

TreeNote

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Glossary of farm forestry terms

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Agroforestry

— The integration of trees with other agricultural enterprises on a farm. The combined profit from forest and agricultural produce can exceed the profit from either alone. Trees are typically planted as timberbelts, shelterbelts, alleys or woodlots.

Alley farming

— a form of agroforestry where trees are arranged in belts with conventional agriculture in the 'alley' between the trees.

Aquifer

— an underground body of water.

Back sawing

— saw milling method which produces boards with their faces approximately parallel to the outside of the log.

Basal area

— cross-sectional area of a tree at Breast Height (1.3 m). Usually expressed as square metres per hectare (m²/ha).

Belt (of trees)

— a long narrow arrangement of trees. Usually made up of several rows of closely spaced trees.

Block (of trees)

— the same as plantation or woodlot.

Bole

— trunk or stem of tree.

Breast height

— 1.3 m above the ground. A standard height at which tree diameter is measured.

Browsing

— when stock graze on shrubs or trees (not pasture).

Butt log

— lowest (and most valuable) log cut from a tree.

Canopy

— the mass of branches and leaves of a tree (also crown).

Canopy closure

— when the growing crowns of adjoining trees meet — usually blocking sufficient light to cause lower branches to die off.

Clearfelling

— the felling and harvesting of *all* trees in an area in one operation.

Clearwood

— wood with no knots. Usually more valuable and stronger than knotty wood.

Compartment

— a management sub-unit within a plantation. Usually less than 30 ha.

Coppice

— is regrowth from buds at the base of a tree. Coppicing is felling a tree to leave a short stump that will promote coppice regrowth.

Crown

— same as canopy of a tree (as above).

Current Annual Increment (CAI)

— the volume of wood grown by a stand of trees in the current 12-month period. Units are cubic metres per hectare. See also MAI.

Cuttings

— are pieces of plants taken from a parent plant to make them 'take root' or 'strike' as new plants. They are genetically identical to the parent. Planting stock grown from cuttings is called 'cutting stock'.

Diameter at breast height (DBH)

— tree diameter measured 1.3 m above the ground.

Diameter tape

- a tape calibrated to measure the diameter of a tree when wrapped around its circumference.

Double leaders

- two main growing tips of a forked sapling or tree. To produce a tree with only one trunk, one of the two leaders must be removed.

Early wood

- the paler coloured and less dense part of a growth ring, produced in spring and early summer.

Essential oils

- volatile plant oils, such as eucalyptus oil.

Exotic species

- a species not native to a region. Reference to 'exotics' in Australia usually implies the species is from outside of Australia.

Falling or felling

- cutting down of trees.

Farm forestry

- commercial tree production on farmland.

Feller buncher

- a logging machine that fells trees and groups them ready to be removed with a forwarder or skidder.

Fixed lift pruning

- pruning that removes branches of all the trees to the same height (irrespective of the amount of green crown left on the trees). See also variable lift pruning.

Flitch

- a log which has been 'squared up' in a sawmill.

Form

- the shape of the tree trunk or stem and the nature of the branching. A tree with good form will have a straight trunk with minimal taper and swelling, and small diameter branches broadly angled to the stem.

Form pruning

- removal of large branches, secondary leaders and forks high in the tree crown, to encourage a single straight trunk.

Forwarder

- rubber-tyred tractor that loads felled logs on to a trailer to remove (extract) them from the forest.

Habitat

- home (shelter and food) for wildlife.

Hardwood

- short-fibred wood from broad-leaved, flowering trees, for example, jarrah. Principal uses: sawn timber, fine paper and railway sleepers.

Harvesting

- felling and removal of trees, as in a clearfelling or thinning operation.

Heartwood

- the non-conductive, darker-coloured deadwood in the core of the stem. It is often impenetrable by preservatives.

High-pruning

- pruning the lower branches, often to six metres but greater than 2.5 metres and up to 10 metres or more.

Knot

- cross section of a branch embedded in sawn timber. Green knots (from living branches) are tight in the wood; loose knots (from dead branches) often fall out of sawn planks.

Late wood

- denser, darker part of a growth ring produced in autumn, at the end of the growing season.

Leader

- the growing tip of a tree.

Large end diameter (LED)

- diameter of large end of a log.

Legume

- a plant that can 'fix' atmospheric nitrogen using bacteria in its root nodules. Legumes are less dependent on nitrogen from the soil for their nutrition. Examples are acacias and clovers.

Lift

- see pruning lift.

Logging

- felling and removing (extracting) logs from forest.

Low pruning

- removing lower branches up to about 2.0 to 2.5 m. Often done for fire protection.

Mean annual increment (MAI)

- a measure of the average annual volume of wood grown by a stand of trees since its establishment. Units are cubic metres per hectare per year. See also CAI.

Mill-door price

- price paid for wood delivered to the mill. It includes transport and logging costs, and stumpage.

Multi-thinned

- when trees are thinned on a number of occasions before being clearfelled.

Non-commercial thinning

- thinning some of the trees to give more growing space for the remaining trees. The felled trees are not harvested and are usually left where they lie. Also called thinning to waste.

Plantation

- a planted forest of either native or exotic species. Small plantations may be called blocks or woodlots.

Provenance

- the particular locality where seed from a natural stand of trees has been collected.

Pruning

- removal of unwanted shoots or branches from a tree to improve its form and wood quality.

Pruning lift

- length up the trunk of the tree from which branches are removed in a pruning operation.

Pulp

- wood fibre processed to make paper. 'Pulp' logs (usually of low quality) are processed into wood chips or pulp for wood based panels, paper and paper products.

Quarter sawing

- saw milling method which produces boards with their faces approximately perpendicular to the outside of the log.

Radial sawing

- sawing of a log into wedge-shaped sections so that each cut down the log cuts to the centre of the log. (If you were to view the log end on, the saw cuts would look like the spokes of a wheel.)

Recharge area

- an area high in the landscape (usually) where rainfall infiltrates into the soil, adding to the ground water flow towards the valley bottom.

Recovery

- the proportion of a log milled into sawn timber, expressed as a percentage of the log volume. Good recovery from high-quality pine logs would be around 50–60 per cent.

Ringbarking

- removal of a ring of bark and sapwood all the way around a tree, resulting in tree death.

Ripping

- disturbance of the soil by a vertical tynes pulled by a tractor or bulldozer. Ripping before tree establishment can break up the subsoil and help the trees establish their root systems.

Rotation

- the time taken for a tree crop to grow, from planting to harvesting.

Roundwood

- logs of smaller diameter suitable for use as posts and poles.

Royalty

- price charged by the State for products from State forests.

Salinity (dryland salinity)

- salinity results when rising watertables bring soluble salts to the surface. Watertables rise when native vegetation is replaced by crops and pastures that use less water.

Sapwood

- the generally lighter coloured band of wood under the bark that conducts water from the roots.

Sawlog

- a log of suitable dimensions or value to warrant milling into sawn products.

Seepage area

- area where the watertable rises to ground level, and discharges across the surface (the same as a discharge area).

Shelterbelt

- belt of trees or shrubs planted to provide a shelter to stock, crops or pasture. Usually means the same as 'windbreak'.

Silviculture

- the establishment and management of stands of trees for timber production.

Skidder

- a rubber-tyred tractor for dragging felled logs to a loading area.

Slash

- branches and leaves left lying on the ground after pruning or logging.

Small end diameter (SED)

- the diameter of the small end of a log.

Snig

- to drag logs or trees out of the forest ready to transport.

Softwood

- timber of coniferous trees, for example, pines and cypresses. Softwoods are long-fibred whereas hardwoods are short-fibred. Principal uses for softwoods are sawn timber, particle board and newsprint.

Stem

- means the same as tree trunk or bole.

Stems per hectare (sph)

- tree density measured as the number of live trees per hectare. Foresters talk of stems rather than trees as the wood harvested comes principally from the stems (as opposed to the whole tree). Also trees per hectare (tph) can be confused with tonnes per hectare.

Stocking rate

- same as stems per hectare.

Stumpage

- is the net price paid to a private grower (expressed in \$ per cubic metre or tonne) after all harvesting costs have been deducted.

Sweep

- a bend in a tree trunk. Called a 'butt sweep' when near the base.

Taper

- progressive narrowing of a log with increasing height – due to the conical shape of trees. Sawmillers prefer logs of cylindrical rather than conical shape.

Thinning

- removing some of the live trees to give more growing space for the remaining trees. The first thinning usually removes trees of lower vigour and poorer form, and may be non-commercial. Later thinnings usually yield commercial timber.

Timber

- a general term to describe sawn wood suitable for building and other purposes.

Timberbelt

- straight or curved belt of trees, to provide shelter and produce timber simultaneously.

Trees per hectare

- same as stems per hectare.

Understorey

- shrubs and groundcover plants that grow under forest trees.

Valwood™

- feature timber panels manufactured by gluing pieces of small sawn timber from young fast-grown eucalypts: a process developed in Western Australia.

Variable lift pruning

- pruning to leave about the same amount of crown on each of the pruned trees. See also 'fixed lift' pruning.

Veneer logs

- high quality, knot-free logs that can be sliced or peeled into thin sheets for use as veneer in products such as plywood.

Whorl

- a circular pattern in the group arrangement of branches around a trunk – especially common in pine trees.

Wide-spaced agroforestry

- where trees are planted far enough apart to grow pastures and/or crops for a number of years before the trees excessively shade out and compete with the pasture/crops.

Windbreak

- trees grown in lines or belts to substantially reduce wind speed over crops or pasture. Same as shelter-belt.

Windthrow

- when trees are uprooted and fall over in strong winds. It occurs mainly in shallow and/or water-logged soils, and on exposed sites. Trees in heavily thinned stands are more prone to windthrow.

Woodlots

- small plantations or blocks of trees.