

FACT SHEET

No. 4

Timber & Timber Harvesting in West Virginia

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Definitions Related to Timbering

Acre. Land unit of 43,560 square feet. Square that is 208.71 feet on a side. 0.4 hectare.

Advanced regeneration. Reproduction under a mature forest that will become the next crop.

Allowable cut. Timber that can be cut after a certain period of time. Approximates the amount of growth between harvests.

Artificial regeneration. Seeding or planting seedlings to bolster natural reproduction.

Aspect. Compass direction the slope faces.

Basal area. Cross sectional area in square feet of a tree measured at breast height.

Berm. Bank of earth on down-slope side of skid and haul roads that prevents drainage. Also called curb and fender.

Best Management Practices (BMP's). Methods, measures or practices designed to prevent or reduce water pollution.

Board foot. A 12" square of lumber 1" thick.

Breast height. Standard height, 4.5' above the ground on uphill side of tree, where the diameter of a tree is measured.

Broad-based dip. Dip with a reverse slope and outward drainage placed in a road and layered with stone to facilitate drainage.

Buffer. Narrow strip of land, usually along streams, where machinery is not allowed as a way of protecting water quality or along roads to preserve aesthetics.

Bumper tree. Tree left along skid trails to keep towed logs on the road and/or to protect high quality trees.

Canopy. The layer formed by the tree crowns. A closed canopy is one without holes that allow light through (space all occupied).

CCF. Volume measurement for stumpage. Hundred cubic feet. Usually converted to board feet as 6 board feet per cubic foot.

Clearcut. Method of stand reproduction where every stem is harvested.

Co-dominant tree. Tree crowns receive light from above, but little from the sides due to shading by nearby similar-sized trees.

Conk. Hard shelf-like fruiting body of decay causing fungi that grows from the tree trunk.

Coppice. Stand reproduction via stump sprouts.

Cord. Stack of wood that is 4' x 4' x 8'.

Crop tree. Tree selected to grow until final stand harvest.

Crown. Branches and leaves of a tree.

Crown classes. Dominant, co-dominant, intermediate, overtopped or suppressed.

Cruising. Measuring standing trees (stumpage) on a specific tract to determine tree numbers, species, sizes and stand volume by size class.

Cull. Unmerchantable tree.

Cutting cycle. Interval between planned harvests, usually given in years.

Culvert. A pipe or wooden box placed in a trench under a road to drain water from the ditch on the hillside of the road to the slope below the road.

DBH. Diameter of a tree at breast height.

Den tree. Hollow tree used by animals for shelter and/or hibernation.

Diameter class. Tree diameter grouping, usually by 2-inch intervals. (Sixteen inch class would be trees 15.1-17.0 inches.)

Diameter-limit. Harvest based on the cutting of all trees over a specified size. This is an economic cut and is not recognized

as one of the science-based silvicultural systems.

Directional felling. Use of notch and hinge to guide a tree's fall.

Division of Forestry. State agency with responsibility for implementing logging regulations

Dominant tree. Has crown above general canopy. Gets light from above and some from the side.

Duff. Decomposing leaves, twigs, seeds found on the mineral soil.

Ecology. Interrelationships of plants, animals and their environment.

Ecosystem. Subjective unit including the living organisms and all non-living environmental factors.

Endangered species. Native organism threatened by extinction due to habitat modification by man, nature or invasive exotic organisms.

Ephemeral stream. Wet weather stream only.

Epicormic branch. Sprouting on the trunk usually caused by opening the stand and exposing the trunk to full sunlight.

Even-aged. Stand of trees of the same or only slightly different in age.

Exotic. Imported; not native.

Felling. Cutting of trees.

Forest management. Application of science-based techniques and modern business methods in managing forest property.

Form class. Trunk taper. Derived by dividing the inside bark diameter at the one or two log height by the DBH.

Forwarder. Machine used to move logs (not trees) from stump to landing.

Grade. Quality classification of logs or lumber; road steepness (usually given as a percentage).

Group selection. Selection system where trees are removed in groups instead of individually.

Habitat. An organism's environment.

Haul Road. Road where trucks are used.

High grading. Cutting only the best trees or best species. Economic selection often confused with the science-based silvicultural selection system.

Intermediate tree. Shorter than dominant and codominant trees; receives little or no light from above and none from the sides.

Intermittent stream. Has well defined banks and channels, but typically has water for only a portion of the year.

Intolerant. Tree unable to grow satisfactorily under shade.

Invasive organism. Non native (exotic) organism that has invaded a native plant or animal habitat, i.e., gypsy moth, tree of heaven, multiflora rose.

Landing. Leveled area where logs are cut to length, or accumulated before being placed on trucks for transport to the mill or another yard.

Log. 16'6" tree segment (Half log is 8'6" segment); to fell trees, buck into logs and deliver to buyer.

Logger. Person engaged in logging.

Logging. To log.

Log rule or scale. Tabulation showing the board feet of lumber that can be sawn from logs of specified length and small end diameter.

Management plan. Written plan for managing forest land according to landowner's stated objectives.

Marking. Selection of trees to be cut in a harvest operation followed by marking the trunk and stump of each selected tree with paint.

Merchantable volume. Volume of main stem that can be cut (bucked) into logs. See top wood. Aggregate volume of trees on a particular area.

Merchantable length. Length of main stem that can be cut into logs.

Mortality. Death of trees for any reason.

Natural regeneration. Reproduction from natural seeding, sprouting, etc.

Old growth. Forest with trees at or above the maximum age for the various species.

Overtopped. Tree crown below the general canopy that receives only indirect light; overtopped.

Perennial stream. Has well defined banks and channel and usually flows throughout the year.

pH. A logarithmic scale of hydrogen ion concentration (acidity) from very acid (0) to very basic (14) with each higher unit being 10 times the previous unit, i.e., pH of 4 is 10 times more acid than 3 and 100 times more acid than 2 etc. Seven is neutral.

Pole size. Tree between 4 and 10 inches DBH.

Prescription. Action prescribed in management plan for a particular timber stand.

Pulpwood. Stumpage cut for sale to paper mill, usually below 10" DBH. May be from topwood. Chipwood is a similar product.

Release. Freeing a crop tree from competition by cutting trees that are crowding it.

Removal cut. A cut in the shelterwood system that releases reproduction.

Regeneration methods or techniques. One of several science-based ways of removing mature timber and providing for stand reproduction. See clearcutting, selection, shelterwood, seed-tree and coppice.

Riparian zone. Area immediately adjacent to streams. Width varies according to slope %.

Roots. Below ground part of tree, seldom more than 30 inches deep. Absorbing roots are in the very top layer of soil.

Rotation. Years needed to establish and grow a merchantable crop of timber.

Salvage. Removal of recently killed trees while they are still merchantable.

Sapling. Young tree. Usually 1-4 inches.

Sawlog. Log acceptable for sawing into lumber. Usually defined as being above 11.1 inches DBH.

Scale. Sound volume of a log in board feet according to a specified log rule.

Seed tree. Tree left in harvest area to provide seed for natural reproduction.

Seedling. Smallest category of trees. Usually less than 1/2" DBH.

Selective cutting. Cutting of individual trees selected by species or size for economic reasons. Should not be confused with science-based selection system.

Shake. Lengthwise separation of growth layers in a tree; usually caused from being bent in a wind.

Shelterwood system. Timber crop is removed in two or more successive cuttings

so that reproduction is generated and sheltered until established.

Silviculture. Theory and practice of producing continuous crops of merchantable timber.

Site index. Tree height of dominant and codominant trees at 50 years of age in undisturbed forest.

Skid road. Path along which logs are dragged from stump to landing by a skidder.

Skidder. Machine used to drag logs along skid roads.

Snag. Standing, broken portion of a tree.

Sprout. Young tree developing from a stump or root.

Stumpage. Standing timber.

Streamside management zone (SMZ).

Forest land adjacent to perennial, intermittent and ephemeral streams, ponds and lakes.

Also called riparian area. Machinery usually prohibited in such areas, but timber can be thinned.

Suppressed tree. See overtopped.

Timber stand improvement. Silvicultural treatment made to improve health, species composition, etc. of stand.

Topwood. Crown wood too small for sawlogs, but suitable for pulp and chip wood.

Uneven aged. Trees in stand are of different ages.

Volume table. Tabulated board or cubic foot volume of trees based on DBH and height.

Water bar. Trench across a road at a 30 to 45° downslope angle to intercept and divert water.

Water bar spacing. Prescribed distances between waterbars according to slope percentage.

Windfall. Trees uprooted or broken by strong winds.

(Prepared by William H. Gillespie)