

**GLOSSARY OF TERMS
IN
FORESTRY**

**CANADIAN FOREST SERVICE
Northern Forestry Centre**

GLOSSARY OF TERMS

Advanced Regeneration	<i>Young trees that have been established naturally before regeneration cuttings are begun or a clear cutting is made.</i>
Adverse Slope	<i>An uphill incline for hauling or skidding of logs or other loads.</i>
Aerial Photography	<i>Photos taken from the air at regular intervals that are used in photo interpretation to provide much information about forests and landform.</i>
Afforestation	<i>The establishment of a tree crop on an area from which it has always or very long been absent.</i>
Age Class	<i>One of the intervals, commonly 5, 10 or 20 years, into which the age range of tree crops is divided for classification.</i>
Age-Class Distribution	<i>The actual and/or relative distribution of different age classes in a forest.</i>
Agro-forestry	<i>The practice of raising trees and agriculture products such as forage and or livestock on the same area at the same time.</i>
All-aged	<i>A stand that contains trees ranging from 1 year old to mature.</i>
Allowable Annual Cut	<i>(AAC) The annual rate of timber harvesting allowed in a given area of the management unit at forested land. Set by the provincial government, each AAC is calculated for a five year period to reflect the amount of timber that can be harvested in a given area on an ongoing basis. Factors taken into consideration include the volume, area and condition of mature and overmature forests, the rate of growth and area of young forests, and expected losses from fire, insect and disease.</i>
Annual	<i>Lasting only one year or one growing season.</i>
Annual Ring	<i>A line appearing on tree cross-sections marking the end of a growing season and showing the volume of wood added during the year.</i>
Appressed	<i>Pressed closely to or lying flat against something.</i>
Area Treated	<i>The number of hectares to which a treatment is applied. A hectare may be counted more than once, since more than one treatment may be applied to the same hectare.</i>
Aspect	<i>The direction towards which a slope faces.</i>
Back cut	<i>In the process of felling a tree, the final cut, made on the opposite side of the tree from the face cut (or undercut).</i>

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<i>Biomass</i>	<i>The sum total of biological material that exists on a given land area. For trees and plants, this can include leaves, branches, stems and roots.</i>
<i>Backlog</i>	<i>A term applied to forest land areas where silviculture treatments (such as planting/site preparation) are overdue.</i>
<i>Bareroot Stock</i>	<i>Young trees with their roots freed from the soil in which they were raised (i.e. rP 3-0 - means 3 year old red pine).</i>
<i>Basal Area</i>	<i>The cross-sectional area of a tree generally measured at breast height and inclusive of bark. Stand basal area is generally expressed as the <u>total basal area</u> per unit area.</i>
<i>Berm</i>	<i>A man-made embankment of soil used to divert water resulting from rainfall.</i>
<i>Biotic</i>	<i>Of or pertaining to life and living organisms.</i>
<i>Blight</i>	<i>A general term for a plant disease causing rapid death or dieback.</i>
<i>Bog</i>	<i>A wet peaty area, usually dominated by mosses & dwarf shrubs.</i>
<i>Bole</i>	<i>The main trunk of a tree.</i>
<i>Broadcast burn</i>	<i>A controlled burn, where the fire is allowed to proceed over an entire area. Sometimes called a slash burn.</i>
<i>Broadleaf</i>	<i>A tree with flat leaves and flowers that produce fruit when developed and fertilized. The group includes all deciduous trees and very few evergreens, such as holly.</i>
<i>Browsing Hazard</i>	<i>A rating (light, moderate, severe) of potential browsing damage by rabbits to newly established plantations.</i>
<i>Brushing</i>	<i>See weeding.</i>
<i>Brush Rake</i>	<i>A tool used in mechanical site preparation to penetrate and mix soil and tear roots.</i>
<i>Bucking</i>	<i>Cutting a felled tree into specified log lengths.</i>
<i>Buffer Strip</i>	<i>A strip of land (often including undisturbed vegetation) where disturbance is not allowed or is closely monitored to preserve or enhance aesthetic and other values along or adjacent to roads, trails, watercourses and recreation sites.</i>
<i>Butt</i>	<i>The base of a tree or log.</i>

<i>Butt cut</i>	<i>The first log above the stump.</i>
<i>Butt rot</i>	<i>The staining or decay of wood at the base of a tree, caused by various disease organisms. It can greatly reduce the amount of marketable wood in a tree.</i>
Calipers	<i>Instruments used to measure the diameter and/or thickness of trees or logs.</i>
<i>Cambium</i>	<i>The layer of cells between the inner bark and wood of the tree. This is where growth takes place.</i>
<i>Canopy</i>	<i>The more or less continuous cover by the crowns of trees growing adjacently in stands.</i>
<i>Cat face</i>	<i>Bark scar near the butt of a tree, caused by fire.</i>
<i>Chain</i>	<i>A measuring tape, often nylon, 50 or 75 m in length, used to measure distances.</i>
<i>Chips</i>	<i>Small pieces of wood used for pulp, fuel, or pressed board manufacture.</i>
<i>Choker</i>	<i>A noose of wire rope used for skidding or yarding logs.</i>
<i>Clavate</i>	<i>Club shaped.</i>
<i>Clear Cutting</i>	<i>The removal of all or almost all trees from an area in one cutting operation.</i>
<i>Cleared Land</i>	<i>Land permanently cleared of trees, usually as a result of human activities.</i>
<i>Clearing</i>	<i>An open area without trees.</i>
<i>Closed Canopy</i>	<i>The description given to a stand when the crowns of the main level of trees forming the canopy are touching and intermingled, and form a barrier to light penetrating the forest floor from above.</i>
<i>Closed Forest</i>	<i>A community completely dominated by the tree stratum due to density of the latter.</i>
<i>Co-dominants</i>	<i>Trees with crowns forming the general level of the canopy and receiving full light from above but comparatively little from the sides.</i>
<i>Commercial Thinning</i>	<i>A silviculture treatment that 'thins' out an overstocked stand by removing trees that are large enough to be sold as products such as poles or fence posts. It is carried out to improve the health and growth rate of the remaining crop trees.</i>
<i>Competing Vegetation</i>	<i>Plant species in direct competition for light, nutrients, and water with crop trees. In most cases this vegetation is undesirable and of on economical value.</i>

<i>Cone</i>	<i>The female reproductive part of conifers. These structures have overlapping scales that cover several seeds.</i>
<i>Coniferous</i>	<i>Cone-bearing trees having needle or scale-like leaves, usually evergreen and producing wood known commercially as 'softwoods'.</i>
<i>Conifer Release</i>	<i>To 'release' established coniferous trees from a situation in which they have been suppressed, by thinning out undesirable trees and shrubs which have overtopped them. Carried out to improve the growth of the coniferous trees released.</i>
<i>Conk</i>	<i>A hard, spore-bearing structure of a wood destroying fungus which projects beyond the bark of a tree.</i>
<i>Container Stock</i>	<i>Young trees grown in receptacles and when outplanted retaining the soil in which they have developed (i.e. jack pine paper pots).</i>
<i>Contour Maps</i>	<i>A topographic map which portrays relief by means of contour lines.</i>
<i>Controlled burn</i>	<i>Application of fire to a specific land area to accomplish predetermined forest management or other land use objectives.</i>
<i>Conversion Cutting</i>	<i>The removal of an overtopping canopy composed of undesirable trees in order to release a more desirable understorey. (See Residual Removal on Cutovers).</i>
<i>Cord</i>	<i>Represents 128 cubic feet of <u>stacked</u> wood. One cord equals 3.625 cubic meters stacked (m^3(st)).</i>
<i>Crop Tree</i>	<i>Any tree forming, or selected to form, a component of the crop at the end of the rotation. (i.e. the better quality trees left standing after a treatment).</i>
<i>Crop Tree Release</i>	<i>The elimination of competitors adjacent to chosen crop trees (as opposed to general thinning of the whole stand).</i>
<i>Crotch</i>	<i>The fork of a tree or branch.</i>
<i>Crown</i>	<i>The upper part of a tree encompassing the main branch system and foliage.</i>
<i>Crown Closure</i>	<i>The percent of ground area covered by the vertically projected tree crown areas.</i>
<i>Crown Land</i>	<i>Land owned by the Crown, or provincial government.</i>
<i>Crown fire</i>	<i>A fire that runs through the tops of the living trees, brush, or chaparral.</i>
<i>Crown Ratio</i>	<i>The ratio of crown length to total tree height.</i>

<i>Cruising</i>	<i>The measurement of standing trees on an area to determine the volume and form of wood on that area. Commonly includes the measurement of other resources on the area, such as soil, wildlife, and fisheries.</i>
<i>Cubic metre</i>	<i>The volume of wood in a cube measuring 1 m by 1 m. It is one of the standard volume measurements of wood.</i>
<i>Cull</i>	<i>A seedling that is rejected because it does not meet certain specifications.</i>
<i>Cunit</i>	<i>Represents 100 cubic feet of <u>solid</u> wood. One cunit equals 2.83 cubic meters solid wood (m³).</i>
<i>Cutblock</i>	<i>A specific area with defined boundaries, authorized for harvest.</i>
<i>Cutover</i>	<i>An area of forest land from which some or all timber has recently been cut.</i>
<i>Cut Period</i>	<i>The interval between major harvesting operations in the same stand.</i>
<i>Cutting cycle</i>	<i>The planned interval between partial harvests in an uneven-aged stand, or the planned intervals between clearcuts adjacent to each other.</i>
<i>Cutting Permit</i>	<i>The document that contains the authority to harvest trees on a Woodlot Licence.</i>
<i>Damping-off</i>	<i>Death of seeds or seedlings, usually by soil-born fungi.</i>
<i>Debris</i>	<i>Surface stripping, slash, stumps, unmerchantable timber and brush.</i>
<i>Decadent</i>	<i>A tree or stand of trees which is deteriorating due to age.</i>
<i>Decay</i>	<i>Disintegration of wood tissue.</i>
<i>Deciduous</i>	<i>The trees (commonly broadleaf) that usually shed their leaves annually. Also known commercially as "hardwoods".</i>
<i>Defect</i>	<i>Any irregularity or imperfection in a tree, log, piece, product, or lumber that reduces the volume of sound wood or lowers its durability, strength, or utility value.</i>
<i>Defoliation</i>	<i>The loss of leaves on a plant or tree.</i>
<i>Density</i>	<i>The number of trees per unit area at a given time.</i>
<i>Den tree</i>	<i>A hollow tree used as a home by a mammal.</i>
<i>Depletion</i>	<i>The decrease in merchantable volume on a managed forest area.</i>

<i>Diameter Breast Height D.B.H.</i>	<i>The diameter of a tree outside the bark at 1.3 m above the average ground level. Suffixes o.b. and i.b. designate an outside bark or inside bark measurement.</i>
<i>Diameter Inside Bark D.I.B.</i>	<i>The diameter of a tree or log excluding bark thickness.</i>
<i>Dieback</i>	<i>The progressive dying of stems and branches from the tip downward.</i>
<i>Direct Seeding</i>	<i>The artificial application of tree seed for the purpose of obtaining regeneration.</i>
<i>Disc Trencher</i>	<i>A machine designed for mechanical site preparation. It provides continuous rows of planting spots rather than intermittent patches of the patch scarifiers. Consist of scarifying steel discs equipped with teeth.</i>
<i>Dominants</i>	<i>Trees with crowns extending above the general level of the canopy and receiving full light from above and partly from the sides; larger than average trees in the stand and with crowns well developed.</i>
<i>Dormant/Dormancy</i>	<i>A condition in the life of a plant when there is a temporary suspension of visible growth and development (i.e. winter months). Sometimes this is termed the "resting stage".</i>
<i>Drag scarification</i>	<i>A method of site preparation that disturbs the forest floor and prepares logged areas for regeneration. Often carried out by dragging chains or drums behind a skidder or tractor.</i>
<i>Drainage dip</i>	<i>A water diversion cut into a forestry road to divert water and reduce erosion.</i>
<i>Duff/Litter</i>	<i>The uppermost layer of organic debris on a forest floor. May include bark fragments, twigs, flowers, fruits, mosses and grasses, alive or slightly decomposed.</i>
Ecology	<i>The science that deals with the interaction of plants, animals and their environment.</i>
<i>Ecosystem</i>	<i>A general term for ecological systems of any size comprising biota and environment in interaction.</i>
<i>Ecotone</i>	<i>A transition area between two well-defined communities or zones of vegetation.</i>
<i>Edge</i>	<i>The boundary between open land and woodland or two other ecological communities.</i>
<i>Epicormic Branching</i>	<i>A shoot arising from an adventitious or dormant bud on the bole or on a branch of a tree.</i>

<i>Epidemic</i>	<i>Pertaining to a disease that has built up rapidly and reached injurious levels.</i>
<i>Ericaceous Vegetation</i>	<i>A family of shrubs or bushes popularly known as heath plants, eg. blueberry, huckleberry, lambkill.</i>
<i>Even-aged</i>	<i>A stand composed of trees which are the same or close to the same age - in practice, maximum difference is 10 - 20 years.</i>
<i>Evergreen</i>	<i>Trees which retain green foliage throughout the year. Not all conifers are evergreens.</i>
<i>Faller</i>	<i>A logger who specializes in felling trees. Also called "cutters" or "sawyers" in some parts of the West, "choppers" in the redwoods.</i>
<i>Fallow</i>	<i>Cultivated land allowed to lie idle or unplanted during the growing season.</i>
<i>Feller-buncher</i>	<i>A harvesting machine that cuts a tree by shears or a saw and then piles it.</i>
<i>Felling</i>	<i>The act of cutting down a standing tree.</i>
<i>Fen</i>	<i>Grass, sedge or reed covered peatland, not as acid as bog and richer in nutrients, often with birch, willow or open tamarack cover.</i>
<i>Fermented</i>	<i>The middle section of organic surface soil, between litter and humus, where surface organic matter is in the process of decomposing.</i>
<i>Fertility, Soil</i>	<i>The status of a soil with respect to the amount and availability of elements necessary for plant growth. In forest stands soil fertility may be evaluated by the presence of indicator rock types. <u>Low fertility sites are underlain with granites, medium fertility have had sandstone and quartzites and schists, high fertility sites have shales and/or a mixture of rock types one of which is shale.</u></i>
<i>Fertilizing</i>	<i>The addition of nutrients to the soil in organic or inorganic form.</i>
<i>Fill-in planting</i>	<i>Planting required to supplement poorly stocked natural regeneration or to replace seedlings that have died on previously planted sites.</i>
<i>Final Cutting</i>	<i>The removal of seed or shelter trees after regeneration has been effected, or removal of the entire crop of mature trees under a clearcut system.</i>
<i>Firebreak</i>	<i>Areas or strips of less flammable fuels that are either natural (such as standing timber or landslides) or are made in advance (such as cat trails or roads), as precautionary measures, separating areas of greater fire hazard.</i>
<i>Fire Guard</i>	<i>A man-made barrier (often an area cleared of fuels) constructed at the time of a fire to control it and provide a point from which to carry out fire suppression.</i>

<i>Flaccid</i>	<i>Lacking firmness and stiffness.</i>
<i>Flagging tape</i>	<i>Coloured plastic tape which comes in rolls and is used to mark (flag) boundaries or identify certain trees or objects.</i>
<i>Flush</i>	<i>The fresh growth of foliage immediately after bud burst.</i>
<i>Forage</i>	<i>Grasses, small shrubs, and other plant material that can be used as feed by wildlife or livestock.</i>
<i>Forest</i>	<i>A plant community predominantly of trees and other woody vegetation, growing more or less closely together.</i>
<i>Forest belt</i>	<i>A multi-row planting of trees, similar to a shelterbelt but wider.</i>
<i>Forest Cover Map</i>	<i>A map showing relatively homogeneous forest stands or cover types, produced from the interpretation of aerial photos and information collected in field surveys. Commonly includes information on species, age class, height class, site and stocking level.</i>
<i>Forest Ecology</i>	<i>The relationships between forest organisms and their environment.</i>
<i>Forest Inventory</i>	<i>A survey of a forest area to determine such data as area condition, timber volume and species, for specific purposes such as planning, purchases, evaluation, reforestation, and stand tending.</i>
<i>Forest Land</i>	<i>Land area dedicated primarily for timber production.</i>
<i>Forest Licence (FL)</i>	<i>Agreement between the provincial government and forest company involving harvesting rights to a specified <u>volume</u> of timber and forest management obligations over a 15 year period within a broad geographic area referred to as a Timber Supply Area.</i>
<i>Forest Management Cycle</i>	<i>The phases that occur in the management of a forest, including harvesting, site preparation, reforestation, and stand tending.</i>
<i>Forest Map</i>	<i>A base map to which forest data have been added.</i>
<i>Forest Management Plan</i>	<i>A general plan for the management of a forest area, usually for a full rotation cycle, including the objectives, prescribed management activities and standards to be employed to achieve specified goals. Commonly supported with more detailed Development Plans.</i>
<i>Forest Renewal</i>	<i>The renewal of a tree crop, whether by natural or artificial means.</i>

<i>Forest Type</i>	<i>A group of forested areas or stands of similar composition (species, age, height and stocking) which differentiates it from other such groups.</i>
<i>Free-to-grow</i>	<p><i>This term refers to a forest stand (natural or planted trees) when it is within the minimum and maximum density standards set out below and is not experiencing growth interference from competing vegetation.</i></p> <p><i>After five years the standards must be:</i></p> <ul style="list-style-type: none"> <i>a) A minimum of 1500 planted trees/ha of all tree species. The total trees/ha includes all planted trees and all natural regeneration that are equal in height or higher than the planted trees;</i> <i>b) A maximum of 3000 trees/ha of all tree species. The total trees/ha includes all planted trees and all natural regeneration that is equal in height or higher than the planted trees;</i> <i>c) At least 75% stocking based on planted and acceptable natural regeneration as outlined in (a);</i> <i>d) An average height of at least 1.30 m for pine and larch species and 0.75 m for spruce.</i> <p><i>If more than 25% of the area (based on percent stocking) in a plantation has competing vegetation which is greater in height than the planted and acceptable natural regeneration the plantation will not be considered "free-to-grow".</i></p>
<i>Frost Heaving</i>	<i>Upward displacement of soil as a result of expansion due to ice formation in frozen soil. Can cause the partial or total lifting of young trees from soil.</i>
<i>Fuelwood</i>	<i>Trees used for the production of firewood logs or other wood fuel.</i>
<i>Full tree</i>	<i>A log extraction system where the full tree is removed from the harvesting area without first removing limbs or bucking into specifically sized logs. Limbing and bucking is done at a processing area or a landing.</i>
<i>Fungicide</i>	<i>A chemical agent that kills or inhibits fungi.</i>
<i>Fungus (pl. fungi)</i>	<i>An organism without chlorophyll, usually having a mycelium and sexual and/or asexual spores.</i>
<i>Galleries</i>	<i>Passages carved out under bark or in wood by insect feeding or laying eggs.</i>
<i>Galls</i>	<i>Ball-shaped growths on plants resulting from insects, fungi, bacteria or injury.</i>

<i>Geographic Information System</i>	<i>An information system which uses a spatial database to (GIS) provide answers to queries of a geographical nature through a variety of manipulations such as sorting, selective retrieval, calculation, spatial analysis and modelling.</i>
<i>Girdle</i>	<i>To make continuous incisions around a living stem, through at least both bark and cambium, generally with the object of killing the tree.</i>
<i>Glacial Drift</i>	<i>All materials transported & deposited by glacial ice or melt water.</i>
<i>Grading</i>	<i>Classifying timber, lumber or logs according to quality or end-use.</i>
<i>Grapple Yarder</i>	<i>A machine used in harvesting to bring logs into a landing. The grapple closes like teeth around the log and is controlled by the machine operator.</i>
<i>Green Belt</i>	<i>A strip of undisturbed soil and vegetation left along waterways or access routes to minimize the environmental impact from development.</i>
<i>Green lumber</i>	<i>1. Lumber with the moisture content greater than that of air-dried lumber. 2. Unseasoned lumber, boards from logs processed through mill before drying.</i>
<i>Growing Season</i>	<i>The period when tree puts on its annual growth.</i>
<i>Growing Stock</i>	<i>All the trees growing in a forest or in a specified part of it, generally expressed in terms of number or volume.</i>
<i>Growth ring</i>	<i>The layers of wood laid down each growing season, also called annual rings. These rings frequently are visible when a tree is cut and maybe used to estimate the age of the tree, as well as to determine the rate of its growth.</i>
Habitat	<i>The place where an organism lives and/or the conditions of that environment including the soil, vegetation, water and food.</i>
<i>Habitat Management</i>	<i>Management of the forest to create environments which provide habitats (food, shelter) to meet the needs of particular species of wildlife, birds, etc.</i>
<i>Hand planting</i>	<i>A reforestation method of planting seedlings by hand, usually with spacing to minimize competition and maximize growth.</i>
<i>Hack and Squirt</i>	<i>A method of conifer release and juvenile spacing where the bark of a tree is cut (hack) and herbicides are injected (squirt) to kill the tree.</i>
<i>Hardening-off</i>	<i>Forming a woody tissue in the past seasons's terminal and lateral shoot growth.</i>
<i>Hardwoods</i>	<i>Broadleaved deciduous trees.</i>
<i>Harvest Cut</i>	<i>The felling of the mature crop trees, either as a single clearcutting or a series of regeneration cuttings.</i>

<i>Harvesting</i>	<i>The cutting and removal of trees from a forested area.</i>
<i>Hauling</i>	<i>A general term for the transport of logs from one point to another, usually from a landing to the mill or shipping point.</i>
<i>Heart rot</i>	<i>A decay characteristically confined to the heartwood. It usually originates in the living tree.</i>
<i>Heartwood</i>	<i>The central part of a tree that does not conduct water.</i>
<i>Heeling-in</i>	<i>Temporary field storage of young trees before planting by placing them in a trench and covering the roots with soil.</i>
<i>Herbaceous</i>	<i>Having the characters of an herb as opposed to woody.</i>
<i>Herbicide</i>	<i>A chemical that kills weeds or weed seeds.</i>
<i>Herbicide Application</i>	<i>Reduction or elimination of competing vegetation through the use of herbicides, prior to planting or seeding.</i>
<i>High-Grading</i>	<i>This is synonymous with Selective Cutting. It is used to describe a poor harvesting practice where only the best trees are cut and poor quality trees are left.</i>
<i>Hinge Wood</i>	<i>The holding wood between the undercut and the backcut that acts as a hinge to control the direction of the falling tree.</i>
<i>Host</i>	<i>Any plant attacked by a parasite or pathogen.</i>
<i>Host range</i>	<i>All hosts that a particular pathogen attacks.</i>
<i>Humus</i>	<i>A general term for the more or less decomposed plant and animal residues in the upper soil layer.</i>
<i>Hydro Seeding</i>	<i>A hydraulic method used to seed an area.</i>
<i>Immature</i>	<i>In even-aged management, those trees or stands that have grown past the regeneration stage but are not yet mature.</i>
<i>Improvement Cutting</i>	<i>The removal of trees of undesirable species, form or condition from the main canopy of the stand to improve the health, composition and value of the stand.</i>
<i>Increment</i>	<i>An increase in the diameter, basal area, height, or volume of individual trees or stands over time.</i>
<i>Increment Borer</i>	<i>A tool used to extract a core of wood from a living tree, for the purpose of studying the annual growth rings of the tree.</i>

<i>Increment Core</i>	<i>That part of the cross section of a tree extracted by an increment borer. Used to determine tree age and growth pattern.</i>
<i>Indicator Species</i>	<i>A plant species that may be used to indicate a particular site quality or feature i.e., fertility, drainage.</i>
<i>Infect</i>	<i>To invade and cause a disease.</i>
<i>Infest</i>	<i>To be present within an area (or plant or soil) in such numbers as to be a disease hazard.</i>
<i>Insecticides</i>	<i>Chemicals used to control epidemic populations of insects and the damaging nature of their activities on forests.</i>
<i>Intermediates</i>	<i>Trees with crowns extending into the canopy formed by codominant and dominant trees, receiving a little direct light from above but none from the sides. Usually with small crowns considerably crowded on the sides.</i>
<i>Interplant</i>	<i>To plant seedlings among existing trees, planted or natural.</i>
<i>Intertree distance</i>	<i>The distance between tree crowns, usually used in the context of thinning. Recommended guidelines for intertree distances are established for different thinning programs depending on site variables, the species and age of trees, and management objectives.</i>
<i>Intolerants</i>	<i>Those tree species which cannot persist under the shaded conditions of other trees due to their specific requirements for light, moisture, nutrients, and temperature.</i>
Juvenile Spacing	<i>A silvicultural treatment to reduce the number of trees in young stands, often carried out before the stems removed are large enough to be used or sold as a forest product. Prevents stagnation and improves growing conditions for the remaining crop trees so that at final harvest the end-product quality and value is increased.</i>
Kerf	<i>Width of a cut made by a saw.</i>
Key	<i>When felling a tree, the holding or hinge wood which allows a feller to safely control the direction a tree will fall.</i>
Kickback	<i>The sudden and dangerous jump of the butt of a falling tree as it comes down. Also, the abrupt and dangerous backward movement of a chainsaw toward the operator, often caused by touching the moving chain at the tip of the bar to an object when starting to cut.</i>
Kiln Drying	<i>Application of heat to newly sawn lumber to remove water, reduce weight and minimize shrinking.</i>

<i>Knot</i>	<i>That part of a branch that has been incorporated into the main stem.</i>
Land Capability	<i>A term denoting the potential productivity of a site to produce wood fibre in a given period of time under fully stocked conditions.</i>
<i>Landing</i>	<i>The area where logs are collected for loading.</i>
<i>Lateral Bud</i>	<i>Any bud that develops on the side of a stem.</i>
<i>Layering</i>	<i>The rooting of an undetached branch lying on or partially buried in the soil of duff which is capable of independent growth after separation from the mother plant.</i>
<i>Leader</i>	<i>The terminal or topmost shoot.</i>
<i>Leave Trees</i>	<i>Trees selected to be left on an area following harvesting or thinning operations for the purpose of continued growth and/or seed dissemination.</i>
<i>Lichen</i>	<i>Plant composed of an algae and a fungus growing together to their mutual benefit (symbiosis).</i>
<i>Lignin</i>	<i>A complex organic molecule that acts as the binding substance that holds wood together.</i>
<i>Litter</i>	<i>See duff.</i>
<i>Log</i>	<i>A piece of the woody stem of a tree. The trunk portion of a tree used for sawlogs.</i>
<i>Logging</i>	<i>All activities associated with the removal and transport of timber.</i>
Management Area	<i>Stands or forest types that require similar management practices and can be grouped for treatment as a management unit.</i>
<i>Maturity</i>	<i>The age at which a forest stand no longer increases in volume. That is, stand mortality equals the current annual increment.</i>
<i>Merchantable</i>	<i>Trees that meet the size standards of existing markets. Definitions must be documented and submitted to the Criteria Committee prior to activities taking place.</i>
<i>Merchantable Timber</i>	<i>Forest which have 25 or more green coniferous trees, exceeding 15 m in height, on any hectare of land to be cleared.</i>
<i>Meters, Cubic</i>	<p><i>In terms of wood volume there are two meanings:</i></p> <ol style="list-style-type: none"> <i>1. cubic meters <u>stacked</u> - m³(st) - the volume of piled wood including the solid component and the voids between pieces. (1 m³(st) is approximately 0.276 cords)</i>

2. cubic meters solid - m^3 - the volume of solid wood. This is directly related to the weight of wood. ($1 m^3$ is approximately 0.353 cunits)

Microclimate	Generally the climate of small areas, especially insofar as this differs significantly from the general climate of the region. Stands often create microclimates.
Microsite	A small relatively homogeneous land area, for example, humus vs bare mineral soil microsite.
Mixedwood(s)	Trees belonging to both botanical groups deciduous and coniferous, and which are substantially intermingled in stands. Also, the wood of such trees mixed together in substantial quantities.
Mold	A woolly, powdery fungal growth sometimes visible on the surface of planting stock which has been improperly stored.
Monoculture	The practice of growing a single species of tree or plant on a given land area.
Moss	Small, leafy, green plants lacking any true vascular system or roots.
Mottling	A plastic container normally with 67 cavities in which tree seedlings are grown. The tray can be reused for several years. Seedlings grown in this way are commonly referred to as multipots.
Mulching	The addition of material (usually organic) to disturbed land surfaces to combat erosion and retain soil moisture.
Mushroom	A large fruiting body of a fungus.
Muskeg	Organic terrain, especially bog with a sparse tree cover.
Natural Regeneration	The renewal of a tree crop by natural (as compared to human) means, e.g: seed on-site, from adjacent stands, or brought in by wind, birds, animals.
Natural thinning	Death of trees in a stand as a result of competition.
Needle cast	Loss or casting of needles of coniferous trees.
N.S.R.	Not Satisfactorily Restocked. Refers to forest lands on which a new forest crop has not been successfully established.
Nursery	An area developed for the production of young trees to be used in reforestation.
Old Growth	A forest of mature or overmature timber that is beyond its peak growing period.
Open grown	Trees with crowns receiving full light from all sides due to the openness of the canopy.

<i>Operational Cruise</i>	<i>An estimate, to a specified degree of accuracy, of the volume of timber on an area to be harvested.</i>
<i>Outwash</i>	<i>Gravels and sands deposited by glacial meltwater.</i>
<i>Overmature</i>	<i>Trees or stands past the mature stage, where growth or value is declining.</i>
<i>Overstocked</i>	<i>A condition of the stand or forest, indicating more trees than desired, normal, or full stocking would require.</i>
<i>Overstory</i>	<i>The uppermost canopy layer in stands consisting of more than one level of tree vegetation.</i>
<i>Overtopping</i>	<i>Vegetation higher than the favoured species, as in brush or deciduous species that are shading and suppressing more desirable coniferous trees.</i>
Paperpot	<i>A plastic tray normally with 335 paper cavities in which seedlings are grown. Seedlings grown in this way are commonly referred to as paperpots.</i>
<i>Parasite</i>	<i>An organism living on and nourished by another living organism.</i>
<i>Partial Cutting</i>	<i>A partial harvest or felling of trees in a stand.</i>
<i>Partial Disposal</i>	<i>Mechanical or manual cutting of accumulated slash and debris done to reduce the fire hazard to acceptable levels and to improve aesthetics.</i>
<i>Pathogen</i>	<i>An organism capable of causing disease.</i>
<i>Peat</i>	<i>Unconsolidated soil material consisting largely of undercomposed or slightly decomposed organic matter accumulated under conditions of excessive moisture.</i>
<i>Peeler</i>	<i>A log from which veneer stock will be cut.</i>
<i>Perennial</i>	<i>Lasting more than one year.</i>
<i>Permafrost</i>	<i>Perennially frozen ground.</i>
<i>Pest</i>	<i>An organism capable of causing material damage. Forest pests include insects and diseases.</i>
<i>Pesticides</i>	<i>A general term for chemicals used to kill either vegetation (herbicides) or insect pests (insecticides).</i>
<i>Pile and burn</i>	<i>A controlled burn where the material to be disposed of is concentrated, usually with machinery, before burning.</i>
<i>Plantation</i>	<i>A forest stand originating from planted seedlings or transplants.</i>

<i>Plantation Tending</i>	<i>The removal or suppression of competition during the early stages of growth of a plantation.</i>
<i>Planting</i>	<i>Establishing a forest by setting out seedlings, transplants or, for certain species, cuttings on an area.</i>
<i>Planting bar</i>	<i>A hand tool used in making a slit-hole in the soil in which trees are planted.</i>
<i>Plot</i>	<i>A carefully measured area laid out for experimentation or measurement.</i>
<i>Plug</i>	<i>A seedling lifted from its container with roots and rooting medium left undisturbed.</i>
<i>Pole Stage</i>	<i>The period from the time the lower branches of young trees begin to die, up to the time when the rate of height growth begins to slow down and crown expansion becomes marked.</i>
<i>Prebunch</i>	<i>In logging, to collect logs or other material at intermediate staging areas, in preparation for the main yarding operation.</i>
<i>Precommercial Thinning</i>	<i>A spacing operation carried out in naturally regenerated stands ranging from 1.8 to 6.1 m in height for the purpose of promoting the growth of desired crop trees.</i>
<i>Preparatory Felling</i>	<i>Removal of trees near the end of a rotation to open the canopy and enlarge the crowns of seed bearers, with a view to improving conditions for seed production and natural regeneration as in shelterwood cuts.</i>
<i>Prescribed Burn</i>	<i>Also known as "slash burning", method of preparing logged area for reforestation. Also used to reduce fire hazard on a harvested site.</i>
<i>Pruning</i>	<i>The removal of live or dead side branches from a standing tree for the improvement of wood quality.</i>
<i>Pulp</i>	<i>Fibrous material used to make paper and other products.</i>
<i>Pulpwood</i>	<i>Wood cut or prepared primarily for manufacture into wood pulp, for later manufacture into paper, fiberboard, or other products.</i>
<i>Recontouring</i>	<i>Grading disturbed land to an acceptable landform.</i>
<i>Reforestation</i>	<i>Re-establishment of a tree crop on forest land.</i>
<i>Regeneration</i>	<i>The renewal of a tree crop, whether by natural or artificial means.</i>
<i>Regeneration Survey</i>	<i>Carried out to determine the initial restocking of a site. It is used to describe the number of trees on a site that have reached acceptable standards.</i>
<i>Release</i>	<i>Freeing a tree, or group of trees from immediate competition.</i>

<i>Residual</i>	<i>A tree left standing after the main harvest.</i>
<i>Residual Removal</i>	<i>The felling of residual trees and/or pockets of trees which were considered inoperable at the time of harvest.</i>
<i>Resinosis</i>	<i>Excessive leakage of resins from coniferous tissues, usually as a result of injury.</i>
<i>Revegetation</i>	<i>The process of seeding, tree planting, fertilization, etc. to establish vegetation in an area where the vegetation was previously removed.</i>
<i>Rogue</i>	<i>A tree having markedly inferior characteristics.</i>
<i>Roots</i>	<i>That portion of the tree which is generally underground and which functions in nutrient absorption, anchorage and storage of food and waste products.</i>
<i>Rosetting</i>	<i>Circular cluster of foliage.</i>
<i>Rot</i>	<i>Wood in a state of decay.</i>
<i>Rotation</i>	<i>The period of years that elapses between stand establishment, and the time when it is ready for final cutting and regeneration.</i>
<i>R.P.F.</i>	<i>Registered Professional Forester - responsible for direction or undertaking of activities relating to the use and management of the forest resource.</i>
<i>Roundwood</i>	<i>Sections of tree stems, with or without bark.</i>
Salvage Cutting	<i>A cutting made to utilize dead, downed and injured trees before the timber becomes unmerchantable.</i>
<i>Sanitation Cutting</i>	<i>Removing of dead, diseased, infested, damaged or susceptible trees to reduce or prevent the spread of insects or pathogens.</i>
<i>Sapling</i>	<i>A term for a young tree no longer a seedling but not yet a pole, usually less than 10 cm in diameter and in rapid growth stage.</i>
<i>Sapwood</i>	<i>The water-conducting outer portion of a tree stem below the cambium.</i>
<i>Saw log</i>	<i>A log large enough to be sawn into lumber.</i>
<i>Sawtimber</i>	<i>Trees that will yield logs suitable in size and quality for the production of lumber.</i>
<i>Scaling</i>	<i>The measuring of lengths and diameters of logs and calculating deductions for defect to determine volume.</i>
<i>Scalp</i>	<i>To physically remove the sod or surface layer of debris, to expose mineral soil for tree planting</i>

<i>Scarification</i>	<i>One form of site preparation and defined as the loosening of the top soil of open areas or breaking up the forest floor in preparation for regenerating by direct seeding or natural seed fall.</i>
<i>Screefing</i>	<i>Removing weeds and small plants together with most of their roots, to clear the area immediately surrounding a planting hole.</i>
<i>Second Growth</i>	<i>A second forest that develops after harvest of the original mature old-growth forest.</i>
<i>Seedbed</i>	<i>In natural regeneration, the soil or forest floor on which seed falls; in nursery practice, a prepared area over which seed is sown.</i>
<i>Seeding</i>	<i>A reforestation method by sowing seeds, aerially or by hand. Often done immediately after harvest so that a new forest is started the next growing season.</i>
<i>Seedlings</i>	<i>Young trees that (i) have not been transplanted, or (ii) have not reached the sapling stage.</i>
<i>Seedlot</i>	<i>An indefinite quantity of seeds having in common species, provenance, year of collection, and handling history; identified by a number for reforestation purposes.</i>
<i>Seed Orchard</i>	<i>An area of specially planted trees that have been selected for their superior characteristics (i.e. growth, volume, branching, pest resistance, etc.) to breed genetically improved seed.</i>
<i>Seed Tree</i>	<i>Any tree of good quality retained to provide seed for natural regeneration eg. during regeneration cuttings.</i>
<i>Seed Year</i>	<i>A year in which tree species produce seed of significant amounts.</i>
<i>Selection Cutting</i>	<i>The removal of individuals or groups of trees within a stand to perpetuate a forest of mixed ages, sizes and species.</i>
<i>Selective Cutting</i>	<i>See High-grading.</i>
<i>Selective Logging</i>	<i>The partial removal of trees within a forest.</i>
<i>Semi-Commercial Thinning</i>	<i>A spacing operation carried out in stands greater than 10 cm in diameter in order to (i) increase productivity by harvesting trees that would otherwise be lost to mortality, and (ii) promote the growth and quality of desirable crop trees.</i>
<i>Shade-tolerant</i>	<i>The capacity of a tree or plant species to develop and grow in the shade of, and in competition with, other trees or plants.</i>

<i>Shearing</i>	<i>In Christmas tree culture, to prune the branches to make dense foliage and give the tree a conical shape.</i>
<i>Shelterbelt</i>	<i>A wind barrier of living trees and/or shrubs, maintained to protect selected areas.</i>
<i>Shelterwood Cutting</i>	<i>One or more thinning operations carried out in mature stands in order to provide conditions conducive to the establishment of natural regeneration.</i>
<i>Shrub</i>	<i>Woody perennial of smaller structure than a tree. (Less than 5 m tall and generally greater than 15 cm tall.)</i>
<i>Silvics</i>	<i>The life history and specific characteristics of forest tree species and stands used as a basis for the practice of silviculture.</i>
<i>Silviculture</i>	<i>The science and art of growing and tending forest crops, based on a knowledge of silvics.</i>
<i>Site</i>	<i>An area considered in an ecological perspective with reference to its capacity for vegetation production.</i>
<i>Site Class</i>	<i>A measure of the relative productive capacity of a site for the crop under study.</i>
<i>Site Index</i>	<i>A particular measure of site class based on the height of the dominant trees in a stand at age 50 (i.e. Site Index 70 means Height of 70 ft. at age 50).</i>
<i>Site Preparation</i>	<i>The operation whereby a forest site is purposely altered to improve stand establishment by natural or artificial methods. Fire, chemicals, manual methods and machinery are all used to prepare forest sites.</i>
<i>Site Reclamation</i>	<i>The felling and/or removal of trees that have died as a result of budworm defoliation to facilitate subsequent site preparation and planting.</i>
<i>Skidder</i>	<i>A wheeled or tracked vehicle used for sliding/dragging logs from the stump to a landing.</i>
<i>Skidding</i>	<i>The process of sliding/dragging logs from the stump to a landing, usually applied to ground-based operations.</i>
<i>Skid trail</i>	<i>A pathway over which logs are skidded.</i>
<i>Slash</i>	<i>The branches, bark, tops, cull logs, and broken or uprooted trees on the ground after logging.</i>
<i>Snag</i>	<i>A standing dead tree or portion thereof, from which most of the branches have fallen.</i>
<i>Softwoods</i>	<i>Needle- or scale-leaved, coniferous trees.</i>

Soil	The unconsolidated material on the immediate surface of the earth that serves as a natural medium for the growth of land plants.
Soil Drainage	Refers to the frequency and duration of periods when the soil is free of saturation. In <u>normal/well drained</u> soils the water is removed readily but not rapidly; in <u>poorly</u> or <u>imperfectly</u> drained soils the root zone is waterlogged for long periods seriously reducing available oxygen to tree roots.
Soil Pits	A pit dug with one or more vertical faces in order to expose the <u>soil profile</u> (horizons/layers) for examination of soil texture and structure, rooting depth, duff thickness and soil drainage (moisture).
Spacing	Reduction of density in young stands, to control stocking, prevent stagnation and improve tree quality so that, at final harvest, end product quality and value is increased.
Species	Vegetation having very similar genetic makeup, so that they freely interbreed and have common characteristics.
Sprouts	A shoot arising from above ground level usually from a stump or stem, very common in red maple.
Stand	A community of trees, possessing sufficient uniformity as regards site, age, height, density, species composition or condition, to be distinguishable from adjacent communities. Stands are commonly referred to as: S - softwood (75% softwood) SH - softwood-hardwood (51 - 75% softwood) HS - hardwood-softwood (25 - 50% softwood) H - hardwood (25% softwood)
Stand Density	A measure of the degree to which trees occupy an area, commonly expressed as trees/hectare and basal area/hectare.
Stand Tending	A variety of forest management activities carried out at different stages in the life of a stand. Treatments may include: juvenile spacing; brushing; commercial thinning; fertilization; conifer release; site rehabilitation; mistletoe control; seed tree control; and pruning.
Steep Slope	Slope in excess of 27 degrees from the horizontal.
Stem	The principal axis of a plant from which buds, shoots and branches are developed.
Stocking	A relative term indicating the proportion of area occupied by tree cover, eg. 40%, 60%.

Stratum	<i>A subdivision of a forest area to be inventoried, based on a group of trees with the same or similar species composition, age and height class.</i>
Strip Cut	<i>A clearcut where the cut areas are in strips or blocks.</i>
Stumpage	<i>Payment made to the provincial government by logging companies for trees harvested on publicly owned land.</i>
Succession	<i>The replacement of one plant community by another until ecological stability is achieved.</i>
Subarctic forest	<i>The northern part of the boreal forest, characterized by open stands of small conifers, chiefly black spruce, with abundant lichens on the ground.</i>
Succession	<i>The replacement of one plant community by another.</i>
Suckers	<i>A shoot arising from below ground level usually from a root, very common in aspen.</i>
Suppressed Trees	<i>Trees with crown entirely below the general level of the crown cover, receiving no direct light either from above or from the sides. Synonym; "<u>Overtopped</u>".</i>
Survival Rate	<i>Rate at which tree seedlings survive after planting, usually expressed on a percentage basis.</i>
Swamp	<i>A wooden fen whose mucky substratum is intermittently flooded; peat accumulation is not characteristic.</i>
Taproot	<i>The main descending root of a tree. Not found in all species but common in oaks.</i>
Tending	<i>Any operation carried out for the benefit of an established forest crop at any stage of its life (e.g., cleaning, thinning, fertilizing, spraying).</i>
Terminal Bud	<i>A bud that develops at the apex of a stem. Also known as apical bud.</i>
Thicket	<i>A dense growth of small trees.</i>
Thinning	<i>A felling made in an immature crop or stand in order primarily to accelerate diameter increment but also, by suitable selection to improve the average form of the trees that remain.</i>
Till	<i>Glacial deposits laid down directly by the ice with little or no transportation or sorting by water.</i>
Timber	<i>A term loosely applied to forest stands or their products; Often applied to wood in forms suitable for heavy construction.</i>

<i>Timber Cruising</i>	<i>The collection of field data on forests, commonly by the measurement and recording of information in sample plots. Includes the measurement and estimation of volumes of standing trees.</i>
<i>Timber Mark</i>	<i>A hammer indentation made on cut timber for identification purposes.</i>
<i>Tolerance</i>	<i>The capacity of tree seed to germinate and of trees to grow satisfactorily in the shade of, and in competition with other trees (<u>tolerant species</u>). <u>Intolerant species</u> cannot grow or exist under shaded conditions but require abundant light to be able to function.</i>
<i>Total Disposal</i>	<i>Complete removal and disposal of trees and brush by burning and/or limited burying to reduce fire hazard and improve aesthetics.</i>
<i>Topsoil</i>	<i>Surface soil, includes the organic layer in which plants have most of their root system.</i>
<i>Tree</i>	<i>A woody, perennial plant generally with a single, well-defined stem and a more or less definitely formed crown.</i>
<i>Tree Farm Licence (TFL)</i>	<i>An agreement between the provincial government and one forest company involving harvesting rights and forest management obligations in a specific <u>area</u> of Crown forest land over a 25 year period.</i>
<i>Tundra</i>	<i>The low, treeless vegetation of high latitudes and high altitudes, usually characterized by lichens, sedges and dwarf shrubs.</i>
<i>Underbrush</i>	<i>The brush growing in a forest.</i>
<i>Understory</i>	<i>That portion of the trees or other vegetation in a forest stand below the main canopy level.</i>
<i>Uneven-aged</i>	<i>Stands with a wide range of ages and sizes.</i>
<i>Vegetation Management</i>	<i>The establishment and fostering of desirable vegetation and the control of unwanted vegetation.</i>
<i>Veneer log</i>	<i>A log used to produce veneer.</i>
<i>Volume</i>	<i>The amount of wood in a tree, stand or other specified area, according to some unit of measurement or some standard of use. The unit of measurement may be cubic metres or cubic metres per hectare. The standard of use may be pulpwood or sawtimber. Usually expressed inside bark and according to different specifications.</i>
<i>V-plow</i>	<i>A forest plow with a V-shaped blade used to prepare strips for hand planting by removing surface debris and competing vegetation.</i>

<i>Watershed</i>	<i>Catchment area for a stream or river system,together with its land and water resources.</i>
<i>Weeding/brushing</i>	<i>A chemical, mechanical or manual operation eliminating or suppressing undesirable vegetation, mainly herbaceous, during the seedling stage of a forest crop so as to reduce competition with seedling stand.</i>
<i>Wildfire</i>	<i>A fire burning out of control, regardless of how or why it started.</i>
<i>Wildlife</i>	<i>All living organisms, not just birds, mammals, reptiles and amphibians.</i>
<i>Wildling</i>	<i>A seedling naturally reproduced outside of a nursery, used in forest planting.</i>
<i>Windfirm</i>	<i>Trees that can withstand normal and intermittent heavy winds.</i>
<i>Windrowing</i>	<i>The concentration of slash, branchwood and debris into rows to clear the ground for regeneration. Windrows are often burned.</i>
<i>Windthrown</i>	<i>Trees that have been blown over by wind.</i>
<i>Witches' broom</i>	<i>A proliferation of branches caused by a disease or other causes.</i>
<i>Yarding</i>	<i>Moving trees or logs from felling site to roadside with cable, winch, or helicopter.</i>