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# Timber Resource Statistics for Timberland Outside National Forests in Eastern Oregon

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## **Abstract**

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This report summarizes a 1992 timber resource inventory of timberland outside National Forests in eastern Oregon. The report presents statistical tables of timberland area, timber volume, growth, mortality, and harvest. It also displays tables of revised 1986-87 timber resource statistics for timberland outside National Forests; the 1992 and 1986-87 tables may be compared to get valid estimates of change. Additionally, three supplemental tables provide a summary of changes between 1986-87 and 1992 in the timberland area and timber volume outside National Forests.

**Keywords:** Forest surveys, statistics (forest), timber resources, resources (forest), Oregon (eastern).

## **Summary**

Eastern Oregon has an estimated 2,960,500 acres classified as timberland outside National Forests. Within this timberland area, net volume of growing-stock poletimber and sawtimber is an estimated 4.4 billion cubic feet. Nine percent of this volume is owned by other public owners, 41 percent, by forest industry owners, and 50 percent, by other private owners. For timberland outside National Forests, gross annual growth of growing-stock poletimber and sawtimber is an estimated 123 million cubic feet for 1991, and average annual mortality for this timber is an estimated 43 million cubic feet. Timberland area outside National Forests was an estimated 2,977,600 acres in the previous (1986-87) inventory, and at that time, net volume of growing-stock poletimber and sawtimber was 4.7 billion cubic feet on this acreage.

## **Preface**

Forest Inventory and Analysis (FIA) 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 Research and Experiment Stations, conduct forest resource inventories throughout the 50 States. The Inventory and Economics Research, Development and Application Program of the Pacific Northwest Research Station at Portland, Oregon, is responsible for FIA inventories in Alaska, California, Hawaii, Oregon, and Washington.

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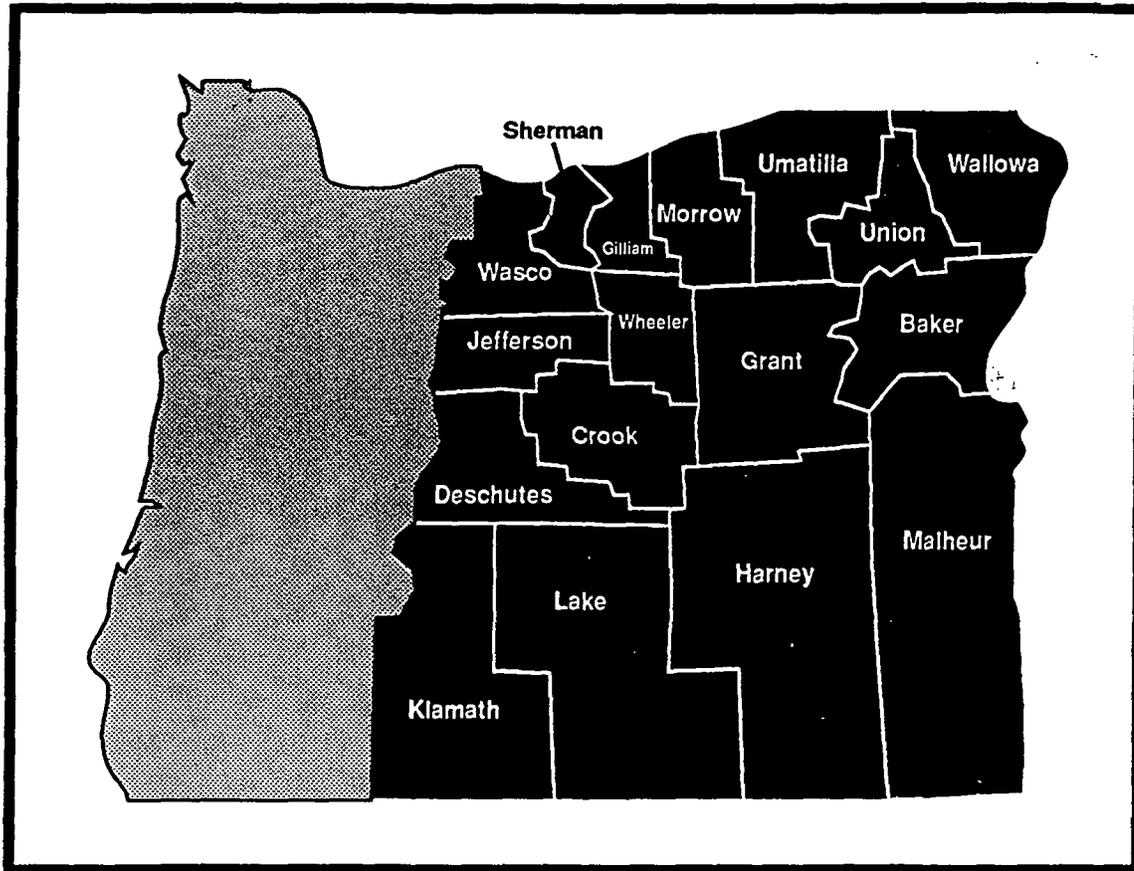
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## Introduction

This report presents statistics from a 1992 inventory of timber resources on timberland outside National Forests in the 17 counties<sup>1</sup> of eastern Oregon. The inventory responds to demand for up-to-date statistics that describe the current status and recent changes in the timber resources on these timberlands. The inventory is a cooperative effort by the Inventory and Economics Research, Development and Application Program (I&E) of the Pacific Northwest Research Station and the Oregon Department of Forestry. As part of the effort, an analysis of private timberlands, exclusive of Native American lands, is planned for release in 1994 by the Oregon Department of Forestry. This analysis will be based, in large part, on data acquired in this inventory and in the previous I&E inventory of eastern Oregon (Gedney and others 1989).

The Pacific Northwest Research Station first inventoried eastern Oregon in 1935-37. The Station reinventoried eastern Oregon in 1953-1969, in 1977, and in 1986-87. The 1986-87 inventory sampled all forest lands (timberland and other forest lands) outside National Forests. In the current inventory, field crews revisited all permanent I&E plots (410) that were classified as timberland outside National Forests in the 1986-87 inventory.

Tables 1 through 17 present timber resource statistics for the 1992 inventory. Tables 1 through 7, 10 through 13, and 15 through 17 are similar in format to those presented by Gedney and others (1989) for the 1986-87 inventory. Tables 8, 9, and 14 provide timber resource statistics not presented by Gedney and others (1989) but that have been requested by users of I&E inventory data. With the exceptions of tables 1, 5, 15, 16, and 17, corresponding 1986-87 tables are displayed. The user may compare any of these 1986-87 tables with its corresponding current table to get valid estimates of net change for the period between the 1986-87 and the 1992 inventories. Comparisons of 1986-87 statistics from Gedney and others (1989) and the 1992 statistics presented in this report are not good estimates of net change that occurred between these two inventories; for further discussion, please refer to the section, "Changes Since the Previous Inventory." Tables 30 through 32 are summaries of change in the area and timber volume of non-National Forest timberland between 1986-87 and 1992. Table 33 displays the annual volumes harvested by broad owner class in eastern Oregon; these data, for 1962 through 1992, were provided by the Oregon Department of Forestry.

See "Names of Trees" for scientific nomenclature of all species mentioned in this report. See "Terminology" for the definitions of terms used.

## Inventory Procedures

The 1992 inventory examined only land outside National Forests classified as timberland in the 1986-87 I&E inventory. Data in both inventories were gathered on a systematic grid of photo plots and field plots distributed across all lands in eastern Oregon except National Forests. The sampling design was double sampling with stratification (Cochran 1977).

The primary sample was a permanent grid of 69,204 photo plots. During the 1986-87 inventory, owner group and major land class (timberland, other forest, and nonforest) were identified at each photo plot, and forested photo plots were assigned into one of several forest condition strata. These classifications were not updated in the 1992 inventory.

<sup>1</sup> The 17 counties are Baker, Crook, Deschutes, Gilliam, Grant, Harney, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, and Wheeler.

In the 1986-87 inventory, the area sampled by the primary grid of photo plots was divided into two zones. Within the "timberland" zone, forest land was predominately timberland. Within the "other forest" zone, forest land was estimated to be entirely other forest. The 1992 inventory sampled only land that was timberland within the timberland zone in the 1986-87 inventory.

The secondary sample within the timberland zone was a systematic grid of permanent field plots that subsampled the primary grid at about every 16th photo plot. At each forest location on this 3.4-mile grid, a plot was established or remeasured in the 1986-87 inventory, and 410 plots were found to be timberland. Each timberland plot was a cluster of five subplots sampling about 8 acres. These cluster plots were established at timberland locations in central Oregon counties<sup>2</sup> in the 1977 inventory, and elsewhere<sup>3</sup> in eastern Oregon, in the 1986-87 inventory. On each subplot, live trees 5 inches in diameter at breast height (d.b.h.) and larger were selected by using variable-radius sampling, and smaller trees were selected with fixed-radius sampling.

In the 1986-87 inventory, all timberland plots (260) in the central Oregon counties were visited to account for trees that were harvested or had died since the 1977 inventory and to sample trees less than 5 inches in d.b.h. that had grown into the fixed-radius plots since 1977. On one-third (87) of these timberland plots, trees 5 inches in d.b.h. and larger were remeasured to account for growth in the heights and diameters of trees surviving from 1977. These remeasurement data were used to develop equations for predicting height and diameter growth. The equations were applied to predict the heights and diameters of trees 5 inches in d.b.h. and larger on the other two-thirds of the timberland plots in central Oregon on which trees were not remeasured.

On the 87 remeasured plots, trees 5 inches in d.b.h. and larger in 1977, but too small to be sampled on the variable-radius plots, were selected in 1986-87 if they had grown onto the variable-radius plots since the 1977 inventory. Diameter on these "ongrowth" trees was measured. These trees were sampled only as a basis for assessing change at next inventory and were not compiled as part of the 1986-87 inventory. At timberland grid locations in the other counties, previously established plots (10-subplot clusters sampling 1 acre) were revisited in the 1986-87 inventory to obtain information about land use, mortality, harvest, diameter growth, and height growth. If still timberland, a new cluster plot of five subplots was established at each of these grid locations (150 plots.) On these new plots, live trees 5 inches in d.b.h. and larger were selected by using variable-radius sampling, and smaller trees were selected with fixed-radius sampling. Diameter was measured on all selected trees.

In the 1992 inventory, the 410 plots (five subplots each) were revisited and their owner classification updated; 407 plots were still timberland, and 3 had been converted to nonforest since 1986-87. On the 407 plots, trees tallied live in 1986-87 were accounted for (live, dead, or harvested), trees less than 5 inches d.b.h. that had grown into the fixed-radius plots were sampled, and all live tree diameters were measured. Survivor trees 5 inches in d.b.h. and larger were bored for diameter increment if they had no measured 1986-87 diameter and were affected by root disease

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<sup>2</sup>Crook, Deschutes, Gilliam, Jefferson, Sherman, Wasco, and Wheeler Counties.

<sup>3</sup>Baker, Grant, Harney, Malheur, Morrow, Umatilla, Union, and Wallowa Counties

## **Changes Since the Previous Inventory**

or budworm defoliation. Ongrowth trees tallied but not included in the 1986-87 inventory were compiled as part of the 1992 inventory. Detailed data were collected to analyze the extent and severity of insect and disease problems on non-National Forest timberland.

The 1992 field data and owner classifications were compiled to provide estimates of timberland area, timber volume, growth, mortality, harvest, and area attributes such as forest type, site class, and stand size. With minor modifications, these estimates were made by using the computer programs originally used to compile the 1986-87 inventory. In the current inventory, each plot represented the same amount of acreage that it did in the 1986-87 inventory.

Comparisons of current statistics with those presented in Gedney and others (1989) for the 1986-87 inventory are not good estimators of change for the following reasons:

1. Additional sample trees were used in the 1992 inventory. In the 1986-87 inventory, live ongrowth trees 5 inches in d.b.h. and larger were selected and measured for diameter on one-third of the timberland plots in the central Oregon counties. These trees were not compiled as part of the 1986-87 inventory. In 1992, the trees were remeasured and compiled as part of the current and previous inventories. Without their inclusion in the previous inventory, valid estimates of volume change are subject to very large sampling errors.
2. Diameters from the 1986-87 inventory for some sample trees have been altered. On two-thirds of the plots in central Oregon counties, diameters were not remeasured in 1986-87 for live trees 5 inches in d.b.h. and larger. Instead, the 1986-87 diameter was estimated by using equations to "grow" the previously measured diameter forward. If still alive and affected by root disease or budworm defoliation in 1992, these trees were bored for diameter increment, and the increment used to adjust their estimated 1986-87 diameters.
3. Additional subplots were installed on some cluster plots. On several plots in the central Oregon counties, fewer than five subplots were sampled in the previous inventory. In 1992, additional subplots were installed so that five subplots were sampled. The trees sampled on these additional subplots were bored for diameter increment if their current diameter was 5 inches in d.b.h. or larger; their 1986-87 diameters were estimated from these increments. If less than 5 inches in d.b.h. in 1992, the 1986-87 diameter was interpolated from the 1992 diameter at breast height and 1992 breast height age. Without the inclusion of these trees in the 1986-87 inventory, valid estimates of volume change are subject to large sampling errors.
4. Data recorded in the 1986-87 inventory were revised. In the 1992 inventory, field crews found an occasional tree tallied in 1986-87 inventory for which information on species, crown class, crown ratio, damaging agents or cull indicators was obviously incorrect. These errors were corrected.
5. The algorithm for determining forest type was modified. In the 1986-87 inventory, the algorithm to estimate forest type for each plot examined only growing-stock trees. In the 1992 inventory, all live trees were used to estimate forest type present at the time of both inventories.

6. Some owner classifications have been changed. In the 1986-87 inventory, Native American lands were classified as "other public" lands. At the request of the owners, Native American lands now are included in the "other private" ownership. This modification affected about 290,000 acres and represented not real change, but only definitional change. Additionally, in researching current owner status for each of the 410 plots, we found that the ownership assigned in the 1986-87 inventory on several plots was incorrect, and we corrected it.

To provide valid estimates of change, we recompiled the 1986-87 inventory by using the same definitions and algorithms we applied in the 1992 inventory. The recompilation incorporates the corrections and adjustments made to 1986-87 field data, and it includes both the trees tallied on the added subplots (if these trees were live in 1986-87) and the ongrowth trees measured in 1986-87 but not used at that time. All 1986-87 statistics in this bulletin are the product of recompilation.

Tables 30 through 32 summarize changes between 1986-87 and 1992 in the area and timber volume of timberland outside the National Forests. Tables 2 through 4 and tables 6 through 14 present statistics for the 1992 inventory, and for each of these 1992 tables, there is a table of the same format for the 1986-87 inventory (tables 18 through 29). The user can compare a current table to its 1986-87 counterpart to get valid estimates of net change. Confidence intervals associated with many of these estimates are quite wide because of high variability in the sampled populations.

Volume losses to mortality may be overestimated in this report (tables 17, 31, and 32.) Trees tallied live in the 1986-87 inventory and completely defoliated by spruce budworms at the time of the 1992 inventory were recorded as dead. Some of these trees actually may have been dormant, not dead.

All timberland area and volume statistics are based on sampling and are subject to sampling error. Confidence intervals (68-percent probability) for the 1992 estimated timberland area, cubic-foot volume, and gross annual cubic-foot growth by owner class follow:

Owner	Timberland area	Net volume	Gross annual growth
	<i>Thousand acres</i>	<i>-- Million cubic feet --</i>	
Other public	223±29	392±70	11±2
Forest industry	1,551±48	1,839±109	60±4
Other private	1,189±65	2,199±171	52±4
All owners	2,961±76	4,430±201	123±5

Confidence intervals are quantitative expressions of the reliability of the timberland area, volume, and growth statistics. The above tabulation, for instance, indicates a two-in-three (68-percent) chance that the timberland area for all-owners is within the range of 2,961,000±76,000 (2,885,000 to 3,037,000) acres.

## Reliability of Inventory Data

Confidence intervals vary by both the size of the estimate and the variance of the item being estimated. If variance is assumed constant, confidence intervals can be approximated for estimates of various sizes. The confidence interval guides that follow are based on the assumption that an average relation exists between variance and the size of the estimates, and thus they provide only an approximation of the reliability of individual estimates.

The following tabulations approximate confidence intervals for table cells of various sizes in this report:

Timberland area	Confidence interval	
	By owner	By type or class
----- <i>Thousand acres</i> -----		
2,000	±60	±85
1,500	±54	±77
1,000	±47	±67
800	±43	±62
600	±38	±55
400	±32	±48
200	±25	±36
100	±18	±27
50	±13	±20
25	±9	±14
15	±7	±10
10	±5	±8
5	±3	±5

Growing stock volume and confidence interval	Gross growth and confidence interval
<i>Million cubic feet</i>	<i>Thousand cubic feet</i>
6,000±232	100,000±5,099
4,000±184	50,000±3,596
2,000±124	25,000±2,507
1,000±84	15,000±1,906
800±73	10,000±1,526
600±62	5,000±1,131
400±49	1,000±387
200±33	500±246
100±22	100±76
50±15	
25±10	
15±8	
10±6	
5±3	

Actual confidence intervals have been calculated for the tabular data in this report; they are available on request from the Inventory and Economics Research, Development and Application Program, Forestry Sciences Laboratory, P.O. Box 3890, Portland, OR 97208-3890.

## Terminology

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

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

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

**Cull trees**—Live trees of noncommercial species, or live trees of commercial species that are more than 75 percent defective. Noncommercial species are western juniper, Pacific yew, Pacific dogwood, apple, and willow.

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

**Cull trees, sound**—Trees of noncommercial species or cull trees of commercial species with defect caused primarily by poor form and roughness.

**Diameter class**—A classification of trees based on diameter outside the bark measured at breast height, 4-1/2 feet above the ground. D.b.h. is the common abbreviation for diameter at breast height.

**Even-aged stands**—Stands where 70 percent or more of the stocking falls within three adjacent 10-year age classes.

**Farmer-owned lands**—Lands owned by the operators of farms.

**Forest industry lands**—Lands owned by companies that grow timber for industrial use. Includes companies both with and without wood processing plants.

**Forest land**—Land at least 10 percent stocked by live trees, or land formerly having such tree cover and not currently developed for nonforest use. The minimum area recognized is 1 acre.

**Forest types**—Stands with 50 percent or more stocking in live conifer trees are classed as softwood types; stands with a majority of stocking in live hardwood trees are classed as hardwood types. The individual forest type is determined by plurality of stocking by species of live softwood or hardwood trees.

**Growing-stock trees**—All live trees except cull trees.

**Growing-stock volume**—Net volume in cubic feet of live sawtimber and poletimber growing-stock trees from the top of a stump 12 inches tall to a minimum 4-inch top (of central stem) outside the bark. Net volume is gross volume less deductions for rot and missing bole sections.

**Growth, gross annual**—The increase in growing-stock volume of trees during the last year of the period between the previous and current inventories, attributable to increasing tree size. Components of gross annual growth of trees include (a) the increment in net volume of poletimber and sawtimber growing-stock trees alive at the beginning of the year and surviving to year end, plus (b) ingrowth, the net volume of growing-stock trees reaching poletimber or sawtimber size during the year.

**Growth, periodic gross**—The increase in the growing-stock volume of trees between the previous and current inventories, attributable to increasing tree size. Components of gross periodic growth include (a) the increment in net volume of poletimber and sawtimber growing-stock trees alive at both the previous and current inventories, plus (b) ingrowth, the net volume of growing-stock trees reaching poletimber or sawtimber size between the inventories.

**Hardwoods**—Nonconiferous trees, usually broad leaved and deciduous.

**Industrial wood**—All commercial roundwood products except fuelwood.

**Land class**—A classification of land by major use. The minimum 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 natural stands. Productivity for conifer sites is based on conifer yields, even when the current stand is hardwood. When productivity is calculated, nonforest inclusions of less than 1 acre are excluded.

**Miscellaneous private owners**—All private owners not otherwise classified.

**Mortality, average annual**—The annual net volume of poletimber and sawtimber growing-stock trees that died between the previous and current inventories.

**Mortality, periodic**—The net volume of poletimber and sawtimber growing-stock trees that died between the previous and current inventories.

**National Forest lands**—Federal lands designated by Executive Order or statute as National Forest or purchase units and other lands under the administration of the Forest Service, U.S. Department of Agriculture, including experimental areas and Bankhead-Jones Title III lands.

**Native American lands**—Tribal lands and allotted lands held in trust by the Federal Government. Native American lands are grouped with farmer and miscellaneous private lands as other private lands.

**Net volume**—Gross volume less deductions for sound and rotten defects. Growing-stock net volume is gross cubic-foot volume less deductions for rot and missing bole sections on poletimber and sawtimber growing-stock trees. Sawtimber net volume is gross board-foot volume less deductions for rot, sweep, crook, missing bole sections and other defects that affect the use of sawtimber trees for lumber.

**Noncommercial species**—A tree species not suitable for industrial wood products: western juniper, Pacific yew, Pacific dogwood, apple, and willow.

**Nonforest land**—Land that has never supported forests or was formerly forested and currently is developed for nonforest uses. Included are lands used for agricultural crops, Christmas tree farms, improved pasture, residential areas, city parks, constructed roads, operating railroads and their right-of-way clearings, powerline and pipeline clearings, streams more than 30 feet wide, and 1- to 40-acre areas of water classified by the U.S. Department of Commerce, 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**—Timberland less than 10 percent stocked with live trees. Recent clearcuts are classified as nonstocked area.

**Ongrowth tree**—A tree that is (1) outside the fixed-radius plot used to sample trees less than 5 inches in d.b.h., (2) too small in d.b.h. to have been selected on the variable-radius plot at the time of a previous inventory, and (3) large enough in d.b.h. to be selected at the time of a more recent inventory.

**Other Federal lands**—Federal lands other than lands administered by the Forest Service or the Bureau of Land Management.

**Other forest land**—Forest land incapable of growing 20 cubic feet per acre per year (mean annual increment at culmination for fully stocked natural stands) of industrial wood because of adverse site conditions such as sterile soils, dry climate, poor drainage, high elevation, steepness, and rockiness.

**Other private lands**—Private lands not owned by forest industry. Native American lands, farmer-owned lands, and miscellaneous private lands are included. In the previous bulletin of timber resource statistics (Gedney and others 1989), Native American lands were classified as other public lands.

**Other public lands**—Lands administered by public agencies other than the U.S. Department of Agriculture, Forest Service. Bureau of Land Management lands, other Federal lands, State lands, and county and municipal lands are included. Other public lands do not include Native American lands, which are classified as other private lands.

**Poletimber stands**—Stands with a mean diameter (weighted by basal area) from 5.0 to 8.9 inches at breast height if a softwood stand and from 5.0 to 10.9 inches at breast height if a hardwood stand.

**Poletimber trees**—Live growing-stock trees of commercial species 5.0 inches in d.b.h. or larger but smaller than sawtimber size.

**Removal, periodic**—The net volume of poletimber and sawtimber growing-stock trees removed by cutting, bulldozing, girdling, or poisoning between the current and previous inventories. Includes timber removed by harvesting, silvicultural activities, and land clearing.

**Roundwood**—Logs, bolts, or other round sections cut from trees.

**Sapling and seedling stands**—Stands with a mean diameter (weighted by basal area) of less than 5.0 inches at breast height.

**Sapling and seedling trees**—Live trees of commercial species that are less than 5.0 inches in d.b.h. and have no diseases, 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. Saw-log top is 7.0 inches in diameter outside the bark on conifers and 9.0 inches in diameter outside the bark on hardwoods.

**Sawtimber stands**—Stands with a mean diameter (weighted by basal area) 9.0 inches or larger at breast height if a softwood stand and 11.0 inches or larger at breast height if a hardwood stand. Small sawtimber stands are sawtimber stands with a mean diameter (weighted by basal area) less than 21.0 inches at breast height. Large sawtimber stands are sawtimber stands that have a mean diameter 21.0 inches or larger at breast height.

**Sawtimber trees**—Live softwood trees of commercial species 9.0 inches in d.b.h. or larger and live hardwood trees of commercial species 11.0 inches in d.b.h. or larger. 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 7 inches outside bark; hardwood trees must contain at least one 8-foot saw log with a top diameter of not less than 9 inches in diameter outside 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 by 16-foot logs for both conifers and hardwoods.

**Site class**—A classification of the potential productivity of forest land expressed as mean annual increment at culmination for fully stocked natural stands.

**Site index**—A measure of the productivity of forest land expressed as the average height of dominant and codominant trees at a specified age.

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

**Stand age**—The 10-year age class that best characterizes the stand. See “even-aged stands” and “uneven-aged stands” for more details.

**Stand-size class**—A classification of stands based on tree size. Stand-size classes are large sawtimber, small sawtimber, poletimber, and seedling-sapling stands.

**State lands**—Lands owned by States or administered by State agencies.

**Timber harvest**—Volume of roundwood removed from forest land for products. Timber harvest statistics reported in table 33 were collected by the Oregon Department of Forestry. Periodic removals shown in tables 31 and 32 are based on trees sampled as live during the previous inventory that were harvested or killed in a cultural operation before the current inventory.

**Timber volume**—Includes the net volume in cubic feet of poletimber and sawtimber trees, the net volume in cubic feet of cull trees of commercial species, and gross volume of noncommercial species. Volume is measured from the top of a stump 12 inches tall to a minimum 4-inch top outside the bark.

**Timberland**—Forest land capable of growing 20 cubic feet or more per acre per year (mean annual increment at culmination in fully stocked natural stands) of industrial wood and not withdrawn from timber utilization.

**Timberland, reserved**—Forest land capable of growing 20 cubic feet or more per acre per year (mean annual increment at culmination in fully stocked natural stands) of industrial wood and withdrawn from timber utilization through statute, ordinance, or administrative order.

**Uneven-aged stands**—Stands where less than 70 percent of the tree stocking falls in three adjacent age classes.

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

## Names of Trees

## Common name

## Scientific name<sup>4</sup>

### Softwoods:

Douglas-fir	<i>Pseudotsuga menziesii</i> (Mirb.) Franco
Engelmann spruce	<i>Picea engelmannii</i> Parry ex Engelm.
Grand fir	<i>Abies grandis</i> (Dougl. ex D. Don) Lindl.
Incense-cedar	<i>Libocedrus decurrens</i> Torr.
Jeffrey pine	<i>Pinus jeffreyi</i> Grev. & Balf.
Lodgepole pine	<i>Pinus contorta</i> Dougl. ex Loud. var. <i>latifolia</i> Engelm.
Mountain hemlock	<i>Tsuga mertensiana</i> (Bong.) Carr.
Noble fir	<i>Abies procera</i> Rehd.
Pacific silver fir	<i>Abies amabilis</i> Dougl. ex Forbes
Ponderosa pine	<i>Pinus ponderosa</i> Dougl. ex Laws.
Shasta red fir	<i>Abies magnifica</i> var. <i>shastensis</i> Lemm.
Subalpine fir	<i>Abies lasiocarpa</i> (Hook.) Nutt.
Sugar pine	<i>Pinus lambertiana</i> Dougl.
Western hemlock	<i>Tsuga heterophylla</i> (Raf.) Sarg.
Western juniper	<i>Juniperus occidentalis</i> Hook.
Western larch	<i>Larix occidentalis</i> Nutt.
Western redcedar	<i>Thuja plicata</i> Donn ex D. Don
Western white pine	<i>Pinus monticola</i> Dougl. ex D. Don
Whitebark pine	<i>Pinus albicaulis</i> Engelm.
White fir	<i>Abies concolor</i> (Gord. & Glend.) Lindl. ex Hildebr.

### Hardwoods:

Apple	<i>Malus</i> spp.
Black cottonwood	<i>Populus trichocarpa</i> Torr. & Gray
Oregon white oak	<i>Quercus garryana</i> Dougl. ex Hook.
Pacific dogwood	<i>Cornus nuttallii</i> Audubon
Quaking aspen	<i>Populus tremuloides</i> Michx.
White alder	<i>Alnus rhombifolia</i> Nutt.
Willow	<i>Salix</i> spp.

<sup>4</sup> Per Little 1979.

Tables

Table 1--Area of timberland outside National Forests, by county and owner, eastern Oregon, January 1, 1993 <sup>a</sup>

County	Other public	Forest industry	Other private	All owners
<i>Thousand acres</i>				
Baker	--	18	78	96
Crook	13	53	16	82
Deschutes	18	53	19	89
Gilliam	--	--	--	1
Grant	41	110	133	284
Harney	8	--	4	12
Jefferson	3	41	134	178
Klamath	105	595	131	830
Lake	9	217	39	264
Malheur	--	--	7	7
Morrow	--	53	37	90
Sherman	--	--	--	--
Umatilla	3	75	114	193
Union	1	89	119	209
Wallowa	12	137	99	248
Wasco	5	11	211	228
Wheeler	6	99	45	150
All counties	223	1,551	1,187	2,961

-- = none found or less than 500 acres.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

**Table 2--Area of timberland outside National Forests, by owner and site class, eastern Oregon, January 1, 1993 <sup>a</sup>**

Owner	Site class <sup>b</sup>						All classes
	≥ 225	165-224	120-164	85-119	50-84	20-49	
<i>Thousand acres</i>							
Other public	--	4	7	16	43	150	219
Forest industry	--	--	9	103	512	908	1,531
Other private	--	--	21	67	343	743	1,173
<b>All owners</b>	--	4	36	186	897	1,801	2,924

-- = none found or less than 500 acres.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Mean annual cubic-foot growth per acre at culmination in fully stocked natural stands. Excludes 37,000 acres of nonforest land inclusions, each less than 1 acre.

**Table 3--Area of timberland outside National Forests, by stand-size class and owner, eastern Oregon, January 1, 1993 <sup>a</sup>**

Stand-size class	Other public	Forest industry	Other private	All owners
<i>Thousand acres</i>				
Sawtimber stands:				
Large sawtimber <sup>b</sup>	4	17	34	55
Small sawtimber <sup>c</sup>	158	875	681	1,715
Total, sawtimber	162	893	715	1,770
Poletimber stands	31	186	252	468
Sapling and seedling stands	30	412	164	606
Nonstocked areas <sup>d</sup>	--	61	55	117
<b>Total, all classes</b>	223	1,551	1,187	2,961

-- = none found or less than 500 acres.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Includes stands 21.0 inches in d.b.h. and larger.

<sup>c</sup> Includes conifer stands 9.0 to 20.9 inches in d.b.h. and hardwood stands 11.0 to 20.9 inches in d.b.h.

<sup>d</sup> Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

**Table 4—Area of timberland outside National Forests, by forest type and owner, eastern Oregon, January 1, 1993 <sup>a</sup>**

Forest type	Other public	Forest industry	Other private	All owners
<i>Thousand acres</i>				
Softwood types:				
Ponderosa pine	112	677	500	1,289
Douglas-fir	34	251	290	575
Lodgepole pine	46	230	119	395
White fir	7	197	35	240
Grand fir	13	107	98	217
Western larch	--	14	8	22
Mountain hemlock	--	--	20	20
Subalpine fir	--	--	14	14
Engelmann spruce	--	8	6	14
Western redcedar	--	--	8	8
Western juniper	--	7	--	7
Incense cedar	--	--	7	7
Pacific silver fir	--	--	6	6
Shasta red fir	4	--	--	4
Western hemlock	--	--	--	--
<b>Total, softwood types</b>	<b>215</b>	<b>1,490</b>	<b>1,111</b>	<b>2,816</b>
Hardwood types:				
Oregon white oak	8	--	7	15
White alder	--	--	7	7
Quaking aspen	--	--	7	7
<b>Total, hardwood types</b>	<b>8</b>	<b>--</b>	<b>21</b>	<b>28</b>
Nonstocked <sup>b</sup>	--	61	55	117
<b>Total, all types</b>	<b>223</b>	<b>1,551</b>	<b>1,187</b>	<b>2,961</b>

-- = none found or less than 500 acres.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

Table 5--Net volume of growing stock and sawtimber on timberland outside National Forests, by county and owner, eastern Oregon, January 1, 1993 <sup>a</sup>

County	Other public	Forest industry	Other private	All owners
<i>Million cubic feet</i>				
Growing stock: <sup>b</sup>				
Baker	--	29	61	90
Crook	5	52	15	72
Deschutes	7	53	18	77
Gilliam	--	--	--	1
Grant	56	124	200	381
Harney	5	--	5	10
Jefferson	3	49	345	396
Klamath	240	573	145	957
Lake	25	267	61	354
Malheur	--	1	6	6
Morrow	--	94	26	120
Sherman	--	--	--	--
Umatilla	13	96	237	341
Union	5	123	235	363
Wallowa	11	237	218	466
Wasco	6	17	566	589
Wheeler	17	125	67	208
All counties	392	1,839	2,199	4,430
<i>Million board feet, Scribner rule</i>				
Sawtimber: <sup>c</sup>				
Baker	--	120	195	314
Crook	10	203	52	265
Deschutes	14	205	61	279
Gilliam	--	--	--	1
Grant	189	456	635	1,280
Harney	5	--	5	10
Jefferson	5	192	1,468	1,665
Klamath	1,043	2,175	579	3,798
Lake	99	1,057	233	1,388
Malheur	--	3	19	22
Morrow	--	98	26	124
Sherman	--	--	--	--
Umatilla	64	371	998	1,434
Union	23	467	965	1,454
Wallowa	31	875	830	1,736
Wasco	8	67	2,386	2,461
Wheeler	65	490	253	808
All counties	1,555	6,778	8,705	17,038

-- = none found, or less than 500,000 cubic feet or 500,000 board feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Includes growing-stock trees 5.0 inches in d.b.h. and larger.

<sup>c</sup> Includes softwood sawtimber trees 9.0 inches in d.b.h. and larger and hardwood sawtimber trees 11.0 inches in d.b.h. and larger.

**Table 6—Net volume of growing stock and sawtimber on timberland outside National Forests, by class of timber, owner and species group, eastern Oregon, January 1, 1993 <sup>a</sup>**

Class of timber and owner	Average volume	Species group		All species
		Softwoods	Hardwoods	
	<i>Cubic feet per acre</i>	<i>Million cubic feet</i>		
Growing stock: <sup>b</sup>				
Other public	1,764	388	4	392
Forest industry	1,185	1,835	3	1,839
Other private	1,853	2,181	18	2,199
Total, growing stock	1,496	4,404	26	4,430
	<i>Board feet per acre</i>	<i>Million board feet</i>		
Sawtimber (Scribner rule): <sup>c</sup>				
Other public	6,989	1,555	—	1,555
Forest industry	4,370	6,771	7	6,778
Other private	7,334	8,675	31	8,705
Total, sawtimber	5,772	17,000	38	17,038

— = none found or less than 500,000 cubic feet or 500,000 board feet.

<sup>a</sup> Totals may be off because of rounding; subject to sampling error.

<sup>b</sup> Includes growing-stock trees 5.0 inches in d.b.h. and larger.

<sup>c</sup> Includes softwood sawtimber trees 9.0 inches in d.b.h. and larger and hardwood sawtimber trees 11.0 inches in d.b.h. and larger.

**Table 7—Net volume of timber on timberland outside National Forests, by class of timber and species group, eastern Oregon, January 1, 1993 <sup>a</sup>**

Class of timber	Species group		All species
	Softwoods	Hardwoods	
	<i>Million cubic feet</i>		
Growing-stock trees:			
Sawtimber trees--			
Saw-log portion	3,655	8	3,663
Upper stem portion	173	1	174
Total, sawtimber trees	3,828	9	3,837
Poletimber	577	17	594
Total, growing-stock trees	4,404	26	4,430
Cull trees:			
Sound cull	22	4	26
Rotten cull	26	3	28
Total, cull trees	48	7	55
Total, all timber	4,452	33	4,485

— = none found or less than 500,000 cubic feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

**Table 8—Net volume of growing stock on timberland outside National Forests, by forest type and owner, eastern Oregon, January 1, 1993<sup>a b</sup>**

Forest type	Other public	Forest industry	Other private	All owners
<i>Million cubic feet</i>				
Softwood types:				
Ponderosa pine	184	722	674	1,580
Douglas-fir	93	465	661	1,219
Grand fir	16	149	271	436
White fir	38	283	95	416
Lodgepole pine	26	178	182	386
Mountain hemlock	--	--	107	107
Western redcedar	--	--	57	57
Engelmann spruce	--	7	40	47
Pacific silver fir	--	--	45	45
Western larch	--	28	11	39
Shasta red fir	27	--	--	27
Subalpine fir	--	--	20	20
Incense cedar	--	--	6	6
Western juniper	--	2	--	2
<b>Total, softwood types</b>	<b>384</b>	<b>1,833</b>	<b>2,168</b>	<b>4,385</b>
Hardwood types:				
Quaking aspen	--	--	10	10
Oregon white oak	9	--	--	9
White alder	--	--	8	8
<b>Total, hardwood types</b>	<b>9</b>	<b>--</b>	<b>18</b>	<b>27</b>
Nonstocked <sup>c</sup>	--	6	13	19
<b>Total, all types</b>	<b>392</b>	<b>1,839</b>	<b>2,199</b>	<b>4,430</b>

-- = None found or less than 500,000 cubic feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Includes growing-stock trees 5.0 inches in d.b.h. and larger.

<sup>c</sup> Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

Table 9--Net volume of sawtimber on timberland outside National Forests, by forest type and owner, eastern Oregon, January 1, 1993<sup>a,b</sup>

Forest type	Other public	Forest industry	Other private	All owners
<i>Million board feet, Scribner rule</i>				
Softwood types:				
Ponderosa pine	754	2,694	2,619	6,067
Douglas-fir	348	1,736	2,764	4,848
Grand fir	33	544	1,059	1,636
White fir	178	1,071	336	1,584
Lodgepole pine	80	592	632	1,304
Western redcedar	--	--	249	249
Mountain hemlock	--	--	425	425
Engelmann spruce	--	8	209	217
Pacific silver fir	--	--	187	187
Shasta red fir	150	--	--	150
Western larch	--	105	28	132
Subalpine fir	--	--	50	50
Incense cedar	--	--	25	25
Western juniper	--	5	--	5
Total, softwood types	1,542	6,754	8,583	16,879
Hardwood types:				
Quaking aspen	--	--	34	34
White alder	--	--	20	20
Oregon white oak	13	--	--	13
Total, hardwood types	13	--	55	67
Nonstocked <sup>c</sup>	--	24	67	92
Total, all types	1,555	6,778	8,705	17,038

-- = None found or less than 500,000 board feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Includes softwood sawtimber trees 9.0 inches in d.b.h. and larger and hardwood sawtimber trees 11.0 inches in d.b.h. and larger.

<sup>c</sup> Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

**Table 10--Net volume of growing stock on timberland outside National Forests, by species and owner, eastern Oregon, January 1, 1993<sup>a b</sup>**

Species	Other public	Forest industry	Other private	All owners
<i>Million cubic feet</i>				
<b>Softwoods:</b>				
Ponderosa pine	208	724	731	1,662
Douglas-fir	67	391	654	1,111
White fir/grand fir	40	432	277	749
Lodgepole pine	27	179	183	389
Western larch	6	65	82	152
Mountain hemlock	--	--	85	85
Engelmann spruce	--	12	65	76
Incense-cedar	8	19	13	39
Pacific silver fir	--	--	32	32
Shasta red fir	27	--	--	27
Noble fir	--	--	21	21
Western redcedar	--	--	14	14
Sugar pine	4	9	--	13
Western hemlock	--	--	13	13
Western white pine	2	4	3	9
Subalpine fir	--	1	8	9
Whitebark pine	--	--	2	2
Jeffrey pine	1	--	--	1
<b>Total, softwoods</b>	<b>388</b>	<b>1,835</b>	<b>2,181</b>	<b>4,404</b>
<b>Hardwoods:</b>				
Oregon white oak	4	2	3	9
Quaking aspen	--	--	9	9
White alder	--	--	4	4
Black cottonwood	--	2	2	3
<b>Total, hardwoods</b>	<b>4</b>	<b>3</b>	<b>18</b>	<b>26</b>
<b>Total, all species</b>	<b>392</b>	<b>1,839</b>	<b>2,199</b>	<b>4,430</b>

-- = none found or less than 500,000 cubic feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Includes growing-stock trees 5 inches in d.b.h. and larger.

**Table 11—Net volume of sawtimber on timberland outside National Forests, by species and owner, eastern Oregon, January 1, 1993<sup>a b</sup>**

Species	Other public	Forest industry	Other private	All owners
<i>Million board feet, Scribner rule</i>				
<b>Softwoods:</b>				
Ponderosa pine	866	2,820	2,984	6,670
Douglas-fir	237	1,490	2,763	4,490
White fir/grand fir	139	1,530	1,004	2,673
Lodgepole pine	85	554	582	1,220
Western larch	19	223	325	567
Engelmann spruce	--	34	331	365
Mountain hemlock	--	--	350	350
Shasta red fir	153	--	--	153
Pacific silver fir	--	--	111	111
Incense-cedar	18	59	30	106
Noble fir	--	--	64	64
Western redcedar	--	--	62	62
Sugar pine	22	35	--	57
Western white pine	14	22	18	54
Western hemlock	--	--	30	30
Subalpine fir	--	4	20	24
Jeffrey pine	4	--	--	4
Whitebark pine	--	--	2	2
<b>Total, softwoods</b>	<b>1,555</b>	<b>6,771</b>	<b>8,675</b>	<b>17,000</b>
<b>Hardwoods:</b>				
Quaking aspen	--	--	20	20
Black cottonwood	--	7	8	16
Oregon white oak	--	--	2	2
<b>Total, hardwoods</b>	<b>--</b>	<b>7</b>	<b>31</b>	<b>38</b>
<b>Total, all species</b>	<b>1,555</b>	<b>6,778</b>	<b>8,705</b>	<b>17,038</b>

-- = none found or less than 500,000 board feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Includes softwood-sawtimber trees 9.0 inches in d.b.h. and larger and hardwood sawtimber trees 11.0 inches in d.b.h. and larger.

Table 12--Net volume of growing stock on timberland outside National Forests, by species and diameter class, eastern Oregon, January 1, 1993 <sup>a b</sup>

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	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+	
<i>Million cubic feet</i>														
Softwoods:														
Ponderosa pine	61	111	188	191	215	196	148	122	99	56	50	55	171	1,662
Douglas-fir	30	80	131	134	157	126	104	89	70	55	35	16	85	1,111
White fir/grand fir	44	90	91	115	85	81	55	43	38	16	9	21	63	749
Lodgepole pine	31	72	68	78	61	31	29	8	2	5	4	--	1	389
Western larch	7	13	29	29	25	16	19	4	5	4	1	--	--	152
Mountain hemlock	1	5	5	6	6	12	22	4	6	11	4	3	--	85
Engelmann spruce	3	3	4	4	4	5	6	16	8	5	4	3	13	76
Incense-cedar	6	4	4	--	4	6	2	3	2	--	--	--	9	39
Pacific silver fir	1	3	5	7	4	5	1	5	1	--	--	--	--	32
Shasta red fir	--	--	--	--	1	1	2	2	--	2	--	3	15	26
Noble fir	3	5	1	6	--	--	--	3	--	4	--	--	--	21
Western redcedar	1	--	1	--	3	--	2	3	3	3	--	--	--	14
Sugar pine	--	--	2	4	1	2	--	--	--	--	--	--	4	13
Western hemlock	3	2	4	2	2	--	--	--	--	--	--	--	--	13
Subalpine fir	1	1	3	1	1	2	1	1	--	--	--	--	--	9
Western white pine	--	--	--	--	2	--	--	4	--	--	--	--	4	9
Whitebark pine	--	1	--	--	1	--	--	--	--	--	--	--	--	2
Jeffrey pine	--	--	--	1	--	--	--	--	--	--	--	--	--	1
Total, softwoods	188	389	534	577	571	481	390	307	234	160	106	102	365	4,404
Hardwoods:														
Oregon white oak	3	4	1	1	--	--	--	--	--	--	--	--	--	9
Quaking aspen	--	2	3	2	1	2	--	--	--	--	--	--	--	9
White alder	1	3	--	--	--	--	--	--	--	--	--	--	--	4
Black cottonwood	--	--	--	--	--	--	--	2	--	--	--	--	2	3
Total, hardwoods	4	9	4	3	1	2	--	2	--	--	--	--	2	26
Total, all species	192	398	538	580	572	483	390	308	234	160	106	102	367	4,430

-- = none found or less than 500,000 cubic feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Includes growing-stock trees 5.0 inches in d.b.h. and larger.

**Table 13--Net volume of sawtimber on timberland outside National Forests, by species and diameter class, eastern Oregon, January 1, 1993<sup>a b</sup>**

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	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+	
<i>Million board feet, Scribner rule</i>												
Softwoods:												
Ponderosa pine	491	670	874	870	702	605	513	293	277	316	1,058	6,670
Douglas-fir	407	509	662	574	501	446	356	280	184	90	482	4,490
White fir/grand fir	259	437	358	363	259	209	188	84	45	111	360	2,673
Lodgepole pine	221	321	277	146	149	39	9	29	21	--	7	1,220
Western larch	94	114	110	75	96	22	27	22	7	--	--	567
Engelmann spruce	12	14	18	20	30	80	45	28	20	16	83	365
Mountain hemlock	15	22	22	51	101	19	27	55	21	18	--	350
Shasta red fir	--	--	4	3	8	10	--	13	--	19	95	153
Pacific silver fir	15	26	15	19	6	23	8	--	--	--	--	111
Incense-cedar	3	--	13	21	7	13	7	--	--	--	42	106
Noble fir	3	26	--	--	--	15	--	20	--	--	--	64
Western redcedar	3	--	10	--	7	15	14	13	--	--	--	62
Sugar pine	7	15	5	7	--	--	--	--	--	--	22	57
Western white pine	--	--	9	--	--	22	--	--	--	--	23	54
Western hemlock	12	8	10	--	--	--	--	--	--	--	--	30
Subalpine fir	8	2	4	6	1	3	--	--	--	--	--	24
Jeffrey pine	--	4	--	--	--	--	--	--	--	--	--	4
Whitebark pine	--	--	2	--	--	--	--	--	--	--	--	2
Total, softwoods	1,550	2,168	2,394	2,155	1,867	1,520	1,194	837	575	570	2,171	17,000
Hardwoods:												
Quaking aspen	--	6	5	9	--	--	--	--	--	--	--	20
Black cottonwood	--	--	--	--	--	7	--	--	--	--	8	16
Oregon white oak	--	2	--	--	--	--	--	--	--	--	--	2
Total, hardwoods	--	9	5	9	--	7	--	--	--	--	8	38
Total, all species	1,550	2,176	2,399	2,163	1,867	1,527	1,194	837	575	570	2,180	17,038

-- = none found or less than 500,000 board feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Includes softwood sawtimber trees 9.0 inches in d.b.h. and larger, and hardwood sawtimber trees 11.0 inches in d.b.h. and larger.

**Table 14—Area, net volume of growing stock and net volume of sawtimber on timberland outside National Forests, by stand age and owner, eastern Oregon, January 1, 1993 <sup>a</sup>**

Stand age	Other public			Forest industry			Other private			All owners		
	Area	Growing stock volume	Sawtimber volume	Area	Growing stock volume	Sawtimber volume	Area	Growing stock volume	Sawtimber volume	Area	Growing stock volume	Sawtimber volume
	Thousand acres	Million cubic feet	Million board feet <sup>b</sup>	Thousand acres	Million cubic feet	Million board feet <sup>b</sup>	Thousand acres	Million cubic feet	Million board feet <sup>b</sup>	Thousand acres	Million cubic feet	Million board feet <sup>b</sup>
Even-aged:												
0 - 9	16	5	24	102	31	119	22	6	26	139	42	169
10 - 19	--	--	--	39	11	33	17	2	5	55	13	38
20 - 29	--	--	--	6	--	--	21	9	22	27	9	22
30 - 39	8	8	20	23	16	38	21	15	19	52	39	77
40 - 49	19	18	46	57	54	123	--	--	--	77	72	168
50 - 59	7	15	70	92	112	274	22	27	66	120	154	409
60 - 69	20	30	100	107	144	447	87	96	303	214	271	850
70 - 79	12	26	80	104	214	811	112	277	912	228	517	1,804
80 - 89	7	14	48	113	203	806	99	216	753	219	433	1,606
90 - 99	--	--	--	38	65	256	101	324	1,428	139	389	1,684
100 - 109	--	--	--	26	61	235	29	81	327	55	142	562
110 - 119	8	22	96	13	33	137	--	--	--	21	55	233
120 - 129	--	--	--	15	28	107	--	--	--	15	28	107
130 - 139	--	--	--	--	--	--	--	--	--	--	--	--
140 - 149	--	--	--	--	--	--	--	--	--	--	--	--
150 - 159	--	--	--	--	--	--	--	--	--	--	--	--
160 - 169	--	--	--	--	--	--	--	--	--	--	--	--
170 - 179	--	--	--	--	--	--	--	--	--	--	--	--
180 - 189	--	--	--	--	--	--	--	--	--	--	--	--
190 - 199	--	--	--	--	--	--	--	--	--	--	--	--
200 - 299	--	--	--	17	31	170	33	155	752	50	186	922
300 +	--	--	--	--	--	--	--	--	--	--	--	--
Uneven-aged:												
0 - 100	80	182	762	319	397	1,464	245	456	1,776	645	1,036	4,002
100 +	11	48	250	130	267	1,145	108	335	1,487	248	649	2,882
No manageable stand <sup>c</sup>	34	25	60	353	171	612	271	200	829	658	396	1,501
<b>Total, all age classes</b>	<b>223</b>	<b>392</b>	<b>1,555</b>	<b>1,551</b>	<b>1,839</b>	<b>6,778</b>	<b>1,187</b>	<b>2,199</b>	<b>8,705</b>	<b>2,961</b>	<b>4,430</b>	<b>17,038</b>

-- = none found or less than 500 acres, 500,000 cubic feet, or 500,000 board feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Scribner rule.

<sup>c</sup> These stands lack 25 percent conifer stocking on 3/5 of sample subplots.

**Table 15--Gross annual growth of growing stock on timberland outside National Forests, by owner and species group, eastern Oregon, 1992<sup>a</sup>**

Owner	Average volume <i>Cubic feet per acre</i>	Species group		All species
		Softwoods	Hardwoods	
Other public	50	11,103	108	11,211
Forest industry	38	59,599	93	59,692
Other private	44	51,879	494	52,373
<b>All owners</b>	<b>42</b>	<b>122,581</b>	<b>696</b>	<b>123,277</b>

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

**Table 16--Gross annual growth of growing stock on timberland outside National Forests, by species and owner, eastern Oregon, 1992<sup>a</sup>**

Species	Other public	Forest industry	Other private	All owners
<i>Thousand cubic feet</i>				
<b>Softwoods:</b>				
Ponderosa pine	6,222	23,089	19,724	49,035
Douglas-fir	1,767	11,070	14,433	27,270
White fir/grand fir	1,285	15,121	7,368	23,774
Lodgepole pine	1,021	6,082	5,218	12,321
Western larch	118	1,778	1,803	3,698
Engelmann spruce	--	996	841	1,837
Incense-cedar	174	614	241	1,029
Mountain hemlock	--	--	709	709
Sugar pine	55	574	--	629
Noble fir	--	--	474	474
Shasta red fir	362	--	--	362
Pacific silver fir	--	--	337	337
Western white pine	10	249	47	306
Subalpine fir	--	27	253	280
Western hemlock	--	--	264	264
Western redcedar	--	--	146	146
Jeffrey pine	89	--	--	89
Whitebark pine	--	--	22	22
<b>Total, softwoods</b>	<b>11,103</b>	<b>59,599</b>	<b>51,879</b>	<b>122,581</b>
<b>Hardwoods:</b>				
Quaking aspen	--	--	221	221
White alder	--	--	207	207
Oregon white oak	--	38	57	204
Black cottonwood	--	56	10	65
<b>Total, hardwoods</b>	<b>108</b>	<b>93</b>	<b>494</b>	<b>696</b>
<b>Total, all species</b>	<b>11,211</b>	<b>59,692</b>	<b>52,373</b>	<b>123,277</b>

-- = none found or less than 500 cubic feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

**Table 17--Average annual mortality of growing stock on timberland outside National Forests, by species and owner, eastern Oregon, 1992<sup>a</sup>**

Species	Other public	Forest industry	Other private	All owners
<i>Thousand cubic feet</i>				
<b>Softwoods:</b>				
White fir/grand fir	613	12,011	4,850	17,473
Douglas-fir	1,681	3,020	5,686	10,387
Ponderosa pine	159	1,748	4,867	6,774
Lodgepole pine	1,295	2,156	1,171	4,622
Western larch	--	851	824	1,675
Engelmann spruce	--	--	989	989
Shasta red fir	293	--	--	293
Pacific silver fir	--	--	216	216
Whitebark pine	--	--	150	150
Mountain hemlock	--	--	50	50
Incense cedar	--	49	--	49
Subalpine fir	--	--	--	--
Western white pine	--	--	--	--
Sugar pine	--	--	--	--
Western hemlock	--	--	--	--
<b>Total, softwoods</b>	<b>4,041</b>	<b>19,835</b>	<b>18,804</b>	<b>42,679</b>
<b>Hardwoods:</b>				
Oregon white oak	--	2	128	130
Quaking aspen	--	--	107	107
White alder	--	--	--	--
Black cottonwood	--	--	--	--
<b>Total, hardwoods</b>	<b>--</b>	<b>2</b>	<b>235</b>	<b>237</b>
<b>Total, all species</b>	<b>4,041</b>	<b>19,837</b>	<b>19,038</b>	<b>42,916</b>

-- = none found or less than 500 cubic feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

**Table 18--Area of timberland outside National Forests, by owner and site class, eastern Oregon, January 1, 1988 <sup>a</sup>**

Owner	Site class <sup>b</sup>						All classes
	≥ 225	165-224	120-164	85-119	50-84	20-49	
<i>Thousand acres</i>							
Other public	--	4	--	16	43	153	216
Forest industry	--	--	9	103	491	921	1,524
Other private	--	--	28	67	370	737	1,201
<b>All owners</b>	<b>--</b>	<b>4</b>	<b>36</b>	<b>186</b>	<b>905</b>	<b>1,811</b>	<b>2,941</b>

-- = none found or less than 500 acres.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Mean annual cubic-foot growth per acre at culmination in fully stocked natural stands. Excludes 37,000 acres of nonforest land inclusions, each less than 1 acre.

**Table 19--Area of timberland outside National Forests, by stand-size class and owner, eastern Oregon, January 1, 1988 <sup>a</sup>**

Stand-size class	Other public	Forest industry	Other private	All owners
<i>Thousand acres</i>				
Sawtimber stands:				
Large sawtimber <sup>b</sup>	--	27	48	75
Small sawtimber <sup>c</sup>	156	917	768	1,842
<b>Total</b>	<b>156</b>	<b>944</b>	<b>817</b>	<b>1,917</b>
Poletimber stands	40	260	228	529
Sapling and seedling stands	23	301	135	460
Nonstocked areas <sup>d</sup>	--	38	35	72
<b>Total, all classes</b>	<b>220</b>	<b>1,543</b>	<b>1,215</b>	<b>2,978</b>

-- = none found or less than 500 acres.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Includes stands 21.0 inches in d.b.h. and larger.

<sup>c</sup> Includes conifer stands 9.0 to 20.9 inches in d.b.h. and hardwood stands 11.0 to 20.9 inches in d.b.h.

<sup>d</sup> Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

Table 20--Area of timberland outside National Forests, by forest type and owner, eastern Oregon, January 1, 1988 <sup>a</sup>

Forest type	Other public	Forest industry	Other private	All owners
<i>Thousand acres</i>				
Softwood types:				
Ponderosa pine	105	674	485	1,264
Douglas-fir	26	236	296	558
Lodgepole pine	56	225	134	414
White fir	15	230	57	302
Grand fir	6	112	112	230
Western larch	--	14	8	22
Mountain hemlock	--	--	20	20
Engelmann spruce	--	9	6	15
Subalpine fir	--	--	14	14
Western juniper	--	7	7	14
Western redcedar	--	--	8	8
Western hemlock	--	--	8	8
Pacific silver fir	--	--	6	6
Shasta red fir	4	--	--	4
Incense cedar	--	--	--	--
Total, softwood types	212	1,506	1,160	2,877
Hardwood types:				
Oregon white oak	8	--	7	15
Quaking aspen	--	--	7	7
White alder	--	--	7	7
Total, hardwood types	8	--	21	28
Nonstocked <sup>b</sup>	--	38	35	72
Total, all types	220	1,543	1,215	2,978

-- = none found or less than 500 acres.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

**Table 21--Net volume of growing stock and sawtimber on timberland outside National Forests, by class of timber, owner and species group, eastern Oregon, January 1, 1988 <sup>a</sup>**

Class of timber and owner	Average volume	Species group		All species
		Softwoods	Hardwoods	
	<i>Cubic feet per acre</i>	<i>Million cubic feet</i>		
Growing stock: <sup>b</sup>				
Other public	1,735	377	4	381
Forest industry	1,339	2,061	6	2,066
Other private	1,880	2,270	15	2,284
<b>Total, growing stock</b>	<b>1,589</b>	<b>4,707</b>	<b>24</b>	<b>4,731</b>
	<i>Board feet per acre</i>	<i>Million board feet</i>		
Sawtimber (Scribner rule): <sup>c</sup>				
Other public	6,895	1,513	--	1,513
Forest industry	4,986	7,684	10	7,694
Other private	7,328	8,903	24	8,927
<b>Total, sawtimber</b>	<b>6,090</b>	<b>18,100</b>	<b>34</b>	<b>18,134</b>

-- = none found or less than 500,000 cubic feet or 500,000 board feet.

<sup>a</sup> Totals may be off because of rounding; subject to sampling error.

<sup>b</sup> Includes growing-stock trees 5.0 inches in d.b.h. and larger.

<sup>c</sup> Includes softwood sawtimber trees 9.0 inches in d.b.h. and larger and hardwood sawtimber trees 11.0 inches in d.b.h. and larger.

**Table 22--Net volume of timber on timberland outside National Forests, by class of timber and species group, eastern Oregon, January 1, 1988 <sup>a</sup>**

Class of timber	Species group		All species
	Softwoods	Hardwoods	
	<i>Million cubic feet</i>		
Growing-stock trees:			
Sawtimber trees--			
Saw-log portion	3,883	7	3,890
Upper-stem portion	181	2	183
<b>Total, sawtimber</b>	<b>4,063</b>	<b>9</b>	<b>4,072</b>
Poletimber	644	15	659
<b>Total, growing-stock trees</b>	<b>4,707</b>	<b>24</b>	<b>4,731</b>
Cull trees:			
Sound cull	22	4	26
Rotten cull	42	3	44
<b>Total, cull trees</b>	<b>64</b>	<b>7</b>	<b>71</b>
<b>Total, all timber</b>	<b>4,771</b>	<b>31</b>	<b>4,802</b>

-- = none found or less than 500,000 cubic feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

**Table 23--Net volume of growing stock on timberland outside National Forests, by forest type and owner, eastern Oregon, January 1, 1988<sup>a b</sup>**

Forest type	Other public	Forest industry	Other private	All owners
<i>Million cubic feet</i>				
<b>Softwood types:</b>				
Ponderosa pine	153	715	712	1,580
Douglas-fir	80	475	615	1,170
White fir	53	391	142	586
Grand fir	6	225	292	524
Lodgepole pine	52	229	191	471
Mountain hemlock	--	--	102	102
Western redcedar	--	--	52	52
Engelmann spruce	--	4	42	46
Western hemlock	--	--	46	46
Pacific silver fir	--	--	44	44
Western larch	--	25	9	33
Shasta red fir	26	--	--	26
Subalpine fir	--	--	17	17
Western juniper	--	2	1	3
<b>Total, softwood types</b>	<b>371</b>	<b>2,065</b>	<b>2,265</b>	<b>4,701</b>
<b>Hardwood types:</b>				
Oregon white oak	10	--	1	11
Quaking aspen	--	--	9	9
White alder	--	--	6	6
<b>Total, hardwood types</b>	<b>10</b>	<b>--</b>	<b>15</b>	<b>25</b>
<b>Nonstocked<sup>c</sup></b>	<b>--</b>	<b>1</b>	<b>4</b>	<b>5</b>
<b>Total, all types</b>	<b>381</b>	<b>2,066</b>	<b>2,284</b>	<b>4,731</b>

-- = None found or less than 500,000 cubic feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Includes growing-stock trees 5.0 inches in d.b.h. and larger.

<sup>c</sup> Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

**Table 24--Net volume of sawtimber on timberland outside National Forests, by forest type and owner, eastern Oregon, January 1, 1988<sup>a b</sup>**

Forest type	Other public	Forest industry	Other private	All owners
<i>Million board feet, Scribner rule</i>				
<b>Softwood types:</b>				
Ponderosa pine	620	2,683	2,791	6,094
Douglas-fir	309	1,780	2,560	4,649
White fir	219	1,458	508	2,185
Grand fir	16	864	1,083	1,963
Lodgepole pine	183	806	650	1,638
Mountain hemlock	--	--	407	407
Engelmann spruce	--	9	219	228
Western redcedar	--	--	222	222
Pacific silver fir	--	--	181	181
Western hemlock	--	--	177	177
Shasta red fir	146	--	--	146
Western larch	--	82	20	102
Subalpine fir	--	--	41	41
Western juniper	--	9	4	13
<b>Total, softwood types</b>	<b>1,494</b>	<b>7,689</b>	<b>8,863</b>	<b>18,046</b>
<b>Hardwood types:</b>				
Quaking aspen	--	--	27	27
Oregon white oak	20	--	2	21
White alder	--	--	16	16
<b>Total, hardwood types</b>	<b>20</b>	<b>--</b>	<b>45</b>	<b>64</b>
<b>Nonstocked<sup>c</sup></b>	<b>--</b>	<b>6</b>	<b>19</b>	<b>24</b>
<b>Total, all types</b>	<b>1,513</b>	<b>7,694</b>	<b>8,927</b>	<b>18,134</b>

-- = None found or less than 500,000 board feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Includes softwood sawtimber trees 9.0 inches in d.b.h. and larger and hardwood sawtimber trees 11.0 inches in d.b.h. and larger.

<sup>c</sup> Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

**Table 25—Net volume of growing stock on timberland outside National Forests, by species and owner, eastern Oregon, January 1, 1988<sup>a b</sup>**

Species	Other public	Forest industry	Other private	All owners
<i>Million cubic feet</i>				
<b>Softwoods:</b>				
Ponderosa pine	175	751	769	1,695
Douglas-fir	70	402	675	1,147
White fir/grand fir	36	555	300	891
Lodgepole pine	53	239	194	486
Western larch	2	60	81	143
Mountain hemlock	--	--	82	82
Engelmann spruce	--	6	70	75
Incense cedar	7	36	13	56
Pacific silver fir	--	--	32	32
Shasta red fir	28	--	--	28
Noble fir	--	--	19	19
Western redcedar	--	--	13	13
Sugar pine	3	10	--	13
Western hemlock	--	--	11	11
Subalpine fir	--	1	6	7
Western white pine	2	2	3	7
Whitebark pine	--	--	2	2
Jeffrey pine	1	--	--	1
<b>Total, softwoods</b>	<b>377</b>	<b>2,061</b>	<b>2,270</b>	<b>4,707</b>
<b>Hardwoods:</b>				
Oregon white oak	4	4	1	9
Quaking aspen	--	--	9	9
White alder	--	--	3	3
Black cottonwood	--	1	1	3
<b>Total, hardwoods</b>	<b>4</b>	<b>6</b>	<b>15</b>	<b>24</b>
<b>Total, all species</b>	<b>381</b>	<b>2,066</b>	<b>2,284</b>	<b>4,731</b>

-- = none found or less than 500,000 cubic feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Includes growing-stock trees 5 inches in d.b.h. and larger.

Table 26—Net volume of sawtimber on timberland outside National Forests, by species and owner, eastern Oregon, January 1, 1988 <sup>a b</sup>

Species	Other public	Forest industry	Other private	All owners
<i>Million board feet, Scribner rule</i>				
<b>Softwoods:</b>				
Ponderosa pine	728	3,004	3,138	6,870
Douglas-fir	245	1,496	2,809	4,550
White fir/grand fir	135	1,988	1,058	3,181
Lodgepole pine	185	769	608	1,563
Western larch	9	198	304	510
Engelmann spruce	--	21	338	359
Mountain hemlock	--	--	333	333
Incense cedar	15	158	33	206
Shasta red fir	161	--	--	161
Pacific silver fir	--	--	111	111
Sugar pine	20	35	--	56
Western redcedar	--	--	56	56
Noble fir	--	--	55	55
Western white pine	14	12	17	43
Western hemlock	--	--	22	22
Subalpine fir	--	3	17	20
Whitebark pine	--	--	5	5
Jeffrey pine	2	--	--	2
<b>Total, softwoods</b>	<b>1,513</b>	<b>7,684</b>	<b>8,903</b>	<b>18,100</b>
<b>Hardwoods:</b>				
Quaking aspen	--	--	16	16
Black cottonwood	--	6	8	14
Oregon white oak	--	4	--	4
<b>Total, hardwoods</b>	<b>--</b>	<b>10</b>	<b>24</b>	<b>34</b>
<b>Total, all species</b>	<b>1,513</b>	<b>7,694</b>	<b>8,927</b>	<b>18,134</b>

-- = none found or less than 500,000 board feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Includes softwood sawtimber trees 9.0 inches in d.b.h. and larger and hardwood sawtimber trees 11.0 inches in d.b.h. and larger.

Table 27--Net volume of growing stock on timberland outside National Forests, by species and diameter class, eastern Oregon, January 1, 1988 <sup>a,b</sup>

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	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+	
<i>Million cubic feet</i>														
Softwoods:														
Ponderosa pine	64	120	179	175	220	192	150	131	89	64	64	45	203	1,695
Douglas-fir	34	94	127	157	155	131	101	84	77	49	34	21	84	1,147
White fir/grand fir	56	92	106	150	99	79	70	48	33	27	20	21	93	891
Lodgepole pine	45	77	77	107	72	41	38	14	7	6	2	2	1	486
Western larch	7	17	23	29	24	13	18	3	3	4	1	--	--	143
Mountain hemlock	2	4	4	6	5	16	19	3	8	9	4	3	--	82
Engelmann spruce	2	4	4	4	6	6	7	13	7	1	3	3	15	75
Incense-cedar	5	3	3	3	3	5	1	5	3	2	--	--	24	56
Pacific silver fir	2	2	5	8	3	3	2	5	1	--	--	--	--	32
Shasta red fir	--	--	--	--	1	1	2	2	1	1	2	4	14	28
Noble fir	2	5	--	6	--	--	--	3	2	1	--	--	--	19
Western redcedar	1	1	--	--	2	1	3	--	3	3	--	--	--	13
Sugar pine	--	1	3	--	2	--	--	1	1	--	--	--	5	13
Western hemlock	2	4	2	4	--	--	--	--	--	--	--	--	--	11
Subalpine fir	--	--	2	2	--	1	1	1	--	--	--	--	--	7
Western white pine	--	--	--	--	2	2	--	--	--	--	--	--	4	7
Whitebark pine	--	1	--	1	--	--	1	--	--	--	--	--	--	2
Jeffrey pine	--	--	--	1	--	--	--	--	--	--	--	--	--	1
Total, softwoods	221	423	534	651	594	491	412	312	233	166	129	99	443	4,707
Hardwoods:														
Oregon white oak	3	3	1	1	1	--	--	--	--	--	--	--	--	9
Quaking aspen	--	2	2	2	2	1	--	--	--	--	--	--	--	9
White alder	1	3	--	--	--	--	--	--	--	--	--	--	--	3
Black cottonwood	--	--	--	--	--	--	1	--	--	--	--	--	1	3
Total, hardwoods	4	8	4	3	3	1	1	--	--	--	--	--	1	24
Total, all species	225	431	538	653	596	492	413	312	233	166	129	99	444	4,731

-- = none found or less than 500,000 cubic feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Includes growing-stock trees 5.0 inches in d.b.h. and larger.

Table 28--Net volume of sawtimber on timberland outside National Forests, by species and diameter class, eastern Oregon, January 1, 1988 <sup>a b</sup>

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	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+	
<i>Million board feet, Scribner rule</i>												
Softwoods:												
Ponderosa pine	481	617	894	859	706	651	460	338	353	262	1,250	6,870
Douglas-fir	389	590	654	598	488	418	387	253	175	120	479	4,550
White fir/grand fir	300	569	413	352	328	233	159	132	101	107	487	3,181
Lodgepole pine	253	435	320	192	192	72	37	32	11	12	7	1,563
Western larch	73	115	108	62	92	14	17	21	7	--	--	510
Engelmann spruce	11	16	25	26	35	68	40	8	19	16	94	359
Mountain hemlock	11	21	21	65	86	13	33	47	20	17	--	333
Incense-cedar	3	9	10	20	3	18	11	7	--	--	126	206
Shasta red fir	--	--	4	4	8	9	8	4	13	23	88	161
Pacific silver fir	14	29	14	13	11	22	8	--	--	--	--	111
Sugar pine	7	--	9	--	--	6	4	--	--	--	29	56
Western redcedar	--	--	10	6	14	--	13	12	--	--	--	56
Noble fir	--	22	--	--	--	14	11	7	--	--	--	55
Western white pine	--	--	8	12	--	--	--	--	--	--	23	43
Western hemlock	5	16	--	--	--	--	--	--	--	--	--	22
Subalpine fir	6	5	--	5	1	3	--	--	--	--	--	20
Whitebark pine	--	2	--	--	3	--	--	--	--	--	--	5
Jeffrey pine	--	2	--	--	--	--	--	--	--	--	--	2
Total, softwoods	1,553	2,447	2,489	2,215	1,969	1,541	1,188	861	699	556	2,583	18,100
Hardwoods:												
Quaking aspen	--	5	8	4	--	--	--	--	--	--	--	16
Black cottonwood	--	--	--	--	6	--	--	--	--	--	8	14
Oregon white oak	--	2	2	--	--	--	--	--	--	--	--	4
Total, hardwoods	--	7	10	4	6	--	--	--	--	--	8	34
Total, all species	1,553	2,454	2,499	2,219	1,975	1,541	1,188	861	699	556	2,591	18,134

-- = none found or less than 500,000 board feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Includes softwood sawtimber trees 9.0 inches in d.b.h. and larger and hardwood sawtimber trees 11.0 inches in d.b.h. and larger.

Table 29—Area, net volume of growing stock, and net volume of sawtimber on timberland outside National Forests, by stand age and owner, eastern Oregon, January 1, 1988 <sup>a</sup>

Stand age	Other public			Forest industry			Other private			All owners		
	Area	Growing stock volume	Sawtimber volume	Area	Growing stock volume	Sawtimber volume	Area	Growing stock volume	Sawtimber volume	Area	Growing stock volume	Sawtimber volume
	Thousand acres	Million cubic feet	Million board feet <sup>b</sup>	Thousand acres	Million cubic feet	Million board feet <sup>b</sup>	Thousand acres	Million cubic feet	Million board feet <sup>b</sup>	Thousand acres	Million cubic feet	Million board feet <sup>b</sup>
Even-aged:												
0-9	16	6	28	100	25	84	21	7	21	137	37	134
10-19	--	--	--	37	2	2	17	3	--	53	6	2
20-29	--	--	--	9	4	8	22	9	24	31	13	33
30-39	20	11	32	12	9	24	15	7	20	47	27	76
40-49	15	14	23	55	63	181	14	21	40	84	99	243
50-59	7	12	48	107	103	246	37	59	203	150	174	498
60-69	14	23	82	71	126	411	70	102	293	154	250	786
70-79	12	28	82	189	332	1,216	169	384	1,283	370	744	2,581
80-89	14	28	98	60	124	477	70	185	804	144	337	1,379
90-99	4	6	21	63	119	446	85	235	937	152	360	1,403
100-109	--	--	--	29	80	330	22	69	317	50	149	648
110-119	8	20	83	20	37	130	--	--	--	28	56	214
120-129	--	--	--	18	29	122	--	--	--	18	29	122
130-139	--	--	--	7	6	28	--	--	--	7	6	28
140-149	--	--	--	--	--	--	--	--	--	--	--	--
150-159	--	--	--	--	--	--	--	--	--	--	--	--
160-169	--	--	--	--	--	--	--	--	--	--	--	--
170-179	--	--	--	--	--	--	--	--	--	--	--	--
180-189	--	--	--	--	--	--	--	--	--	--	--	--
190-199	--	--	--	--	--	--	--	--	--	--	--	--
200-299	--	--	--	24	52	290	33	152	736	57	204	1,026
300+	--	--	--	--	--	--	--	--	--	--	--	--
Uneven-aged:												
0 - 100	63	138	580	379	547	1,978	352	624	2,412	794	1,310	4,970
100 +	14	69	359	122	300	1,324	82	291	1,304	218	661	2,987
No manageable stand <sup>c</sup>	34	26	77	243	107	395	205	135	532	482	269	1,004
Total, all ages	220	381	1,513	1,543	2,066	7,694	1,215	2,284	8,927	2,978	4,731	18,134

-- = none found or less than 500 acres, 500,000 cubic feet, or 500,000 board feet.

<sup>a</sup> Totals may be off because of rounding; data subject to sampling error.

<sup>b</sup> Scribner rule.

<sup>c</sup> These stands lack 25 percent conifer stocking on 3/5 of the sample subplots.

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## Metric Equivalents

1 acre = 0.405 hectare

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 foot = 0.3048 meter

1 inch = 2.54 centimeters

1 mile = 1.609 kilometers

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This report summarizes a 1992 timber resource inventory of timberland outside National Forests in eastern Oregon. The report presents statistical tables of timberland area, timber volume, growth, mortality, and harvest. It also displays tables of revised 1986-87 timber resource statistics for timberland outside National Forests; the 1992 and 1986-87 tables may be compared to get valid estimates of change. Additionally, three supplemental tables provide a summary of changes between 1986-87 and 1992 in the timberland area and timber volume outside National Forests.

**Keywords:** Forest surveys, statistics (forest), timber resources, resources (forest), Oregon (eastern)

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