
Glossary



Most of the terms in this glossary are from the USDA Forest Service and are taken directly from Schmidt et al. (2000).



Average annual mortality of growing stock – The average cubic foot volume of sound wood in growing stock trees that died in one year. Average annual mortality is the average for the years between inventories (1985 to 1997 in this report).

Average annual mortality of sawtimber – The average board foot volume of sound wood in sawtimber trees that died in one year. Average annual mortality is the average for the years between inventories (1985 to 1997 in this report).

Average annual net growth of growing stock – The annual change in cubic foot volume of sound wood in live sawtimber and poletimber trees, and the total volume of trees entering these classes through in-growth, less volume losses resulting from natural causes. Average annual net growth of growing stock is the average for the years between inventories (1985 to 1997 in this report).

Average annual net growth of sawtimber – The annual change in the board foot volume of live sawtimber trees, and the total volume of trees reaching sawtimber size, less volume losses resulting from natural causes. Average annual net growth of sawtimber is the average of the years between inventories (1985 to 1997 in this report).

Average annual removals from growing stock – The average net growing stock volume in growing-stock trees removed annually for roundwood forest products, in addition to the volume of logging residues, and the volume of other removals. Average annual removals of growing stock are the average for the years between inventories (1985 to 1997 in this report) and are based on information obtained from remeasurement plots.

Average annual removals from sawtimber – The average net board foot sawtimber volume of live sawtimber trees removed annually for roundwood forest products, in addition to the volume of logging residues and, the volume of other removals. Average annual removals of sawtimber are the average for the years between inventories (1985 to 1997 in this report) and are based on information obtained from remeasurement plots.

Basal area – Tree area in square feet of the cross section at breast height of a single tree. When the basal areas of all trees in a stand are summed, the result is usually expressed as square feet of basal area per acre.

Board foot – Unit of measure applied to roundwood. It relates to lumber that is 1 foot long, 1 foot wide, and 1 inch thick (or its equivalent).

Corporate land – Lands owned by a private corporation not in the business of operating primary wood-using plants.

County and municipal land – Land owned by counties and local public agencies or municipalities, or land leased to these governmental unites for 50 years or more.

Cropland – Land under cultivation within the last 24 months; including cropland harvested, crop failures, cultivated summer fallow, idle cropland used only for pasture, orchards, active Christmas tree plantations indicated by annual shearing, nurseries, and land in soil improvement crops, but excluding land cultivated in developing improved pasture.

Current annual removals from growing stock – The current net growing-stock volume in growing-stock trees removed annually for roundwood forest products, in addition to the volume of logging residues, and the volume of other removals. Current annual removals of growing stock are reported for a single year (1997 in this report); they are

based on a survey of primary wood processing mills to determine removals for products and on information from remeasurement plots to determine removals due to land-use change.

Diameter at breast height (d.b.h.) – The outside bark diameter at 4.5 feet (1.37 m) above the forest floor on the uphill side of the tree. For determining breast height, the forest floor includes the duff layer that may be present, but does not include unincorporated woody debris that may rise above the ground line.

Diameter class – A classification of trees based on diameter outside bark, measured at breast height 4.5 feet above the ground. (Note: d.b.h. is the common abbreviation for diameter at breast height.) Two-inch diameter classes are commonly used in Forest Inventory and Analysis, with the even inch the approximate midpoint for a class. For example, the 6-inch class includes trees 5.0 through 6.9 inches d.b.h.

Dry-mesic sand forest – A forest on well drained sand deposits with more moisture and soil humus than the dry sand forest. Trees are better developed than in the dry sand forest. Common tree species include white oak and black oak.

Dry-mesic upland forest – An upland forest on well drained soils. This forest is in an intermediate moisture class between dry and mesic upland forests. Trees grow well, but the canopy is more open than in a mesic upland forest. Common trees include white oak, northern red oak, and black oak.

Dry sand forest – A forest on dry, somewhat excessively drained sand deposits with little soil moisture. Trees are often scrubby. Common tree is black oak.

Dry upland forest – An upland forest on dry, somewhat excessively drained soils. Trees grow slow, but are not as stunted as in a xeric upland forest. Understory and ground layer vegetation present. Common trees include black oak, blackjack oak, post oak, and bur oak.

Forest land – Land at least 10 percent stocked by forest trees of any size, or formerly having had such tree cover, and not currently developed for nonforest use. (Note: Stocking is measured by comparing specified standards with basal area and/or number of trees, age or size, and spacing). The minimum area for classification of forest land is 1 acre. Roadside, streamside, and windbreak strips of timber must have a crown width of at least 120 feet to qualify as forest land. Unimproved roads and trails or clearings in forest areas are classified as forest if less than 120 feet wide. Water bodies (rivers, streams, or lakes) less than 30 feet in width are classified as forest. Water bodies more than 30 feet in width are classified as water (*See also* Tree, Land, Timberland, Reserved forest land, Water, and Wooded strip).

Growing-stock removals – The growing-stock volume removed from the timberland inventory by harvesting industrial roundwood products. (Note: This term includes sawtimber removals, poletimber removals, and logging residues.)

Growing-stock trees – Live trees of commercial species that meets specified standards of size, quality, and merchantability. (Note: This term excludes rough, rotten, and dead trees).

Growing-stock volume – Net volume in cubic feet of growing stock trees 5.0 inches d.b.h. and over, from 1 foot above the ground 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.

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

Improved pasture – Land currently improved for grazing by cultivating, seeding, irrigating, or clearing trees or brush and less than 10 percent stocked with trees.

International 1/4-inch rule – A log rule or formula for estimating the board foot volume of logs, allowing 1/2-inch of taper of each 4-foot length. The rule appears in a number of forms that allow for kerf. In the form used by FIA, a

1/4-inch of kerf is assumed. This rule is used as the USDA Forest Service standard log rule in the Eastern United States.

Land – (a) *Bureau of the Census*. Dry land and land temporarily or partly covered by water such as marshes, swamps, and river flood plains (omitting tidal flats below mean high tide); streams, slough, estuaries, and canals less than one-eighth of a statute mile wide; and lakes, reservoirs, and ponds less than 40 acres in area.

(b) *Forest Inventory and Analysis*. The same as the Bureau of the Census, except minimum width of streams, etc. is 120 feet and minimum size of lakes, etc., is 1 acre.

Logging residue – The net volume of unused portions of the merchantable central stem of growing-stock trees cut or killed by logging.

Marsh – Nonforest land that characteristically supports low, generally herbaceous or shrubby vegetation, and that is intermittently covered with water.

Mesic floodplain forest – A floodplain forest on moderately well drained soil. Better drainage than the wet-mesic and wet floodplain forests due to higher elevation above stream or coarser soil structure. Common trees include sugar maple, white oak, American elm, slippery elm, bur oak, and American basswood.

Mesic upland forest – An upland forest on moderately well drained soil. Soil moisture is higher than in the dry-mesic forest, and ideal soil conditions contribute to a dense canopy with a well-developed understory. Common trees include sugar maple, American beech, northern red oak, and American basswood.

National Forest land – Federal land that has been legally designated as National Forest or purchase units, and other land administered by the USDA Forest Service.

Net volume – Gross volume less deductions for rot, sweep, or other defect affecting use for timber products.

Nonforest land – Land that has never supported forests and land formerly forested where use for timber management is precluded by development for other uses. (Note: Includes areas used for crops, active Christmas tree plantations as indicated by annual shearing, orchards, nurseries, improved pasture, residential areas, city parks, improved roads of any width and adjoining clearings, powerline clearings of any width, and 1- to 40-acre areas of water classified by the Bureau of the Census as land.) If intermingled in forest areas, unimproved roads and nonforest strips must be more than 120 feet wide and more than 1 acre in area to qualify as nonforest land.

Nonforest land without trees – Nonforest land with no live trees present.

Nonforest land with trees – Nonforest land with one or more trees per acre at least 5 inches d.b.h.

Nonstocked land – Timberland less than 10 percent stocked with live trees.

Other Federal land – Federal land other than National Forest land and land administered by the Bureau of Land Management or Bureau of Indian Affairs.

Other removals – Growing stock trees removed but not utilized for products, or trees left standing but “removed” from the timberland classification by land use change. Examples are removals from cultural operations such as timber stand improvement work and land clearing, and the standing volume on land classified originally as timberland but later designed as reserved from timber harvesting (such as a newly established state park).

Ownership unit – Any type of legal entity having ownership interest in land, regardless of the number of people involved. It is the focus of decision making for each parcel, whether an individual (sole proprietor) group of individuals (partnerships, or undivided estates), or legal person (corporation, trust, or tribe).

Pasture – Land presently used for grazing or under cultivation to develop grazing.

Plantation – An artificially reforested area sufficiently productive to qualify as timberland. The planted species is not necessarily predominant. Christmas tree plantations, which are considered cropland, are not included.

Poletimber stand – *See* Stand-size class.

Poletimber tree – A live tree of commercial species at least 5.0 inches d.b.h., but smaller than sawtimber size.

Private individual land – Privately owned land not owned by forest industry. This class includes the formerly used Farmer and Miscellaneous private classes.

Reserved forest land – Forest land withdrawn from timber utilization through statute, administrative regulation, or designation. Note: Historically, Christmas tree plantations were classified as reserved forest land. However, Christmas tree plantations are now classified as cropland.

Sapling – A live tree 1.0 to 5.0 inches d.b.h.

Saw log – A log meeting minimum standards of diameter, length, and defect. Saw logs include logs at least 8 feet long, sound and straight and with a minimum diameter outside bark (d.o.b.) of 7.0 inches for softwoods (9.0 inches for hardwoods) or other combinations of size and defect specified by regional standards.

Saw-log portion – That portion of the central stem of sawtimber trees between the stump and the saw-log top.

Sawtimber stand – *See* Stand-size class.

Sawtimber tree – A live tree of commercial species containing at least a 12-foot saw log or two noncontiguous saw logs 8 feet or longer, and meeting regional specifications for freedom from defect. Softwoods must be at least 9.0 inches d.b.h. Hardwoods must be at least 11.0 inches d.b.h.

Sawtimber volume – Net volume of the saw-log portion of live sawtimber in board feet. Specifications for International 2-inch rule are (unless specified otherwise), from stump to a minimum 7.0 inches top d.o.b. for soft-

woods and a minimum 9.0 inches top d.o.b. for hardwoods.

Seedling – A live tree less than 1.0 inch d.b.h. that is expected to survive. Only softwood seedlings more than 6 inches tall and hardwood seedlings more than 1 foot tall are counted.

Seedling-sapling stand – *See* Stand-size class.

Softwoods – Coniferous trees, usually evergreen, having needles or scale-like leaves.

Stand – A group of trees on a minimum of 1 acre of forest land that is stocked by forest trees of any size.

Stand-age class – A classification based on age of the main stand. Main stand refers to trees of the dominant forest type and stand-size class.

Stand-size class – A classification of stocked (see Stocking) forest land based on the size class of live trees on the area; that is, sawtimber, poletimber, or seedlings and saplings.

Sawtimber stands – Stands with half or more of live tree stocking in sawtimber or poletimber trees, and with sawtimber stocking at least equal to poletimber stocking.

Poletimber stands – Stands with half or more of live tree stocking in poletimber and/or sawtimber trees, and with poletimber stocking exceeding that of sawtimber.

Seedling-sapling stands – Stands with more than half of the live tree stocking in seedlings and/or saplings.

State land – Land owned by the state of Illinois or leased to it for 50 years or more.

Stocking of growing stock trees – The degree of occupancy of land by growing stock trees, measured by basal area and/or the number of trees in a stand by size or age and spacing, compared to the basal area and/or number of trees required to fully utilize the growth potential of the

land; that is, the stocking standard. A stocking percentage of 100 indicates full utilization of the site and is equivalent to 80 square feet of basal area per acre in trees 5.0 inches d.b.h. and larger. In a stand of trees less than 5 inches d.b.h., a stocking percentage of 100 would indicate that the present number of trees is sufficient to produce 80 square feet of basal area per acre when the trees reach 5 inches d.b.h. Stands are grouped into the following stocking classes:

Overstocked stands – Stands in which stocking of growing stock trees is 100 percent or more.

Fully stocked stands – Stands in which stocking of growing stock trees is from 61 to 99 percent.

Medium stocked stands – Stands in which stocking of growing stock trees is from 36 to 60 percent.

Poorly stocked stands – Stands in which stocking of growing stock trees is from 10 to 35 percent.

Nonstocked areas – Timberland on which stocking of growing stock trees is less than 10 percent.

Timberland – Forest land that is producing, or is capable of producing, more than 20 cubic feet per acre per year of industrial wood crops under natural conditions, that is not withdrawn from timber utilization, and that is not associated with urban or rural development. Currently inaccessible and inoperable areas are included. (Timberland was formerly called commercial forest land).

Tree – A woody plant usually having one or more erect perennial stems, a stem diameter at breast height of at least 3 inches, a more or less definitely formed crown of foliage, and a height of at least 13 feet at maturity.

Tree size class – A classification of trees based on diameter at breast height, including sawtimber trees, poletimber trees, saplings, and seedlings.

Unique landowners – A single landowning entity within a political boundary, counted once per political unit (county or state) regardless of the number of parcels that landowning entity owns within the political unit.

Urban and other areas – Areas within the legal boundaries of cities and towns; suburban areas developed for residential, industrial, or recreational purposes; school yards; cemeteries; roads; railroads; airports; beaches; powerlines and other rights-of-way; or other nonforest land not included in any other specified land-use class.

Veneer log or bolt – A roundwood product, from which veneer is sliced or sawn, and which meets regional standards or minimum diameter, length, and freedom from defect.

Water – (a) *Bureau of the Census* – Permanent inland water surfaces, such as lakes, reservoirs, and ponds at least 40 acres in area; and streams, sloughs, estuaries, and canals at least one-eighth of a statute mile wide.

(b) *Noncensus* – Permanent inland water surfaces, such as lakes, reservoirs, and ponds from 1 to 39.9 acres in area; and streams, sloughs, estuaries, and canals from 120 feet to one-eighth of a statute mile wide.

Wet floodplain forest – A floodplain forest on poorly drained soils. It has the highest soil moisture of all the floodplain forests. Flooding is frequent and prolonged, and the understory is often open. Common trees include silver maple, red maple, eastern cottonwood, sycamore, river birch, and black willow.

Wet-mesic floodplain forest – A floodplain forest on somewhat poorly drained soil. This is the most common floodplain forest. Soil moisture conditions are between the mesic floodplain forest and the wet floodplain forest. Common trees include silver maple, hackberry, sweetgum, bur oak, pin oak, American elm, shellbark hickory, and green ash.

Wet-mesic upland forest – An upland forest on somewhat poorly drained soils. Higher soil moisture than the mesic upland forest. This is an unusual forest often caused by poor drainage on level areas. Common trees include American elm, slippery elm, hackberry, and bur oak.

Wooded pasture – Improved pasture with more than 10 percent stocking in live trees, but less than 25 percent stocking in growing-stock trees. This area is currently improved for grazing, or there is other evidence of grazing.

Wooded strip – An acre or more of natural continuous forest land that would otherwise meet survey standards for timberland except that it is less than 120 feet wide.

Xeric upland forest – An upland forest on dry, extremely shallow, excessively drained soil. Canopy trees are stunted, and there is little or no understory. Common trees include post oak and blackjack oak.