
GLOSSARY OF TERMS

The following definitions apply in this manual:

Accuracy	How close measurements or estimates are to their actual value or quantity.
Advanced decay	The late stage of decay in which the decomposition is readily recognized as the wood becomes punky, soft, stringy, pitted, or crumbly.
Adventitious	Used to describe a plant part, means that it develops outside the usual order of time or position, or both (e.g., adventitious branching on trees).
Airdry	The condition at which the moisture content of wood is closely in equilibrium with conditions outdoors, but undercover (usually at about 12% moisture content).
Annual ring	The annual increment of wood (including early-wood and late-wood) which appears on a transverse section (or cross section) of a piece of wood and denoting one year's growth.
Bark	The tissues of a tree outside cambium and is composed of inner living bark and outer dead bark.
Bark Seams	Seams of bark extending into or embedded in the log.
Bias	A consistent or systematic distortion of sampling results or measurements arising from an incorrect method of sampling or measurement.
Bird holes	Holes and damage caused by woodpeckers and other species of birds.
Bole	The trunk of a tree (seedling and saplings have stems, not boles).

Bolt	Any short log specially cut to length, usually for the manufacture of a specific product (e.g., shake bolt).
Borer holes	Voids made by wood-boring insects or worms.
Branch whorl	A more or less circular arrangement of branches around a point on the stem of a tree.
Burl	A hard woody bump on a tree, more or less rounded in form, usually resulting from the entwined growth of a cluster of adventitious buds.
Butt end	The large end of a log.
Butt log	A log which was originally connected to the stump.
Butt rot	Any decay or rot developing in, and sometimes characteristically confined to, the butt log.
Butt swell	That part of a log outside its normal taper and extending from where the normal taper ends and the flare begins to the large end of the log. It is usually manifest only in butt logs due to the self-buttressing growth of the tree near its base.
By the piece	By a count or tally of pieces.
Calipering	To take a diameter measurement at a point on a log other than at an end.
Catface	A defect on the surface of a tree or log resulting from a wound where healing has not re-established the normal cross section.
Check	Wood separation starting on a log's outer surface and travelling inward toward the pith; caused by differential shrinkage from drying. Also see "Sun Check", "Spiral Check", "End Check", and "Weather Check".
Chipper	A machine for cutting wood into wood chips, and includes chipper canters, chipper edgers, chipping headrigs, and portable debarker chippers.
Church door fire scar	A defect on the surface of a butt log caused by a ground fire, resulting in a tapered piece of sound wood missing from the butt end of the log.

Coefficient of variation	A measure of variability among units expressed as the ratio of the standard deviation (s) to the mean (x) and is usually expressed by the formula $CV = s/x$.
Collars	The portion of the log between the inside of the bark and a hole or rot in the heart of the log (the same as shells).
Confidence interval	The interval within which the true value of an estimate is said to be with a given probability of the statement being correct (e.g., at 2 confidence intervals there is a 95% [or 19 lines out of 20] probability the estimate will be within ± 2 sampling errors of the true value).
Continuous variable	A variable that is characterized by being related to some numerical scale of measurement, any interval of which may, if desired, be subdivided into an infinite number of values, such as length, height, volume, and mass.
Crook	An abrupt bend or curvature in the length of a log.
Dead side	A misshapen side of a log caused by the lack of growth of wood because of the death or removal of the inner bark, or phloem, along the side of the living tree.
Decay	The decomposition of wood substance cause by the action of wood-destroying fungi, resulting in softening, loss of strength and mass, and often change of texture and colour.
Defect	Any abnormality or irregularity which lowers the commercial value of wood. Typically defects may reduce a logs firmwood volume and/or log grade.
Diameter, small end	The average diameter, inside bark, at the upper end of the log.
Diameter breast height (DBH)	The stem diameter of a tree measured outside bark at breast height (1.30 m above ground level). DBH is used for standing trees, usually in the context of cruise data. The minimum butt diameter is usually used in the context of utilization standards.
Diameter deduction	A method of compensating for through-running firmwood defects by reducing the recorded radius or radii of a log or slab.

Diameter tape	A tape measure specially graduated so that the diameter may be read directly when the tape is placed round a tree stem, bole, or piece of roundwood.
Discrete variable	A qualitative variable represented by an integral value or ratio of integral values, such as number of logs in a stacked cubic metre, that cannot be expressed as a proportion. By increasing the number of values that a discrete variable can assume, it is often possible to handle such data by continuous variable methods.
Earlywood	That part of the growth ring which is produced at the beginning of the growing season (usually it is less dense and lighter in colour than late wood). It is also called springwood.
End Check	A type of weather check caused by rapid drying at the cut faces of a green cut log. They are usually multiple and normally penetrate only a short distance into a log.
Estimate (of a sample)	A value for a characteristic or parameter derived through using a sampling method.
Face (of a pile)	One of the surfaces of a pile of logs showing only the cut ends of the logs.
Figure	Any design or distinctive markings on the long surfaces of wood.
Fire scar	A healing or healed-over injury, caused or aggravated by fire, on a woody plant.
Firm redheart	A form of incipient decay characterized by a reddish colour produced in the heartwood that does not render the wood unfit for the majority of uses. Firm redheart contains none of the white pockets that characterize the more advanced stage of decay (not to be confused with natural red heartwood).
Firmwood	Volume of timber that excludes all, rot, hole, missing wood, and charred wood.
Firmwood deductions	Deductions made from the gross volume of a log to account for rot, hole, char and missing wood.
Flare	A rapid increase in the taper of a log at the butt end of the log due to swell.

Foreign material	Any material extraneous to roundwood such as earth, ice, snow, and branches, any of which add mass to the load.
Forest	A plant community consisting predominantly of trees and other wood vegetation, growing together.
Fork	A division of a log or a stem of a tree into two or more branches.
Fuelwood	Roundwood, whole or split, produced for burning.
Grading	“Classifying timber, lumber or logs according to quality or end use”.
Grain	The general direction of the longitudinal wood elements in the tree.
Grain density	Used in some log grading, refers to the spacing between the annual rings and measured as a ring count over a set distance.
Gross oven dry weight	The gross weight (or mass) of wood, bark, and defect less their moisture content.
Gross volume	Total inside bark volume and includes any defects.
Gross weight	The weight of a load before any deduction for moisture content and, when present, bark, defect, and foreign material.
Hardwoods	Trees of the botanical group Angiospermae that generally have broad leaves in contrast to the conifers. The term has no reference to the actual hardness of the wood.
Heart	See Heartwood.
Heart rot	Any rot characteristically confined to the heartwood. It generally originates in the living tree.
Heart shake	A shake that originates at the pith of a log and extends across the annual rings (also called heart check and reft crack).

Heartwood	The inner core of a woody stem wholly composed of non-living cells and usually differentiated from the outer enveloping layer (sapwood) by its darker colour. It is usually more decay resistant than sapwood.
Hole	Any opening in a log, other than check, shake, or split. It may extend partially or entirely through a log and be from any cause.
Honeycomb decay	See Pocket rot.
Incipient decay	The early stage of decay in which the decomposition has not proceeded far enough to soften or otherwise change the hardness of the wood noticeably. It is usually accompanied by a slight discolouration of the wood (see also Firm redheart).
Insect holes	Voids made by insects or insect larvae.
Intermediate decay	A more advanced stage of decay than incipient decay characterized by a change in the colour of the wood and some slight decomposition and loss of strength that do not, however, render the wood unfit for general purposes (see also White specks).
Knot	A branch base that is embedded in the wood of a log.
Latewood	The denser, smaller-celled, usually darker, later formed part of an annual ring, also called summerwood.
Length deduction	A method of compensation for firmwood defects by reducing the recorded length of a log or slab.
Linear measure	A measure of length.
Log	Any section of the bole, or of the thicker branches, of a felled tree, after trimming and cross cutting.
Log rule	A table showing the estimated or calculated volume of wood that is contained in logs of given length, form, and end diameter inside bark.
Mass	The same as the weight.
Mean	The average of a set of measurements derived by summing all values and dividing by the total number of measurements.

Minimum butt diameter	The smallest diameter, inside bark, that can be measured through the geometric centre of the large end of a log with visible butt swell.
Missing wood	Wood that is absent from a log or part of a log that otherwise would usually be regarded as naturally complete. It may be caused by advanced decay, fire, or the operation of a machine to tool.
Moisture content	The mass of water in wood expressed as a percentage of its total weight.
Mould or mildew	A superficial fungal growth usually appearing in the form of a woolly or furry coating of varying colour.
Net firmwood volume	The volume remaining after all allowable firmwood deductions for defects from gross volume have been made; in stacked measure, deductions include voids.
Normal taper	The regular decrease in diameter of a log from its large to small end, exclusive of butt swell.
Out of round	Used to describe a shape and means that it departs from what is usually regarded as approximately circular.
Outside checks	Checks or fractures on the outside part of the log which extend through the bark into the adjacent sapwood. Severe checking will extend into the heartwood.
Oven dry weight	The weight of wood obtained by drying it in an oven at 105° C until there is no further weight loss.
Parameters	Certain constants, characterizing a population or a whole, to be studied in a survey.
Parcel	Any quantity of grouped logs.
Peeled	All or most of the bark has been removed.
Piece	A part of a whole (as of a tree); it also means an object regarded as a unit of a kind (as one of a number of products of the group).
Piece product	A product scaled by the number of separate pieces of one kind.

Piece scale	The scaling method whereby each piece is scale by recording the timber mark, species and by taking its length, top and butt diameter, deducting for firmwood defects, and assigning a grade.
Pile	For scaling purposes, an orderly arrangement of logs that are longer than the 2.6 m class.
Pile divider	In tree-length scaling, the surface formed by butt ends that have been piled with the butts all aligned in a nearly vertical plane.
Pistol grip	A pronounced bend at the butt end of a log and resembling the handle of a pistol.
Pith	The small cylinder of primary tissue of a tree stem around which the annual rings form.
Pocket rot	In wood, any rot localized in small areas, generally forming rounded or lens shaped cavities.
Population	The aggregate of all units from which samples are selected to make estimates about the aggregate.
Precision	The closeness, to each other of repeated measures of the same quantity. When precision is achieved, values will be clustered around their mean.
Probability statement	A statement that gives a range of a characteristic within which the true value lies, with a stated probability that the statement is correct (e.g., there is a 95% probability that value X will be within 2 sampling errors of the actual value).
Pulpwood	Wood cut and prepared primarily for manufacture into wood pulp.
Punky	A soft, weak, often spongy wood condition caused by decay.
Punky	See Decay.
Ring rot	Any rot localized mainly in the earlywood of the annual rings, giving a concentric pattern of decayed wood in cross section.

Ring shake	A shake that separates along the growth rings and partially or completely encircles a pith.
Rot	See Decay.
Round (adjective)	Approximately correct; of an approximate circular cross section.
Round (transitive verb)	To express as a round number.
Rounding	The process of approximating to a number by omitting certain of the end digits, replacing by zeros if necessary, and adjusting the last digit retained so that the resulting approximation is as near as possible to the original number. If the last digit is increased by unity, the number is said to be rounded up; if decreased by unity, it is rounded down. When both are under consideration, the process is said to be one of rounding off.
Roundwood	Any section of the stem, or of the thicker branches, of a tree of commercial value that has been felled or cut but has not been processed beyond removing the limbs or bark, or both, or splitting the section (for fuelwood).
Sample	A unit or part selected from a population that is representative of that population.
Sample scaling	The method of scaling where only a portion of the total production is piece scaled. Weight scaling is the most prominent example of sample scaling. Sample scaling is also used to scale some special forest products.
Sample size	The number of samples to be taken to sample the population to meet the sampling objectives.
Sampling error	A statistic which defines how reliable (or precise) sampling results are (the same as the standard error of the estimate, or the standard error of the mean and the standard error).
Sap rot	Any rot characteristically confined to the sapwood.
Sapwood	The living wood of pale colour near the outside of the log. Under most conditions the sapwood is more susceptible to decay than heartwood.

Scale (noun)	The measured or estimated quantity, expressed as the volume, or area, or length, or mass, or number of products obtained from trees and measured or estimated after they are felled.
Scale (verb)	To measure or estimate the quantity, expressed as the volume, or area, or length, or mass, or number of products obtained from trees after they are felled.
Scale stick	A graduated stick for measuring the end diameters of logs or felled trees inside bark. Of many types, it usually has a shaped handle on one of its ends, a tine at the other, and a log rule reproduced on its length; it also means a graduated stick for measuring the external dimensions of stacked wood.
Scaler	A person who is licenced or appointed to scale timber by Yukon Forest Resources
Scales	An instrument or machine for determining weight.
Segregated tally	A tally sheet that is segregated into sections for timber with the same species and grade.
Shake	One or more separations along the grain of a log or tree, normally radiating outward from the pith (i.e., heart shake, [also called heart check]); caused by stresses during growth. Where several such separations radiate outward, they are referred to as "star shake" (see "Ring Shake").
SI units	Only the base, supplementary, and derived units of measure included within the International System of Units (SI) (see CSA Standard CAN3-Z234.2).
Significant digit	Any digit that is necessary to define the specific quantity or value.
Slab	A piece of timber that has fractured along a plane roughly parallel to the longitudinal axis of the original log.
Softwood	Generally, one of the botanical groups of trees that in most cases have needle- or scale-like leaves; the conifers; also the wood produced by such trees. The term has no reference to the actual hardness of the wood.

Solidwood Equivalent	The firmwood volume of logs required to produce a given quantity of a specified product.
Sound wood	Wood free from defect.
Spiral check	Wood separations starting on a log's surface and travelling toward the pith. If the natural grain of the log twists, the checks will follow and spiral around the log's axis.
Spiral grain	See Twist.
Split	Cleft completely and lengthwise along the grain of a log; usually results from falling, bucking or handling damage.
Springwood	See Earlywood.
Stack	For scaling purposes, an orderly arrangement of bolts less than or equal to the 2.6 m class in length.
Stacked cubic metre (symbol m ³ [stacked])	The total amount of wood, bark, and airspace contained in a stack of roundwood, as determined by its external dimensions, equal to 1 m ³ .
Stacked cubic metre peeled (symbol m ³ [stacked] peeled)	The total amount of wood and airspace contained in a stack of peeled roundwood, as determined by its external dimensions, equal to 1 m ³ .
Stacked scaling	The act or process of measuring or estimating the total amount of wood, bark, and airspace contained in a stack of roundwood, where the bolt length is less than or equal to the 2.6 m class as determined by its external dimensions.
Standard deviation	The square root of the variance. It is symbolized by <i>s</i> .
Stem	The principle axis of a plant, from which buds and shoots develop.
Stratum	A subdivision of the entire population.
Sun check	Also referred to as weather check. Wood separations on the outer surface or on the cut face of a log, resulting from exposure to sun and drying. May follow and/or transect annual rings, but are normally minor and do not penetrate more than a few centimetres. Not to be confused with "shake".

Sweep	A gradual curve in the length of a log, as distinct from an abrupt bend or curvature.
Tally	A form completed by a scaler used to capture timber details such as timber marks, species, grade, volume, products, and dimensions. It also identifies the time and place of scale, as well as who the ownership timber is scaled for. It is used as a basis for stumpage collection.
Tally number	Also called a raft or return number. It is a unique number (in conjunction with the scaler's licence number and date), and is assigned to a parcel of timber by a scaler. The scaler assigns #001 to the first parcel scaled each year and continues consecutively through to 999. If the scaler scales more than 999 parcels of timber in a year they then restart with 001. The dates will then determine the uniqueness of the number.
Taper	The progressive decrease or increase in the diameter of a log from one end or point on its length to another.
Tare	The weight of the unloaded vehicle or container.
Tier	One of a set of layers or rows arranged one above another.
Timber	Trees standing or fallen, logs and bolts, cants, boards and lumber, and any sawn or shaped product of trees.
Timber Mark	A hammer indentation or physical notation affixed to loads of cut timber for identification purposes when on permit site, in transit or at destination.
Tolerance	The total range of variation permitted for a required size.
Tracheid	An imperforate wood cell with bordered pits to congeneric elements.
Tree	A woody perennial plant, typically large and with a single well-defined stem carrying a more or less definite crown.
Tree length	The trimmed bole of a tree that has been felled and had the top removed.
Trunk	See Bole.

Unsegregated tally	A tally that is used to scale timber in the order it is spread out for scaling. There are no species and grade segregations, therefore, it cannot be used as an input document for the Forest Resources. It must be summarized and segregated through a pre-processing system prior to submitting to Forest Resources.
Variable	A characteristic of a population that may vary from one unit to another.
Variance (of a population)	A measure of the dispersion of individual unit values about their mean.
Void	An unnecessary airspace in a stack of roundwood, large enough to accommodate the average size of log or bolt in the stack.
Weather check	A type of check caused by rapid drying of the outer surface of a green cutlog. They are usually multiple where exposed to the drying effect of the wind and sun, and may eventually develop into one or more deep checks (see "End check").
Weigh	To measure the weight of an object.
Weighing machine	Any device for measuring weight (or mass).
Weight	A measure of the force of gravity (or heaviness).
White specks	The intermediate stage of Fomes pini decay, characterized by small white pits or streaks in the wood.
Wood	The hard fibrous substance, basically xylem, that makes up the greater part of the stems and branches of trees or shrubs, beneath the bark.
Wood Chips	As a collective term, the total material that is produced from passing wood fibre through a chipper. Unless specified otherwise, the wood fibres being subjected to the chipping process must have passed through a debarking procedure.
Wood chip	A small, thin, flat piece of wood cut from a larger piece of wood by knife action, mechanically operated. A wood chip must show two knife cuts and its width must be greater than its thickness.

Wood fibres	Any long, narrow cells of xylem, other than vessel elements or parenchyma; it also means (as a loose term) wood elements in general.
Wood pulp	Wood fibres separated by mechanical means for use in manufacturing paper, textiles, and many other products derived from cellulose.
Worm holes	Voids (or holes) made by insects or insect larvae.