

Forest Management Glossary

1. **Acre:**

An area of land equal to 43,560 square feet or 0.404686 hectares. Roughly equal to 210 feet by 210 feet or 64 metres by 64 metres.

2. **Hectare:**

An area of land equal to 10,000 square metres (100 metres by 100 metres). An area of land equal to 2.47105 acres.

3. **Mast Tree:**

Trees that produce edible fruit or seed that wildlife will consume.

4. **Mast:**

The fruit and seeds produced by trees and shrubs and are an important source of food for wildlife. Soft mast are fleshy fruit such as berries while hard mast are shelled nuts such as acorns.

5. **Stand:**

Community of tree sufficiently uniform in species composition, age, arrangement, and condition to be distinguishable as a group from the forest or other growth on the adjoining area. And thus forming silvicultural or management entity.

6. **Even aged stand:**

Forest stand in which relatively small age differences (10-20 years) exist between individual trees. Even aged stands are often a result of fire, a harvesting method such as clearcutting, the shelterwood method, or land abandonment.

7. **Uneven aged stand:**

All, or almost all, age classes are represented. Also called **all aged**.

8. **Shade tolerance:**

The ability of a plant to germinate and grow in shade

- ***Tolerant species***, such as maple, hemlock and beech, can grow in shade
- ***Mid-tolerant species***, such as oak, ash and white pine, need some sunlight to survive
- ***Intolerant species***, such as white birch, poplar and black cherry, need full sunlight — also referred to as pioneer species

**The growth rate of all species, including tolerant species, increases when the plants are exposed to more sunlight

9. Silviculture:

Art and science of controlling the establishment, growth, composition, health and quality of forests or woodlands.

- **Clearcutting**
 - All trees in a stand are removed at the same time
 - The *clearcut* area can be planted with seedlings after the harvest or left to regenerate naturally
- **Selection System**
 - Individual trees or groups of mature and/or unhealthy trees are harvested
 - Leaves most of the trees and a variety of *age classes* to grow and regenerate the forest
- **Shelterwood System**
 - An even-aged *silvicultural system* where in order to provide a source of seed and/or protection for regeneration, the old crop is removed in two or more successive cuts
 - Encourages natural regeneration in the shelter and shade of remaining trees

10. Succession:

The natural and gradual replacement of one community of trees and plants by another

11. Old-Growth Forest:

Old growth forests are biologically diverse, have multiple layer canopies and a high degree of species diversity. They have an abundance of large-diameter, living and dead trees, cavity trees and downed woody debris.

12. Basal Area of a tree:

The area, in square metres, of the cross-section of a tree measured 1.3 metres above the ground.

13. Stand Basal Area:

Basal area is the area of the ground occupied by the stems of the trees or **stand density**. It is the surface area of all the trees measured at 1.3 metres above the ground. In other words, if all of the trees in the stand were cut with 1.3 metre stumps and the surface areas of the stumps were measured, this would be the basal area of the stand.

14. Ideal Basal Area for Optimal Growth:

Forest science tells us that a basal area of around 20 m²/ha is ideal for optimal growth.

15. Diameter at Breast Height (DBH):

The **diameter at breast height**, or the **DBH** of the tree is the diameter of a tree measured at 1.3 metres above the ground.

16. AGS Tree:

Acceptable growing stock or crop of trees (i.e., good quality trees with high potential value)

17. UGS Tree:

Undesirable growing stock (i.e., poor quality trees and trees with low potential value)

18. Prism Plot:

A prism plot is a fixed area (usually 5.0 m radius) circular plot that provides an assessment area of 1/125th ha and will be used to determine the density of crop trees.

19. Crop Tree:

Any tree forming or selected to form, a component of the final crop specifically, one selected to be carried through to maturity

20. Cavity Tree:

Cavity trees are dead or dying trees that have one or more holes in the trunk or main branches. Cavities can also be found in some healthy trees, such as basswoods. Cavities are excavated by birds. They are also created by decay and by broken branches. In Ontario, more than 50 species of birds and mammals depend on cavity trees for nesting, rearing young, roosting, feeding, storing food, escaping predators and hibernating

21. Crown:

A tree's live branches and foliage. When the crowns of neighbouring trees touch, they form a *canopy*.

22. Canopy:

An almost continuous layer of foliage formed by the crowns of larger trees. Shades the layers of vegetation below.

23. Dominant Tree:

Trees with crowns extending above the general level of the canopy and receiving full light from above and partly from the side; taller than the average trees in the stand.

24. Dominant Species:

The most numerous and vigorous species in an area of mixed vegetation.

25. Age Classes:

A category that describes trees or stands of trees of a similar age, usually within a range of 20 years. In hardwood stands age class is often determined by measuring the diameter of a tree's trunk, rather than its actual age

The following age classes are commonly used in Canada:

- seedlings.....DBH under 1 cm
- saplingsDBH of 1 to 9 cm
- polewood.....DBH of 10 to 25 cm
- small sawlogsDBH of 26 to 37 cm
- medium sawlogs.....DBH of 38 to 49 cm
- large sawlogsDBH of 50 cm or larger