

Woodland Owner Glossary

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Adapted from NY Forest Owner magazine, 2011, and from the Penn State University Forest Stewardship Glossary.

Words in bold are defined elsewhere in this glossary of terms. The terms “woodlot” and “forest” are used interchangeably.

Basal area – An index of the crown size of a tree that is based on the surface area of that tree if it were cut as a stump at 4.5 feet above ground. More simply, if the tree were made into a 4.5 ft tall stump, the area in square feet of the stump’s surface. A tree with a 14-inch dbh has approximately 1 square foot of basal area.

Basal bark treatment – an herbicide treatment where the herbicide is mixed in an oil matrix and applied to the base of trees less than 6 inches in diameter. The herbicide penetrates the bark and chemically **girdles** the stem. Basal bark treatments typically only affect the tree that receives the application.

Biofuel – A fuel source that is based on originally living material and for forest owners would be often called “woody biofuel.” Firewood is an example of woody biofuel. More recently this term refers to the use of **low-grade** wood that may be ground in whole-tree length for use as chips to generate heat or combined heat and power.

Biomass – Any living material, or often used to refer to previously living material. **Biofuel** is a type of biomass that has a specific end use.

BMP – Best Management Practices are typically voluntary practices that are encouraged within the forestry industry to ensure desired outcomes. The most common BMPs relate to strategies used before, during and after logging to reduce or prevent the erosion of soils.

Board foot – A unit of volume that is used in the forest products industry to describe the usable wood in a **sawlog**. A board foot is 12" x 12" x 1", but can be configured in any number of dimensions. By one method of estimation, a log that is 16 feet long and with a diameter on the small end of 16 inches has an estimated board foot volume of 180 board feet.

Broadcast – A treatment that is applied uniformly across an area. Examples include broadcast seeding of grasses on recently disturbed soils or a broadcast treatment of an herbicide to control a dominant vegetative cover.

Canopy – The collective whole of all tree **crowns** in an area. Trees are often categorized as dominant, codominant, intermediate, or suppressed based on the height of their crown relative to other trees in the canopy.

Cant – The squared wood product that results from removing the **slab wood** from a log. One testimony for the origin of this word is that the log, once slabbed, it is a "cant" because it can't roll.

Clearcut – As a noun, a clearcut is an area of forest where all trees were removed to regenerate tree species that require full sunlight growing conditions. Clearcutting is a **silvicultural** system, or collection of specific actions, that culminates in the removal of all overstory trees with the goal of **regenerating** the forest. As a verb, clearcut is the process of removing all trees. Of special note, an area that is cleared without intention to regenerate the forest is not a clearcut but is deforestation. Intentions matter in understanding the appropriate use of this term.

Composition – The mixture of species that exist in a particular woodlot. Forest composition is distinct from diversity, which refers to the numeric description of the number and abundance of different species. Often used in the context of "forest composition and **structure**."

Cover (for wildlife) – One of the components necessary for wildlife habitat, which also includes food, water and space. Cover refers to the physical structures of the forest that provide some protection from predators or support for reproductive efforts.

Crown – The leafy portion of a tree. When considered as the aggregate of all trees in an area, the crowns constitute the **canopy**.

Cut-stump – A type of **selective** stem-specific herbicide treatment where the solution is applied to the surface of a recently cut stump. Some people will differentiate treatments for the cut-surface (as with glyphosate products) and a cut-stump treatment as the surface and sides (as with a triclopyr product). Herbicides will often "flash" through roots to nearby stems of the same species.

DBH (d.b.h., or dbh) – The diameter at breast height. By convention, 4.5 feet above ground. On sloped ground, DBH (or dbh) is measured from the up-slope side.

Diameter limit cutting – A type of harvesting where all trees larger than a specified diameter are cut. In virtually all applications, this process is exploitive, unsustainable, and can shift the forest to a lower **canopy** diversity and reduced productive capacity.

Even-aged – Refers to a forest of essentially one age where the difference in age between the oldest and youngest trees in the main **canopy** is less than 20% of the total age of the **stand**. Even-aged stands will have a range of diameter and include large and small trees.

Feller-buncher – A type of equipment used in forest harvesting that has a cutting head that grips the tree, cuts the stems, and lays the tree on the ground. Some machines can also cut the stem to specific **log** lengths.

ForestConnect – A program of Cornell University that includes applied research and educational activities through Cornell Cooperative Extension in support of the sustainable management of private woodlands in NY. Details of activities and projects can be obtained at www.ForestConnect.info

Forester – A person who has received academic training to obtain the skills necessary to help a forest owner, or stakeholders of a forested area, achieve their **ownership objectives**. Foresters may have a two-year or four-year degree. In NY there is no legal definition of a forester, so owners need to use diligence when they select a forester to represent their interests.

Forwarder – A type of harvesting equipment that accumulates the **logs** in a bunk off the ground for transport from the harvest area to the **landing**. Logs are not in contact with the ground, as when moved by a **skidder**.

Game of Logging – A training program that teaches forest owners and loggers the strategies necessary to fell trees in a specific and desired direction (i.e., directional felling). Courses are taught by a certified instructor and involve hands-on training and small class size.

Girdling – Any chemical or mechanical process that severs the tissues of the tree immediately beneath the bark and starves the roots of food. Trees may be girdled with chainsaws, axes, **basal bark herbicides**, and flame torches.

Herbicide – A type of pesticide that are specific to the control of plants. In NY, herbicides and all other pesticides whether sold at home and garden stores or over the Internet are regulated by the NYSDEC Bureau of Pesticides. All herbicides have a label which describes the legal and appropriate use. Anyone applying an herbicide is expected to read and follow the label.

High-grading – The harvesting process where the majority of trees selected for harvest have the highest economic value and few or no trees of less economic value are harvested. This term is roughly synonymous with **diameter limit cutting** and **selective cutting**. High-grading is exploitive and unsustainable.

Interfering vegetation – Plants, whether native or exotic, that interfere with the **objectives** of an owner. Often used to describe plants that interfere with efforts to regenerate the forest.

Intermediate treatment – A **silvicultural** treatment that intends to influence the growth, vigor, quality or **composition** of the currently established forest trees.

Invasive species – A species that is exotic and has a negative economic, ecological or personal health impact on society. The definition requires more than being exotic, or non-native, as most of our agricultural crops have an exotic origin. For more information see <http://nyis.info>

Landing - The area where logs are deposited by the **logger** and loaded onto the truck for transport. A heavily disturbed area that can and should be reused when possible. In some areas the term “header” is synonymous with “landing.”

Log – A section of a tree, or more generally, the tree once it is horizontal. When utilized for other products, the log is cut into sections of standard length plus a few inches. Traditionally a log was 16 feet long, but many sawmills will specify their willingness to buy logs at other lengths, such as 8', 10', 12', etc. Each mill has different specifications.

Log scale – The system and equations to estimate the number of **board feet** in a **log**. Common log scales include the International ¼ inch, Doyle, and Scribner Decimal C. Each scale will give a different estimate of the board foot volume for logs, so owners should know what scale is used if someone provides an estimate of board foot volume.

Logger – A person who has special skills to safely and efficiently fell, **skid**, and buck (cut into sections), **logs** or other forest products.

Low impact harvesting – A style of forest harvesting that strives to minimize the amount of disturbance and damage associated with the felling and moving of logs. In a purest sense, low impact may involve ATVs or other small machines and also be low productivity. Larger machines and equipment can have minimal impact if the **logger** is attentive. Note that any tree cutting will result in visual and ecological changes to the forest.

Low-grade – Trees, irrespective of species, that are of low economic value. Some people will use this term as a verb to describe the process of removing the trees of low economic value from the forest.

Mast crop – A year when a **mast species** produces an abundance of seed. Most mast species have a standard cycle during which they may have a peak year and years of average or below average production.

Mast species – Species that produce nut or nut like seeds used by wildlife. Common mast species include oaks which produce acorns, beech, cherry, and hickory.

MFO Volunteer – A Master Forest Owner is a forest owner, not a **forester**, who is trained by Cornell University Cooperative Extension to provide non-technical assistance to other owner in the form of encouragement and connectivity to resources. www.CornellMFO.info

Ownership objectives – The desires of an owner relative to their land, why they own the land, and what they hope the land will provide in the future. Knowing the objectives is an essential basis for sustainable management. Objectives can be determined through discussions with trained volunteers, foresters, or by thinking about the motivations, desires and needs from the property.

Peavey – A tool with a sharp point, a hook, and a handle and used to roll logs. A peavey differs from a **cant** hook which is blunt on the end.

PPE – Personal Protective Equipment are items that lessen the likelihood or extent of injury when using herbicides or chainsaws. For the latter, necessary PPE includes a **logger's** helmet, cut resistant chaps or pants, and appropriate boots. PPE is most effective when coupled with personal protective behavior.

Regeneration treatment – A **silvicultural** treatment that intends to influence the establishment, **composition**, growth and quality of the next forest. This treatment might involve multiple harvests over several years, sometime resulting in complete removal of the overstory.

Sawlog – A tree that is able to produce a **log** that will be at least 10" on the small end if hardwood and 8" on the small end if a softwood. A log that can be sawn into useful boards is also called a "sawlog." Log length will vary.

Seedtree – A **silvicultural** system that creates an **even-aged** forest and results in a **regeneration** harvest defined by two harvest entries. An initial entry is the seed cut that leaves approximately 7 to 12 of the best quality trees per acre for seed production. Once seedlings for the next forest are established, the seed trees are removed in the second entry.

Selection system – A **silvicultural** system that creates an **uneven-aged** forest. Entries to harvest trees will remove trees from all diameter classes, with removals either clustered in groups (group selection) or uniformly dispersed as single trees (single tree selection).

Selective cutting – A harvesting method analogous to **diameter limit cutting** or **high-grading** where the most valuable trees are selected and then cut. This term is often and inappropriately confused with the **selection system**. Described as cut the best and leave the rest, or cut the big trees to let the little trees grow.

Selective treatment – A chemical or mechanical application that is applied to individual stems. This term is contrasted with **broadcast treatment**.

Shelterwood – A **silvicultural** system that creates an **even-aged** forest and results in a **regeneration** harvest defined by two or three entries. The preparatory cut removes **low-grade** stems and undesired species. The seed cut leaves approximately 20 to 40 of the best trees per acre as seed source. The final cut or overstory removal cuts the seed trees once the seedlings for the next forest are established.

Silviculture – The art and science of controlling the establishment, growth, **composition** and quality of forest **stands** in order to achieve sustainable **ownership objectives**.

Single-tree selection - (see selection system)

Skid trail – The path left by repeated passage of the **skidder** during a harvest. With prior planning, skid trails can be shaped into functional recreational and other use trails.

Skidder – Equipment used by a **logger** to move logs from a harvest area to a **landing**. The skidder drags the logs, which can be attached with either a cable, or in a large grapple that pinches several logs together at the same time.

Slab wood – The outer portions of the tree that are removed when a **log** is initially being processed into boards. The slabs are of little economic value and any defects that occur only in the slab are of minimal concern.

Spile – The originally metal and now more commonly plastic spouts inserted into sugar and red maples to collect sap for processing into syrup.

Stand – A contiguous management unit in a forest where trees are of similar species and size and permit the uniform application of management practices. Stands are analogous to fields in an agricultural context, such as a hay field or a corn field.

Structure – The physical configuration of a forest, particularly as described by the variety of tree ages or diameters.

Stumpage – The economic value of a tree standing on the stump.

Sugarbush – That area of forest dominated by red or sugar maple and where sap is collected for processing into maple syrup.

Uneven-aged – A forest where there are three or more distinct age classes and the difference between the youngest and oldest age class is more than 20% of the total age of the **stand**.