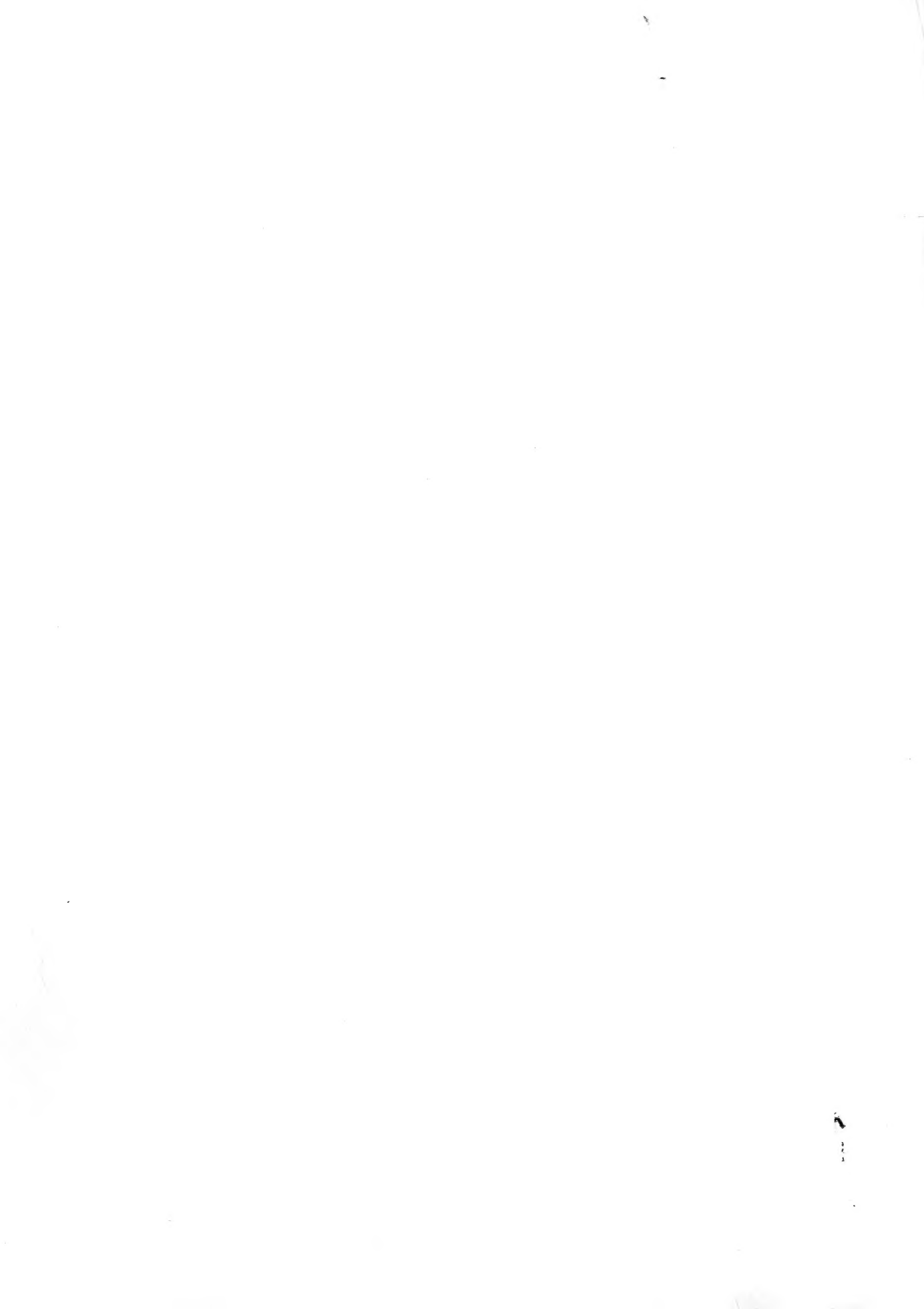


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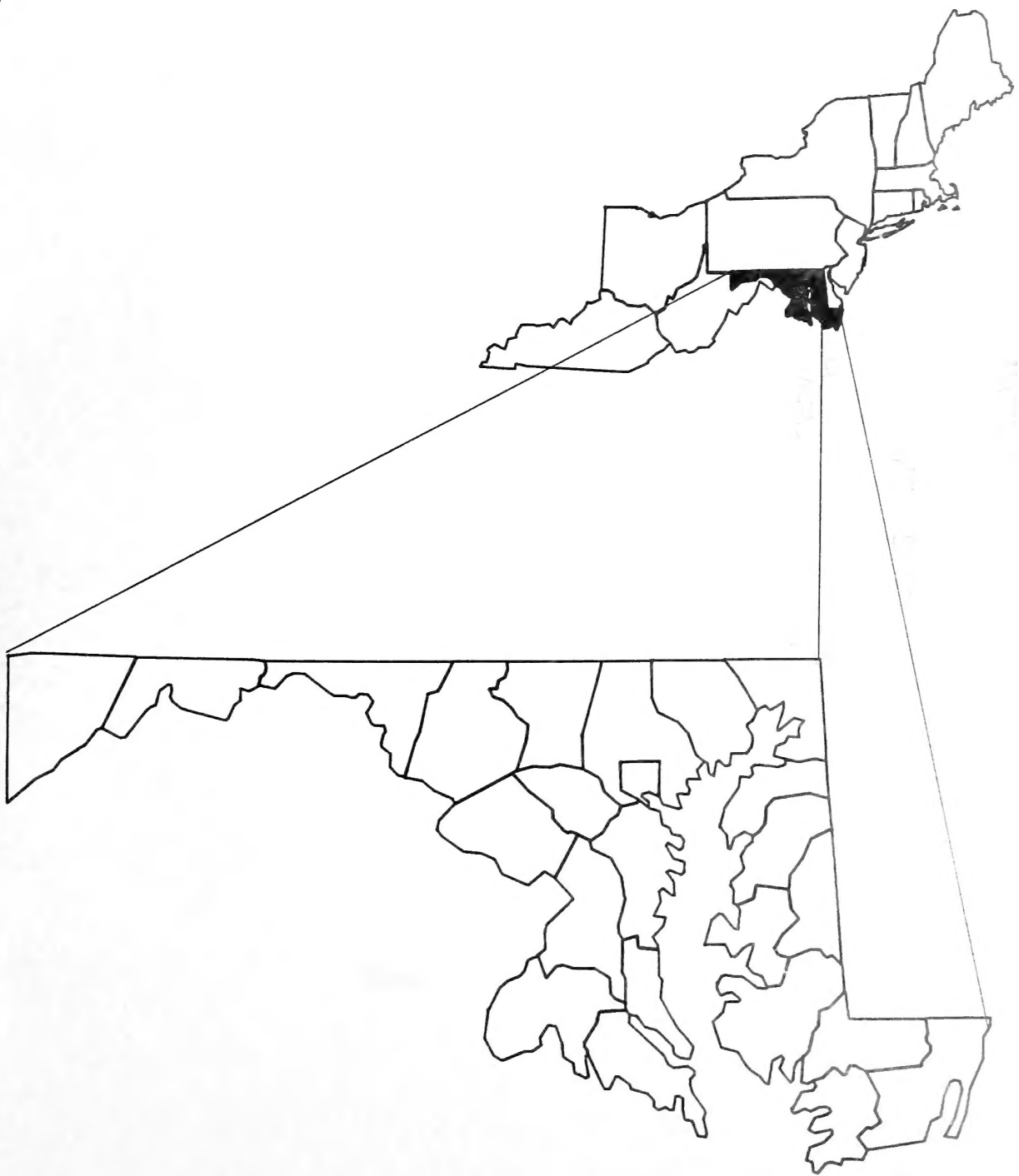
**Northeastern Forest  
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# Forest Statistics for Maryland—1976 and 1986

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## **Abstract**

A statistical report on the fourth forest survey of Maryland conducted in 1985-86 by the Forest Inventory and Analysis Unit, Northeastern Forest Experiment Station. Statistics for forest area, numbers of trees, timber volume, tree biomass, average annual growth, and timber products output are displayed at the state, and when appropriate at the unit and county levels. The current inventory indicates that the state has approximately 4.5 billion cubic feet of growing-stock volume, or 260.1 million tons of net green weight of live trees, on 2.4 million acres of timberland. For use in trend analysis, this report includes estimates derived from reprocessing the 1976 data using current methods and standards.

## **Foreword**

The fourth inventory of Maryland was under the overall direction of John R. Peters, Project Leader of the Forest Inventory and Analysis Unit. Thomas W. Birch assisted in the development and administration of the operating plan. Charles T. Scott was responsible for the design of the inventory and sample selection. David J. Alerich supervised the interpretation of aerial photos and collection of data. He was assisted by Joseph G. Reddan. Members of the field staff were:

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Thomas S. Frieswyk and Dawn M. DiGiovanni applied FINSYS (Forest INventory SYStem), a generalized data processing system, to the specific needs of the Maryland inventory and produced summary tables for the state and counties. Thomas W. Birch and Dawn M. DiGiovanni were instrumental in assuring that the area estimates were consistent with the two previous inventories. Rosemary K. Venit produced graphics and was involved in rewriting parts of the FINSYS table generating routine.

Robert L. Nevel, Jr., Richard H. Widmann, and Eric H. Wharton, with the assistance of the Maryland Forest, Parks and Wildlife Service collected and compiled the data on timber products output and timber removals.

Carmela M. Hyland was responsible for administrative and secretarial services. Marie Pennestri typed the text for this report.

The Forest Inventory and Analysis Unit would like to thank the landowners of Maryland for their cooperation and assistance during this inventory.

# **Forest Statistics for Maryland--1976 and 1986**

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## Highlights

- \* The report contains both 1986 tables and updated 1976 tables.

## Forest Area

- \* Maryland, with 2.703 million acres of forest land, is 43 percent forested.
- \* Ninety percent of Maryland's forest land, 2.424 million acres, is classified as timberland (formerly known as commercial forest land).
- \* There was a slight decrease in land classified as timberland between surveys; however, total forest land has remained fairly stable.
- \* The area of sawtimber stands has increased 25 percent since the 1976 inventory; sawtimber stands now total 1.724 million acres or 71 percent of the timberland. A 52 percent decrease in the area of seedling and sapling stands has reduced these stands to 231,300 acres, or 10 percent of the timberland.
- \* Oak/hickory is the dominant forest-type group occupying 60 percent of the timberland and accounting for 64 percent of the growing-stock volume.
- \* Ninety percent of Maryland's timberland is privately owned.

## Biomass

- \* Dry weight tables are available for the first time.
- \* The net green weight of all live trees on timberland is 260.1 million tons or 107.3 tons per acre. Softwoods account for 36.9 million tons or 15.3 tons per acre; hardwoods account for 223.1 million tons or 92 tons per acre.
- \* A little more than 167 million tons, or 64 percent of the net green weight of all live trees, is in growing-stock material. Of the remaining 93 million tons of all-live-tree weight, 63 percent is in growing-stock tops, 21 percent is in saplings, and 16 percent is in cull trees.
- \* An additional 4.8 million tons of biomass is contained in salvable dead trees.
- \* The net dry weight of all live trees on timberland is 146.9 million tons or an average of 60.6 tons per acre. Softwoods account for 17.1 million tons or 7.1 tons per acre; hardwoods account for 129.8 million tons or 53.5 tons per acre.

## **Timber Volume**

- \* Growing-stock volume is 4.5 billion cubic feet, an average of 1,846 cubic feet per acre. This is a 18 percent increase over the 1976 inventory.
- \* Sawtimber volume is 13.3 billion board feet, an average of 5,501 board feet per acre. This is a 20 percent increase over the 1976 survey.
- \* Yellow-poplar growing-stock volume has increased 15 percent between inventories, it remains the number one species. With 547 million cubic feet, yellow-poplar accounts for over 12 percent of the growing-stock volume.
- \* Loblolly pine is the top softwood species with 472 million cubic feet or 10.5 percent of growing stock volume.
- \* Sawtimber stands contain just over 85 percent of the growing stock volume.
- \* Hardwood sawlog quality has declined slightly; in 1986, grade 1 and 2 sawlogs account for 25 percent of the sawlog volume while in 1976, grade 1 and 2 sawlogs accounted for 33 percent of the sawlog volume.

## **Growth/Removals**

- \* Average annual net growth of growing-stock volume in Maryland is 3.8 percent of the inventory.
- \* Average annual net cubic-foot growth of growing-stock volume exceeded removals on a statewide basis (1.7:1); however, removals exceeded growth on the Lower Eastern Shore for both softwoods and hardwoods.



## Introduction

Under the authority of the McSweeney-McNary Forest Research Act of 1928 and subsequent acts, including the Renewable Resources Planning Act of 1974 and the Renewable Resources Research Act of 1978, the USDA Forest Service conducts periodic forest inventories of all states to provide up-to-date information on the forest resource of the Nation. The initial inventory of Maryland's resources was conducted in 1950. The second inventory was completed in 1964, and the third inventory, which began in 1975, was completed in 1976. This report presents the forest resource data from the fourth inventory completed in 1986. This inventory involved a cooperative effort of the Maryland Forest, Parks and Wildlife Service; the USDA Soil Conservation Service; and the Northeastern Forest Experiment Station.

The Forest Inventory and Analysis Unit of the Northeastern Forest Experiment Station conducted the inventory on all forest land, developed the resource tables, and prepared this report.

The sampling procedure used during the current reinventory utilized aerial photography, the re-measurement of a sample of the ground plots established in the earlier inventories, and establishment of new ground plots. In Maryland this required classification of 18,355 new points and reclassification of 550 points from the third inventory on aerial photographs into land-use and cubic-foot volume classes, establishment of 602 (342 forest and 260 nonforest) new ground plot locations as a subsample of the new photo points, and re-measurement of 550 (296 forest and 254 nonforest) plots from earlier inventories. Eleven hundred and fifty-two plots were measured an average of one plot for every 5465 acres. The data collected were summarized using the FINSYS computer system developed at the Northeastern Forest Experiment Station.

The reinventory of Maryland's forest resources involved several associated studies and considerable analysis. Reports discussing the State's private forest-land owners and its primary forest products industry are being prepared. Additional reports will also be published containing detailed 1986 biomass and wildlife statistics.

The forest area, numbers of trees, timber volume, biomass, and growth statistics shown in this report are but a summary of the information collected. Other information or additional summaries may be developed. **For information about these, contact the Forest Inventory and Analysis Unit, USDA Forest Service, 370 Reed Road, Broomall, PA 19008 (phone 215-690-3037).**

The four eastern Forest Experiment Stations have agreed to include a set of 25 core tables in each of their state resource bulletins. The format of any one of these tables will be identical for all 37 states in the Stations' territories. Rather than being grouped as a set, these core tables have been interspersed throughout this publication according to their level of data and content. A list of the core table numbers and their corresponding numbers as presented in this publication follows the index of tables.

## Reliability of the Estimates

The data in this report were based on a carefully designed sample of forest conditions throughout Maryland. However, because the field crews did not measure every tree or every acre in the state, the data are estimates. The reliability of the estimating procedure can be judged by two important statistical measures: accuracy and precision. Among statisticians, accuracy refers to the success of estimating the true value, precision refers to the clustering of sample values about their own averages or to the variation among repeated samples. We are mainly interested in the accuracy of the inventory, but in most cases we can only measure its precision.

Although accuracy cannot be measured exactly, it can be checked. Preliminary tables are sent to other agencies and to outside experts familiar with the resources of Maryland. If questions arise, the data are reviewed and reanalyzed to resolve the differences. Also, great care is taken to keep all sources of procedural error to a minimum by careful training of both field and office personnel, frequent inspection of field and office work, and application of the most reliable inventory methods.

Because of the care exercised in the inventory process, estimates of precision afford a reason-

able measure of the inventory's adequacy. The precision of each estimate is described by its sampling error. Sampling errors are given with several tables in this report. The others are available upon request.

Briefly, here is an example of how the sampling error is used to indicate reliability: The estimate of timberland for Maryland is 2,424,000 acres. Its sampling error is 1.1 percent, or 26,664 acres. This means that if there are no errors in the procedure and we repeated the inventory in the same way, the odds are 2 to 1 (66 percent probability) that the estimate would be between 2,397,336 and 2,450,664 acres (2,424,000 +/- 26,664). Similarly, the odds are 19 to 1 (95 percent probability) that the estimate would be within 53,328 acres. It is worth noting that the state estimates have the smallest sampling errors and therefore are the most precise or reliable. County estimates are less reliable. In Maryland for example, the sampling error for timberland at the level is 1.1 percent; while the sampling error for Frederick County is 5.2 percent. Thus, county level estimates are often considerably less reliable than state level estimates. In general, as the size of the estimate decreases in relation to the total, the sampling error, expressed as a percentage of the estimate, increases.

## Comparison Between Inventories

To evaluate the condition of the forest resource, it is useful to compare the current estimates with those from the previous inventory. However, for the comparisons to be valid, the procedures used in the two inventories must be similar. As a result of our ongoing efforts to improve the efficiency of the inventory, we have made several changes in procedures and definitions since 1976.

Because these changes make the direct comparison of the 1986 estimates with those published by Powell and Kingsley (1980) inappropriate, data collected in 1976 have been reprocessed using the 1986 procedures and standards. State and unit tables containing the recalculated 1976 data have been included in this report. The tables provide area and volume data for comparison and trend analysis. They are printed in italic type to distinguish them from the current tables. Ta-

bles of recalculated data at the county level could not be provided because plots were selected at the unit level in 1976; therefore, individual counties do not have enough plots to develop statistically sound data. The changes that have had an effect on the results of our computations follow:

A major change was made in the design of the plots established in 1985-86. In addition to the traditional data gathered to estimate forest area and tree volumes, information was collected to describe forest wildlife habitat, forest soils, and forest tree biomass.

New height and volume equations were developed for both growing stock and sawtimber (Scott 1979, 1981). These equations are derived by nonlinear regression techniques; in 1976 linear regression was used. The nonlinear method is used because it yields estimates with smaller errors between predicted and actual values.

Stand size is a classification of forest land based on the size of the trees that dominate an area, i.e., seedling/sapling, poletimber, sawtimber, or non-stocked. In the 1976 inventory only growing-stock trees were considered in determining stand size; the 1986 procedure considers all live trees. This change caused a shift in acres among classes, especially between seedling/sapling and poletimber.

The procedures used to determine forest type have also been modified. In 1976, plots on which red maple made up the plurality of stocking were put into the elm/ash/red maple group. In 1986, such plots were examined more closely and according to their moisture class and the other species present, were placed in either the northern hardwoods group (red maple/northern hardwoods), oak/hickory group (red maple/central hardwoods) or elm/ash/red maple group.

The basic building block for estimating forest area and timber volume has been changed from the state level or geographic unit level, to the county level. In the past, the statistics were developed at the state or unit level and prorated back to the county level on the basis of distribution of photo-interpretation

points. Direct development of county-level data helps users interested in more precise local data, but can make comparisons with past county estimates developed by the pro-rata technique uncertain.

## Definition of Terms

*Acceptable tree.* (a) Live sawtimber trees that do not qualify as preferred trees but are not cull trees. (b) Live poletimber trees that prospectively will not qualify as preferred trees, but are not now or prospectively cull trees.

*Accretion.* The estimated net growth on growing-stock trees that were measured during the previous inventory, divided by the number of growing seasons between inventories. It does not include the growth on trees that were cut during the period, nor those trees that died.

*Agricultural/herbaceous land.* Land with herbaceous plant cover, both grasses and/or forbs, including cropland, pasture land, and natural grass lands.

*Aquatic edge.* An edge condition created when a terrestrial land use abuts a lake, pond, river, stream, or major wetland.

*Basal area class.* A classification of forest land in terms of basal area (cross sectional area of a tree stem at breast height in square feet per acre) of all live trees of all sizes.

*Board foot.* A unit of lumber measurement 1 foot long, 1 foot wide, and 1 inch thick, or its equivalent.

*Board-foot stand-volume class.* A classification of forest land in terms of net board-foot volume of sawtimber trees per acre.

*Bog/Marsh/Swamp.* Land that has less than 10.0 percent stocking with live trees; and which characteristically supports low, generally herbaceous or shrubby vegetation, and which is intermittently covered with water during all seasons; includes

tidal areas that are covered with salty or brackish water during high tides.

*Browse.* Forage resource; defined here as current twig growth of woody-stemmed plants occurring between 1 and 8 feet in height.

*Cabin log.* A relatively slender roundwood product that is cut to standard sizes; meets specifications of strength, straightness, and soundness; and is finished for use in constructing cabins, barns, and other buildings.

*Coarse residues.* Manufacturing residues suitable for chipping, such as slabs, edgings, and veneer cores.

*Commercial species.* Tree species presently or prospectively suitable for industrial wood products. Excludes species of typically small size, poor form, or inferior quality, such as hawthorn or sumac.

*Condition class.* Classification of trees based on live or dead and condition of top of the tree' (i.e. intact, broken, dead).

*Cord.* See Standard cord.

*County and municipal lands.* Lands owned by counties and local public agencies or municipalities or leased to them for 50 years or more.

*Cropland.* Land that currently supports agricultural crops including silage and feed grains, bare farm fields resulting from cultivation of harvest, and maintained orchards.

*Cubic-foot stand-volume class.* A classification of forest land in terms of net cubic-foot volume of all live trees per acre.

*Cull tree.* A rough tree or a rotten tree.

*Cull increment.* The net volume of growing-stock trees on the previous inventory that became rough or rotten trees in the current inventory, divided by the number of growing seasons between inventories.

*Cultural land.* Land with human development as the major land cover; includes industrial, commercial, and residential land uses.

**Diameter at breast height (d.b.h.).** The diameter outside bark of a standing tree measured at 4-1/2 feet above the ground.

**Distribution.** Number of plots where a given species occurs expressed as a percentage of the total number of plots.

**Dry weight.** The weight of wood and bark, oven-dry basis. It is usually expressed in pounds or tons.

**Farmer-owned lands.** Lands owned by farm operators, whether part of the farmstead or not. Excludes land leased by farm operators from non-farm owners.

**Federal lands.** Lands (other than National Forests) administered by Federal agencies.

**Fine residues.** Manufacturing residues not suitable for chipping, such as sawdust and shavings.

**Forest industry lands.** Lands owned by companies or individuals that operate primary wood-using plants.

**Forest land.** Land that is at least 10 percent stocked with trees of any size, or that formerly had such tree cover and is not currently developed for a nonforest use. The minimum area for classification of forest land is 1 acre.

**Forest type.** A classification of forest land based on the species that form a plurality of live tree basal area stocking.

**Forest-type group.** A combination of forest types that share closely associated species or site requirements. The many forest types in Maryland were combined into the following major forest-type groups (the descriptions apply to forests in Maryland):

a. *White/red pine*--forests in which white pine, hemlock, or red pine make up the plurality of the stocking, singly or in combination; common associates include maple, oak, and yellow-poplar.

b. *Spruce/fir*--forests in which red spruce, northern white-cedar, balsam fir, white spruce, black spruce, or tamarack, singly or

in combination, make up a plurality of the stocking; common associates include paper birch, red maple, aspen, white pine, hemlock, and sugar maple.

c. *Loblolly/shortleaf pine group*--forests in which loblolly, shortleaf or other southern yellow pines (except longleaf or slash pine) singly or in combination, comprise a plurality of the stocking; common associates include oaks, red maple, and blackgum.

d. *Oak/pine*--forests in which northern red oak or white ash, singly or in combination, make up a plurality of the stocking but where pines or eastern red cedar contributes 25 to 50 percent of the stocking; Virginia and loblolly pine, southern red oak, hickory, and blackgum are associates.

e. *Oak/hickory*--forests in which upland oaks, red maple (when associated with central hardwoods), or hawthorn, singly or in combination, make up a plurality of the stocking and in which white pine makes up less than 25 percent of the stocking; common associates include hard pine, ash, yellow-poplar, beech, blackgum, sugar maple, and red maple.

f. *Oak/gum/cypress*--bottomland forests in which wet-site oaks, sweetgum, or baldcypress, singly or in combination, comprise a plurality of the stocking and in which pines comprise less than 25 percent of the stocking; common associates include American elm, red maple, blackgum, and green ash.

g. *Elm/ash/red maple*--forests in which black ash, elm, red maple (when growing on wet sites), willow, or green ash, singly or in combination, make up a plurality of the stocking; common associates include bottomland oaks, blackgum, river birch, and silver maple.

h. *Northern hardwoods*--forests in which sugar maple, beech, yellow birch, red maple (when associated with northern hardwoods), pin cherry, or black cherry, singly or in combination, make up a plurality of the stocking; common associates include red maple, northern red oak, hemlock, white ash, and basswood.

**Fuelwood.** Round, split, or chipped woody material (with or without bark) that is converted to household, commercial, or industrial energy.

**Geographic unit.** A county or a group of counties within a state that is large enough to provide an adequate sample that will yield statistically reliable estimates of timberland area, volume, and components of change.

**Green ton.** A unit of measure of green weight equivalent to 2,000 pounds or 907.1848 kilograms.

**Green ton stand-volume class.** A classification of forest land in terms of net green weight of the aboveground components of all live trees per unit area. It is usually expressed in green tons per acre.

**Green weight.** The weight of wood and bark as it would be if it had been recently cut. It is usually expressed in pounds or tons.

**Gross growth.** The sum of accretion and ingrowth.

**Growing-stock trees.** Live trees of commercial species classified as sawtimber, poletimber, saplings, or seedlings; that is, all live trees of commercial species except rough and rotten trees.

**Growing-stock volume.** Net volume, in cubic feet, of growing-stock trees 5.0 inches d.b.h. and larger from a 1-foot stump to a minimum 4.0-inch top diameter outside bark of the central stem, or to the point where the central stem breaks into limbs. Net volume equals gross volume, less deduction for cull.

**Hardwoods.** Dicotyledonous trees, usually broad-leaved and deciduous.

**Harvested cropland.** All land from which crops were harvested or hay was cut and all land in orchards, citrus groves, vineyards, and nursery and greenhouse products.

**Idle farmland.** Former cropland or pasture that has not been tended within the last 2 years and that has less than 10 percent stocking with live

trees, (established seedlings or larger trees) regardless of species.

**Importance value.** Average of relative density and relative frequency of a species.

**Improved/maintained pasture.** Land that is currently used and maintained for grazing (not including grazed cropland).

**Indian lands.** (a) Lands held in trust by the United States or States for Indian tribes or individual Indians. (b) Lands owned in fee by Indian tribes whether subject to Federal or State restrictions against alienation or not.

**Industrial and commercial land.** Supply yards, parking lots, factories, etc.

**Industrial products.** All roundwood products except fuelwood.

**Ingrowth.** The estimated net volume of growing-stock trees that became 5.0 inches d.b.h. or larger during the period between inventories, divided by the number of growing seasons between inventories.

**International 1/4-inch rule.** A log rule or formula for estimating the board-foot volume of logs. The mathematical formula is:

$$(0.22D^2 - 0.71D)(0.904762)$$

for 4-foot sections, where D=diameter inside bark at the small end of the log section. This rule is used as the USDA Forest Service standard log rule in the Eastern United States.

**Land area.** (a) Bureau of Census: The area of dry land and land temporarily or partly covered by water, such as marshes, swamps, and river flood plains; streams, sloughs, estuaries, and canals less than 1/8 statute mile wide; and lakes, reservoirs, and ponds less than 40 acres in area. (b) Forest Inventory and Analysis: same as (a) except that the minimum width of streams, etc., is 120 feet, and the minimum size of lakes, etc., is 1 acre.

**Land use edge.** A condition created by the juxtaposition of two differing land uses.

**Lesser woody stem.** Shrub or vine species, or tree species stem that is less than 5.0 inches d.b.h.

**Logging residues.** The unused portions of growing-stock trees harvested or killed in the process of logging.

**Manufacturing plant residues.** Wood materials that are generated when round timber (roundwood) is converted into wood products. This includes slabs, edgings, trimmings, bark, miscuts, sawdust, shavings, veneer cores and clippings, and pulp screening. If these residues are used, they are referred to as plant byproducts.

**Mast.** Seed produced by woody-stemmed, perennial plants, generally refers to soft (fruit) and hard (nuts) mast.

**Mining and waste land.** Surface mining, gravel pits, dumps.

**Miscellaneous private lands.** Privately owned lands other than forest industry and farmer-owned lands.

**Mortality.** The estimated net volume of growing-stock trees at the previous inventory that died from natural causes before the current inventory, divided by the number of growing seasons between inventories.

**National Forest lands.** Federal lands legally designated as National Forests or purchase units and other lands administered as part of the National Forest System by the USDA Forest Service.

**Net change.** The difference between the current and previous inventory estimates of growing-stock volume, divided by the number of growing seasons between inventories. Components of net change are ingrowth plus accretion, minus mortality, minus cull increment, minus removals.

**Net green weight.** The green weight of woody material less the weight of all unsound (rotten) material.

**Net growth.** The change, resulting from natural causes, in growing-stock volume during the period between inventories, divided by the number of growing seasons. Components of net growth are

ingrowth plus accretion, minus mortality, minus cull increment.

**Noncensus water.** Streams/ivers between 120 feet and 1/8 mile in width, and bodies of water between 1 and 40 acres in size. The Bureau of the Census classifies such water as land.

**Noncommercial forest land.** Productive-reserved, urban, and unproductive forest land.

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

**Nonforest land.** Land that has never supported forests, or land formerly forested but now in non-forest use such as cropland, pasture, residential areas, and highways.

**Nonsalvable dead tree.** A dead tree with most or all of its bark missing that is at least 5.0 inches in diameter at breast height and is at least 10 feet in height.

**Nonstocked area.** A stand-size class of forest land that is stocked with less than 10 percent of full stocking with all live trees.

**Other cropland.** Includes cropland used for cover crops; legumes, soil-improvement.

**Other farmland.** All nonforest land on a farm excluding cropland, pasture, and idle farmland; includes farm lanes, stock pens, and farmsteads.

**Ownership class.** A classification of forest land based upon ownership and nature of business or control of decision-making for the land. It encompasses all types of legal entities having ownership interest in the land, whether public or private.

**Pasture land.** Includes any pasture land other than cropland and woodland pasture. Can include lands which had applied lime fertilizer, seed, improved by irrigation, drainage, or control of weeds and brush.

**Pastured cropland.** Includes rotation pasture and grazing land that would have been used for crops without additional improvement.

**Piling (piles).** Relatively slender structural round-wood products that are cut to the maximum length possible (within top circumference and other specifications of strength, straightness, and soundness) that when nearly buried in the ground provide vertical or lateral support for buildings, foundations, bridges, docks, and other structures.

**Plant byproducts.** Wood products, such as pulp chips, recycled from manufacturing plant residues.

**Poletimber stand.** A stand-size class of forest land that is stocked with at least 10 percent of full stocking with all live trees with half or more of such stocking in poletimber or sawtimber trees or both, and in which the stocking of poletimber exceeds that of sawtimber.

**Poletimber tree.** Live trees of commercial species meeting regional specifications of soundness and form and at least 5.0 inches in d.b.h., but smaller than sawtimber trees.

**Preferred tree.** A high-quality tree, from a lumber viewpoint, that would be favored in cultural operations. General characteristics include grade 1 butt log (if sawtimber size), good form, good vigor, and freedom from serious damage.

**Productive-reserved forest land.** Forest land sufficiently productive to qualify as timberland, but withdrawn from timber utilization through statute, administrative designation, or exclusive use for Christmas tree production.

**Primary manufacturing plant.** A plant that converts round timber into wood products such as woodpulp, lumber, veneer, cooperage, and dimension products.

**Pulpwood.** Roundwood converted into 4- or 5-foot lengths or chips, and chipped plant byproducts that are prepared for manufacture into woodpulp.

**Recreation site.** Parks, campgrounds, playing fields, tracks, etc.

**Relative density.** Number of individuals of a given species as a percentage of the total of all species.

**Relative frequency.** Frequency of a given species as a percentage of the total of all frequencies (Frequency = total number of plots where a given species occurs / total number of plots).

**Removals.** The net growing-stock volume harvested or killed in logging, cultural operations--such as timber stand improvement--or land clearing, and also the net growing-stock volume neither harvested nor killed but growing on land that was reclassified from timberland to noncommercial forest land during the period between inventories. This volume is divided by the number of growing seasons.

**Rights-of-way.** Highways, pipelines, powerlines, canals.

**Rotten tree.** A live tree of commercial species that does not contain at least one 12-foot sawlog or two noncontiguous sawlogs, each 8 feet or longer, now or prospectively, and does not meet regional specifications for freedom from defect primarily because of rot; that is, more than 50 percent of the cull volume in the tree is rotten.

**Rough tree.** (a) The same as a rotten tree, except that a rough tree does not meet regional specifications for freedom from defect primarily because of roughness or poor form; also (b) a live tree of noncommercial species.

**Roundwood products.** Logs, bolts, total tree chips, or other round timber generated by harvested trees for industrial or consumer uses.

**Salvable dead trees.** A tree at least 5.0 inches in diameter at breast height that has recently died and still has intact bark. The tree may be standing, fallen, windthrown, knocked down, or broken off.

**Sampling error.** A measure of the reliability of an estimate, expressed as a percentage of the estimate. The sampling errors given in this report correspond to one standard deviation and are calculated as the square root of the variance, divided by the estimate, and multiplied by 100.

**Saplings.** Live trees 1.0 inch through 4.9 inches d.b.h.

**Sapling-seedling stand.** A stand-size class of forest land that is stocked with at least 10 percent of full stocking with all live trees with half or more of such stocking in saplings or seedlings or both.

**Sawlog.** A log meeting regional standards of diameter, length, and freedom from defect, including a minimum 8-foot length and a minimum diameter inside bark of 6 inches for softwoods and 8 inches for hardwoods. (See specifications under Log-Grade Classification).

**Sawlog portion.** That part of the bole of a sawtimber tree between the stump and the sawlog top; that is, the merchantable height.

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

**Sawtimber stand.** A stand-size class of forest land that is stocked with at least 10 percent of full stocking with all live trees with half or more of such stocking in poletimber or sawtimber trees or both, and in which the stocking of sawtimber is at least equal to that of poletimber.

**Sawtimber trees.** Live trees of commercial species at least 9.0 inches d.b.h. for softwoods or 11.0 inches for hardwoods, containing at least one 12-foot sawlog or two noncontiguous 8-foot sawlogs, and meeting regional specifications for freedom from defect.

**Sawtimber volume.** Net volume in board feet, by the International 1/4-inch rule, of sawlogs in sawtimber trees. Net volume equals gross volume less deductions for rot, sweep, and other defects that affect use for lumber.

**Seedlings.** Live trees less than 1.0-inch d.b.h. and at least 1 foot in height.

**Shrub.** Woody-stemmed perennial plant, generally with no well-defined main stem and less than 12 feet in height at maturity; defined by species.

**Shrub land.** Land with shrub and/or tree cover and an obvious herbaceous understory; average canopy height of less than 25 feet and crown closure of less than 70 percent.

**Single-family/custom house.** House sheltering one family and immediately adjacent managed land.

**Snag.** Standing dead tree, with most or all of its bark missing that is at least 5.0 inches in diameter and at least 10 feet tall (does not include salvable dead).

**Softwoods.** Coniferous trees, usually evergreen and having needles or scalelike leaves.

**Stand.** A group of forest trees growing on forest land.

**Stand area class.** The area, contiguous to the plot, that is of the same overall stand size and major type group (hardwood, softwood, or uniform mixture of both).

**Stand-size class.** A classification of forest land based on the size class (that is, seedlings, saplings, poletimber, or sawtimber) of all live trees in the area.

**Standard cord.** A unit of measure for stacked bolts of wood, encompassing 128 cubic feet of wood, bark, and air space. Fuelwood cord estimates can be derived from cubic-foot estimates of growing stock by applying an average factor of 80 cubic feet of solid wood per cord. For pulpwood, a conversion of 85 cubic feet of solid wood per cord is used because pulpwood is more uniform.

**Standard-lumber log grade.** A classification of the quality of sawtimber volume based on standard sawlog grades for hardwoods, white pine, and southern pine. (Note: Red pine was graded using the southern pine guidelines. All specifications are shown under Log-Grade Classification).

**State lands.** Lands owned by the State or leased to the State for 50 years or more.

**Stocking.** The degree of occupancy of land by trees, measured by basal area and/or number of trees in a stand compared to the basal area



and/or number of trees required to fully use the growth potential of the land (or the stocking standard). In the Eastern United States this standard is 75 square feet of basal area per acre for trees 5.0 inches d.b.h. and larger, or its equivalent in numbers of trees per acre for seedlings and saplings.

Two categories of stocking are used in this report: all live trees and growing-stock trees. The relationships between the classes and the percentage of the stocking standard are: non-stocked = 0 to 9, poorly stocked = 10 to 59, moderately stocked = 60 to 99, fully stocked = 100 to 129, and overstocked = 130 to 160.

*Strip mine.* Area devoid of vegetation due to current or recent general excavation.

*Stump.* The main stem of a tree from ground level to 1 foot above ground level, including the wood and bark.

*Timberland.* Forest land producing or capable of producing crops of industrial wood (more than 20 cubic feet per acre per year) and not withdrawn from timber utilization. Formerly known as commercial forest land.

*Timber products.* Roundwood (round timber) products and manufacturing plant byproducts harvested from growing-stock trees on timberland; from other sources, such as cull trees, salvageable dead trees, limbs, tops and saplings; and from trees on noncommercial forest and nonforest lands.

*Timber removals.* The growing-stock or sawtimber volume of trees removed from the inventory for roundwood products, plus logging residues, volume destroyed during land clearing, and volume of standing trees on land that was reclassified from timberland to noncommercial forest land (See Table 46).

*Top.* The wood and bark of a tree above the merchantable height (or above the point on the stem 4.0 inches in diameter outside bark). It generally includes the uppermost stem, branches, and twigs of the tree, but not the foliage.

*Tract/multiple family.* Multiple individual residential units or attached units (e.g. apartment build-

ings, condominiums) and immediately adjacent managed land.

*Transportation right-of-way.* Land associated with highways and railroads.

*Tree class.* A classification of the quality or condition of trees for sawlog production. Tree class for sawtimber trees is based on their present condition. Tree class for poletimber trees is a prospective determination--a forecast of their potential quality when they reach sawtimber size (11.0 inches d.b.h. for hardwoods, 9.0 inches d.b.h. for softwoods).

*Trees.* Woody plants that have well-developed stems and are usually more than 12 feet in height at maturity.

*Unproductive forest land.* Forest land that is incapable of producing 20 cubic feet per acre per year of industrial wood under natural conditions, because of adverse site conditions.

*Unused manufacturing residues.* Plant residues that are dumped or destroyed and not recovered for plant byproducts.

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

*Urban forest land.* Noncommercial forest land within urban areas that is completely surrounded by urban development (not parks), whether commercial, industrial, or residential.

*Utility right-of-way.* Land associated with pipeline and electric transmission lines; identified only if vegetative cover differs from adjacent land use.

*Veneer log or bolt.* A roundwood product from which veneer is sliced or sawn that usually meets certain minimum standards of diameter, length, and defect.

*Volume suitable for pulpwood.* The sound volume (only rotten cull excluded) of growing-stock and rough trees.

*Windbreak/hedgerow.* Linear areas, less than 120 feet in width; with predominantly tree and/or shrub vegetation.

## References

Powell, Douglas S., Kingsley, Neal P. (1980.) **The forest resources of Maryland.** Resour. Bull. NE-61. Broomall, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station. 103 p.

Scott, Charles T. 1979. **Northeastern forest survey board-foot volume equations.** Res. Note NE-271. Broomall, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station. 3 p.

Scott, Charles T. 1981. **Northeastern forest survey revised cubic-foot volume equations.** Res. Note NE-304. Broomall, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station. 3 p.

## Oaks of the Northeast

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| Species Group                              | Common Name        |
|--|--------------------|
| <b>Select White Oaks</b>                   |                    |
| <i>Q. alba</i>                             | white oak          |
| <i>Q. bicolor</i>                          | swamp white oak    |
| <i>Q. macrocarpa</i>                       | bur oak            |
| <i>Q. michauxii</i>                        | swamp chestnut oak |
| <i>Q. muehlenbergii</i>                    | chinkapin oak      |
| <b>Select Red Oaks</b>                     |                    |
| <i>Q. falcata</i> var. <i>pagodaefolia</i> | cherrybark oak     |
| <i>Q. rubra</i>                            | northern red oak   |
| <i>Q. shumardii</i>                        | shumard oak        |
| <b>Other White Oaks</b>                    |                    |
| <i>Q. lyrata</i>                           | overcup oak        |
| <i>Q. prinus</i>                           | chestnut oak       |
| <i>Q. stellata</i> var. <i>stellata</i>    | post oak           |
| <b>Other Red Oaks</b>                      |                    |
| <i>Q. coccinea</i>                         | scarlet oak        |
| <i>Q. ellipsoidalis</i>                    | northern pin oak   |
| <i>Q. falcata</i>                          | southern red oak   |
| <i>Q. ilicifolia</i>                       | bear oak           |
| <i>Q. imbricaria</i>                       | shingle oak        |
| <i>Q. laurifolia</i>                       | laurel oak         |
| <i>Q. marilandica</i>                      | blackjack oak      |
| <i>Q. nigra</i>                            | water oak          |
| <i>Q. palustris</i>                        | pin oak            |
| <i>Q. phellos</i>                          | willow oak         |
| <i>Q. velutina</i>                         | black oak          |

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## Tree Species of Maryland (as encountered on field plots)

| Scientific Name ***                         | Common Name(s)       | Occurrence ** |
|---|----------------------|---------------|
| <b>Softwoods</b>                            |                      |               |
| <i>Chamaecyparis thyoides</i> (L.) B.S.P.   | Atlantic white-cedar | vr            |
| <i>Juniperus virginiana</i> L.              | eastern redcedar     | r             |
| <i>Larix</i> spp. Mill.                     | larch                | vr            |
| <i>Picea abies</i> (L.) Karst.              | Norway spruce        | r             |
| <i>P. rubens</i> Sarg.                      | red spruce           | r             |
| <i>Pinus echinata</i> Mill.                 | shortleaf pine       | vr            |
| <i>P. nigra</i> Arnold                      | Austrian pine        | vr            |
| <i>P. pungens</i> Lamb.                     | table-mountain pine  | vr            |
| <i>P. resinosa</i> Ait.                     | red pine             | c             |
| <i>P. rigida</i> Mill.                      | pitch pine           | r             |
| <i>P. serotina</i> Michx.                   | pond pine            | r             |
| <i>P. strobus</i> L.                        | eastern white pine   | c             |
| <i>P. sylvestris</i> L.                     | Scotch pine          | r             |
| <i>P. taeda</i> L.                          | loblolly pine        | vc            |
| <i>P. virginiana</i> Mill.                  | Virginia pine        | vc            |
| <i>Taxodium distichum</i> (L.) Rich         | cypress              | vr            |
| <i>Tsuga canadensis</i> (L.) Carr.          | eastern hemlock      | r             |
| <b>Hardwoods</b>                            |                      |               |
| <i>Acer negundo</i> L.*                     | boxelder             | r             |
| <i>A. pensylvanicum</i> L.*                 | striped maple        | vr            |
| <i>A. rubrum</i> L.                         | red maple            | vc            |
| <i>A. saccharinum</i> L.                    | silver maple         | r             |
| <i>A. saccharum</i> Marsh.                  | sugar maple          | c             |
| <i>Ailanthus altissima</i> (Mill.) Swingle* | ailanthus            | vr            |
| <i>Betula alleghaniensis</i> Britton        | yellow birch         | r             |
| <i>B. lenta</i> L.                          | sweet birch (black)  | c             |
| <i>B. nigra</i> L.                          | river birch          | r             |
| <i>B. populifolia</i> Marsh.*               | gray birch           | vr            |
| <i>Carpinus caroliniana</i> Walt.*          | American hornbeam    | r             |
| <i>Carya</i> spp. Nutt.                     | hickory              | c             |
| <i>Castanea dentata</i> (Marsh.) Borkh.*    | American chestnut    | vr            |
| <i>Catalpa</i> spp. Scop.*                  | catalpa              | vr            |
| <i>Celtis occidentalis</i> L.               | hackberry            | r             |
| <i>Ceris canadensis</i> L.                  | eastern redbud       | r             |
| <i>Cornus</i> spp. L.                       | dogwood              | r             |
| <i>Crataegus</i> spp. L.*                   | hawthorn             | vr            |
| <i>Diospyros virginiana</i> L.*             | persimmon            | r             |
| <i>Fagus grandifolia</i> Ehrh.              | American beech       | c             |
| <i>Fraxinus americana</i> L.                | white ash            | c             |
| <i>F. nigra</i> Marsh.                      | black ash            | vr            |
| <i>F. pennsylvanica</i> Marsh.              | green ash            | r             |
| <i>Ilex opaca</i> Ait.                      | American holly       | c             |

## Tree Species of Maryland (continued)

| Scientific Name ***                            | Common Name(s)             | Occurrence ** |
|--|----------------------------|---------------|
| <i>Juglans cinerea</i> L.                      | butternut                  | r             |
| <i>Liquidambar styraciflua</i> L.              | sweetgum                   | vc            |
| <i>Liriodendron tulipifera</i> L.              | yellow-poplar (tulip tree) | vc            |
| <i>Magnolia</i> spp. L.                        | magnolia                   | vr            |
| <i>M. acuminata</i> L.                         | cucumbertree               | vr            |
| <i>M. virginiana</i> L.                        | sweetbay                   | r             |
| <i>Malus</i> spp. Mill.                        | apple                      | vr            |
| <i>Nyssa sylvatica</i> Marsh.                  | blackgum                   | c             |
| <i>Ostrya virginiana</i> (Mill.)K. Koch*       | eastern hophornbeam        | r             |
| <i>Platanus occidentalis</i> L.                | sycamore                   | r             |
| <i>Populus deltoides</i> Bartr. ex Marsh.      | eastern cottonwood         | vr            |
| <i>P. grandidentata</i> Michx.                 | bigtooth aspen             | c             |
| <i>P. tremuloides</i> Michx.                   | quaking aspen              | vr            |
| <i>Prunus pensylvanica</i> L. f.*              | pin cherry                 | r             |
| <i>P. serotina</i> Ehrh.                       | black cherry               | c             |
| <i>Quercus alba</i> L.                         | white oak                  | vc            |
| <i>Q. bicolor</i> Willd.                       | swamp white oak            | r             |
| <i>Q. coccinea</i> Muenchh.                    | scarlet oak                | c             |
| <i>Q. falcata</i> Michx.                       | southern red oak           | c             |
| <i>Q. falcata</i> var. <i>pagodifolia</i> Ell. | cherrybark oak             | r             |
| <i>Q. imbricaria</i> Michx.                    | shingle oak                | vr            |
| <i>Q. michauxii</i> Nutt.                      | swamp chestnut oak         | r             |
| <i>Q. muehlenbergii</i> Engelm.                | chinkapin oak              | vr            |
| <i>Q. nigra</i> L.                             | water oak                  | c             |
| <i>Q. palustris</i> Muenchh.                   | pin oak                    | r             |
| <i>Q. phellos</i> L.                           | willow oak                 | c             |
| <i>Q. prinus</i> L.                            | chestnut oak               | vc            |
| <i>Q. rubra</i> L.                             | northern red oak           | c             |
| <i>Q. stellata</i> Wangenh.                    | post oak                   | r             |
| <i>Q. velutina</i> Lam.                        | black oak                  | c             |
| <i>Robinia pseudoacacia</i> L.                 | black locust               | c             |
| <i>Salix</i> spp. Marsh.*                      | willow                     | r             |
| <i>Salix nigra</i> Marsh.                      | black willow               | vr            |
| <i>Sassafras albidum</i> (Nutt.) Nees*         | sassafras                  | c             |
| <i>Tilia americana</i> L.                      | American basswood          | r             |
| <i>Ulmus americana</i> L.                      | American elm               | c             |
| <i>U. rubra</i> Muhl.                          | slippery elm               | r             |

\*\*\* Names according to: Little, Elbert L., Jr. Checklist of United States Trees (native and naturalized). Agric. Handb. 541 Washington, DC: U.S Department of Agriculture, Forest Service; 1979. 375 p.

\*\*Occurrence is based on the proportion of the species among all live trees 5.0 inches d.b.h. or larger encountered on forest survey field plots: vr = very rare ( 0.05%),

r = rare (0.05 to 0.49%), c = common (0.5 to 4.9%), and vc = very common (>5.0%).

\*Noncommercial species.

## Ecological Importance and Relative Distribution of Lesser Woody-Stemmed Species, Maryland

| Species              | Relative Density | Relative Frequency | Importance Value | Distribution |
|----------------------|------------------|--------------------|------------------|--------------|
| Atlantic white cedar | .02              | .06                | .04              | .62          |
| Common juniper       | .04              | .13                | .08              | 1.38         |
| Eastern redcedar     | .04              | .29                | .16              | 3.06         |
| Tamarack             | .01              | .02                | .01              | .16          |
| Norway spruce        | .03              | .05                | .04              | .46          |
| White spruce         | .01              | .02                | .01              | .16          |
| Red spruce           | .01              | .08                | .04              | .77          |
| Shortleaf pine       | .01              | .03                | .02              | .31          |
| Table mountain pine  | .01              | .03                | .02              | .31          |
| Red pine             | .05              | .10                | .08              | 1.08         |
| Pitch pine           | .05              | .25                | .15              | 2.60         |
| Pond pine            | .07              | .12                | .09              | 1.23         |
| Eastern white pine   | .06              | .32                | .19              | 3.37         |
| Scotch pine          | .07              | .17                | .12              | 1.84         |
| Loblolly pine        | 1.39             | 2.74               | 2.06             | 29.52        |
| Virginia pine        | .83              | 2.17               | 1.50             | 23.40        |
| Austrian pine        | .01              | .02                | .01              | .16          |
| Baldcypress          | .01              | .03                | .02              | .31          |
| Eastern hemlock      | .08              | .29                | .18              | 3.06         |
| Boxelder             | .11              | .13                | .12              | 1.38         |
| Striped maple        | .34              | .30                | .32              | 3.22         |
| Red maple            | 6.38             | 7.24               | 6.81             | 78.14        |
| Silver maple         | .05              | .09                | .07              | .92          |
| Sugar maple          | .67              | .85                | .76              | 9.18         |
| Mountain maple       | .08              | .06                | .07              | .62          |
| Ailanthus            | .02              | .09                | .06              | .92          |
| Alder species        | .82              | .19                | .50              | 1.99         |
| Hercules club        | .38              | .56                | .47              | 5.97         |
| Serviceberry         | .88              | .88                | .88              | 9.49         |
| Evergreen bearberry* | --               | --                 | --               | .31          |
| Chokeberry species   | .01              | .02                | .01              | .16          |
| Azalea species       | 1.96             | .78                | 1.37             | 8.41         |
| Common pawpaw        | .98              | .50                | .74              | 5.36         |
| Barberry             | .02              | .02                | .02              | .16          |
| Birch species        | .01              | .02                | .01              | .16          |
| Yellow birch         | .07              | .17                | .12              | 1.84         |
| Sweet birch          | .48              | .80                | .64              | 8.57         |
| River birch          | .05              | .19                | .12              | 1.99         |
| Gray birch           | .01              | .02                | .01              | .16          |
| American hornbeam    | .24              | .70                | .47              | 7.50         |
| Hickory species      | .72              | 2.95               | 1.84             | 31.81        |
| Bitternut hickory    | .03              | .13                | .08              | 1.38         |
| Pignut hickory       | .04              | .22                | .13              | 2.30         |

**Ecological Importance and Relative Distribution of Lesser Woody-Stemmed Species, Maryland (continued)**

| Species                  | Relative Density | Relative Frequency | Importance Value | Distribution |
|--------------------------|------------------|--------------------|------------------|--------------|
| Shagbark hickory         | .02              | .39                | .20              | 4.13         |
| Mockernut hickory        | .03              | .26                | .15              | 2.76         |
| American chestnut        | .15              | .27                | .21              | 2.91         |
| Catalpa                  | .01              | .03                | .02              | .31          |
| American bittersweet*    | --               | --                 | --               | .16          |
| Hackberry                | .10              | .19                | .15              | 1.99         |
| Eastern redbud           | .23              | .22                | .22              | 2.30         |
| Fringetree               | .02              | .06                | .04              | .62          |
| Clematis species*        | --               | --                 | --               | .92          |
| Yellowwood               | .01              | .02                | .01              | .16          |
| Flowering dogwood        | 1.67             | 2.21               | 1.94             | 23.86        |
| Alternate-leaved dogwood | .02              | .06                | .04              | .62          |
| Silky dogwood            | .05              | .06                | .05              | .62          |
| Panicled dogwood         | .02              | .02                | .02              | .16          |
| Canadian bunchberry*     | --               | --                 | --               | .46          |
| Hawthorn species         | .34              | .57                | .45              | 6.12         |
| American hazelnut        | .04              | .02                | .03              | .16          |
| Common persimmon         | .06              | .43                | .25              | 4.59         |
| American beech           | .76              | 2.24               | 1.50             | 24.16        |
| White ash                | .94              | 1.60               | 1.27             | 17.28        |
| Black ash                | .01              | .02                | .01              | .16          |
| Green ash                | .04              | .25                | .14              | 2.60         |
| Teaberry*                | --               | --                 | --               | 6.43         |
| Huckleberry              | 2.29             | .53                | 1.41             | 5.66         |
| Honeylocust              | .01              | .02                | .01              | .16          |
| Witch-hazel              | .72              | .66                | .69              | 7.04         |
| American holly           | 1.39             | 2.54               | 1.96             | 27.38        |
| Winterberry holly        | .03              | .03                | .03              | .31          |
| Butternut                | .02              | .16                | .09              | 1.69         |
| Black walnut             | .04              | .47                | .25              | 5.05         |
| Sheep laurel             | .01              | .03                | .02              | .31          |
| Mountain laurel          | 1.18             | .78                | .98              | 8.41         |
| Common spicebush         | 1.83             | 1.12               | 1.48             | 12.08        |
| Sweetgum                 | 2.60             | 4.42               | 3.51             | 47.71        |
| Yellow-poplar            | .95              | 3.08               | 2.02             | 33.19        |
| Bush honeysuckle         | .10              | .12                | .11              | 1.23         |
| Vine honeysuckle*        | --               | --                 | --               | 37.16        |
| Magnolia                 | .01              | .03                | .02              | .31          |
| Cucumbertree             | .12              | .22                | .17              | 2.30         |
| Sweetbay                 | .32              | .56                | .44              | 5.97         |
| Apple species            | .02              | .08                | .05              | .77          |
| Partridgeberry           | .00              | .00                | .00              | 14.38        |
| Water tupelo             | .14              | .30                | .22              | 3.22         |

## Ecological Importance and Relative Distribution of Lesser Woody-Stemmed Species, Maryland (continued)

| Species              | Relative Density | Relative Frequency | Importance Value | Distribution |
|----------------------|------------------|--------------------|------------------|--------------|
| Black tupelo         | 1.93             | 4.39               | 3.16             | 47.41        |
| Eastern hophornbeam  | .32              | .63                | .47              | 6.73         |
| Paulownia            | .01              | .10                | .06              | 1.08         |
| Virginia creeper*    | --               | --                 | --               | 30.89        |
| Ninebark             | .01              | .02                | .02              | .16          |
| American sycamore    | .03              | .47                | .25              | 5.05         |
| Eastern cottonwood   | .01              | .02                | .01              | .16          |
| Bigtooth aspen       | .08              | .34                | .21              | 3.67         |
| Quaking aspen        | .01              | .02                | .02              | .16          |
| Cherry species       | .03              | .15                | .09              | 1.53         |
| Pin cherry           | .12              | .30                | .21              | 3.22         |
| Black cherry         | 2.72             | 3.37               | 3.05             | 36.40        |
| Chokecherry          | .06              | .16                | .11              | 1.69         |
| White oak            | 1.38             | 4.66               | 3.02             | 50.31        |
| Swamp white oak      | .06              | .43                | .25              | 4.59         |
| Scarlet oak          | .15              | 1.53               | .84              | 16.52        |
| Southern red oak     | .62              | 2.84               | 1.73             | 30.59        |
| Swamp red oak        | .01              | .10                | .06              | 1.08         |
| Scrub, bear oak      | .15              | .06                | .10              | .62          |
| Shingle oak          | .01              | .02                | .01              | .16          |
| Blackjack oak        | .01              | .02                | .01              | .16          |
| Swamp chestnut oak   | .10              | .43                | .26              | 4.59         |
| Chinkapin oak        | .01              | .03                | .02              | .31          |
| Water oak            | .34              | .74                | .54              | 7.96         |
| Pin oak              | .05              | .46                | .25              | 4.90         |
| Willow oak           | .21              | 1.32               | .77              | 14.23        |
| Chestnut oak         | .96              | 1.99               | 1.47             | 21.41        |
| Northern red oak     | .92              | 3.52               | 2.22             | 37.93        |
| Post oak             | .02              | .16                | .09              | 1.69         |
| Black oak            | .46              | 2.53               | 1.49             | 27.22        |
| Buckthorn species    | .03              | .03                | .03              | .31          |
| Rhododendron species | .38              | .12                | .25              | 1.23         |
| Smooth sumac         | .13              | .17                | .15              | 1.84         |
| Staghorn sumac       | .07              | .15                | .11              | 1.53         |
| Poison ivy*          | --               | --                 | --               | 31.81        |
| Currant species      | .11              | .12                | .12              | 1.23         |
| Black locust         | .66              | 1.69               | 1.17             | 18.20        |
| Rose species         | 3.77             | .77                | 2.27             | 8.26         |
| Rubus species        | 9.54             | 3.45               | 6.49             | 37.16        |
| Willow species       | .02              | .06                | .04              | .62          |
| Black willow         | .02              | .05                | .04              | .46          |
| American elderberry  | .12              | .16                | .14              | 1.69         |
| Red-berried alder    | .01              | .02                | .02              | .16          |



**Ecological Importance and Relative Distribution of Lesser Woody-Stemmed Species, Maryland (continued)**

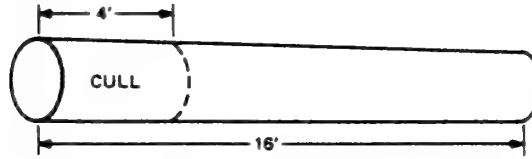
| Species                 | Relative Density | Relative Frequency | Importance Value | Distribution |
|-------------------------|------------------|--------------------|------------------|--------------|
| Sassafras               | 1.82             | 2.47               | 2.15             | 26.61        |
| Greenbrier*             | --               | --                 | --               | 53.22        |
| American mountain ash   | .01              | .02                | .01              | .16          |
| European mountain ash   | .01              | .02                | .01              | .16          |
| Spirea species          | .06              | .03                | .05              | .31          |
| American basswood       | .03              | .27                | .15              | 2.91         |
| Elm species             | .18              | .47                | .33              | 5.05         |
| American elm            | .13              | .39                | .26              | 4.13         |
| Slippery elm            | .13              | .30                | .22              | 3.22         |
| American bladdernut     | .01              | .02                | .02              | .16          |
| Blueberry               | 16.14            | 4.11               | 10.12            | 44.35        |
| Viburnum species        | .55              | .37                | .46              | 3.98         |
| Maple-leaved viburnum   | 1.24             | .81                | 1.03             | 8.72         |
| Hobblebush viburnum     | .02              | .06                | .04              | .62          |
| Wild raisin             | .01              | .02                | .01              | .16          |
| Arrowwood               | 1.45             | 1.07               | 1.26             | 11.47        |
| Nannyberry              | .00              | .02                | .01              | .16          |
| Blackhaw                | .09              | .10                | .10              | 1.08         |
| Highbush cranberry      | .02              | .02                | .02              | .16          |
| Grape*                  | --               | --                 | --               | 14.99        |
| Common prickly ash      | .01              | .02                | .01              | .16          |
| Unknown vine*           | --               | --                 | --               | 9.03         |
| Unknown dwarf shrub*    | --               | --                 | --               | 9.03         |
| Unknown deciduous shrub | 19.23            | 3.22               | 11.23            | 34.71        |
| Unknown evergreen shrub | .01              | .02                | .01              | .16          |
| Unknown tree            | .51              | 1.34               | .92              | 14.38        |

\* Dwarf shrubs and vines not included in Relative Density, Relative Frequency and Importance Value calculations.

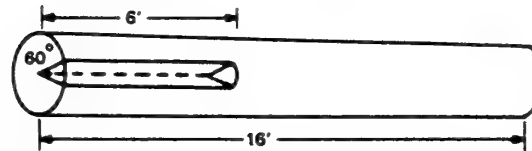
# Log-grade Classification

## Methods of determining scaling deduction.

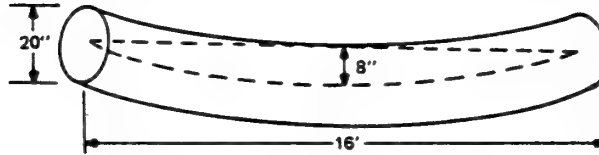
(Examples based on a 16-foot log with 20-inch scaling diameter)



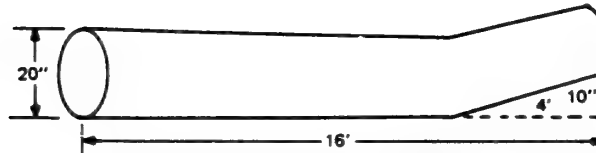
Defect section (rule 1): Percent deduction =  $\frac{4}{16} = 25\%$



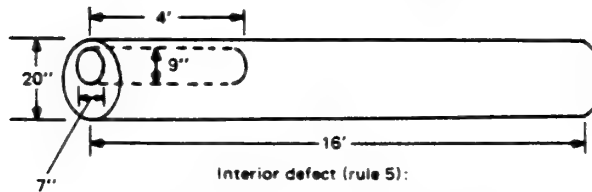
Defect section (rule 2): Percent deduction =  $\left(\frac{6}{16}\right) \left(\frac{60}{360}\right) = 6\text{-}1/4\%$



Sweep (rule 3): Percent deduction =  $\frac{8 \cdot 2}{20} = 30\%$



Crook (rule 4): Percent deduction =  $\left(\frac{10}{20}\right) \left(\frac{4}{16}\right) = 12\text{-}1/2\%$



Interior defect (rule 5):

Percent deduction =  $\frac{(8)(10)}{(20-1)^2} \times \frac{4}{16} = 5\text{-}5/9\%$

In practice each ellipse axis can be divided by (20-1)

Thus  $\frac{8}{19} = .4$ ,  $\frac{10}{19} = .5$ , and  $(.4)(.5) \left(\frac{4}{16}\right) = 5\%$

From: Groenbaugh, L.R. 1952. Shortcuts for cruisers and scalers. U.S. Dep. Agric. For. Serv. South For Exp. Stn. Occas. Pap. 126.

**STANDARD GRADES FOR HARDWOOD FACTORY LUMBER LOGS**

| Grading Factors   |   | Log grades         |                |     |                  |     |       |     |                |
|---|---|--------------------|----------------|-----|------------------|-----|-------|-----|----------------|
|   |   | F1                 |                |     | F2               |     |       |     | F3             |
| Position in tree  |   | Butts only         | Butts & uppers |     | Butts & Uppers   |     |       |     | Butts & uppers |
| Scaling diameter, inches  |   | 13-15 <sup>a</sup> | 16-19          | 20+ | 11+ <sup>b</sup> | 12+ |       |     | 8+             |
| Length without trim, feet   |   | 10+                |                |     | 10+              | 8-9 | 10-11 | 12+ | 8+             |
| Required clear cuttings <sup>c</sup> of each of 3 best faces <sup>d</sup> | Min. length, feet                                       | 7                  | 5              | 3   | 3                | 3   | 3     | 3   | 2              |
|   | Max. number   | 2                  | 2              | 2   | 2                | 2   | 2     | 3   | No limit       |
|   | Min. proportion of log length required in clear cutting | 5/6                | 5/6            | 5/6 | 2/3              | 3/4 | 2/3   | 2/3 | 1/2            |
| Maximum sweep & crook allowance   | For logs with less than 1/4 of end in sound defects     | 15%                |                |     | 30%              |     |       |     | 50%            |
|   | For logs with more than 1/4 of end in sound defects     | 10%                |                |     | 20%              |     |       |     | 35%            |
| Maximum scaling   | deduction   | 40% <sup>e</sup>   |                |     | 50% <sup>f</sup> |     |       |     | 50%            |

End defects although not visible in standing trees, are important in grading cut logs. Instructions for dealing with this factor are contained in Forest Prod. Lab. Rpt. D 1737.

<sup>a</sup>Ash and basswood butts can be 12 inches if they otherwise meet requirements for small #1's.

<sup>b</sup>Ten-inch logs of all species can be #2 if they otherwise meet requirements for small #1's.

<sup>c</sup>A clear cutting is the portion of a face, extending the width of the face, that is free of defects.

<sup>d</sup>A face is 1/4 of the surface of the log as divided lengthwise.

<sup>e</sup>Otherwise #1 logs with 41-60% deductions can be #2.

<sup>f</sup>Otherwise #2 logs with 51-60% deductions can be #3.

From: Vaughan, C. L., A. C. Wollin, K. A. McDonald, and E. H. Bulgrin. 1966. Hardwood log grades for standard lumber. USDA For. Serv. Res. Pap. FPL-63.

**STANDARD SPECIFICATIONS FOR HARDWOOD CONSTRUCTION LOGS.<sup>a</sup>**

|                           |               |   |
|---------------------------|---------------|---|
| Position in tree          |               | Butt & upper  |
| Min. diameter, small end  |               | 8 inches +  |
| Min. length, without trim |               | 8 feet  |
| Clear cuttings            |               | No requirements.  |
| Sweep allowance, absolute |               | 1/4 diameter small end for each 8 feet of length.   |
| Sound surface defects     | Single knots  | Any number, if no one knot has an average diameter above the callus in excess of 1/3 of log diameter at point of occurrence.  |
|                           | Whorled knots | Any number if sum of knot diameters above the callus does not exceed 1/3 of log diameter at point of occurrence.  |
|                           | Holes         | Any number provided none has a diameter over 1/3 of log diameter at point of occurrence, and none extends over 3 inches into included timber. <sup>b</sup>                                |
| Unsound surface defects   |               | Same requirements as for sound defects if they extend into included timber. <sup>b</sup> No limit if they do not.   |
| End defects               | Sound         | No requirements.  |
|                           | Unsound       | None allowed; log must be sound internally, but will admit 1 shake not to exceed 1/4 the scaling diameter and a longitudinal split not extending over 5 inches into the contained timber. |

<sup>a</sup>These specifications are minimum for the class. If, from a group of logs, factory logs are selected first, thus leaving only non-factory logs from which to select construction logs, then the quality range of the construction logs so selected is limited, and the class may be considered a grade. If selection for construction logs is given first priority, then it may be necessary to subdivide the class into grades.

<sup>b</sup>Included timber is always square, and dimension is judged from small end.

From: Raat, E. D., D. L. Sonderman, and G. L. Gammon. 1973. A guide to hardwood log grading (Revised). USDA For. Serv. Gen. Tech. Rep. NE-1.

**EASTERN WHITE PINE SAWLOG GRADE SPECIFICATIONS**

| GRADING FACTOR  | LOG GRADE 1   | LOG GRADE 2   | LOG GRADE 3  | LOG GRADE 4   |
|---|---|---|--|---|
| (1) MINIMUM SCALING DIAMETER (inches)   | 14 <sup>1</sup>   | 6   | 6  | 6   |
| (2) MINIMUM LOG LENGTH (feet)   | 10 <sup>2</sup>   | 8   | 8  | 8   |
| (3) MAXIMUM WEEVIL INJURY (number)  | None  | None  | 2 injures <sup>4</sup>   | No limit  |
| (4) MINIMUM FACE REQUIREMENTS   | Two full length or four 50% length good faces. <sup>1</sup> (In addition, log knots on balance of faces shall not exceed size limitations of grade 2 logs.) | No GOOD FACES REQUIRED. Maximum diameter of log knots on three best faces:  |  | Includes all logs not qualifying for No. 3 or better and judged to have at least one-third of their gross volume in sound wood suitable for manufacture into standard lumber. |
|   |   | SOUND RED KNOTS not to exceed 1/6 scaling diameter and 3 inch maximum.<br><br>DEAD OR BLACK KNOTS including overgrown knots not to exceed 1/12 scaling diameter and 1 1/2 inch maximum. | SOUND RED KNOTS not to exceed 1/3 scaling diameter and 5 inch maximum.<br><br>DEAD OR BLACK KNOTS including overgrown knots not to exceed 1/6 scaling diameter and 2 1/2 inch maximum. |   |
| (5) MAXIMUM SWEEP OR CROOK ALLOWANCE (percent)  | 20  | 30  | 40   | 66 2/3  |
| (6) MAXIMUM TOTAL SCALING DEDUCTION (percent)   | 50  | 50  | 50   | 66 2/3  |
| <p>After the tentative log grade is established from face examination, the log will be reduced in grade whenever the following defects are evident:</p> <p>(7) CONKS, PUNK KNOTS, AND PINE BORER DAMAGE ON BARK SURFACE<sup>3</sup><br/>                     Degrade one grade if present on one face.<br/>                     Degrade two grades if present on two faces.<br/>                     Degrade three grades if present on three or more faces.</p> <p>(8) LOG END DEFECTS: RED ROT, RING SHAKE, HEAVY STAIN AND PINE BORER DAMAGE OUTSIDE HEART CENTER OF LOG<sup>3</sup><br/>                     Consider log as having a total of 8 quarters (4 on each end) and degrade as indicated below:<br/>                     Degrade one grade if present in 2 quarters of log ends.<br/>                     Degrade two grades if present in 3 or 4 quarters of log ends.<br/>                     Degrade three grades if present in 5 or more quarters of log ends.</p> |   |   |  |   |
| <p><sup>1</sup>12 and 13 inch logs with four full length good faces are acceptable.<br/> <sup>2</sup>8 foot logs with four full length good faces are acceptable.<br/> <sup>3</sup>8 foot No. 3 logs limited to one weevil injury.<br/> <sup>4</sup>Minimum 50% length good face must be at least 6 feet.<br/> <sup>5</sup>Factors 7 and 8 are not cumulative (total degrade based on more serious of the two). No log to be degraded below grade 4 if net scale is at least one-third gross log scale.</p>   |   |   |  |   |

From: Ostrander, M. D., and R. L. Brisbin, 1971. Sawlog grades for eastern white pine. USDA For. Serv. Res. Pap. NE-205.

**SOUTHERN PINE SAWLOGS**

*Grade 1.* Logs with 3 or 4 clear faces.<sup>1</sup> Code 1.

*Grade 2.* Logs with 1 or 2 clear faces. Code 2.

*Grade 3.* Logs with no clear faces. Code 3.

After the tentative log grade is established from above, the log will be degraded one grade for each of the following, except that no log can be degraded below grade 3.

1. *Sweep.* Degrade any tentative 1 or 2 log one grade if sweep amounts to 3 or more inches and equals or exceeds one third (1/3) the diameter inside bark at small end. This is the final grade if there is no evidence of heart rot.

2. *Heart rot.* Degrade any tentative 1 or 2 log one grade if conk, massed hyphae, or other evidence of advanced heart rot is found anywhere in it.

<sup>1</sup> A face is one-fourth of the circumference in width extending full length of the log. Clear faces are those free of: knots measuring more than one-half inch in diameter, overgrown knots of any size, holes more than one-fourth inch in diameter. The faces may be rotated if necessary to obtain the maximum number of clear ones.

From: Schroeder, J. G., R. A. Campbell, and R. C. Rodenbach. 1968. Southern pine sawlogs for yard and structural lumber. USDA For. Serv. Res. Pap. SE-39.

## Metric Equivalents

1 acre = 4,046.86 square meters  
1 acre = 0.404686 hectares  
1,000 acres = 404.686 hectares  
1,000,000 acres = 404,686 hectares  
1 board foot = 0.00348 cubic meters  
1 board foot = 3,480 cubic centimeters  
1,000 board feet = 3.48 cubic meters  
1,000,000 board feet = 3,480 cubic meters  
1 cubic foot = 0.028317 cubic meters  
1,000 cubic feet = 28.317 cubic meters  
1,000,000 cubic feet = 28,317 cubic meters  
1 cord (wood, bark, and air space) = 3.6246 cubic meters  
1 cord (solid wood, pulpwood) = 2.4069 cubic meters  
1 cord (solid wood, other than pulpwood) = 2.2654 cubic meters  
1,000 cords (pulpwood) = 2,406.9 cubic meters  
1,000 cords (other products) = 2,265.4 cubic meters  
1 inch = 2.54 centimeters or 0.0254 meters  
1 foot = 30.48 centimeters or 0.3048 meters  
1 mile = 1.609 kilometers  
1 square foot = 929.03 square centimeters  
1 square foot = 0.0929 square meters  
1 square foot per acre basal area = 0.229568 square meters per hectare  
1 ton = 907.1848 kilograms  
1,000 tons = 907.1848 metric tons  
Breast height = 1.4 meters above ground level

Although 1,000 board feet is theoretically equivalent to 2.36 cubic meters, this is true only when a board foot is actually a piece of wood with a volume 1/12 of a cubic foot. The International 1/4-inch log rule is used by the USDA Forest Service in the East to estimate the product potential in board feet. The reliability of the estimate obtained by conversion will vary with the size of the log measure. The conversion given here, 3.48 cubic meters, is based on the cubic volume of a log 16 feet long and 15 inches in diameter inside bark (d.i.b.) at the small end. This conversion could be used for average comparisons when accuracy of 10 percent is acceptable. Because the board foot unit is not a true measure of wood volume and because products other than dimension lumber are becoming important, this unit may eventually be phased out and replaced by the cubic meter.

## Index to Tables

The following tables are divided into six major sections: (1) State, (2) Central Unit, (3) Southern Unit, (4) Lower Eastern Shore Unit, (5) Western Unit, and (6) County. *Recalculated 1976 tables are printed in italic type.*

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1. Land area by land class, Maryland, 1986.
2. *Area of timberland by forest type, forest-type group, and stand-size class, Maryland, 1976.*
3. Area of timberland by forest type, forest-type group, and stand-size class, Maryland, 1986.
4. Area of timberland by forest-type group and ownership class, Maryland, 1986.
5. Area of timberland by stand-size class and ownership class, Maryland, 1986.
6. Area of timberland by board-foot stand-volume class and ownership class, Maryland, 1986.
7. Area of timberland by stocking class of growing-stock trees and ownership class, Maryland, 1986.
8. Area of timberland by forest-type group and cubic-foot stand-volume class, Maryland, 1986.
9. Area of timberland by forest-type group and board-foot stand-volume class, Maryland, 1986.
10. Area of timberland by forest-type group and green ton stand-volume class, Maryland, 1986.

11. *Area of timberland by forest-type group and stocking class of all live trees, Maryland, 1976.*
12. Area of timberland by forest-type group and stocking class of all live trees, Maryland, 1986.
13. *Area of timberland by forest-type group and stocking class of growing-stock trees, Maryland, 1976.*
14. Area of timberland by forest-type group and stocking class of growing-stock trees, Maryland, 1986.
15. Area of timberland by forest-type group and basal-area class, Maryland, 1986.

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16. Number of live trees on timberland by species and diameter class, Maryland, 1986.
17. Number of live trees on timberland by diameter class, tree class, and softwoods and hardwoods, Maryland, 1986.
18. Number of trees (5.0+ inches d.b.h.) on timberland by species and tree class, Maryland, 1986.
19. Number of growing-stock trees on timberland by species and diameter class, Maryland, 1986.

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20. Net green weight of all live trees on timberland by species and diameter class, Maryland, 1986.
21. Net dry weight of all live trees on timberland by species and diameter class, Maryland, 1986.
22. Net green weight of all trees on timberland by class of material and species group, Maryland, 1986.

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23. Net volume of all trees on timberland by class of timber and species group, Maryland, 1986.
24. Net volume of all live, growing-stock, and sawtimber trees by species group and ownership class, Maryland, 1986.
25. Net volume of growing-stock trees on timberland by forest-type group and stand-size class, Maryland, 1986.
26. Net volume of growing-stock trees on timberland by species and basal-area class, Maryland, 1986.
27. Net volume of growing-stock trees on timberland by species and forest-type group, Maryland, 1986.
28. *Net volume of growing-stock trees on timberland by species and stand-size class, Maryland, 1976.*
29. Net volume of growing-stock trees on timberland by species and stand-size class, Maryland, 1986.
30. Net volume of growing-stock trees on timberland by species and cubic-foot stand-volume class, Maryland, 1986.
31. *Net volume of growing-stock trees on timberland by species and diameter class, Maryland, 1976.*
32. Net volume of growing-stock trees on timberland by species and diameter class, Maryland, 1986.
33. Net volume of growing stock in the sawlog portion of sawtimber trees on timberland by species and diameter class, Maryland, 1986.
34. *Net volume of sawtimber trees on timberland by species and diameter class, Maryland, 1976.*

35. Net volume of sawtimber trees on timberland by species and diameter class, Maryland, 1986.
36. *Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Maryland, 1976.*
37. Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Maryland, 1986.

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39. Average annual net growth and average annual removals of growing-stock volume on timberland by species, Maryland, 1976-86.
40. Average annual net growth and average annual removals of growing-stock volume on timberland by ownership class and species group, Maryland, 1976-86.
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- 53. Number of growing-stock trees on timberland by species and diameter class, Central Unit, Maryland, 1986.
- 54. Net green weight of all live trees on timberland by species and diameter class, Central Unit, Maryland, 1986.
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- 59. Net volume of sawtimber trees on timberland by species and diameter class, Central Unit, Maryland, 1986.
- 60. *Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Central Unit, Maryland, 1976.*
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- 68. *Net volume of growing-stock trees on timberland by species and diameter class, Southern Unit, Maryland, 1976.*
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70. *Net volume of sawtimber trees on timberland by species and diameter class, Southern Unit, Maryland, 1976.*
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76. Area of timberland by forest type, forest-type group, and stand-size class, Lower Eastern Shore Unit, Maryland, 1986.
77. Number of growing-stock trees on timberland by species and diameter class, Lower Eastern Shore Unit, Maryland, 1986.
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80. *Net volume of growing-stock trees on timberland by species and diameter class, Lower Eastern Shore Unit, Maryland, 1976.*

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86. Sampling errors for various tables, Lower Eastern Shore Unit, Maryland, 1976 and 1986.

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89. Number of growing-stock trees on timberland by species and diameter class, Western Unit, Maryland, 1986.
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93. Net volume of growing-stock trees on timberland by species and diameter class, Western Unit, Maryland, 1986.
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96. *Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Western Unit, Maryland, 1976.*
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98. Sampling errors for various table, Western Unit, Maryland, 1976 and 1986.
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103. Area of timberland by county and cubic-foot stand-volume class, Maryland, 1986.
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106. Area of timberland by county and site productivity class, Maryland, 1986.
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108. Net volume of growing-stock trees on timberland by county and stand-size class, Maryland, 1986.
109. Net volume of growing-stock trees on timberland by county and species, Maryland, 1986.
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# STATE TABLES





Table 1.--Land area by land class, Maryland, 1986<sup>a</sup>

| Land class                   | Area                  |                |
|------------------------------|-----------------------|----------------|
|                              | <u>Thousand acres</u> | <u>Percent</u> |
| Timberland                   | 2,424.0               | 39             |
| Noncommercial forest land:   |                       |                |
| Christmas tree plantations   | 2.2                   | W              |
| Productive reserved          | 152.9                 | 2              |
| Unproductive                 | 21.2                  | W              |
| Urban                        | 103.0                 | 2              |
|                              | <hr/>                 |                |
| Total forest                 | 2,703.3               | 43             |
| Nonforest land:              |                       |                |
| Cropland <sup>b</sup>        | 1,602.0               | 25             |
| Pasture <sup>b</sup>         | 309.0                 | 5              |
| Other farmland               | 256.7                 | 4              |
| Other land                   | 1,424.5               | 23             |
|                              | <hr/>                 |                |
| Total nonforest              | 3,592.2               | 57             |
|                              | <hr/>                 |                |
| Total land area <sup>c</sup> | 6,295.5               | 100            |

<sup>a</sup> This and every other table may not add up due to rounding.

<sup>b</sup> Source: 1982 Census of Agriculture.

<sup>c</sup> Source: 1981 United States Department of Commerce, Bureau of Census.

W-Less than 0.5 percent.

Table 2.--Area of timberland by forest type, forest-type group, and stand-size class, Maryland, 1976

(In thousands of acres)

| Forest type                    | Stand-size class |            |                      |            | All classes |
|--------------------------------|------------------|------------|----------------------|------------|-------------|
|                                | Sawtimber        | Poletimber | Sapling and seedling | Nonstocked |             |
| Red pine                       | .0               | 5.9        | .0                   | .0         | 5.9         |
| White pine                     | .0               | 5.8        | 12.8                 | 6.0        | 24.6        |
| White/red pine group           | .0               | 11.7       | 12.8                 | 6.0        | 30.4        |
| Norway spruce                  | .0               | 5.8        | 4.4                  | .0         | 10.2        |
| Spruce/fir group               | .0               | 5.8        | 4.4                  | .0         | 10.2        |
| Loblolly pine                  | 139.6            | 54.7       | 35.4                 | 2.9        | 232.7       |
| Virginia pine                  | 57.6             | 81.5       | 43.0                 | .0         | 182.1       |
| Eastern redcedar               | .0               | 2.6        | .0                   | .0         | 2.6         |
| Pitch pine                     | 6.6              | .0         | 5.9                  | .0         | 12.6        |
| Loblolly/shortleaf group       | 203.8            | 138.7      | 84.4                 | 2.9        | 429.9       |
| Wh. pine/no. red oak/wh. ash   | 5.3              | .0         | .0                   | .0         | 5.3         |
| Virginia pine/oak              | 33.2             | 34.5       | 31.9                 | .0         | 99.6        |
| Loblolly pine/hardwood         | 59.3             | 44.7       | 23.0                 | .0         | 126.9       |
| Oak/pine group                 | 97.7             | 79.2       | 54.9                 | .0         | 231.7       |
| Post, black, or bear oak       | 15.7             | .0         | .0                   | .0         | 15.7        |
| Chestnut oak                   | 33.8             | 33.1       | 6.0                  | .0         | 72.9        |
| White oak/red oak/hickory      | 43.6             | 28.5       | 40.8                 | .0         | 112.9       |
| White oak                      | 31.8             | 28.9       | 26.8                 | .0         | 87.4        |
| Northern red oak               | 23.9             | .0         | 5.9                  | .0         | 29.8        |
| Y. poplar/wh. oak/no. red oak  | 59.5             | 11.3       | .0                   | .0         | 70.8        |
| Black locust                   | .0               | .0         | 13.8                 | .0         | 13.8        |
| Sweetgum/yellow-poplar         | 34.6             | 20.8       | 13.7                 | .0         | 69.1        |
| Yellow-poplar                  | 97.1             | 20.7       | 11.4                 | .0         | 129.3       |
| Scarlet oak                    | 31.1             | 14.4       | .0                   | .0         | 45.4        |
| Red maple/central hardwoods    | 9.1              | 6.3        | .0                   | .0         | 15.3        |
| Mixed central hardwoods        | 564.9            | 178.6      | 81.5                 | 26.6       | 851.6       |
| Oak/hickory group              | 945.0            | 342.5      | 200.0                | 26.6       | 1,514.1     |
| Swamp chstnt oak/cherrybrk oak | 13.3             | 2.9        | 2.7                  | .0         | 18.9        |
| Sweetgm/nuttall oak/willow oak | 21.7             | 2.7        | 2.9                  | .0         | 27.4        |
| bald cypress/white tupelo      | 2.5              | 3.2        | .0                   | .0         | 5.7         |
| Sweetbay/swamp tupelo/rd maple | 12.7             | 3.0        | 3.2                  | .0         | 18.9        |
| Oak/gum/cypress group          | 50.2             | 11.9       | 8.8                  | .0         | 70.9        |
| Black ash/Amer. elm/red maple  | 12.7             | 2.9        | 27.1                 | .0         | 42.7        |
| Red maple(lowland)             | 6.5              | 3.1        | .0                   | .0         | 9.6         |
| Red maple(upland)              | 2.5              | .0         | .0                   | .0         | 2.5         |
| River birch/sycamore           | 5.0              | .0         | 11.4                 | .0         | 16.5        |
| Willow                         | 5.8              | .0         | 6.2                  | .0         | 12.0        |



Table 2.-Continued

(In thousands of acres)

| Forest type                     | Stand-size class |              |                      |             | All classes    |
|---------------------------------|------------------|--------------|----------------------|-------------|----------------|
|                                 | Sawtimber        | Poletimber   | Sapling and seedling |             |                |
|                                 |                  |              | Nonstocked           |             |                |
| Sycamore/pecan/American elm     | 5.9              | .0           | 2.6                  | .0          | 8.5            |
| American elm/green ash          | .0               | 2.6          | 2.6                  | .0          | 5.2            |
| <b>Elm/ash/red maple group</b>  | <b>38.4</b>      | <b>8.7</b>   | <b>50.0</b>          | <b>.0</b>   | <b>97.1</b>    |
| Sugar maple/beech/yellow birch  | 17.4             | 6.3          | 18.7                 | .0          | 42.4           |
| Black cherry                    | .0               | 6.3          | 13.6                 | .0          | 19.9           |
| Red maple/northern hardwoods    | 6.6              | 12.5         | 8.3                  | .0          | 27.4           |
| Mixed northern hardwoods        | 24.5             | 11.7         | 23.4                 | .0          | 59.6           |
| <b>Northern hardwoods group</b> | <b>48.5</b>      | <b>36.7</b>  | <b>64.0</b>          | <b>.0</b>   | <b>149.3</b>   |
| <b>All forest types</b>         | <b>1,383.6</b>   | <b>635.2</b> | <b>479.3</b>         | <b>35.6</b> | <b>2,533.7</b> |

### PERCENT TIMBERLAND BY FOREST TYPE GROUP

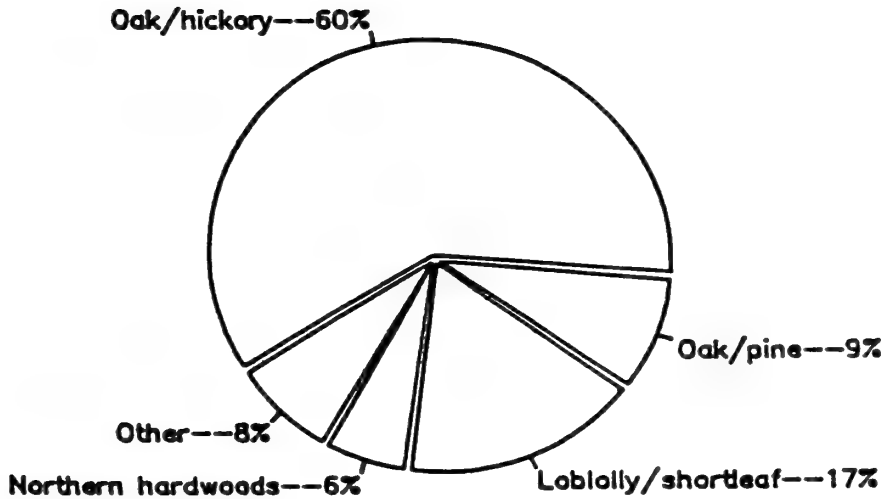


Table 3.--Area of timberland by forest type, forest-type group, and stand-size class, Maryland, 1986

(In thousands of acres)

| Forest type                     | Stand-size class |            |                      |            | All classes |
|---------------------------------|------------------|------------|----------------------|------------|-------------|
|                                 | Sawtimber        | Poletimber | Sapling and seedling | Nonstocked |             |
| Red pine                        | 3.1              | 14.6       | .0                   | .0         | 17.8        |
| White pine                      | 6.4              | 4.5        | .0                   | .0         | 10.9        |
| Hemlock                         | 6.9              | .0         | 3.9                  | .0         | 10.8        |
| Scotch pine                     | .0               | 3.1        | 10.5                 | .0         | 13.6        |
| White/red pine group            | 16.4             | 22.3       | 14.4                 | .0         | 53.1        |
| Loblolly pine                   | 128.1            | 41.3       | 17.5                 | .0         | 186.8       |
| Virginia pine                   | 65.5             | 22.6       | 22.0                 | .0         | 110.1       |
| Loblolly/shortleaf group        | 193.6            | 63.9       | 39.4                 | .0         | 296.9       |
| Wh. pine/no. red oak/wh. ash    | 9.5              | 2.4        | .0                   | .0         | 11.9        |
| Virginia pine/oak               | 78.6             | 5.2        | 11.7                 | .0         | 95.5        |
| Loblolly pine/hardwood          | 122.1            | 17.6       | 24.7                 | .0         | 164.4       |
| Other oak/pine                  | 5.4              | 4.7        | .0                   | .0         | 10.2        |
| Oak/pine group                  | 215.6            | 29.9       | 36.4                 | .0         | 281.9       |
| Post, black, or bear oak        | 17.0             | 6.0        | 4.5                  | .0         | 27.6        |
| Chestnut oak                    | 59.9             | 3.4        | .0                   | .0         | 63.3        |
| White oak/red oak/hickory       | 83.2             | 24.8       | 9.5                  | .0         | 117.6       |
| White oak                       | 31.8             | 34.5       | 6.8                  | .0         | 73.1        |
| Northern red oak                | 31.0             | .0         | .0                   | .0         | 31.0        |
| Y. poplar/wh. oak/no. red oak   | 66.4             | 12.4       | .0                   | .0         | 78.8        |
| Black locust                    | .0               | .0         | 9.8                  | .0         | 9.8         |
| Sweetgum/yellow-poplar          | 66.6             | 16.8       | 15.1                 | .0         | 98.5        |
| Yellow-poplar                   | 116.4            | .0         | 7.7                  | .0         | 124.1       |
| Hawthorn reverting field        | 3.2              | 4.5        | .0                   | .0         | 7.7         |
| Scarlet oak                     | 8.2              | .0         | 4.1                  | .0         | 12.2        |
| Sassafras/persimmon             | .0               | .0         | 2.8                  | .0         | 2.8         |
| Red maple/central hardwoods     | 32.6             | 19.7       | 4.2                  | .0         | 56.5        |
| Mixed central hardwoods         | 570.9            | 160.6      | 19.8                 | .0         | 751.3       |
| Oak/hickory group               | 1,087.3          | 282.8      | 84.4                 | .0         | 1,454.4     |
| Swamp chstnt oak/cherrybark oak | 30.1             | 10.5       | .0                   | .0         | 40.6        |
| Sweetgum/nuttall oak/willow oak | 40.1             | 14.0       | 10.0                 | .0         | 64.1        |
| Bald cypress/white tupelo       | 3.0              | .0         | .0                   | .0         | 3.0         |
| Sweetbay/swamp tupelo/red maple | 7.1              | 2.9        | 2.5                  | .0         | 12.5        |
| Oak/gum/cypress group           | 80.3             | 27.4       | 12.5                 | .0         | 120.2       |
| Black ash/Amer. elm/red maple   | 29.5             | .0         | 1.9                  | .0         | 31.4        |
| Red maple(lowland)              | 8.8              | .0         | 2.2                  | .0         | 10.9        |
| Red maple(upland)               | .0               | .0         | 3.8                  | .0         | 3.8         |
| River birch/sycamore            | 19.4             | 4.1        | .0                   | .0         | 23.5        |
| Willow                          | .0               | 2.1        | .0                   | .0         | 2.1         |
| Sycamore/pecan/American elm     | 4.6              | .0         | .0                   | .0         | 4.6         |

Table 3.--Continued

(In thousands of acres)

| Forest type                    | Stand-size class |            |                      |            | All classes |
|--------------------------------|------------------|------------|----------------------|------------|-------------|
|                                | Sawtimber        | Poletimber | Sapling and seedling | Nonstocked |             |
| American elm/green ash         | 7.4              | .0         | .0                   | .0         | 7.4         |
| Elm/ash/red maple group        | 69.6             | 6.2        | 7.9                  | .0         | 83.7        |
| Sugar maple/beech/yellow birch | 30.5             | .0         | 7.3                  | .0         | 37.8        |
| Black cherry                   | 6.7              | 14.2       | 4.6                  | .0         | 25.6        |
| Red maple/northern hardwoods   | 3.1              | 6.8        | 4.2                  | .0         | 14.1        |
| Pin cherry/reverting field     | .0               | 5.1        | 17.5                 | .0         | 22.6        |
| Mixed northern hardwoods       | 20.7             | 10.3       | 2.6                  | .0         | 33.6        |
| Northern hardwoods group       | 61.0             | 36.5       | 36.3                 | .0         | 133.8       |
| All forest types               | 1,723.8          | 468.9      | 231.3                | .0         | 2,424.0     |

### PERCENT TIMBERLAND BY FOREST TYPE GROUP

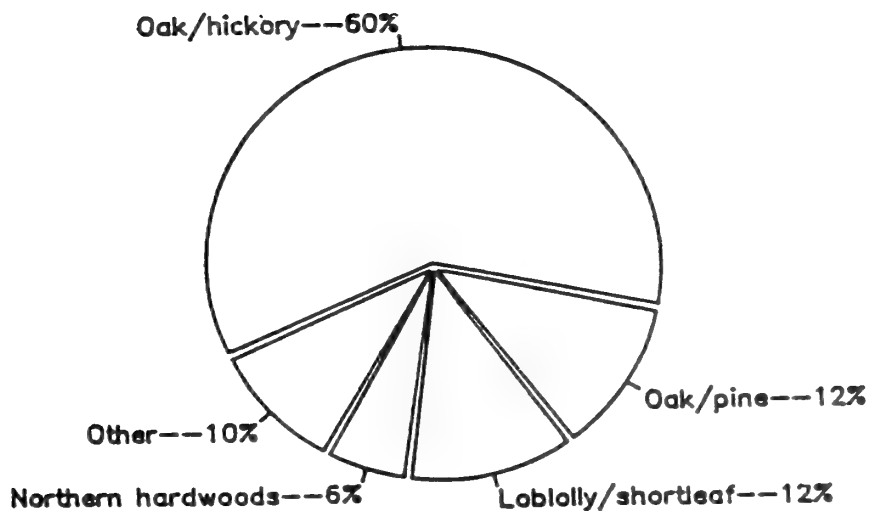


Table 4.--Area of timberland by forest-type group and ownership class, Maryland, 1986

(In thousands of acres)

| Forest-type group        | Ownership class |              |                 |                | All classes    |
|--------------------------|-----------------|--------------|-----------------|----------------|----------------|
|                          | National Forest | Other public | Forest industry | Other private  |                |
| White/red pine           | .0              | 12.0         | .0              | 41.1           | 53.1           |
| Loblolly/shortleaf       | .0              | 21.7         | 52.2            | 223.0          | 296.9          |
| Oak/pine                 | .0              | 14.8         | 34.1            | 233.0          | 281.9          |
| Oak/hickory              | .0              | 154.9        | 24.5            | 1,275.0        | 1,454.4        |
| Oak/gum/cypress          | .0              | 17.0         | 13.3            | 89.9           | 120.2          |
| Elm/ash/red maple        | .0              | 12.4         | 3.3             | 68.0           | 83.7           |
| Northern hardwoods       | .0              | 12.7         | 3.2             | 117.9          | 133.8          |
| <b>Total, all groups</b> | <b>.0</b>       | <b>245.5</b> | <b>130.6</b>    | <b>2,047.9</b> | <b>2,424.0</b> |

Table 5.--Area of timberland by stand-size class and ownership class, Maryland, 1986

(In thousands of acres)

| Stand-size class          | Ownership class |              |                 |                | All classes    |
|---------------------------|-----------------|--------------|-----------------|----------------|----------------|
|                           | National Forest | Other public | Forest industry | Other private  |                |
| Sawtimber                 | .0              | 183.9        | 64.2            | 1,475.7        | 1,723.8        |
| Poletimber                | .0              | 52.4         | 30.9            | 385.6          | 468.9          |
| Sapling and seedling      | .0              | 9.2          | 35.6            | 186.5          | 231.3          |
| <b>Total, all classes</b> | <b>.0</b>       | <b>245.5</b> | <b>130.6</b>    | <b>2,047.9</b> | <b>2,424.0</b> |

Table 6.--Area of timberland by board-foot stand-volume class and ownership class, Maryland, 1986

(In thousands of acres)

| Stand-volume class<br>(board feet per acre) | Ownership class    |                 |                    |                  | All<br>classes |
|---|--------------------|-----------------|--------------------|------------------|----------------|
|   | National<br>Forest | Other<br>public | Forest<br>industry | Other<br>private |                |
| 0 - 1,999                                   | .0                 | 49.9            | 63.3               | 447.5            | 560.7          |
| 2,000 - 3,999                               | .0                 | 51.3            | 26.1               | 415.1            | 492.5          |
| 4,000 - 5,999                               | .0                 | 53.0            | 7.7                | 336.5            | 397.2          |
| 6,000 - 7,999                               | .0                 | 41.7            | 22.0               | 287.3            | 351.0          |
| 8,000 - 9,999                               | .0                 | 28.5            | 11.4               | 232.9            | 272.8          |
| 10,000+                                     | .0                 | 21.1            | .0                 | 328.7            | 349.8          |
| <b>Total, all classes</b>                   | <b>.0</b>          | <b>245.5</b>    | <b>130.6</b>       | <b>2,047.9</b>   | <b>2,424.0</b> |

Table 7.--Area of timberland by stocking class of growing-stock trees and ownership class, Maryland, 1986

(In thousands of acres)

| Stocking class            | Ownership class    |                 |                    |                  | All<br>classes |
|---------------------------|--------------------|-----------------|--------------------|------------------|----------------|
|                           | National<br>Forest | Other<br>public | Forest<br>industry | Other<br>private |                |
| Nonstocked                | .0                 | .0              | .0                 | 4.2              | 4.2            |
| Poorly stocked            | .0                 | 6.1             | 5.0                | 77.2             | 88.3           |
| Moderately stocked        | .0                 | 22.0            | 18.0               | 307.5            | 347.5          |
| Fully stocked             | .0                 | 72.6            | 15.0               | 637.5            | 725.1          |
| Overstocked               | .0                 | 144.8           | 92.6               | 1,021.5          | 1,258.9        |
| <b>Total, all classes</b> | <b>.0</b>          | <b>245.5</b>    | <b>130.6</b>       | <b>2,047.9</b>   | <b>2,424.0</b> |

Table 8.--Area of timberland by forest-type group and cubic-foot stand-volume class, Maryland, 1986

(In thousands of acres)

| Forest-type group        | Stand-volume class (cubic feet per acre) |              |              |              |              |              | All classes    |
|--------------------------|--|--------------|--------------|--------------|--------------|--------------|----------------|
|                          | 0-499                                    | 500-999      | 1000-1499    | 1500-1999    | 2000-2499    | 2500+        |                |
| White/red pine           | 25.1                                     | 3.9          | 3.2          | 4.0          | 9.5          | 7.4          | 53.1           |
| Loblolly/shortleaf       | 39.0                                     | 39.3         | 41.5         | 39.1         | 65.1         | 72.8         | 296.9          |
| Oak/pine                 | 35.0                                     | 19.7         | 36.6         | 50.7         | 78.5         | 61.4         | 281.9          |
| Oak/hickory              | 82.0                                     | 112.5        | 224.9        | 313.5        | 285.3        | 436.1        | 1,454.4        |
| Oak/gum/cypress          | 10.5                                     | 26.4         | 20.3         | 10.6         | 17.7         | 34.7         | 120.2          |
| Elm/ash/red maple        | 7.9                                      | 13.1         | 22.9         | .0           | 2.8          | 37.0         | 83.7           |
| Northern hardwoods       | 40.5                                     | 20.3         | 14.8         | 22.8         | 17.0         | 18.3         | 133.8          |
| <b>Total, all groups</b> | <b>240.0</b>                             | <b>235.3</b> | <b>364.2</b> | <b>440.9</b> | <b>475.9</b> | <b>667.7</b> | <b>2,424.0</b> |

Table 9.--Area of timberland by forest-type group and board-foot stand-volume class, Maryland, 1986

(In thousands of acres)

| Forest-type group        | Stand-volume class (board feet per acre) |              |              |              |              |              | All classes    |
|--------------------------|--|--------------|--------------|--------------|--------------|--------------|----------------|
|                          | 0-1999                                   | 2000-3999    | 4000-5999    | 6000-7999    | 8000-9999    | 10000+       |                |
| White/red pine           | 36.7                                     | .0           | 6.3          | 6.4          | .0           | 3.7          | 53.1           |
| Loblolly/shortleaf       | 91.1                                     | 71.8         | 36.0         | 55.5         | 27.4         | 15.1         | 296.9          |
| Oak/pine                 | 67.7                                     | 66.6         | 39.8         | 51.1         | 41.5         | 15.1         | 281.9          |
| Oak/hickory              | 259.1                                    | 263.8        | 270.2        | 214.1        | 178.6        | 268.6        | 1,454.4        |
| Oak/gum/cypress          | 33.8                                     | 29.7         | 22.4         | 6.4          | 11.7         | 16.2         | 120.2          |
| Elm/ash/red maple        | 10.0                                     | 30.1         | 3.7          | 7.0          | 5.7          | 27.1         | 83.7           |
| Northern hardwoods       | 62.3                                     | 30.5         | 18.7         | 10.6         | 7.8          | 3.9          | 133.8          |
| <b>Total, all groups</b> | <b>560.7</b>                             | <b>492.5</b> | <b>397.2</b> | <b>351.0</b> | <b>272.8</b> | <b>349.8</b> | <b>2,424.0</b> |

Table 10.--Area of timberland by forest-type group and green ton stand-volume class, Maryland, 1986

(In thousands of acres)

| Forest-type group  | Stand-volume class (green tons per acre) |       |       |       |         |         |         |         |       |         | All classes |
|--------------------|--|-------|-------|-------|---------|---------|---------|---------|-------|---------|-------------|
|                    | 0-24                                     | 25-49 | 50-74 | 75-99 | 100-124 | 125-149 | 150-174 | 175-199 | 200+  |         |             |
| White/red pine     | 15.0                                     | 10.9  | 3.2   | 4.0   | 6.4     | 3.1     | 6.8     | .0      | 3.7   | 53.1    |             |
| Loblolly/shortleaf | 24.2                                     | 49.4  | 40.8  | 53.1  | 49.9    | 57.5    | 5.6     | 8.9     | 7.5   | 296.9   |             |
| Oak/pine           | 19.4                                     | 22.9  | 38.2  | 59.8  | 73.2    | 37.1    | 13.2    | .0      | 18.1  | 281.9   |             |
| Oak/hickory        | 65.5                                     | 112.3 | 217.1 | 235.1 | 252.5   | 262.2   | 100.5   | 102.4   | 106.8 | 1,454.4 |             |
| Oak/gum/cypress    | 6.5                                      | 19.1  | 21.5  | 26.7  | 10.6    | 3.8     | 21.1    | 3.6     | 7.4   | 120.2   |             |
| Elm/ash/red maple  | 12.5                                     | 14.9  | 27.7  | 7.0   | 7.2     | 6.4     | .0      | 3.5     | 4.5   | 83.7    |             |
| Northern hardwoods | 31.5                                     | 18.1  | 34.8  | 18.4  | 4.8     | 7.3     | 3.7     | .0      | 15.2  | 133.8   |             |
| Total, all groups  | 174.6                                    | 247.5 | 383.2 | 404.2 | 404.6   | 377.4   | 150.9   | 118.4   | 163.2 | 2,424.0 |             |

Table 11.--Area of timberland by forest-type group and stocking class of all live trees, Maryland, 1976

(In thousands of acres)

| Forest-type group        | Stocking class |                |                    |                |              | All classes    |
|--------------------------|----------------|----------------|--------------------|----------------|--------------|----------------|
|                          | Nonstocked     | Poorly stocked | Moderately stocked | Fully stocked  | Over-stocked |                |
| White/red pine           | 6.0            | 6.9            | .0                 | 5.9            | 11.7         | 30.4           |
| Spruce/fir               | .0             | .0             | .0                 | 5.8            | 4.4          | 10.2           |
| Loblolly/shortleaf       | 1.9            | 8.3            | 40.5               | 162.9          | 215.2        | 429.9          |
| Oak/pine                 | .0             | 10.9           | 8.0                | 131.5          | 81.3         | 231.7          |
| Oak/hickory              | 20.3           | 47.1           | 152.9              | 797.4          | 496.3        | 1,514.1        |
| Oak/gum/cypress          | .0             | .0             | 9.1                | 24.0           | 37.9         | 70.9           |
| Elm/ash/red maple        | .0             | 12.1           | 25.9               | 36.5           | 22.6         | 97.1           |
| Northern hardwoods       | .0             | 11.6           | 26.5               | 87.6           | 23.6         | 149.3          |
| <b>Total, all groups</b> | <b>29.3</b>    | <b>96.7</b>    | <b>263.0</b>       | <b>1,251.5</b> | <b>893.1</b> | <b>2,533.7</b> |

Table 12.--Area of timberland by forest-type group and stocking class of all live trees, Maryland, 1986

(In thousands of acres)

| Forest-type group        | Stocking class |                |                    |               |                | All classes    |
|--------------------------|----------------|----------------|--------------------|---------------|----------------|----------------|
|                          | Nonstocked     | Poorly stocked | Moderately stocked | Fully stocked | Over-stocked   |                |
| White/red pine           | .0             | 10.5           | 13.5               | 8.3           | 20.8           | 53.1           |
| Loblolly/shortleaf       | .0             | 10.8           | 34.0               | 52.4          | 199.6          | 296.9          |
| Oak/pine                 | .0             | 1.8            | 18.4               | 53.8          | 207.9          | 281.9          |
| Oak/hickory              | .0             | 16.5           | 117.1              | 526.0         | 794.8          | 1,454.4        |
| Oak/gum/cypress          | .0             | .0             | 6.5                | 36.9          | 76.8           | 120.2          |
| Elm/ash/red maple        | .0             | 3.3            | 32.7               | 11.6          | 36.1           | 83.7           |
| Northern hardwoods       | .0             | 12.7           | 22.2               | 45.1          | 53.7           | 133.8          |
| <b>Total, all groups</b> | <b>.0</b>      | <b>55.7</b>    | <b>244.5</b>       | <b>734.1</b>  | <b>1,389.7</b> | <b>2,424.0</b> |



Table 13.--Area of timberland by forest-type group and stocking class of growing-stock trees, Maryland, 1976

(In thousands of acres)

| Forest-type group        | Stocking class |                |                    |               |              | All classes    |
|--------------------------|----------------|----------------|--------------------|---------------|--------------|----------------|
|                          | Nonstocked     | Poorly stocked | Moderately stocked | Fully stocked | Over-stocked |                |
| White/red pine           | 6.0            | 6.9            | 5.9                | 5.9           | 5.8          | 30.4           |
| Spruce/fir               | .0             | .0             | 5.8                | 4.4           | .0           | 10.2           |
| Loblolly/shortleaf       | 2.9            | 18.6           | 69.2               | 163.3         | 175.8        | 429.9          |
| Oak/pine                 | .0             | 10.9           | 72.1               | 115.1         | 33.8         | 231.7          |
| Oak/hickory              | 41.7           | 129.9          | 480.5              | 592.8         | 269.1        | 1,514.1        |
| Oak/gum/cypress          | .0             | 3.2            | 12.3               | 29.8          | 25.5         | 70.9           |
| Elm/ash/red maple        | 6.2            | 29.7           | 35.8               | 13.9          | 11.4         | 97.1           |
| Northern hardwoods       | .0             | 42.4           | 100.7              | 6.2           | .0           | 149.3          |
| <b>Total, all groups</b> | <b>56.9</b>    | <b>241.6</b>   | <b>782.3</b>       | <b>931.4</b>  | <b>521.4</b> | <b>2,533.7</b> |

Table 14.--Area of timberland by forest-type group and stocking class of growing-stock trees, Maryland, 1986

(In thousands of acres)

| Forest-type group        | Stocking class |                |                    |               |                | All classes    |
|--------------------------|----------------|----------------|--------------------|---------------|----------------|----------------|
|                          | Nonstocked     | Poorly stocked | Moderately stocked | Fully stocked | Over-stocked   |                |
| White/red pine           | .0             | 10.6           | 21.7               | 7.1           | 13.7           | 53.1           |
| Loblolly/shortleaf       | .0             | 14.6           | 33.1               | 57.5          | 191.7          | 296.9          |
| Oak/pine                 | .0             | 3.8            | 18.8               | 50.6          | 208.7          | 281.9          |
| Oak/hickory              | .0             | 34.3           | 197.9              | 510.7         | 711.5          | 1,454.4        |
| Oak/gum/cypress          | .0             | .0             | 7.3                | 46.2          | 66.7           | 120.2          |
| Elm/ash/red maple        | .0             | 9.5            | 30.6               | 15.3          | 28.3           | 83.7           |
| Northern hardwoods       | 4.2            | 15.5           | 38.1               | 37.7          | 38.3           | 133.8          |
| <b>Total, all groups</b> | <b>4.2</b>     | <b>88.3</b>    | <b>347.5</b>       | <b>725.1</b>  | <b>1,258.9</b> | <b>2,424.0</b> |

Table 15.--Area of timberland by forest-type group and basal-area class, Maryland, 1986

(In thousands of acres)

| Forest-type<br>group     | Basal-area class (square feet per acre) |              |              |              |             |            |           | All<br>classes |
|--------------------------|---|--------------|--------------|--------------|-------------|------------|-----------|----------------|
|                          | 0-49                                    | 50-99        | 100-149      | 150-199      | 200-249     | 250-299    | 300+      |                |
| White/red pine           | 18.9                                    | 17.3         | 9.5          | 3.7          | 3.7         | .0         | .0        | 53.1           |
| Loblolly/shortleaf       | 44.7                                    | 81.6         | 105.5        | 65.1         | .0          | .0         | .0        | 296.9          |
| Oak/pine                 | 31.8                                    | 72.1         | 140.0        | 37.9         | .0          | .0         | .0        | 281.9          |
| Oak/hickory              | 97.4                                    | 551.3        | 617.6        | 185.0        | 3.2         | .0         | .0        | 1,454.4        |
| Oak/gum/cypress          | 16.0                                    | 50.7         | 27.4         | 15.6         | 6.8         | 3.8        | .0        | 120.2          |
| Elm/ash/red maple        | 11.2                                    | 32.7         | 26.2         | 13.7         | .0          | .0         | .0        | 83.7           |
| Northern hardwoods       | 42.7                                    | 47.0         | 40.4         | 3.7          | .0          | .0         | .0        | 133.8          |
| <b>Total, all groups</b> | <b>262.8</b>                            | <b>852.7</b> | <b>966.5</b> | <b>324.6</b> | <b>13.6</b> | <b>3.8</b> | <b>.0</b> | <b>2,424.0</b> |

Table 16.--Number of live trees on timberland by species and diameter class, Maryland, 1986

(In thousands of trees)

| Species                         | Diameter class (inches at breast height) |                |                |               |               |               |               |               |              |              |              |              |                  |  | All classes |
|---------------------------------|--|----------------|----------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|------------------|--|-------------|
|                                 | 1.0-2.9                                  | 3.0-4.9        | 5.0-6.9        | 7.0-8.9       | 9.0-10.9      | 11.0-12.9     | 13.0-14.9     | 15.0-16.9     | 17.0-18.9    | 19.0-20.9    | 21.0-28.9    | 29.0+        |                  |  |             |
| White/red pine                  | 1,939                                    | 1,410          | 4,243          | 2,642         | 626           | 602           | 213           | 44            | 37           | 16           | 0            | 0            | 11,773           |  |             |
| Loblolly pine                   | 29,262                                   | 22,897         | 15,742         | 11,118        | 7,299         | 5,428         | 3,043         | 1,431         | 704          | 220          | 116          | 0            | 97,261           |  |             |
| Virginia pine                   | 14,214                                   | 6,692          | 8,406          | 7,969         | 5,297         | 3,224         | 1,556         | 318           | 21           | 0            | 5            | 0            | 47,703           |  |             |
| Other yellow pines              | 1,200                                    | 3,179          | 724            | 483           | 328           | 137           | 48            | 38            | 7            | 0            | 0            | 0            | 6,144            |  |             |
| Other softwoods                 | 6,988                                    | 2,235          | 1,049          | 1,123         | 538           | 315           | 169           | 146           | 125          | 72           | 53           | 3            | 12,817           |  |             |
| <b>Total softwoods</b>          | <b>53,603</b>                            | <b>36,414</b>  | <b>30,165</b>  | <b>23,336</b> | <b>14,088</b> | <b>9,706</b>  | <b>5,029</b>  | <b>1,977</b>  | <b>894</b>   | <b>308</b>   | <b>174</b>   | <b>3</b>     | <b>175,699</b>   |  |             |
| Red maple                       | 129,527                                  | 40,038         | 22,440         | 11,857        | 6,645         | 4,485         | 2,717         | 1,411         | 943          | 494          | 720          | 156          | 221,433          |  |             |
| Sugar maple                     | 13,530                                   | 3,596          | 2,064          | 1,352         | 729           | 492           | 211           | 211           | 67           | 83           | 79           | 21           | 22,435           |  |             |
| Hickory                         | 21,121                                   | 7,823          | 4,361          | 3,012         | 1,798         | 1,066         | 643           | 448           | 341          | 85           | 75           | 6            | 40,780           |  |             |
| Beech                           | 17,176                                   | 5,314          | 3,972          | 1,339         | 1,311         | 1,007         | 775           | 455           | 327          | 230          | 248          | 82           | 32,237           |  |             |
| Sweetgum                        | 78,285                                   | 24,464         | 12,049         | 7,465         | 4,124         | 2,710         | 2,014         | 994           | 492          | 216          | 198          | 26           | 133,039          |  |             |
| Yellow-poplar                   | 17,895                                   | 5,131          | 3,923          | 3,490         | 2,951         | 2,721         | 2,055         | 1,424         | 1,280        | 979          | 1,452        | 230          | 43,530           |  |             |
| Blackgum                        | 47,558                                   | 19,459         | 7,120          | 2,812         | 2,365         | 1,429         | 807           | 568           | 219          | 144          | 148          | 11           | 82,640           |  |             |
| Ash-walnut-cherry               | 38,813                                   | 13,567         | 7,318          | 4,636         | 2,891         | 1,489         | 1,170         | 579           | 276          | 121          | 79           | 28           | 70,967           |  |             |
| Select white oaks               | 18,654                                   | 8,299          | 10,419         | 8,158         | 6,079         | 3,423         | 2,110         | 1,388         | 809          | 445          | 703          | 113          | 60,600           |  |             |
| Select red oaks                 | 6,723                                    | 1,476          | 2,135          | 2,790         | 2,764         | 2,228         | 1,794         | 1,039         | 548          | 425          | 595          | 111          | 22,627           |  |             |
| Other white oaks                | 7,235                                    | 2,123          | 4,889          | 5,284         | 3,742         | 2,109         | 1,836         | 989           | 610          | 267          | 410          | 38           | 29,532           |  |             |
| Other red oaks                  | 13,393                                   | 11,215         | 9,240          | 5,652         | 4,003         | 3,535         | 2,518         | 1,688         | 1,097        | 878          | 889          | 159          | 54,267           |  |             |
| Black locust                    | 15,731                                   | 7,721          | 2,965          | 1,861         | 1,557         | 588           | 385           | 215           | 126          | 51           | 28           | 0            | 31,230           |  |             |
| Other commercial hardwoods      | 138,390                                  | 27,119         | 10,010         | 5,490         | 2,562         | 1,442         | 884           | 587           | 247          | 253          | 221          | 17           | 187,223          |  |             |
| <b>Non-commercial hardwoods</b> | <b>78,248</b>                            | <b>14,128</b>  | <b>5,191</b>   | <b>2,237</b>  | <b>859</b>    | <b>329</b>    | <b>171</b>    | <b>125</b>    | <b>16</b>    | <b>0</b>     | <b>10</b>    | <b>0</b>     | <b>101,315</b>   |  |             |
| <b>Total hardwoods</b>          | <b>642,281</b>                           | <b>191,473</b> | <b>108,096</b> | <b>67,435</b> | <b>44,380</b> | <b>29,052</b> | <b>20,089</b> | <b>12,123</b> | <b>7,399</b> | <b>4,671</b> | <b>5,857</b> | <b>999</b>   | <b>1,133,856</b> |  |             |
| <b>Total, all species</b>       | <b>695,885</b>                           | <b>227,887</b> | <b>138,262</b> | <b>90,771</b> | <b>58,468</b> | <b>38,758</b> | <b>25,119</b> | <b>14,100</b> | <b>8,293</b> | <b>4,979</b> | <b>6,031</b> | <b>1,002</b> | <b>1,309,555</b> |  |             |

Table 17.--Number of live trees on timberland by diameter class, tree class, and softwoods and hardwoods, Maryland, 1986

(In thousands of trees)

| Diameter class                      | Growing stock  |                  | Cull       |                  | All classes      |
|-------------------------------------|----------------|------------------|------------|------------------|------------------|
|                                     | Softwoods      | Hardwoods        | Softwoods  | Hardwoods        |                  |
| Seedlings                           | 193,209        | 5,939,435        | 0          | 1,494,923        | 7,627,568        |
| 1.0 - 2.9                           | 53,603         | 560,691          | 0          | 81,590           | 695,885          |
| 3.0 - 4.9                           | 36,414         | 175,513          | 0          | 15,961           | 227,887          |
| <b>Total seedlings and saplings</b> | <b>283,227</b> | <b>6,675,639</b> | <b>0</b>   | <b>1,592,474</b> | <b>8,551,340</b> |
| 5.0 - 6.9                           | 29,755         | 93,748           | 411        | 14,348           | 138,262          |
| 7.0 - 8.9                           | 23,170         | 61,492           | 166        | 5,943            | 90,771           |
| 9.0 - 10.9                          | -              | 41,764           | -          | 2,616            | 44,380           |
| <b>Total poletimber</b>             | <b>52,924</b>  | <b>197,004</b>   | <b>577</b> | <b>22,907</b>    | <b>273,412</b>   |
| 9.0 - 10.9                          | 13,861         | -                | 227        | -                | 14,088           |
| 11.0 - 12.9                         | 9,544          | 27,017           | 162        | 2,035            | 38,758           |
| 13.0 - 14.9                         | 5,029          | 18,774           | 0          | 1,315            | 25,119           |
| <b>Total small sawtimber</b>        | <b>28,434</b>  | <b>45,791</b>    | <b>389</b> | <b>3,350</b>     | <b>77,964</b>    |
| 15.0 - 16.9                         | 1,969          | 11,333           | 8          | 790              | 14,100           |
| 17.0 - 18.9                         | 894            | 6,917            | 0          | 482              | 8,293            |
| 19.0 - 20.9                         | 308            | 4,477            | 0          | 195              | 4,979            |
| 21.0 - 28.9                         | 170            | 5,392            | 4          | 465              | 6,031            |
| 29.0 and larger                     | 3              | 760              | 0          | 239              | 1,002            |
| <b>Total large sawtimber</b>        | <b>3,344</b>   | <b>28,879</b>    | <b>13</b>  | <b>2,170</b>     | <b>34,405</b>    |
| <b>Total, all classes</b>           | <b>367,929</b> | <b>6,947,313</b> | <b>979</b> | <b>1,620,901</b> | <b>8,937,123</b> |

Table 18.--Number of trees (5.0+ inches d.b.h.) on timberland by species and tree class, Maryland, 1986

(In thousands of trees)

| Species                         | Tree class   |                |                   |               |              |                |               |               | All classes    |               |                |
|---------------------------------|--------------|----------------|-------------------|---------------|--------------|----------------|---------------|---------------|----------------|---------------|----------------|
|                                 | Preferred    | Acceptable     | All growing stock | Rough cull    | Rotten cull  | All live       | Salvable      |               | Nonsalvable    |               |                |
|                                 |              |                |                   |               |              |                | dead          | dead          | dead           | dead          |                |
| White/red pine                  | 329          | 7,981          | 8,311             | 113           | 0            | 8,424          | 118           | 28            | 8,570          | 28            | 8,570          |
| Loblolly pine                   | 1,124        | 43,806         | 44,931            | 156           | 15           | 45,102         | 1,423         | 1,166         | 47,691         | 1,166         | 47,691         |
| Virginia pine                   | 150          | 26,333         | 26,483            | 303           | 11           | 26,797         | 1,229         | 970           | 28,996         | 970           | 28,996         |
| Other yellow pines              | 183          | 1,428          | 1,612             | 153           | 0            | 1,765          | 159           | 410           | 2,334          | 410           | 2,334          |
| Other softwoods                 | 112          | 3,254          | 3,366             | 204           | 24           | 3,594          | 52            | 77            | 3,723          | 77            | 3,723          |
| <b>Total softwoods</b>          | <b>1,899</b> | <b>82,803</b>  | <b>84,702</b>     | <b>929</b>    | <b>50</b>    | <b>85,682</b>  | <b>2,981</b>  | <b>2,651</b>  | <b>91,314</b>  | <b>2,651</b>  | <b>91,314</b>  |
| Red maple                       | 26           | 47,477         | 47,503            | 3,481         | 883          | 51,867         | 705           | 197           | 52,770         | 197           | 52,770         |
| Sugar maple                     | 50           | 4,704          | 4,755             | 533           | 21           | 5,309          | 28            | 40            | 5,377          | 40            | 5,377          |
| Hickory                         | 124          | 11,308         | 11,432            | 356           | 49           | 11,837         | 813           | 561           | 13,211         | 561           | 13,211         |
| Beech                           | 15           | 9,203          | 9,218             | 452           | 76           | 9,747          | 0             | 194           | 9,941          | 194           | 9,941          |
| Sweetgum                        | 431          | 29,096         | 29,528            | 552           | 210          | 30,290         | 266           | 584           | 31,139         | 584           | 31,139         |
| Yellow-poplar                   | 1,366        | 18,718         | 20,085            | 343           | 77           | 20,505         | 52            | 244           | 20,800         | 244           | 20,800         |
| Blackgum                        | 8            | 13,723         | 13,731            | 1,828         | 65           | 15,624         | 241           | 103           | 15,967         | 103           | 15,967         |
| Ash-walnut-cherry               | 245          | 15,698         | 15,943            | 2,406         | 239          | 16,182         | 380           | 998           | 19,965         | 998           | 19,965         |
| Select white oaks               | 121          | 31,807         | 31,929            | 1,627         | 91           | 32,020         | 1,387         | 1,339         | 36,373         | 1,339         | 36,373         |
| Select red oaks                 | 311          | 13,566         | 13,878            | 512           | 38           | 13,916         | 898           | 587           | 15,913         | 587           | 15,913         |
| Other white oaks                | 59           | 18,570         | 18,629            | 1,526         | 19           | 20,174         | 997           | 1,203         | 22,374         | 1,203         | 22,374         |
| Other red oaks                  | 295          | 28,385         | 28,680            | 756           | 222          | 29,658         | 1,784         | 811           | 32,253         | 811           | 32,253         |
| Black locust                    | 10           | 6,033          | 6,042             | 1,450         | 285          | 6,327          | 1,246         | 932           | 9,955          | 932           | 9,955          |
| Other commercial hardwoods      | 69           | 19,873         | 19,942            | 1,611         | 161          | 21,714         | 622           | 535           | 22,871         | 535           | 22,871         |
| <b>Non-commercial hardwoods</b> | <b>0</b>     | <b>380</b>     | <b>380</b>        | <b>8,400</b>  | <b>159</b>   | <b>8,939</b>   | <b>1,044</b>  | <b>2,522</b>  | <b>12,505</b>  | <b>2,522</b>  | <b>12,505</b>  |
| <b>Total hardwoods</b>          | <b>3,132</b> | <b>268,542</b> | <b>271,673</b>    | <b>25,835</b> | <b>2,593</b> | <b>300,100</b> | <b>10,464</b> | <b>10,852</b> | <b>321,417</b> | <b>10,852</b> | <b>321,417</b> |
| <b>Total, all species</b>       | <b>5,030</b> | <b>351,345</b> | <b>356,376</b>    | <b>26,764</b> | <b>2,643</b> | <b>385,783</b> | <b>13,445</b> | <b>13,503</b> | <b>421,731</b> | <b>13,503</b> | <b>421,731</b> |

Table 19.---Number of growing-stock trees on timberland by species and diameter class, Maryland, 1986

(In thousands of trees)

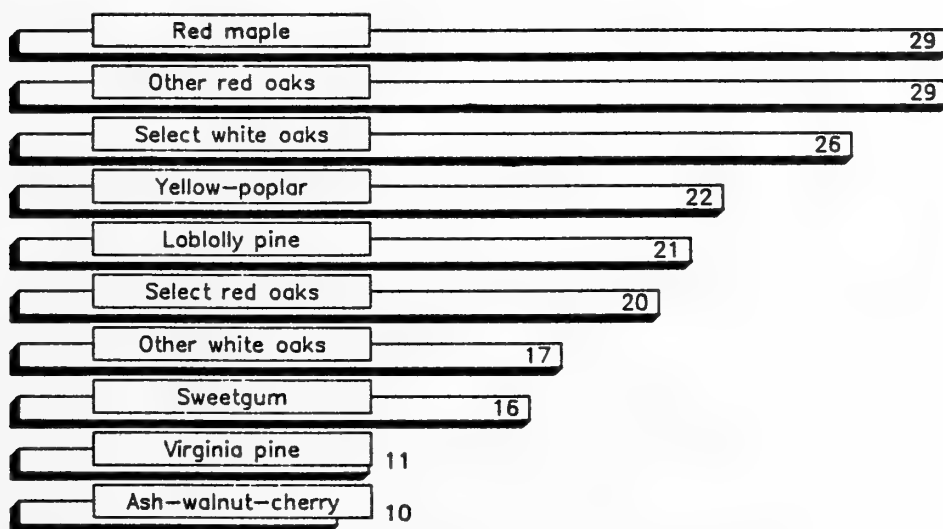
| Species                   | Diameter class (inches at breast height) |                |                |               |               |               |               |               |              |              |              |            |            |                  | All classes |
|---------------------------|--|----------------|----------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|------------|------------|------------------|-------------|
|                           | 1.0-2.9                                  | 3.0-4.9        | 5.0-6.9        | 7.0-8.9       | 9.0-10.9      | 11.0-12.9     | 13.0-14.9     | 15.0-16.9     | 17.0-18.9    | 19.0-20.9    | 21.0-28.9    | 29.0+      |            |                  |             |
| White/red pine            | 1,939                                    | 1,410          | 4,192          | 2,613         | 611           | 584           | 213           | 44            | 37           | 16           | 0            | 0          | 0          | 11,660           |             |
| Loblolly pine             | 29,262                                   | 22,897         | 15,648         | 11,100        | 7,265         | 5,413         | 3,043         | 1,422         | 704          | 220          | 116          | 0          | 0          | 97,090           |             |
| Virginia pine             | 14,214                                   | 6,692          | 8,355          | 7,865         | 5,212         | 3,150         | 1,556         | 318           | 21           | 0            | 5            | 0          | 0          | 47,389           |             |
| Other yellow pines        | 1,200                                    | 3,179          | 604            | 469           | 313           | 132           | 48            | 38            | 7            | 0            | 0            | 0          | 0          | 5,991            |             |
| Other softwoods           | 6,988                                    | 2,235          | 955            | 1,123         | 459           | 264           | 169           | 146           | 125          | 72           | 48           | 3          | 3          | 12,589           |             |
| <b>Total softwoods</b>    | <b>53,603</b>                            | <b>36,414</b>  | <b>29,755</b>  | <b>23,170</b> | <b>13,861</b> | <b>9,544</b>  | <b>5,029</b>  | <b>1,969</b>  | <b>894</b>   | <b>308</b>   | <b>170</b>   | <b>3</b>   | <b>3</b>   | <b>174,720</b>   |             |
| Red maple                 | 129,527                                  | 40,038         | 20,643         | 10,797        | 6,402         | 4,044         | 2,475         | 1,238         | 777          | 443          | 583          | 99         | 99         | 217,069          |             |
| Sugar maple               | 13,530                                   | 3,596          | 1,900          | 1,199         | 641           | 432           | 204           | 211           | 41           | 74           | 43           | 10         | 10         | 21,881           |             |
| Hickory                   | 21,121                                   | 7,823          | 4,176          | 2,977         | 1,732         | 967           | 634           | 448           | 334          | 85           | 72           | 6          | 6          | 40,375           |             |
| Beech                     | 17,176                                   | 5,314          | 3,826          | 1,253         | 1,268         | 900           | 740           | 455           | 306          | 209          | 216          | 45         | 45         | 31,708           |             |
| Sweetgum                  | 78,285                                   | 24,464         | 11,729         | 7,193         | 4,110         | 2,669         | 1,956         | 962           | 468          | 216          | 198          | 26         | 26         | 132,277          |             |
| Yellow-poplar             | 17,895                                   | 5,131          | 3,850          | 3,417         | 2,919         | 2,690         | 2,004         | 1,367         | 1,267        | 948          | 1,430        | 194        | 194        | 43,111           |             |
| Blackgum                  | 44,216                                   | 17,626         | 6,256          | 2,554         | 2,150         | 1,155         | 689           | 488           | 199          | 123          | 116          | 0          | 0          | 75,573           |             |
| Ash-walnut-cherry         | 38,813                                   | 13,567         | 5,690          | 4,303         | 2,603         | 1,340         | 968           | 542           | 276          | 121          | 72           | 26         | 26         | 68,323           |             |
| Select white oaks         | 18,654                                   | 8,299          | 9,447          | 7,943         | 5,822         | 3,380         | 2,047         | 1,310         | 797          | 435          | 649          | 98         | 98         | 58,882           |             |
| Select red oaks           | 6,723                                    | 1,476          | 1,931          | 2,653         | 2,764         | 2,228         | 1,719         | 1,006         | 507          | 416          | 563          | 90         | 90         | 22,077           |             |
| Other white oaks          | 7,235                                    | 2,123          | 3,946          | 5,136         | 3,597         | 2,019         | 1,771         | 915           | 595          | 252          | 380          | 19         | 19         | 27,987           |             |
| Other red oaks            | 13,393                                   | 11,215         | 8,779          | 5,407         | 3,943         | 3,441         | 2,463         | 1,677         | 1,087        | 867          | 882          | 134        | 134        | 53,289           |             |
| Black locust              | 15,731                                   | 7,721          | 2,380          | 1,476         | 1,265         | 369           | 272           | 149           | 86           | 35           | 9            | 0          | 0          | 29,495           |             |
| Other hardwoods           | 138,390                                  | 27,119         | 9,194          | 5,184         | 2,547         | 1,382         | 831           | 563           | 177          | 253          | 177          | 13         | 13         | 185,831          |             |
| <b>Total hardwoods</b>    | <b>560,691</b>                           | <b>175,513</b> | <b>93,748</b>  | <b>61,492</b> | <b>41,764</b> | <b>27,017</b> | <b>18,774</b> | <b>11,333</b> | <b>6,917</b> | <b>4,477</b> | <b>5,392</b> | <b>760</b> | <b>760</b> | <b>1,007,877</b> |             |
| <b>Total, all species</b> | <b>614,295</b>                           | <b>211,927</b> | <b>123,502</b> | <b>84,662</b> | <b>55,625</b> | <b>36,561</b> | <b>23,803</b> | <b>13,302</b> | <b>7,811</b> | <b>4,785</b> | <b>5,562</b> | <b>763</b> | <b>763</b> | <b>1,182,597</b> |             |

# MAJOR SPECIES BY WEIGHT

(Millions of tons)

## Green Weight

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## Dry Weight

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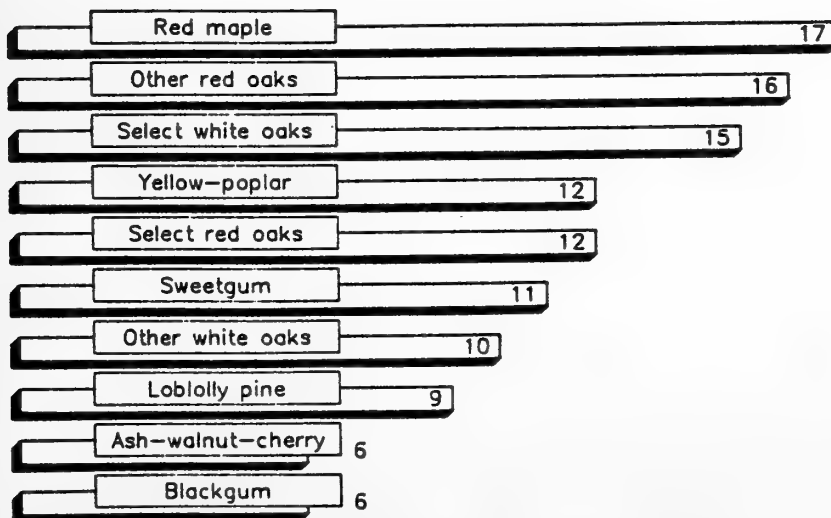


Table 22.--Net green weight of all trees on timberland by class of material and species group, Maryland, 1986

(In thousands of tons)

| Class of material                | Weight <sup>a</sup> |                  | All groups       |
|----------------------------------|---------------------|------------------|------------------|
|                                  | Softwoods           | Hardwoods        |                  |
| Sawlog portion                   | 15,659.2            | 83,281.2         | 98,940.4         |
| Upper stem                       | 2,148.2             | 18,111.7         | 20,260.0         |
| <b>Total</b>                     | <b>17,807.4</b>     | <b>101,392.9</b> | <b>119,200.3</b> |
| Poletimber trees                 | 7,024.7             | 40,915.9         | 47,940.6         |
| All growing stock                | 24,832.1            | 142,308.8        | 167,140.9        |
| Rough cull trees <sup>b</sup>    | 222.2               | 9,669.8          | 9,892.0          |
| Rotten cull trees <sup>b</sup>   | 14.1                | 1,347.0          | 1,361.1          |
| Salvable dead trees <sup>c</sup> | 549.0               | 4,227.0          | 4,776.0          |
| Saplings <sup>c</sup>            | 2,617.4             | 17,121.6         | 19,739.0         |
| Tops - growing stock             | 9,203.7             | 48,820.5         | 58,024.1         |
| Tops - rough and rotten          | 87.8                | 3,860.9          | 3,948.7          |
| All nongrowing stock             | 12,694.1            | 85,046.8         | 97,740.9         |
| <b>Total, all classes</b>        | <b>37,526.2</b>     | <b>227,355.6</b> | <b>264,881.8</b> |

<sup>a</sup> Includes bark and sound cull; excludes rotten cull.

<sup>b</sup> Bole portion of trees 5.0 inches d.b.h. and larger.

<sup>c</sup> Weight of entire tree aboveground.



Table 23.--Net volume of all trees on timberland by class of timber and species group, Maryland, 1986

(In millions of cubic feet)

| Class of timber                 | Volume       |                | All groups     |
|---------------------------------|--------------|----------------|----------------|
|                                 | Softwoods    | Hardwoods      |                |
| <b>Sawtimber trees:</b>         |              |                |                |
| Sawlog portion                  | 505.3        | 2,064.7        | 2,570.1        |
| Upper stem portion              | 70.1         | 457.7          | 527.8          |
| <b>Total</b>                    | <b>575.4</b> | <b>2,522.4</b> | <b>3,097.9</b> |
| <b>Poletimber trees</b>         | <b>237.7</b> | <b>1,139.4</b> | <b>1,377.0</b> |
| <b>Total, all growing stock</b> | <b>813.1</b> | <b>3,661.8</b> | <b>4,474.9</b> |
| <b>Rough trees:</b>             |              |                |                |
| Sawtimber size                  | 3.5          | 103.8          | 107.4          |
| Poletimber size                 | 1.6          | 68.9           | 70.5           |
| <b>Total</b>                    | <b>5.1</b>   | <b>172.7</b>   | <b>177.9</b>   |
| <b>Rotten trees:</b>            |              |                |                |
| Sawtimber size                  | .4           | 16.7           | 17.1           |
| Poletimber size                 | .0           | 2.4            | 2.4            |
| <b>Total</b>                    | <b>.4</b>    | <b>19.1</b>    | <b>19.5</b>    |
| <b>Total, all live trees</b>    | <b>818.6</b> | <b>3,853.6</b> | <b>4,672.3</b> |
| <b>Salvable dead trees:</b>     |              |                |                |
| Sawtimber size                  | 6.1          | 30.0           | 36.1           |
| Poletimber size                 | 4.3          | 28.6           | 32.9           |
| <b>Total</b>                    | <b>10.4</b>  | <b>58.6</b>    | <b>69.0</b>    |
| <b>Total, all classes</b>       | <b>829.0</b> | <b>3,912.2</b> | <b>4,741.3</b> |

Table 24.--Net volume of all live, growing-stock, and sawtimber trees by species group and ownership class, Maryland, 1986

| Species group   | Ownership class |              |                 |               | All classes |
|---|-----------------|--------------|-----------------|---------------|-------------|
|   | National Forest | Other public | Forest industry | Other private |             |
| All live<br>(In millions of cubic feet)               |                 |              |                 |               |             |
| Softwoods   | .0              | 68.7         | 80.4            | 669.5         | 818.6       |
| Hardwoods   | .0              | 401.0        | 105.5           | 3,347.2       | 3,853.7     |
| Total, all groups                                     | .0              | 469.7        | 185.9           | 4,016.7       | 4,672.3     |
| Growing stock<br>(In millions of cubic feet)          |                 |              |                 |               |             |
| Softwoods   | .0              | 69.1         | 80.3            | 663.7         | 813.1       |
| Hardwoods   | .0              | 377.1        | 103.0           | 3,181.7       | 3,661.8     |
| Total, all groups                                     | .0              | 446.2        | 183.3           | 3,845.4       | 4,474.9     |
| Sawtimber<br>(In millions of board feet) <sup>a</sup> |                 |              |                 |               |             |
| Softwoods   | .0              | 213.2        | 166.0           | 1,875.1       | 2,254.3     |
| Hardwoods   | .0              | 1,036.9      | 256.7           | 9,786.8       | 11,080.5    |
| Total, all groups                                     | .0              | 1,263.2      | 422.7           | 11,648.9      | 13,334.8    |

<sup>a</sup> International 1/4-inch rule.

Table 25.--Net volume of growing-stock trees on timberland by forest-type group and stand-size class, Maryland, 1986

(In millions of cubic feet)

| Forest-type group        | Stand-size class |              |             |            | All classes    |
|--------------------------|------------------|--------------|-------------|------------|----------------|
|                          | Sawtimber        | Poletimber   | Sapling and |            |                |
|                          |                  |              | seedling    | Nonstocked |                |
| White/red pine           | 36.4             | 25.6         | 2.4         | .0         | 64.4           |
| Loblolly/shortleaf       | 437.3            | 78.7         | 10.7        | .0         | 526.7          |
| Oak/pine                 | 447.1            | 42.5         | 9.3         | .0         | 498.8          |
| Oak/hickory              | 2,464.8          | 376.0        | 27.2        | .0         | 2,868.0        |
| Oak/gum/cypress          | 172.3            | 30.2         | 7.3         | .0         | 209.8          |
| Elm/ash/red maple        | 149.1            | 4.9          | .5          | .0         | 154.5          |
| Northern hardwoods       | 108.1            | 39.5         | 5.2         | .0         | 152.7          |
| <b>Total, all groups</b> | <b>3,814.9</b>   | <b>597.4</b> | <b>62.6</b> | <b>.0</b>  | <b>4,474.9</b> |

Table 26.--Net volume of growing-stock trees on timberland by forest-type group and basal-area class, Maryland, 1986

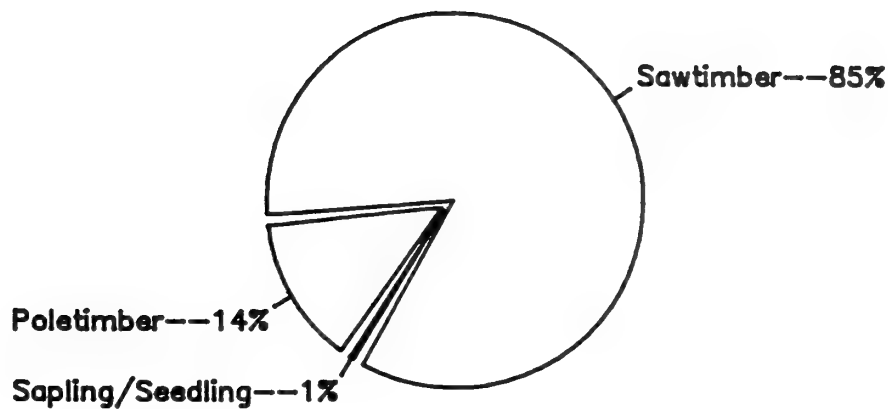
(In millions of cubic feet)

| Forest-type group        | Basal-area class (square feet per acre) |                |                |              |             |             |           | All classes    |
|--------------------------|---|----------------|----------------|--------------|-------------|-------------|-----------|----------------|
|                          | 0-49                                    | 50-99          | 100-149        | 150-199      | 200-249     | 250-299     | 300+      |                |
| White/red pine           | 3.9                                     | 14.4           | 19.4           | 12.6         | 14.0        | .0          | .0        | 64.4           |
| Loblolly/shortleaf       | 20.4                                    | 86.6           | 234.6          | 185.1        | .0          | .0          | .0        | 526.7          |
| Oak/pine                 | 9.4                                     | 80.4           | 311.2          | 97.9         | .0          | .0          | .0        | 498.8          |
| Oak/hickory              | 36.5                                    | 752.6          | 1,472.8        | 593.7        | 12.4        | 0           | .0        | 2,868.0        |
| Oak/gum/cypress          | 10.1                                    | 53.7           | 64.4           | 47.7         | 21.7        | 12.2        | .0        | 209.8          |
| Elm/ash/red maple        | 2.0                                     | 33.1           | 72.9           | 46.5         | .0          | .0          | .0        | 154.5          |
| Northern hardwoods       | 8.6                                     | 44.4           | 89.7           | 9.9          | .0          | .0          | .0        | 152.7          |
| <b>Total, all groups</b> | <b>91.1</b>                             | <b>1,065.1</b> | <b>2,265.0</b> | <b>993.5</b> | <b>48.1</b> | <b>12.2</b> | <b>.0</b> | <b>4,474.9</b> |

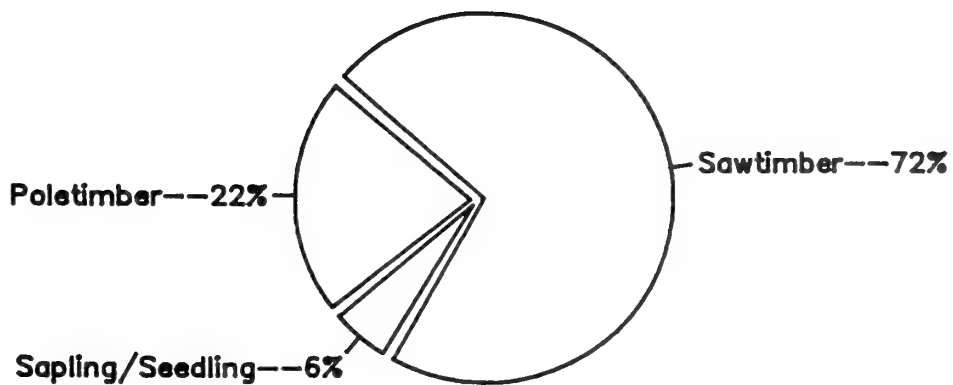
Table 27.--Net volume of growing-stock trees on timberland by species and forest-type group, Maryland, 1986  
(In millions of cubic feet)

| Species                   | Forest-type group |            |                    |              |                |                 |                   |                    |             |                | All groups |
|---------------------------|-------------------|------------|--------------------|--------------|----------------|-----------------|-------------------|--------------------|-------------|----------------|------------|
|                           | White/red pine    | Spruce/fir | Loblolly/shortleaf | Oak/pine     | Oak/hickory    | Oak/gum/cypress | Elm/ash/red maple | Northern hardwoods | Aspen/birch |                |            |
| White/red pine            | 39.9              | .0         | 2.8                | 6.1          | 1.7            | .0              | .0                | .7                 | .0          | 51.2           |            |
| Loblolly pine             | .0                | .0         | 298.3              | 128.9        | 37.5           | 6.9             | .3                | .0                 | .0          | 472.0          |            |
| Virginia pine             | .0                | .0         | 127.6              | 66.7         | 46.2           | .8              | .0                | .0                 | .0          | 241.3          |            |
| Other yellow pines        | .7                | .0         | .9                 | 6.1          | 3.8            | .0              | .0                | .0                 | .0          | 11.6           |            |
| Other softwoods           | 14.0              | .0         | .6                 | 2.3          | 10.9           | 3.1             | .0                | 6.2                | .0          | 37.0           |            |
| <b>Total softwoods</b>    | <b>54.6</b>       | <b>.0</b>  | <b>430.2</b>       | <b>210.1</b> | <b>100.0</b>   | <b>10.8</b>     | <b>.3</b>         | <b>7.0</b>         | <b>.0</b>   | <b>813.1</b>   |            |
| Red maple                 | 3.6               | .0         | 15.7               | 46.7         | 295.9          | 46.5            | 66.6              | 17.5               | .0          | 492.4          |            |
| Sugar maple               | .0                | .0         | .0                 | .4           | 26.4           | .0              | .0                | 28.5               | .0          | 55.3           |            |
| Hickory                   | .0                | .0         | .7                 | 7.5          | 118.3          | .0              | 3.2               | 6.8                | .0          | 136.5          |            |
| Beech                     | .7                | .0         | .2                 | 6.0          | 130.2          | 3.3             | .1                | 6.6                | .0          | 147.2          |            |
| Sweetgum                  | .0                | .0         | 27.7               | 34.8         | 198.9          | 47.3            | 8.1               | .0                 | .0          | 316.7          |            |
| Yellow-poplar             | .0                | .0         | 3.9                | 35.2         | 500.8          | 2.6             | 4.2               | .7                 | .0          | 547.4          |            |
| Blackgum                  | .2                | .0         | 4.1                | 15.9         | 79.9           | 26.1            | 6.5               | .6                 | .0          | 133.3          |            |
| Ash-walnut-cherry         | 2.2               | .0         | 1.6                | 7.0          | 106.7          | 1.4             | 17.7              | 40.7               | .0          | 177.4          |            |
| Select white oaks         | .0                | .0         | 11.2               | 45.3         | 323.2          | 20.6            | 3.2               | 3.1                | .0          | 406.7          |            |
| Select red oaks           | .2                | .0         | 1.7                | 6.9          | 259.3          | 2.1             | 1.8               | 10.7               | .0          | 282.7          |            |
| Other white oaks          | .3                | .0         | 4.5                | 5.6          | 243.5          | .2              | .0                | .6                 | .0          | 254.7          |            |
| Other red oaks            | .0                | .0         | 21.9               | 70.3         | 340.1          | 39.2            | 5.2               | .9                 | .0          | 477.7          |            |
| Black locust              | .5                | .0         | 1.3                | .4           | 40.8           | .0              | 1.3               | 7.0                | .0          | 51.3           |            |
| Other hardwoods           | 2.1               | .0         | 2.1                | 6.7          | 103.9          | 9.6             | 36.1              | 22.0               | .0          | 182.5          |            |
| <b>Total hardwoods</b>    | <b>9.8</b>        | <b>.0</b>  | <b>96.5</b>        | <b>288.7</b> | <b>2,768.0</b> | <b>199.0</b>    | <b>154.1</b>      | <b>145.8</b>       | <b>.0</b>   | <b>3,661.8</b> |            |
| <b>Total, all species</b> | <b>64.4</b>       | <b>.0</b>  | <b>526.7</b>       | <b>498.8</b> | <b>2,868.0</b> | <b>209.8</b>    | <b>154.5</b>      | <b>152.7</b>       | <b>.0</b>   | <b>4,474.9</b> |            |

# PERCENT VOLUME OF GROWING STOCK BY STAND-SIZE CLASS AND INVENTORY



1986



1976

Table 28.--Net volume of growing-stock trees on timberland by species  
and stand-size class, Maryland, 1976

(In millions of cubic feet)

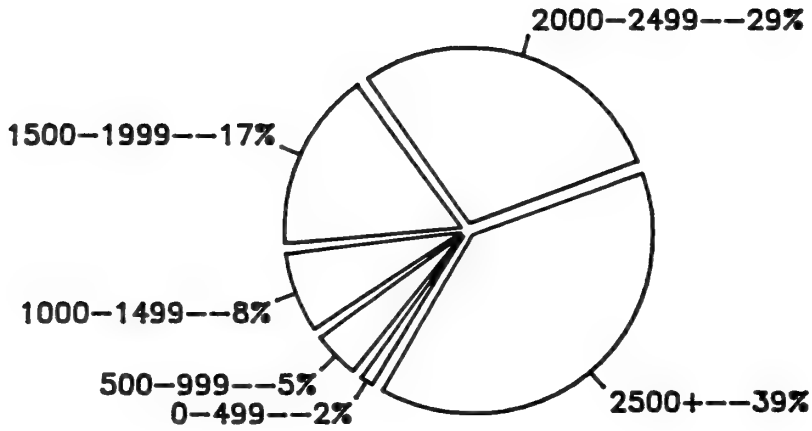
| Species                   | Stand-size class |              |                         |             | All<br>classes |
|---------------------------|------------------|--------------|-------------------------|-------------|----------------|
|                           | Sawtimber        | Poletimber   | Sapling and<br>seedling | Nonstocked  |                |
| White/red pine            | 3.9              | 28.5         | 2.9                     | .0          | 35.2           |
| Loblolly pine             | 341.0            | 97.6         | 23.8                    | .8          | 463.2          |
| Virginia pine             | 141.9            | 97.7         | 26.1                    | .0          | 265.7          |
| Other yellow pines        | 9.0              | 1.9          | 2.9                     | .0          | 13.8           |
| Other softwoods           | 7.8              | 8.2          | 2.2                     | .0          | 18.2           |
| <b>Total softwoods</b>    | <b>503.5</b>     | <b>233.9</b> | <b>57.8</b>             | <b>.8</b>   | <b>796.1</b>   |
| Red maple                 | 229.1            | 72.0         | 13.0                    | .6          | 314.6          |
| Sugar maple               | 26.0             | 6.4          | 5.3                     | .0          | 37.6           |
| Hickory                   | 90.3             | 22.0         | 9.1                     | .4          | 121.8          |
| Beech                     | 94.1             | 11.9         | 5.6                     | 1.3         | 112.9          |
| Sweetgum                  | 178.9            | 45.3         | 11.1                    | .0          | 235.3          |
| Yellow-poplar             | 409.6            | 48.8         | 14.3                    | 3.1         | 475.9          |
| Blackgum                  | 72.6             | 24.9         | 4.1                     | .0          | 101.6          |
| Ash-walnut-cherry         | 78.9             | 34.0         | 18.3                    | 5.1         | 136.3          |
| Select white oaks         | 277.1            | 93.0         | 28.3                    | .0          | 398.4          |
| Select red oaks           | 169.0            | 30.8         | 10.6                    | .5          | 210.9          |
| Other white oaks          | 133.2            | 52.0         | 5.4                     | .0          | 190.6          |
| Other red oaks            | 363.6            | 106.7        | 22.9                    | 1.7         | 494.8          |
| Black locust              | 21.0             | 8.9          | 3.8                     | .0          | 33.7           |
| Other hardwoods           | 90.5             | 24.6         | 12.4                    | .0          | 127.5          |
| <b>Total hardwoods</b>    | <b>2,233.9</b>   | <b>581.3</b> | <b>164.1</b>            | <b>12.8</b> | <b>2,992.2</b> |
| <b>Total, all species</b> | <b>2,737.5</b>   | <b>815.3</b> | <b>222.0</b>            | <b>13.6</b> | <b>3,788.2</b> |

Table 29.--Net volume of growing-stock trees on timberland by species and stand-size class, Maryland, 1986

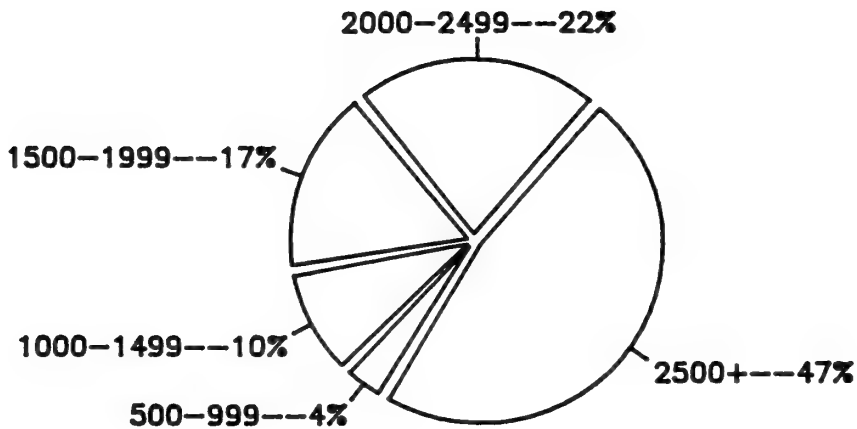
(In millions of cubic feet)

| Species                   | Stand-size class |              |                      |            | All classes    |
|---------------------------|------------------|--------------|----------------------|------------|----------------|
|                           | Sawtimber        | Poletimber   | Sapling and seedling | Nonstocked |                |
| White/red pine            | 25.3             | 25.5         | .4                   | .0         | 51.2           |
| Loblolly pine             | 399.8            | 66.8         | 5.4                  | .0         | 472.0          |
| Virginia pine             | 200.1            | 32.6         | 8.6                  | .0         | 241.3          |
| Other yellow pines        | 8.5              | 3.0          | .1                   | .0         | 11.6           |
| Other softwoods           | 31.6             | 4.6          | .8                   | .0         | 37.0           |
| <b>Total softwoods</b>    | <b>665.3</b>     | <b>132.6</b> | <b>15.2</b>          | <b>.0</b>  | <b>813.1</b>   |
| Red maple                 | 423.8            | 63.5         | 5.1                  | .0         | 492.4          |
| Sugar maple               | 47.0             | 7.9          | .4                   | .0         | 55.3           |
| Hickory                   | 117.4            | 17.9         | 1.3                  | .0         | 136.5          |
| Beech                     | 138.9            | 7.0          | 1.3                  | .0         | 147.2          |
| Sweetgum                  | 258.3            | 50.0         | 8.5                  | .0         | 316.7          |
| Yellow-poplar             | 525.3            | 19.4         | 2.7                  | .0         | 547.4          |
| Blackgum                  | 120.3            | 10.7         | 2.3                  | .0         | 133.3          |
| Ash-walnut-cherry         | 131.3            | 38.0         | 8.0                  | .0         | 177.4          |
| Select white oaks         | 322.3            | 81.1         | 3.2                  | .0         | 406.7          |
| Select red oaks           | 240.3            | 37.5         | 4.8                  | .0         | 282.7          |
| Other white oaks          | 228.9            | 24.8         | 1.0                  | .0         | 254.7          |
| Other red oaks            | 409.8            | 60.9         | 7.0                  | .0         | 477.7          |
| Black locust              | 33.7             | 16.9         | .6                   | .0         | 51.3           |
| Other hardwoods           | 152.1            | 29.2         | 1.2                  | .0         | 182.5          |
| <b>Total hardwoods</b>    | <b>3,149.6</b>   | <b>464.8</b> | <b>47.4</b>          | <b>.0</b>  | <b>3,661.8</b> |
| <b>Total, all species</b> | <b>3,814.9</b>   | <b>597.4</b> | <b>62.6</b>          | <b>.0</b>  | <b>4,474.9</b> |

# PERCENT GROWING-STOCK VOLUME BY CUBIC-FOOT STAND-VOLUME CLASS AND SPECIES GROUP



Softwood



Hardwood



Table 30.--Net volume of growing-stock trees on timberland by species and cubic-foot stand-volume class, Maryland, 1986

(In millions of cubic feet)

| Species                   | Stand-volume class (cubic feet per acre) |              |              |              |                |                | All classes    |
|---------------------------|--|--------------|--------------|--------------|----------------|----------------|----------------|
|                           | 0-499                                    | 500-999      | 1000-1499    | 1500-1999    | 2000-2499      | 2500+          |                |
| White/red pine            | 4.6                                      | 3.0          | 3.2          | 6.4          | 19.4           | 14.6           | 51.2           |
| Loblolly pine             | 4.9                                      | 27.4         | 29.8         | 71.2         | 136.7          | 202.1          | 472.0          |
| Virginia pine             | 5.3                                      | 7.8          | 21.7         | 50.0         | 71.3           | 85.2           | 241.3          |
| Other yellow pines        | .8                                       | 1.1          | 4.4          | 1.1          | 3.3            | 1.0            | 11.6           |
| Other softwoods           | .1                                       | 1.6          | 6.7          | 7.2          | 7.9            | 13.5           | 37.0           |
| <b>Total softwoods</b>    | <b>15.7</b>                              | <b>40.9</b>  | <b>65.8</b>  | <b>135.9</b> | <b>238.6</b>   | <b>316.3</b>   | <b>813.1</b>   |
| Red maple                 | 4.8                                      | 25.1         | 52.9         | 78.7         | 108.8          | 222.1          | 492.4          |
| Sugar maple               | .4                                       | 2.7          | 5.1          | 10.0         | 22.2           | 14.9           | 55.3           |
| Hickory                   | 1.3                                      | 5.5          | 15.5         | 23.8         | 36.0           | 54.4           | 136.5          |
| Beech                     | .8                                       | 1.9          | 13.1         | 18.8         | 32.5           | 80.1           | 147.2          |
| Sweetgum                  | 3.7                                      | 10.8         | 28.5         | 60.2         | 46.3           | 167.3          | 316.7          |
| Yellow-poplar             | 1.2                                      | 4.5          | 45.1         | 55.6         | 75.2           | 365.9          | 547.4          |
| Blackgum                  | 1.7                                      | 6.9          | 9.7          | 26.0         | 24.0           | 64.9           | 133.3          |
| Ash-walnut-cherry         | 4.1                                      | 13.4         | 27.6         | 18.1         | 40.3           | 73.8           | 177.4          |
| Select white oaks         | 1.4                                      | 20.7         | 53.8         | 92.6         | 99.7           | 138.5          | 406.7          |
| Select red oaks           | 4.6                                      | 5.5          | 13.7         | 56.0         | 82.0           | 120.9          | 282.7          |
| Other white oaks          | .7                                       | 6.1          | 16.0         | 45.1         | 61.2           | 125.6          | 254.7          |
| Other red oaks            | 3.4                                      | 29.4         | 44.6         | 87.9         | 125.1          | 187.2          | 477.7          |
| Black locust              | 1.6                                      | 1.6          | 6.5          | 21.7         | 8.8            | 11.1           | 51.3           |
| Other hardwoods           | 1.2                                      | 4.3          | 22.6         | 29.7         | 42.2           | 82.4           | 182.5          |
| <b>Total hardwoods</b>    | <b>30.9</b>                              | <b>138.6</b> | <b>354.7</b> | <b>624.1</b> | <b>804.3</b>   | <b>1,709.2</b> | <b>3,661.8</b> |
| <b>Total, all species</b> | <b>46.5</b>                              | <b>179.5</b> | <b>420.5</b> | <b>760.1</b> | <b>1,042.9</b> | <b>2,025.5</b> | <b>4,474.9</b> |

Table 31.--Net volume of growing-stock trees on timberland by species and diameter class, Maryland, 1976

(In millions of cubic feet)

| Species                   | Diameter class (inches at breast height) |              |              |              |              |              |              |              |              |             | All classes    |
|---------------------------|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|----------------|
|                           | 5.0-6.9                                  | 7.0-8.9      | 9.0-10.9     | 11.0-12.9    | 13.0-14.9    | 15.0-16.9    | 17.0-18.9    | 19.0-20.9    | 21.0-28.9    | 29.0+       |                |
| White/red pine            | 11.8                                     | 14.3         | 6.0          | .0           | .5           | 1.6          | .6           | .6           | .0           | .0          | 35.2           |
| Loblolly pine             | 42.5                                     | 73.5         | 88.0         | 93.0         | 81.7         | 52.6         | 19.4         | 8.5          | 3.6          | .5          | 463.2          |
| Virginia pine             | 55.9                                     | 86.8         | 62.0         | 35.1         | 14.3         | 8.9          | 2.2          | .5           | .0           | .0          | 265.7          |
| Other yellow pines        | 1.0                                      | .7           | 1.7          | 3.9          | 4.5          | 1.0          | 1.0          | .0           | .0           | .0          | 13.8           |
| Other softwoods           | 2.7                                      | 4.1          | 3.0          | 2.1          | .8           | 1.1          | .0           | .9           | 1.3          | 2.1         | 18.2           |
| <b>Total softwoods</b>    | <b>113.7</b>                             | <b>179.3</b> | <b>160.7</b> | <b>134.1</b> | <b>101.7</b> | <b>65.3</b>  | <b>23.2</b>  | <b>10.4</b>  | <b>5.0</b>   | <b>2.7</b>  | <b>796.1</b>   |
| Red maple                 | 36.2                                     | 53.4         | 50.8         | 35.1         | 36.6         | 29.8         | 24.4         | 14.8         | 30.6         | 2.8         | 314.6          |
| Sugar maple               | 4.0                                      | 4.2          | 9.2          | 5.2          | 4.1          | 5.4          | 1.1          | 2.9          | 1.6          | .0          | 37.6           |
| Hickory                   | 9.8                                      | 13.5         | 18.9         | 25.2         | 17.1         | 12.1         | 4.5          | 7.1          | 12.3         | 1.2         | 121.8          |
| Beech                     | 4.5                                      | 5.3          | 10.5         | 12.0         | 14.6         | 11.1         | 12.4         | 10.1         | 28.4         | 4.1         | 112.9          |
| Sweetgum                  | 21.5                                     | 37.1         | 38.9         | 41.5         | 31.9         | 26.1         | 13.6         | 7.0          | 16.4         | 1.3         | 235.3          |
| Yellow-poplar             | 12.0                                     | 24.4         | 39.0         | 52.6         | 68.7         | 71.8         | 74.3         | 38.2         | 79.3         | 15.7        | 475.9          |
| Blackgum                  | 8.5                                      | 14.0         | 17.2         | 11.4         | 11.9         | 17.7         | 9.5          | 4.7          | 6.3          | .3          | 101.6          |
| Ash-walnut-cherry         | 13.8                                     | 21.2         | 30.2         | 20.7         | 13.6         | 13.7         | 9.9          | 5.0          | 8.2          | .0          | 136.3          |
| Select white oaks         | 29.2                                     | 42.2         | 60.4         | 58.5         | 53.2         | 44.0         | 33.7         | 20.3         | 45.5         | 11.2        | 398.4          |
| Select red oaks           | 10.0                                     | 13.8         | 23.4         | 23.9         | 47.8         | 35.9         | 23.0         | 10.7         | 17.9         | 4.5         | 210.9          |
| Other white oaks          | 12.9                                     | 29.4         | 27.3         | 31.1         | 27.4         | 17.3         | 17.8         | 11.7         | 13.5         | 2.1         | 190.6          |
| Other red oaks            | 26.0                                     | 45.7         | 64.1         | 73.2         | 67.4         | 60.6         | 46.6         | 36.0         | 62.9         | 12.2        | 494.8          |
| Black locust              | 3.8                                      | 6.7          | 7.5          | 7.3          | 4.5          | 1.0          | 1.5          | .8           | .6           | .0          | 33.7           |
| Other hardwoods           | 13.7                                     | 19.4         | 20.3         | 16.7         | 15.4         | 13.2         | 7.5          | 7.3          | 10.9         | 3.2         | 127.5          |
| <b>Total hardwoods</b>    | <b>206.2</b>                             | <b>330.3</b> | <b>417.7</b> | <b>414.3</b> | <b>414.4</b> | <b>359.8</b> | <b>279.8</b> | <b>176.4</b> | <b>334.5</b> | <b>58.8</b> | <b>2,992.2</b> |
| <b>Total, all species</b> | <b>320.0</b>                             | <b>509.6</b> | <b>578.3</b> | <b>548.4</b> | <b>516.1</b> | <b>425.2</b> | <b>303.0</b> | <b>186.8</b> | <b>339.5</b> | <b>61.5</b> | <b>3,788.2</b> |

Table 32.--Net volume of growing-stock trees on timberland by species and diameter class, Maryland, 1986

(In millions of cubic feet)

| Species                   | Diameter class (inches at breast height) |              |              |              |              |              |              |              |              |                | All classes |
|---------------------------|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|-------------|
|                           | 5.0-6.9                                  | 7.0-8.9      | 9.0-10.9     | 11.0-12.9    | 13.0-14.9    | 15.0-16.9    | 17.0-18.9    | 19.0-20.9    | 21.0-28.9    | 29.0+          |             |
| White/red pine            | 11.5                                     | 15.8         | 6.2          | 9.4          | 5.0          | 1.2          | 1.3          | .9           | .0           | 51.2           |             |
| Loblolly pine             | 45.5                                     | 72.9         | 83.6         | 95.7         | 75.6         | 48.5         | 29.8         | 11.8         | 8.6          | 472.0          |             |
| Virginia pine             | 25.9                                     | 53.2         | 59.1         | 54.1         | 37.1         | 10.6         | .8           | .0           | .3           | 241.3          |             |
| Other yellow pines        | 1.3                                      | 2.6          | 3.4          | 2.0          | 1.0          | 1.0          | .2           | .0           | .0           | 11.6           |             |
| Other softwoods           | 2.7                                      | 6.4          | 4.6          | 3.5          | 3.9          | 4.3          | 4.5          | 3.1          | 3.5          | 37.0           |             |
| <b>Total softwoods</b>    | <b>86.8</b>                              | <b>150.9</b> | <b>157.0</b> | <b>164.8</b> | <b>122.6</b> | <b>65.8</b>  | <b>36.7</b>  | <b>15.8</b>  | <b>12.4</b>  | <b>813.1</b>   |             |
| Red maple                 | 54.1                                     | 68.9         | 73.9         | 73.2         | 62.5         | 41.5         | 34.4         | 24.2         | 45.7         | 492.4          |             |
| Sugar maple               | 6.7                                      | 8.4          | 8.6          | 7.9          | 5.8          | 7.5          | 1.9          | 4.1          | 3.0          | 55.3           |             |
| Hickory                   | 11.5                                     | 21.5         | 21.9         | 18.8         | 18.1         | 16.9         | 15.4         | 5.4          | 5.9          | 136.5          |             |
| Beech                     | 8.6                                      | 8.1          | 15.9         | 18.1         | 21.1         | 18.1         | 15.9         | 14.2         | 19.4         | 147.2          |             |
| Sweetgum                  | 32.2                                     | 47.9         | 48.6         | 48.7         | 50.9         | 33.8         | 21.3         | 12.9         | 16.6         | 316.7          |             |
| Yellow-poplar             | 10.8                                     | 24.0         | 38.3         | 54.8         | 60.8         | 57.5         | 68.8         | 60.7         | 136.3        | 547.4          |             |
| Blackgum                  | 16.3                                     | 15.5         | 24.2         | 20.3         | 16.4         | 16.8         | 8.1          | 6.5          | 9.2          | 133.3          |             |
| Ash-walnut-cherry         | 18.2                                     | 28.8         | 31.9         | 25.8         | 25.4         | 18.8         | 12.2         | 6.6          | 5.9          | 177.4          |             |
| Select white oaks         | 25.7                                     | 49.5         | 63.5         | 56.1         | 49.1         | 41.8         | 34.4         | 22.7         | 48.5         | 406.7          |             |
| Select red oaks           | 6.2                                      | 18.1         | 32.5         | 40.4         | 43.8         | 35.3         | 22.1         | 24.0         | 44.4         | 282.7          |             |
| Other white oaks          | 10.9                                     | 33.6         | 40.0         | 34.5         | 41.3         | 28.4         | 24.0         | 12.5         | 26.8         | 254.7          |             |
| Other red oaks            | 24.2                                     | 34.5         | 44.8         | 62.4         | 62.7         | 58.2         | 48.6         | 49.2         | 72.6         | 477.7          |             |
| Black locust              | 6.7                                      | 8.7          | 13.4         | 5.8          | 6.5          | 4.7          | 3.3          | 1.7          | .5           | 51.3           |             |
| Other hardwoods           | 21.7                                     | 31.4         | 28.9         | 24.2         | 20.6         | 18.6         | 7.9          | 12.9         | 13.8         | 182.5          |             |
| <b>Total hardwoods</b>    | <b>253.8</b>                             | <b>399.1</b> | <b>486.5</b> | <b>490.9</b> | <b>484.9</b> | <b>397.9</b> | <b>318.2</b> | <b>257.3</b> | <b>448.7</b> | <b>3,661.8</b> |             |
| <b>Total, all species</b> | <b>340.6</b>                             | <b>550.0</b> | <b>643.4</b> | <b>655.7</b> | <b>607.5</b> | <b>463.6</b> | <b>354.9</b> | <b>273.1</b> | <b>461.2</b> | <b>4,474.9</b> |             |

Table 33.--Net volume of growing-stock in the sawlog portion<sup>a</sup> of sawtimber trees on timberland by species and diameter class, Maryland, 1986

(In millions of cubic feet)

| Species                   | Diameter class (inches at breast height) |              |              |              |              |              |              |              | All classes    |
|---------------------------|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|
|                           | 9.0-                                     | 11.0-        | 13.0-        | 15.0-        | 17.0-        | 19.0-        | 21.0-        | 29.0+        |                |
|                           | 10.9                                     | 12.9         | 14.9         | 16.9         | 18.9         | 20.9         | 28.9         |              |                |
| White/red pine            | 5.2                                      | 8.4          | 4.5          | 1.1          | 1.2          | .8           | .0           | .0           | 21.2           |
| Loblolly pine             | 70.3                                     | 83.3         | 67.6         | 44.2         | 27.5         | 11.0         | 8.0          | .0           | 311.9          |
| Virginia pine             | 49.8                                     | 47.7         | 33.2         | 9.7          | .7           | .0           | .3           | .0           | 141.4          |
| Other yellow pines        | 2.9                                      | 1.8          | .9           | 1.0          | .2           | .0           | .0           | .0           | 6.7            |
| Other softwoods           | 3.9                                      | 3.0          | 3.5          | 4.0          | 4.2          | 2.9          | 3.3          | .4           | 25.1           |
| <b>Total softwoods</b>    | <b>132.1</b>                             | <b>144.2</b> | <b>109.6</b> | <b>59.8</b>  | <b>33.8</b>  | <b>14.7</b>  | <b>11.6</b>  | <b>.4</b>    | <b>506.2</b>   |
| Red maple                 | .0                                       | 54.2         | 51.5         | 35.2         | 30.5         | 20.5         | 39.2         | 12.9         | 243.9          |
| Sugar maple               | .0                                       | 5.8          | 4.7          | 6.3          | 1.6          | 3.4          | 2.5          | 1.3          | 25.6           |
| Hickory                   | .0                                       | 13.8         | 14.6         | 14.2         | 13.1         | 4.6          | 5.1          | .9           | 66.3           |
| Beech                     | .0                                       | 13.6         | 17.1         | 15.2         | 13.5         | 12.1         | 16.5         | 7.5          | 95.4           |
| Sweetgum                  | .0                                       | 35.8         | 41.3         | 28.4         | 18.2         | 11.0         | 14.1         | 3.2          | 152.1          |
| Yellow-poplar             | .0                                       | 40.3         | 49.4         | 48.3         | 58.4         | 52.0         | 115.9        | 30.1         | 394.5          |
| Blackgum                  | .0                                       | 15.0         | 13.4         | 14.2         | 6.9          | 5.5          | 7.8          | .0           | 62.8           |
| Ash-walnut-cherry         | .0                                       | 19.2         | 21.0         | 16.0         | 10.4         | 5.6          | 5.1          | 3.3          | 80.5           |
| Select white oaks         | .0                                       | 41.4         | 39.8         | 35.1         | 29.5         | 19.3         | 41.2         | 13.2         | 219.5          |
| Select red oaks           | .0                                       | 29.7         | 35.4         | 29.7         | 18.8         | 20.4         | 37.8         | 13.8         | 185.6          |
| Other white oaks          | .0                                       | 25.4         | 33.6         | 24.0         | 20.4         | 10.6         | 23.0         | 2.8          | 139.9          |
| Other red oaks            | .0                                       | 45.9         | 51.0         | 48.9         | 41.3         | 41.9         | 61.7         | 17.3         | 308.0          |
| Black locust              | .0                                       | 4.6          | 5.4          | 4.1          | 2.9          | 1.4          | .4           | .0           | 19.0           |
| Other hardwoods           | .0                                       | 18.0         | 16.7         | 15.7         | 6.8          | 10.9         | 12.3         | 2.0          | 82.5           |
| <b>Total hardwoods</b>    | <b>.0</b>                                | <b>362.7</b> | <b>395.0</b> | <b>335.3</b> | <b>272.3</b> | <b>219.2</b> | <b>382.6</b> | <b>108.3</b> | <b>2,075.4</b> |
| <b>Total, all species</b> | <b>132.1</b>                             | <b>506.9</b> | <b>504.7</b> | <b>395.1</b> | <b>306.2</b> | <b>233.8</b> | <b>394.2</b> | <b>108.7</b> | <b>2,581.6</b> |

<sup>a</sup> That part of the bole of sawtimber trees between the 1-foot stump and the sawlog top, including the portion of the forks large enough to contain a sawlog.

# MAJOR SPECIES BY VOLUME, MARYLAND, 1976 AND 1986

Millions of board feet

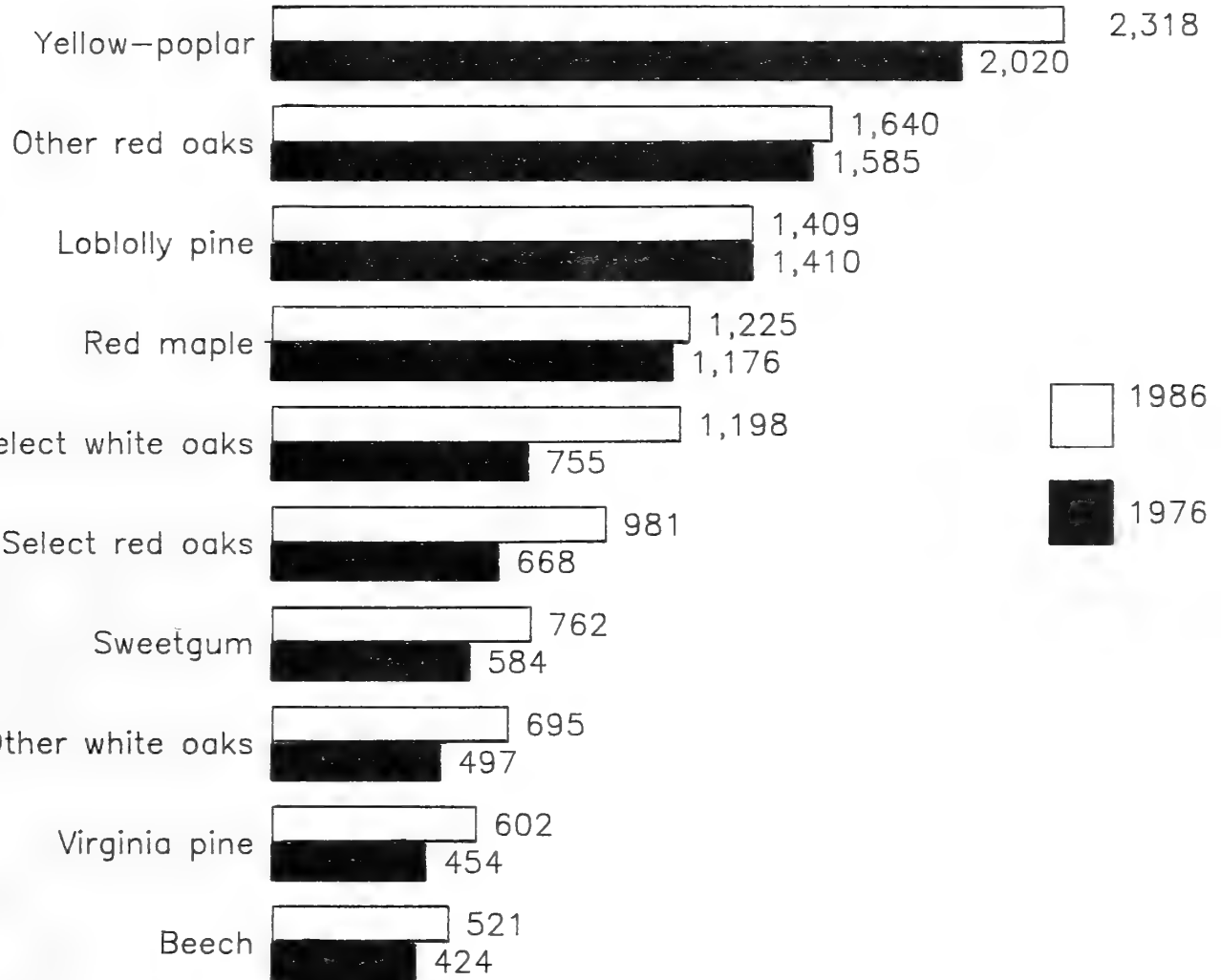


Table 34.--Net volume of sawtimber trees on timberland by species and diameter class, Maryland, 1976

(In millions of board feet)<sup>a</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    | 21.0-28.9      | 29.0+        |  |  |                 |
| White/red pine            | 21.3                                     | .0             | 2.1            | 8.5            | 2.4            | 3.3          | .0             | .0           |  |  | 37.6            |
| Loblolly pine             | 300.6                                    | 368.8          | 349.9          | 238.0          | 91.2           | 41.1         | 17.3           | 3.1          |  |  | 1,409.9         |
| Virginia pine             | 206.6                                    | 135.3          | 60.9           | 38.6           | 10.6           | 2.0          | .0             | .0           |  |  | 454.1           |
| Other yellow pines        | 6.1                                      | 16.4           | 20.8           | 5.0            | 5.1            | .0           | .0             | .0           |  |  | 53.4            |
| Other softwoods           | 9.7                                      | 7.1            | 2.6            | 4.3            | .0             | 3.9          | 5.9            | 11.9         |  |  | 45.3            |
| <b>Total softwoods</b>    | <b>544.3</b>                             | <b>527.5</b>   | <b>436.4</b>   | <b>294.4</b>   | <b>109.3</b>   | <b>50.3</b>  | <b>23.1</b>    | <b>15.0</b>  |  |  | <b>2,000.3</b>  |
| Red maple                 | .0                                       | 129.7          | 149.7          | 130.4          | 108.6          | 67.9         | 153.6          | 15.3         |  |  | 755.2           |
| Sugar maple               | .0                                       | 16.1           | 17.3           | 19.0           | 5.3            | 11.1         | 5.6            | .0           |  |  | 74.4            |
| Hickory                   | .0                                       | 95.4           | 75.3           | 55.3           | 20.4           | 36.2         | 66.4           | 6.9          |  |  | 355.9           |
| Beech                     | .0                                       | 44.1           | 62.2           | 50.6           | 53.8           | 50.2         | 140.0          | 23.2         |  |  | 424.2           |
| Sweetgum                  | .0                                       | 151.5          | 128.3          | 114.6          | 64.0           | 33.0         | 84.2           | 8.1          |  |  | 583.8           |
| Yellow-poplar             | .0                                       | 209.1          | 320.3          | 357.1          | 392.4          | 206.0        | 443.1          | 91.7         |  |  | 2,019.6         |
| Blackgum                  | .0                                       | 40.1           | 48.8           | 78.2           | 44.7           | 23.4         | 29.5           | 1.9          |  |  | 266.7           |
| Ash-walnut-cherry         | .0                                       | 75.4           | 52.2           | 57.9           | 40.4           | 24.8         | 39.2           | .0           |  |  | 289.8           |
| Select white oaks         | .0                                       | 225.1          | 216.4          | 196.2          | 152.7          | 94.3         | 228.3          | 63.2         |  |  | 1,176.1         |
| Select red oaks           | .0                                       | 81.7           | 192.1          | 148.7          | 102.2          | 48.2         | 73.7           | 21.1         |  |  | 667.6           |
| Other white oaks          | .0                                       | 115.7          | 105.7          | 70.0           | 80.1           | 53.7         | 60.7           | 11.3         |  |  | 497.2           |
| Other red oaks            | .0                                       | 269.5          | 284.9          | 264.9          | 212.9          | 173.6        | 311.6          | 67.2         |  |  | 1,584.7         |
| Black locust              | .0                                       | 23.0           | 16.3           | 4.4            | 6.4            | 3.5          | 2.4            | .0           |  |  | 56.0            |
| Other hardwoods           | .0                                       | 61.6           | 65.0           | 59.3           | 33.6           | 34.6         | 56.1           | 18.2         |  |  | 328.4           |
| <b>Total hardwoods</b>    | <b>.0</b>                                | <b>1,537.9</b> | <b>1,734.2</b> | <b>1,606.8</b> | <b>1,317.5</b> | <b>860.6</b> | <b>1,694.5</b> | <b>328.1</b> |  |  | <b>9,079.7</b>  |
| <b>Total, all species</b> | <b>544.3</b>                             | <b>2,065.4</b> | <b>2,170.6</b> | <b>1,901.2</b> | <b>1,426.7</b> | <b>910.9</b> | <b>1,717.6</b> | <b>343.1</b> |  |  | <b>11,080.0</b> |

<sup>a</sup> International 1/4-inch rule.

Table 35.--Net volume of sawtimber trees on timberland by species and diameter class, Maryland, 1986

| Species                   | (In millions of board feet) <sup>a</sup> |                |                |                |                |                |                |              |  |  | All classes     |
|---------------------------|--|----------------|----------------|----------------|----------------|----------------|----------------|--------------|--|--|-----------------|
|                           | 9.0-10.9                                 | 11.0-12.9      | 13.0-14.9      | 15.0-16.9      | 17.0-18.9      | 19.0-20.9      | 21.0-28.9      | 29.0+        |  |  |                 |
| White/red pine            | 19.6                                     | 37.2           | 21.5           | 6.0            | 7.1            | 4.5            | .0             | .0           |  |  | 95.8            |
| Loblolly pine             | 277.3                                    | 369.6          | 316.9          | 216.5          | 132.3          | 55.2           | 41.4           | .0           |  |  | 1,409.2         |
| Virginia pine             | 191.6                                    | 205.6          | 153.2          | 46.2           | 3.7            | .0             | 1.6            | .0           |  |  | 601.9           |
| Other yellow pines        | 11.6                                     | 7.8            | 4.3            | 4.4            | 1.1            | .0             | .0             | .0           |  |  | 29.2            |
| Other softwoods           | 14.1                                     | 13.0           | 15.9           | 19.4           | 21.1           | 15.1           | 17.5           | 2.1          |  |  | 118.2           |
| <b>Total softwoods</b>    | <b>514.1</b>                             | <b>633.2</b>   | <b>511.8</b>   | <b>292.5</b>   | <b>165.2</b>   | <b>74.9</b>    | <b>60.5</b>    | <b>2.1</b>   |  |  | <b>2,254.3</b>  |
| Red maple                 | .0                                       | 253.2          | 243.0          | 173.2          | 154.7          | 109.6          | 217.9          | 73.0         |  |  | 1,224.7         |
| Sugar maple               | .0                                       | 26.0           | 22.9           | 32.0           | 8.2            | 17.8           | 13.4           | 8.4          |  |  | 128.8           |
| Hickory                   | .0                                       | 66.2           | 75.5           | 77.0           | 74.3           | 27.4           | 31.6           | 6.8          |  |  | 358.9           |
| Beech                     | .0                                       | 64.6           | 86.4           | 80.4           | 75.5           | 69.6           | 98.0           | 46.0         |  |  | 520.5           |
| Sweetgum                  | .0                                       | 164.5          | 199.3          | 140.6          | 93.4           | 60.7           | 82.2           | 21.6         |  |  | 762.2           |
| Yellow-poplar             | .0                                       | 200.4          | 254.0          | 261.2          | 331.9          | 311.4          | 739.2          | 220.3        |  |  | 2,318.4         |
| Blackgum                  | .0                                       | 67.6           | 61.9           | 69.9           | 34.3           | 27.7           | 40.3           | .0           |  |  | 301.6           |
| Ash-walnut-cherry         | .0                                       | 93.3           | 100.8          | 81.3           | 54.1           | 29.5           | 30.6           | 21.6         |  |  | 411.4           |
| Select white oaks         | .0                                       | 204.6          | 200.8          | 186.3          | 160.0          | 109.2          | 251.0          | 85.8         |  |  | 1,197.8         |
| Select red oaks           | .0                                       | 136.0          | 169.9          | 148.6          | 98.4           | 112.2          | 226.3          | 89.4         |  |  | 980.9           |
| Other white oaks          | .0                                       | 115.5          | 157.8          | 117.3          | 102.7          | 56.1           | 129.8          | 16.0         |  |  | 695.2           |
| Other red oaks            | .0                                       | 211.4          | 241.1          | 247.9          | 221.4          | 236.3          | 371.5          | 110.3        |  |  | 1,640.0         |
| Black locust              | .0                                       | 19.1           | 25.2           | 20.8           | 16.4           | 7.9            | 2.9            | .0           |  |  | 92.3            |
| Other hardwoods           | .0                                       | 90.6           | 87.1           | 83.9           | 35.6           | 66.1           | 69.8           | 14.7         |  |  | 447.8           |
| <b>Total hardwoods</b>    | <b>.0</b>                                | <b>1,713.1</b> | <b>1,925.7</b> | <b>1,720.3</b> | <b>1,461.1</b> | <b>1,241.4</b> | <b>2,304.7</b> | <b>714.1</b> |  |  | <b>11,080.4</b> |
| <b>Total, all species</b> | <b>514.1</b>                             | <b>2,346.4</b> | <b>2,437.5</b> | <b>2,012.9</b> | <b>1,626.3</b> | <b>1,316.2</b> | <b>2,365.2</b> | <b>716.2</b> |  |  | <b>13,334.8</b> |

<sup>a</sup> International 1/4-inch rule.

Table 38.--Average annual net change of growing-stock volume on timberland by species and component, Maryland, 1976-86

(In thousands of cubic feet)

| Species                   | Ingrowth      | Accretion      | Gross growth   | Mortality      | Cull increment | Net growth     | Removals       | Net change    |
|---------------------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|
| Loblolly pine             | 8,352         | 8,945          | 17,298         | -3,249         | -105           | 13,944         | -13,058        | 886           |
| Other softwoods           | 2,012         | 12,769         | 14,781         | -4,972         | -245           | 9,564          | -8,740         | 824           |
| <b>Total softwoods</b>    | <b>10,364</b> | <b>21,714</b>  | <b>32,079</b>  | <b>-8,221</b>  | <b>-350</b>    | <b>23,508</b>  | <b>-21,798</b> | <b>1,710</b>  |
| Red Maple                 | 7,735         | 22,751         | 30,486         | -2,011         | -947           | 27,528         | -9,640         | 17,888        |
| Hickory                   | 732           | 4,023          | 4,755          | -790           | -137           | 3,827          | -2,348         | 1,479         |
| Beech                     | 353           | 3,959          | 4,312          | 0              | -218           | 4,093          | -648           | 3,445         |
| Sweetgum                  | 3,133         | 12,247         | 15,380         | -1,157         | -421           | 13,802         | -5,615         | 8,187         |
| Yellow-poplar             | 5,406         | 26,037         | 31,443         | -1,010         | -639           | 29,794         | -22,601        | 7,193         |
| Ash-walnut-cherry         | 2,585         | 7,391          | 9,976          | -778           | -592           | 8,605          | -4,478         | 4,127         |
| Select white oaks         | 2,346         | 11,815         | 14,160         | -1,340         | 0              | 12,820         | -11,983        | 837           |
| Select red oaks           | 273           | 10,433         | 10,706         | -402           | 0              | 10,304         | -3,084         | 7,220         |
| Other hardwoods           | 9,787         | 37,663         | 47,451         | -11,178        | -1,844         | 34,428         | -17,436        | 16,992        |
| <b>Total hardwoods</b>    | <b>32,350</b> | <b>136,319</b> | <b>168,669</b> | <b>-18,666</b> | <b>-4,798</b>  | <b>145,201</b> | <b>-77,833</b> | <b>67,368</b> |
| <b>Total, all species</b> | <b>42,714</b> | <b>158,033</b> | <b>200,748</b> | <b>-26,887</b> | <b>-5,148</b>  | <b>168,709</b> | <b>-99,631</b> | <b>69,078</b> |



Table 39.--Average annual net growth and average annual removals of growing-stock volume on timberland by species, Maryland, 1976-86

(In thousands of cubic feet)

| Species                   | Growth         | Removals       |
|---------------------------|----------------|----------------|
| Loblolly pine             | 13,944         | -13,058        |
| Other softwoods           | 9,564          | -8,740         |
| <b>Total softwoods</b>    | <b>23,508</b>  | <b>-21,798</b> |
| Red maple                 | 27,528         | -9,640         |
| Hickory                   | 3,827          | -2,348         |
| Beech                     | 4,093          | -648           |
| Sweetgum                  | 13,802         | -5,615         |
| Yellow-poplar             | 29,794         | -22,601        |
| Ash-walnut-cherry         | 8,605          | -4,478         |
| Select white oaks         | 12,820         | -11,983        |
| Select red oaks           | 10,304         | -3,084         |
| Other hardwoods           | 34,428         | -17,436        |
| <b>Total hardwoods</b>    | <b>145,201</b> | <b>-77,833</b> |
| <b>Total, all species</b> | <b>168,709</b> | <b>-99,631</b> |

Table 40.--Average annual net growth and average annual removals of growing-stock volume on timberland by ownership class and species group, Maryland, 1976-86

(In thousands of cubic feet)

| Ownership class           | Growth        |                |                | Removals       |                |                |
|---------------------------|---------------|----------------|----------------|----------------|----------------|----------------|
|                           | Softwoods     | Hardwoods      | All groups     | Softwoods      | Hardwoods      | All groups     |
| Public                    | 2,257         | 11,761         | 14,018         | -2,289         | -5,137         | -7,426         |
| Private                   | 21,251        | 133,440        | 154,691        | -19,509        | -72,696        | -92,205        |
| <b>Total, all classes</b> | <b>23,508</b> | <b>145,201</b> | <b>168,709</b> | <b>-21,798</b> | <b>-77,833</b> | <b>-99,631</b> |

Table 41.--Average annual mortality of growing-stock and sawtimber volume on timberland by species, Maryland, 1976-86

| Species                   | Growing stock                | Sawtimber                                 |
|---------------------------|------------------------------|---|
|                           | (In thousands of cubic feet) | (In thousands of board feet) <sup>a</sup> |
| Loblolly pine             | -3,249                       | -5,199                                    |
| Other softwoods           | -4,972                       | -9,100                                    |
| <b>Total softwoods</b>    | <b>-8,221</b>                | <b>-14,299</b>                            |
| Red maple                 | -2,011                       | -7,888                                    |
| Hickory                   | -790                         | -2,120                                    |
| Beech                     | 0                            | 0   |
| Sweetgum                  | -1,157                       | -1,280                                    |
| Yellow poplar             | -1,010                       | -1,318                                    |
| Ash-walnut-cherry         | -778                         | -1,778                                    |
| Select white oaks         | -1,340                       | -3,716                                    |
| Select red oaks           | -402                         | -1,209                                    |
| Other hardwoods           | -11,178                      | -34,473                                   |
| <b>Total hardwoods</b>    | <b>-18,666</b>               | <b>-53,782</b>                            |
| <b>Total, all species</b> | <b>-26,887</b>               | <b>-68,081</b>                            |

<sup>a</sup> International 1/4-inch rule.

Table 42.--Average annual net growth and average annual removals of sawtimber volume on timberland by species, Maryland, 1976-86

(In thousands of board feet)<sup>a</sup>

| Species                   | Growth         | Removals        |
|---------------------------|----------------|-----------------|
| Loblolly pine             | 46,875         | -46,945         |
| Other softwoods           | 35,359         | -9,734          |
| <b>Total softwoods</b>    | <b>82,234</b>  | <b>-56,679</b>  |
| Red maple                 | 80,622         | -33,392         |
| Hickory                   | 6,222          | -5,913          |
| Beech                     | 11,099         | -1,407          |
| Sweetgum                  | 34,123         | -16,175         |
| Yellow-poplar             | 140,334        | -110,277        |
| Ash-walnut-cherry         | 27,252         | -15,019         |
| Select white oaks         | 40,172         | -37,995         |
| Select red oaks           | 42,923         | -11,409         |
| Other hardwoods           | 100,217        | -50,094         |
| <b>Total hardwoods</b>    | <b>482,964</b> | <b>-281,681</b> |
| <b>Total, all species</b> | <b>565,198</b> | <b>-338,360</b> |

<sup>a</sup> International 1/4-inch rule.

Table 43.--Average annual net growth and average annual removals of sawtimber volume by ownership class and species group, Maryland, 1976-86

(In thousands of board feet)<sup>a</sup>

| Ownership class           | Growth        |                |                | Removals       |                 |                 |
|---------------------------|---------------|----------------|----------------|----------------|-----------------|-----------------|
|                           | Softwoods     | Hardwoods      | All groups     | Softwoods      | Hardwoods       | All groups      |
| Public                    | 11,266        | 37,188         | 48,454         | -5,441         | -12,675         | -18,117         |
| Private                   | 70,968        | 445,744        | 516,744        | -51,238        | -269,005        | -320,243        |
| <b>Total, all classes</b> | <b>82,234</b> | <b>482,964</b> | <b>565,198</b> | <b>-56,579</b> | <b>-281,681</b> | <b>-338,360</b> |

<sup>a</sup> International 1/4-inch rule.

Table 44.--Output<sup>a</sup> of timber products by product, softwoods and hardwoods, and source of material, Maryland, 1985

(In standard units and thousands of cubic feet)

| Product and species               | Standard units <sup>b</sup> | Output from roundwood                  |                     | Output from plant byproducts |                     | Total output    |                     |
|-----------------------------------|-----------------------------|--|---------------------|------------------------------|---------------------|-----------------|---------------------|
|                                   |                             | Number of units                        | Thousand cubic feet | Number of units              | Thousand cubic feet | Number of units | Thousand cubic feet |
| <b>Sawlogs</b>                    |                             | <b>INDUSTRIAL PRODUCTS</b>             |                     |                              |                     |                 |                     |
| Softwoods                         | M board feet                | 36,673                                 | 6,055               | 0                            | 0                   | 36,673          | 6,055               |
| Hardwoods                         | M board feet                | 106,972                                | 16,219              | 0                            | 0                   | 106,972         | 16,219              |
| <b>Total</b>                      | <b>M board feet</b>         | <b>143,645</b>                         | <b>22,274</b>       | <b>0</b>                     | <b>0</b>            | <b>143,645</b>  | <b>22,274</b>       |
| <b>Veneer</b>                     |                             |  |                     |                              |                     |                 |                     |
| Softwoods                         | M board feet                | 26,005                                 | 4,293               | 0                            | 0                   | 26,005          | 4,293               |
| Hardwoods                         | M board feet                | 9,080                                  | 1,373               | 0                            | 0                   | 9,080           | 1,373               |
| <b>Total</b>                      | <b>M board feet</b>         | <b>35,085</b>                          | <b>5,666</b>        | <b>0</b>                     | <b>0</b>            | <b>35,085</b>   | <b>5,666</b>        |
| <b>Pulpwood<sup>c</sup></b>       |                             |  |                     |                              |                     |                 |                     |
| Softwoods                         | Standard cords              | 101,796                                | 8,653               | 70,282                       | 5,974               | 172,078         | 14,627              |
| Hardwoods                         | Standard cords              | 70,079                                 | 5,957               | 37,247                       | 3,166               | 107,326         | 9,123               |
| <b>Total</b>                      | <b>Standard cords</b>       | <b>171,875</b>                         | <b>14,610</b>       | <b>107,529</b>               | <b>9,140</b>        | <b>279,404</b>  | <b>23,750</b>       |
| <b>Other products<sup>d</sup></b> |                             |  |                     |                              |                     |                 |                     |
| Softwoods                         | M board feet                | 5,784                                  | 1,223               | 3,594                        | 760                 | 9,378           | 1,983               |
| Hardwoods                         | M board feet                | 606                                    | 112                 | 1,272                        | 235                 | 1,878           | 347                 |
| <b>Total</b>                      | <b>M board feet</b>         | <b>6,390</b>                           | <b>1,335</b>        | <b>4,866</b>                 | <b>995</b>          | <b>11,256</b>   | <b>2,330</b>        |
|                                   |                             | <b>TOTAL, INDUSTRIAL PRODUCTS</b>      |                     |                              |                     |                 |                     |
| Softwoods                         |                             |  | 20,224              |                              | 6,734               |                 | 26,958              |
| Hardwoods                         |                             |  | 23,661              |                              | 3,401               |                 | 27,062              |
| <b>Total</b>                      |                             |  | <b>43,885</b>       |                              | <b>10,135</b>       |                 | <b>54,020</b>       |
| <b>Fuelwood<sup>e</sup></b>       |                             | <b>NONINDUSTRIAL PRODUCTS</b>          |                     |                              |                     |                 |                     |
| Softwoods                         | Standard cords              | 54,753                                 | 4,380               | 700                          | 56                  | 55,453          | 4,436               |
| Hardwoods                         | Standard cords              | 727,426                                | 58,194              | 15,838                       | 1,267               | 743,264         | 59,461              |
| <b>Total</b>                      | <b>Standard cords</b>       | <b>782,179</b>                         | <b>62,574</b>       | <b>16,538</b>                | <b>1,323</b>        | <b>798,717</b>  | <b>63,897</b>       |
|                                   |                             | <b>TOTAL, ALL PRODUCTS<sup>f</sup></b> |                     |                              |                     |                 |                     |
| Softwoods                         |                             |  | 24,604              |                              | 6,790               |                 | 31,394              |
| Hardwoods                         |                             |  | 81,855              |                              | 4,668               |                 | 86,523              |
| <b>Total</b>                      |                             |  | <b>106,459</b>      |                              | <b>11,458</b>       |                 | <b>117,917</b>      |

<sup>a</sup>The volume of wood received at manufacturing plants that used roundwood products.

<sup>b</sup>Board feet is expressed on the International 1/4-inch rule basis and standard cords is expressed on a rough wood basis (includes both roundwood and chips).

<sup>c</sup>A standard cord of pulpwood is equivalent to 85 cubic feet of solid wood.

<sup>d</sup>Includes posts, poles, and piling.

<sup>e</sup>A standard cord of fuelwood is equivalent to 80 cubic feet of solid wood.

<sup>f</sup>Does not include 1,855,000 cubic feet of softwood and 5,035,000 cubic feet of hardwood residues used for agricultural bedding.

Table 45.--Output of roundwood products by product, softwoods and hardwoods, and source of material,<sup>a</sup> Maryland, 1985

(In thousands of cubic feet)

| Product and species        | Growing-stock trees |           |        | Rough or rotten cull trees | Salvable dead trees | Other sources | All sources |
|----------------------------|---------------------|-----------|--------|----------------------------|---------------------|---------------|-------------|
|                            | Poletimber          | Sawtimber | Total  |                            |                     |               |             |
| INDUSTRIAL PRODUCTS        |                     |           |        |                            |                     |               |             |
| Sawlogs                    |                     |           |        |                            |                     |               |             |
| Softwoods                  | 0                   | 4,901     | 4,901  | 12                         | 0                   | 1,142         | 6,055       |
| Hardwoods                  | 34                  | 14,579    | 14,613 | 860                        | 162                 | 584           | 16,219      |
| Total                      | 34                  | 19,480    | 19,514 | 872                        | 162                 | 1,726         | 22,274      |
| Veneer                     |                     |           |        |                            |                     |               |             |
| Softwoods                  | 0                   | 3,482     | 3,482  | 0                          | 0                   | 811           | 4,293       |
| Hardwoods                  | 3                   | 1,317     | 1,320  | 0                          | 0                   | 53            | 1,373       |
| Total                      | 3                   | 4,799     | 4,802  | 0                          | 0                   | 864           | 5,666       |
| Pulpwood                   |                     |           |        |                            |                     |               |             |
| Softwoods                  | 120                 | 8,293     | 8,413  | 133                        | 87                  | 20            | 8,653       |
| Hardwoods                  | 2,519               | 3,018     | 5,537  | 190                        | 60                  | 170           | 5,957       |
| Total                      | 2,639               | 11,311    | 13,950 | 323                        | 147                 | 190           | 14,610      |
| Other products             |                     |           |        |                            |                     |               |             |
| Softwoods                  | 0                   | 990       | 990    | 2                          | 0                   | 231           | 1,223       |
| Hardwoods                  | 0                   | 101       | 101    | 6                          | 1                   | 4             | 112         |
| Total                      | 0                   | 1,091     | 1,091  | 8                          | 1                   | 235           | 1,335       |
| TOTAL, INDUSTRIAL PRODUCTS |                     |           |        |                            |                     |               |             |
| Softwoods                  | 120                 | 17,666    | 17,786 | 147                        | 87                  | 2,204         | 20,224      |
| Hardwoods                  | 2,556               | 19,015    | 21,571 | 1,056                      | 223                 | 811           | 23,661      |
| Total                      | 2,676               | 36,681    | 39,357 | 1,203                      | 310                 | 3,015         | 43,885      |
| NONINDUSTRIAL PRODUCTS     |                     |           |        |                            |                     |               |             |
| Fuelwood                   |                     |           |        |                            |                     |               |             |
| Softwoods                  | 141                 | 227       | 368    | 1,158                      | 1,281               | 1,573         | 4,380       |
| Hardwoods                  | 669                 | 4,225     | 4,894  | 15,386                     | 17,016              | 20,898        | 58,194      |
| Total                      | 810                 | 4,452     | 5,262  | 16,544                     | 18,297              | 22,471        | 62,574      |
| TOTAL, ALL PRODUCTS        |                     |           |        |                            |                     |               |             |
| Softwoods                  | 261                 | 17,893    | 18,154 | 1,305                      | 1,368               | 3,777         | 24,604      |
| Hardwoods                  | 3,225               | 23,240    | 26,465 | 16,442                     | 17,239              | 21,709        | 81,855      |
| Total                      | 3,486               | 41,133    | 44,619 | 17,747                     | 18,607              | 25,486        | 106,459     |

<sup>a</sup>Growing-stock trees, rough or rotten cull trees, and salvable dead trees are from timberland only. Other sources include trees less than 5.0 inches in diameter at breast height and tree tops and limbs from timberland, as well as any material from nontimberland or nonforest land such as fencerows, pastureland, and urban areas.

Table 46.--Timber removals from growing stock and sawtimber on timberland by component<sup>a</sup> and softwoods and hardwoods, Maryland, 1985

| Components of timber removals | Growing stock                   |           |             | Sawtimber                                    |           |             |
|-------------------------------|---------------------------------|-----------|-------------|--|-----------|-------------|
|                               | Softwoods                       | Hardwoods | All species | Softwoods                                    | Hardwoods | All species |
|                               | ----- Thousand cubic feet ----- |           |             | ----- Thousand board feet <sup>b</sup> ----- |           |             |
| Roundwood products            |                                 |           |             |  |           |             |
| Sawlogs                       | 4,901                           | 14,613    | 19,514      | 21,764                                       | 76,413    | 98,177      |
| Veneer                        | 3,482                           | 1,320     | 4,802       | 15,462                                       | 6,903     | 22,365      |
| Pulpwood                      | 8,413                           | 5,537     | 13,950      | 24,439                                       | 12,308    | 36,747      |
| Other products                | 990                             | 101       | 1,091       | 4,396  | 529       | 4,925       |
| Fuelwood                      | 368                             | 4,894     | 5,262       | 669  | 17,234    | 17,903      |
| All products                  | 18,154                          | 26,465    | 44,619      | 66,730                                       | 113,387   | 180,117     |
| Logging residue               | 394                             | 3,856     | 4,250       | 103  | 3,239     | 3,342       |
| Land use change               | 1,274                           | 6,478     | 7,752       | 4,622  | 13,160    | 17,782      |
| Total removals                | 19,822                          | 36,799    | 56,621      | 71,455                                       | 129,786   | 201,241     |

<sup>a</sup> Logging residue does not include material from tree tops and limbs. Land use change includes land sufficiently productive to be classified as timberland, but withdrawn from production through administrative designation, such as for wilderness or parks.  
<sup>b</sup> International 1/4-inch rule.

Table 47.--Volume of unused residues from primary manufacturing plants by softwoods and hardwoods, type of residue, and industry, Maryland, 1985

(In thousands of cubic feet)

| Species and type of residue | Lumber | Veneer | Other industries | All industries |
|-----------------------------|--------|--------|------------------|----------------|
| Softwoods                   |        |        |                  |                |
| Coarse <sup>a</sup>         | 0      | 0      | 0                | 0              |
| Fine <sup>b</sup>           | 0      | 0      | 0                | 0              |
| Total                       | 0      | 0      | 0                | 0              |
| Hardwoods                   |        |        |                  |                |
| Coarse                      | 8      | 0      | 0                | 8              |
| Fine                        | 5      | 0      | 0                | 5              |
| Total                       | 13     | 0      | 0                | 13             |
| All species                 |        |        |                  |                |
| Coarse                      | 8      | 0      | 0                | 8              |
| Fine                        | 5      | 0      | 0                | 5              |
| Total                       | 13     | 0      | 0                | 13             |

<sup>a</sup> Includes slabs, edgings, trimmings, veneer cores, and other material suitable for chipping.

<sup>b</sup> Includes sawdust, shavings, and other materials considered unsuitable for chipping.

Table 48.--Change in area of timberland between inventories by forest-type group and stand-size class, Maryland, 1976-86

(In thousands of acres)

| Group or class            | 1976           | 1986           | Change        | Change         |
|---------------------------|----------------|----------------|---------------|----------------|
|                           |                |                |               | <u>Percent</u> |
| FOREST-TYPE GROUP         |                |                |               |                |
| White/red pine            | 30.4           | 53.1           | 22.7          | 75             |
| Spruce/fir                | 10.2           | .0             | -10.2         | -100           |
| Loblolly/shortleaf        | 429.9          | 296.9          | -133.0        | -31            |
| Oak/pine                  | 231.7          | 281.9          | 50.2          | 22             |
| Oak/hickory               | 1,514.1        | 1,454.4        | -59.7         | -4             |
| Oak/gum/cypress           | 70.9           | 120.2          | 49.3          | 70             |
| Elm/ash/red maple         | 97.1           | 83.7           | -13.4         | -14            |
| Northern hardwoods        | 149.3          | 133.8          | -15.5         | -10            |
| <b>Total, all groups</b>  | <b>2,533.7</b> | <b>2,424.0</b> | <b>-109.7</b> | <b>-4</b>      |
| STAND-SIZE CLASS          |                |                |               |                |
| Sawtimber                 | 1,383.6        | 1,723.8        | 340.2         | 25             |
| Poletimber                | 635.2          | 468.9          | -166.3        | -26            |
| Sapling and seedling      | 479.3          | 231.3          | -248.2        | -52            |
| Nonstocked                | 35.6           | .0             | -35.6         | -100           |
| <b>Total, all classes</b> | <b>2,533.7</b> | <b>2,424.0</b> | <b>-109.7</b> | <b>-4</b>      |

Table 49.--Change in volume between inventories, Maryland, 1976-86

| Species                   | Growing-stock volume           |                |              | Sawtimber volume                            |                 |                 |                |           |
|---------------------------|--------------------------------|----------------|--------------|---|-----------------|-----------------|----------------|-----------|
|                           | 1976                           | 1986           | Change       | 1976  | 1986            | Change          |                |           |
|                           | --- Millions of cubic feet --- |                | Percent      | --- Millions of board feet <sup>a</sup> --- |                 | Percent         |                |           |
| Loblolly pine             | 463.2                          | 472.0          | 8.8          | 2   | 1,409.9         | 1,409.2         | -0.7           | 0         |
| Virginia pine             | 265.7                          | 241.3          | -24.4        | -9  | 454.1           | 601.9           | 147.8          | 33        |
| Other softwoods           | 67.2                           | 99.8           | 32.6         | 49  | 136.3           | 243.2           | 106.9          | 78        |
| <b>Total softwoods</b>    | <b>796.0</b>                   | <b>813.1</b>   | <b>16.9</b>  | <b>2</b>                                    | <b>2,000.3</b>  | <b>2,254.3</b>  | <b>254.0</b>   | <b>13</b> |
| Red maple                 | 314.6                          | 492.4          | 177.8        | 57  | 755.2           | 1,224.7         | 469.5          | 62        |
| Hickory                   | 121.8                          | 136.5          | 14.7         | 12  | 355.9           | 358.9           | 3.0            | 1         |
| Beech                     | 112.9                          | 147.2          | 34.3         | 30  | 424.2           | 520.5           | 96.3           | 23        |
| Sweetgum                  | 235.3                          | 316.7          | 81.4         | 35  | 583.8           | 762.2           | 178.4          | 31        |
| Yellow-poplar             | 475.9                          | 547.4          | 71.5         | 15  | 2,019.6         | 2,318.4         | 298.8          | 15        |
| Ash-walnut-cherry         | 136.3                          | 177.4          | 41.1         | 30  | 289.8           | 411.4           | 121.6          | 42        |
| Select white oaks         | 398.4                          | 406.7          | 8.3          | 2   | 1,176.1         | 1,197.8         | 21.7           | 2         |
| Select red oaks           | 210.9                          | 282.7          | 71.8         | 34  | 667.9           | 980.9           | 313.0          | 47        |
| Other hardwoods           | 986.1                          | 1,154.8        | 168.7        | 17  | 2,807.2         | 3,305.6         | 498.4          | 18        |
| <b>Total hardwoods</b>    | <b>2,992.2</b>                 | <b>3,661.8</b> | <b>669.6</b> | <b>22</b>                                   | <b>9,079.7</b>  | <b>11,080.4</b> | <b>2,000.7</b> | <b>22</b> |
| <b>Total, all species</b> | <b>3,788.2</b>                 | <b>4,474.9</b> | <b>686.7</b> | <b>18</b>                                   | <b>11,080.0</b> | <b>13,334.8</b> | <b>2,254.8</b> | <b>20</b> |

<sup>a</sup>International 1/4-inch rule.



Table 50.--Sampling errors for various state level tables, Maryland, 1976 and 1986

(In percent)

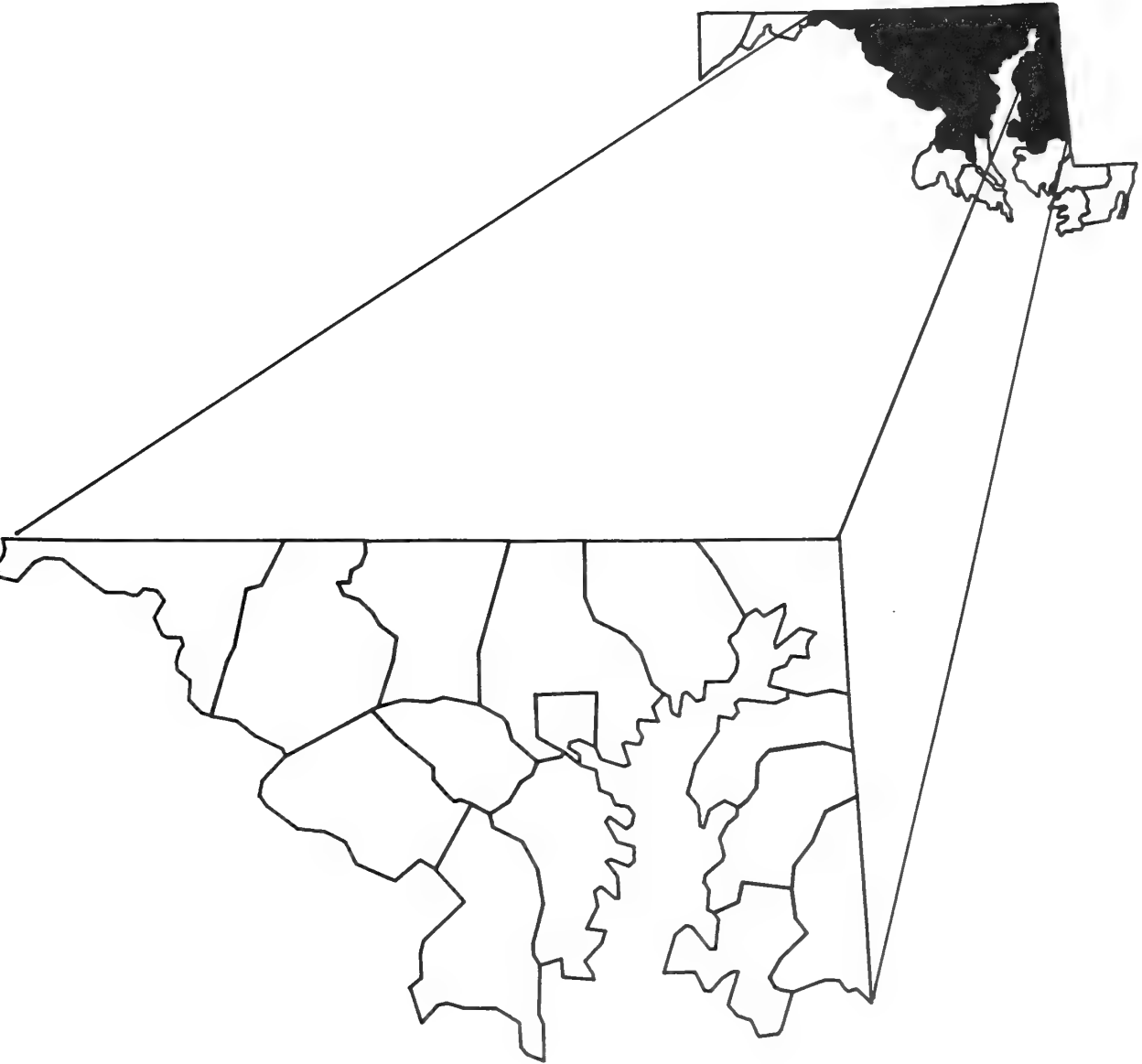
| Area by<br>forest-type group<br>(Table 3) | Stand-size class |            |             |            | All<br>classes |
|---|------------------|------------|-------------|------------|----------------|
|   | Sawtimber        | Poletimber | Sapling and |            |                |
|   |                  |            | seedling    | Nonstocked |                |
| White/red pine                            | 52               | 41         | 65          | 0          | 29             |
| Loblolly/shortleaf                        | 13               | 24         | 32          | 0          | 10             |
| Oak/pine                                  | 14               | 39         | 32          | 0          | 12             |
| Oak/hickory                               | 5                | 12         | 21          | 0          | 3              |
| Oak/gum/cypress                           | 21               | 42         | 50          | 0          | 17             |
| Elm/ash/red maple                         | 26               | 74         | 60          | 0          | 23             |
| Northern hardwoods                        | 23               | 32         | 32          | 0          | 15             |
| All groups                                | 2.7              | 8.2        | 11.9        | 0          | 1.1            |

| Species            | Number of<br>trees | Growing-stock<br>volume |      | Sawtimber<br>volume |      |
|--------------------|--------------------|-------------------------|------|---------------------|------|
|                    | (Table 19)         | Tables                  |      | Tables              |      |
|                    | (5"+)              | (30)                    | (31) | (34)                | (35) |
| White/red pine     | 41                 | 66                      | 39   | 52                  | 45   |
| Loblolly pine      | 11                 | 7                       | 9    | 9                   | 9    |
| Virginia pine      | 14                 | 12                      | 13   | 15                  | 13   |
| Other yellow pines | 36                 | 39                      | 31   | 41                  | 36   |
| Other softwoods    | 23                 | 32                      | 31   | 37                  | 39   |
| Total softwoods    | 9                  | 7                       | 7    | 7                   | 8    |
| Red maple          | 6                  | 8                       | 7    | 12                  | 9    |
| Sugar maple        | 18                 | 31                      | 19   | 41                  | 22   |
| Hickory            | 12                 | 11                      | 11   | 15                  | 13   |
| Beech              | 16                 | 16                      | 12   | 19                  | 13   |
| Sweetgum           | 10                 | 9                       | 9    | 13                  | 11   |
| Yellow-poplar      | 10                 | 10                      | 13   | 10                  | 14   |
| Blackgum           | 10                 | 11                      | 10   | 16                  | 12   |
| Ash-walnut-cherry  | 13                 | 14                      | 10   | 16                  | 12   |
| Select white oaks  | 8                  | 7                       | 7    | 8                   | 8    |
| Select red oaks    | 9                  | 13                      | 8    | 14                  | 9    |
| Other white oaks   | 11                 | 13                      | 11   | 16                  | 13   |
| Other red oaks     | 7                  | 8                       | 6    | 9                   | 8    |
| Black locust       | 20                 | 25                      | 20   | 41                  | 21   |
| Other hardwoods    | 10                 | 14                      | 12   | 17                  | 18   |
| Total hardwoods    | 3                  | 3                       | 3    | 2                   | 5    |
| Total, all species | 2.9                | 2.3                     | 2.8  | 1.8                 | 3.9  |



# CENTRAL UNIT TABLES



CENTRAL UNIT

Table 51.--Area of timberland by forest type, forest-type group, and stand-size class, Central Unit, 1976

(In thousands of acres)

| Forest type                    | Stand-size class |            |                      |            | All classes |
|--------------------------------|------------------|------------|----------------------|------------|-------------|
|                                | Sawtimber        | Poletimber | Sapling and seedling | Nonstocked |             |
| White pine                     | .0               | 5.8        | 6.9                  | .0         | 12.7        |
| White/red pine group           | .0               | 5.8        | 6.9                  | .0         | 12.7        |
| Norway spruce                  | .0               | .0         | 4.4                  | .0         | 4.4         |
| Spruce/fir group               | .0               | .0         | 4.4                  | .0         | 4.4         |
| Loblolly pine                  | 10.6             | .0         | 5.3                  | .0         | 16.0        |
| Virginia pine                  | 29.1             | 50.5       | 5.9                  | .0         | 85.4        |
| Pitch pine                     | .0               | .0         | 5.9                  | .0         | 5.9         |
| Loblolly/shortleaf group       | 39.7             | 50.5       | 17.2                 | .0         | 107.3       |
| Virginia pine/oak              | 19.8             | 15.1       | 26.5                 | .0         | 61.4        |
| Loblolly pine/hardwood         | 6.6              | .0         | 4.2                  | .0         | 10.9        |
| Oak/pine group                 | 26.4             | 15.1       | 30.7                 | .0         | 72.3        |
| Post, black, or bear oak       | 15.7             | .0         | .0                   | .0         | 15.7        |
| Chestnut oak                   | 16.0             | 17.3       | 6.0                  | .0         | 39.3        |
| White oak/red oak/hickory      | 31.1             | 10.3       | 11.6                 | .0         | 53.0        |
| White oak                      | 5.6              | 10.9       | .0                   | .0         | 16.4        |
| Northern red oak               | 6.0              | .0         | .0                   | .0         | 6.0         |
| Y. poplar/wh. oak/no. red oak  | 54.0             | 6.0        | .0                   | .0         | 60.0        |
| Sweetgum/yellow-poplar         | 21.5             | 12.0       | .0                   | .0         | 33.5        |
| Yellow-poplar                  | 83.2             | 18.1       | 5.9                  | .0         | 107.1       |
| Scarlet oak                    | 21.7             | 11.1       | .0                   | .0         | 32.8        |
| Mixed central hardwoods        | 335.0            | 60.3       | 24.7                 | 26.6       | 446.6       |
| Oak/hickory group              | 589.8            | 145.9      | 48.1                 | 26.6       | 810.5       |
| Sweetgm/nuttall oak/willow oak | 12.8             | .0         | .0                   | .0         | 12.8        |
| Oak/gum/cypress group          | 12.8             | .0         | .0                   | .0         | 12.8        |
| Black ash/Amer. elm/red maple  | 5.0              | .0         | 23.9                 | .0         | 28.9        |
| River birch/sycamore           | 5.0              | .0         | 11.4                 | .0         | 16.5        |
| Willow                         | 5.8              | .0         | 6.2                  | .0         | 12.0        |
| Sycamore/pecan/American elm    | 5.9              | .0         | .0                   | .0         | 5.9         |
| Elm/ash/red maple group        | 21.7             | .0         | 41.5                 | .0         | 63.3        |
| Black cherry                   | .0               | .0         | 10.9                 | .0         | 10.9        |
| Red maple/northern hardwoods   | 6.6              | .0         | .0                   | .0         | 6.6         |
| Mixed northern hardwoods       | 12.0             | 5.9        | 11.6                 | .0         | 29.5        |
| Northern hardwoods group       | 18.6             | 5.9        | 22.5                 | .0         | 47.0        |
| All forest types               | 709.1            | 223.2      | 171.4                | 26.6       | 1,130.3     |

Table 52.--Area of timberland by forest type, forest-type group, and stand-size class, Central Unit, 1986

(In thousands of acres)

| Forest type                     | Stand-size class |            |                      |            | All classes |
|---------------------------------|------------------|------------|----------------------|------------|-------------|
|                                 | Sawtimber        | Poletimber | Sapling and seedling | Nonstocked |             |
| Red pine                        | .0               | 4.0        | .0                   | .0         | 4.0         |
| White pine                      | 6.4              | 4.5        | .0                   | .0         | 10.9        |
| Scotch pine                     | .0               | .0         | 10.5                 | .0         | 10.5        |
| White/red pine group            | 6.4              | 8.5        | 10.5                 | .0         | 25.4        |
| Loblolly pine                   | 23.2             | .0         | .0                   | .0         | 23.2        |
| Virginia pine                   | 26.2             | 11.8       | 11.0                 | .0         | 49.0        |
| Loblolly/shortleaf group        | 49.4             | 11.8       | 11.0                 | .0         | 72.2        |
| Wh. pine/no. red oak/wh. ash    | 5.9              | 2.4        | .0                   | .0         | 8.3         |
| Virginia pine/oak               | 42.1             | .0         | 1.8                  | .0         | 43.9        |
| Loblolly pine/hardwood          | 31.4             | 3.2        | .0                   | .0         | 34.6        |
| Other oak/pine                  | 5.4              | .0         | .0                   | .0         | 5.4         |
| Oak/pine group                  | 84.8             | 5.6        | 1.8                  | .0         | 92.3        |
| Post, black, or bear oak        | 10.0             | 3.7        | .0                   | .0         | 13.7        |
| Chestnut oak                    | 45.4             | .0         | .0                   | .0         | 45.4        |
| White oak/red oak/hickory       | 32.2             | 7.1        | 7.9                  | .0         | 47.2        |
| White oak                       | 13.4             | 11.6       | 3.7                  | .0         | 28.7        |
| Northern red oak                | 14.2             | .0         | .0                   | .0         | 14.2        |
| Y. poplar/wh. oak/no. red oak   | 41.7             | 12.4       | .0                   | .0         | 54.1        |
| Black locust                    | .0               | .0         | 6.2                  | .0         | 6.2         |
| Sweetgum/yellow-poplar          | 37.0             | 11.6       | 8.3                  | .0         | 56.8        |
| Yellow-poplar                   | 100.7            | .0         | 3.9                  | .0         | 104.7       |
| Hawthorn reverting field        | 3.2              | .0         | .0                   | .0         | 3.2         |
| Sassafras/persimmon             | .0               | .0         | 2.8                  | .0         | 2.8         |
| Red maple/central hardwoods     | 11.7             | 8.7        | .0                   | .0         | 20.4        |
| Mixed central hardwoods         | 289.1            | 75.0       | 4.9                  | .0         | 369.0       |
| Oak/hickory group               | 598.6            | 130.1      | 37.8                 | .0         | 766.5       |
| Swamp chstnt oak/cherrybark oak | 11.4             | .0         | .0                   | .0         | 11.4        |
| Sweetgum/nuttall oak/willow oak | 8.7              | .0         | .0                   | .0         | 8.7         |
| Sweetbay/swamp tupelo/red maple | .8               | .0         | .0                   | .0         | .8          |
| Oak/gum/cypress group           | 20.8             | .0         | .0                   | .0         | 20.8        |
| Black ash/Amer. elm/red maple   | 14.0             | .0         | 1.9                  | .0         | 16.0        |
| Red maple(lowland)              | 8.8              | .0         | .0                   | .0         | 8.8         |
| River birch/sycamore            | 15.7             | 4.1        | .0                   | .0         | 19.8        |
| Willow                          | .0               | 2.1        | .0                   | .0         | 2.1         |
| Sycamore/pecan/American elm     | 4.6              | .0         | .0                   | .0         | 4.6         |
| Elm/ash/red maple group         | 43.1             | 6.2        | 1.9                  | .0         | 51.2        |
| Black cherry                    | 3.1              | 3.7        | 4.6                  | .0         | 11.4        |
| Pin cherry/reverting field      | .0               | 5.1        | 13.2                 | .0         | 18.3        |
| Mixed northern hardwoods        | 1.4              | .0         | .0                   | .0         | 1.4         |
| Northern hardwoods group        | 4.5              | 8.8        | 17.8                 | .0         | 31.2        |
| All forest types                | 807.6            | 171.1      | 80.9                 | .0         | 1,059.6     |

Table 55.--Net green weight of all trees on timberland by class of material and species group, Central Unit, Maryland, 1986

(In thousands of tons)

| Class of material                | Weight <sup>a</sup> |           | All groups |
|----------------------------------|---------------------|-----------|------------|
|                                  | Softwoods           | Hardwoods |            |
| Sawlog portion                   | 4,964.0             | 44,995.9  | 49,959.9   |
| Upper stem                       | 680.0               | 9,530.8   | 10,210.8   |
| Total                            | 5,643.9             | 54,526.8  | 60,170.7   |
| Poletimber trees                 | 1,968.4             | 17,719.8  | 19,688.2   |
| All growing stock                | 7,612.3             | 72,246.6  | 79,859.0   |
| Rough cull trees <sup>b</sup>    | 68.5                | 4,075.1   | 4,143.6    |
| Rotten cull trees <sup>b</sup>   | 9.5                 | 499.3     | 508.8      |
| Salvable dead trees <sup>c</sup> | 252.2               | 2,000.8   | 2,253.0    |
| Saplings <sup>c</sup>            | 472.6               | 7,287.2   | 7,759.9    |
| Tops - growing stock             | 2,801.5             | 24,354.2  | 27,155.7   |
| Tops - rough and rotten          | 31.9                | 1,584.7   | 1,616.6    |
| All nongrowing stock             | 3,636.3             | 39,801.3  | 43,437.6   |
| Total, all classes               | 11,248.6            | 112,048.0 | 123,296.6  |

<sup>a</sup> Includes bark and sound cull; excludes rotten cull.

<sup>b</sup> Bole portion of trees 5.0 inches d.b.h. and larger.

<sup>c</sup> Weight of entire tree aboveground.

# MAJOR SPECIES BY VOLUME, CENTRAL UNIT, 1976 AND 1986

Millions of board feet

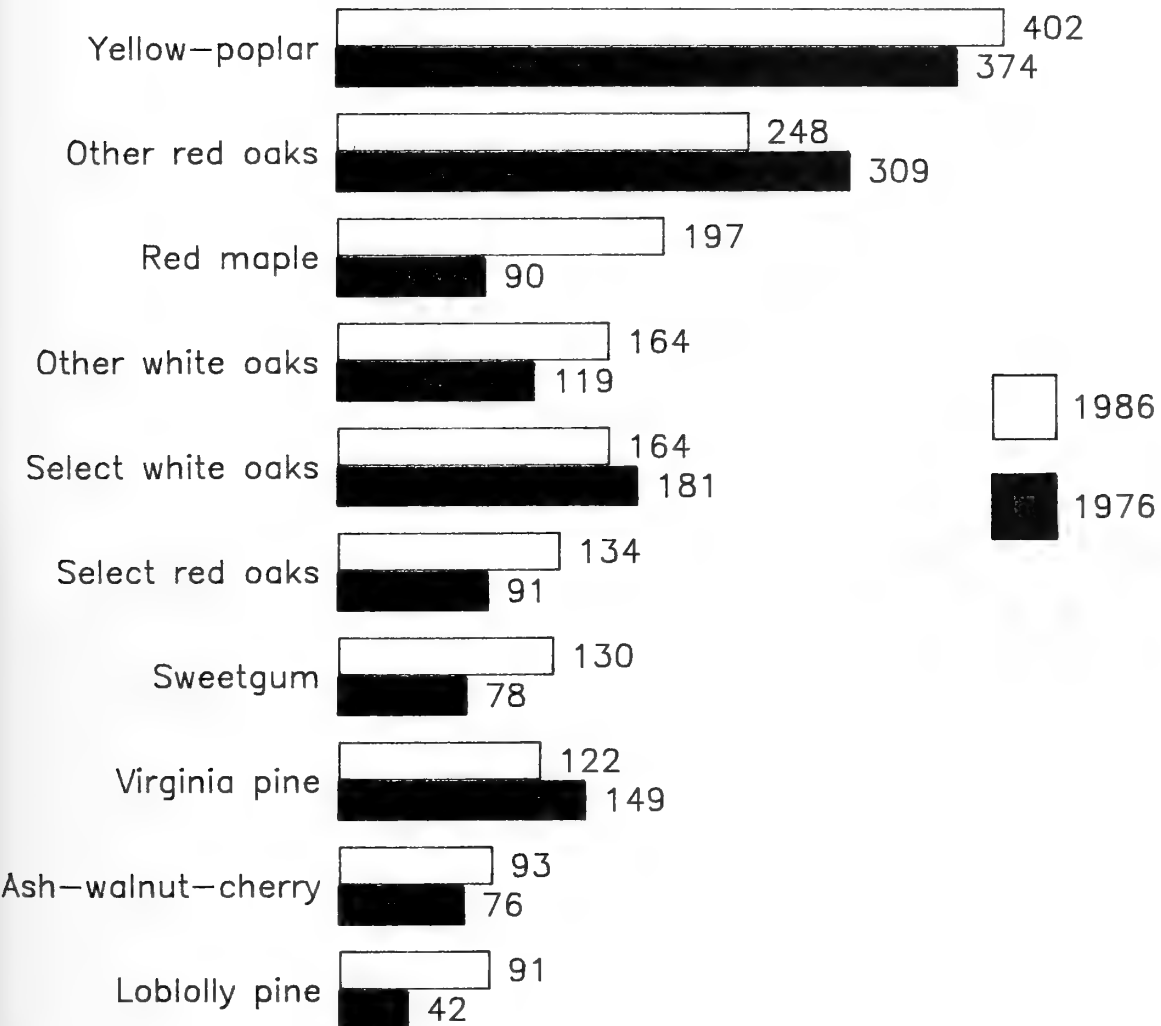


Table 56.--Net volume of growing-stock trees on timberland by species and diameter class, Central Unit, 1976

(In millions of cubic feet)

| Species                  | Diameter class (inches at breast height) |              |              |              |              |              |              |              |              |             | All classes |                |
|--------------------------|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|----------------|
|                          | 5.0-6.9                                  | 7.0-8.9      | 9.0-10.9     | 11.0-12.9    | 13.0-14.9    | 15.0-16.9    | 17.0-18.9    | 19.0-20.9    | 21.0-28.9    | 29.0+       |             |                |
| White/red pine           | 8.5                                      | 10.4         | 3.8          | .0           | .0           | 1.6          | .0           | .6           | .0           | .0          | .0          | 25.1           |
| Loblolly pine            | .8                                       | 5.3          | 6.6          | 9.6          | 6.7          | 7.7          | 2.7          | 1.1          | .5           | .5          | .5          | 41.6           |
| Virginia pine            | 34.0                                     | 49.2         | 34.6         | 17.5         | 8.7          | 4.1          | 1.5          | .0           | .0           | .0          | .0          | 149.4          |
| Other yellow pines       | .5                                       | .7           | .4           | 2.5          | 3.4          | 1.0          | 1.0          | .0           | .0           | .0          | .0          | 9.4            |
| Other softwoods          | .3                                       | 1.1          | .3           | .3           | .0           | .0           | .0           | .0           | .0           | .0          | 1.5         | 3.5            |
| <b>Total softwoods</b>   | <b>44.2</b>                              | <b>66.7</b>  | <b>45.7</b>  | <b>29.9</b>  | <b>18.7</b>  | <b>14.4</b>  | <b>5.2</b>   | <b>1.7</b>   | <b>.5</b>    | <b>2.0</b>  | <b>2.0</b>  | <b>229.0</b>   |
| Red maple                | 9.8                                      | 15.3         | 13.0         | 9.0          | 9.8          | 10.5         | 7.3          | 4.8          | 10.8         | .0          | .0          | 90.3           |
| Sugar maple              | .0                                       | .4           | .9           | .0           | .0           | .0           | .4           | .4           | .0           | .0          | .0          | 2.1            |
| Hickory                  | 7.2                                      | 10.4         | 10.2         | 16.3         | 13.2         | 8.1          | 1.3          | 5.3          | 8.8          | .6          | .6          | 81.4           |
| Beech                    | .9                                       | 3.0          | 4.7          | 4.9          | 8.4          | 6.3          | 6.6          | 4.0          | 20.8         | 3.5         | 3.5         | 63.1           |
| Sweetgum                 | 6.3                                      | 12.6         | 8.0          | 16.1         | 10.0         | 10.5         | 5.5          | .6           | 7.1          | 1.3         | 1.3         | 78.1           |
| Yellow-poplar            | 8.3                                      | 15.5         | 29.0         | 36.8         | 54.3         | 58.3         | 62.8         | 30.1         | 67.1         | 11.6        | 11.6        | 373.8          |
| Blackgum                 | 3.0                                      | 5.6          | 6.6          | 4.2          | 6.0          | 11.9         | 6.2          | 3.0          | 2.5          | .0          | .0          | 49.0           |
| Ash-walnut-cherry        | 7.3                                      | 13.1         | 15.6         | 10.4         | 5.0          | 8.7          | 6.3          | 4.2          | 5.7          | .0          | .0          | 76.3           |
| Select white oaks        | 8.6                                      | 13.2         | 22.6         | 25.2         | 24.6         | 22.6         | 17.2         | 12.0         | 28.7         | 6.2         | 6.2         | 181.0          |
| Select red oaks          | 3.4                                      | 6.5          | 6.6          | 10.9         | 17.6         | 17.6         | 13.7         | 9.0          | 4.8          | 1.1         | 1.1         | 91.3           |
| Other white oaks         | 8.8                                      | 17.2         | 13.8         | 19.9         | 15.1         | 8.9          | 14.4         | 9.9          | 8.7          | 2.1         | 2.1         | 118.8          |
| Other red oaks           | 13.3                                     | 23.5         | 35.3         | 38.7         | 41.7         | 40.2         | 29.2         | 30.0         | 47.4         | 9.3         | 9.3         | 308.6          |
| Black locust             | .5                                       | 3.7          | 2.7          | 5.4          | 3.4          | 1.0          | 1.2          | .5           | .6           | .0          | .0          | 18.9           |
| Other hardwoods          | 5.9                                      | 7.9          | 9.5          | 6.9          | 8.6          | 9.2          | 4.3          | 3.5          | 8.7          | 2.9         | 2.9         | 67.4           |
| <b>Total hardwoods</b>   | <b>83.1</b>                              | <b>148.1</b> | <b>178.4</b> | <b>204.9</b> | <b>217.7</b> | <b>213.8</b> | <b>176.5</b> | <b>117.3</b> | <b>221.6</b> | <b>38.7</b> | <b>38.7</b> | <b>1,600.1</b> |
| <b>Total all species</b> | <b>127.3</b>                             | <b>214.8</b> | <b>224.1</b> | <b>234.8</b> | <b>236.4</b> | <b>228.2</b> | <b>181.7</b> | <b>119.0</b> | <b>222.2</b> | <b>40.7</b> | <b>40.7</b> | <b>1,829.2</b> |



Table 57.--Net volume of growing-stock trees on timberland by species and diameter class, Central Unit, 1986  
(In millions of cubic feet)

| Species                   | Diameter class (inches at breast height) |              |              |              |              |              |              |              |              |             | All classes    |
|---------------------------|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|----------------|
|                           | 5.0-6.9                                  | 7.0-8.9      | 9.0-10.9     | 11.0-12.9    | 13.0-14.9    | 15.0-16.9    | 17.0-18.9    | 19.0-20.9    | 21.0-28.9    | 29.0+       |                |
| White/red pine            | 4.2                                      | 5.1          | 2.1          | 7.0          | 3.9          | .6           | 1.3          | .6           | .0           | .0          | 24.7           |
| Loblolly pine             | 2.4                                      | 9.7          | 13.3         | 19.5         | 17.2         | 13.0         | 8.1          | 6.2          | 1.6          | .0          | 91.0           |
| Virginia pine             | 15.6                                     | 29.3         | 26.9         | 25.4         | 19.7         | 5.0          | .1           | .0           | .0           | .0          | 122.0          |
| Other yellow pines        | .4                                       | 1.0          | 2.8          | .7           | .2           | .3           | .0           | .0           | .0           | .0          | 5.3            |
| Other softwoods           | .1                                       | 1.0          | 1.5          | .4           | .7           | .0           | .1           | .1           | .1           | .0          | 3.9            |
| <b>Total softwoods</b>    | <b>22.7</b>                              | <b>46.1</b>  | <b>46.4</b>  | <b>53.0</b>  | <b>41.8</b>  | <b>18.9</b>  | <b>9.5</b>   | <b>6.9</b>   | <b>1.7</b>   | <b>.0</b>   | <b>247.0</b>   |
| Red maple                 | 16.9                                     | 23.4         | 28.6         | 24.3         | 25.7         | 19.0         | 14.4         | 12.1         | 25.9         | 6.5         | 196.7          |
| Sugar maple               | .3                                       | 1.9          | .4           | .3           | .3           | .8           | .0           | .0           | .0           | .0          | 4.0            |
| Hickory                   | 6.7                                      | 12.8         | 8.6          | 8.0          | 7.7          | 10.0         | 11.3         | 2.7          | 4.1          | .0          | 71.9           |
| Beech                     | 4.5                                      | 3.6          | 7.1          | 7.2          | 8.3          | 6.5          | 9.2          | 8.4          | 10.8         | 5.9         | 71.5           |
| Sweetgum                  | 13.9                                     | 21.9         | 15.9         | 18.8         | 22.0         | 12.4         | 8.9          | 6.7          | 6.4          | 3.6         | 130.5          |
| Yellow-poplar             | 5.3                                      | 16.6         | 26.4         | 40.9         | 39.0         | 42.8         | 52.2         | 47.3         | 103.5        | 27.9        | 401.9          |
| Blackgum                  | 8.0                                      | 6.2          | 12.0         | 11.2         | 7.3          | 9.1          | 3.0          | 3.6          | 3.9          | .0          | 64.3           |
| Ash-walnut-cherry         | 10.5                                     | 16.4         | 14.4         | 14.0         | 12.2         | 8.9          | 7.2          | 3.6          | 4.1          | 1.9         | 93.2           |
| Select white oaks         | 9.6                                      | 18.0         | 21.9         | 19.9         | 16.5         | 17.3         | 15.6         | 12.3         | 22.1         | 10.6        | 163.6          |
| Select red oaks           | .9                                       | 8.3          | 14.1         | 16.6         | 22.3         | 16.7         | 12.4         | 12.1         | 21.6         | 9.1         | 134.0          |
| Other white oaks          | 5.1                                      | 18.7         | 23.2         | 22.5         | 29.1         | 20.7         | 17.1         | 8.2          | 18.7         | .8          | 164.1          |
| Other red oaks            | 10.0                                     | 14.4         | 15.6         | 29.0         | 27.0         | 28.5         | 26.8         | 32.6         | 55.1         | 8.7         | 247.8          |
| Black locust              | 4.8                                      | 4.4          | 11.0         | 3.9          | 3.6          | 4.1          | .9           | .2           | .0           | .0          | 33.0           |
| Other hardwoods           | 7.2                                      | 14.0         | 11.4         | 13.7         | 10.7         | 10.8         | 4.2          | 10.1         | 6.1          | 1.3         | 89.4           |
| <b>Total hardwoods</b>    | <b>103.6</b>                             | <b>180.7</b> | <b>210.7</b> | <b>230.3</b> | <b>231.5</b> | <b>207.6</b> | <b>183.1</b> | <b>160.0</b> | <b>282.2</b> | <b>76.2</b> | <b>1,865.9</b> |
| <b>Total, all species</b> | <b>126.3</b>                             | <b>226.8</b> | <b>257.1</b> | <b>283.2</b> | <b>273.3</b> | <b>226.5</b> | <b>192.6</b> | <b>166.9</b> | <b>283.9</b> | <b>76.2</b> | <b>2,112.8</b> |

Table 58.--Net volume of sawtimber trees on timberland by species and diameter class, Central Unit, 1976

(In millions of board feet)<sup>a</sup>

| Species                  | Diameter class (inches at breast height) |              |                |                |              |              |                |              | All classes    |
|--------------------------|--|--------------|----------------|----------------|--------------|--------------|----------------|--------------|----------------|
|                          | 9.0-                                     | 11.0-        | 13.0-          | 15.0-          | 17.0-        | 19.0-        | 21.0-          |              |                |
|                          | 10.9                                     | 12.9         | 14.9           | 16.9           | 18.9         | 20.9         | 28.9           | 29.0+        |                |
| White/red pine           | 14.3                                     | .0           | .0             | 8.5            | .0           | 3.3          | .0             | .0           | 26.1           |
| Loblolly pine            | 24.4                                     | 40.9         | 30.7           | 37.7           | 14.0         | 5.9          | 2.9            | 3.1          | 159.6          |
| Virginia pine            | 120.8                                    | 71.6         | 39.9           | 19.1           | 7.6          | .0           | .0             | .0           | 258.9          |
| Other yellow pines       | 1.5                                      | 11.0         | 15.9           | 5.0            | 5.1          | .0           | .0             | .0           | 38.4           |
| Other softwoods          | .8                                       | 1.2          | .0             | .0             | .0           | .0           | .0             | 9.2          | 11.2           |
| <b>Total softwoods</b>   | <b>161.8</b>                             | <b>124.7</b> | <b>86.5</b>    | <b>70.3</b>    | <b>26.7</b>  | <b>9.2</b>   | <b>2.9</b>     | <b>12.3</b>  | <b>494.3</b>   |
| Red maple                | .0                                       | 35.5         | 45.4           | 50.7           | 35.6         | 22.8         | 60.9           | .0           | 250.8          |
| Sugar maple              | .0                                       | .0           | .0             | .0             | 2.7          | 1.8          | .0             | .0           | 4.4            |
| Hickory                  | .0                                       | 65.7         | 60.5           | 39.4           | 7.7          | 28.1         | 51.0           | 3.6          | 256.1          |
| Beech                    | .0                                       | 19.7         | 38.9           | 30.3           | 31.5         | 23.4         | 104.0          | 20.1         | 267.9          |
| Sweetgum                 | .0                                       | 64.0         | 41.4           | 49.4           | 26.9         | 3.7          | 39.9           | 8.1          | 233.3          |
| Yellow-poplar            | .0                                       | 156.6        | 263.9          | 298.4          | 342.0        | 171.8        | 385.0          | 69.3         | 1,687.1        |
| Blackgum                 | .0                                       | 16.2         | 25.7           | 53.4           | 30.8         | 15.7         | 13.2           | .0           | 155.1          |
| Ash-walnut-cherry        | .0                                       | 42.0         | 20.6           | 38.8           | 27.0         | 21.4         | 28.1           | .0           | 178.1          |
| Select white oaks        | .0                                       | 102.3        | 105.3          | 106.8          | 85.4         | 60.0         | 156.9          | 37.1         | 654.0          |
| Select red oaks          | .0                                       | 40.5         | 77.2           | 80.2           | 64.9         | 42.4         | 25.0           | 5.8          | 335.9          |
| Other white oaks         | .0                                       | 77.5         | 62.2           | 40.5           | 67.4         | 47.3         | 43.1           | 11.3         | 349.2          |
| Other red oaks           | .0                                       | 151.7        | 184.6          | 179.9          | 140.8        | 147.6        | 243.6          | 53.9         | 1,102.0        |
| Black locust             | .0                                       | 17.0         | 11.9           | 4.4            | 5.4          | 2.3          | 2.4            | .0           | 43.5           |
| Other hardwoods          | .0                                       | 26.0         | 39.5           | 45.0           | 20.3         | 18.3         | 48.1           | 17.0         | 214.3          |
| <b>Total hardwoods</b>   | <b>.0</b>                                | <b>814.9</b> | <b>977.2</b>   | <b>1,017.2</b> | <b>888.4</b> | <b>606.6</b> | <b>1,201.3</b> | <b>226.3</b> | <b>5,731.9</b> |
| <b>Total all species</b> | <b>161.8</b>                             | <b>939.6</b> | <b>1,063.7</b> | <b>1,087.5</b> | <b>915.1</b> | <b>615.8</b> | <b>1,204.2</b> | <b>238.5</b> | <b>6,226.2</b> |

<sup>a</sup>International 1/4-inch rule.

Table 59.--Net volume of sawtimber trees on timberland by species and diameter class, Central Unit, 1986

(In millions of board feet)<sup>a</sup>

| Species                   | Diameter class (inches at breast height) |                |                |               |               |               |                |              | All classes    |
|---------------------------|--|----------------|----------------|---------------|---------------|---------------|----------------|--------------|----------------|
|                           | 9.0-<br>10.9                             | 11.0-<br>12.9  | 13.0-<br>14.9  | 15.0-<br>16.9 | 17.0-<br>18.9 | 19.0-<br>20.9 | 21.0-<br>28.9  | 29.0+        |                |
|                           | White/red pine                           | 6.3            | 27.4           | 16.8          | 2.9           | 7.1           | 3.0            | .0           |                |
| Loblolly pine             | 42.9                                     | 74.3           | 70.7           | 58.0          | 34.7          | 28.9          | 7.4            | .0           | 316.9          |
| Virginia pine             | 87.4                                     | 96.3           | 82.1           | 22.1          | .3            | .0            | .0             | .0           | 288.2          |
| Other yellow pines        | 9.1                                      | 2.5            | .9             | 1.0           | .0            | .0            | .0             | .0           | 13.6           |
| Other softwoods           | 4.4                                      | 1.5            | 2.5            | .0            | .6            | .7            | .2             | .0           | 10.0           |
| <b>Total softwoods</b>    | <b>150.0</b>                             | <b>202.0</b>   | <b>173.1</b>   | <b>84.1</b>   | <b>42.7</b>   | <b>32.5</b>   | <b>7.6</b>     | <b>.0</b>    | <b>692.1</b>   |
| Red maple                 | .0                                       | 82.2           | 98.8           | 78.0          | 65.4          | 57.6          | 128.9          | 35.9         | 546.9          |
| Sugar maple               | .0                                       | 1.1            | 1.0            | 3.4           | .0            | .0            | .0             | .0           | 5.5            |
| Hickory                   | .0                                       | 26.9           | 31.1           | 45.2          | 53.9          | 14.5          | 21.8           | .0           | 193.4          |
| Beech                     | .0                                       | 24.4           | 32.9           | 29.0          | 45.0          | 43.4          | 55.4           | 35.5         | 265.6          |
| Sweetgum                  | .0                                       | 64.0           | 85.6           | 53.2          | 39.6          | 32.7          | 32.3           | 20.3         | 327.6          |
| Yellow-poplar             | .0                                       | 148.3          | 162.1          | 196.5         | 254.8         | 246.5         | 562.6          | 173.4        | 1,744.2        |
| Blackgum                  | .0                                       | 37.1           | 27.8           | 38.2          | 11.7          | 15.2          | 17.2           | .0           | 147.2          |
| Ash-walnut-cherry         | .0                                       | 49.9           | 47.1           | 39.6          | 33.0          | 17.2          | 21.9           | 11.7         | 220.2          |
| Select white oaks         | .0                                       | 70.7           | 68.4           | 78.4          | 72.1          | 62.1          | 114.1          | 61.6         | 527.4          |
| Select red oaks           | .0                                       | 56.2           | 86.6           | 70.5          | 56.3          | 57.5          | 110.2          | 54.1         | 491.3          |
| Other white oaks          | .0                                       | 74.5           | 111.1          | 86.1          | 74.4          | 36.8          | 92.3           | 4.7          | 479.9          |
| Other red oaks            | .0                                       | 99.2           | 104.9          | 122.9         | 124.5         | 160.0         | 286.2          | 48.6         | 946.3          |
| Black locust              | .0                                       | 12.5           | 13.4           | 17.8          | 4.2           | 1.2           | .0             | .0           | 49.2           |
| Other hardwoods           | .0                                       | 52.3           | 46.5           | 49.2          | 18.8          | 53.6          | 31.1           | 8.3          | 259.8          |
| <b>Total hardwoods</b>    | <b>.0</b>                                | <b>799.4</b>   | <b>917.1</b>   | <b>908.0</b>  | <b>853.6</b>  | <b>798.4</b>  | <b>1,474.0</b> | <b>453.9</b> | <b>6,204.4</b> |
| <b>Total, all species</b> | <b>150.0</b>                             | <b>1,001.5</b> | <b>1,090.3</b> | <b>992.0</b>  | <b>896.3</b>  | <b>830.9</b>  | <b>1,481.6</b> | <b>453.9</b> | <b>6,896.5</b> |

<sup>a</sup> International 1/4-inch rule.

Table 60.--Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Central Unit, 1976  
(In millions of board feet)<sup>a</sup>

| Species                           | All size classes |                |                |                | >15" Diameter at breast height |              |                |                | All grades   |                |
|-----------------------------------|------------------|----------------|----------------|----------------|--------------------------------|--------------|----------------|----------------|--------------|----------------|
|                                   | Grade 1          | Grade 2        | Grade 3        | Grade 4        | Grade 1                        | Grade 2      | Grade 3        | Grade 4        |              |                |
| White/red pine                    | 2.4              | 3.4            | 15.0           | 5.3            | 26.1                           | 2.4          | 2.6            | 5.4            | 1.3          | 11.7           |
| Loblolly pine                     | 55.5             | 10.8           | 93.3           | .0             | 159.6                          | 26.7         | 4.9            | 32.0           | .0           | 63.6           |
| Virginia pine                     | 7.8              | 9.7            | 241.4          | .0             | 258.9                          | 3.0          | .4             | 23.4           | .0           | 26.8           |
| Other yellow pines                | .0               | 3.4            | 35.1           | .0             | 38.5                           | .0           | 1.1            | 9.0            | .0           | 10.1           |
| Other softwoods                   | 11.2             | .0             | .0             | .0             | 11.2                           | 9.2          | .0             | .0             | .0           | 9.2            |
| <b>Total softwoods</b>            | <b>76.9</b>      | <b>27.3</b>    | <b>384.8</b>   | <b>5.3</b>     | <b>494.3</b>                   | <b>41.3</b>  | <b>9.0</b>     | <b>69.8</b>    | <b>1.3</b>   | <b>121.4</b>   |
| Red maple                         | 5.9              | 28.4           | 166.8          | 49.7           | 250.8                          | 5.9          | 24.5           | 107.1          | 32.4         | 169.9          |
| Sugar maple                       | 2.8              | .8             | .6             | .2             | 4.4                            | 2.8          | .8             | .6             | .2           | 4.4            |
| Hickory                           | 26.5             | 63.5           | 115.6          | 50.5           | 256.1                          | 26.5         | 40.2           | 39.6           | 23.5         | 129.8          |
| Beech                             | 15.8             | 13.8           | 129.2          | 109.1          | 267.9                          | 15.7         | 12.0           | 110.1          | 71.5         | 209.3          |
| Sweetgum                          | 32.1             | 33.1           | 97.6           | 70.5           | 233.3                          | 27.2         | 18.0           | 45.4           | 37.2         | 127.8          |
| Yellow-poplar                     | 338.7            | 375.4          | 656.1          | 316.9          | 1,687.1                        | 327.6        | 323.8          | 429.6          | 185.5        | 1,266.5        |
| Blackgum                          | 30.5             | 37.5           | 70.9           | 16.2           | 155.1                          | 30.5         | 30.3           | 41.4           | 11.0         | 113.2          |
| Ash-walnut-cherry                 | 20.5             | 48.4           | 84.7           | 24.5           | 178.1                          | 20.5         | 37.8           | 43.5           | 13.6         | 115.4          |
| Select white oaks                 | 89.3             | 148.3          | 260.9          | 155.5          | 654.0                          | 87.6         | 122.3          | 139.1          | 97.5         | 446.5          |
| Select red oaks                   | 51.9             | 105.0          | 144.9          | 34.2           | 335.9                          | 50.6         | 84.1           | 64.1           | 19.3         | 218.1          |
| Other white oaks                  | 52.0             | 85.7           | 157.2          | 54.3           | 349.2                          | 52.0         | 72.2           | 62.6           | 22.7         | 209.5          |
| Other red oaks                    | 169.5            | 248.9          | 417.9          | 265.7          | 1,102.0                        | 165.1        | 207.9          | 244.3          | 148.6        | 765.9          |
| Black locust                      | 1.5              | 4.3            | 29.6           | 8.1            | 43.5                           | 1.5          | 4.3            | 7.7            | 1.1          | 14.6           |
| Other hardwoods                   | 26.0             | 50.9           | 114.3          | 23.2           | 214.3                          | 24.4         | 36.1           | 71.6           | 16.7         | 148.8          |
| <b>Total hardwoods</b>            | <b>863.0</b>     | <b>1,244.0</b> | <b>2,244.3</b> | <b>1,178.6</b> | <b>5,731.9</b>                 | <b>837.9</b> | <b>1,014.3</b> | <b>1,406.7</b> | <b>680.8</b> | <b>3,939.7</b> |
| Percent of hardwood in each grade | 15               | 22             | 43             | 20             | 100                            | 21           | 26             | 36             | 17           | 100            |

<sup>a</sup> International 1/4-inch rule.

Table 61.--Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Central Unit, 1986  
(In millions of board feet)<sup>a</sup>

| Species                                  | All size classes |                |                |                | >15" Diameter at breast height |              |                |                | All grades     |
|--|------------------|----------------|----------------|----------------|--------------------------------|--------------|----------------|----------------|----------------|
|  | Grade 1          | Grade 2        | Grade 3        | Grade 4        | Grade 1                        | Grade 2      | Grade 3        | Grade 4        |                |
| White/red pine                           | .0               | 9.4            | 36.1           | 17.9           | 63.5                           | .0           | 7.7            | 2.3            | 13.0           |
| Loblolly pine                            | 37.3             | 34.6           | 244.9          | .0             | 316.9                          | 15.8         | 99.2           | .0             | 129.0          |
| Virginia pine                            | 1.1              | 6.7            | 280.4          | .0             | 288.2                          | .0           | 22.4           | .0             | 22.4           |
| Other yellow pines                       | .0               | .4             | 13.2           | .0             | 13.6                           | .0           | 1.0            | .0             | 1.0            |
| Other softwoods                          | 10.0             | .0             | .0             | .0             | 10.0                           | 1.5          | .0             | .0             | 1.5            |
| <b>Total softwoods</b>                   | <b>48.3</b>      | <b>51.2</b>    | <b>574.6</b>   | <b>17.9</b>    | <b>692.1</b>                   | <b>17.3</b>  | <b>130.3</b>   | <b>2.3</b>     | <b>166.8</b>   |
| Red maple                                | 3.4              | 37.2           | 198.0          | 308.3          | 546.9                          | 3.4          | 131.5          | 197.8          | 365.9          |
| Sugar maple                              | .0               | 1.2            | 2.0            | 2.3            | 5.5                            | .0           | .5             | 1.8            | 3.4            |
| Hickory                                  | .8               | 51.9           | 85.9           | 54.8           | 193.4                          | .8           | 45.7           | 37.1           | 135.4          |
| Beech                                    | .4               | .0             | 82.4           | 182.8          | 265.6                          | .3           | .0             | 142.8          | 208.3          |
| Sweetgum                                 | 21.1             | 66.9           | 121.9          | 117.7          | 327.6                          | 21.1         | 40.7           | 62.3           | 178.0          |
| Yellow-poplar                            | 195.6            | 393.5          | 652.0          | 503.1          | 1,744.2                        | 189.5        | 350.7          | 370.0          | 1,433.8        |
| Blackgum                                 | 3.3              | 15.0           | 78.8           | 50.2           | 147.2                          | 3.3          | 8.0            | 23.3           | 82.3           |
| Ash-walnut-cherry                        | .3               | 40.8           | 129.1          | 50.0           | 220.2                          | .3           | 30.9           | 23.9           | 123.2          |
| Select white oaks                        | 28.0             | 86.9           | 196.4          | 216.1          | 527.4                          | 28.0         | 69.8           | 160.6          | 388.3          |
| Select red oaks                          | 27.9             | 79.5           | 230.3          | 153.7          | 491.3                          | 27.0         | 164.8          | 91.8           | 348.5          |
| Other white oaks                         | 9.7              | 89.2           | 221.8          | 159.1          | 479.9                          | 9.7          | 132.5          | 100.5          | 294.3          |
| Other red oaks                           | 58.2             | 133.1          | 379.3          | 375.8          | 946.3                          | 58.2         | 287.0          | 273.5          | 742.1          |
| Black locust                             | .0               | 1.0            | 29.8           | 18.4           | 49.2                           | .0           | .0             | 10.7           | 23.2           |
| Other hardwoods                          | 12.6             | 62.0           | 103.2          | 81.9           | 259.8                          | 11.2         | 59.6           | 34.1           | 161.0          |
| <b>Total hardwoods</b>                   | <b>361.4</b>     | <b>1,058.0</b> | <b>2,510.9</b> | <b>2,274.1</b> | <b>6,204.4</b>                 | <b>352.9</b> | <b>1,728.6</b> | <b>1,530.1</b> | <b>4,487.8</b> |
| <b>Percent of hardwood in each grade</b> | <b>6</b>         | <b>17</b>      | <b>40</b>      | <b>37</b>      | <b>100</b>                     | <b>8</b>     | <b>20</b>      | <b>34</b>      | <b>100</b>     |

<sup>a</sup> International 1/4-inch rule.

Table 62.--Sampling errors for various tables, Central Unit, 1976 and 1986

(In percent)

| Species and<br>diameter class | Number of<br>trees | Growing-stock<br>volume |        | Sawtimber<br>volume |        |
|-------------------------------|--------------------|-------------------------|--------|---------------------|--------|
|                               | (Table 53)         | Tables                  |        | Tables              |        |
|                               | (5"+)              | (56)                    | (57)   | (58)                | (59)   |
| White/red pine                | 54                 | 89                      | 53     | 67                  | 61     |
| Loblolly pine                 | 21                 | 38                      | 22     | 38                  | 23     |
| Virginia pine                 | 23                 | 19                      | 21     | 23                  | 22     |
| Other yellow pines            | 57                 | 51                      | 55     | 53                  | 63     |
| Other softwoods               | 58                 | 51                      | 64     | 83                  | 63     |
| <br>Total softwoods           | <br>16             | <br>16                  | <br>15 | <br>18              | <br>16 |
| Red maple                     | 12                 | 15                      | 13     | 18                  | 16     |
| Sugar maple                   | 51                 | 73                      | 54     | 101                 | 84     |
| Hickory                       | 17                 | 15                      | 16     | 19                  | 19     |
| Beech                         | 29                 | 26                      | 20     | 28                  | 22     |
| Sweetgum                      | 20                 | 22                      | 16     | 27                  | 20     |
| Yellow-poplar                 | 14                 | 13                      | 16     | 12                  | 18     |
| Blackgum                      | 16                 | 19                      | 14     | 25                  | 18     |
| Ash-walnut-cherry             | 18                 | 19                      | 13     | 21                  | 17     |
| Select white oaks             | 14                 | 11                      | 11     | 12                  | 13     |
| Select red oaks               | 15                 | 19                      | 13     | 20                  | 13     |
| Other white oaks              | 16                 | 18                      | 16     | 20                  | 17     |
| Other red oaks                | 13                 | 11                      | 10     | 12                  | 11     |
| Black locust                  | 28                 | 41                      | 29     | 52                  | 31     |
| Other hardwoods               | 16                 | 21                      | 21     | 24                  | 29     |
| <br>Total hardwoods           | <br>5              | <br>5                   | <br>6  | <br>3               | <br>7  |
| <br>Total, all species        | <br>5              | <br>4                   | <br>5  | <br>2               | <br>7  |
| <br>D.B.H. class (inches)     |                    |                         |        |                     |        |
| 5.0 to 6.9                    | 8                  | 11                      | 9      | -                   | -      |
| 7.0 to 8.9                    | 7                  | 9                       | 7      | -                   | -      |
| 9.0 to 10.9                   | 7                  | 7                       | 7      | 23                  | 19     |
| 11.0 to 12.9                  | 7                  | 7                       | 7      | 7                   | 8      |
| 13.0 to 14.9                  | 7                  | 7                       | 7      | 7                   | 7      |
| 15.0 to 16.9                  | 7                  | 7                       | 7      | 6                   | 8      |
| 17.0 to 18.9                  | 9                  | 9                       | 10     | 7                   | 10     |
| 19.0 to 20.9                  | 10                 | 11                      | 11     | 10                  | 11     |
| 21.0 to 28.9                  | 10                 | 11                      | 11     | 9                   | 11     |
| 29 +                          | 18                 | 20                      | 20     | 20                  | 21     |

# SOUTHERN UNIT TABLES

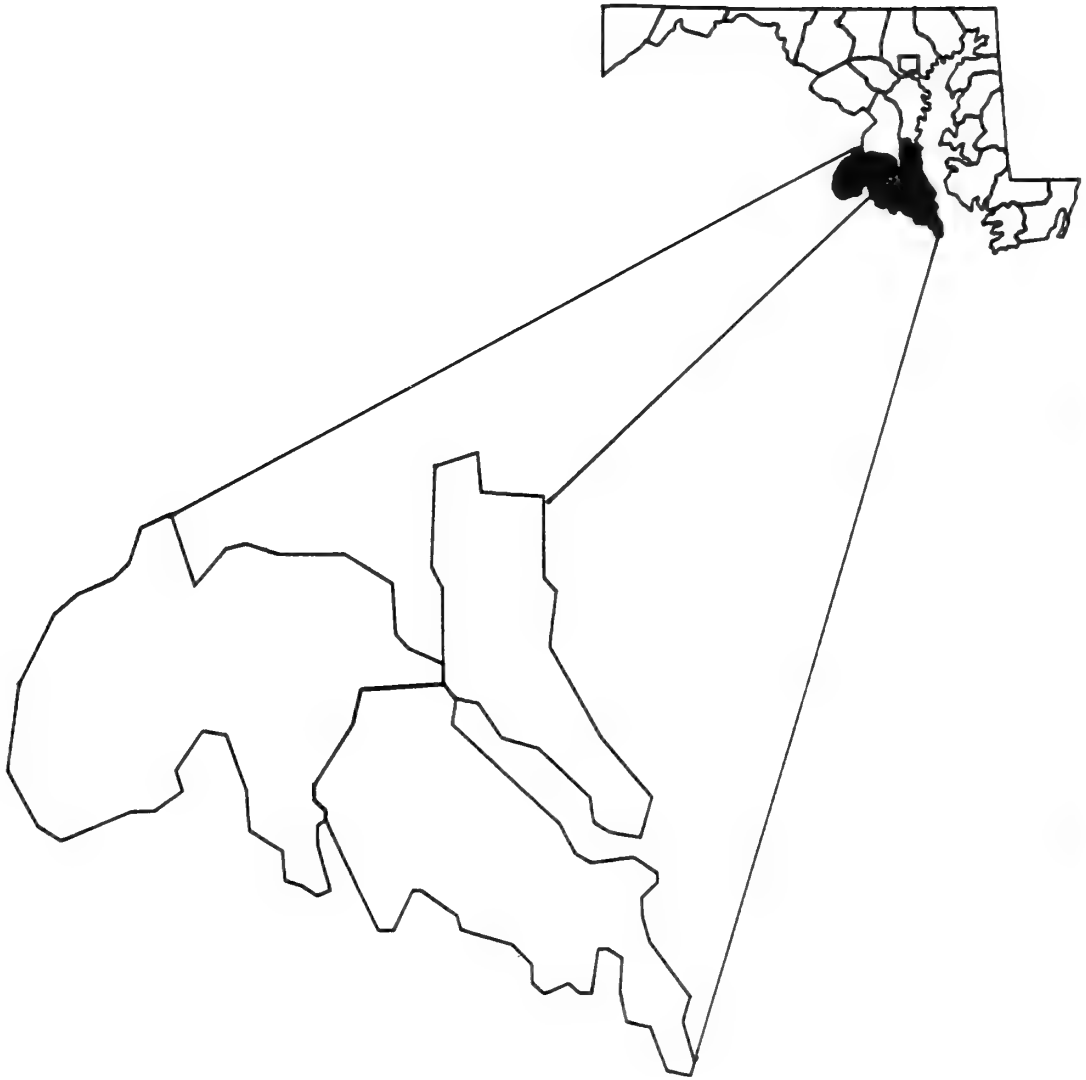


Table 63.--Area of timberland by forest type, forest-type group, and stand-size class, Southern Unit, 1976

(In thousands of acres)

| Forest type                    | Stand-size class |            |                      |            | All classes |
|--------------------------------|------------------|------------|----------------------|------------|-------------|
|                                | Sawtimber        | Poletimber | Sapling and seedling | Nonstocked |             |
| Loblolly pine                  | 10.8             | 8.0        | .0                   | .0         | 18.9        |
| Virginia pine                  | 21.5             | 16.5       | 17.2                 | .0         | 55.2        |
| Eastern red cedar              | .0               | 2.6        | .0                   | .0         | 2.6         |
| Loblolly/shortleaf group       | 32.4             | 27.1       | 17.2                 | .0         | 76.7        |
| Virginia pine/oak              | 13.4             | 16.4       | 5.4                  | .0         | 35.1        |
| Loblolly pine/hardwood         | 4.7              | 5.5        | .0                   | .0         | 10.1        |
| Oak/pine group                 | 18.1             | 21.8       | 5.4                  | .0         | 45.3        |
| Chestnut oak                   | .0               | 2.9        | .0                   | .0         | 2.9         |
| White oak/red oak/hickory      | .0               | .0         | 5.6                  | .0         | 5.6         |
| White oak                      | 8.0              | .0         | 5.3                  | .0         | 13.3        |
| Y. poplar/wh. oak/no. red oak  | 5.5              | 5.3        | .0                   | .0         | 10.8        |
| Black locust                   | .0               | .0         | 2.6                  | .0         | 2.6         |
| Sweetgum/yellow-poplar         | 13.1             | 2.6        | 10.5                 | .0         | 26.2        |
| Yellow-poplar                  | 7.7              | 2.6        | 5.6                  | .0         | 15.9        |
| Scarlet oak                    | 2.7              | .0         | .0                   | .0         | 2.7         |
| Mixed central hardwoods        | 107.6            | 28.4       | 17.2                 | .0         | 153.2       |
| Oak/hickory group              | 144.6            | 41.8       | 46.8                 | .0         | 233.2       |
| Sweetgm/nuttall oak/willow oak | 2.6              | 2.7        | .0                   | .0         | 5.4         |
| bald cypress/white tupelo      | 2.5              | .0         | .0                   | .0         | 2.5         |
| Oak/gum/cypress group          | 5.1              | 2.7        | .0                   | .0         | 7.9         |
| Black ash/Amer. elm/red maple  | 4.7              | .0         | .0                   | .0         | 4.7         |
| Red maple(upland)              | 2.5              | .0         | .0                   | .0         | 2.5         |
| Sycamore/pecan/American elm    | .0               | .0         | 2.6                  | .0         | 2.6         |
| American elm/green ash         | .0               | 2.6        | 2.6                  | .0         | 5.2         |
| Elm/ash/red maple group        | 7.2              | 2.6        | 5.2                  | .0         | 15.1        |
| Red maple/northern hardwoods   | .0               | .0         | 2.5                  | .0         | 2.5         |
| Northern hardwoods group       | .0               | .0         | 2.5                  | .0         | 2.5         |
| All forest types               | 207.4            | 96.1       | 77.1                 | .0         | 380.6       |



Table 64.--Area of timberland by forest type, forest-type group, and stand-size class, Southern Unit, 1986

(In thousands of acres)

| Forest type                       | Stand-size class |            |                      |            | All classes |
|-----------------------------------|------------------|------------|----------------------|------------|-------------|
|                                   | Sawtimber        | Poletimber | Sapling and seedling | Nonstocked |             |
| Loblolly pine                     | 22.6             | .8         | .0                   | .0         | 23.4        |
| Virginia pine                     | 30.5             | 3.7        | 9.1                  | .0         | 43.3        |
| Loblolly/shortleaf group          | 53.1             | 4.5        | 9.1                  | .0         | 66.7        |
| Virginia pine/oak                 | 29.3             | 2.9        | .0                   | .0         | 32.2        |
| Loblolly pine/hardwood            | 12.6             | .0         | 1.4                  | .0         | 14.0        |
| Other oak/pine                    | .0               | 4.7        | .0                   | .0         | 4.7         |
| Oak/pine group                    | 41.9             | 7.6        | 1.4                  | .0         | 50.9        |
| White oak/red oak/hickory         | 2.6              | .0         | .0                   | .0         | 2.6         |
| White oak                         | 5.8              | .0         | .0                   | .0         | 5.8         |
| Y. poplar/wh. oak/no. red oak     | 11.6             | .0         | .0                   | .0         | 11.6        |
| Sweetgum/yellow-poplar            | 26.0             | 3.1        | 4.6                  | .0         | 33.8        |
| Yellow-poplar                     | 15.7             | .0         | 3.8                  | .0         | 19.5        |
| Scarlet oak                       | 6.1              | .0         | 4.1                  | .0         | 10.1        |
| Mixed central hardwoods           | 123.6            | 15.3       | 1.7                  | .0         | 140.6       |
| Oak/hickory group                 | 191.4            | 18.4       | 14.2                 | .0         | 224.1       |
| Swamp chestnut oak/cherrybark oak | 5.1              | .0         | .0                   | .0         | 5.1         |
| Sweetgum/nuttall oak/willow oak   | 14.2             | 7.5        | .0                   | .0         | 21.7        |
| Oak/gum/cypress group             | 19.3             | 7.5        | .0                   | .0         | 26.8        |
| Black ash/Amer. elm/red maple     | 5.7              | .0         | .0                   | .0         | 5.7         |
| American elm/green ash            | 3.7              | .0         | .0                   | .0         | 3.7         |
| Elm/ash/red maple group           | 9.4              | .0         | .0                   | .0         | 9.4         |
| All forest types                  | 315.1            | 38.1       | 24.7                 | .0         | 377.9       |

Table 65.--Number of growing-stock trees on timberland by species and diameter class, Southern Unit, 1986

| Species                   | (In thousands of trees)                  |               |               |               |               |               |               |               |               |               |               |            |                |  |  |  | All classes |
|---------------------------|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|------------|----------------|--|--|--|-------------|
|                           | Diameter class (inches at breast height) |               |               |               |               |               |               |               |               |               |               |            |                |  |  |  |             |
|                           | 1.0-<br>2.9                              | 3.0-<br>4.9   | 5.0-<br>6.9   | 7.0-<br>8.9   | 9.0-<br>10.9  | 11.0-<br>12.9 | 13.0-<br>14.9 | 15.0-<br>16.9 | 17.0-<br>18.9 | 19.0-<br>20.9 | 21.0-<br>28.9 | 29.0+      |                |  |  |  |             |
| Loblolly pine             | 1,268                                    | 770           | 1,742         | 1,156         | 1,122         | 785           | 488           | 168           | 140           | 26            | 29            | 0          | 7,693          |  |  |  |             |
| Virginia pine             | 5,702                                    | 2,961         | 2,873         | 2,945         | 2,215         | 1,339         | 610           | 134           | 20            | 0             | 5             | 0          | 18,803         |  |  |  |             |
| Other yellow pines        | 0  | 0             | 233           | 94            | 6             | 0             | 0             | 0             | 0             | 0             | 0             | 0          | 333            |  |  |  |             |
| Other softwoods           | 0  | 0             | 134           | 88            | 31            | 27            | 0             | 0             | 0             | 0             | 0             | 3          | 284            |  |  |  |             |
| <b>Total softwoods</b>    | <b>6,970</b>                             | <b>3,730</b>  | <b>4,983</b>  | <b>4,283</b>  | <b>3,373</b>  | <b>2,152</b>  | <b>1,098</b>  | <b>302</b>    | <b>159</b>    | <b>26</b>     | <b>34</b>     | <b>3</b>   | <b>27,114</b>  |  |  |  |             |
| Red maple                 | 19,891                                   | 7,954         | 2,778         | 1,069         | 782           | 672           | 317           | 180           | 133           | 26            | 68            | 7          | 33,879         |  |  |  |             |
| Hickory                   | 3,343                                    | 636           | 232           | 287           | 408           | 232           | 161           | 85            | 27            | 33            | 18            | 6          | 5,468          |  |  |  |             |
| Beech                     | 7,789                                    | 2,598         | 1,187         | 423           | 374           | 375           | 301           | 239           | 109           | 71            | 85            | 11         | 13,562         |  |  |  |             |
| Sweetgum                  | 19,700                                   | 6,214         | 3,571         | 2,248         | 1,540         | 887           | 512           | 347           | 171           | 55            | 93            | 0          | 35,340         |  |  |  |             |
| Yellow-poplar             | 1,804                                    | 541           | 1,320         | 953           | 774           | 520           | 576           | 307           | 285           | 179           | 274           | 30         | 7,564          |  |  |  |             |
| Blackgum                  | 8,447                                    | 2,764         | 1,032         | 312           | 220           | 94            | 123           | 99            | 27            | 0             | 21            | 0          | 13,141         |  |  |  |             |
| Ash-walnut-cherry         | 582                                      | 702           | 517           | 222           | 221           | 61            | 144           | 78            | 31            | 6             | 13            | 0          | 2,576          |  |  |  |             |
| Select white oaks         | 3,139                                    | 759           | 895           | 892           | 780           | 551           | 537           | 175           | 144           | 61            | 112           | 15         | 8,061          |  |  |  |             |
| Select red oaks           | 2,005                                    | 490           | 125           | 200           | 88            | 44            | 47            | 44            | 23            | 34            | 28            | 2          | 3,132          |  |  |  |             |
| Other white oaks          | 369                                      | 739           | 628           | 195           | 135           | 42            | 58            | 43            | 37            | 29            | 17            | 2          | 2,295          |  |  |  |             |
| Other red oaks            | 4,662                                    | 3,422         | 2,353         | 813           | 947           | 663           | 686           | 359           | 207           | 148           | 92            | 46         | 14,399         |  |  |  |             |
| Black locust              | 0  | 0             | 7             | 167           | 0             | 26            | 42            | 0             | 0             | 0             | 0             | 0          | 242            |  |  |  |             |
| Other hardwoods           | 29,037                                   | 9,549         | 1,751         | 798           | 584           | 145           | 107           | 121           | 61            | 9             | 51            | 0          | 42,213         |  |  |  |             |
| <b>Total hardwoods</b>    | <b>100,768</b>                           | <b>36,368</b> | <b>16,398</b> | <b>8,581</b>  | <b>6,853</b>  | <b>4,313</b>  | <b>3,611</b>  | <b>2,078</b>  | <b>1,257</b>  | <b>651</b>    | <b>872</b>    | <b>120</b> | <b>181,872</b> |  |  |  |             |
| <b>Total, all species</b> | <b>107,738</b>                           | <b>40,098</b> | <b>21,381</b> | <b>12,864</b> | <b>10,227</b> | <b>6,465</b>  | <b>4,709</b>  | <b>2,380</b>  | <b>1,416</b>  | <b>677</b>    | <b>907</b>    | <b>123</b> | <b>208,986</b> |  |  |  |             |

Table 66.--Net green weight of all live trees on timberland by species and diameter class, Southern Unit, Maryland, 1986

(In thousands of tons)

| Species                         | Diameter class (inches at breast height) |                |                |                |                |                |                |                |                |                | All classes     |
|---------------------------------|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|
|                                 | 1.0-4.9                                  | 5.0-6.9        | 7.0-8.9        | 9.0-10.9       | 11.0-12.9      | 13.0-14.9      | 15.0-16.9      | 17.0-18.9      | 19.0-20.9      | 21.0+          |                 |
| Loblolly pine                   | 44.1                                     | 240.3          | 312.3          | 481.0          | 541.0          | 473.4          | 237.0          | 242.6          | 60.4           | 103.3          | 2,735.5         |
| Virginia pine                   | 200.8                                    | 373.3          | 805.9          | 1,049.1        | 921.8          | 602.3          | 178.0          | 35.7           | .0             | 15.1           | 4,182.2         |
| Other yellow pines              | .0                                       | 21.8           | 25.1           | 4.6            | .0             | .0             | .0             | .0             | .0             | .0             | 51.5            |
| Other softwoods                 | .0                                       | 17.2           | 23.9           | 48.6           | 43.4           | .0             | .0             | .0             | .0             | 40.8           | 173.9           |
| <b>Total softwoods</b>          | <b>244.8</b>                             | <b>652.7</b>   | <b>1,167.2</b> | <b>1,583.3</b> | <b>1,506.2</b> | <b>1,075.8</b> | <b>415.0</b>   | <b>278.3</b>   | <b>60.4</b>    | <b>159.3</b>   | <b>7,143.1</b>  |
| Red maple                       | 749.1                                    | 433.8          | 323.3          | 409.1          | 517.8          | 381.4          | 273.5          | 303.4          | 65.6           | 436.9          | 3,893.9         |
| Hickory                         | 63.4                                     | 37.4           | 87.2           | 252.3          | 226.5          | 237.4          | 179.9          | 78.0           | 130.0          | 176.9          | 1,469.1         |
| Beech                           | 231.8                                    | 268.6          | 188.8          | 272.5          | 435.7          | 433.7          | 471.7          | 313.9          | 225.9          | 595.4          | 3,438.0         |
| Sweetgum                        | 565.2                                    | 548.5          | 685.7          | 776.1          | 696.4          | 576.0          | 515.1          | 351.1          | 144.7          | 352.6          | 5,211.1         |
| Yellow-poplar                   | 33.6                                     | 188.4          | 264.0          | 379.2          | 395.1          | 697.1          | 461.6          | 567.6          | 466.8          | 1,484.9        | 4,938.4         |
| Blackgum                        | 306.7                                    | 181.8          | 146.3          | 171.3          | 99.2           | 252.9          | 228.0          | 61.3           | .0             | 133.4          | 1,580.9         |
| Ash-walnut-cherry               | 40.4                                     | 97.1           | 81.1           | 126.1          | 54.5           | 175.6          | 124.5          | 62.4           | 18.6           | 43.4           | 823.6           |
| Select white oaks               | 24.0                                     | 137.6          | 297.2          | 482.7          | 500.7          | 764.2          | 349.5          | 386.7          | 213.4          | 982.8          | 4,138.8         |
| Select red oaks                 | 38.5                                     | 20.2           | 73.7           | 53.4           | 42.8           | 71.0           | 103.4          | 106.4          | 138.3          | 253.9          | 901.4           |
| Other white oaks                | 70.3                                     | 83.3           | 67.2           | 75.0           | 35.5           | 92.4           | 88.8           | 101.9          | 98.6           | 121.3          | 834.3           |
| Other red oaks                  | 243.9                                    | 397.7          | 308.7          | 579.2          | 639.1          | 954.2          | 706.8          | 532.3          | 488.2          | 955.6          | 5,805.8         |
| Black locust                    | .0                                       | 4.4            | 62.0           | 9.0            | 21.0           | 68.9           | .0             | .0             | .0             | .0             | 165.2           |
| Other commercial hardwoods      | 839.7                                    | 271.6          | 256.6          | 342.6          | 139.6          | 160.3          | 211.9          | 147.8          | 21.7           | 209.1          | 2,600.9         |
| <b>Non-commercial hardwoods</b> | <b>279.3</b>                             | <b>165.9</b>   | <b>192.7</b>   | <b>92.7</b>    | <b>29.2</b>    | <b>.0</b>      | <b>41.5</b>    | <b>22.2</b>    | <b>.0</b>      | <b>.0</b>      | <b>823.4</b>    |
| <b>Total hardwoods</b>          | <b>3,486.0</b>                           | <b>2,836.4</b> | <b>3,034.4</b> | <b>4,021.3</b> | <b>3,833.0</b> | <b>4,864.9</b> | <b>3,756.0</b> | <b>3,034.8</b> | <b>2,011.7</b> | <b>5,746.2</b> | <b>36,624.8</b> |
| <b>Total, all species</b>       | <b>3,730.8</b>                           | <b>3,489.1</b> | <b>4,201.6</b> | <b>5,604.7</b> | <b>5,339.3</b> | <b>5,940.7</b> | <b>4,171.0</b> | <b>3,313.1</b> | <b>2,072.2</b> | <b>5,905.5</b> | <b>43,767.9</b> |

Table 67.--Net green weight of all trees on timberland by class of material and species group, Southern Unit, Maryland, 1986

(In thousands of tons)

| Class of material                | Weight <sup>a</sup> |           | All groups |
|----------------------------------|---------------------|-----------|------------|
|                                  | Softwoods           | Hardwoods |            |
| Sawlog portion                   | 3,286.6             | 13,927.0  | 17,213.6   |
| Upper stem                       | 467.5               | 3,029.2   | 3,496.7    |
| Total                            | 3,754.1             | 16,956.2  | 20,710.3   |
| Poletimber trees                 | 1,222.4             | 6,467.8   | 7,690.2    |
| All growing stock                | 4,976.5             | 23,424.0  | 28,400.5   |
| Rough cull trees <sup>b</sup>    | 76.6                | 1,053.7   | 1,130.3    |
| Rotten cull trees <sup>b</sup>   | 2.0                 | 208.9     | 210.9      |
| Salvable dead trees <sup>c</sup> | 101.0               | 608.9     | 709.9      |
| Saplings <sup>c</sup>            | 244.8               | 3,486.0   | 3,730.8    |
| Tops - growing stock             | 1,818.0             | 8,000.8   | 9,818.9    |
| Tops - rough and rotten          | 25.1                | 451.5     | 476.6      |
| All nongrowing stock             | 2,267.6             | 13,809.8  | 16,077.4   |
| Total, all classes               | 7,244.1             | 37,233.7  | 44,477.8   |

<sup>a</sup> Includes bark and sound cull; excludes rotten cull.

<sup>b</sup> Bole portion of trees 5.0 inches d.b.h. and larger.

<sup>c</sup> Weight of entire tree aboveground.

# MAJOR SPECIES BY VOLUME, SOUTHERN UNIT, 1976 AND 1986

Millions of board feet

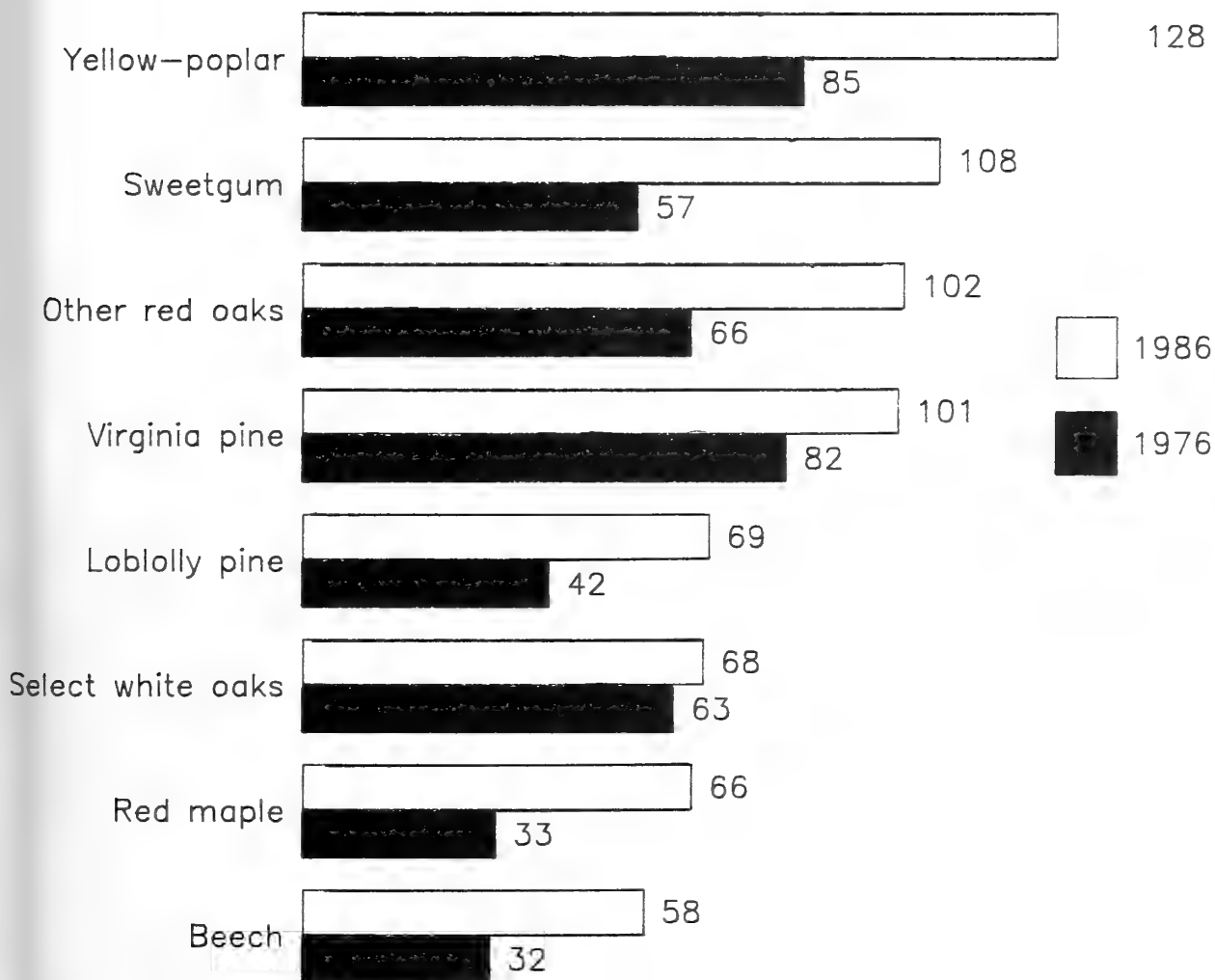


Table 68.--Net volume of growing-stock trees on timberland by species and diameter class, Southern Unit, 1976

| Species                  | (In millions of cubic feet) |             |             |             |             |             |             |             |             |            | All classes  |
|--------------------------|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|--------------|
|                          | 5.0-6.9                     | 7.0-8.9     | 9.0-10.9    | 11.0-12.9   | 13.0-14.9   | 15.0-16.9   | 17.0-18.9   | 19.0-20.9   | 21.0-28.9   | 29.0+      |              |
| Loblolly pine            | 4.4                         | 7.5         | 6.3         | 8.6         | 7.6         | 4.9         | 1.2         | .3          | .7          | .0         | 41.5         |
| Virginia pine            | 15.2                        | 23.1        | 19.3        | 14.4        | 5.1         | 4.0         | .5          | .5          | .0          | .0         | 82.1         |
| Other yellow pines       | .0                          | .0          | .0          | .2          | .0          | .0          | .0          | .0          | .0          | .0         | .2           |
| Other softwoods          | .8                          | .8          | .2          | .0          | .0          | .0          | .0          | .0          | .8          | .7         | 3.3          |
| <b>Total softwoods</b>   | <b>20.4</b>                 | <b>31.5</b> | <b>25.8</b> | <b>23.2</b> | <b>12.7</b> | <b>8.9</b>  | <b>1.7</b>  | <b>.7</b>   | <b>1.5</b>  | <b>.7</b>  | <b>127.0</b> |
| Red maple                | 2.6                         | 3.9         | 5.1         | 3.6         | 6.0         | 3.5         | 3.5         | 1.8         | 2.2         | .6         | 32.9         |
| Sugar maple              | .3                          | .0          | .0          | .0          | .0          | .0          | .0          | .0          | .0          | .0         | .3           |
| Hickory                  | .5                          | 1.6         | 2.2         | 4.2         | 1.6         | 2.9         | 1.7         | 1.8         | 1.7         | .7         | 18.9         |
| Beech                    | 1.1                         | 1.9         | 3.6         | 4.2         | 4.7         | 2.9         | 4.5         | 4.2         | 4.6         | .7         | 32.3         |
| Sweetgum                 | 4.9                         | 6.7         | 9.2         | 11.4        | 7.4         | 7.5         | 3.0         | 2.1         | 4.4         | .0         | 56.6         |
| Yellow-poplar            | 3.5                         | 7.5         | 10.0        | 15.7        | 9.1         | 8.2         | 10.1        | 7.2         | 10.1        | 3.2        | 84.7         |
| Blackgum                 | .5                          | 2.4         | 2.3         | 2.4         | .7          | 1.0         | 1.6         | .2          | .6          | .0         | 11.9         |
| Ash-walnut-cherry        | 1.4                         | 1.8         | 5.7         | 3.8         | 3.5         | 3.1         | 1.5         | .0          | .0          | .0         | 20.8         |
| Select white oaks        | 3.5                         | 5.3         | 7.9         | 7.4         | 8.6         | 7.0         | 6.2         | 6.0         | 8.2         | 2.6        | 62.6         |
| Select red oaks          | .1                          | .2          | .9          | .9          | 1.3         | 1.2         | 1.7         | .9          | 1.4         | .0         | 8.7          |
| Other white oaks         | .5                          | 1.5         | 1.2         | 1.8         | 1.4         | 1.4         | 1.9         | 1.8         | 1.4         | .0         | 12.9         |
| Other red oaks           | 4.1                         | 6.0         | 6.2         | 12.1        | 10.5        | 8.5         | 7.5         | 3.8         | 7.0         | .6         | 66.4         |
| Black locust             | .5                          | .3          | 1.5         | 1.3         | .7          | .0          | .2          | .3          | .0          | .0         | 4.8          |
| Other hardwoods          | 1.6                         | 3.3         | 3.2         | 3.6         | 1.8         | 1.5         | 1.4         | 1.2         | 1.3         | .3         | 19.0         |
| <b>Total hardwoods</b>   | <b>25.2</b>                 | <b>42.5</b> | <b>59.1</b> | <b>72.5</b> | <b>57.3</b> | <b>48.8</b> | <b>44.6</b> | <b>31.3</b> | <b>42.8</b> | <b>8.7</b> | <b>432.9</b> |
| <b>Total all species</b> | <b>45.7</b>                 | <b>73.9</b> | <b>85.0</b> | <b>95.7</b> | <b>70.0</b> | <b>57.7</b> | <b>46.3</b> | <b>32.0</b> | <b>44.3</b> | <b>9.3</b> | <b>559.9</b> |

Table 69.--Net volume of growing-stock trees on timberland by species and diameter class, Southern Unit, 1986

(In millions of cubic feet)

| Species                   | Diameter class (inches at breast height) |             |              |              |              |             |             |             |             |             | All classes  |
|---------------------------|--|-------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|--------------|
|                           | 5.0-6.9                                  | 7.0-8.9     | 9.0-10.9     | 11.0-12.9    | 13.0-14.9    | 15.0-16.9   | 17.0-18.9   | 19.0-20.9   | 21.0-28.9   | 29.0+       |              |
| Loblolly pine             | 5.7                                      | 8.1         | 12.8         | 14.3         | 12.4         | 6.1         | 5.7         | 1.5         | 2.3         | .0          | 68.9         |
| Virginia pine             | 8.9                                      | 20.7        | 26.8         | 23.6         | 15.1         | 4.3         | .7          | .0          | .3          | .0          | 100.6        |
| Other yellow pines        | .5                                       | .7          | .1           | .0           | .0           | .0          | .0          | .0          | .0          | .0          | 1.2          |
| Other softwoods           | .3                                       | .5          | .4           | .2           | .0           | .0          | .0          | .0          | .0          | .4          | 1.8          |
| <b>Total softwoods</b>    | <b>15.4</b>                              | <b>30.0</b> | <b>40.1</b>  | <b>38.1</b>  | <b>27.4</b>  | <b>10.5</b> | <b>6.4</b>  | <b>1.5</b>  | <b>2.7</b>  | <b>.4</b>   | <b>172.5</b> |
| Red maple                 | 6.8                                      | 6.7         | 9.4          | 12.7         | 8.4          | 6.5         | 6.4         | 1.7         | 6.1         | 1.1         | 65.9         |
| Hickory                   | .7                                       | 1.7         | 5.3          | 4.7          | 4.8          | 3.4         | 1.5         | 2.3         | 1.4         | 1.1         | 27.0         |
| Beech                     | 2.8                                      | 2.7         | 5.0          | 7.9          | 8.7          | 9.8         | 6.0         | 4.8         | 8.3         | 1.9         | 57.9         |
| Sweetgum                  | 10.1                                     | 15.3        | 18.9         | 17.4         | 13.9         | 12.6        | 8.1         | 3.7         | 8.0         | .0          | 108.1        |
| Yellow-poplar             | 3.9                                      | 6.9         | 10.8         | 11.1         | 18.5         | 13.0        | 15.5        | 12.2        | 28.7        | 6.8         | 127.5        |
| Blackgum                  | 2.9                                      | 1.9         | 2.7          | 1.8          | 3.4          | 3.7         | 1.3         | .0          | 2.0         | .0          | 19.5         |
| Ash-walnut-cherry         | 1.6                                      | 1.5         | 2.8          | 1.3          | 4.0          | 3.2         | 1.4         | .4          | 1.1         | .0          | 17.3         |
| Select white oaks         | 2.1                                      | 5.7         | 9.0          | 9.5          | 13.5         | 6.1         | 6.4         | 3.6         | 9.6         | 2.6         | 68.0         |
| Select red oaks           | .3                                       | 1.4         | .9           | .8           | 1.2          | 1.7         | 1.2         | 2.2         | 2.8         | .4          | 13.0         |
| Other white oaks          | 1.1                                      | 1.2         | 1.3          | .6           | 1.6          | 1.3         | 1.6         | 1.4         | 1.2         | .5          | 11.9         |
| Other red oaks            | 6.2                                      | 5.3         | 11.2         | 12.5         | 18.4         | 13.4        | 9.9         | 9.1         | 8.2         | 7.3         | 101.6        |
| Black locust              | .0                                       | 1.2         | .0           | .5           | 1.1          | .0          | .0          | .0          | .0          | .0          | 2.8          |
| Other hardwoods           | 4.2                                      | 4.7         | 6.5          | 2.6          | 2.9          | 4.2         | 2.7         | .5          | 4.2         | .0          | 32.5         |
| <b>Total hardwoods</b>    | <b>42.8</b>                              | <b>56.3</b> | <b>83.9</b>  | <b>83.4</b>  | <b>100.4</b> | <b>79.0</b> | <b>62.0</b> | <b>41.8</b> | <b>81.6</b> | <b>21.7</b> | <b>652.9</b> |
| <b>Total, all species</b> | <b>58.2</b>                              | <b>86.3</b> | <b>124.0</b> | <b>121.5</b> | <b>127.8</b> | <b>89.5</b> | <b>68.4</b> | <b>43.3</b> | <b>84.2</b> | <b>22.1</b> | <b>825.4</b> |

Table 70.--Net volume of sawtimber trees on timberland by species and diameter class, Southern Unit, 1976

(In millions of board feet)<sup>a</sup>

| Species                  | Diameter class (inches at breast height) |               |               |               |               |               |               |             | All classes    |
|--------------------------|--|---------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
|                          | 9.0-<br>10.9                             | 11.0-<br>12.9 | 13.0-<br>14.9 | 15.0-<br>16.9 | 17.0-<br>18.9 | 19.0-<br>20.9 | 21.0-<br>28.9 | 29.0+       |                |
|                          | Loblolly pine                            | 18.7          | 29.6          | 29.2          | 20.2          | 5.1           | 1.3           | 2.8         |                |
| Virginia pine            | 57.0                                     | 50.9          | 18.9          | 15.8          | 1.9           | 2.0           | .0            | .0          | 146.5          |
| Other yellow pines       | .0                                       | .8            | .0            | .0            | .0            | .0            | .0            | .0          | .8             |
| Other softwoods          | .5                                       | .0            | .0            | .0            | .0            | .0            | 3.2           | 2.7         | 6.4            |
| <b>Total softwoods</b>   | <b>76.1</b>                              | <b>81.3</b>   | <b>48.1</b>   | <b>36.0</b>   | <b>7.0</b>    | <b>3.3</b>    | <b>6.0</b>    | <b>2.7</b>  | <b>260.5</b>   |
| Red maple                | .0                                       | 11.0          | 20.9          | 13.8          | 13.0          | 7.3           | 9.4           | 2.9         | 78.4           |
| Hickory                  | .0                                       | 13.6          | 6.2           | 11.9          | 6.9           | 8.1           | 7.8           | 3.3         | 57.8           |
| Beech                    | .0                                       | 13.7          | 16.7          | 10.8          | 16.2          | 16.8          | 20.1          | 3.0         | 97.4           |
| Sweetgum                 | .0                                       | 36.6          | 26.6          | 29.7          | 13.0          | 9.3           | 19.3          | .0          | 134.5          |
| Yellow-poplar            | .0                                       | 52.5          | 33.6          | 33.6          | 43.6          | 31.1          | 47.7          | 17.0        | 259.2          |
| Blackgum                 | .0                                       | 6.2           | 2.6           | 3.5           | 6.0           | .7            | 2.4           | .0          | 21.5           |
| Ash-walnut-cherry        | .0                                       | 12.3          | 12.8          | 11.7          | 5.8           | .0            | .0            | .0          | 42.6           |
| Select white oaks        | .0                                       | 24.2          | 31.5          | 28.4          | 25.5          | 24.2          | 33.9          | 11.4        | 179.0          |
| Select red oaks          | .0                                       | 2.9           | 4.4           | 4.0           | 6.5           | 3.8           | 5.7           | .0          | 27.4           |
| Other white oaks         | .0                                       | 4.9           | 4.8           | 5.3           | 6.9           | 6.5           | 6.5           | .0          | 34.8           |
| Other red oaks           | .0                                       | 35.8          | 37.0          | 32.9          | 28.3          | 15.9          | 29.8          | 2.5         | 182.2          |
| Black locust             | .0                                       | 4.1           | 2.4           | .0            | 1.0           | 1.2           | .0            | .0          | 8.8            |
| Other hardwoods          | .0                                       | 11.4          | 6.6           | 5.2           | 5.7           | 5.3           | 5.8           | 1.2         | 41.1           |
| <b>Total hardwoods</b>   | <b>.0</b>                                | <b>229.2</b>  | <b>206.1</b>  | <b>191.0</b>  | <b>178.3</b>  | <b>130.2</b>  | <b>188.4</b>  | <b>41.4</b> | <b>1,164.7</b> |
| <b>Total all species</b> | <b>76.1</b>                              | <b>310.5</b>  | <b>254.2</b>  | <b>227.0</b>  | <b>185.3</b>  | <b>133.6</b>  | <b>194.4</b>  | <b>44.1</b> | <b>1,425.2</b> |

<sup>a</sup>International 1/4-inch rule.



Table 71.--Net volume of sawtimber trees on timberland by species and diameter class, Southern Unit, 1986

(In millions of board feet)<sup>a</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    | 21.0-28.9    | 29.0+        |                |
| Loblolly pine             | 39.8                                     | 54.4         | 51.3         | 27.3         | 26.6         | 7.1          | 11.5         | .0           | 218.1          |
| Virginia pine             | 86.8                                     | 89.7         | 61.9         | 18.7         | 3.4          | .0           | 1.6          | .0           | 262.1          |
| Other yellow pines        | .3                                       | .0           | .0           | .0           | .0           | .0           | .0           | .0           | .3             |
| Other softwoods           | 1.4                                      | .5           | .0           | .0           | .0           | .0           | .0           | 2.1          | 3.9            |
| <b>Total softwoods</b>    | <b>128.3</b>                             | <b>144.6</b> | <b>113.2</b> | <b>46.0</b>  | <b>30.0</b>  | <b>7.1</b>   | <b>13.1</b>  | <b>2.1</b>   | <b>484.5</b>   |
| Red maple                 | .0                                       | 38.6         | 31.7         | 25.2         | 28.0         | 6.4          | 27.0         | 6.2          | 163.1          |
| Hickory                   | .0                                       | 16.3         | 19.5         | 15.5         | 7.6          | 11.2         | 7.1          | 6.8          | 84.2           |
| Beech                     | .0                                       | 27.9         | 34.1         | 43.3         | 26.8         | 21.0         | 41.5         | 10.6         | 205.2          |
| Sweetgum                  | .0                                       | 57.0         | 53.9         | 51.4         | 34.9         | 17.3         | 40.0         | .0           | 254.6          |
| Yellow-poplar             | .0                                       | 40.7         | 77.4         | 57.1         | 71.9         | 59.2         | 154.3        | 43.3         | 504.0          |
| Blackgum                  | .0                                       | 5.7          | 12.9         | 15.2         | 5.5          | .0           | 10.0         | .0           | 49.3           |
| Ash-walnut-cherry         | .0                                       | 4.5          | 16.9         | 12.5         | 5.9          | 1.8          | 5.6          | .0           | 47.1           |
| Select white oaks         | .0                                       | 32.3         | 52.7         | 26.4         | 29.3         | 16.1         | 49.6         | 12.9         | 219.2          |
| Select red oaks           | .0                                       | 2.6          | 4.7          | 6.8          | 5.1          | 10.0         | 14.3         | 2.2          | 45.7           |
| Other white oaks          | .0                                       | 1.8          | 5.8          | 5.4          | 6.2          | 6.1          | 4.8          | 3.0          | 33.1           |
| Other red oaks            | .0                                       | 41.1         | 68.8         | 54.7         | 42.6         | 41.0         | 39.9         | 37.8         | 325.9          |
| Black locust              | .0                                       | 1.6          | 4.2          | .0           | .0           | .0           | .0           | .0           | 5.8            |
| Other hardwoods           | .0                                       | 8.6          | 11.1         | 17.9         | 12.1         | 2.4          | 20.6         | .0           | 72.7           |
| <b>Total hardwoods</b>    | <b>.0</b>                                | <b>278.6</b> | <b>393.8</b> | <b>331.5</b> | <b>276.0</b> | <b>192.4</b> | <b>414.8</b> | <b>122.9</b> | <b>2,010.0</b> |
| <b>Total, all species</b> | <b>128.3</b>                             | <b>423.2</b> | <b>507.0</b> | <b>377.5</b> | <b>306.0</b> | <b>199.6</b> | <b>427.9</b> | <b>124.9</b> | <b>2,494.4</b> |

<sup>a</sup> International 1/4-inch rule.

Table 72.--Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Southern Unit, 1976  
(In millions of board feet)<sup>a</sup>

| Species                           | All size classes |              |              |              | >15" Diameter at breast height |              |              |              | All grades   |              |
|-----------------------------------|------------------|--------------|--------------|--------------|--------------------------------|--------------|--------------|--------------|--------------|--------------|
|                                   | Grade 1          | Grade 2      | Grade 3      | Grade 4      | Grade 1                        | Grade 2      | Grade 3      | Grade 4      |              |              |
| Loblolly pine                     | 24.1             | 13.7         | 69.0         | .0           | 106.8                          | 7.9          | 2.5          | 19.0         | .0           | 29.4         |
| Virginia pine                     | 1.5              | 5.0          | 139.0        | .0           | 146.5                          | .0           | .9           | 18.8         | .0           | 19.7         |
| Other yellow pines                | .0               | .0           | .8           | .0           | .8                             | .0           | .0           | .0           | .0           | .0           |
| Other softwoods                   | 4.6              | .3           | 1.5          | .0           | 6.4                            | 4.1          | .3           | 1.5          | .0           | 5.9          |
| <b>Total softwoods</b>            | <b>30.2</b>      | <b>19.0</b>  | <b>211.3</b> | <b>.0</b>    | <b>260.5</b>                   | <b>12.0</b>  | <b>3.6</b>   | <b>39.4</b>  | <b>.0</b>    | <b>55.0</b>  |
| Red maple                         | 4.6              | 16.3         | 46.3         | 11.1         | 78.4                           | 4.6          | 12.2         | 24.3         | 5.3          | 46.4         |
| Hickory                           | 3.7              | 14.8         | 25.7         | 13.6         | 57.8                           | 3.3          | 11.1         | 14.2         | 9.4          | 38.0         |
| Beech                             | .2               | .9           | 55.2         | 41.1         | 97.4                           | .1           | .9           | 36.5         | 29.5         | 67.0         |
| Sweetgum                          | 12.8             | 25.8         | 53.9         | 41.9         | 134.5                          | 12.8         | 17.1         | 21.2         | 20.1         | 71.2         |
| Yellow-poplar                     | 34.0             | 57.8         | 104.9        | 62.5         | 259.2                          | 33.3         | 45.7         | 59.8         | 34.1         | 172.9        |
| Blackgum                          | 4.2              | 2.7          | 11.7         | 2.9          | 21.5                           | 4.2          | 2.0          | 4.9          | 1.6          | 12.7         |
| Ash-walnut-cherry                 | 4.0              | 16.9         | 15.9         | 5.8          | 42.6                           | 4.0          | 7.7          | 4.4          | 1.4          | 17.5         |
| Select white oaks                 | 22.5             | 40.0         | 74.9         | 41.7         | 179.0                          | 22.5         | 32.1         | 43.2         | 25.5         | 123.3        |
| Select red oaks                   | 2.7              | 7.6          | 12.9         | 4.2          | 27.4                           | 2.7          | 5.7          | 8.1          | 3.5          | 20.0         |
| Other white oaks                  | 5.1              | 7.0          | 14.4         | 8.2          | 34.8                           | 5.1          | 5.7          | 8.4          | 5.9          | 25.1         |
| Other red oaks                    | 14.1             | 38.0         | 79.6         | 50.5         | 182.2                          | 13.7         | 30.1         | 42.2         | 23.4         | 109.4        |
| Black locust                      | .6               | 1.0          | 6.1          | 1.0          | 8.8                            | .6           | 1.0          | .5           | .1           | 2.2          |
| Other hardwoods                   | 6.3              | 10.3         | 20.7         | 3.8          | 41.1                           | 6.3          | 6.5          | 9.0          | 1.3          | 23.1         |
| <b>Total hardwoods</b>            | <b>114.9</b>     | <b>239.1</b> | <b>522.3</b> | <b>288.4</b> | <b>1,164.7</b>                 | <b>113.2</b> | <b>177.8</b> | <b>276.7</b> | <b>161.1</b> | <b>728.8</b> |
| Percent of hardwood in each grade | 10               | 20           | 45           | 25           | 100                            | 16           | 24           | 38           | 22           | 100          |

<sup>a</sup> International 1/4-inch rule.

Table 73.--Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Southern Unit, 1986  
(In millions of board feet)<sup>a</sup>

| Species                              | All size classes |              |              |              | >15" Diameter at breast height |              |              |              | All grades   |                |
|--------------------------------------|------------------|--------------|--------------|--------------|--------------------------------|--------------|--------------|--------------|--------------|----------------|
|                                      | Grade 1          | Grade 2      | Grade 3      | Grade 4      | Grade 1                        | Grade 2      | Grade 3      | Grade 4      |              |                |
| Loblolly pine                        | 22.7             | 54.1         | 141.2        | .0           | 218.1                          | 7.4          | 15.6         | 49.6         | .0           | 72.6           |
| Virginia pine                        | 3.0              | 14.4         | 244.7        | .0           | 262.1                          | .0           | 1.4          | 22.3         | .0           | 23.7           |
| Other yellow pines                   | .0               | .2           | .2           | .0           | .3                             | .0           | .0           | .0           | .0           | .0             |
| Other softwoods                      | 2.7              | .1           | 1.0          | .1           | 3.9                            | 1.1          | .1           | .8           | .0           | 2.1            |
| <b>Total softwoods</b>               | <b>28.5</b>      | <b>68.9</b>  | <b>387.1</b> | <b>.1</b>    | <b>484.5</b>                   | <b>8.5</b>   | <b>17.1</b>  | <b>72.8</b>  | <b>.0</b>    | <b>98.3</b>    |
| Red maple                            | .0               | 3.6          | 66.3         | 93.2         | 163.1                          | .0           | 3.6          | 35.1         | 54.2         | 92.8           |
| Hickory                              | .0               | 18.3         | 41.5         | 24.4         | 84.2                           | .0           | 14.2         | 20.9         | 13.3         | 48.3           |
| Beech                                | .2               | .0           | 57.0         | 148.0        | 205.2                          | .1           | .0           | 44.1         | 98.9         | 143.2          |
| Sweetgum                             | 13.6             | 47.7         | 102.2        | 91.1         | 254.6                          | 11.9         | 28.8         | 51.2         | 51.8         | 143.7          |
| Yellow-poplar                        | 73.9             | 123.3        | 216.0        | 90.9         | 504.0                          | 65.5         | 96.6         | 158.1        | 65.6         | 385.8          |
| Blackgum                             | .0               | 5.9          | 29.1         | 14.3         | 49.3                           | .0           | 2.0          | 19.0         | 9.7          | 30.7           |
| Ash-walnut-cherry                    | 2.4              | 9.3          | 28.7         | 6.6          | 47.1                           | .7           | 6.0          | 15.9         | 3.1          | 25.8           |
| Select white oaks                    | 8.3              | 22.5         | 96.5         | 91.9         | 219.2                          | 8.3          | 18.6         | 52.6         | 54.7         | 134.3          |
| Select red oaks                      | .7               | 7.5          | 29.8         | 7.7          | 45.7                           | .7           | 7.1          | 23.9         | 6.7          | 38.4           |
| Other white oaks                     | .0               | .0           | 14.9         | 18.2         | 33.1                           | .0           | .0           | 9.9          | 15.5         | 25.5           |
| Other red oaks                       | 10.2             | 52.7         | 132.9        | 130.1        | 325.9                          | 10.2         | 46.1         | 90.9         | 68.9         | 216.1          |
| Black locust                         | .0               | .0           | 4.1          | 1.7          | 5.8                            | .0           | .0           | .0           | .0           | .0             |
| Other hardwoods                      | 3.1              | 6.9          | 45.4         | 17.3         | 72.7                           | 3.1          | 6.9          | 29.9         | 13.1         | 53.0           |
| <b>Total hardwoods</b>               | <b>112.4</b>     | <b>297.9</b> | <b>864.2</b> | <b>735.5</b> | <b>2,010.0</b>                 | <b>100.5</b> | <b>230.1</b> | <b>551.5</b> | <b>455.5</b> | <b>1,337.6</b> |
| Percent of hardwood<br>in each grade | 5                | 15           | 43           | 37           | 100                            | 8            | 17           | 41           | 34           | 100            |

<sup>a</sup> International 1/4-inch rule.

Table 74.--Sampling errors for various tables, Southern Unit, 1976 and 1986

(In percent)

| Species and<br>diameter class | Number of           | Growing-stock  |      | Sawtimber      |      |
|-------------------------------|---------------------|----------------|------|----------------|------|
|                               | trees               | volume         |      | volume         |      |
|                               | (Table 65)<br>(5"+) | Tables<br>(68) | (69) | Tables<br>(70) | (71) |
| Loblolly pine                 | 32                  | 22             | 25   | 27             | 24   |
| Virginia pine                 | 17                  | 14             | 16   | 18             | 16   |
| Other yellow pines            | 95                  | 100            | 88   | 100            | 100  |
| Other softwoods               | 50                  | 49             | 41   | 69             | 62   |
| Total softwoods               | 16                  | 12             | 13   | 16             | 14   |
| Red maple                     | 14                  | 19             | 16   | 22             | 19   |
| Sugar maple                   | 0                   | 100            | 0    | 0              | 0    |
| Hickory                       | 24                  | 18             | 20   | 21             | 23   |
| Beech                         | 16                  | 19             | 16   | 22             | 17   |
| Sweetgum                      | 13                  | 13             | 13   | 16             | 15   |
| Yellow-poplar                 | 16                  | 14             | 14   | 16             | 16   |
| Blackgum                      | 19                  | 17             | 19   | 23             | 23   |
| Ash-walnut-cherry             | 40                  | 35             | 35   | 34             | 35   |
| Select white oaks             | 14                  | 13             | 14   | 16             | 16   |
| Select red oaks               | 28                  | 28             | 27   | 31             | 29   |
| Other white oaks              | 39                  | 30             | 32   | 34             | 35   |
| Other red oaks                | 13                  | 10             | 13   | 12             | 16   |
| Black locust                  | 52                  | 31             | 45   | 37             | 57   |
| Other hardwoods               | 23                  | 20             | 21   | 27             | 26   |
| Total hardwoods               | 5                   | 5              | 6    | 6              | 8    |
| Total, all species            | 5                   | 4              | 4    | 6              | 6    |
| D.B.H. class (inches)         |                     |                |      |                |      |
| 5.0 to 6.9                    | 8                   | 10             | 8    | -              | -    |
| 7.0 to 8.9                    | 9                   | 8              | 10   | -              | -    |
| 9.0 to 10.9                   | 8                   | 7              | 8    | 18             | 18   |
| 11.0 to 12.9                  | 7                   | 7              | 7    | 9              | 7    |
| 13.0 to 14.9                  | 7                   | 8              | 7    | 9              | 7    |
| 15.0 to 16.9                  | 8                   | 8              | 8    | 9              | 8    |
| 17.0 to 18.9                  | 11                  | 9              | 11   | 9              | 11   |
| 19.0 to 20.9                  | 13                  | 13             | 14   | 12             | 14   |
| 21.0 to 28.9                  | 14                  | 11             | 14   | 11             | 15   |
| 29 +                          | 27                  | 33             | 28   | 34             | 28   |

# LOWER EASTERN SHORE UNIT TABLES

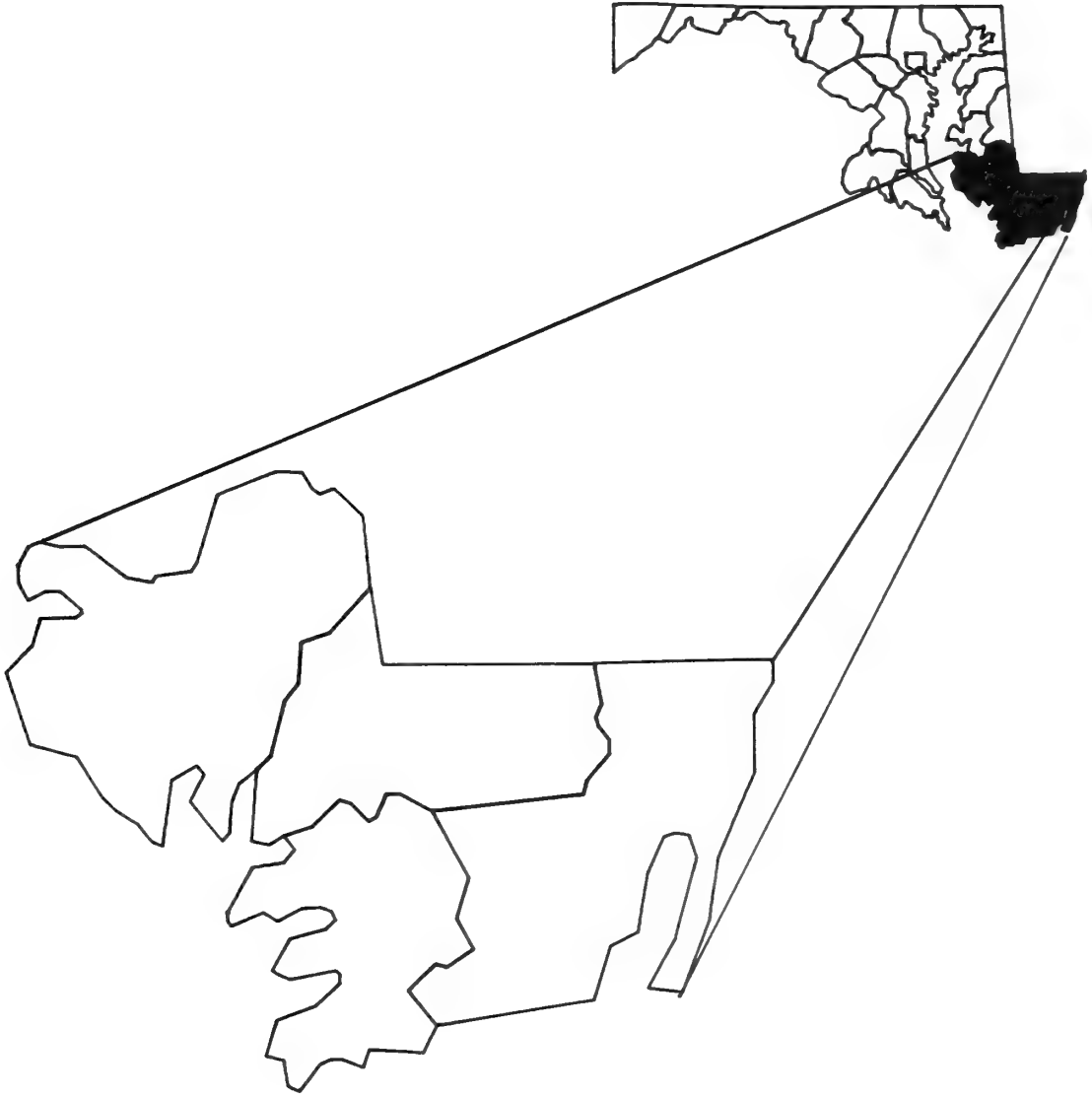


Table 75.--Area of timberland by forest type, forest-type group, and stand-size class, Lower Eastern Shore Unit, 1976

(In thousands of acres)

| Forest type                    | Stand-size class |            |                      |            | All classes |
|--------------------------------|------------------|------------|----------------------|------------|-------------|
|                                | Sawtimber        | Poletimber | Sapling and seedling | Nonstocked |             |
| Loblolly pine                  | 118.1            | 46.6       | 30.1                 | 2.9        | 197.8       |
| Loblolly/shortleaf group       | 118.1            | 46.6       | 30.1                 | 2.9        | 197.8       |
| Virginia pine/oak              | .0               | 3.0        | .0                   | .0         | 3.0         |
| Loblolly pine/hardwood         | 47.9             | 39.2       | 18.8                 | .0         | 105.9       |
| Oak/pine group                 | 47.9             | 42.2       | 18.8                 | .0         | 108.9       |
| White oak                      | 6.3              | 6.4        | 9.0                  | .0         | 21.7        |
| Sweetgum/yellow-poplar         | .0               | 6.2        | 3.2                  | .0         | 9.4         |
| Scarlet oak                    | .0               | 3.3        | .0                   | .0         | 3.3         |
| Red maple/central hardwoods    | 3.3              | .0         | .0                   | .0         | 3.3         |
| Mixed central hardwoods        | 53.3             | 34.4       | 15.8                 | .0         | 103.5       |
| Oak/hickory group              | 62.8             | 50.2       | 28.0                 | .0         | 141.1       |
| Swamp chstnt oak/cherrybrk oak | 13.3             | 2.9        | 2.7                  | .0         | 18.9        |
| Sweetgm/nuttall oak/willow oak | 6.3              | .0         | 2.9                  | .0         | 9.2         |
| bald cypress/white tupelo      | .0               | 3.2        | .0                   | .0         | 3.2         |
| Sweetbay/swamp tupelo/rd maple | 12.7             | 3.0        | 3.2                  | .0         | 18.9        |
| Oak/gum/cypress group          | 32.2             | 9.2        | 8.8                  | .0         | 50.2        |
| Black ash/Amer. elm/red maple  | 2.9              | 2.9        | 3.2                  | .0         | 9.1         |
| Red maple(lowland)             | 6.5              | 3.1        | .0                   | .0         | 9.6         |
| Elm/ash/red maple group        | 9.4              | 6.1        | 3.2                  | .0         | 18.7        |
| Black cherry                   | .0               | .0         | 2.8                  | .0         | 2.8         |
| Northern hardwoods group       | .0               | .0         | 2.8                  | .0         | 2.8         |
| All forest types               | 270.5            | 154.4      | 91.7                 | 2.9        | 519.5       |

Table 76.--Area of timberland by forest type, forest-type group, and stand-size class, Lower Eastern Shore Unit, 1986

(In thousands of acres)

| Forest type                     | Stand-size class |            |             |            | All classes |
|---------------------------------|------------------|------------|-------------|------------|-------------|
|                                 | Sawtimber        | Poletimber | Sapling and |            |             |
|                                 |                  |            | seedling    | Nonstocked |             |
| Loblolly pine                   | 82.3             | 40.5       | 17.5        | .0         | 140.2       |
| Virginia pine                   | .0               | .0         | 1.8         | .0         | 1.8         |
| Loblolly/shortleaf group        | 82.3             | 40.5       | 19.3        | .0         | 142.1       |
| Virginia pine/oak               | 3.5              | .0         | .0          | .0         | 3.5         |
| Loblolly pine/hardwood          | 78.1             | 14.4       | 23.3        | .0         | 115.8       |
| Oak/pine group                  | 81.6             | 14.4       | 23.3        | .0         | 119.3       |
| White oak/red oak/hickory       | .0               | 3.5        | 1.6         | .0         | 5.1         |
| White oak                       | 3.6              | 3.6        | .0          | .0         | 7.3         |
| Y. poplar/wh. oak/no. red oak   | 5.2              | .0         | .0          | .0         | 5.2         |
| Sweetgum/yellow-poplar          | 3.6              | 2.1        | 2.2         | .0         | 7.9         |
| Scarlet oak                     | 2.1              | .0         | .0          | .0         | 2.1         |
| Red maple/central hardwoods     | 14.0             | 4.1        | 4.2         | .0         | 22.3        |
| Mixed central hardwoods         | 62.5             | 20.5       | 2.9         | .0         | 85.8        |
| Oak/hickory group               | 91.0             | 33.8       | 10.9        | .0         | 135.7       |
| Swamp chstnt oak/cherrybark oak | 13.5             | 10.5       | .0          | .0         | 24.0        |
| Sweetgum/nuttall oak/willow oak | 17.3             | 6.5        | 10.0        | .0         | 33.8        |
| Bald cypress/white tupelo       | 3.0              | .0         | .0          | .0         | 3.0         |
| Sweetbay/swamp tupelo/red maple | 6.3              | 2.9        | 2.5         | .0         | 11.7        |
| Oak/gum/cypress group           | 40.1             | 19.9       | 12.5        | .0         | 72.6        |
| Black ash/Amer. elm/red maple   | 9.7              | .0         | .0          | .0         | 9.7         |
| Red maple(lowland)              | .0               | .0         | 2.2         | .0         | 2.2         |
| Red maple(upland)               | .0               | .0         | 3.8         | .0         | 3.8         |
| American elm/green ash          | 3.7              | .0         | .0          | .0         | 3.7         |
| Elm/ash/red maple group         | 13.4             | .0         | 6.0         | .0         | 19.3        |
| All forest types                | 308.5            | 108.6      | 72.0        | .0         | 489.0       |

Table 77.--Number of growing-stock trees on timberland by species and diameter class, Lower Eastern Shore Unit, 1986

| Species                   | (In thousands of trees) |               |               |               |               |              |              |              |              |            |            |           |                | All classes |
|---------------------------|-------------------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-----------|----------------|-------------|
|                           | 1.0-2.9                 | 3.0-4.9       | 5.0-6.9       | 7.0-8.9       | 9.0-10.9      | 11.0-12.9    | 13.0-14.9    | 15.0-16.9    | 17.0-18.9    | 19.0-20.9  | 21.0-28.9  | 29.0+     |                |             |
| Loblolly pine             | 27,562                  | 21,472        | 13,223        | 8,573         | 5,023         | 3,487        | 1,841        | 869          | 369          | 76         | 63         | 0         | 82,559         |             |
| Virginia pine             | 0                       | 720           | 164           | 140           | 140           | 106          | 49           | 36           | 0            | 0          | 0          | 0         | 1,356          |             |
| Other softwoods           | 869                     | 0             | 33            | 0             | 21            | 11           | 19           | 17           | 33           | 8          | 6          | 0         | 1,017          |             |
| <b>Total softwoods</b>    | <b>28,432</b>           | <b>22,192</b> | <b>13,420</b> | <b>8,713</b>  | <b>5,185</b>  | <b>3,604</b> | <b>1,910</b> | <b>922</b>   | <b>401</b>   | <b>84</b>  | <b>69</b>  | <b>0</b>  | <b>84,931</b>  |             |
| Red maple                 | 48,602                  | 12,879        | 6,790         | 3,283         | 1,780         | 1,171        | 804          | 329          | 243          | 136        | 179        | 48        | 76,244         |             |
| Hickory                   | 811                     | 0             | 492           | 140           | 85            | 21           | 0            | 0            | 0            | 0          | 0          | 0         | 1,548          |             |
| Berch                     | 1,466                   | 383           | 154           | 61            | 230           | 125          | 86           | 35           | 0            | 11         | 5          | 0         | 2,554          |             |
| Sweetgum                  | 27,644                  | 7,542         | 3,261         | 1,654         | 1,256         | 729          | 598          | 269          | 99           | 49         | 32         | 1         | 43,136         |             |
| Yellow-poplar             | 1,621                   | 0             | 324           | 36            | 64            | 65           | 19           | 28           | 6            | 22         | 53         | 4         | 2,242          |             |
| Blackgum                  | 10,488                  | 3,284         | 1,639         | 1,146         | 787           | 440          | 228          | 109          | 70           | 52         | 42         | 0         | 18,286         |             |
| Ash-walnut-cherry         | 1,576                   | 0             | 283           | 329           | 225           | 70           | 41           | 11           | 17           | 20         | 0          | 0         | 2,571          |             |
| Select white oaks         | 3,585                   | 1,992         | 2,069         | 1,016         | 1,114         | 938          | 457          | 308          | 109          | 78         | 69         | 10        | 11,745         |             |
| Select red oaks           | 438                     | 0             | 19            | 9             | 41            | 20           | 29           | 15           | 9            | 0          | 7          | 0         | 588            |             |
| Other white oaks          | 0                       | 0             | 0             | 0             | 19            | 0            | 0            | 0            | 0            | 0          | 0          | 0         | 19             |             |
| Other red oaks            | 4,306                   | 3,660         | 1,955         | 1,376         | 875           | 656          | 460          | 345          | 153          | 62         | 46         | 7         | 13,900         |             |
| Other hardwoods           | 35,452                  | 3,791         | 2,781         | 1,018         | 160           | 108          | 37           | 0            | 6            | 18         | 0          | 0         | 43,372         |             |
| <b>Total hardwoods</b>    | <b>135,988</b>          | <b>33,530</b> | <b>19,767</b> | <b>10,068</b> | <b>6,634</b>  | <b>4,343</b> | <b>2,761</b> | <b>1,449</b> | <b>712</b>   | <b>448</b> | <b>434</b> | <b>71</b> | <b>216,206</b> |             |
| <b>Total, all species</b> | <b>164,420</b>          | <b>55,722</b> | <b>33,187</b> | <b>18,781</b> | <b>11,819</b> | <b>7,947</b> | <b>4,671</b> | <b>2,371</b> | <b>1,113</b> | <b>532</b> | <b>503</b> | <b>71</b> | <b>301,137</b> |             |



Table 78.--Net green weight of all live trees on timberland by species and diameter class, Lower Eastern Shore Unit, Maryland, 1986

(In thousands of tons)

| Species                         | Diameter class (inches at breast height) |                |                |                |                |                |                |                |                |                | All classes     |
|---------------------------------|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|
|                                 | 1.0-4.9                                  | 5.0-6.9        | 7.0-8.9        | 9.0-10.9       | 11.0-12.9      | 13.0-14.9      | 15.0-16.9      | 17.0-18.9      | 19.0-20.9      | 21.0+          |                 |
| Loblolly pine                   | 1,497.6                                  | 1,786.5        | 2,271.9        | 2,273.8        | 2,424.5        | 1,829.6        | 1,177.3        | 653.4          | 175.8          | 201.3          | 14,291.6        |
| Virginia pine                   | 40.9                                     | 15.7           | 37.6           | 64.3           | 75.4           | 46.2           | 48.1           | .0             | .0             | .0             | 328.3           |
| Other softwoods                 | 20.6                                     | 4.0            | .0             | 5.0            | 6.4            | 11.8           | 23.3           | 65.4           | 16.7           | 17.3           | 170.5           |
| <b>Total softwoods</b>          | <b>1,559.1</b>                           | <b>1,806.1</b> | <b>2,309.5</b> | <b>2,343.1</b> | <b>2,506.4</b> | <b>1,887.6</b> | <b>1,248.7</b> | <b>718.8</b>   | <b>192.5</b>   | <b>218.6</b>   | <b>14,790.4</b> |
| Red maple                       | 1,158.2                                  | 979.4          | 1,008.8        | 882.9          | 1,011.1        | 936.0          | 591.1          | 602.3          | 342.9          | 1,181.7        | 8,694.4         |
| Hickory                         | 1.9                                      | 76.9           | 57.8           | 47.9           | 18.6           | .0             | .0             | .0             | .0             | .0             | 203.1           |
| Beech                           | 31.0                                     | 44.3           | 26.7           | 180.2          | 133.4          | 127.3          | 68.4           | .0             | 32.9           | 14.6           | 658.7           |
| Sweetgum                        | 580.3                                    | 482.4          | 548.8          | 627.2          | 575.4          | 701.4          | 405.9          | 189.8          | 121.5          | 124.5          | 4,357.3         |
| Yellow-poplar                   | 23.8                                     | 47.4           | 9.1            | 35.5           | 52.1           | 22.4           | 47.5           | 10.9           | 52.6           | 215.0          | 516.4           |
| Blackgum                        | 408.2                                    | 339.4          | 427.1          | 538.0          | 537.0          | 311.0          | 270.5          | 182.6          | 184.3          | 224.3          | 3,422.5         |
| Ash-walnut-cherry               | 15.0                                     | 59.7           | 114.7          | 119.3          | 63.2           | 71.9           | 16.3           | 31.2           | 44.3           | .0             | 535.7           |
| Select white oaks               | 70.6                                     | 276.1          | 320.9          | 630.5          | 862.0          | 658.9          | 607.5          | 294.1          | 259.6          | 478.2          | 4,458.3         |
| Select red oaks                 | 4.0                                      | 3.3            | 3.1            | 28.5           | 18.4           | 43.5           | 35.2           | 21.0           | .0             | 34.9           | 191.9           |
| Other white oaks                | .0                                       | .0             | .0             | 12.3           | .0             | .0             | .0             | .0             | .0             | .0             | 12.3            |
| Other red oaks                  | 280.6                                    | 355.3          | 474.5          | 526.2          | 642.2          | 664.7          | 696.1          | 397.2          | 212.9          | 345.4          | 4,595.3         |
| Other commercial hardwoods      | 580.0                                    | 454.9          | 329.3          | 87.7           | 112.8          | 45.1           | .0             | 15.0           | 48.9           | .0             | 1,673.8         |
| <b>Non-commercial hardwoods</b> | <b>168.1</b>                             | <b>63.7</b>    | <b>28.3</b>    | <b>7.4</b>     | <b>47.7</b>    | <b>10.1</b>    | <b>.0</b>      | <b>.0</b>      | <b>.0</b>      | <b>53.7</b>    | <b>378.9</b>    |
| <b>Total hardwoods</b>          | <b>3,321.8</b>                           | <b>3,182.8</b> | <b>3,349.1</b> | <b>3,723.7</b> | <b>4,074.0</b> | <b>3,592.4</b> | <b>2,738.5</b> | <b>1,744.1</b> | <b>1,300.1</b> | <b>2,672.2</b> | <b>29,698.5</b> |
| <b>Total, all species</b>       | <b>4,880.9</b>                           | <b>4,988.9</b> | <b>5,658.6</b> | <b>6,066.8</b> | <b>6,580.4</b> | <b>5,480.0</b> | <b>3,987.1</b> | <b>2,462.9</b> | <b>1,492.6</b> | <b>2,890.8</b> | <b>44,488.9</b> |

Table 79.--Net green weight of all trees on timberland by class of material and species group, Lower Eastern Shore Unit, Maryland, 1986

(In thousands of tons)

| Class of material                | Weight <sup>a</sup> |                 | All groups      |
|----------------------------------|---------------------|-----------------|-----------------|
|                                  | Softwoods           | Hardwoods       |                 |
| Sawlog portion                   | 6,038.4             | 9,036.3         | 15,074.8        |
| Upper stem                       | 820.4               | 2,101.8         | 2,922.1         |
| <b>Total</b>                     | <b>6,858.8</b>      | <b>11,138.1</b> | <b>17,996.9</b> |
| Poletimber trees                 | 2,762.8             | 6,831.0         | 9,593.8         |
| All growing stock                | 9,621.6             | 17,969.1        | 27,590.7        |
| Rough cull trees <sup>b</sup>    | 26.5                | 1,169.7         | 1,196.2         |
| Rotten cull trees <sup>b</sup>   | 1.7                 | 291.5           | 293.2           |
| Salvable dead trees <sup>c</sup> | 170.0               | 405.8           | 575.8           |
| Saplings <sup>c</sup>            | 1,559.1             | 3,321.8         | 4,880.9         |
| Tops - growing stock             | 3,570.4             | 6,440.6         | 10,010.9        |
| Tops - rough and rotten          | 11.1                | 505.9           | 517.0           |
| All nongrowing stock             | 5,338.8             | 12,135.2        | 17,474.0        |
| <b>Total, all classes</b>        | <b>14,960.4</b>     | <b>30,104.3</b> | <b>45,064.7</b> |

<sup>a</sup> Includes bark and sound cull; excludes rotten cull.

<sup>b</sup> Bole portion of trees 5.0 inches d.b.h. and larger.

<sup>c</sup> Weight of entire tree aboveground.

# MAJOR SPECIES BY VOLUME, LOWER EASTERN SHORE UNIT, 1976 AND 1986

Millions of board feet

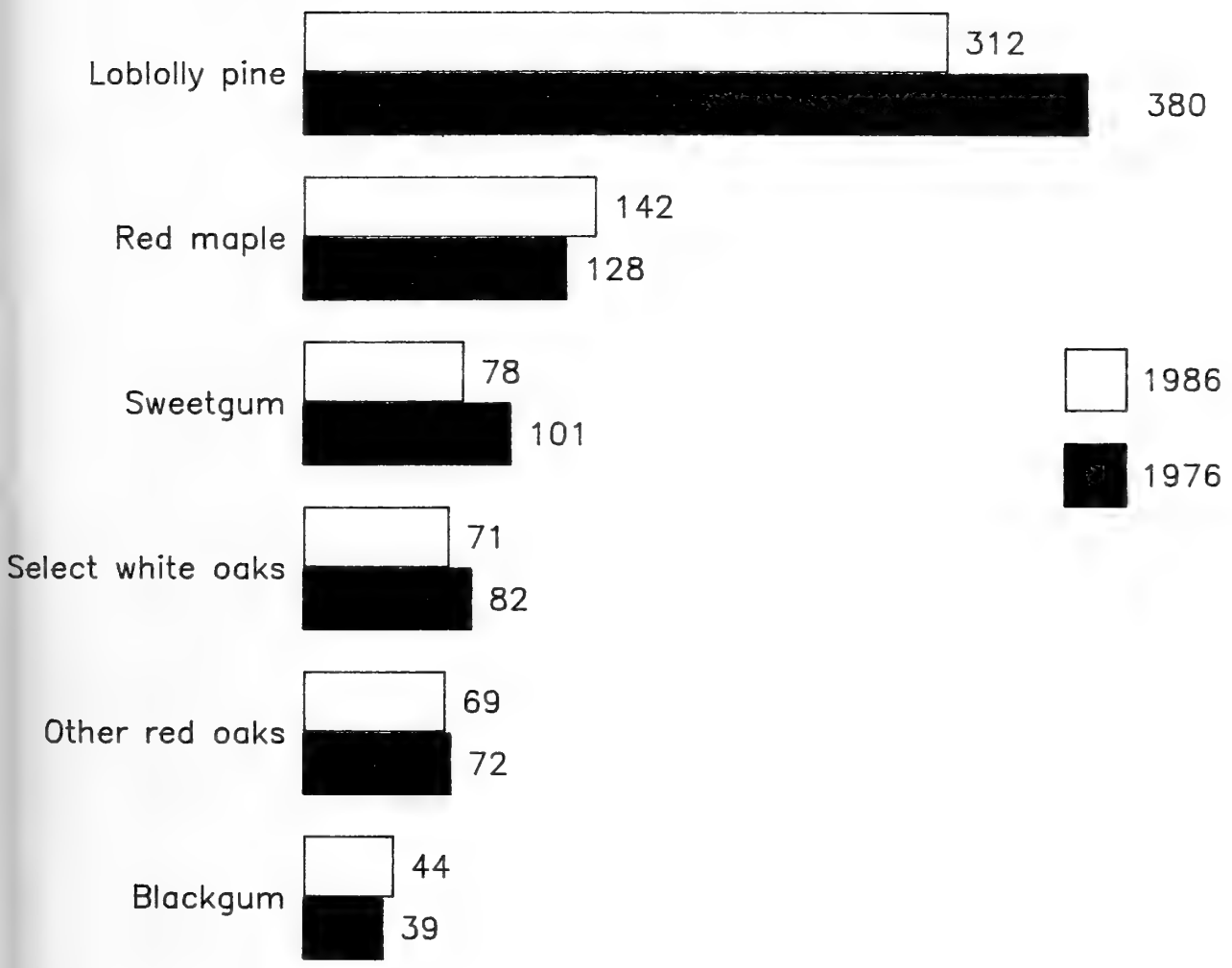


Table 80.--Net volume of growing-stock trees on timberland by species and diameter class, Lower Eastern Shore Unit, 1976

| Species                  | (In millions of cubic feet)              |              |              |              |              |             |             |             |             |            | All classes  |
|--------------------------|--|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|------------|--------------|
|                          | Diameter class (inches at breast height) |              |              |              |              |             |             |             |             |            |              |
|                          | 5.0-6.9                                  | 7.0-8.9      | 9.0-10.9     | 11.0-12.9    | 13.0-14.9    | 15.0-16.9   | 17.0-18.9   | 19.0-20.9   | 21.0-28.9   | 29.0+      |              |
| Loblolly pine            | 37.3                                     | 60.7         | 75.0         | 74.8         | 67.4         | 40.1        | 15.5        | 7.1         | 2.4         | .0         | 380.2        |
| Virginia pine            | .9                                       | 1.5          | 1.2          | 1.0          | .5           | .2          | .3          | .0          | .0          | .0         | 5.6          |
| Other yellow pines       | .0                                       | .0           | .0           | .2           | .0           | .0          | .0          | .0          | .0          | .0         | .2           |
| Other softwoods          | .4                                       | .4           | .0           | .0           | .3           | .5          | .0          | .9          | .5          | .0         | 3.1          |
| <b>Total softwoods</b>   | <b>38.5</b>                              | <b>62.6</b>  | <b>76.3</b>  | <b>76.0</b>  | <b>68.2</b>  | <b>40.8</b> | <b>15.8</b> | <b>7.9</b>  | <b>3.0</b>  | <b>.0</b>  | <b>389.1</b> |
| Red maple                | 15.7                                     | 20.9         | 21.8         | 15.3         | 11.9         | 10.6        | 11.9        | 6.3         | 11.3        | 2.2        | 128.0        |
| Hickory                  | .6                                       | .2           | 1.2          | .8           | .0           | .3          | .0          | .0          | .0          | .0         | 3.1          |
| Beech                    | .8                                       | .4           | 1.0          | 2.3          | 1.4          | 1.9         | 1.4         | 1.9         | 3.0         | .0         | 14.1         |
| Sweetgum                 | 10.3                                     | 17.8         | 21.6         | 13.9         | 14.6         | 8.1         | 5.2         | 4.2         | 5.0         | .0         | 100.6        |
| Yellow-poplar            | .2                                       | .5           | .0           | .0           | 1.0          | 1.6         | .6          | .0          | 1.1         | .9         | 5.9          |
| Blackgum                 | 4.1                                      | 6.0          | 8.3          | 4.9          | 5.1          | 4.8         | 1.7         | 1.4         | 2.2         | .3         | 38.8         |
| Ash-walnut-cherry        | 2.2                                      | 1.7          | .6           | .6           | 1.3          | 1.0         | .4          | .0          | .4          | .0         | 8.1          |
| Select white oaks        | 8.2                                      | 12.2         | 13.6         | 14.6         | 12.4         | 7.0         | 4.1         | 1.5         | 5.6         | 2.4        | 81.7         |
| Select red oaks          | .0                                       | .4           | .8           | .5           | .3           | .0          | .0          | .0          | .4          | .0         | 2.3          |
| Other white oaks         | .3                                       | .6           | .0           | .0           | .3           | .0          | .2          | .0          | .0          | .0         | 1.3          |
| Other red oaks           | 6.6                                      | 11.4         | 12.7         | 12.1         | 9.8          | 6.1         | 4.9         | 1.3         | 5.5         | 1.3        | 71.8         |
| Black locust             | .1                                       | .0           | .0           | .0           | .0           | .0          | .0          | .0          | .0          | .0         | .1           |
| Other hardwoods          | 3.7                                      | 1.7          | 1.6          | 1.1          | 1.1          | .8          | .3          | .3          | .0          | .0         | 10.6         |
| <b>Total hardwoods</b>   | <b>52.9</b>                              | <b>73.8</b>  | <b>83.2</b>  | <b>66.1</b>  | <b>59.2</b>  | <b>42.2</b> | <b>30.6</b> | <b>17.0</b> | <b>34.4</b> | <b>7.1</b> | <b>466.5</b> |
| <b>Total all species</b> | <b>91.5</b>                              | <b>136.4</b> | <b>159.5</b> | <b>142.1</b> | <b>127.4</b> | <b>83.0</b> | <b>46.4</b> | <b>24.9</b> | <b>37.4</b> | <b>7.1</b> | <b>855.6</b> |

Table 81.--Net volume of growing-stock trees on timberland by species and diameter class, Lower Eastern Shore Unit, 1986

(In millions of cubic feet)

| Species                   | Diameter class (inches at breast height) |              |              |              |              |             |             |             |             |            | All classes  |
|---------------------------|--|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|------------|--------------|
|                           | 5.0-6.9                                  | 7.0-8.9      | 9.0-10.9     | 11.0-12.9    | 13.0-14.9    | 15.0-16.9   | 17.0-18.9   | 19.0-20.9   | 21.0-28.9   | 29.0+      |              |
| Loblolly pine             | 37.4                                     | 55.0         | 57.6         | 61.9         | 46.0         | 29.4        | 16.0        | 4.1         | 4.6         | .0         | 312.1        |
| Virginia pine             | .3                                       | .9           | 1.4          | 1.9          | 1.0          | 1.1         | .0          | .0          | .0          | .0         | 6.6          |
| Other softwoods           | .1                                       | .0           | .2           | .2           | .4           | .5          | 1.5         | .4          | .4          | .0         | 3.6          |
| <b>Total softwoods</b>    | <b>37.7</b>                              | <b>56.0</b>  | <b>59.2</b>  | <b>63.9</b>  | <b>47.4</b>  | <b>31.1</b> | <b>17.5</b> | <b>4.5</b>  | <b>5.0</b>  | <b>.0</b>  | <b>322.4</b> |
| Red maple                 | 16.3                                     | 20.5         | 19.4         | 20.6         | 19.2         | 9.9         | 10.1        | 6.9         | 12.1        | 6.5        | 141.5        |
| Hickory                   | 1.3                                      | 1.2          | .9           | .4           | .0           | .0          | .0          | .0          | .0          | .0         | 3.7          |
| Beech                     | .5                                       | .3           | 2.5          | 2.1          | 2.5          | 1.1         | .0          | .7          | .3          | .0         | 10.0         |
| Sweetgum                  | 8.2                                      | 10.8         | 13.7         | 12.5         | 15.0         | 8.8         | 4.2         | 2.5         | 2.2         | .2         | 78.2         |
| Yellow-poplar             | .8                                       | .2           | .8           | 1.2          | .5           | .8          | .2          | 1.2         | 4.1         | .7         | 10.7         |
| Blackgum                  | 3.8                                      | 7.1          | 8.6          | 7.2          | 5.0          | 3.5         | 2.7         | 2.6         | 3.3         | .0         | 43.9         |
| Ash-walnut-cherry         | 1.0                                      | 2.4          | 2.6          | 1.3          | 1.1          | .3          | .5          | 1.0         | .0          | .0         | 10.3         |
| Select white oaks         | 5.1                                      | 5.9          | 12.0         | 15.0         | 10.5         | 9.0         | 4.1         | 3.7         | 4.2         | 1.1        | 70.6         |
| Select red oaks           | .1                                       | .0           | .5           | .3           | .7           | .5          | .3          | .0          | .4          | .0         | 2.9          |
| Other white oaks          | .0                                       | .0           | .2           | .0           | .0           | .0          | .0          | .0          | .0          | .0         | .2           |
| Other red oaks            | 5.5                                      | 8.0          | 9.0          | 11.2         | 10.6         | 10.8        | 6.2         | 3.1         | 3.8         | .9         | 69.0         |
| Other hardwoods           | 6.2                                      | 5.5          | 1.6          | 1.4          | .7           | .0          | .3          | .8          | .0          | .0         | 16.6         |
| <b>Total hardwoods</b>    | <b>48.8</b>                              | <b>62.0</b>  | <b>71.8</b>  | <b>73.3</b>  | <b>65.8</b>  | <b>44.8</b> | <b>28.7</b> | <b>22.4</b> | <b>30.6</b> | <b>9.3</b> | <b>457.6</b> |
| <b>Total, all species</b> | <b>86.6</b>                              | <b>117.9</b> | <b>131.0</b> | <b>137.2</b> | <b>113.2</b> | <b>75.9</b> | <b>46.2</b> | <b>26.9</b> | <b>35.6</b> | <b>9.3</b> | <b>779.9</b> |

Table 82.--Net volume of sawtimber trees on timberland by species and diameter class, Lower Eastern Shore Unit, 1976

(In millions of board feet)<sup>a</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    | 21.0-28.9    | 29.0+       |                |
| Loblolly pine            | 257.4                                    | 298.3        | 290.1        | 180.1        | 72.1         | 33.8         | 11.6         | .0          | 1,143.4        |
| Virginia pine            | 4.4                                      | 3.6          | 2.2          | 1.0          | 1.1          | .0           | .0           | .0          | 12.3           |
| Other yellow pines       | .0                                       | .9           | .0           | .0           | .0           | .0           | .0           | .0          | .9             |
| Other softwoods          | .0                                       | .0           | 1.0          | 2.3          | .0           | 3.9          | 2.7          | .0          | 9.9            |
| <b>Total softwoods</b>   | <b>261.8</b>                             | <b>302.8</b> | <b>293.2</b> | <b>183.5</b> | <b>73.2</b>  | <b>37.7</b>  | <b>14.2</b>  | <b>.0</b>   | <b>1,166.5</b> |
| Red maple                | .0                                       | 57.8         | 47.7         | 45.2         | 51.8         | 30.1         | 56.5         | 12.4        | 301.5          |
| Hickory                  | .0                                       | 3.0          | .0           | 1.4          | .0           | .0           | .0           | .0          | 4.4            |
| Beech                    | .0                                       | 8.8          | 6.7          | 9.6          | 6.2          | 10.0         | 15.8         | .0          | 57.0           |
| Sweetgum                 | .0                                       | 50.9         | 60.2         | 35.5         | 24.2         | 20.1         | 25.0         | .0          | 216.0          |
| Yellow-poplar            | .0                                       | .0           | 4.0          | 7.1          | 2.9          | .0           | 5.9          | 5.3         | 25.2           |
| Blackgum                 | .0                                       | 17.7         | 20.4         | 21.3         | 7.8          | 6.9          | 10.7         | 1.9         | 86.8           |
| Ash-walnut-cherry        | .0                                       | 2.5          | 4.6          | 3.9          | 1.4          | .0           | 1.8          | .0          | 14.2           |
| Select white oaks        | .0                                       | 56.7         | 53.0         | 31.9         | 19.5         | 6.9          | 26.3         | 14.7        | 208.9          |
| Select red oaks          | .0                                       | 1.5          | 1.3          | .0           | .0           | .0           | 1.6          | .0          | 4.4            |
| Other white oaks         | .0                                       | .0           | .7           | .0           | .6           | .0           | .0           | .0          | 1.4            |
| Other red oaks           | .0                                       | 43.4         | 41.0         | 26.9         | 23.7         | 6.5          | 27.3         | 7.4         | 176.2          |
| Other hardwoods          | .0                                       | 4.3          | 4.7          | 3.9          | 1.2          | 1.4          | .0           | .0          | 15.4           |
| <b>Total hardwoods</b>   | <b>.0</b>                                | <b>246.6</b> | <b>244.3</b> | <b>186.7</b> | <b>139.4</b> | <b>81.8</b>  | <b>171.0</b> | <b>41.7</b> | <b>1,111.4</b> |
| <b>Total all species</b> | <b>261.8</b>                             | <b>549.4</b> | <b>537.5</b> | <b>370.1</b> | <b>212.6</b> | <b>119.5</b> | <b>185.2</b> | <b>41.7</b> | <b>2,277.9</b> |

<sup>a</sup>International 1/4-inch rule.

Table 83.--Net volume of sawtimber trees on timberland by species and diameter class, Lower Eastern Shore Unit, 1986

(In millions of board feet)<sup>a</sup>

| Species                   | Diameter class (inches at breast height) |               |               |               |               |               |               |             | All classes    |
|---------------------------|--|---------------|---------------|---------------|---------------|---------------|---------------|-------------|----------------|
|                           | 9.0-<br>10.9                             | 11.0-<br>12.9 | 13.0-<br>14.9 | 15.0-<br>16.9 | 17.0-<br>18.9 | 19.0-<br>20.9 | 21.0-<br>28.9 | 29.0+       |                |
|                           | Loblolly pine                            | 194.6         | 240.9         | 194.8         | 131.2         | 71.0          | 19.2          | 22.5        |                |
| Virginia pine             | 4.4                                      | 7.0           | 3.8           | 4.8           | .0            | .0            | .0            | .0          | 19.9           |
| Other softwoods           | .5                                       | .5            | 1.4           | 2.2           | 6.6           | 1.8           | 1.9           | .0          | 14.8           |
| <b>Total softwoods</b>    | <b>199.5</b>                             | <b>248.4</b>  | <b>200.0</b>  | <b>138.2</b>  | <b>77.5</b>   | <b>21.0</b>   | <b>24.4</b>   | <b>.0</b>   | <b>909.0</b>   |
| Red maple                 | .0                                       | 73.1          | 73.7          | 41.9          | 44.1          | 29.0          | 53.0          | 30.9        | 345.7          |
| Hickory                   | .0                                       | 1.6           | .0            | .0            | .0            | .0            | .0            | .0          | 1.6            |
| Beech                     | .0                                       | 8.6           | 11.8          | 4.5           | .0            | 3.3           | 1.2           | .0          | 29.4           |
| Sweetgum                  | .0                                       | 43.5          | 59.8          | 36.0          | 18.9          | 10.7          | 9.9           | 1.3         | 180.0          |
| Yellow-poplar             | .0                                       | 5.2           | 2.3           | 3.8           | 1.2           | 5.6           | 22.4          | 3.6         | 44.1           |
| Blackgum                  | .0                                       | 24.3          | 18.5          | 13.9          | 12.4          | 11.4          | 13.0          | .0          | 93.6           |
| Ash-walnut-cherry         | .0                                       | 5.6           | 3.6           | 1.3           | 1.3           | 2.9           | .0            | .0          | 14.7           |
| Select white oaks         | .0                                       | 57.5          | 43.5          | 39.5          | 19.1          | 16.4          | 19.0          | 3.9         | 198.8          |
| Select red oaks           | .0                                       | 1.2           | 2.7           | 2.1           | 1.6           | .0            | 1.9           | .0          | 9.6            |
| Other red oaks            | .0                                       | 38.9          | 41.2          | 46.8          | 27.5          | 14.6          | 19.2          | 4.4         | 192.6          |
| Other hardwoods           | .0                                       | 5.2           | 3.0           | .0            | 1.0           | 3.0           | .0            | .0          | 12.2           |
| <b>Total hardwoods</b>    | <b>.0</b>                                | <b>264.6</b>  | <b>260.1</b>  | <b>189.8</b>  | <b>127.1</b>  | <b>97.1</b>   | <b>139.5</b>  | <b>44.1</b> | <b>1,122.3</b> |
| <b>Total, all species</b> | <b>199.5</b>                             | <b>513.0</b>  | <b>460.1</b>  | <b>327.9</b>  | <b>204.6</b>  | <b>118.1</b>  | <b>163.9</b>  | <b>44.1</b> | <b>2,031.3</b> |

<sup>a</sup> International 1/4-inch rule.

Table 84.--Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Lower Eastern Shore Unit, 1976

(In millions of board feet)<sup>a</sup>

| Species                           | All size classes |              |              |              | >15" Diameter at breast height |              |              |              | All Grades   |
|-----------------------------------|------------------|--------------|--------------|--------------|--------------------------------|--------------|--------------|--------------|--------------|
|                                   | Grade 1          | Grade 2      | Grade 3      | Grade 4      | Grade 1                        | Grade 2      | Grade 3      | Grade 4      |              |
| Loblolly pine                     | 325.8            | 176.3        | 641.3        | .0           | 1,143.4                        | 93.2         | 163.3        | .0           | 297.6        |
| Virginia pine                     | .0               | .6           | 11.7         | .0           | 12.3                           | .0           | .6           | .0           | 2.2          |
| Other yellow pines                | .0               | .4           | .5           | .0           | .9                             | .0           | .0           | .0           | .0           |
| Other softwoods                   | 4.0              | .5           | 5.4          | .0           | 9.9                            | 4.0          | 4.3          | .0           | 8.8          |
| <b>Total softwoods</b>            | <b>329.8</b>     | <b>177.8</b> | <b>658.9</b> | <b>.0</b>    | <b>1,166.5</b>                 | <b>97.2</b>  | <b>169.2</b> | <b>.0</b>    | <b>308.6</b> |
| Red maple                         | 27.0             | 34.4         | 181.5        | 59.5         | 301.5                          | 25.5         | 107.5        | 34.0         | 196.0        |
| Hickory                           | .0               | .5           | 2.5          | 1.4          | 4.4                            | .0           | .0           | .3           | 1.4          |
| Beech                             | .3               | 2.1          | 30.8         | 23.8         | 57.0                           | .3           | 2.1          | 15.0         | 41.5         |
| Sweetgum                          | 38.5             | 32.3         | 82.3         | 62.9         | 216.0                          | 31.0         | 11.6         | 29.6         | 104.9        |
| Yellow-poplar                     | 7.8              | 7.4          | 6.4          | 3.6          | 25.2                           | 7.0          | 4.7          | 3.0          | 21.1         |
| Blackgum                          | 16.6             | 19.5         | 43.1         | 7.6          | 86.8                           | 14.5         | 11.3         | 2.7          | 48.8         |
| Ash-walnut-cherry                 | 5.7              | 2.8          | 4.6          | 1.1          | 14.2                           | 3.8          | 2.2          | .5           | 7.2          |
| Select white oaks                 | 33.2             | 33.4         | 87.3         | 55.0         | 208.9                          | 29.2         | 16.2         | 22.4         | 99.2         |
| Select red oaks                   | .0               | .8           | 3.2          | .4           | 4.4                            | .0           | .0           | .2           | 1.7          |
| Other white oaks                  | .0               | .5           | .7           | .2           | 1.4                            | .0           | .0           | .1           | .6           |
| Other red oaks                    | 24.9             | 34.4         | 71.5         | 45.4         | 176.2                          | 23.2         | 19.8         | 18.2         | 91.7         |
| Other hardwoods                   | 2.4              | 4.1          | 7.5          | 1.4          | 15.4                           | 2.4          | 2.0          | .4           | 6.4          |
| <b>Total hardwoods</b>            | <b>155.5</b>     | <b>172.2</b> | <b>521.4</b> | <b>262.3</b> | <b>1,111.4</b>                 | <b>136.9</b> | <b>258.5</b> | <b>126.4</b> | <b>620.5</b> |
| Percent of hardwood in each grade | 14               | 15           | 47           | 24           | 100                            | 22           | 42           | 20           | 100          |

<sup>a</sup> International 1/4-inch rule.



Table 85.--Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Lower Eastern Shore Unit, 1986

(In millions of board feet)<sup>a</sup>

| Species                           | All size classes |              |              |              | All grades     | >15" Diameter at breast height |              |              |              | All grades   |
|-----------------------------------|------------------|--------------|--------------|--------------|----------------|--------------------------------|--------------|--------------|--------------|--------------|
|                                   | Grade 1          | Grade 2      | Grade 3      | Grade 4      |                | Grade 1                        | Grade 2      | Grade 3      | Grade 4      |              |
| Loblolly pine                     | 275.9            | 123.2        | 475.1        | .0           | 874.2          | 94.6                           | 29.5         | 119.8        | .0           | 243.9        |
| Virginia pine                     | .3               | 1.5          | 18.2         | .0           | 19.9           | .0                             | .5           | 4.3          | .0           | 4.8          |
| Other softwoods                   | 3.2              | 1.5          | 10.1         | .0           | 14.8           | 1.5                            | 1.1          | 9.8          | .0           | 12.5         |
| <b>Total softwoods</b>            | <b>279.5</b>     | <b>126.1</b> | <b>503.4</b> | <b>.0</b>    | <b>909.0</b>   | <b>96.2</b>                    | <b>31.1</b>  | <b>133.9</b> | <b>.0</b>    | <b>261.1</b> |
| Red maple                         | 4.7              | 54.6         | 172.4        | 114.0        | 345.7          | 4.5                            | 34.7         | 102.8        | 56.9         | 198.9        |
| Hickory                           | .0               | .1           | 1.1          | .3           | 1.6            | .0                             | .0           | .0           | .0           | .0           |
| Beech                             | .1               | .0           | 10.1         | 19.3         | 29.4           | .0                             | .0           | 5.8          | 3.2          | 9.0          |
| Sweetgum                          | 9.1              | 41.2         | 65.5         | 64.2         | 180.0          | 7.3                            | 14.8         | 25.6         | 29.0         | 76.7         |
| Yellow-poplar                     | 9.6              | 9.1          | 12.6         | 12.8         | 44.1           | 9.6                            | 8.0          | 11.3         | 7.7          | 36.6         |
| Blackgum                          | 10.7             | 28.7         | 39.0         | 15.2         | 93.6           | 10.7                           | 13.8         | 15.8         | 10.5         | 50.7         |
| Ash-walnut-cherry                 | 1.4              | 5.7          | 5.7          | 2.0          | 14.7           | 1.4                            | 1.9          | 1.9          | .3           | 5.5          |
| Select white oaks                 | 11.7             | 44.0         | 74.2         | 68.9         | 198.8          | 11.2                           | 27.9         | 31.5         | 27.3         | 97.8         |
| Select red oaks                   | .5               | 1.2          | 2.9          | 4.9          | 9.6            | .5                             | .2           | 2.1          | 2.9          | 5.7          |
| Other red oaks                    | 16.2             | 36.5         | 66.8         | 73.1         | 192.6          | 15.9                           | 24.5         | 40.4         | 31.8         | 112.5        |
| Other hardwoods                   | .0               | .3           | 5.3          | 6.6          | 12.2           | .0                             | .0           | 2.1          | 1.9          | 4.1          |
| <b>Total hardwoods</b>            | <b>63.9</b>      | <b>221.4</b> | <b>455.7</b> | <b>381.4</b> | <b>1,122.3</b> | <b>61.0</b>                    | <b>125.9</b> | <b>239.3</b> | <b>171.4</b> | <b>597.6</b> |
| Percent of hardwood in each grade | 6                | 20           | 40           | 34           | 100            | 10                             | 21           | 40           | 29           | 100          |

<sup>a</sup> International 1/4-inch rule.

Table 86.--Sampling errors for various tables, Lower Eastern Shore Unit, 1976 and 1986

(In percent)

| Species and<br>diameter class | Number of           | Growing-stock  |      | Sawtimber      |      |
|-------------------------------|---------------------|----------------|------|----------------|------|
|                               | trees               | volume         |      | volume         |      |
|                               | (Table 77)<br>(5"+) | Tables<br>(80) | (81) | Tables<br>(82) | (83) |
| Loblolly pine                 | 13                  | 8              | 11   | 9              | 11   |
| Virginia pine                 | 42                  | 43             | 53   | 57             | 61   |
| Other yellow pines            | 0                   | 100            | 0    | 101            | 0    |
| Other softwoods               | 75                  | 61             | 86   | 65             | 89   |
| Total softwoods               | 13                  | 7              | 10   | 9              | 11   |
| Red maple                     | 11                  | 11             | 11   | 17             | 15   |
| Hickory                       | 72                  | 44             | 67   | 51             | 88   |
| Beech                         | 46                  | 35             | 43   | 39             | 45   |
| Sweetgum                      | 13                  | 11             | 15   | 14             | 19   |
| Yellow-poplar                 | 44                  | 42             | 42   | 47             | 48   |
| Blackgum                      | 16                  | 16             | 19   | 21             | 26   |
| Ash-walnut-cherry             | 45                  | 51             | 49   | 52             | 55   |
| Select white oaks             | 23                  | 13             | 17   | 17             | 18   |
| Select red oaks               | 37                  | 41             | 40   | 52             | 47   |
| Other white oaks              | 100                 | 42             | 100  | 71             | 0    |
| Other red oaks                | 14                  | 11             | 13   | 15             | 16   |
| Black locust                  | 0                   | 101            | 0    | 0              | 0    |
| Other hardwoods               | 20                  | 24             | 24   | 44             | 45   |
| Total hardwoods               | 7                   | 6              | 8    | 9              | 11   |
| Total, all species            | 6                   | 4              | 6    | 5              | 7    |
| D.B.H. class (inches)         |                     |                |      |                |      |
| 5.0 to 6.9                    | 10                  | 9              | 10   | -              | -    |
| 7.0 to 8.9                    | 8                   | 7              | 8    | -              | -    |
| 9.0 to 10.9                   | 7                   | 6              | 7    | 12             | 12   |
| 11.0 to 12.9                  | 8                   | 6              | 8    | 7              | 8    |
| 13.0 to 14.9                  | 8                   | 7              | 8    | 7              | 8    |
| 15.0 to 16.9                  | 11                  | 9              | 11   | 9              | 12   |
| 17.0 to 18.9                  | 12                  | 12             | 13   | 12             | 13   |
| 19.0 to 20.9                  | 18                  | 16             | 18   | 16             | 17   |
| 21.0 to 28.9                  | 15                  | 17             | 17   | 16             | 17   |
| 29 +                          | 26                  | 34             | 32   | 35             | 32   |

# WESTERN UNIT TABLES

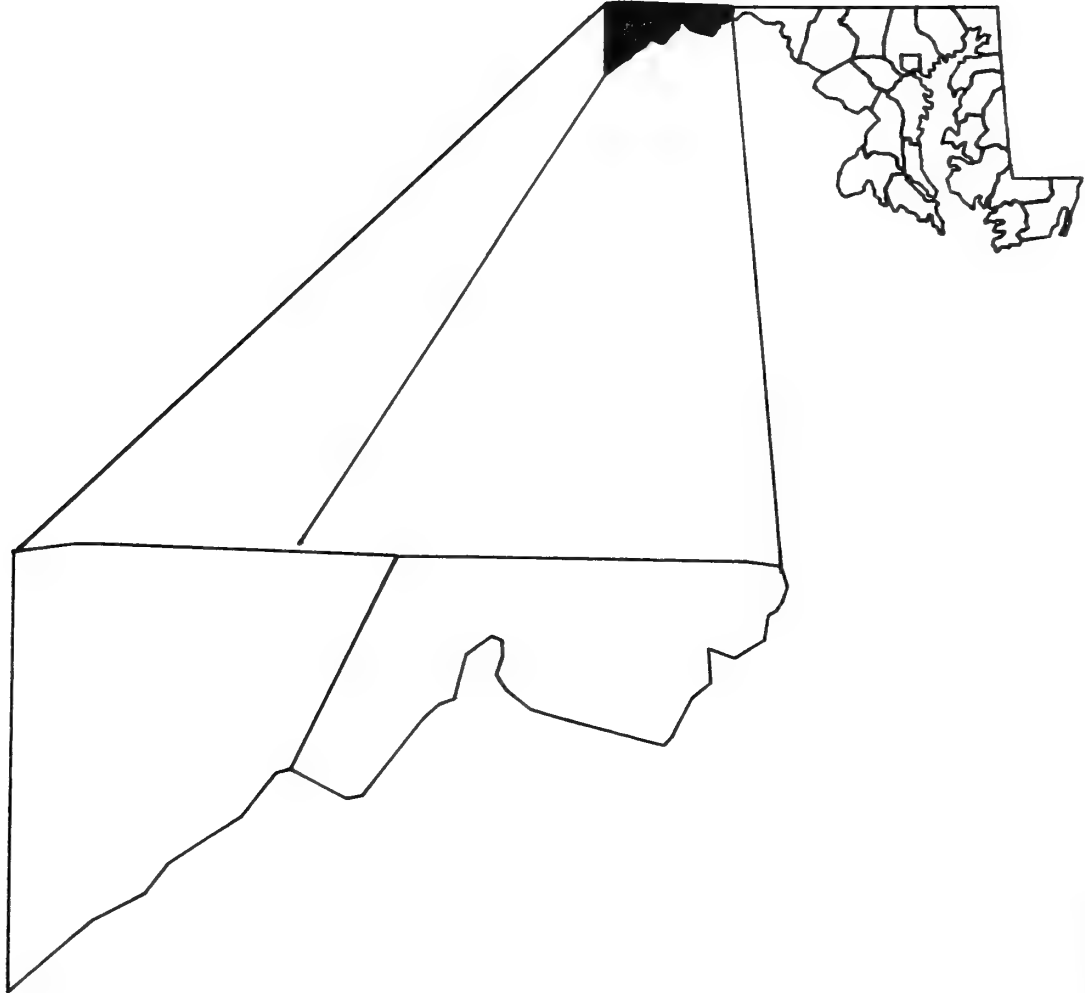


Table 87.--Area of timberland by forest type, forest-type group, and stand-size class, Western Unit, 1976

(In thousands of acres)

| Forest type                    | Stand-size class |            |                      |            | All classes |
|--------------------------------|------------------|------------|----------------------|------------|-------------|
|                                | Sawtimber        | Poletimber | Sapling and seedling | Nonstocked |             |
| Red pine                       | .0               | 5.9        | .0                   | .0         | 5.9         |
| White pine                     | .0               | .0         | 5.9                  | 6.0        | 11.9        |
| White/red pine group           | .0               | 5.9        | 5.9                  | 6.0        | 17.8        |
| Norway spruce                  | .0               | 5.8        | .0                   | .0         | 5.8         |
| Spruce/fir group               | .0               | 5.8        | .0                   | .0         | 5.8         |
| Virginia pine                  | 7.0              | 14.5       | 19.9                 | .0         | 41.5        |
| Pitch pine                     | 6.6              | .0         | .0                   | .0         | 6.6         |
| Loblolly/shortleaf group       | 13.6             | 14.5       | 19.9                 | .0         | 48.1        |
| Wh. pine/no. red oak/wh. ash   | 5.3              | .0         | .0                   | .0         | 5.3         |
| Oak/pine group                 | 5.3              | .0         | .0                   | .0         | 5.3         |
| Chestnut oak                   | 17.8             | 12.9       | .0                   | .0         | 30.7        |
| White oak/red oak/hickory      | 12.4             | 18.2       | 23.6                 | .0         | 54.3        |
| White oak                      | 11.9             | 11.6       | 12.5                 | .0         | 36.0        |
| Northern red oak               | 17.8             | .0         | 5.9                  | .0         | 23.7        |
| Black locust                   | .0               | .0         | 11.1                 | .0         | 11.1        |
| Yellow-poplar                  | 6.3              | .0         | .0                   | .0         | 6.3         |
| Scarlet oak                    | 6.6              | .0         | .0                   | .0         | 6.6         |
| Red maple/central hardwoods    | 5.8              | 6.3        | .0                   | .0         | 12.1        |
| Mixed central hardwoods        | 69.1             | 55.4       | 23.8                 | .0         | 148.3       |
| Oak/hickory group              | 147.8            | 104.5      | 77.0                 | .0         | 329.2       |
| Sugar maple/beech/yellow birch | 17.4             | 6.3        | 18.7                 | .0         | 42.4        |
| Black cherry                   | .0               | 6.3        | .0                   | .0         | 6.3         |
| Red maple/northern hardwoods   | .0               | 12.5       | 5.8                  | .0         | 18.3        |
| Mixed northern hardwoods       | 12.5             | 5.8        | 11.8                 | .0         | 30.1        |
| Northern hardwoods group       | 29.9             | 30.8       | 36.3                 | .0         | 97.0        |
| All forest types               | 196.6            | 161.6      | 139.1                | 6.0        | 503.2       |

Table 88.--Area of timberland by forest type, forest-type group, and stand-size class, Western Unit, 1986

(In thousands of acres)

| Forest type                    | Stand-size class |            |             |            | All classes |
|--------------------------------|------------------|------------|-------------|------------|-------------|
|                                | Sawtimber        | Poletimber | Sapling and |            |             |
|                                |                  |            | seedling    | Nonstocked |             |
| Red pine                       | 3.1              | 10.6       | .0          | .0         | 13.8        |
| Hemlock                        | 6.9              | .0         | 3.9         | .0         | 10.8        |
| Scotch pine                    | .0               | 3.1        | .0          | .0         | 3.1         |
| White/red pine group           | 10.0             | 13.8       | 3.9         | .0         | 27.7        |
| Virginia pine                  | 8.9              | 7.1        | .0          | .0         | 15.9        |
| Loblolly/shortleaf group       | 8.9              | 7.1        | .0          | .0         | 15.9        |
| Wh. pine/no. red oak/wh. ash   | 3.6              | .0         | .0          | .0         | 3.6         |
| Virginia pine/oak              | 3.7              | 2.3        | 9.9         | .0         | 15.9        |
| Oak/pine group                 | 7.3              | 2.3        | 9.9         | .0         | 19.5        |
| Post, black, or bear oak       | 7.1              | 2.3        | 4.5         | .0         | 13.9        |
| Chestnut oak                   | 14.4             | 3.4        | .0          | .0         | 17.8        |
| White oak/red oak/hickory      | 48.4             | 14.2       | .0          | .0         | 62.6        |
| White oak                      | 8.9              | 19.3       | 3.1         | .0         | 31.3        |
| Northern red oak               | 16.8             | .0         | .0          | .0         | 16.8        |
| Y. poplar/wh. oak/no. red oak  | 7.9              | .0         | .0          | .0         | 7.9         |
| Black locust                   | .0               | .0         | 3.6         | .0         | 3.6         |
| Hawthorn reverting field       | .0               | 4.5        | .0          | .0         | 4.5         |
| Red maple/central hardwoods    | 6.9              | 6.9        | .0          | .0         | 13.8        |
| Mixed central hardwoods        | 95.7             | 49.8       | 10.3        | .0         | 155.8       |
| Oak/hickory group              | 206.2            | 100.4      | 21.5        | .0         | 328.2       |
| River birch/sycamore           | 3.7              | .0         | .0          | .0         | 3.7         |
| Elm/ash/red maple group        | 3.7              | .0         | .0          | .0         | 3.7         |
| Sugar maple/beech/yellow birch | 30.5             | .0         | 7.3         | .0         | 37.8        |
| Black cherry                   | 3.6              | 10.5       | .0          | .0         | 14.1        |
| Red maple/northern hardwoods   | 3.1              | 6.8        | 4.2         | .0         | 14.1        |
| Pin cherry/reverting field     | .0               | .0         | 4.3         | .0         | 4.3         |
| Mixed northern hardwoods       | 19.2             | 10.3       | 2.6         | .0         | 32.2        |
| Northern hardwoods group       | 56.5             | 27.6       | 18.5        | .0         | 102.6       |
| All forest types               | 292.7            | 151.1      | 53.8        | .0         | 497.6       |

Table 89.--Number of growing-stock trees on timberland by species and diameter class, Western Unit, 1986  
(In thousands of trees)

| Species                   | Diameter class (inches at breast height) |               |               |               |               |               |               |               |               |               |               |            |                | All classes |
|---------------------------|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|------------|----------------|-------------|
|                           | 1.0-<br>2.9                              | 3.0-<br>4.9   | 5.0-<br>6.9   | 7.0-<br>8.9   | 9.0-<br>10.9  | 11.0-<br>12.9 | 13.0-<br>14.9 | 15.0-<br>16.9 | 17.0-<br>18.9 | 19.0-<br>20.9 | 21.0-<br>28.9 | 29.0+      |                |             |
| White/red pine            | 1,314                                    | 1,410         | 2,798         | 1,820         | 429           | 158           | 51            | 23            | 0             | 6             | 0             | 0          | 8,009          |             |
| Virginia pine             | 0  | 457           | 561           | 445           | 429           | 228           | 67            | 5             | 0             | 0             | 0             | 0          | 2,192          |             |
| Other yellow pines        | 631                                      | 631           | 143           | 185           | 61            | 90            | 37            | 26            | 7             | 0             | 0             | 0          | 1,811          |             |
| Other softwoods           | 2,866                                    | 2,235         | 756           | 897           | 265           | 171           | 124           | 129           | 75            | 51            | 41            | 0          | 7,611          |             |
| <b>Total softwoods</b>    | <b>4,811</b>                             | <b>4,734</b>  | <b>4,258</b>  | <b>3,346</b>  | <b>1,184</b>  | <b>647</b>    | <b>279</b>    | <b>183</b>    | <b>82</b>     | <b>57</b>     | <b>41</b>     | <b>0</b>   | <b>19,622</b>  |             |
| Red maple                 | 25,311                                   | 7,033         | 4,516         | 2,708         | 1,345         | 827           | 357           | 172           | 76            | 66            | 19            | 0          | 42,431         |             |
| Sugar maple               | 13,530                                   | 3,596         | 1,831         | 903           | 611           | 421           | 195           | 189           | 41            | 74            | 43            | 10         | 21,446         |             |
| Hickory                   | 4,122                                    | 2,303         | 1,042         | 843           | 554           | 298           | 207           | 101           | 58            | 7             | 5             | 0          | 9,541          |             |
| Beech                     | 2,358                                    | 0             | 303           | 213           | 107           | 58            | 67            | 22            | 19            | 6             | 0             | 0          | 3,153          |             |
| Yellow-poplar             | 0  | 0             | 195           | 53            | 20            | 84            | 92            | 23            | 15            | 0             | 0             | 0          | 481            |             |
| Blackgum                  | 3,103                                    | 653           | 472           | 48            | 76            | 7             | 29            | 14            | 30            | 6             | 0             | 0          | 4,438          |             |
| Ash-walnut-cherry         | 18,947                                   | 4,456         | 1,445         | 1,202         | 977           | 451           | 305           | 187           | 63            | 33            | 8             | 14         | 28,089         |             |
| Select white oaks         | 6,967                                    | 921           | 3,181         | 3,130         | 1,897         | 698           | 386           | 297           | 196           | 68            | 167           | 11         | 17,920         |             |
| Select red oaks           | 3,625                                    | 904           | 1,486         | 1,245         | 1,465         | 1,307         | 813           | 479           | 194           | 181           | 255           | 42         | 11,997         |             |
| Other white oaks          | 5,255                                    | 457           | 1,466         | 2,135         | 1,431         | 704           | 500           | 221           | 144           | 58            | 113           | 11         | 12,497         |             |
| Other red oaks            | 904                                      | 495           | 927           | 1,029         | 808           | 553           | 279           | 166           | 147           | 82            | 70            | 24         | 5,486          |             |
| Black locust              | 1,190                                    | 4,124         | 640           | 563           | 243           | 89            | 77            | 26            | 63            | 27            | 9             | 0          | 7,052          |             |
| Other hardwoods           | 17,961                                   | 3,251         | 1,381         | 1,106         | 769           | 371           | 274           | 117           | 19            | 29            | 46            | 6          | 25,330         |             |
| <b>Total hardwoods</b>    | <b>103,273</b>                           | <b>28,194</b> | <b>18,885</b> | <b>15,180</b> | <b>10,303</b> | <b>5,868</b>  | <b>3,582</b>  | <b>2,015</b>  | <b>1,065</b>  | <b>640</b>    | <b>737</b>    | <b>118</b> | <b>189,861</b> |             |
| <b>Total, all species</b> | <b>108,085</b>                           | <b>32,928</b> | <b>23,144</b> | <b>18,526</b> | <b>11,487</b> | <b>6,515</b>  | <b>3,861</b>  | <b>2,198</b>  | <b>1,147</b>  | <b>697</b>    | <b>778</b>    | <b>118</b> | <b>209,484</b> |             |

Table 90.--Net green weight of all live trees on timberland by species and diameter class, Western Unit, Maryland, 1986

(In thousands of tons)

| Species                    | Diameter class (inches at breast height) |         |         |          |           |           |           |           |           |         |          | All classes |
|----------------------------|--|---------|---------|----------|-----------|-----------|-----------|-----------|-----------|---------|----------|-------------|
|                            | 1.0-4.9                                  | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0+   |          |             |
| White/red pine             | 124.2                                    | 413.9   | 576.4   | 230.4    | 144.9     | 60.2      | 37.1      | .0        | 17.8      | .0      | 1,604.9  |             |
| Virginia pine              | 20.4                                     | 68.6    | 118.4   | 192.4    | 176.7     | 68.2      | 6.3       | .0        | .0        | .0      | 651.0    |             |
| Other yellow pines         | 76.6                                     | 22.7    | 55.3    | 37.3     | 69.6      | 40.9      | 36.5      | 11.5      | .0        | .0      | 350.3    |             |
| Other softwoods            | 119.6                                    | 118.8   | 238.4   | 125.2    | 128.5     | 124.3     | 178.6     | 146.0     | 114.9     | 146.6   | 1,441.0  |             |
| Total softwoods            | 340.8                                    | 624.1   | 988.4   | 585.3    | 519.7     | 293.6     | 258.6     | 157.5     | 132.7     | 146.6   | 4,047.3  |             |
| Red maple                  | 654.1                                    | 790.5   | 887.4   | 777.6    | 708.6     | 388.7     | 279.5     | 160.0     | 188.4     | 184.5   | 5,019.3  |             |
| Sugar maple                | 369.6                                    | 449.4   | 449.6   | 496.7    | 450.4     | 288.4     | 345.4     | 148.9     | 241.6     | 400.4   | 3,640.3  |             |
| Hickory                    | 143.9                                    | 165.0   | 279.5   | 345.6    | 308.8     | 303.1     | 202.8     | 178.3     | 29.4      | 35.6    | 1,992.0  |             |
| Beech                      | 27.5                                     | 93.7    | 104.8   | 76.6     | 65.8      | 96.0      | 45.3      | 46.8      | 18.6      | 30.4    | 605.4    |             |
| Yellow-poplar              | .0                                       | 34.1    | 14.8    | 12.1     | 62.0      | 100.3     | 35.0      | 30.8      | 11.3      | .0      | 300.5    |             |
| Blackgum                   | 44.5                                     | 88.3    | 16.3    | 46.4     | 7.2       | 37.1      | 32.7      | 63.5      | 16.8      | .0      | 352.9    |             |
| Ash-walnut-cherry          | 410.8                                    | 432.8   | 478.5   | 622.3    | 471.2     | 479.3     | 293.3     | 123.2     | 84.4      | 113.3   | 3,508.9  |             |
| Select white oaks          | 114.8                                    | 458.9   | 983.5   | 1,063.8  | 629.6     | 517.1     | 706.3     | 542.3     | 237.1     | 1,534.3 | 6,787.6  |             |
| Select red oaks            | 92.6                                     | 298.9   | 499.3   | 947.1    | 1,332.1   | 1,307.3   | 1,168.7   | 652.4     | 764.7     | 2,760.9 | 9,824.0  |             |
| Other white oaks           | 62.8                                     | 306.6   | 774.1   | 918.6    | 748.6     | 681.6     | 529.3     | 417.6     | 213.2     | 937.2   | 5,589.6  |             |
| Other red oaks             | 30.8                                     | 154.0   | 362.2   | 472.3    | 536.1     | 384.2     | 319.1     | 365.9     | 299.9     | 787.9   | 3,712.5  |             |
| Black locust               | 346.6                                    | 166.3   | 261.2   | 230.4    | 150.4     | 119.2     | 79.3      | 183.3     | 75.7      | 44.9    | 1,657.3  |             |
| Other commercial hardwoods | 264.2                                    | 253.2   | 420.4   | 456.9    | 310.3     | 386.3     | 188.9     | 43.4      | 81.4      | 377.7   | 2,782.8  |             |
| Non-commercial hardwoods   | 464.6                                    | 182.6   | 181.9   | 66.7     | 45.0      | 44.3      | .0        | .0        | .0        | .0      | 985.1    |             |
| Total hardwoods            | 3,026.7                                  | 3,874.3 | 5,713.6 | 6,533.0  | 5,826.0   | 5,133.1   | 4,225.6   | 2,956.2   | 2,262.5   | 7,207.1 | 46,758.1 |             |
| Total, all species         | 3,367.5                                  | 4,498.4 | 6,702.0 | 7,118.4  | 6,345.8   | 5,426.6   | 4,484.2   | 3,113.7   | 2,395.2   | 7,353.7 | 50,805.4 |             |

Table 91.--Net green weight of all trees on timberland by class of material and species group, Western Unit, Maryland, 1986

(In thousands of tons)

| Class of material                | Weight <sup>a</sup> |           | All groups |
|----------------------------------|---------------------|-----------|------------|
|                                  | Softwoods           | Hardwoods |            |
| Sawlog portion                   | 1,370.2             | 15,322.0  | 16,692.1   |
| Upper stem                       | 180.4               | 3,449.9   | 3,630.3    |
| Total                            | 1,550.6             | 18,771.8  | 20,322.4   |
| Poletimber trees                 | 1,071.1             | 9,897.3   | 10,968.4   |
| All growing stock                | 2,621.7             | 28,669.1  | 31,290.8   |
| Rough cull trees <sup>b</sup>    | 50.6                | 3,371.2   | 3,421.8    |
| Rotten cull trees <sup>b</sup>   | .8                  | 347.4     | 348.1      |
| Salvable dead trees <sup>c</sup> | 25.8                | 1,211.5   | 1,237.3    |
| Saplings <sup>c</sup>            | 340.8               | 3,026.7   | 3,367.5    |
| Tops - growing stock             | 1,013.8             | 10,024.8  | 11,038.6   |
| Tops - rough and rotten          | 19.7                | 1,318.9   | 1,338.5    |
| All nongrowing stock             | 1,451.4             | 19,300.5  | 20,751.9   |
| Total, all classes               | 4,073.1             | 47,969.6  | 52,042.7   |

<sup>a</sup> Includes bark and sound cull; excludes rotten cull.

<sup>b</sup> Bole portion of trees 5.0 inches d.b.h. and larger.

<sup>c</sup> Weight of entire tree aboveground.



# MAJOR SPECIES BY VOLUME, WESTERN UNIT, 1976 AND 1986

Millions of board feet

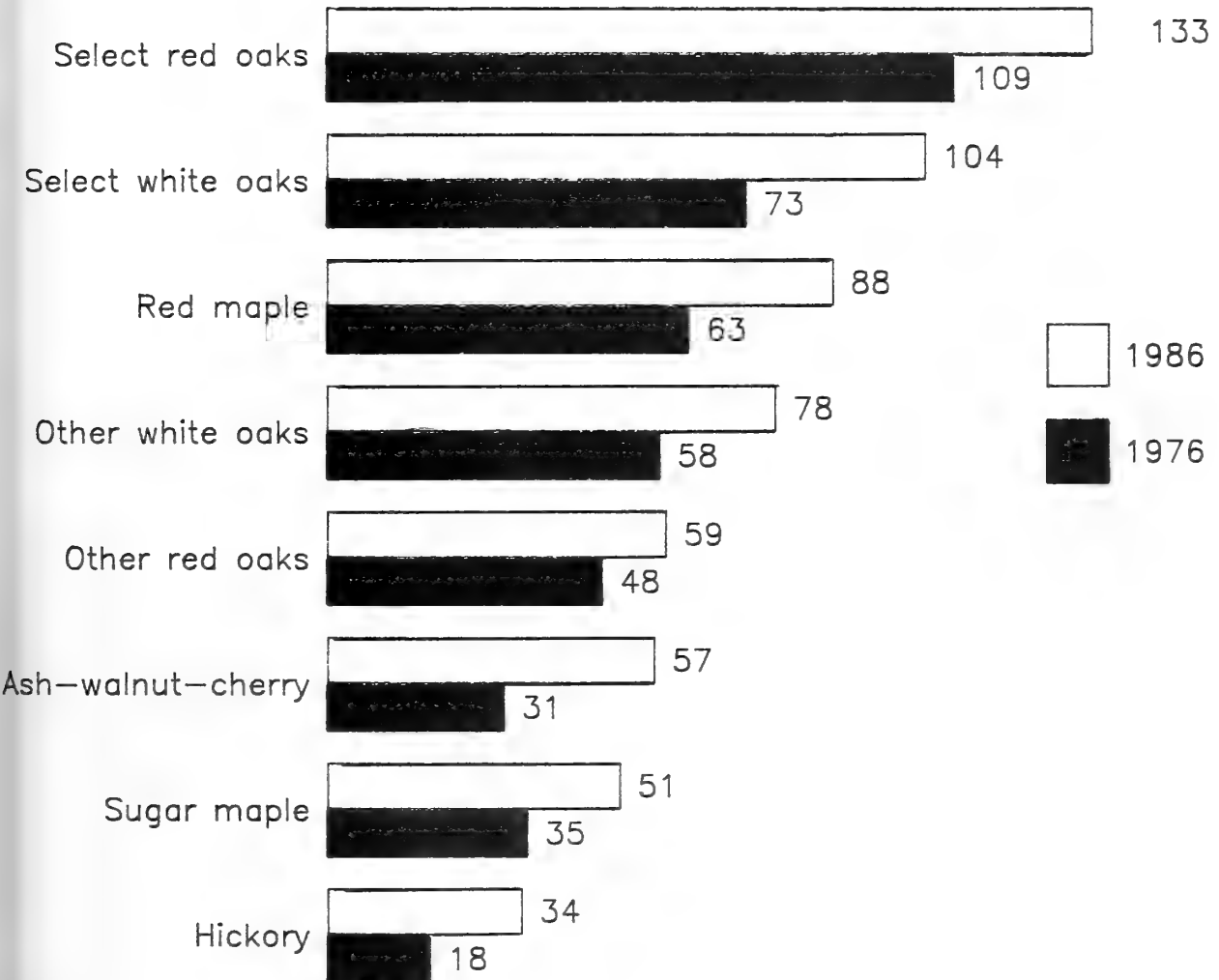


Table 92.--Net volume of growing-stock trees on timberland by species and diameter class, Western Unit, 1976

(In millions of cubic feet)

| Species                  | Diameter class (inches at breast height) |             |              |             |             |             |             |             |             |            | All classes |              |
|--------------------------|--|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|-------------|--------------|
|                          | 5.0-6.9                                  | 7.0-8.9     | 9.0-10.9     | 11.0-12.9   | 13.0-14.9   | 15.0-16.9   | 17.0-18.9   | 19.0-20.9   | 21.0-28.9   | 29.0+      |             |              |
| White/red pine           | 3.2                                      | 3.8         | 2.1          | .0          | .5          | .0          | .6          | .0          | .0          | .0         | .0          | 10.2         |
| Virginia pine            | 5.8                                      | 13.0        | 6.9          | 2.2         | .0          | .6          | .0          | .0          | .0          | .0         | .0          | 28.6         |
| Other yellow pines       | .4                                       | .0          | 1.4          | 1.0         | 1.1         | .0          | .0          | .0          | .0          | .0         | .0          | 3.9          |
| Other softwoods          | 1.1                                      | 1.7         | 2.5          | 1.8         | .5          | .6          | .0          | .0          | .0          | .0         | .0          | 8.3          |
| <b>Total softwoods</b>   | <b>10.6</b>                              | <b>18.6</b> | <b>12.9</b>  | <b>5.0</b>  | <b>2.1</b>  | <b>1.2</b>  | <b>.6</b>   | <b>.0</b>   | <b>.0</b>   | <b>.0</b>  | <b>.0</b>   | <b>50.9</b>  |
| Red maple                | 8.1                                      | 13.3        | 10.8         | 7.1         | 9.0         | 5.1         | 1.8         | 1.9         | 6.3         | .0         | .0          | 63.4         |
| Sugar maple              | 3.8                                      | 3.7         | 8.3          | 5.2         | 4.1         | 5.4         | .7          | 2.5         | 1.6         | .0         | .0          | 35.2         |
| Hickory                  | 1.5                                      | 1.3         | 5.3          | 3.8         | 2.3         | .8          | 1.5         | .0          | 1.9         | .0         | .0          | 18.4         |
| Beech                    | 1.7                                      | .0          | 1.1          | .6          | .0          | .0          | .0          | .0          | .0          | .0         | .0          | 3.4          |
| Yellow-poplar            | .0                                       | 1.0         | .0           | .0          | 4.2         | 3.8         | .8          | .9          | .9          | .0         | .0          | 11.6         |
| Blackgum                 | .8                                       | .0          | .0           | .0          | .0          | .0          | .0          | .0          | 1.0         | .0         | .0          | 1.8          |
| Ash-walnut-cherry        | 2.9                                      | 4.5         | 8.3          | 5.9         | 3.9         | .9          | 1.8         | .8          | 2.1         | .0         | .0          | 31.1         |
| Select white oaks        | 8.9                                      | 11.5        | 16.4         | 11.3        | 7.6         | 7.4         | 6.2         | .8          | 3.1         | .0         | .0          | 73.1         |
| Select red oaks          | 6.5                                      | 6.7         | 15.0         | 11.5        | 28.6        | 17.1        | 7.5         | .8          | 11.3        | 3.4        | .0          | 108.6        |
| Other white oaks         | 3.4                                      | 10.1        | 12.3         | 9.4         | 10.7        | 7.0         | 1.4         | .0          | 3.4         | .0         | .0          | 57.6         |
| Other red oaks           | 2.1                                      | 4.7         | 10.0         | 10.2        | 5.4         | 5.8         | 4.9         | .9          | 3.1         | .9         | .0          | 48.0         |
| Black locust             | 2.8                                      | 2.7         | 3.3          | .6          | .5          | .0          | .0          | .0          | .0          | .0         | .0          | 9.8          |
| Other hardwoods          | 2.5                                      | 6.5         | 6.0          | 5.1         | 3.9         | 1.8         | 1.4         | 2.3         | .9          | .0         | .0          | 30.5         |
| <b>Total hardwoods</b>   | <b>44.9</b>                              | <b>65.9</b> | <b>96.9</b>  | <b>70.8</b> | <b>80.2</b> | <b>55.0</b> | <b>28.0</b> | <b>10.9</b> | <b>35.6</b> | <b>4.4</b> | <b>4.4</b>  | <b>492.7</b> |
| <b>Total all species</b> | <b>55.5</b>                              | <b>84.5</b> | <b>109.8</b> | <b>75.8</b> | <b>82.3</b> | <b>56.2</b> | <b>28.6</b> | <b>10.9</b> | <b>35.6</b> | <b>4.4</b> | <b>4.4</b>  | <b>543.6</b> |

Table 93.---Net volume of growing-stock trees on timberland by species and diameter class, Western Unit, 1986

(In millions of cubic feet)

| Species                   | Diameter class (inches at breast height) |              |              |               |               |               |               |               |               |             | All classes  |
|---------------------------|--|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|--------------|
|                           | 5.0-<br>6.9                              | 7.0-<br>8.9  | 9.0-<br>10.9 | 11.0-<br>12.9 | 13.0-<br>14.9 | 15.0-<br>16.9 | 17.0-<br>18.9 | 19.0-<br>20.9 | 21.0-<br>28.9 | 29.0+       |              |
| White/red pine            | 7.3                                      | 10.6         | 4.1          | 2.4           | 1.1           | .6            | .0            | .3            | .0            | .0          | 26.5         |
| Virginia pine             | 1.1                                      | 2.3          | 4.0          | 3.3           | 1.4           | .1            | .0            | .0            | .0            | .0          | 12.1         |
| Other yellow pines        | .4                                       | 1.0          | .6           | 1.4           | .8            | .7            | .2            | .0            | .0            | .0          | 5.0          |
| Other softwoods           | 2.2                                      | 4.9          | 2.5          | 2.7           | 2.8           | 3.8           | 3.0           | 2.6           | 3.0           | .0          | 27.6         |
| <b>Total softwoods</b>    | <b>10.9</b>                              | <b>18.8</b>  | <b>11.2</b>  | <b>9.8</b>    | <b>6.0</b>    | <b>5.3</b>    | <b>3.2</b>    | <b>2.9</b>    | <b>3.0</b>    | <b>.0</b>   | <b>71.2</b>  |
| Red maple                 | 14.0                                     | 18.3         | 16.4         | 15.6          | 9.2           | 6.1           | 3.6           | 3.5           | 1.6           | .0          | 88.4         |
| Sugar maple               | 6.4                                      | 6.5          | 8.2          | 7.6           | 5.5           | 6.7           | 1.9           | 4.1           | 3.0           | 1.5         | 51.3         |
| Hickory                   | 2.9                                      | 5.8          | 7.2          | 5.6           | 5.7           | 3.5           | 2.6           | .3            | .5            | .0          | 34.0         |
| Beech                     | .8                                       | 1.4          | 1.3          | .9            | 1.7           | .7            | .7            | .3            | .0            | .0          | 7.8          |
| Yellow-poplar             | .7                                       | .3           | .3           | 1.6           | 2.7           | .8            | .8            | .0            | .0            | .0          | 7.4          |
| Blackgum                  | 1.5                                      | .3           | .9           | .2            | .7            | .5            | 1.1           | .3            | .0            | .0          | 5.6          |
| Ash-walnut-cherry         | 5.1                                      | 8.4          | 12.0         | 9.2           | 8.1           | 6.4           | 3.1           | 1.6           | .7            | 2.0         | 56.6         |
| Select white oaks         | 9.0                                      | 19.9         | 20.7         | 11.7          | 8.7           | 9.4           | 8.3           | 3.1           | 12.6          | 1.2         | 104.5        |
| Select red oaks           | 4.9                                      | 8.4          | 17.0         | 22.7          | 19.6          | 16.4          | 8.1           | 9.7           | 19.6          | 6.5         | 132.8        |
| Other white oaks          | 4.7                                      | 13.7         | 15.3         | 11.3          | 10.6          | 6.4           | 5.3           | 2.8           | 6.8           | 1.5         | 78.5         |
| Other red oaks            | 2.5                                      | 6.8          | 9.0          | 9.7           | 6.7           | 5.4           | 5.8           | 4.4           | 5.6           | 3.5         | 59.3         |
| Black locust              | 1.9                                      | 3.0          | 2.4          | 1.4           | 1.8           | .6            | 2.5           | 1.4           | .5            | .0          | 15.5         |
| Other hardwoods           | 4.1                                      | 7.3          | 9.3          | 6.5           | 6.3           | 3.6           | .7            | 1.5           | 3.6           | 1.1         | 44.0         |
| <b>Total hardwoods</b>    | <b>58.5</b>                              | <b>100.2</b> | <b>120.0</b> | <b>103.9</b>  | <b>87.2</b>   | <b>66.5</b>   | <b>44.4</b>   | <b>33.1</b>   | <b>54.4</b>   | <b>17.3</b> | <b>685.4</b> |
| <b>Total, all species</b> | <b>69.4</b>                              | <b>118.9</b> | <b>131.3</b> | <b>113.7</b>  | <b>93.2</b>   | <b>71.8</b>   | <b>47.6</b>   | <b>36.0</b>   | <b>57.4</b>   | <b>17.3</b> | <b>756.7</b> |

Table 94.--Net volume of sawtimber trees on timberland by species and diameter class, Western Unit, 1976

(In millions of board feet)<sup>a</sup>

| Species                  | Diameter class (inches at breast height) |              |              |              |              |             |              |             | All classes    |
|--------------------------|--|--------------|--------------|--------------|--------------|-------------|--------------|-------------|----------------|
|                          | 9.0-                                     | 11.0-        | 13.0-        | 15.0-        | 17.0-        | 19.0-       | 21.0-        |             |                |
|                          | 10.9                                     | 12.9         | 14.9         | 16.9         | 18.9         | 20.9        | 28.9         | 29.0+       |                |
| White/red pine           | 7.0                                      | .0           | 2.1          | .0           | 2.4          | .0          | .0           | .0          | 11.5           |
| Virginia pine            | 24.5                                     | 9.2          | .0           | 2.6          | 7.6          | .0          | .0           | .0          | 36.3           |
| Other yellow pines       | 4.7                                      | 3.7          | 4.9          | .0           | .0           | .0          | .0           | .0          | 13.3           |
| Other softwoods          | 8.4                                      | 5.9          | 1.6          | 2.0          | .0           | .0          | .0           | .0          | 17.9           |
| <b>Total softwoods</b>   | <b>44.6</b>                              | <b>18.8</b>  | <b>8.6</b>   | <b>4.6</b>   | <b>2.4</b>   | <b>.0</b>   | <b>.0</b>    | <b>.0</b>   | <b>79.0</b>    |
| Red maple                | .0                                       | 25.3         | 35.7         | 20.8         | 8.3          | 7.7         | 26.8         | .0          | 124.6          |
| Sugar maple              | .0                                       | 16.1         | 17.3         | 19.0         | 2.6          | 9.3         | 5.6          | .0          | 70.0           |
| Hickory                  | .0                                       | 13.1         | 8.6          | 2.5          | 5.8          | .0          | 7.6          | .0          | 37.6           |
| Beech                    | .0                                       | 1.8          | .0           | .0           | .0           | .0          | .0           | .0          | 1.8            |
| Yellow-poplar            | .0                                       | .0           | 18.7         | 17.9         | 4.0          | 3.1         | 4.4          | .0          | 48.1           |
| Blackgum                 | .0                                       | .0           | .0           | .0           | .0           | .0          | 3.3          | .0          | 3.3            |
| Ash-walnut-cherry        | .0                                       | 18.5         | 14.1         | 3.5          | 6.1          | 3.4         | 9.2          | .0          | 54.9           |
| Select white oaks        | .0                                       | 41.9         | 26.5         | 29.1         | 22.2         | 3.2         | 11.2         | .0          | 134.2          |
| Select red oaks          | .0                                       | 36.7         | 109.1        | 64.5         | 30.8         | 2.1         | 41.4         | 15.3        | 299.9          |
| Other white oaks         | .0                                       | 33.3         | 38.0         | 24.2         | 5.2          | .0          | 11.2         | .0          | 111.9          |
| Other red oaks           | .0                                       | 38.6         | 22.4         | 25.3         | 20.1         | 3.6         | 10.9         | 3.4         | 124.2          |
| Black locust             | .0                                       | 1.8          | 2.0          | .0           | .0           | .0          | .0           | .0          | 3.8            |
| Other hardwoods          | .0                                       | 19.9         | 14.2         | 5.2          | 6.4          | 9.6         | 2.3          | .0          | 57.5           |
| <b>Total hardwoods</b>   | <b>.0</b>                                | <b>247.2</b> | <b>306.6</b> | <b>212.0</b> | <b>111.4</b> | <b>42.0</b> | <b>133.8</b> | <b>18.7</b> | <b>1,071.7</b> |
| <b>Total all species</b> | <b>44.6</b>                              | <b>265.9</b> | <b>315.2</b> | <b>216.7</b> | <b>113.7</b> | <b>42.0</b> | <b>133.8</b> | <b>18.7</b> | <b>1,150.7</b> |

<sup>a</sup>International 1/4-inch rule.

Table 95.--Net volume of sawtimber trees on timberland by species and diameter class, Western Unit, 1986

(In millions of board feet)<sup>a</sup>

| Species                   | Diameter class (inches at breast height) |              |              |              |              |              |              |             | All classes    |
|---------------------------|--|--------------|--------------|--------------|--------------|--------------|--------------|-------------|----------------|
|                           | 9.0-                                     | 11.0-        | 13.0-        | 15.0-        | 17.0-        | 19.0-        | 21.0-        | 29.0+       |                |
|                           | 10.9                                     | 12.9         | 14.9         | 16.9         | 18.9         | 20.9         | 28.9         |             |                |
| White/red pine            | 13.3                                     | 9.8          | 4.7          | 3.0          | .0           | 1.5          | .0           | .0          | 32.4           |
| Virginia pine             | 13.1                                     | 12.6         | 5.4          | .6           | .0           | .0           | .0           | .0          | 31.7           |
| Other yellow pines        | 2.1                                      | 5.3          | 3.4          | 3.4          | 1.1          | .0           | .0           | .0          | 15.3           |
| Other softwoods           | 7.9                                      | 10.4         | 12.0         | 17.2         | 13.9         | 12.7         | 15.4         | .0          | 89.5           |
| <b>Total softwoods</b>    | <b>36.4</b>                              | <b>38.1</b>  | <b>25.5</b>  | <b>24.3</b>  | <b>15.0</b>  | <b>14.2</b>  | <b>15.4</b>  | <b>.0</b>   | <b>168.9</b>   |
| Red maple                 | .0                                       | 59.4         | 38.8         | 28.0         | 17.2         | 16.6         | 9.0          | .0          | 169.0          |
| Sugar maple               | .0                                       | 24.9         | 21.9         | 28.6         | 8.2          | 17.8         | 13.4         | 8.4         | 123.3          |
| Hickory                   | .0                                       | 21.4         | 24.9         | 16.3         | 12.8         | 1.6          | 2.7          | .0          | 79.7           |
| Beech                     | .0                                       | 3.7          | 7.6          | 3.5          | 3.6          | 1.9          | .0           | .0          | 20.3           |
| Yellow-poplar             | .0                                       | 6.1          | 12.2         | 3.9          | 4.0          | .0           | .0           | .0          | 26.1           |
| Blackgum                  | .0                                       | .4           | 2.7          | 2.5          | 4.7          | 1.0          | .0           | .0          | 11.4           |
| Ash-walnut-cherry         | .0                                       | 33.4         | 33.3         | 28.0         | 14.0         | 7.5          | 3.2          | 10.0        | 129.4          |
| Select white oaks         | .0                                       | 44.1         | 36.3         | 42.0         | 39.5         | 14.7         | 68.4         | 7.4         | 252.3          |
| Select red oaks           | .0                                       | 76.1         | 75.9         | 69.2         | 35.4         | 44.7         | 99.8         | 33.1        | 434.3          |
| Other white oaks          | .0                                       | 39.2         | 40.9         | 25.7         | 22.2         | 13.2         | 32.7         | 8.4         | 182.2          |
| Other red oaks            | .0                                       | 32.3         | 26.2         | 23.5         | 26.8         | 20.7         | 26.2         | 19.5        | 175.1          |
| Black locust              | .0                                       | 5.0          | 7.6          | 3.0          | 12.2         | 6.7          | 2.9          | .0          | 37.3           |
| Other hardwoods           | .0                                       | 24.6         | 26.5         | 16.8         | 3.7          | 7.1          | 18.1         | 6.5         | 103.1          |
| <b>Total hardwoods</b>    | <b>.0</b>                                | <b>370.5</b> | <b>354.7</b> | <b>291.1</b> | <b>204.4</b> | <b>153.5</b> | <b>276.4</b> | <b>93.2</b> | <b>1,743.7</b> |
| <b>Total, all species</b> | <b>36.4</b>                              | <b>408.6</b> | <b>380.2</b> | <b>315.4</b> | <b>219.4</b> | <b>167.7</b> | <b>291.8</b> | <b>93.2</b> | <b>1,912.6</b> |

<sup>a</sup> International 1/4-inch rule.

Table 96.--Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Western Unit, 1976  
(In millions of board feet)<sup>a</sup>

| Species                           | All size classes |              |              |              | >15" Diameter at breast height |              |              |              | All grades   |
|-----------------------------------|------------------|--------------|--------------|--------------|--------------------------------|--------------|--------------|--------------|--------------|
|                                   | Grade 1          | Grade 2      | Grade 3      | Grade 4      | Grade 1                        | Grade 2      | Grade 3      | Grade 4      |              |
| White/red pine                    | .0               | 1.2          | 9.3          | 1.0          | 11.5                           | 1.2          | .9           | .2           | 2.3          |
| Virginia pine                     | .0               | .0           | 36.3         | .0           | 36.3                           | .0           | 2.6          | .0           | 2.6          |
| Other yellow pines                | .0               | 2.0          | 11.3         | .0           | 13.3                           | .0           | .0           | .0           | .0           |
| Other softwoods                   | 17.9             | .0           | .0           | .0           | 17.9                           | .0           | .0           | .0           | 2.0          |
| <b>Total softwoods</b>            | <b>17.9</b>      | <b>3.2</b>   | <b>56.9</b>  | <b>1.0</b>   | <b>79.0</b>                    | <b>1.2</b>   | <b>3.5</b>   | <b>.2</b>    | <b>6.9</b>   |
| Red maple                         | 8.4              | 12.7         | 55.0         | 48.5         | 124.6                          | 8.3          | 32.7         | 14.2         | 63.6         |
| Sugar maple                       | 5.9              | 7.3          | 26.7         | 30.1         | 70.0                           | 5.3          | 12.4         | 14.2         | 36.5         |
| Hickory                           | 1.6              | 13.9         | 10.6         | 11.5         | 37.6                           | 5.8          | 3.0          | 5.5          | 15.9         |
| Beech                             | .0               | .0           | 1.6          | .2           | 1.8                            | .0           | .0           | .0           | .0           |
| Yellow-poplar                     | .0               | 1.8          | 11.5         | 34.8         | 48.1                           | .0           | 6.0          | 23.3         | 29.3         |
| Blackgum                          | 2.0              | .7           | .5           | .1           | 3.3                            | .7           | .4           | .1           | 3.2          |
| Ash-walnut-cherry                 | 5.3              | 7.1          | 27.5         | 15.0         | 54.9                           | 3.7          | 10.3         | 2.9          | 22.2         |
| Select white oaks                 | 6.0              | 12.7         | 55.5         | 60.0         | 134.2                          | 9.6          | 26.6         | 23.5         | 65.7         |
| Select red oaks                   | 20.0             | 65.4         | 154.2        | 60.3         | 299.9                          | 20.0         | 63.2         | 25.8         | 154.1        |
| Other white oaks                  | 1.0              | 12.8         | 40.1         | 58.0         | 111.9                          | 1.0          | 17.7         | 10.3         | 40.6         |
| Other red oaks                    | 8.5              | 17.4         | 28.0         | 70.3         | 124.2                          | 8.5          | 16.8         | 22.1         | 63.2         |
| Black locust                      | .0               | .0           | .0           | 3.8          | 3.8                            | .0           | .0           | .0           | .0           |
| Other hardwoods                   | 4.7              | 6.3          | 24.9         | 21.6         | 57.5                           | 2.3          | 15.2         | 1.4          | 23.6         |
| <b>Total hardwoods</b>            | <b>63.4</b>      | <b>158.1</b> | <b>436.1</b> | <b>414.1</b> | <b>1,071.7</b>                 | <b>108.2</b> | <b>204.3</b> | <b>143.3</b> | <b>517.9</b> |
| Percent of hardwood in each grade | 6                | 15           | 41           | 38           | 100                            | 21           | 39           | 28           | 100          |

<sup>a</sup> International 1/4-inch rule.

Table 97.--Net volume of sawtimber trees on timberland by species, size class, and standard-lumber log grade, Western Unit, 1986  
(In millions of board feet)<sup>a</sup>

| Species                                  | All size classes |              |              |              | >15" Diameter at breast height |              |              |              | All grades     |
|--|------------------|--------------|--------------|--------------|--------------------------------|--------------|--------------|--------------|----------------|
|  | Grade 1          | Grade 2      | Grade 3      | Grade 4      | Grade 1                        | Grade 2      | Grade 3      | Grade 4      |                |
| White/red pine                           | .0               | 2.2          | 26.3         | 3.9          | 32.4                           | .0           | 1.3          | 3.2          | 4.6            |
| Virginia pine                            | .0               | .0           | 31.7         | .0           | 31.7                           | .0           | .6           | .0           | .6             |
| Other yellow pines                       | .8               | .7           | 13.8         | .0           | 15.3                           | .5           | 3.9          | .0           | 4.4            |
| Other softwoods                          | 89.5             | .0           | .0           | .0           | 89.5                           | 59.2         | .0           | .0           | 59.2           |
| <b>Total softwoods</b>                   | <b>90.3</b>      | <b>2.9</b>   | <b>71.8</b>  | <b>3.9</b>   | <b>168.9</b>                   | <b>59.7</b>  | <b>.1</b>    | <b>5.8</b>   | <b>68.9</b>    |
| Red maple                                | 9.6              | 38.9         | 73.5         | 47.1         | 169.0                          | 8.1          | 14.9         | 16.8         | 70.8           |
| Sugar maple                              | 9.3              | 31.1         | 37.3         | 45.6         | 123.3                          | 7.1          | 23.2         | 23.4         | 76.5           |
| Hickory                                  | 4.7              | 19.8         | 26.7         | 28.6         | 79.7                           | 4.2          | 5.0          | 13.3         | 33.5           |
| Beech                                    | .2               | 1.9          | 8.2          | 10.0         | 20.3                           | .1           | .6           | 5.3          | 9.1            |
| Yellow-poplar                            | 4.8              | 9.5          | 8.3          | 3.6          | 26.1                           | 2.1          | 2.2          | .9           | 7.8            |
| Blackgum                                 | .0               | 4.6          | 7.0          | 2.8          | 11.4                           | .0           | .9           | 1.0          | 8.3            |
| Ash-walnut-cherry                        | 22.1             | 41.0         | 39.2         | 27.0         | 129.4                          | 17.1         | 21.1         | 8.2          | 62.7           |
| Select white oaks                        | 35.4             | 57.2         | 88.1         | 71.6         | 252.3                          | 33.9         | 43.2         | 43.8         | 172.0          |
| Select red oaks                          | 85.1             | 97.8         | 158.2        | 93.3         | 434.3                          | 80.2         | 60.5         | 54.9         | 282.3          |
| Other white oaks                         | 14.5             | 47.3         | 71.4         | 49.0         | 182.2                          | 14.5         | 28.2         | 29.4         | 102.1          |
| Other red oaks                           | 26.0             | 29.9         | 58.7         | 60.5         | 175.1                          | 24.8         | 25.4         | 29.1         | 116.7          |
| Black locust                             | 1.9              | 7.8          | 20.2         | 7.4          | 37.3                           | 1.9          | 7.0          | 4.8          | 24.7           |
| Other hardwoods                          | 4.5              | 21.7         | 50.7         | 26.3         | 103.1                          | 4.3          | 12.9         | 7.1          | 52.1           |
| <b>Total hardwoods</b>                   | <b>218.1</b>     | <b>405.4</b> | <b>647.5</b> | <b>472.8</b> | <b>1,743.7</b>                 | <b>198.3</b> | <b>245.0</b> | <b>238.0</b> | <b>1,018.5</b> |
| <b>Percent of hardwood in each grade</b> | <b>13</b>        | <b>23</b>    | <b>37</b>    | <b>27</b>    | <b>100</b>                     | <b>19</b>    | <b>24</b>    | <b>33</b>    | <b>100</b>     |

<sup>a</sup> International 1/4-inch rule.

Table 98.--Sampling errors for various tables, Western Unit, 1976 and 1986

(In percent)

| Species and<br>diameter class | Number of<br>trees | Growing-stock<br>volume |      | Sawtimber<br>volume |      |
|-------------------------------|--------------------|-------------------------|------|---------------------|------|
|                               | (Table 89)         | Tables                  |      | Tables              |      |
|                               | (5"+)              | (92)                    | (93) | (94)                | (95) |
| White/red pine                | 57                 | 66                      | 57   | 72                  | 56   |
| Virginia pine                 | 25                 | 43                      | 34   | 41                  | 47   |
| Other yellow pines            | 45                 | 58                      | 35   | 64                  | 41   |
| Other softwoods               | 28                 | 60                      | 38   | 66                  | 49   |
| Total softwoods               | 32                 | 28                      | 28   | 34                  | 30   |
| Red maple                     | 14                 | 27                      | 13   | 47                  | 17   |
| Sugar maple                   | 19                 | 33                      | 20   | 43                  | 22   |
| Hickory                       | 16                 | 28                      | 18   | 37                  | 22   |
| Beech                         | 49                 | 52                      | 56   | 102                 | 56   |
| Yellow-poplar                 | 56                 | 83                      | 51   | 91                  | 52   |
| Blackgum                      | 36                 | 64                      | 29   | 101                 | 40   |
| Ash-walnut-cherry             | 22                 | 31                      | 19   | 39                  | 23   |
| Select white oaks             | 16                 | 21                      | 13   | 26                  | 15   |
| Select red oaks               | 11                 | 19                      | 10   | 21                  | 12   |
| Other white oaks              | 16                 | 23                      | 14   | 31                  | 18   |
| Other red oaks                | 19                 | 27                      | 15   | 30                  | 16   |
| Black locust                  | 25                 | 34                      | 20   | 74                  | 30   |
| Other hardwoods               | 20                 | 30                      | 22   | 33                  | 25   |
| Total hardwoods               | 5                  | 5                       | 5    | 7                   | 6    |
| Total, all species            | 6                  | 4                       | 4    | 7                   | 6    |
| D.B.H. class (inches)         |                    |                         |      |                     |      |
| 5.0 to 6.9                    | 10                 | 14                      | 9    | -                   | -    |
| 7.0 to 8.9                    | 10                 | 15                      | 10   | -                   | -    |
| 9.0 to 10.9                   | 7                  | 10                      | 7    | 38                  | 28   |
| 11.0 to 12.9                  | 7                  | 10                      | 7    | 11                  | 7    |
| 13.0 to 14.9                  | 9                  | 12                      | 9    | 12                  | 9    |
| 15.0 to 16.9                  | 8                  | 12                      | 8    | 12                  | 8    |
| 17.0 to 18.9                  | 11                 | 20                      | 12   | 18                  | 12   |
| 19.0 to 20.9                  | 14                 | 30                      | 14   | 30                  | 14   |
| 21.0 to 28.9                  | 14                 | 23                      | 15   | 22                  | 15   |
| 29 +                          | 25                 | 45                      | 26   | 47                  | 26   |



# COUNTY TABLES

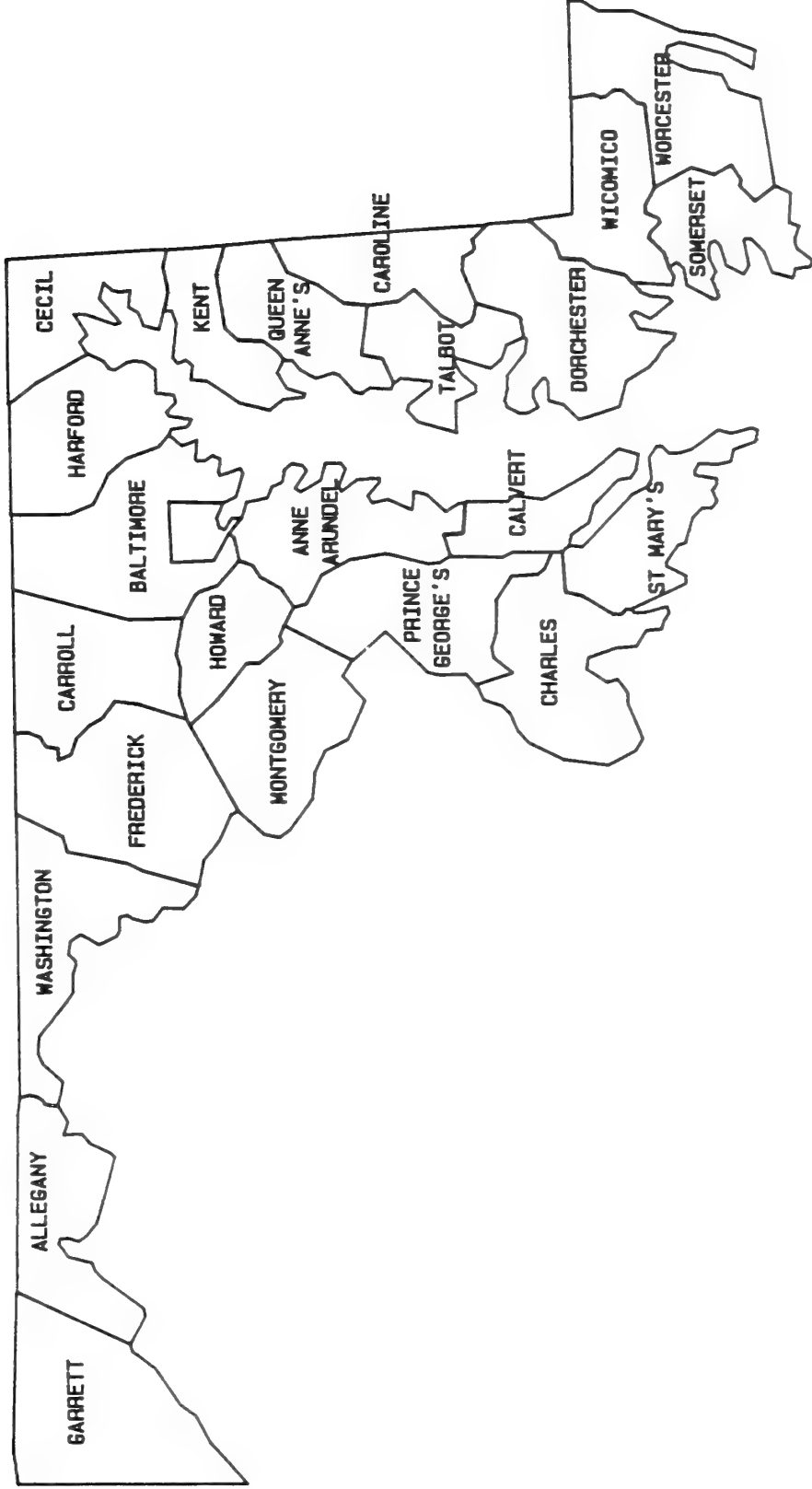


Table 99.--Land area by county and land class, Maryland, 1986  
(In thousands of acres)

| County                    | Land class |                              |                        |                   |       |                       |                      |                   |               |                    | Total <sup>b</sup><br>area |
|---------------------------|------------|------------------------------|------------------------|-------------------|-------|-----------------------|----------------------|-------------------|---------------|--------------------|----------------------------|
|                           | Timberland | Christmas tree<br>plantation | Productive<br>reserved | Unpro-<br>ductive | Urban | Cropland <sup>a</sup> | Pasture <sup>a</sup> | Other<br>farmland | Other<br>land | Total <sup>b</sup> |                            |
| Baltimore                 | 104.9      | .0                           | 15.2                   | .0                | 25.3  | 59.3                  | 21.8                 | 19.2              | 188.2         | 433.9              |                            |
| Carroll                   | 70.7       | .0                           | 2.0                    | .0                | .0    | 119.6                 | 27.5                 | .0                | 69.5          | 289.3              |                            |
| Frederick                 | 116.8      | .0                           | 16.0                   | .0                | 4.2   | 149.7                 | 55.1                 | 36.0              | 46.3          | 424.1              |                            |
| Washington                | 90.4       | .0                           | 19.8                   | 12.9              | 5.1   | 85.0                  | 33.7                 | .0                | 44.3          | 291.2              |                            |
| Anne Arundel/Howard       | 147.9      | .0                           | 11.1                   | .0                | 30.9  | 56.6                  | 17.4                 | 8.9               | 155.6         | 428.4              |                            |
| Caroline/Talbot           | 100.0      | .0                           | 1.5                    | .0                | .0    | 201.4                 | 6.4                  | .0                | 61.5          | 370.8              |                            |
| Cecil/Harford             | 163.5      | .0                           | 15.7                   | .0                | 10.4  | 129.1                 | 37.6                 | 38.6              | 121.7         | 516.6              |                            |
| Kent/Queen Annes          | 112.3      | .0                           | 2.1                    | .0                | .0    | 241.5                 | 9.4                  | 50.8              | .0            | 416.1              |                            |
| Montgomery/Prince Georges | 153.0      | .0                           | 48.2                   | .0                | 27.1  | 94.6                  | 30.7                 | 22.1              | 253.1         | 628.8              |                            |
| Central Unit              | 1,059.5    | .0                           | 131.6                  | 12.9              | 103.0 | 1,136.8               | 239.6                | 175.6             | 940.2         | 3,799.2            |                            |
| Calvert                   | 73.9       | .0                           | 1.2                    | .0                | .0    | 23.8                  | 4.8                  | 6.0               | 26.8          | 136.5              |                            |
| Charles                   | 175.5      | .0                           | 1.2                    | .0                | .0    | 38.6                  | 7.7                  | 2.8               | 63.2          | 289.0              |                            |
| St. Marys                 | 128.5      | .0                           | 2.0                    | .0                | .0    | 46.3                  | 7.9                  | 16.3              | 37.4          | 238.4              |                            |
| Southern Unit             | 377.9      | .0                           | 4.4                    | .0                | .0    | 108.7                 | 20.4                 | 25.1              | 127.4         | 663.9              |                            |
| Dorchester                | 141.1      | .0                           | 3.7                    | .0                | .0    | 100.4                 | 1.9                  | 13.7              | 118.9         | 379.7              |                            |
| Somerset                  | 87.2       | .0                           | .0                     | .0                | .0    | 40.8                  | 2.0                  | 7.9               | 78.7          | 216.6              |                            |
| Wicomico                  | 104.6      | .0                           | .0                     | .0                | .0    | 78.9                  | 2.6                  | 6.4               | 50.1          | 242.6              |                            |
| Worcester                 | 156.1      | .0                           | 1.4                    | .0                | .0    | 81.6                  | 2.2                  | 2.2               | 60.4          | 303.9              |                            |
| Lower Eastern Shore Unit  | 489.0      | .0                           | 5.1                    | .0                | .0    | 301.7                 | 8.7                  | 30.2              | 308.1         | 1,142.8            |                            |
| Allegany                  | 198.3      | .0                           | 9.2                    | 4.0               | .0    | 12.6                  | 11.3                 | 11.7              | 22.2          | 269.3              |                            |
| Garrett                   | 299.3      | 2.2                          | 2.8                    | 4.3               | .0    | 42.0                  | 29.2                 | 13.9              | 26.7          | 420.4              |                            |
| Western Unit              | 497.6      | 2.2                          | 12.0                   | 8.3               | .0    | 54.6                  | 40.5                 | 25.6              | 48.9          | 689.7              |                            |
| State total               | 2,424.0    | 2.2                          | 152.9                  | 21.2              | 103.0 | 1,602.0               | 309.0                | 256.7             | 1,424.5       | 6,295.5            |                            |

<sup>a</sup> Source: 1982 Census of Agriculture.

<sup>b</sup> Source: 1981 United States Department of Commerce, Bureau of Census.

Table 100.--Area of timberland by county and ownership class<sup>a</sup>, Maryland, 1986  
(In thousands of acres)

| County                    | Ownership class |      |               |              |             |                  |                 |               | All classes |
|---------------------------|-----------------|------|---------------|--------------|-------------|------------------|-----------------|---------------|-------------|
|                           | National Forest |      | Other federal | State forest | Other state | County municipal | Forest industry | Other Private |             |
|                           |                 |      |               |              |             |                  |                 |               |             |
| Baltimore                 | .0              | .0   | .0            | .0           | .7          | 12.9             | .0              | 91.3          | 104.9       |
| Carroll                   | .0              | .0   | .0            | .0           | 1.0         | 2.7              | .0              | 67.0          | 70.7        |
| Fredrick                  | .0              | .0   | .0            | .0           | 1.1         | 8.8              | .0              | 106.9         | 116.8       |
| Washington                | .0              | .0   | .0            | .0           | 11.1        | 1.4              | .0              | 77.9          | 90.4        |
| Anne Arundel/Howard       | .0              | 9.6  | .0            | .0           | 2.4         | 3.0              | .0              | 156.8         | 147.9       |
| Caroline/Talbot           | .0              | .0   | .1            | .0           | 2.4         | .0               | 3.7             | 93.8          | 100.0       |
| Cecil/Harford             | .0              | 5.2  | 3.6           | .0           | 2.7         | .0               | .0              | 152.0         | 163.5       |
| Kent/Queen Annes          | .0              | .0   | .0            | .0           | 4.7         | .0               | .0              | 107.6         | 112.3       |
| Montgomery/Prince Georges | .0              | 4.5  | .9            | .0           | 4.3         | 1.2              | .0              | 142.1         | 153.0       |
| Central Unit              | .0              | 19.3 | 4.6           | 30.4         | 30.1        | 3.7              | 964.7           | 1,059.6       |             |
| Calvert                   | .0              | .1   | .0            | .6           | .0          | .0               | .0              | 73.2          | 73.9        |
| Charles                   | .0              | 3.0  | 4.2           | 4.2          | .0          | 7.3              | 156.8           | 175.5         |             |
| St. Marys                 | .0              | 1.7  | .0            | .8           | .0          | .0               | 126.0           | 128.5         |             |
| Southern Unit             | .0              | 4.8  | 4.2           | 5.6          | .0          | 7.3              | 347.8           | 377.9         |             |
| Dorchester                | .0              | .0   | .0            | 1.3          | .0          | 36.0             | 103.8           | 141.1         |             |
| Somerset                  | .0              | .0   | .0            | 1.5          | .0          | 25.8             | 59.9            | 87.2          |             |
| Wicomico                  | .0              | .0   | 1.2           | .5           | .0          | 23.3             | 79.6            | 104.6         |             |
| Worcester                 | .0              | .0   | 13.3          | .9           | .0          | 27.5             | 114.4           | 156.1         |             |
| Lower Eastern Shore Unit  | .0              | .0   | 14.5          | 4.2          | .0          | 112.6            | 363.7           | 489.0         |             |
| Allegany                  | .0              | .9   | 38.4          | 13.6         | .9          | .0               | 144.7           | 198.3         |             |
| Garrett                   | .0              | .0   | 69.5          | 3.2          | 1.6         | 6.9              | 218.1           | 299.3         |             |
| Western Unit              | .0              | .9   | 107.9         | 16.8         | 2.5         | 6.9              | 361.2           | 497.6         |             |
| State total               | .0              | 25.0 | 131.3         | 56.6         | 32.6        | 130.6            | 2,047.9         | 2,424.0       |             |

<sup>a</sup> Further refinement of the private ownership estimates will be available in the forthcoming publication - Forest Landowners of Maryland.

Table 101.--Area of timberland by county and forest-type group, Maryland, 1986  
(In thousands of acres)

| County                    | Forest-type group |            |                    |          |             |                 |                   |                    |             |         | All groups |
|---------------------------|-------------------|------------|--------------------|----------|-------------|-----------------|-------------------|--------------------|-------------|---------|------------|
|                           | White/red pine    | Spruce/fir | Loblolly/shortleaf | Oak/pine | Oak/hickory | Oak/gum/cypress | Elm/ash/red maple | Northern hardwoods | Aspen/birch |         |            |
| Baltimore                 | 10.4              | .0         | 4.0                | 11.5     | 76.0        | .0              | .0                | 3.1                | .0          | 104.9   |            |
| Carroll                   | .0                | .0         | 7.5                | .0       | 58.6        | .0              | 4.6               | .0                 | .0          | 70.7    |            |
| Frederick                 | 15.0              | .0         | .0                 | 2.4      | 82.2        | .0              | 4.5               | 12.6               | .0          | 116.8   |            |
| Washington                | .0                | .0         | .0                 | 11.3     | 68.0        | .0              | 6.1               | 5.1                | .0          | 90.4    |            |
| Anne Arundel/Howard       | .0                | .0         | 17.5               | 11.7     | 103.1       | .0              | 15.7              | .0                 | .0          | 147.9   |            |
| Caroline/Talbot           | .0                | .0         | 7.4                | 15.7     | 77.0        | .0              | .0                | .0                 | .0          | 100.0   |            |
| Cecil/Harford             | .0                | .0         | 7.9                | 9.1      | 134.3       | .8              | 5.3               | 6.2                | .0          | 163.5   |            |
| Kent/Queen Annes          | .0                | .0         | 9.3                | 14.5     | 65.4        | 12.1            | 11.0              | .0                 | .0          | 112.3   |            |
| Montgomery/Prince Georges | .0                | .0         | 18.7               | 16.2     | 102.0       | 8.0             | 4.1               | 4.1                | .0          | 153.0   |            |
| Central Unit              | 25.4              | .0         | 72.2               | 92.3     | 766.5       | 20.8            | 51.2              | 31.2               | .0          | 1,059.6 |            |
| Calvert                   | .0                | .0         | 1.6                | 11.5     | 47.6        | 10.3            | 2.8               | .0                 | .0          | 73.9    |            |
| Charles                   | .0                | .0         | 34.5               | 21.5     | 108.3       | 7.5             | 3.7               | .0                 | .0          | 175.5   |            |
| St. Marys                 | .0                | .0         | 30.6               | 17.9     | 68.2        | 8.9             | 2.9               | .0                 | .0          | 128.5   |            |
| Southern Unit             | .0                | .0         | 66.7               | 50.9     | 224.1       | 26.8            | 9.4               | .0                 | .0          | 377.9   |            |
| Dorchester                | .0                | .0         | 44.1               | 39.0     | 12.4        | 36.6            | 9.1               | .0                 | .0          | 141.1   |            |
| Somerset                  | .0                | .0         | 29.9               | 24.7     | 25.5        | 3.4             | 3.7               | .0                 | .0          | 87.2    |            |
| Wicomico                  | .0                | .0         | 32.7               | 21.8     | 30.4        | 19.6            | .0                | .0                 | .0          | 104.6   |            |
| Worcester                 | .0                | .0         | 35.4               | 33.7     | 67.5        | 13.0            | 6.5               | .0                 | .0          | 156.1   |            |
| Lower Eastern Shore Unit  | .0                | .0         | 142.1              | 119.3    | 135.7       | 72.6            | 19.3              | .0                 | .0          | 489.0   |            |
| Allegany                  | .0                | .0         | 15.9               | 15.9     | 133.8       | .0              | 3.7               | 29.0               | .0          | 198.3   |            |
| Garrett                   | 27.7              | .0         | .0                 | 3.6      | 194.4       | .0              | .0                | 73.6               | .0          | 299.3   |            |
| Western Unit              | 27.7              | .0         | 15.9               | 19.5     | 328.2       | .0              | 3.7               | 102.6              | .0          | 497.6   |            |
| State total               | 53.1              | .0         | 296.9              | 281.9    | 1,454.4     | 120.2           | 83.7              | 133.8              | .0          | 2,424.0 |            |

Table 102.--Area of timberland by county and stand-size class, Maryland, 1986

(In thousands of acres)

| County                    | Stand-size class |            |                      |            | All classes |
|---------------------------|------------------|------------|----------------------|------------|-------------|
|                           | Sawtimber        | Poletimber | Sapling and seedling | Nonstocked |             |
| Baltimore                 | 82.1             | 22.8       | .0                   | .0         | 104.9       |
| Carroll                   | 66.9             | 3.7        | .0                   | .0         | 70.7        |
| Frederick                 | 65.5             | 28.2       | 23.2                 | .0         | 116.8       |
| Washington                | 71.5             | 18.9       | .0                   | .0         | 90.4        |
| Anne Arundel/Howard       | 118.9            | 21.3       | 7.8                  | .0         | 147.9       |
| Caroline/Talbot           | 73.5             | 21.6       | 4.9                  | .0         | 100.0       |
| Cecil/Harford             | 112.8            | 23.9       | 26.8                 | .0         | 163.5       |
| Kent/Queen Annes          | 108.2            | 2.1        | 1.9                  | .0         | 112.3       |
| Montgomery/Prince Georges | 108.2            | 28.5       | 16.3                 | .0         | 153.0       |
| Central Unit              | 807.6            | 171.1      | 80.9                 | .0         | 1,059.6     |
| Calvert                   | 68.4             | 3.7        | 1.7                  | .0         | 73.9        |
| Charles                   | 127.5            | 27.5       | 20.4                 | .0         | 175.5       |
| St. Marys                 | 119.1            | 6.8        | 2.5                  | .0         | 128.5       |
| Southern Unit             | 315.1            | 38.1       | 24.7                 | .0         | 377.9       |
| Dorchester                | 84.5             | 34.9       | 21.8                 | .0         | 141.1       |
| Somerset                  | 54.2             | 13.4       | 19.5                 | .0         | 87.2        |
| Wicomico                  | 76.2             | 21.1       | 7.3                  | .0         | 104.6       |
| Worcester                 | 93.6             | 39.2       | 23.4                 | .0         | 156.1       |
| Lower Eastern Shore Unit  | 308.5            | 108.6      | 72.0                 | .0         | 489.0       |
| Allegany                  | 107.2            | 66.7       | 24.4                 | .0         | 198.3       |
| Garrett                   | 185.5            | 84.4       | 29.4                 | .0         | 299.3       |
| Western Unit              | 292.7            | 151.1      | 53.8                 | .0         | 497.6       |
| State total               | 1,723.8          | 468.9      | 231.3                | .0         | 2,424.0     |

Table 103.--Area of timberland by county and cubic-foot stand-volume class, Maryland, 1986

(In thousands of acres)

| County                    | Stand-volume class (cubic feet per acre) |         |           |           |           |       | All classes |
|---------------------------|--|---------|-----------|-----------|-----------|-------|-------------|
|                           | 0-499                                    | 500-999 | 1000-1499 | 1500-1999 | 2000-2499 | 2500+ |             |
| Baltimore                 | .0                                       | 13.6    | 19.8      | 11.9      | 21.4      | 38.1  | 104.9       |
| Carroll                   | 3.2                                      | 14.9    | 6.9       | 16.1      | 9.1       | 20.4  | 70.7        |
| Frederick                 | 27.0                                     | 4.6     | 5.1       | 15.5      | 25.8      | 38.9  | 116.8       |
| Washington                | 5.1                                      | 1.4     | 26.0      | 21.8      | .0        | 36.1  | 90.4        |
| Anne Arundel/Howard       | 7.8                                      | 9.3     | 38.6      | 20.8      | 20.3      | 51.1  | 147.9       |
| Caroline/Talbot           | 3.2                                      | 6.4     | 9.4       | 28.1      | 11.7      | 41.2  | 100.0       |
| Cecil/Harford             | 23.6                                     | 7.9     | 24.9      | 37.1      | 26.3      | 43.7  | 163.5       |
| Kent/Queen Annes          | 1.9                                      | 2.1     | 25.4      | 10.4      | 11.7      | 60.7  | 112.3       |
| Montgomery/Prince Georges | 16.3                                     | 8.3     | 24.7      | 33.3      | 15.7      | 54.7  | 153.0       |
| Central Unit              | 88.1                                     | 68.7    | 180.7     | 195.1     | 142.1     | 384.8 | 1,059.6     |
| Calvert                   | 1.7                                      | 2.8     | 7.6       | 16.8      | 17.2      | 27.8  | 73.9        |
| Charles                   | 8.8                                      | 16.4    | 25.8      | 24.7      | 35.0      | 64.8  | 175.5       |
| St. Marys                 | .0                                       | 8.0     | 7.2       | 21.7      | 50.0      | 41.6  | 128.5       |
| Southern Unit             | 10.5                                     | 27.2    | 40.5      | 63.3      | 102.1     | 134.2 | 377.9       |
| Dorchester                | 23.2                                     | 32.2    | 13.5      | 23.5      | 25.4      | 23.4  | 141.1       |
| Somerset                  | 19.5                                     | 6.3     | 4.6       | 18.8      | 21.3      | 16.6  | 87.2        |
| Wicomico                  | 4.7                                      | 23.2    | 18.7      | 21.1      | 26.9      | 10.0  | 104.6       |
| Worcester                 | 22.4                                     | 28.5    | 19.9      | 34.8      | 11.9      | 38.6  | 156.1       |
| Lower Eastern Shore Unit  | 69.8                                     | 90.1    | 56.8      | 98.3      | 85.5      | 88.5  | 489.0       |
| Allegany                  | 32.3                                     | 28.4    | 42.4      | 39.4      | 42.1      | 13.7  | 198.3       |
| Garrett                   | 39.3                                     | 20.8    | 43.8      | 44.8      | 104.1     | 46.6  | 299.3       |
| Western Unit              | 71.5                                     | 49.2    | 86.2      | 84.2      | 146.2     | 60.3  | 497.6       |
| State total               | 240.0                                    | 235.3   | 364.2     | 440.9     | 475.9     | 667.7 | 2,424.0     |

Table 104.--Area of timberland by county and green ton stand-volume class, Maryland, 1986

(In thousands of acres)

| County                    | Stand-volume class (green tons per acre) |       |       |       |         |         |         |         |       |         | All classes |
|---------------------------|--|-------|-------|-------|---------|---------|---------|---------|-------|---------|-------------|
|                           | 0-24                                     | 25-49 | 50-74 | 75-99 | 100-124 | 125-149 | 150-174 | 175-199 | 200+  |         |             |
| Baltimore                 | .0                                       | 7.4   | 14.5  | 23.5  | 13.5    | 10.3    | 4.0     | 23.8    | 8.0   | 104.9   |             |
| Carroll                   | 7.8                                      | 14.9  | 7.8   | 10.5  | 8.8     | 5.3     | 11.5    | 4.0     | .0    | 70.7    |             |
| Frederick                 | 27.0                                     | 2.7   | 2.4   | 9.8   | 31.8    | 11.7    | 12.9    | .0      | 18.5  | 116.8   |             |
| Washington                | 8.0                                      | 7.2   | 17.3  | 21.8  | .0      | 5.9     | 18.9    | 5.9     | 5.4   | 90.4    |             |
| Anne Arundel/Howard       | 7.8                                      | 17.2  | 20.1  | 29.0  | 33.7    | 12.1    | 10.2    | 5.3     | 12.5  | 147.9   |             |
| Caroline/Talbot           | 3.2                                      | .0    | 16.8  | 9.4   | 21.8    | 27.8    | 9.3     | 3.2     | 8.6   | 100.0   |             |
| Cecil/Harford             | 17.3                                     | .0    | 46.4  | 15.7  | 23.3    | 28.5    | 7.6     | 14.7    | 10.1  | 163.5   |             |
| Kent/Queen Annes          | 1.9                                      | .0    | 27.2  | 14.2  | 15.1    | 19.0    | 8.4     | 10.8    | 15.6  | 112.3   |             |
| Montgomery/Prince Georges | 12.4                                     | 8.1   | 7.6   | 40.1  | 24.3    | 30.2    | 8.4     | 8.4     | 13.4  | 153.0   |             |
| Central Unit              | 85.3                                     | 57.6  | 160.2 | 174.0 | 172.4   | 150.8   | 91.3    | 76.0    | 92.2  | 1,059.6 |             |
| Calvert                   | 2.9                                      | 2.8   | 17.9  | 10.3  | 27.5    | 8.8     | .0      | .0      | 3.6   | 73.9    |             |
| Charles                   | 5.3                                      | 31.2  | 28.6  | 33.4  | 17.8    | 40.3    | 3.8     | 3.8     | 11.3  | 175.5   |             |
| St. Marys                 | .0                                       | 8.0   | 10.4  | 30.3  | 47.9    | 14.3    | .0      | 14.7    | 2.9   | 128.5   |             |
| Southern Unit             | 8.3                                      | 42.1  | 56.8  | 74.0  | 93.1    | 63.4    | 3.8     | 18.5    | 17.9  | 377.9   |             |
| Dorchester                | 12.6                                     | 25.0  | 27.9  | 32.1  | 19.9    | 10.3    | 9.6     | 3.6     | .0    | 141.1   |             |
| Somerset                  | 12.7                                     | 8.5   | 10.9  | 16.9  | 16.5    | 14.8    | 3.4     | 3.4     | .0    | 87.2    |             |
| Wicomico                  | 2.9                                      | 19.6  | 21.3  | 26.3  | 16.0    | 13.0    | 2.9     | .0      | 2.5   | 104.6   |             |
| Worcester                 | 12.1                                     | 34.6  | 8.8   | 28.5  | 25.5    | 32.6    | 10.9    | 3.1     | .0    | 156.1   |             |
| Lower Eastern Shore Unit  | 40.3                                     | 87.7  | 68.9  | 103.9 | 78.0    | 70.8    | 26.8    | 10.0    | 2.5   | 489.0   |             |
| Allegany                  | 15.8                                     | 35.9  | 44.3  | 34.8  | 8.0     | 34.9    | 8.0     | 2.5     | 14.0  | 198.3   |             |
| Garrett                   | 25.0                                     | 24.1  | 53.0  | 17.5  | 53.1    | 57.5    | 21.1    | 11.4    | 36.6  | 299.3   |             |
| Western Unit              | 40.8                                     | 60.1  | 97.3  | 52.3  | 61.1    | 92.5    | 29.1    | 13.8    | 50.7  | 497.6   |             |
| State total               | 174.6                                    | 247.5 | 383.2 | 404.2 | 404.6   | 377.4   | 150.9   | 118.4   | 163.2 | 2,424.0 |             |

Table 105.--Area of timberland by county and stocking class of growing-stock trees, Maryland, 1986

(In thousands of acres)

| County                    | Stocking class |                |                    |               |              | All classes |
|---------------------------|----------------|----------------|--------------------|---------------|--------------|-------------|
|                           | Nonstocked     | Poorly stocked | Moderately stocked | Fully stocked | Over-stocked |             |
| Baltimore                 | .0             | .0             | 22.1               | 27.3          | 55.6         | 104.9       |
| Carroll                   | .0             | 14.0           | 12.2               | 15.3          | 29.3         | 70.7        |
| Frederick                 | .0             | 14.5           | 18.7               | 38.1          | 45.5         | 116.8       |
| Washington                | .0             | 11.3           | 21.4               | 16.4          | 41.3         | 90.4        |
| Anne Arundel/Howard       | .0             | 4.7            | 18.5               | 56.0          | 68.7         | 147.9       |
| Caroline/Talbot           | .0             | .0             | .0                 | 31.7          | 68.3         | 100.0       |
| Cecil/Harford             | .0             | .0             | 35.9               | 45.0          | 82.5         | 163.5       |
| Kent/Queen Annes          | .0             | .0             | 9.4                | 28.6          | 74.2         | 112.3       |
| Montgomery/Prince Georges | 4.2            | .0             | 33.9               | 43.8          | 71.1         | 153.0       |
| Central Unit              | 4.2            | 44.5           | 172.1              | 302.3         | 536.4        | 1,059.5     |
| Calvert                   | .0             | .0             | 11.7               | 26.5          | 35.7         | 73.9        |
| Charles                   | .0             | .0             | 11.4               | 47.3          | 116.8        | 175.5       |
| St. Marys                 | .0             | 3.7            | 4.3                | 51.0          | 69.5         | 128.5       |
| Southern Unit             | .0             | 3.7            | 27.4               | 124.8         | 222.0        | 377.9       |
| Dorchester                | .0             | 3.3            | 18.2               | 35.4          | 84.2         | 141.1       |
| Somerset                  | .0             | 1.6            | 11.0               | 10.1          | 64.4         | 87.2        |
| Wicomico                  | .0             | .0             | 13.0               | 23.6          | 68.0         | 104.6       |
| Worcester                 | .0             | 4.2            | 20.3               | 52.9          | 78.8         | 156.1       |
| Lower Eastern Shore Unit  | .0             | 9.1            | 62.5               | 122.0         | 295.4        | 489.0       |
| Allegany                  | .0             | 13.8           | 43.3               | 76.0          | 65.1         | 198.3       |
| Garrett                   | .0             | 17.2           | 42.2               | 99.9          | 140.0        | 299.3       |
| Western Unit              | .0             | 31.0           | 85.5               | 176.0         | 205.1        | 497.6       |
| State total               | 4.2            | 88.3           | 347.5              | 725.1         | 1,258.9      | 2,424.0     |



Table 106.--Area of timberland by county and site productivity class, Maryland, 1986

(In thousands of acres)

| County                    | Site productivity class (cubic feet/acre/year) |                   |                   |                   | All classes |
|---------------------------|--|-------------------|-------------------|-------------------|-------------|
|                           | Very good<br>(120+ )                           | Good<br>( 85-119) | Fair<br>( 50- 84) | Poor<br>( 20- 49) |             |
| Baltimore                 | 28.4   | 30.5              | 29.8              | 16.2              | 104.9       |
| Carroll                   | 9.4  | 11.2              | 37.2              | 12.9              | 70.7        |
| Frederick                 | 6.1  | 14.2              | 42.8              | 53.7              | 116.8       |
| Washington                | 5.9  | 19.7              | 23.7              | 41.3              | 90.4        |
| Anne Arundel/Howard       | 21.3   | 34.4              | 32.7              | 59.5              | 147.9       |
| Caroline/Talbot           | 6.6  | 19.0              | 43.8              | 30.7              | 100.0       |
| Cecil/Harford             | 17.0   | 49.4              | 64.5              | 32.6              | 163.5       |
| Kent/Queen Annes          | .0   | 26.9              | 39.4              | 45.9              | 112.3       |
| Montgomery/Prince Georges | 20.2   | 51.6              | 40.5              | 40.7              | 153.0       |
| Central Unit              | 114.7  | 257.0             | 354.3             | 333.5             | 1,059.6     |
| Calvert                   | 9.5  | 22.1              | 36.0              | 6.3               | 73.9        |
| Charles                   | 18.9   | 35.5              | 45.9              | 75.2              | 175.5       |
| St. Marys                 | 9.5  | 26.7              | 66.2              | 26.1              | 128.5       |
| Southern Unit             | 37.9   | 84.3              | 148.1             | 107.6             | 377.9       |
| Dorchester                | 6.3  | 16.0              | 74.1              | 44.8              | 141.1       |
| Somerset                  | .0   | 20.9              | 39.3              | 27.0              | 87.2        |
| Wicomico                  | 5.2  | 23.1              | 40.5              | 35.8              | 104.6       |
| Worcester                 | 19.2   | 34.7              | 44.8              | 57.5              | 156.1       |
| Lower Eastern Shore Unit  | 30.7   | 94.6              | 198.6             | 165.1             | 489.0       |
| Allegany                  | .0   | 19.1              | 74.4              | 104.8             | 198.3       |
| Garrett                   | 24.8   | 32.2              | 115.0             | 127.2             | 299.3       |
| Western Unit              | 24.8   | 51.4              | 189.5             | 231.9             | 497.6       |
| State total               | 208.1  | 487.3             | 890.5             | 838.1             | 2,424.0     |

Table 107.--Net volume of growing-stock trees on timberland by county and forest-type group, Maryland, 1986

(In millions of cubic feet)

| County                    | Forest-type group |            |                    |          |             |                 |                   |                    |             |         | All groups |
|---------------------------|-------------------|------------|--------------------|----------|-------------|-----------------|-------------------|--------------------|-------------|---------|------------|
|                           | White/red pine    | Spruce/fir | Loblolly/shortleaf | Oak/pine | Oak/hickory | Oak/gum/cypress | Elm/ash/red maple | Northern hardwoods | Aspen/birch |         |            |
| Baltimore                 | 18.2              | .0         | 8.7                | 11.6     | 164.9       | .0              | .0                | 2.4                | .0          | 205.8   |            |
| Carroll                   | .0                | .0         | 10.1               | .0       | 139.5       | .0              | 11.8              | .0                 | .0          | 161.4   |            |
| Frederick                 | 1.5               | .0         | .0                 | 3.2      | 194.2       | .0              | 15.0              | 9.8                | .0          | 223.7   |            |
| Washington                | .0                | .0         | .0                 | 12.8     | 135.1       | .0              | 4.5               | 1.0                | .0          | 153.5   |            |
| Anne Arundel/Howard       | .0                | .0         | 20.5               | 19.0     | 202.4       | .0              | 30.4              | .0                 | .0          | 272.3   |            |
| Caroline/Talbot           | .0                | .0         | 25.8               | 40.2     | 194.2       | .0              | .0                | .0                 | .0          | 260.2   |            |
| Cecil/Harford             | .0                | .0         | .0                 | 27.1     | 257.1       | .7              | 7.9               | 2.1                | .0          | 294.8   |            |
| Kent/Queen Annes          | .0                | .0         | 23.3               | 25.2     | 122.0       | 23.6            | 20.3              | .0                 | .0          | 214.4   |            |
| Montgomery/Prince Georges | .0                | .0         | 43.3               | 41.3     | 216.7       | 21.7            | 3.7               | .0                 | .0          | 326.7   |            |
| Central Unit              | 19.7              | .0         | 131.5              | 180.5    | 1,626.1     | 46.1            | 93.6              | 15.3               | .0          | 2,112.8 |            |
| Calvert                   | .0                | .0         | 4.0                | 24.7     | 107.4       | 24.1            | 7.4               | .0                 | .0          | 167.6   |            |
| Charles                   | .0                | .0         | 65.1               | 39.4     | 242.8       | 13.8            | 13.8              | .0                 | .0          | 374.9   |            |
| St. Marys                 | .0                | .0         | 70.5               | 40.3     | 149.8       | 13.5            | 8.8               | .0                 | .0          | 282.9   |            |
| Southern Unit             | .0                | .0         | 139.6              | 104.4    | 500.0       | 51.4            | 30.0              | .0                 | .0          | 825.4   |            |
| Dorchester                | .0                | .0         | 78.9               | 69.4     | 14.4        | 44.4            | 5.7               | .0                 | .0          | 212.8   |            |
| Somerset                  | .0                | .0         | 55.8               | 33.0     | 38.4        | 10.2            | 14.4              | .0                 | .0          | 151.8   |            |
| Wicomico                  | .0                | .0         | 55.7               | 35.5     | 41.3        | 26.0            | .0                | .0                 | .0          | 158.4   |            |
| Worcester                 | .0                | .0         | 51.3               | 61.1     | 105.2       | 31.7            | 7.6               | .0                 | .0          | 256.9   |            |
| Lower Eastern Shore Unit  | .0                | .0         | 241.6              | 199.0    | 199.3       | 112.3           | 27.8              | .0                 | .0          | 779.9   |            |
| Allegany                  | .0                | .0         | 14.0               | 8.8      | 197.3       | .0              | 3.1               | 33.4               | .0          | 256.6   |            |
| Garrett                   | 44.6              | .0         | .0                 | 6.1      | 345.3       | .0              | .0                | 104.0              | .0          | 500.1   |            |
| Western Unit              | 44.6              | .0         | 14.0               | 14.9     | 542.6       | .0              | 3.1               | 137.5              | .0          | 756.7   |            |
| State total               | 64.4              | .0         | 526.7              | 498.8    | 2,868.0     | 209.8           | 154.5             | 152.7              | .0          | 4,474.9 |            |

Table 108.--Net volume of growing-stock trees on timberland by county and stand-size class, Maryland, 1986

(In millions of cubic feet)

| County                    | Stand-size class |            |                      |            | All classes |
|---------------------------|------------------|------------|----------------------|------------|-------------|
|                           | Sawtimber        | Poletimber | Sapling and seedling | Nonstocked |             |
| Baltimore                 | 181.7            | 24.1       | .0                   | .0         | 205.8       |
| Carroll                   | 156.3            | 5.1        | .0                   | .0         | 161.4       |
| Frederick                 | 166.5            | 52.8       | 4.3                  | .0         | 223.7       |
| Washington                | 139.9            | 13.6       | .0                   | .0         | 153.5       |
| Anne Arundel/Howard       | 246.5            | 24.9       | .9                   | .0         | 272.3       |
| Caroline/Talbot           | 224.8            | 31.1       | 4.3                  | .0         | 260.2       |
| Cecil/Harford             | 255.9            | 32.3       | 6.6                  | .0         | 294.8       |
| Kent/Queen Annes          | 213.2            | 1.2        | .0                   | .0         | 214.4       |
| Montgomery/Prince Georges | 282.5            | 43.5       | .7                   | .0         | 326.7       |
| Central Unit              | 1,867.3          | 228.7      | 16.8                 | .0         | 2,112.8     |
| Calvert                   | 159.7            | 7.3        | .7                   | .0         | 167.6       |
| Charles                   | 316.0            | 45.6       | 13.3                 | .0         | 374.9       |
| St. Marys                 | 273.1            | 7.4        | 2.4                  | .0         | 282.9       |
| Southern Unit             | 748.8            | 60.3       | 16.4                 | .0         | 825.4       |
| Dorchester                | 166.7            | 38.5       | 7.6                  | .0         | 212.8       |
| Somerset                  | 127.3            | 21.0       | 3.5                  | .0         | 151.8       |
| Wicomico                  | 132.7            | 23.8       | 1.9                  | .0         | 158.4       |
| Worcester                 | 215.8            | 36.5       | 4.6                  | .0         | 256.9       |
| Lower Eastern Shore Unit  | 642.5            | 119.8      | 17.6                 | .0         | 779.9       |
| Allegany                  | 180.5            | 68.0       | 8.0                  | .0         | 256.6       |
| Garrett                   | 375.7            | 120.6      | 3.8                  | .0         | 500.1       |
| Western Unit              | 556.3            | 188.6      | 11.8                 | .0         | 756.7       |
| State total               | 3,814.9          | 597.4      | 62.6                 | .0         | 4,474.9     |

Table 109.--Net volume of growing-stock trees on timberland by county and species, Maryland, 1986  
(In millions of cubic feet)

| County                    | Species        |               |               |                    |                 |                 |                 | Total softwoods | Red maple | Sugar maple |
|---------------------------|----------------|---------------|---------------|--------------------|-----------------|-----------------|-----------------|-----------------|-----------|-------------|
|                           | White/red pine | Loblolly pine | Virginia pine | Other yellow pines | Other softwoods | Total softwoods | Other softwoods |                 |           |             |
| Baltimore                 | 16.9           | .0            | 12.1          | .9                 | .0              | 29.9            | 13.4            | .0              |           |             |
| Carroll                   | 2.8            | 7.3           | .1            | .0                 | .0              | 10.1            | 14.1            | .0              |           |             |
| Frederick                 | 2.3            | .0            | 2.8           | .7                 | .0              | 5.9             | 22.4            | .0              |           |             |
| Washington                | 2.0            | .0            | 1.1           | 2.6                | 3.5             | 9.2             | 9.0             | 4.0             |           |             |
| Anne Arundel/Howard       | .0             | 5.5           | 22.9          | .0                 | .0              | 28.4            | 28.9            | .0              |           |             |
| Caroline/Talbot           | .0             | 45.1          | 12.7          | .0                 | 1.1             | 57.8            | 23.6            | .0              |           |             |
| Cecil/Harford             | .0             | .0            | 18.3          | 1.0                | .3              | 19.6            | 25.0            | .0              |           |             |
| Kent/Queen Annes          | .7             | 26.7          | 4.9           | .0                 | .0              | 32.3            | 36.2            | .0              |           |             |
| Montgomery/Prince Georges | .0             | 6.5           | 47.2          | .1                 | .0              | 53.8            | 24.0            | .0              |           |             |
| Central Unit              | 24.7           | 91.0          | 122.0         | 5.3                | 3.9             | 247.0           | 196.7           | 4.0             |           |             |
| Calvert                   | .0             | 3.8           | 14.9          | .0                 | .5              | 19.2            | 15.8            | .0              |           |             |
| Charles                   | .0             | 20.5          | 49.5          | 1.1                | 1.3             | 72.5            | 32.9            | .0              |           |             |
| St. Marys                 | .0             | 44.6          | 36.2          | .1                 | .0              | 80.9            | 17.2            | .0              |           |             |
| Southern Unit             | .0             | 68.9          | 100.6         | 1.2                | 1.8             | 172.5           | 65.9            | .0              |           |             |
| Dorchester                | .0             | 103.7         | 1.6           | .0                 | .0              | 105.3           | 16.9            | .0              |           |             |
| Somerset                  | .0             | 68.6          | .2            | .0                 | .0              | 68.7            | 22.4            | .0              |           |             |
| Wicomico                  | .0             | 66.6          | 1.6           | .0                 | .0              | 68.2            | 30.5            | .0              |           |             |
| Worcester                 | .0             | 73.3          | 3.2           | .0                 | 3.6             | 80.1            | 71.7            | .0              |           |             |
| Lower Eastern Shore Unit  | .0             | 312.1         | 6.6           | .0                 | 3.6             | 322.4           | 141.5           | .0              |           |             |
| Allegany                  | 1.2            | .0            | 12.1          | 3.1                | 2.8             | 19.2            | 9.9             | 23.5            |           |             |
| Garrett                   | 25.3           | .0            | .0            | 1.9                | 24.8            | 52.0            | 78.4            | 27.8            |           |             |
| Western Unit              | 26.5           | .0            | 12.1          | 5.0                | 27.6            | 71.2            | 88.4            | 51.3            |           |             |
| State total               | 51.2           | 472.0         | 241.3         | 11.6               | 37.0            | 813.1           | 492.4           | 55.3            |           |             |

Table 109. Continued

(In millions of cubic feet)

| County                    | Species |       |          |               |          |                       |                      |                    |  |  |
|---------------------------|---------|-------|----------|---------------|----------|-----------------------|----------------------|--------------------|--|--|
|                           | Hickory | Beech | Sweetgum | Yellow-poplar | Blackgum | Ash-walnut-<br>cherry | Select<br>white oaks | Select<br>red oaks |  |  |
| Baltimore                 | 4.0     | 4.9   | 1.8      | 73.1          | 2.1      | 4.7                   | 13.8                 | 9.2                |  |  |
| Carroll                   | 6.5     | 1.0   | .0       | 18.2          | 1.2      | 9.3                   | 6.9                  | 14.6               |  |  |
| Frederick                 | 10.1    | 2.4   | .0       | 24.8          | 4.4      | 22.3                  | 9.4                  | 29.5               |  |  |
| Washington                | 5.3     | 3.3   | .0       | 14.8          | 1.4      | 7.0                   | 9.4                  | 27.4               |  |  |
| Anne Arundel/Howard       | 6.4     | 12.7  | 23.0     | 59.2          | 8.5      | 14.1                  | 14.5                 | 6.8                |  |  |
| Caroline/Talbot           | 6.9     | 13.3  | 35.2     | 23.4          | 15.4     | .6                    | 30.2                 | 8.6                |  |  |
| Cecil/Harford             | 9.3     | 10.8  | 24.8     | 80.2          | 4.0      | 16.3                  | 21.7                 | 19.8               |  |  |
| Kent/Queen Annes          | 5.3     | 13.7  | 17.2     | 34.9          | 16.0     | 4.6                   | 27.8                 | 7.7                |  |  |
| Montgomery/Prince Georges | 18.2    | 9.5   | 28.5     | 73.4          | 11.4     | 14.2                  | 29.8                 | 10.4               |  |  |
| Central Unit              | 71.9    | 71.5  | 130.5    | 401.9         | 64.3     | 93.2                  | 163.6                | 134.0              |  |  |
| Calvert                   | 6.0     | 18.3  | 20.3     | 37.0          | 3.3      | 4.7                   | 7.0                  | 5.9                |  |  |
| Charles                   | 12.3    | 26.0  | 57.7     | 52.7          | 6.4      | 8.8                   | 35.2                 | 3.7                |  |  |
| St. Marys                 | 8.7     | 13.6  | 30.1     | 37.8          | 9.8      | 3.8                   | 25.8                 | 3.4                |  |  |
| Southern Unit             | 27.0    | 57.9  | 108.1    | 127.5         | 19.5     | 17.3                  | 68.0                 | 13.0               |  |  |
| Dorchester                | 3.5     | .4    | 17.3     | 2.1           | 9.1      | 1.6                   | 27.6                 | 1.1                |  |  |
| Somerset                  | .0      | 2.7   | 10.2     | .0            | 13.1     | 4.1                   | 15.6                 | .3                 |  |  |
| Wicomico                  | .1      | 2.7   | 17.9     | 2.7           | 8.8      | .3                    | 7.2                  | .8                 |  |  |
| Worcester                 | .2      | 4.2   | 32.7     | 5.9           | 12.9     | 4.2                   | 20.1                 | .7                 |  |  |
| Lower Eastern Shore Unit  | 3.7     | 10.0  | 78.2     | 10.7          | 43.9     | 10.3                  | 70.6                 | 2.9                |  |  |
| Allegany                  | 13.9    | .5    | .0       | 1.5           | 3.7      | 14.1                  | 44.8                 | 43.3               |  |  |
| Garrett                   | 20.1    | 7.3   | .0       | 5.9           | 1.9      | 42.5                  | 59.7                 | 89.5               |  |  |
| Western Unit              | 34.0    | 7.8   | .0       | 7.4           | 5.6      | 56.6                  | 104.5                | 132.8              |  |  |
| State total               | 136.5   | 147.2 | 316.7    | 547.4         | 133.3    | 177.4                 | 406.7                | 282.7              |  |  |

Table 109. Continued

(In millions of cubic feet)

| County                    | Species             |                   |                 |                    |                    |                | Total<br>hardwoods | All<br>species |
|---------------------------|---------------------|-------------------|-----------------|--------------------|--------------------|----------------|--------------------|----------------|
|                           | Other<br>white oaks | Other<br>red oaks | Black<br>locust | Other<br>hardwoods | Total<br>hardwoods | All<br>species |                    |                |
| Baltimore                 | 16.1                | 30.3              | .0              | 2.6                | 175.9              | 205.8          |                    |                |
| Carroll                   | 19.5                | 48.4              | .5              | 11.1               | 151.3              | 161.4          |                    |                |
| Frederick                 | 59.1                | 8.8               | 8.1             | 16.4               | 217.8              | 223.7          |                    |                |
| Washington                | 39.2                | 12.2              | 3.2             | 7.9                | 144.3              | 153.5          |                    |                |
| Anne Arundel/Howard       | 8.7                 | 35.5              | 1.8             | 23.9               | 243.9              | 272.3          |                    |                |
| Caroline/Talbot           | .0                  | 37.9              | .3              | 7.0                | 202.3              | 260.2          |                    |                |
| Cecil/Harford             | 17.6                | 24.9              | 16.1            | 4.8                | 275.2              | 294.8          |                    |                |
| Kent/Queen Annes          | .0                  | 11.9              | 2.1             | 4.8                | 182.1              | 214.4          |                    |                |
| Montgomery/Prince Georges | 3.9                 | 37.8              | .9              | 10.9               | 272.9              | 326.7          |                    |                |
| Central Unit              | 164.1               | 247.8             | 33.0            | 89.4               | 1,865.9            | 2,112.8        |                    |                |
| Calvert                   | 5.2                 | 15.1              | .0              | 9.9                | 148.5              | 167.6          |                    |                |
| Charles                   | 1.4                 | 49.6              | 1.6             | 14.3               | 302.4              | 374.9          |                    |                |
| St. Marys                 | 5.3                 | 36.9              | 1.3             | 8.4                | 202.0              | 282.9          |                    |                |
| Southern Unit             | 11.9                | 101.6             | 2.8             | 32.5               | 652.9              | 825.4          |                    |                |
| Dorchester                | .2                  | 26.3              | .0              | 1.3                | 107.5              | 212.8          |                    |                |
| Somerset                  | .0                  | 13.4              | .0              | 1.1                | 83.1               | 151.8          |                    |                |
| Wicomico                  | .0                  | 14.0              | .0              | 5.3                | 90.2               | 158.4          |                    |                |
| Worcester                 | .0                  | 15.3              | .0              | 8.9                | 176.8              | 256.9          |                    |                |
| Lower Eastern Shore Unit  | .2                  | 69.0              | .0              | 16.6               | 457.6              | 779.9          |                    |                |
| Allegany                  | 30.2                | 28.4              | 6.5             | 16.9               | 237.3              | 256.6          |                    |                |
| Garrett                   | 48.2                | 30.9              | 8.9             | 27.0               | 448.1              | 500.1          |                    |                |
| Western Unit              | 78.5                | 59.3              | 15.5            | 44.0               | 685.4              | 756.7          |                    |                |
| State total               | 254.7               | 477.7             | 51.3            | 182.5              | 3,661.8            | 4,474.9        |                    |                |

Table 110.--Net volume of growing-stock and sawtimber trees on timberland by county and species group, Maryland, 1986

| County                    | Growing stock                |           |            | Sawtimber                                  |           |            |
|---------------------------|------------------------------|-----------|------------|--|-----------|------------|
|                           | Softwoods                    | Hardwoods | All groups | Softwoods                                  | Hardwoods | All groups |
|                           | -----Million cubic feet----- |           |            | -----Million board feet <sup>a</sup> ----- |           |            |
| Baltimore                 | 29.9                         | 175.9     | 205.8      | 77.3                                       | 689.8     | 767.1      |
| Carroll                   | 10.1                         | 151.3     | 161.4      | 43.1                                       | 511.7     | 554.9      |
| Frederick                 | 5.9                          | 217.8     | 223.7      | 12.9                                       | 670.2     | 683.1      |
| Washington                | 9.2                          | 144.3     | 153.5      | 24.2                                       | 460.7     | 484.8      |
| Anne Arundel/Howard       | 28.4                         | 243.9     | 272.3      | 71.7                                       | 824.7     | 896.4      |
| Caroline/Talbot           | 57.8                         | 202.3     | 260.2      | 197.0                                      | 583.9     | 780.9      |
| Cecil/Harford             | 19.6                         | 275.2     | 294.8      | 55.1                                       | 900.0     | 955.1      |
| Kent/Queen Annes          | 32.3                         | 182.1     | 214.4      | 112.0                                      | 617.5     | 729.4      |
| Montgomery/Prince Georges | 53.8                         | 272.9     | 326.7      | 98.8                                       | 945.9     | 1,044.7    |
| Central Unit              | 247.0                        | 1,865.9   | 2,112.8    | 692.1                                      | 6,204.4   | 6,896.5    |
| Calvert                   | 19.2                         | 148.5     | 167.6      | 52.1                                       | 510.7     | 562.7      |
| Charles                   | 72.5                         | 302.4     | 374.9      | 183.4                                      | 877.3     | 1,060.7    |
| St. Marys                 | 80.9                         | 202.0     | 282.9      | 249.0                                      | 622.0     | 871.0      |
| Southern Unit             | 172.5                        | 652.9     | 825.4      | 484.5                                      | 2,010.0   | 2,494.4    |
| Dorchester                | 105.3                        | 107.5     | 212.8      | 270.4                                      | 254.6     | 525.0      |
| Somerset                  | 68.7                         | 83.1      | 151.8      | 191.5                                      | 210.6     | 402.1      |
| Wicomico                  | 68.2                         | 90.2      | 158.4      | 205.8                                      | 205.5     | 411.3      |
| Worcester                 | 80.1                         | 176.8     | 256.9      | 241.3                                      | 451.6     | 692.8      |
| Lower Eastern Shore Unit  | 322.4                        | 457.6     | 779.9      | 909.0                                      | 1,122.3   | 2,031.3    |
| Allegany                  | 19.2                         | 237.3     | 256.6      | 53.9                                       | 581.8     | 635.7      |
| Garrett                   | 52.0                         | 448.1     | 500.1      | 114.9                                      | 1,162.0   | 1,276.9    |
| Western Unit              | 71.2                         | 685.4     | 756.7      | 168.9                                      | 1,743.7   | 1,912.6    |
| State total               | 813.1                        | 3,661.8   | 4,474.9    | 2,254.3                                    | 11,080.4  | 13,334.8   |

<sup>a</sup> International 1/4-inch rule.

Table 111.--Net volume of sawtimber trees on timberland by county and forest-type group, Maryland, 1986

(In millions of board feet)<sup>a</sup>

| County                    | Forest-type group |            |                    |          |             |                 |                   |                    |             |          | All groups |
|---------------------------|-------------------|------------|--------------------|----------|-------------|-----------------|-------------------|--------------------|-------------|----------|------------|
|                           | White/red pine    | Spruce/fir | Loblolly/shortleaf | Oak/pine | Oak/hickory | Oak/gum/cypress | Elm/ash/red maple | Northern hardwoods | Aspen/birch |          |            |
| Baltimore                 | 41.2              | .0         | 27.3               | 25.4     | 667.8       | .0              | .0                | 5.4                | .0          | 767.1    |            |
| Carroll                   | .0                | .0         | 42.9               | .0       | 467.9       | .0              | 44.1              | .0                 | .0          | 554.9    |            |
| Frederick                 | .0                | .0         | .0                 | 2.5      | 586.7       | .0              | 71.0              | 22.9               | .0          | 683.1    |            |
| Washington                | .0                | .0         | .0                 | 30.2     | 441.3       | .0              | 13.4              | .0                 | .0          | 484.8    |            |
| Anne Arundel/Howard       | .0                | .0         | 47.0               | 46.0     | 680.5       | .0              | 122.9             | .0                 | .0          | 896.4    |            |
| Caroline/Talbot           | .0                | .0         | 96.6               | 108.1    | 576.2       | .0              | .0                | .0                 | .0          | 780.9    |            |
| Cecil/Harford             | .0                | .0         | .0                 | 92.1     | 834.0       | 3.1             | 17.4              | 8.5                | .0          | 955.1    |            |
| Kent/Queen Annes          | .0                | .0         | 67.6               | 62.8     | 457.8       | 91.5            | 49.7              | .0                 | .0          | 729.4    |            |
| Montgomery/Prince Georges | .0                | .0         | 67.1               | 115.5    | 767.3       | 81.8            | 13.0              | .0                 | .0          | 1,044.7  |            |
| Central Unit              | 41.2              | .0         | 348.6              | 482.6    | 5,479.5     | 176.3           | 331.6             | 36.8               | .0          | 6,896.5  |            |
| Calvert                   | .0                | .0         | 7.4                | 68.3     | 383.5       | 78.0            | 25.5              | .0                 | .0          | 562.7    |            |
| Charles                   | .0                | .0         | 153.6              | 89.5     | 761.7       | 12.8            | 43.2              | .0                 | .0          | 1,060.7  |            |
| St. Marys                 | .0                | .0         | 193.2              | 128.1    | 491.0       | 31.7            | 27.1              | .0                 | .0          | 871.0    |            |
| Southern Unit             | .0                | .0         | 354.1              | 285.9    | 1,636.2     | 122.4           | 95.8              | .0                 | .0          | 2,494.4  |            |
| Dorchester                | .0                | .0         | 176.4              | 177.8    | 24.5        | 127.7           | 18.6              | .0                 | .0          | 525.0    |            |
| Somerset                  | .0                | .0         | 128.6              | 106.4    | 91.4        | 36.2            | 39.5              | .0                 | .0          | 402.1    |            |
| Wicomico                  | .0                | .0         | 147.7              | 95.8     | 108.6       | 59.2            | .0                | .0                 | .0          | 411.3    |            |
| Worcester                 | .0                | .0         | 127.1              | 160.1    | 288.8       | 84.0            | 32.9              | .0                 | .0          | 692.8    |            |
| Lower Eastern Shore Unit  | .0                | .0         | 579.8              | 540.1    | 513.2       | 307.2           | 91.0              | .0                 | .0          | 2,031.3  |            |
| Allegany                  | .0                | .0         | 25.3               | 14.8     | 510.8       | .0              | 13.9              | 70.9               | .0          | 635.7    |            |
| Garrett                   | 99.2              | .0         | .0                 | 9.6      | 892.3       | .0              | .0                | 275.8              | .0          | 1,276.9  |            |
| Western Unit              | 99.2              | .0         | 25.3               | 24.4     | 1,403.1     | .0              | 13.9              | 346.7              | .0          | 1,912.6  |            |
| State total               | 140.4             | .0         | 1,307.8            | 1,332.9  | 9,032.0     | 606.0           | 532.3             | 383.5              | .0          | 13,334.8 |            |

<sup>a</sup> International 1/4-inch rule.



Table 112.--Net volume of sawtimber trees on timberland by county and stand-size class, Maryland, 1986

(In millions of board feet)<sup>a</sup>

| County                    | Stand-size class |            |                      |            | All classes |
|---------------------------|------------------|------------|----------------------|------------|-------------|
|                           | Sawtimber        | Poletimber | Sapling and seedling | Nonstocked |             |
| Baltimore                 | 730.2            | 37.0       | .0                   | .0         | 767.1       |
| Carroll                   | 554.0            | .9         | .0                   | .0         | 554.9       |
| Frederick                 | 584.5            | 80.1       | 18.4                 | .0         | 683.1       |
| Washington                | 467.5            | 17.3       | .0                   | .0         | 484.8       |
| Anne Arundel/Howard       | 872.2            | 23.9       | .3                   | .0         | 896.4       |
| Caroline/Talbot           | 734.0            | 36.0       | 10.9                 | .0         | 780.9       |
| Cecil/Harford             | 896.5            | 37.3       | 21.3                 | .0         | 955.1       |
| Kent/Queen Annes          | 728.5            | 1.0        | .0                   | .0         | 729.4       |
| Montgomery/Prince Georges | 995.8            | 47.0       | 1.9                  | .0         | 1,044.7     |
| Central Unit              | 6,563.2          | 280.5      | 52.8                 | .0         | 6,896.5     |
| Calvert                   | 546.7            | 14.9       | 1.2                  | .0         | 562.7       |
| Charles                   | 970.8            | 56.1       | 33.8                 | .0         | 1,060.7     |
| St. Marys                 | 852.9            | 12.4       | 5.7                  | .0         | 871.0       |
| Southern Unit             | 2,370.4          | 83.4       | 40.7                 | .0         | 2,494.4     |
| Dorchester                | 463.3            | 46.7       | 14.9                 | .0         | 525.0       |
| Somerset                  | 376.6            | 19.4       | 6.1                  | .0         | 402.1       |
| Wicomico                  | 381.0            | 26.5       | 3.9                  | .0         | 411.3       |
| Worcester                 | 633.0            | 51.6       | 8.2                  | .0         | 692.8       |
| Lower Eastern Shore Unit  | 1,854.0          | 144.2      | 33.1                 | .0         | 2,031.3     |
| Allegany                  | 546.4            | 80.1       | 9.1                  | .0         | 635.7       |
| Garrett                   | 1,129.7          | 138.5      | 8.7                  | .0         | 1,276.9     |
| Western Unit              | 1,676.1          | 218.7      | 17.8                 | .0         | 1,912.6     |
| State total               | 12,463.7         | 726.8      | 144.3                | .0         | 13,334.8    |

<sup>a</sup>International 1/4-inch rule.

Table 113.--Net volume of sawtimber trees on timberland by county and species, Maryland, 1986  
(In millions of board feet)<sup>a</sup>

| County                    | Species        |               |               |                    |                 |                 |                 | Total softwoods | Red maple | Sugar maple |
|---------------------------|----------------|---------------|---------------|--------------------|-----------------|-----------------|-----------------|-----------------|-----------|-------------|
|                           | White/red pine | Loblolly pine | Virginia pine | Other yellow pines | Other softwoods | Total softwoods | Other softwoods |                 |           |             |
| Baltimore                 | 35.5           | .0            | 38.7          | 3.1                | .0              | 77.3            | 21.7            | .0              |           |             |
| Carroll                   | 13.3           | 29.6          | .3            | .0                 | .0              | 43.1            | 27.6            | .0              |           |             |
| Frederick                 | 3.0            | .0            | 9.9           | .0                 | .0              | 12.9            | 84.2            | .0              |           |             |
| Washington                | 8.7            | .0            | .3            | 7.4                | 7.8             | 24.2            | 24.0            | 5.5             |           |             |
| Anne Arundel/Howard       | .0             | 18.0          | 53.7          | .0                 | .0              | 71.7            | 86.0            | .0              |           |             |
| Caroline/Talbot           | .0             | 158.1         | 38.7          | .0                 | .2              | 197.0           | 70.5            | .0              |           |             |
| Cecil/Harford             | .0             | .0            | 50.1          | 3.1                | 1.9             | 55.1            | 53.7            | .0              |           |             |
| Kent/Queen Annes          | 3.0            | 92.8          | 16.2          | .0                 | .0              | 112.0           | 111.9           | .0              |           |             |
| Montgomery/Prince Georges | .0             | 18.4          | 80.4          | .0                 | .0              | 98.8            | 67.3            | .0              |           |             |
| Central Unit              | 63.5           | 316.9         | 288.2         | 13.6               | 10.0            | 692.1           | 546.9           | 5.5             |           |             |
| Calvert                   | .0             | 12.0          | 37.9          | .0                 | 2.3             | 52.1            | 37.0            | .0              |           |             |
| Charles                   | .0             | 58.8          | 122.8         | .3                 | 1.4             | 183.4           | 81.3            | .0              |           |             |
| St. Marys                 | .0             | 147.4         | 101.4         | .0                 | .2              | 249.0           | 44.8            | .0              |           |             |
| Southern Unit             | .0             | 218.1         | 262.1         | .3                 | 3.9             | 484.5           | 163.1           | .0              |           |             |
| Dorchester                | .0             | 266.4         | 4.0           | .0                 | .0              | 270.4           | 32.4            | .0              |           |             |
| Somerset                  | .0             | 191.5         | .0            | .0                 | .0              | 191.5           | 61.3            | .0              |           |             |
| Wicomico                  | .0             | 201.4         | 4.4           | .0                 | .0              | 205.8           | 74.5            | .0              |           |             |
| Worcester                 | .0             | 214.9         | 11.5          | .0                 | 14.8            | 241.3           | 177.5           | .0              |           |             |
| Lower Eastern Shore Unit  | .0             | 874.2         | 19.9          | .0                 | 14.8            | 909.0           | 345.7           | .0              |           |             |
| Allegany                  | 4.5            | .0            | 31.7          | 12.7               | 5.0             | 53.9            | 20.8            | 53.2            |           |             |
| Garrett                   | 27.9           | .0            | .0            | 2.6                | 84.5            | 114.9           | 148.2           | 70.1            |           |             |
| Western Unit              | 32.4           | .0            | 31.7          | 15.3               | 89.5            | 168.9           | 169.0           | 123.3           |           |             |
| State total               | 95.8           | 1,409.2       | 601.9         | 29.2               | 118.2           | 2,254.3         | 1,224.7         | 128.8           |           |             |

<sup>a</sup> International 1/4-inch rule.

Table 113. Continued

(In millions of board feet)<sup>a</sup>

| County                    | Species |       |          |               |          |                       |                      |                    |
|---------------------------|---------|-------|----------|---------------|----------|-----------------------|----------------------|--------------------|
|                           | Hickory | Beech | Sweetgum | Yellow-poplar | Blackgum | Ash-walnut-<br>cherry | Select<br>white oaks | Select<br>red oaks |
| Baltimore                 | 3.2     | 15.5  | 3.1      | 341.2         | 1.8      | 11.7                  | 63.3                 | 41.3               |
| Carroll                   | 16.7    | 2.2   | .0       | 90.0          | 1.9      | 12.9                  | 20.2                 | 52.2               |
| Frederick                 | 13.5    | 9.0   | .0       | 115.5         | 11.5     | 62.6                  | 27.1                 | 99.8               |
| Washington                | 18.2    | 13.0  | .0       | 69.9          | .5       | 11.9                  | 26.3                 | 18.1               |
| Anne Arundel/Howard       | 20.3    | 47.3  | 71.1     | 248.1         | 18.7     | 32.4                  | 44.3                 | 44.3               |
| Caroline/Talbot           | 24.7    | 36.5  | 92.3     | 77.9          | 36.1     | 1.7                   | 78.6                 | 22.1               |
| Cecil/Harford             | 32.3    | 46.5  | 47.7     | 345.8         | 5.3      | 32.7                  | 75.3                 | 84.5               |
| Kent/Queen Annes          | 15.2    | 59.3  | 50.8     | 143.5         | 39.0     | 13.4                  | 96.8                 | 28.0               |
| Montgomery/Prince Georges | 49.4    | 36.3  | 62.6     | 312.3         | 32.5     | 40.9                  | 95.6                 | 46.1               |
| Central Unit              | 193.4   | 265.6 | 327.6    | 1,744.2       | 147.2    | 220.2                 | 527.4                | 491.3              |
| Calvert                   | 21.2    | 66.9  | 56.9     | 151.6         | 9.8      | 15.1                  | 25.7                 | 25.3               |
| Charles                   | 35.6    | 84.2  | 125.8    | 203.5         | 11.3     | 19.1                  | 109.8                | 11.9               |
| St. Marys                 | 27.4    | 54.0  | 71.9     | 148.9         | 28.3     | 12.9                  | 83.6                 | 8.5                |
| Southern Unit             | 84.2    | 205.2 | 254.6    | 504.0         | 49.3     | 47.1                  | 219.2                | 45.7               |
| Dorchester                | 1.4     | 1.7   | 37.4     | 5.2           | 10.4     | 1.2                   | 75.2                 | 3.9                |
| Somerset                  | .0      | 7.5   | 22.6     | .0            | 29.7     | 6.1                   | 43.7                 | .0                 |
| Wicomico                  | .2      | 8.2   | 37.9     | 12.4          | 17.5     | .2                    | 23.5                 | 2.8                |
| Worcester                 | .0      | 12.0  | 82.1     | 26.5          | 36.0     | 7.3                   | 56.5                 | 2.9                |
| Lower Eastern Shore Unit  | 1.6     | 29.4  | 180.0    | 44.1          | 93.6     | 14.7                  | 198.8                | 9.6                |
| Allegany                  | 28.8    | 2.5   | .0       | 3.4           | 6.8      | 22.9                  | 90.9                 | 136.0              |
| Garrett                   | 51.0    | 17.8  | .0       | 22.7          | 4.7      | 106.5                 | 161.4                | 298.2              |
| Western Unit              | 79.7    | 20.3  | .0       | 26.1          | 11.4     | 129.4                 | 253.3                | 434.3              |
| State total               | 358.9   | 520.5 | 762.2    | 2,318.4       | 301.6    | 411.4                 | 1,197.8              | 980.9              |

<sup>a</sup> International 1/4-inch rule.

Table 113. Continued

(In millions of board feet)<sup>a</sup>

| County                    | Species          |                |              |                 |                 | All species |
|---------------------------|------------------|----------------|--------------|-----------------|-----------------|-------------|
|                           | Other white oaks | Other red oaks | Black locust | Other hardwoods | Total hardwoods |             |
| Baltimore                 | 57.9             | 121.4          | .0           | 7.7             | 689.8           | 767.1       |
| Carroll                   | 55.1             | 189.5          | .0           | 43.5            | 511.7           | 554.9       |
| Frederick                 | 149.4            | 37.9           | 10.7         | 49.0            | 670.2           | 683.1       |
| Washington                | 116.4            | 47.6           | 6.8          | 21.5            | 460.7           | 484.8       |
| Anne Arundel/Howard       | 24.8             | 126.5          | 8.0          | 79.1            | 824.7           | 896.4       |
| Caroline/Talbot           | .0               | 136.1          | .7           | 6.7             | 583.9           | 780.9       |
| Cecil/Harford             | 58.9             | 90.7           | 17.2         | 9.4             | 900.0           | 955.1       |
| Kent/Queen Annes          | .0               | 39.8           | 5.4          | 14.4            | 617.5           | 729.4       |
| Montgomery/Prince Georges | 17.4             | 156.7          | .4           | 28.5            | 945.9           | 1,044.7     |
| Central Unit              | 479.9            | 946.3          | 49.2         | 259.8           | 6,204.4         | 6,896.5     |
| Calvert                   | 16.2             | 54.7           | .0           | 30.3            | 510.7           | 562.7       |
| Charles                   | .7               | 162.4          | 2.7          | 28.9            | 877.3           | 1,060.7     |
| St. Marys                 | 16.2             | 108.9          | 3.1          | 13.5            | 622.0           | 871.0       |
| Southern Unit             | 33.1             | 325.9          | 5.8          | 72.7            | 2,010.0         | 2,494.4     |
| Dorchester                | .0               | 85.8           | .0           | .1              | 254.6           | 525.0       |
| Somerset                  | .0               | 39.7           | .0           | .0              | 210.6           | 402.1       |
| Wicomico                  | .0               | 25.5           | .0           | 2.8             | 205.5           | 411.3       |
| Worcester                 | .0               | 41.6           | .0           | 9.3             | 451.6           | 692.8       |
| Lower Eastern Shore Unit  | .0               | 192.6          | .0           | 12.2            | 1,122.3         | 2,031.3     |
| Allegheny                 | 65.9             | 92.5           | 11.3         | 46.6            | 581.8           | 635.7       |
| Garrett                   | 116.3            | 82.6           | 26.0         | 56.5            | 1,162.0         | 1,276.9     |
| Western Unit              | 182.2            | 175.1          | 37.3         | 103.1           | 1,743.7         | 1,912.6     |
| State total               | 695.2            | 1,640.0        | 92.3         | 447.8           | 11,080.4        | 13,334.8    |

<sup>a</sup> International 1/4-inch rule.

Table 114.--Average annual net growth of growing-stock and sawtimber volume on timberland by geographic unit and species group, Maryland, 1976-86

| Geographic unit     | Growing Stock<br>(In thousands of cubic feet) |           |         | Sawtimber<br>(In thousands of board feet) <sup>a</sup> |           |         |
|---------------------|---|-----------|---------|--|-----------|---------|
|                     | Softwoods                                     | Hardwoods | All     | Softwoods  | Hardwoods | All     |
|                     |   |           | groups  |  |           | groups  |
| Central             | 4,063   | 75,355    | 79,418  | 26,384   | 252,399   | 278,783 |
| Southern            | 8,130   | 27,300    | 35,430  | 27,315   | 99,622    | 126,937 |
| Lower Eastern Shore | 5,741   | 16,502    | 22,243  | 16,710   | 47,162    | 63,872  |
| Western             | 5,574   | 26,044    | 31,618  | 11,825   | 83,781    | 95,606  |
| All classes         | 23,508  | 145,201   | 168,709 | 82,234   | 482,964   | 565,198 |

<sup>a</sup> International 1/4-inch rule

Table 115.--Average annual removals of growing-stock and sawtimber volume on timberland by geographic unit and species group, Maryland, 1976-86

| Geographic unit     | Growing Stock<br>(In thousands of cubic feet) |           |         | Sawtimber<br>(In thousands of board feet) <sup>a</sup> |           |          |
|---------------------|---|-----------|---------|--|-----------|----------|
|                     | Softwoods                                     | Hardwoods | All     | Softwoods  | Hardwoods | All      |
|                     |   |           | groups  |  |           | groups   |
| Central             | -2,260  | -48,613   | -50,873 | -5,919   | -204,859  | -210,778 |
| Southern            | -3,551  | -5,160    | -8,711  | -4,117   | -14,581   | -18,698  |
| Lower Eastern Shore | -12,460                                       | -17,411   | -29,871 | -43,959  | -46,067   | -89,925  |
| Western             | -3,527  | -6,649    | -10,176 | -2,784   | -16,175   | -18,959  |
| All classes         | -21,798                                       | -77,833   | -99,631 | -56,679  | -281,681  | -338,360 |

<sup>a</sup> International 1/4-inch rule



Frieswyk, Thomas S.; DiGiovanni, Dawn M. 1988. **Forest statistics for Maryland--1976 and 1986**. Resour. Bull. NE-107. Broomall, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station. 157 p.

A statistical report on the fourth forest survey of Maryland (1986). Findings are displayed in 115 tables containing estimates of forest area, numbers of trees, timber volume, tree biomass, and timber products output. Data are presented at three levels: state, geographic unit, and county.

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Keywords: Forest survey, inventory, area, volume, biomass.

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- Princeton, West Virginia.
- Syracuse, New York, in cooperation with the State University of New York College of Environmental Sciences and Forestry at Syracuse University, Syracuse.
- University Park, Pennsylvania, in cooperation with the Pennsylvania State University.
- Warren, Pennsylvania.

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