



## CHAPTER 13 - GLOSSARY

**Appearance grade:** Grades of timber for finishing and other uses determined basically from the appearance of the better face and edge, usually clearwood.

**Bare-rooted planting stock:** Plants (seedlings, cuttings or other) grown in open nursery beds rather than containers and lifted and planted with much of the soil gone from their roots.

**Basal area:** The cross-sectional area of all tree stems in a stand, measured at breast height and per hectare of land.

**Basic density:** The average density of the wood at 0% moisture content.

**Breeding:** Intensive selection and subsequent mating of top selections to achieve cumulative genetic gain over time.

**Breeding population:** The population in which breeders carry out intensive selection and genetic recombination. It comprises the selections that are intermitted and their resulting offspring. It requires a broader genetic base than the seed production (orchard) population.

**Cambium:** A layer of rapidly growing cells between the bark and the wood, from which new wood and bark develop.

**Chemithermomechanical (CTMP) pulp:** A high yield pulp, where wood particles have been cooked with various chemicals, and have been softened by preheating under pressure, prior to refining.

**Clearfell or Clearcut:** Harvesting of trees in which essentially all trees are removed in one operation.

**Clearwood:** A length of timber which is free of knots due to branch removal, usually achieved by pruning.

**Checking:** The separation of wood fibres on a piece of timber during the drying process.

**Clone:** A group of genetically identical plants which have been vegetatively propagated from a single individual.

**DBH:** Diameter at breast height of tree stems, at 1.4m in New Zealand.

**Family:** A group of individuals directly related by descent from a common ancestor.

**Hardness:** A property of timber that enables it to resist indentation.

**Heartwood:** The inner, non-living part of a tree stem. Natural chemicals are often deposited in the heartwood, making it more durable and darker in colour than sapwood.

**IRR (Internal Rate of Return):** The discount rate that equates to the various costs and benefits anticipated in future years of forestry (or other) operations.

**Kino:** Gum bleeding, usually as a response to a wound.

**Knots:** A cross section of a branch that is embedded in timber. The knots can either be live knots (the branch was living when the tree was cut) or dead knots (from a dead branch) which often fall out.

**LVL:** Laminated veneer lumber; sheets of plywood glued to form a board.

**MAI (Mean Annual Increment):** The total increment of a stand up to a given age, divided by that age. Includes thinnings as well as standing crop.

**MARVL:** Method to Assess Recoverable Log Type by Volume.

**Mean (arithmetic mean):** The average value for a set of observations, obtained by dividing the sum of all observations by the total number of observations.

**MoE (modulus of elasticity):** A measure of stiffness in sawn timber.

**MoR (modulus of rupture):** A measure of bending strength in sawn timber.

**Mouldings:** High grade timber, usually clearwood, sawn for specific end uses, e.g. skirting.

**MTD: (Mean Top Diameter):** The average diameter of the largest 100 stems/ha in a stand.

**MTH (Mean Top Height):** The average height of the largest 100 stems/ha in a stand.

**Native population** (syn. native provenance): A group of naturally growing trees found at a particular geographic location, within the native range of the species.

**Physiographic:** Pertaining to the landform and underlying geology.

**Pith:** The central core of a stem and roots, representing the first year of growth.

**Progeny trial:** Evaluation of parents by comparing the performance of their offspring in replicated field trials.

**Propagation:** Multiplication of plants. Can be either via sexual reproduction (seed production) or via asexual means (vegetative propagation).

**Provenance:** The original geographic source of seed, pollen, or trees.

**Provenance test:** A replicated field trial comparing the performance of trees grown from seed collected from different parts of a species' geographic range.

**PSP plots (Permanent Sample Plots):** Permanent plots that have been set up throughout the plantation estate to provide growth information for the national database on the plantation resource.

**Resistance:** The relative ability to endure pests or other damaging influences. It may vary in degree, from immunity, in which the attack or influence is completely without effect, to absolute susceptibility, which may result in death.

**Sapwood:** The outer layers of a tree trunk, which are composed of living cells and conduct water up the tree. Generally lighter in colour than heartwood.

**Sarking:** Internal roof panelling.

**Sawlog:** A log that meets standards for diameter, length and defect, which is intended for sawing.

**SED:** The small end diameter of a sawlog.

**Seedlot:** A collection of seeds, usually of known origin.

**Seed orchard:** A plantation of selected trees, established and managed primarily for the early and abundant production of genetically improved seed. The seed orchard is isolated to reduce pollination from outside sources, and trees with undesirable characteristics are removed, based on ongoing evaluations.

**Seed stands:** A well-grown stand of trees, with good growth and form, selected and managed for abundant seed production.

**Seed stratification:** A treatment given to seed to break dormancy and improve germination, which usually involves a moist chilling.

**Shelterbelt:** A strip of trees established to shelter farm or horticultural land from prevailing winds.

**Site index:** A measure of forest site quality expressed as the average height (actual or potential) in a specific stand of trees, at a specific age (15 years for eucalypts).

**Standing volume:** The total volume of harvestable trees in a stand.

**Stocking:** The number of trees in a given area of a stand.

**Thermomechanical (TMP) pulp:** A high-yield pulp, where wood particles have been softened by preheating under pressure prior to refining.

**Tissue culture** (syn. micropropagation) : Growing plantlets from small pieces of plant material on artificial media in a sterile, laboratory environment.

**Tree improvement:** Usually synonymous with tree breeding, but may also refer to breeding in combination with cultural practices, particularly propagation.

**Vegetative propagation** (syn. vegetative multiplication) : Multiplication of plants via asexual means, i.e. without sexual reproduction. Includes tissue culture, rooted cuttings, and grafting.

**Veneer:** A thin sheet of attractive wood, used to cover wood of lesser value.

**Virulence:** The ability of an organism to cause disease.