
SITKA SPRUCE	2/	3	--	2	--	5	--	5	17	4	36
CALIFORNIA- RED FIR	1	1	1	2	1	3	2	1	10	11	32
WESTERN HEMLOCK	1	--	5	5	2	6	2	4	--	6	32
BREWER SPRUCE	2/	1	1	1	1	2	2	1	1	2	10
CALIFORNIA TORREYA	2/	--	1	--	1	--	--	3	2	--	7
PACIFIC YEW	1	1	1	--	--	--	--	--	1	2	6
KNOBCONE PINE	1	1	1	--	1	2/	--	--	--	--	5
MONTEREY PINE	1	--	--	--	--	--	--	4	--	--	4
JEFFREY PINE	--	--	--	--	--	--	2/	--	1	1	2
WESTERN WHITE PINE	--	2/	2/	2/	2/	2/	2/	--	2/	1	2
DIGGER PINE	2/	2/	2/	2/	2/	2/	--	--	1	2/	2
WESTERN REDCEDAR	--	--	--	--	--	1	--	--	--	--	1
CYPRESS	2/	--	--	--	--	--	--	--	--	--	2/
MOUNTAIN HEMLOCK	2/	2/	2/	2/	2/	--	--	--	--	--	2/
<b>TOTAL</b>	<b>144</b>	<b>197</b>	<b>271</b>	<b>357</b>	<b>396</b>	<b>484</b>	<b>585</b>	<b>660</b>	<b>2,394</b>	<b>4,849</b>	<b>10,340</b>
<b>HARDWOODS:</b>											
TANOAK	112	149	147	147	140	146	126	98	252	120	1,438
PACIFIC MADRONE	45	66	54	82	67	75	49	52	138	89	716
CALIFORNIA BLACK OAK	6	23	26	37	34	35	32	30	69	51	345
CANYON LIVE OAK	13	19	30	30	41	23	18	16	53	23	266
CALIFORNIA-LAUREL	18	29	22	23	23	26	18	10	24	12	204
OREGON WHITE OAK	19	29	26	19	15	5	8	5	17	6	148
RED ALDER	10	24	24	14	13	11	7	4	14	1	121
BIGLEAF MAPLE	7	8	8	4	6	5	8	6	13	8	72
INTERIOR LIVE OAK	1	--	2	4	4	4	2	3	5	5	31
VALLEY OAK	2	2	4	2	--	1	1	--	6	7	26
GIANT CHINKAPIN	2/	3	2	4	2	2/	2/	3	4	2	21
COAST LIVE OAK	2/	2/	1	2	--	1	--	3	5	1	14
EUCALYPTUS	2/	1	1	--	--	2	--	--	4	--	8
WILLOW	--	5	--	--	1	--	1	--	--	--	7
WHITE ALDER	2/	2/	2/	2/	2/	2/	2/	21	1	2/	3
COTTONWOOD <sup>3/</sup>	2/	2/	--	1	--	--	--	--	--	--	2
BUCKEYE	2/	--	--	--	--	--	--	--	--	--	2/
BLUE OAK	2/	--	--	--	--	--	--	--	--	--	2/
UNCLASSIFIED HARDWOODS	--	1	--	--	--	--	--	--	--	--	1
<b>TOTAL</b>	<b>237</b>	<b>361</b>	<b>346</b>	<b>370</b>	<b>347</b>	<b>335</b>	<b>270</b>	<b>229</b>	<b>605</b>	<b>324</b>	<b>3,423</b>
<b>ALL SPECIES</b>	<b>380</b>	<b>558</b>	<b>617</b>	<b>727</b>	<b>743</b>	<b>819</b>	<b>854</b>	<b>889</b>	<b>2,999</b>	<b>5,173</b>	<b>13,763</b>

-- = none found.

<sup>1/</sup>Totals may be off because of rounding.

<sup>2/</sup>Less than 500,000 cubic feet.

<sup>3/</sup>Includes black cottonwood and Fremont cottonwood.

**Table 14—Volume of sawtimber, International ¼-inch rule, on timberland by species and diameter class, north coast resource area, California, January 1, 19853**

SPECIES	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 AND LARGER	ALL CLASSES
	MILLION BOARD FEET								
<b>SOFTWOODS:</b>									
DOUGLAS-FIR	627	937	1,081	1,314	1,392	1,719	6,700	18,749	32,516
REDWOOD	390	671	860	1,120	1,720	1,911	6,862	9,992	23,527
WHITE FIR	51	93	104	118	132	94	492	1,230	2,317
SUGAR PINE	17	6	31	5	20	16	123	868	1,084
PONDEROSA PINE	21	41	39	37	36	31	262	392	a59
GRAND FIR	32	24	20	20	27	27	111	173	435
INCENSE-CEDAR	24	11	11	21	24	17	98	319	527
BISHOP PINE	13	5	14	31	25	30	98	54	271
PORT-ORFORD-CEDAR	29	23	15	19	32	--	--	123	242
SITKA SPRUCE	--	8	--	29	--	29	107	27	199
CALIFORNIA RED FIR	4	12	10	21	10	10	67	73	204
WESTERN HEMLOCK	23	28	9	36	9	24	--	41	171
BREWER SPRUCE	9	4	5	11	11	4	9	11	63
CALIFORNIA TORREYA	--	--	2	--	--	14	7	--	22
PACIFIC YEW	--	--	--	--	--	--	6	10	16
KNOBCONE PINE	5	--	3	--	--	--	--	--	8
MONTEREY PINE	--	--	--	--	--	23	--	--	23
JEFFREY PINE	--	--	--	--	--	--	5	10	17
WESTERN WHITE PINE	1	1	1	1	1	--	1	6	12
DIGGER PINE	--	--	--	--	--	--	9	--	9
WESTERN REDCEDAR	--	--	--	4	--	--	--	--	4
<b>TOTAL</b>	<b>1,246</b>	<b>1,865</b>	<b>2,205</b>	<b>2,785</b>	<b>3,439</b>	<b>3,951</b>	<b>14,957</b>	<b>32,078</b>	<b>62,525</b>
<b>HARDWOODS:</b>									
TANOAK	--	554	551	603	504	408	1,130	582	4,336
PACIFIC MADRONE	--	300	236	290	196	197	459	255	1,935
CALIFORNIA BLACK OAK	--	109	111	110	97	99	215	167	908
CANYON LIVE OAK	--	62	98	45	38	37	117	56	454
CALIFORNIA-LAUREL	--	77	72	99	60	36	87	49	479
OREGON WHITE OAK	--	47	32	11	20	6	29	10	156
REO ALDER	--	61	68	65	41	24	79	2	340
BIGLEAF MAPLE	--	8	22	4	18	25	45	17	133
INTERIOR LIVE OAK	--	8	14	6	5	8	10	19	70
VALLEY OAK	--	7	--	4	3	--	16	19	50
GIANT CHINKAPIN	--	19	8	1	1	12	24	9	74
COAST LIVE OAK	--	9	--	1	--	3	8	1	21
EUCALYPTUS	--	--	--	9	--	--	23	--	32
WILLOW	--	--	2	--	1	--	--	--	3
COTTONWOOD <sup>2/</sup>	--	2	--	--	--	--	--	--	2
<b>TOTAL</b>	<b>--</b>	<b>1,262</b>	<b>1,213</b>	<b>1,250</b>	<b>987</b>	<b>856</b>	<b>2,243</b>	<b>1,188</b>	<b>8,998</b>
<b>ALL SPECIES</b>	<b>1,246</b>	<b>3,126</b>	<b>3,418</b>	<b>4,035</b>	<b>4,426</b>	<b>4,808</b>	<b>17,199</b>	<b>33,264</b>	<b>71,526</b>

-- = none found.

<sup>1/</sup>Totals may be off because of rounding.

<sup>2/</sup>Includes black cottonwood and Fremont cottonwood.

**Table 15—Volume of sawtimber, Scribner rule, on timberland by species and diameter class, north coast resource area, California, January 1, 1985<sup>1/</sup>**

SPECIES	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 AND LARGER	ALL CLASSES
	MILLION BOARD FEET								
<b>SOFTWOODS:</b>									
DOUGLAS-FIR	511	787	932	1,144	1,219	1,531	6,133	17,741	29,998
REDWOOD	287	521	691	916	1,438	1,618	5,556	9,474	20,501
WHITE FIR	45	81	91	104	115	83	435	1,092	2,047
SUGAR PINE	14	4	27	4	16	14	109	803	990
PONDEROSA PINE	17	32	33	32	31	28	236	356	765
GRAND FIR	24	19	17	17	24	23	99	158	380
MCCENSE-CEDAR	22	9	10	18	21	15	91	292	478
BISHOP PINE	10	4	12	26	22	26	87	50	236
PORT-ORFORD-CEDAR	26	18	12	15	27	--	--	111	210
SITKA SPRUCE	--	6	--	24	--	25	95	24	174
CALIFORNIA RED FIR	3	11	8	18	9	9	61	68	189
WESTERN HEKOCK	17	22	7	30	8	21	--	37	143
BREWER SPRUCE	7	4	4	10	10	4	8	10	57
CALIFORNIA TORREYA	--	--	1	--	--	12	6	--	19
PACIFIC YEW	--	--	--	--	--	--	5	9	14
NOBSCONE PINE	3	--	3	--	--	--	--	--	6
NONTEREY PINE	--	--	--	--	--	20	--	--	20
JEFFREY PINE	--	--	--	--	--	--	4	10	15
WESTERN WHITE PINE	--	--	--	--	--	--	1	5	7
DIGGER PINE	--	--	--	--	--	--	8	--	8
WESTERN REDCEDAR	--	--	--	3	--	--	--	--	3
TOTAL	989	1,521	1,847	2,362	2,939	3,429	12,934	30,240	56,260
<b>HARDWOODS:</b>									
TANOAK	--	440	444	498	421	342	985	529	3,660
PACIFIC MADRONE	--	247	194	242	163	161	378	214	1,601
CALIFORNIA BLACK OAK	--	86	91	92	82	85	186	149	771
CANYON LIVE OAK	--	47	77	36	31	31	99	48	370
CALIFORNIA-LAUREL	--	59	57	81	49	30	74	43	393
OREGON WHITE OAK	--	36	25	9	17	5	24	8	124
RED ALDER	--	48	55	55	35	21	69	2	284
BIGLEAF MAPLE	--	6	18	3	14	21	39	14	116
INTERIOR LIVE OAK	--	6	11	4	4	7	8	16	57
VALLEY OAK	--	6	--	3	3	--	14	16	41
GIANT CHINKAPIN	--	14	6	--	--	10	15	7	53
COAST LIVE OAK	--	7	--	--	--	2	7	1	17
EUCALYPTUS	--	--	--	8	--	--	20	--	27
WILLOW	--	--	2	--	1	--	--	--	2
COTTONWOOD <sup>2/</sup>	--	2	--	--	--	--	--	--	2
TOTAL	--	1,005	981	1,032	818	713	1,919	1,048	7,519
ALL SPECIES	989	2,526	2,827	3,395	3,758	4,142	14,852	31,287	63,779

-- = none found.

<sup>1/</sup>Totals may be off because of rounding.

<sup>2/</sup>Includes black cottonwood and Fremont cottonwood.

**Table 16—Gross annual growth of growing stock and sawtimber on timberland by ownership class and by softwoods and hardwoods, north coast resource area, California, 1984.<sup>1/</sup>**

OWNERSHIP CLASS	AVERAGE VOLUME	SOFTWOODS	HARDWOODS	ALL SPECIES
	<u>CUBIC FEET</u> <u>PER ACRT</u>	<u>THOUSAND CUBIC FEET</u>		
GROWING STOCK:				
NATIONAL FOREST	79	37,800	11,100	48,900
OTHER PUBLIC	111	16,008	13,112	29,120
FOREST INDUSTRY WITH MILL	132	116,666	36,272	152,939
FOREST INDUSTRY WITHOUT MILL	122	11,190	5,968	17,158
FARMER AND MISCELLANEOUS PRIVATE	93	75,843	56,687	132,530
ALL OWNERSHIPS	105	257,506	123,140	380,647
	<u>BOARD FEET</u> <u>PER ACRT</u>	<u>THOUSAND BOARD FEET</u>		
SAWTIMBER (INTERNATIONAL 1/4-INCH RULE):				
NATIONAL FOREST	456	254,000	28,000	282,000
OTHER PUBLIC	523	103,761	33,676	137,437
FOREST INDUSTRY WITH MILL	677	684,801	100,286	785,087
FOREST INDUSTRY WITHOUT MILL	547	62,754	14,372	77,126
FARMER AND MISCELLANEOUS PRIVATE	444	482,329	152,210	634,540
ALL OWNERSHIPS	530	1,587,645	328,544	1,916,189
SAWTIMBER (SCRIBNER RULE):				
NATIONAL FOREST	430	242,000	24,000	267,000
OTHER PUBLIC	465	93,100	29,116	122,216
FOREST INDUSTRY WITH MILL	599	609,928	84,374	694,302
FOREST INDUSTRY WITHOUT MILL	488	56,730	12,061	68,791
FARMER AND MISCELLANEOUS PRIVATE	387	426,235	127,634	553,870
ALL OWNERSHIPS	472	1,427,998	277,185	1,705,179

<sup>1/</sup>Totals may be off because of rounding.

**Table 17—Gross annual growth of growing stock on timberland by species and ownership class, north coast resource area, California, 19843**

SPECIES	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY		FARMER AND MISCELLANEOUS PRIVATE	ALL OWNERSHIPS
			WITH MILLS	WITHOUT HILLS		
THOUSAND CUBIC FEET						
SOFTWOODS:						
DOUGLAS-FIR	26,600	8,423	47,157	5,428	42,098	129,706
REWOOD	--	6,507	63,262	5,186	27,510	102,465
WHITE FIR	5,700	--	209	--	--	5,909
SUGAR PINE	1,400	54	551	171	284	2,460
PONDEROSA PINE	1,200	684	986	--	314	3,184
GRAND FIR	--	133	2,712	175	1,203	4,223
INCENSE-CEDAR	900	--	--	--	12	912
BISHOP PINE	--	46	185	--	1,242	1,473
PORT-ORFORD-CEDAR	600	--	243	--	--	843
SITKA SPRUCE	--	--	302	--	2,357	2,659
CALIFORNIA RED FIR	1,200	--	--	--	--	1,200
WESTERN HEMLOCK	--	22	900	--	605	1,527
BREWER SPRUCE	200	--	--	--	--	200
CALIFORNIA TORREYA	--	139	33	30	17	219
PACIFIC YEW	--	--	11	86	4	101
KNOBCONE PINE	--	--	35	--	178	213
MONTEREY PINE	--	--	44	114	--	158
DIGGER PINE	--	--	--	--	19	19
WESTERN REDCEDAR	--	--	8	--	--	8
CYPRESS	--	--	29	--	--	29
TOTAL	37,800	16,008	116,666	11,190	75,843	257,506
HARDWOODS:						
TANOAK	4,100	6,737	24,607	4,137	21,311	60,891
PACIFIC MADRONE	2,200	3,464	5,542	1,133	13,120	25,459
CALIFORNIA BLACK OAK	2,400	1,081	608	96	4,230	3,415
CANYON LIVE OAK	1,400	645	518	146	4,091	6,799
CALIFORNIA-LAUREL	--	580	1,116	58	5,365	7,118
OREGON WHITE OAK	400	304	59	--	3,656	4,419
RED ALDER	--	167	2,992	90	2,122	5,371
BIGLEAF MAPLE	400	81	240	186	816	1,722
INTERIOR LIVE OAK	--	--	190	--	497	687
VALLEY OAK	--	11	--	--	744	755
GIANT CHINKAPIN	100	42	163	97	165	567
COAST LIVE OAK	--	--	--	--	318	318
EUCALYPTUS	--	--	--	--	92	92
WILLOW	--	--	200	26	33	259
WHITE ALDER	100	--	--	--	--	100
COTTONWOOD <u>2/</u>	--	--	--	--	103	103
BUCKEYE	--	--	--	--	16	16
BLUE OAK	--	--	--	--	10	10
UNCLASSIFIED HARDWOODS	--	--	38	--	--	38
TOTAL	11,100	13,112	36,272	5,968	56,687	123,140
ALL SPECIES	48,900	29,120	152,939	17,158	132,530	380,647

-- = none found.

1/Totals may be off because of rounding.

2/Includes black cottonwood and Fremont cottonwood.

**Table 18—Gross annual growth of sawtimber, International ¼-inch rule, on timberland by species and ownership class, north coast resource area, California, 1984<sup>1/</sup>**

SPECIES	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY		FARMER AND MISCELLANEOUS PRIVATE	ALL OWNERSHIPS
			WITH MILLS	WITHOUT MILLS		
THOUSAND BOARD FEET						
SOFTWOODS:						
DOUGLAS-FIR	182,000	56,581	261,500	27,607	265,892	793,580
REDWOOD	--	40,370	391,270	32,281	177,020	640,942
WHITE FIR	36,000	--	667	--	--	36,667
SUGAR PINE	8,000	380	3,463	1,126	1,987	14,957
PONDEROSA PINE	8,000	4,335	3,341	--	3,577	19,253
GRAND FIR	--	923	13,901	1,148	7,351	23,323
KINCENSE-CEDAR	6,000	--	--	--	65	6,065
BISHOP PINE	--	311	1,197	--	8,354	9,362
PORT-ORFORD-CEDAR	4,000	--	1,316	--	--	5,316
SITKA SPRUCE	--	--	2,212	--	14,142	16,354
CALIFORNIA RED FIR	9,000	--	--	--	--	9,000
WESTERN HEMLOCK	--	167	5,398	--	3,558	3,124
BREWER SPRUCE	1,000	--	--	--	--	1,000
CALIFORNIA TORREYA	--	693	51	83	--	827
PACIFIC YEW	--	--	--	508	--	508
KNOBCONE PINE	--	--	120	--	260	379
MONTEREY PINE	--	--	320	--	--	320
DIGGER PINE	--	--	--	--	123	123
WESTERN REDCEDAR	--	--	46	--	--	46
TOTAL	254,000	103,761	684,801	62,754	482,329	1,587,645
HARDWOODS:						
TANOAK	12,000	16,384	68,914	8,863	66,636	172,798
PACIFIC MADRONE	8,000	10,603	12,660	3,727	26,585	61,575
CALIFORNIA BLACK OAK	8,000	1,980	1,617	347	12,078	24,022
CANYON LIVE OAK	--	1,408	1,140	369	12,194	15,112
CALIFORNIA-LAUREL	--	718	2,036	156	15,721	18,631
OREGON WHITE OAK	--	283	23	--	6,511	6,817
RED ALDER	--	1,853	11,704	280	6,024	19,861
BIGLEAF MAPLE	--	172	560	57	2,125	2,915
INTERIOR LIVE OAK	--	--	710	--	1,119	1,829
VALLEY OAK	--	--	--	--	1,463	1,463
GIANT CHINKAPIN	--	273	921	516	239	1,950
COAST LIVE OAK	--	--	--	--	710	710
EUCALYPTUS	--	--	--	--	593	593
WILLOW	--	--	--	57	31	88
COTTONWOOD <sup>2/</sup>	--	--	--	--	181	181
TOTAL	28,000	33,676	100,286	14,372	152,210	328,544
ALL SPECIES	282,000	137,437	785,087	77,126	634,540	1,916,189

-- = none found.

<sup>1/</sup>Totals may be off because of rounding.

<sup>2/</sup>Includes black cottonwood and Fremont cottonwood.

**Table 19—Gross annual growth of sawtimber, Scribner rule, on timberland by species and ownership class, north coast resource area, California, 1984<sup>1/</sup>**

SPECIES	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY		FARMER AND MISCELLANEOUS PRIVATE	ALL OWNERSHIPS
			WITH MILLS	WITHOUT MILLS		
THOUSAND BOARD FEET						
SOFTWOODS:						
DOUGLAS-FIR	176,000	51,527	237,298	25,460	238,111	728,396
REDWOOD	--	35,419	344,377	28,724	152,690	561,210
WHITE FIR	32,000	--	607	--	--	32,607
SUGAR PINE	7,000	356	3,066	1,000	1,931	13,354
PONDEROSA PINE	7,000	3,896	2,792	--	2,764	16,452
GRAND FIR	--	837	12,400	1,001	6,809	21,048
KINCENSE-CEDAR	6,000	--	--	--	53	6,053
BISHOP PINE	--	288	1,046	--	7,609	8,943
PORT-ORFORD-CEDAR	4,000	--	1,118	--	--	5,118
SITKA SPRUCE	--	--	2,110	--	12,828	14,938
CALIFORNIA RED FIR	9,000	--	--	--	--	9,000
WESTERN HEMLOCK	--	162	4,629	--	3,128	7,918
BREWER SPRUCE	1,000	--	--	--	--	1,000
CALIFORNIA TORREYA	--	614	45	69	--	728
PACIFIC YEW	--	--	--	476	--	476
KNOBCONE PINE	--	--	104	--	204	308
PIONTEREY PINE	--	--	298	--	--	298
DIGGER PINE	--	--	--	--	109	109
WESTERN REDCEDAR	--	--	39	--	--	39
TOTAL	242,000	93,100	609,928	56,730	426,235	1,427,998
HARDWOODS:						
TANOAK	12,000	14,254	57,434	7,263	56,356	147,307
PACIFIC MADRONE	6,000	9,295	11,116	3,224	22,115	51,750
CALIFORNIA BLACK OAK	6,000	1,681	1,385	325	10,072	19,463
CANYON LIVE OAK	--	1,223	988	322	9,863	12,396
CALIFORNIA-LAUREL	--	628	1,755	130	13,251	15,764
OREGON WHITE OAK	--	230	18	--	5,161	5,410
RED ALDER	--	1,402	9,788	235	5,331	16,755
BIGLEAF MAPLE	--	152	476	48	1,832	2,508
INTERIOR LIVE OAK	--	--	604	--	924	1,528
VALLEY OAK	--	--	--	--	1,251	1,251
GIANT CHINKAPIN	--	251	811	468	199	1,729
COAST LIVE OAK	--	--	--	--	577	577
EUCALYPTUS	--	--	--	--	534	534
WILLOW	--	--	--	46	24	70
COTTONWOOD <sup>2/</sup>	--	--	--	--	145	145
TOTAL	24,000	29,116	84,374	12,061	127,634	277,185
ALL SPECIES	266,000	122,216	694,302	68,791	553,870	1,705,179

-- = none found.

<sup>1/</sup>Totals may be off because of rounding.

<sup>2/</sup>Includes black cottonwood and Fremont cottonwood.

**Table 20—Average annual mortality of growing stock on timberland by species and ownership class, north coast resource area, California, 1984<sup>1/</sup>**

SPECIES	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY		FARMER AND MISCELLANEOUS PRIVATE	ALL OWNERSHIPS
			WITH MILLS	WITHOUT MILLS		
THOUSAND CUBIC FEET						
SOFTWOODS :						
DOUGLAS-FIR	5,600	3,551	8,030	1,261	8,757	27,199
REDWOOD	--	91	739	72	319	1,220
WHITE FIR	1,500	--	28	--	--	1,528
SUGAR PINE	300	16	269	29	75	690
PONDEROSA PINE	400	141	64	--	32	637
GRAND FIR	--	31	281	15	214	541
INCENSE-CEDAR	--	--	--	--	4	4
BISHOP PINE	--	15	11	--	268	294
PORT-ORFORD-CEDAR	--	--	107	--	--	107
SITKA SPRUCE	--	--	26	--	192	218
CALIFORNIA RED FIR	300	--	--	--	--	300
WESTERN HEMLOCK	--	7	102	--	83	192
CALIFORNIA TORREYA	--	18	9	13	4	43
PACIFIC YEW	--	--	2	20	2	23
KNOBCOKE PINE	--	--	7	--	19	26
MONTEREY PINE	--	--	22	3	--	25
DIGGER PINE	--	--	--	--	6	6
WESTERN REDCEDAR	--	--	4	--	--	4
CYPRESS	--	--	2	--	--	2
TOTAL	8,100	3,871	9,701	1,412	9,974	33,059
HARDWOODS :						
TANOAK	--	978	3,154	467	3,386	7,985
PACIFIC MADRONE	700	297	337	93	574	2,001
CALIFORNIA BLACK OAK	1,000	88	65	18	419	1,590
CANYON LIVE OAK	--	71	44	20	345	480
CALIFORNIA LAUREL	--	16	62	2	295	375
OREGON WHITE OAK	--	14	2	--	210	226
RED ALDER	--	1	125	3	81	210
BIGLEAF MAPLE	--	4	32	2	80	118
INTERIOR LIVE OAK	--	--	23	--	49	72
VALLEY OAK	--	--	--	--	53	53
GIANT CHINKAPIN	--	6	13	10	7	36
COAST LIVE OAK	--	--	--	--	31	31
EUCALYPTUS	--	--	--	--	14	14
WILLOW	--	--	--	3	2	5
COTTONWOOD <sup>2/</sup>	--	--	--	--	1	1
TOTAL	1,700	1,474	3,858	617	5,547	13,196
ALL SPECIES	9,800	5,346	13,559	2,029	15,521	46,255

-- = none found.

<sup>1/</sup>Totals may be off because of rounding.

<sup>2/</sup>Includes black cottonwood and Fremont cottonwood.

**Table 21—Average annual mortality of sawtimber, International ¼-inch rule, on timberland by species and ownership class, north coast resource area, California, 19843**

SPECIES	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY		FARMER AND MISCELLANEOUS PRIVATE	ALL OWNERSHIPS
			WITH MILLS	WITHOUT MILLS		
<u>THOUSAND BOARD FEET</u>						
SOFTWOODS:						
DOUGLAS-FIR	36,000	22,453	47,770	8,011	52,598	166,830
REDWOOD	--	493	3,853	383	1,630	6,359
WHITE FIR	9,000	--	130	--	--	9,130
SUGAR PINE	2,000	109	1,806	175	490	4,579
PONDEROSA PINE	3,000	839	291	--	142	4,271
GRAND FIR	--	191	1,326	83	1,284	2,884
INCENSE-CEDAR	--	--	--	--	20	20
BISHOP PINE	--	87	60	--	1,613	1,761
PORT-ORFORD-CEDAR	--	--	514	--	--	514
SITKA SPRUCE	--	--	172	--	1,036	1,208
CALIFORNIA RED FIR	1,000	--	--	--	--	1,000
WESTERN HEMLOCK	--	49	525	--	457	1,031
CALIFORNIA TORREYA	--	79	19	35	--	133
PACIFIC YEW	--	--	--	103	--	103
NOBCCONE PINE	--	--	20	--	27	47
MONTEREY PINE	--	--	142	--	--	142
DIGGER PINE	--	--	--	--	32	32
WESTERN REDCEDAR	--	--	18	--	--	18
TOTAL	51,000	24,300	56,646	8,790	59,328	200,064
HARDWOODS:						
TANOAK	--	3,736	11,146	1,490	12,579	28,951
PACIFIC MADRONE	--	942	1,000	282	1,652	3,877
CALIFORNIA BLACK OAK	5,000	208	171	64	1,058	6,501
CANYON LIVE OAK	--	175	105	53	745	1,079
CALIFORNIA-LAUREL	--	51	158	8	932	1,150
OREGON WHITE OAK	--	26	2	--	345	374
RED ALDER	--	4	455	12	345	817
BIGLEAF MAPLE	--	15	76	6	235	332
INTERIOR LIVE OAK	--	--	75	--	93	168
VALLEY OAK	--	--	--	--	119	119
GIANT CHINKAPIN	--	31	62	43	14	150
COAST LIVE OAK	--	--	--	--	51	51
EUCALYPTUS	--	--	--	--	77	77
WILLOW	--	--	--	5	2	7
COTTONWOOD <u>2/</u>	--	--	--	--	5	5
TOTAL	5,000	5,190	13,251	1,964	18,254	43,659
ALL SPECIES	56,000	29,490	69,897	10,753	77,582	243,723

-- = none found.

1/Totals may be off because of rounding.

2/Includes black cottonwood and Fremont cottonwood.

**Table 22—Average annual mortality of sawtimber, Scribner rule, on timberland by species and ownership class, north coast resource area, California, 19843**

SPECIES	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY		FARMER AND MISCELLANEOUS PRIVATE	ALL OWNERSHIPS
			WITH MILLS	WITHOUT MILLS		
THOUSAND BOARD FEET						
SOFTWOODS :						
DOUGLAS-FIR	34,000	20,660	43,042	7,372	47,135	152,210
REDWOOD	--	407	3,142	315	1,321	5,184
WHITE FIR	9,000	--	113	--	--	9,113
SUGAR PINE	2,000	99	1,694	151	458	4,401
PONDEROSA PINE	3,000	734	235	--	120	4,088
GRAND FIR	--	165	1,141	69	1,156	2,530
INCENSE-CEDAR	--	--	--	--	16	16
BISHOP PINE	--	78	50	--	1,409	1,536
PORT-ORFORD-CEDAR	--	--	420	--	--	420
SITKA SPRUCE	--	--	157	--	897	1,054
CALIFORNIA RED FIR	1,000	--	--	--	--	1,000
WESTERN HEMLOCK	--	45	433	--	394	871
CALIFORNIA TORREYA	--	67	16	28	--	111
PACIFIC YEW	--	--	--	92	--	92
KNOBCONE PINE	--	--	16	--	19	36
MONTEREY PINE	--	--	125	--	--	125
DIGGER PINE	--	--	--	--	27	27
WESTERN REDCEDAR	--	--	15	--	--	15
TOTAL	49,000	22,254	50,598	8,027	52,950	182,828
HARDWOODS:						
TANOAK	--	3,122	9,151	1,203	10,546	24,022
PACIFIC MADRONE	--	788	834	233	1,362	3,218
CALIFORNIA BLACK OAK	3,000	169	142	58	865	4,233
CANYON LIVE OAK	--	145	87	45	602	879
CALIFORNIA-LAUREL	--	43	130	6	765	944
OREGON WHITE OAK	--	21	2	--	275	297
RED ALDER	--	3	378	10	291	682
BIGLEAF MAPLE	--	13	63	4	195	276
INTERIOR LIVE OAK	--	--	62	--	74	136
VALLEY OAK	--	--	--	--	98	98
GIANT CHINKAPIN	--	27	51	37	11	126
COAST LIVE OAK	--	--	--	--	40	40
EUCALYPTUS	--	--	--	--	66	66
WILLOW	--	--	--	4	2	6
COTTONWOOD <sup>2/</sup>	--	--	--	--	4	4
TOTAL	3,000	4,331	10,900	1,600	15,196	35,027
ALL SPECIES	52,000	26,584	61,498	9,627	68,146	217,855

-- = none found.

<sup>1/</sup>Totals may be off because of rounding.

<sup>2/</sup>Includes black cottonwood and Fremont cottonwood.

**Table 23—Timber harvest by county, north coast resource area, California, 1948-84**

YEAR	DEL NORTE	HUCIUOLDT	MENDOCINO	SONOMA	TOTAL
<u>THOUSAND BOARD FEET, LOCAL SCALE <sup>1/</sup></u>					
1348	34,472	063,130	315,631	40,480	1,253,721
1949	61,362	819,783	364,772	40,378	1,294,295
1950	141,996	061,685	509,915	55,253	1,568,049
1951	174,452	982,660	752,064	76,609	1,986,685
1952	203,835	1,060,887	805,437	75,677	2,145,836
1353	288,913	1,324,405	927,191	04,321	2,624,830
1954	240,194	1,264,122	993,734	133,887	2,631,937
1955	305,742	1,293,346	1,030,321	213,455	2,847,064
1956	234,780	1,249,618	990,075	212,058	2,686,531
1957	201,110	1,211,925	791,690	208,365	2,413,160
1958	170,756	1,521,650	795,632	109,417	2,677,455
1959	218,442	1,570,108	623,121	257,428	2,669,099
1960	336,824	1,135,416	635,473	206,446	2,314,159
1961	197,450	1,264,964	683,262	140,754	2,286,430
1962	189,009	1,446,944	726,596	157,012	2,519,561
1963	307,395	1,247,281	634,145	151,022	2,339,043
1964	350,194	1,367,833	611,328	118,796	2,448,156
1965	319,211	1,301,296	540,226	116,676	2,277,409
1966	240,540	1,220,336	486,948	80,745	2,028,569
1967	303,847	1,134,383	493,473	59,318	1,991,021
1968	302,015	1,225,648	560,985	76,936	2,165,584
1969	269,802	1,165,685	525,123	77,833	2,038,503
1970	210,467	1,006,072	478,471	54,398	1,749,408
1971	236,028	1,017,805	491,336	67,180	1,812,349
1972	240,166	1,087,855	540,345	66,414	1,934,780
1973	216,882	1,095,911	529,059	66,135	1,911,857
1974	229,770	1,023,604	519,279	76,542	1,849,195
1975	208,886	955,313	490,542	68,432	1,723,173
1976	242,548	959,154	573,106	50,117	1,324,925
1977	265,392	903,527	617,393	33,248	1,819,560
1978:					
Private	314,050	518,492	412,713	27,535	1,272,790
Public	40,961	69,006	41,940	--	151,937
Total	355,011	587,570	454,653	27,535	1,424,777
1979:					
Private	240,154	399,983	309,333	30,947	988,423
Public	45,361	64,984	24,605	6	134,956
Total	293,515	464,967	333,944	30,953	1,123,379
1980:					
Private	201,797	342,893	322,617	22,991	890,303
Public	27,631	82,331	20,583	--	130,545
Total	229,428	425,229	343,200	22,991	1,020,848
1981:					
Private	163,151	335,544	294,357	21,194	014,246
Public	17,786	72,933	52,548	3,103	146,420
Total	180,937	408,527	346,905	24,297	960,666
1982:					
Private	100,392	330,920	278,301	15,381	733,002
Public	7,322	30,962	31,935	--	70,219
Total	115,714	361,090	310,236	15,381	803,221
1933:					
Private	144,945	414,520	350,721	23,714	933,900
Public	12,406	74,915	35,993	--	123,394
Total	157,431	489,435	386,714	23,714	1,057,294
1984:					
Private	174,472	405,494	412,357	17,783	1,010,106
Public	24,950	64,161	36,954	--	126,065
Total	199,422	469,655	449,311	17,793	1,136,171

-- = none found.

<sup>1/</sup>Various log rules were used in California; no attempt was made to convert the data to a common base; however, the majority of timber industry companies in the north coast resource area use the short-log Scribner rule.

Source: 1948-77 "Production of California Timber Operators," State Forest Notes published annually by the California Department of Forestry; 1978-84 "California Timber Harvest by County," Annual Report prepared by the California State Board of Equalization, Timber Tax Division.

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## Metric Equivalents

1,000 acres = 404.7 hectares  
1,000 cubic feet = 28.3 cubic meters  
1 cubic foot per acre = 0.07 cubic meter per hectare  
1 inch = 2.54 centimeters  
1 foot = 30.48 centimeters  
1 mile = 1 609.3 meters

## Literature Cited

**Cochran, W.G.** Sampling techniques. 2d ed. New York: John Wiley & Sons; **1963**. 413 p.

**Little, Elbert L., Jr.** Checklist of United States trees (native and naturalized). Agric. Handb. 541. Washington, DC: U.S. Department of Agriculture; **1978**. 375 p.

**Lloyd, J.D., Jr.; Moen, Joel; Bolsinger, Charles L.** Timber resource statistics of the north coast resource area of California. Resour. Bull. PNW-131. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station; 1986. 32 p.

This report is one of five that provide timber resource statistics for 57 of the 58 counties in California (San Francisco is excluded). This report presents statistics from a 1981-84 inventory of the timber resources of Del Norte, Humboldt, Mendocino, and Sonoma Counties. Tables presented are of forest area and of timber volume, growth, and mortality.

The north coast resource area contains an estimated 3.6 million acres of timberland and 13.8 billion cubic feet of standing timber. This is 22 percent of the total area of timberland in the State and 25 percent of the total volume.

Keywords: Forest surveys, statistics (forest), timber resources, resources (forest), California.

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