

WORKING WOODS TERMINOLOGY

FORESTRY, CONSERVATION, & RESEARCH VOCABULARY

Expanded and Adapted from Penn State Extension's *Forest Stewardship Terminology*

Agroforestry—Combines agriculture and forestry where trees and crops (from mushrooms to berry bushes to ginseng) are purposefully cultivated together. *Forestry Term*

Basal Area—A measurement of the cross-sectional area of tree trunks in square feet at breast height per acre. Basal area of a forest stand is the sum of the cross-sectional area of individual trees and is reported as square inches or feet per acre or square meters per hectare; it is determined using circular plots. *Forestry Term*

BAF—Basal area factor, a factor used in conjunction with a gage or prism to determine basal area. Simply multiply the sum of the square feet of trees measured as determined by the prism or gages BAF to determine the plot's basal area. *Forestry Term; Conservation Term; Research Term*

Beech-Maple—A common forest type in northeast Ohio dominated by American Beech and Sugar Maple trees. The southern half of Working Woods is a Beech-Maple forest. *Forestry Term; Conservation Term; Research Term*

BMP—Best Management Practices. Practices recommended by agencies or organizations to control pollution and erosion off a harvested site. *Forestry Term*

Board Foot—Unit measurement of usable wood volume in a tree: 1 ft long x 1 ft wide x 1 in thick. When a woodland is marked for commercial harvest, a consulting forester will tell the landowner and logger how many Board Feet of each species are expected to be produced by the cut. Board footage in a log accounts for a ¼" kerf made by the saw blade as the log is cut. Two common scales are used: International and Doyle. *Forestry Term*

Bole—The main trunk of a tree between the root flare and the lowest main branch or fork in the tree where usable lumber is found. *Forestry Term; Conservation Term*

Bumper Tree—A tree, usually of little commercial value, used by loggers on skid roads where trees being hauled or dragged by equipment are skidded against the bumper tree to help navigate tight turns and alleviate damage to other desirable trees. *Forestry Term*

Control Plots—Hectare plots that don't have any management treatment prescribed (no trees cut, no TSI) but are marked as if they were. These are used for comparison with plots that are receiving treatments as well as teaching. *Research Term*

Not to be confused with... Invasive Species Control: the word "control" is used for both these terms but in the Control Plots case it indicates controlling a variable as in a scientific context, versus the way 'control' is used in a management context to mean active suppression of invasive plants.

Core Forest—Defined in various ways. At Holden Arboretum, defined as an un-fragmented forested area 300 feet from the edge of any disturbance or break in the forest canopy such as a road, agricultural field, or meadow and ranging in size from 100 to over 500 acres. Core forest is relatively rare in Ohio; core forests have great ecological importance and require specific management strategies. Natural features such as rivers and wetland areas that do create breaks in the canopy are not considered a disturbance and are viewed as features that contribute to the diversity and functionality of the forest. *Forestry Term; Conservation Term*

As opposed to... Forest Edge: The forest at the boundary between open land and woodland. These ecosystems are quite different than core forest though there may be similar trees; they experience more pressures and interaction with whatever the forest is next to, whether it be agriculture, development, or old field. Some animals prefer edges, some prefer interior core forest. Most forest edges in our region are 'hard edges', where mowing keeps the nearby land from succeeding into a forested state.

Crop tree—A term usually describing a commercially desirable species, with the potential to grow straight, tall, and vigorously; a tree that can be grown as a harvestable crop. However, a crop tree can be a tree that's kept growing for nontimber purposes, such as mast (seed/nut) production. *Forestry Term; Conservation Term*

Cull trees—A tree of such poor health or quality that it has no merchantable value in its wood. However, these trees may have value for wildlife, aesthetics, or organic matter contribution as it continues to decline. These trees are either cut and left on the ground or girdled and turned into snags. *Forestry Term*

DBH—Diameter at Breast Height. The diameter of a tree measured at 4.5 ft above ground level. The most commonly used measurement of tree size. Often measured and reported in inches by foresters and conservation resource professionals; scientists and researchers often use the metric units. *Forestry Term; Conservation Term; Research Term*

Dendrometer—A metal band placed around a tree at breast height used to measure growth. A notch is cut in the band and a spring is used to maintain tension and keep the band tight as the tree grows and the band expands. The gap created by the notch can be measured precisely and accurately to track growth rates of the tree. *Research Term*

Diameter Tape—A flat tape measure used to determine the diameter of a standing tree by using the circumference. *Forestry Term; Conservation Term; Research Term*

Ecological Integrity—A description of forest ecosystem status which encompasses biodiversity, resilience, and health. Composition, age, structure, vigor, and the presence of pests, diseases, or other stressors all contribute to ecological integrity. HF&G holds our region's old growth forest as the standard for determining ecological integrity, since those forests represent essentially intact and functioning systems with high biodiversity, resilience, and health. *Conservation Term; Research Term*

(Consulting or Service) Forester—A professional who employs the science, art, and practice of managing and using trees, forests, and their associated resources for human benefit. Works with landowners to achieve their goals while balancing the needs and health of forests.

Not to be confused with... **Logger:** Both work with trees but have very different jobs, motivations, roles, and relationships to the woods and landowners. Loggers are professionals hired to cut and sell trees for commercial purposes and are not involved with any other aspect of forest management.

Exotic—A plant or animal not native to a region. Exotics may or may not be invasive—this depends on many factors. *Forestry Term; Conservation Term; Research Term*

Girdling—A method of killing unwanted trees by cutting through the living bark circling the bole. This can be used instead of cutting to prevent felling damage to nearby desirable trees. Girdled trees can provide cavities and dead wood for wildlife and insects. *Forestry Term; Conservation Term*

High-Grading—A type of timber harvesting wherein trees of any commercial value are removed with little regard for the quality, quantity, or distribution of trees, or regeneration left on the site; it often results when a diameter-limited harvest is imposed (where DBH is the only thing determining what gets cut). **This practice is NOT used in Working Woods.** *Forestry Term*

Hypsometer—A tool used by foresters to relatively accurately determine the DBH, height, number of saw logs, and board feet of lumber within standing trees. *Forestry Term*

Improvement Cut—Any cutting treatment to alter composition and spacing. In Working Woods, the Improvement Cut is essentially a thinning cut which cuts down or girdles trees that are of poorer health, quality, or undesirable species. This makes room and resources for the healthier trees to grow more vigorously. No trees are removed or harvested; all cut trees remain to contribute habitat structure and organic nutrients. *Forestry Term*

Invasive—Describes the aggressive, ‘weedy’ trait of a plant or animal that is often, but not necessarily, exotic. These plants or animals take advantage of a disturbance, natural or otherwise, or an unfilled niche and explode in numbers. They have adaptations in their native ranges that give them an advantage in a habitat to which they are non-native. An example of a *native* invasive plant in Northeast Ohio would be poison ivy or Virginia jumpseed; invasive *exotic* species examples include multiflora rose or common buckthorn. *Conservation Term*

Log Landing—An open, flat area where logs are piled prior to extraction from the area. *Forestry Term*

NTFP—Non-Timber Forest Product. Products grown or made from forested land that can be sold for profit. For example, ginseng, firewood, foraged herbs like ramps, or maple syrup. *Forestry Term*

Old-Growth—Forests that have been allowed to grow and function for multiple generations without significant harvest or anthropogenic disturbance. Indications of old-growth forest include significant numbers of legacy trees (trees larger than 32 inches DBH), mature native trees, pit-mound topography, coarse woody debris, large snags (indicating the previous generation of trees, that grew old enough to then die on their own), and multiple tree ages. Old-growth forests may or may not be healthy, as they experience the same pressures and threats as younger forests. *Forestry Term; Conservation Term*

Old Field Reversion—Patches of land previously used for agricultural purposes, abandoned, and reverting to a natural state. These may be in various stages of succession (forbs/wildflowers, scrub and shrub, young saplings like ash and maple) and are populated by wind-blown, pioneer species. *Conservation Term*

Overstocked—Describes a densely growing stand of trees where the number of trees, basal area, or volume per acre in a forest stand is too high compared with a desired level for balanced health and growth ('understocked' and 'well-stocked' also used). *Forestry Term*

Overmature—Describes a tree that has gone beyond its prime from a commercial forestry perspective; a tree that has ceased to be vigorous in growth and is starting to age and decline. Overmature trees often have internal rot or damage to the heart-wood, affecting the quality of lumber they can produce. *Forestry Term*

Past Land Use—What a piece of land was used for—and by whom—before its current state. Since forests operate on a different timescale than humans, things that happened 100 years ago are still very much 'live' in how they appear in and affect the composition, age, and health of the woods. For example, what currently looks like a mature forest with very old trees isn't necessarily undisturbed or 'virgin' forest—if cattle were grazed in the woods 50 years ago, the understory and younger generations of trees will be greatly affected, shaping the composition and future of that woods. Forestry involves a lot of historical understanding. *Forestry Term; Conservation Term; Research Term*

Prism—A tool used to quickly and efficiently determine the basal area of a forest plot. These tools can take the form of a gage or a wedge-shaped glass prism and are usually calibrated at various basal area factors: commonly 5, 10, 20 or even 40. *Forestry Term; Conservation Term; Research Term*

Reclamation—This is a regionally-used word for the abatement of damage at a logging site; it is not a universal term but refers to the clean-up of surfaces and roads by the logger after a tree harvest. *Forestry Term*

Release—Removal of overtopping trees to allow understory or desirable shorter/shaded trees to grow in response to increased light. *Forestry Term; Conservation Term*

Residual Trees—Trees that remain after a harvest; unharvested trees. *Forestry Term*

RUFA—Rapid Upland Forest Assessment. Assessment protocol developed by HF&G conservation department. Provides a picture of forest health, age, and ecological integrity by measuring a variety of relevant forest ecology metrics within 1-hectare-sized plots. *Conservation Term; Research Term*

Selected Trees—Trees that are chosen for cutting in a harvest or cut. *Forestry Term*

Single-Tree Selection Cut—A commercial tree harvest wherein individual trees of lesser quality are selected for removal alongside a select number of mature, merchantable, high-quality sawlog trees. Moderate-to-high basal area is maintained, and cuts are designed to regenerate and perpetuate uneven-aged forest. This method of harvest is meant to produce income while perpetuating healthy forest. *Forestry Term*

Note to be confused with... a Selective Cut, wherein the most valuable trees are removed, often resulting in a high-grade. **This is NOT happening in Working Woods.**

Skid Road—Roads incorporating water and erosion control structures designed for use by log-skidding equipment. *Forestry Term*

Snags—A standing dead tree. An important component of forest ecology as they provide shelter and resources for a multitude of wildlife, fungus, and soil life as they continue to decompose. *Forestry Term; Conservation Term; Research Term*

Succession—The natural series of replacements of one plant community (and the associated faunal / fungal etc. communities) by another over time and in the absence of disturbance. *Forestry Term; Conservation Term; Research Term*

Succession Planning—Landowners and foresters may speak of succession planning, which refers to planning how land will be passed down and to whom after it leaves the stewardship of a given owner. *Forestry Term*

Timber Cruising—The process of estimating the quality, quantity, and characteristics of trees in a forest. *Forestry Term*

Treatment Plots—In Working Woods, these are the hectare-plots upon which a management strategy or harvest will be applied. Treatments include 1.) Single-Tree Selection Cut 2.) Improvement Cut 3.) Improvement Cut with TSI. *Forestry Term; Conservation Term; Research Term*

TSI (Timber Stand Improvement) —A combination of intermediate treatments designed to reduce competition for light and improve growth, composition, and regeneration of the forest. Often this is invasive or weedy / undesirable species control and includes management of grapevines. *Forestry Term*

Holden Forests & Gardens' Sherwin Institute of Woodland Management hosts workshops and classes that enhance skills and knowledge of how to properly care for, and sustainably manage, trees and forests.

Holden Forests & Gardens includes the Holden Arboretum in Kirtland, Ohio and the Cleveland Botanical Garden in Cleveland's University Circle neighborhood. We are making a positive impact in the region through urban greening and forestry initiatives, environmental research, and world-class visitor experiences at our two campuses.

Our Mission: Advance and inspire a deeper understanding of plants to enhance life.

Our Vision: Vibrant green communities and diverse native forests of the Great Lakes region will flourish and sustain life.

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