

references



glossary



<	less than
>	greater than
2 month window	the period during which the nursery can practically hold plants within the correct PQI parameters
age class	the categorisation of trees according to their age in years
alien species	fauna or flora that do not naturally occur in a particular area, region or country (i.e. they are not indigenous species)
alternate	when the leaves are scattered on the stem and not opposite
amplexicaul	when the sides of the base of the sessile leaf continue to the opposite side of the stem and overlap with the base of an opposite leaf if present
apical bud / shoot	the topmost bud on a plant – its growing point. Forestry species are strongly apically dominant which means that if the plant has its apical tip removed, another one will take over and become the dominant leader
apical root / dominance	the growing point in the root. When this is pruned (like what happens in a tray – the air prunes it), it causes the roots to branch, and the plant never fully restores a single tap root (as opposed to a volunteer / or regrown seedling where it has not had its tap root affected)
audit	review of actions to ensure that they are or have been carried out according to policy or procedure
auditable	actions that can be subjected to an audit
axillary bud	the bud at the base of the Gum petiole which becomes the new stem of the cutting
biodiversity / biological diversity	the number and variety of fauna and flora present in an area
bipinnate	when both primary and secondary divisions of a leaf are pinnate
<i>Botrytis</i>	a bread mould type of fungal disease common in nurseries
buffer zone	the natural or semi-natural area between the planted area and an environmental component such as a stream, that requires protection

catchment	a defined geographic area from which run-off drains into a particular watercourse/s
clone	each cutting is identical to the next one – they are all taken from a single tree
colonised	usually to do with roots – it means that there are sufficient roots to hold the growing medium together (i.e. so the plug doesn't fall apart)
compartment	a demarcated area within a plantation that contains trees of the same species and age class and that is managed for a specific purpose (e.g. for the production of softwood pulpwood)
concolorous	when the leaves are the same colour on both sides
conservation areas	areas within a plantation that are left unplanted and which are managed for water conservation, biodiversity or other purposes
coppice	new sprouts arising from a lignotuber or stump, typically following felling or damage to the main stem
cutting	a plant that has been produced by taking a piece of material of known origin and allowing this to root and grow
destumping	the removal of tree stumps
discolorous	when the leaf surfaces differ in colour
dissolving pulp	acid bisulphite process
environmental auditing	a management tool to check compliance of performance against a set of environmental standards – can either be based on self assessment or third party assessment (e.g. FSC)
environmental conservation	the planned management and use of natural resources so as to ensure that they are sustainably used and not over-exploited or neglected
Environmental Impact Assessment (EIA)	a formal, or in certain cases, such as planning for harvesting operations, an informal assessment procedure that is followed to collect, organise, analyse, interpret and communicate data that are relevant to making an informed decision
erosion	the removal of material from its original location through the action of the natural elements (i.e. wind, fire and water) or human and animal activity
espacement	distances between trees usually following a grid pattern
establishment	planting of crops on previously unplanted areas
FDI	Fire Danger Index

fire break	a piece of land kept clear of vegetation designed to hinder the spread of fire
Forest Management Unit (FMU)	an area of forest managed as a distinct and separate entity – usually consists of a single plantation
genotype	an individuals hereditary constitution, it interacts with the environment to produce the phenotype
hardened plants	the nursery has withheld fertiliser or water or both in order to make the plant able to withstand some of the conditions it will face in-field
herbicides	chemicals used to kill harmful or unwanted plants
heterosis	hybrid vigour
humic soil	soil containing, or derived in part from, material resulting from the decomposition of plant or animal matter and forming the organic part of the soil
hybrid	the progeny resulting from the crossing of two unrelated parent trees, usually of different species
infield	the location where forestry operations are taking place
invasive tree species	tree species that have the extreme ability to spread and thrive outside their natural habitat or the controlled area in which they are grown (e.g. black wattle)
j-root	the term used to refer to the situation where the primary root is bent 90° or more to the vertical due to the process where extra seedlings are blanked (or “pricked-in”) to missing cavities in order to fill up a seedling tray
kraft pulp	soda AQ process
lanceolate	lance-shaped, broader towards the base and tapering to a point
land clearing	the preparing of land for planting of trees
land preparation	the preparing of land for the planting of trees (e.g. by ploughing, ripping etc.)
leaf colour	this is an indication of the health of the plant. Bright green leaves indicate that there is a lot of fertiliser that has been recently applied, which is not good as it makes “soft” seedlings, and the opposite of this, “yellowing” indicates too little nourishment, with similar problems associated (unhealthy plants)
liner	a plastic bag with air holes in which seedlings are packed. Using liners means one does not have seedlings in trays

MAP	mean annual precipitation
MAT	mean annual temperature
monocalyptus	members of this subgenus have buds with only a single operculum
<i>Mycorrhizae</i>	a fungal interaction in the plant's roots which enlarges the surface area ("bifurcating root tips") and allows the plant to be more efficient in its uptake of substances
needle	pine trees have needles as their leaves
nitrogen fixing	biological conversion molecular dinitrogen (N ₂) to organic combinations or to forms usable in biological processes
obconical	conical but inverted with the narrow end to the point of attachment
operculum	the cap of a flower bud and dehisces at maturity exposing the reproductive structures
ovoid	egg-shaped
PECH	<i>Pinus elliottii</i> crossed with <i>Pinus carabeae</i> (" <i>Pinus elliottii carabeae</i> hybrid")
pedicellate	a bud, flower or fruit on a raised stalk
pesticides	chemicals used to kill harmful or unwanted insects
petiolate	leaves on a raised stalk
pinnae	a primary division of a compound leaf, its leaflets
pinnule	wattle leaflets are termed pinnules
pitting	an operation whereby pits are dug into which seedlings are planted. Primarily used in steep areas where mechanical land preparation is not possible
plantation	a large man-made area of trees intensively managed for the production of fibre and usually consisting of a number of compartments
plug integrity	how well formed the root plug is, and what type of roots there are. Brown roots tend to be the older, more established roots which give the plug its strength, and the white roots are the younger more actively growing roots which will be the first to colonise the pit. A good balance of both types of roots is required (see specs)
PQI (Plant Quality Index)	an index used to measure seedlings and cuttings against specifications which have been tested in Research trials

provenance	location where seed has been collected in the natural forests because of genetic adaptation to distinctly different natural sites
re-establishment	planting of crops on previously planted areas
reticulate	network of veins in the leaf
<i>Rhizobium</i> nodules	in wattle, there is a symbiotic relationship between the plant and the <i>Rhizobium</i> bacterium whereby the bacterium produces Nitrates for the plant and the plant reciprocates by giving the bacterium a place to live. This interaction exists in most legumes
ridging	an operation whereby earth is heaped into linear ridges in which seedlings are planted. Used in wet areas to prevent tree roots from being saturated for long periods of time
riparian zone	an area of land bordering a watercourse which exhibits particular and special characteristics (e.g. vegetation, soils etc.)
ripline	the line along which ripping has been carried out
ripping	an operation whereby a tined implement is pulled through the ground to loosen the soil so as to enhance tree growth through improved root development
riverine area	land bordering a watercourse
root collar diameter (RCD)	the diameter of the stem where it emerges from the root plug
root spiralling	the process whereby the roots grow around the edge of the container due to not being “trained” (by physical means or air or chemicals). This is often a problem with trays with poor training or older seedlings, and can cause the tree to fall over due to deformities in the roots later in its life (3-10 years)
sapling	a young tree
seedling	a plant that originates from a single seed sown into a container
<i>serotinae</i>	classification for closed cone pines
sessile	of a leaf, bud or fruit, lacking a stalk
site species matching	the matching of specific tree species, clones or hybrids to a specific site so as to maximise their potential yield
slash	brushwood left after felling
soil classification	the classification of soils into family levels
Special Management Zones	areas that provide intrinsic and / or ecological values that require protection. They include scientific, ecological, paleontological, archaeological and historical sites

stand	a group of trees – normally a compartment of trees within a plantation
stand density	the number of stems per hectare (sph) in a stand (compartment)
<i>strobili</i>	male reproductive structures containing pollen in pines
sturdiness ratio	the relationship between the upper part of the plant and the root collar diameter
subgenus	a natural group between genus and section used in the classification of plants
Sustainable Forest Management (SFM)	the management of the forest resource in such a manner that a sustainable flow of goods and services can be produced from it without the source itself being depleted
<i>Symphomyrtus</i>	all species in this subgenus have two opercula
thinning	the process whereby selected immature trees are removed from a compartment during the growing cycle so as to improve the growth potential of those that remain
topping	the top shoots are trimmed using a hedge trimmer because the seedlings have grown too tall. Only certain species are allowed to be topped
tracer belts	strips bordering a firebreak which prevent the fire from spreading beyond the intended boundary of the firebreak when burnt – can be created manually or by using chemical fire suppressants
transit nursery	a holding facility between the main nursery where the plants are produced and where the plants are planted in-field. This can be a commercial nursery near to the grower, or the growers own temporary holding nursery
umbel	an inflorescence in which the stalked flowers all arise at the same point
uprooting	an operation whereby tree stumps are physically removed from the ground complete with their root systems
wood density	basic density of wood is measured as dry weight divided by soaked green volume
woody plant	a planting containing a predominance of woody tissue (persists for more than one growing season)