

Greening Australia™

Published with the assistance of Bushcare - a program of the Commonwealth Government's Natural Heritage Trust

Bushcare

Planting for Early Childhood

Greening Australia Queensland (Inc.)

What is Environmental Planting?

The word environment is a collective term for the conditions in which an organism lives, which in this instance is the early childhood centre. One of the primary functions of the centre is that of learning. This information sheet will discuss the role of plants in a learning environment, how to formulate your ideas for the playgrounds and lastly look at a range of specific plants and their appropriateness in either Theme Planting and/or as plants grown for a particular purpose.



The Creation of an Environment for Learning

Landscaping is too often just cosmetic rather than forming an integrated element of the learning environment. It needs to provide a pleasant, safe opportunity for play and the development of healthy, responsible social behaviour. An unplanned landscape will inevitably have poor species selection, an ad hoc appearance and often plants in poor health.

The early childhood centre environment needs to:

- have relevance to the children ie. they enjoy something there.
- inspire inquiry and the search for knowledge. Children may be more excited by the prospect of discovery of hidden objects or places in their grounds, rather than the log maze or bright plastic version of an 'adventure playground' where the uses are predetermined. The planting design is most important! Isolated plants tend not to stimulate an inquiring or searching mind. Consider the playgrounds as a place for natural, social and personal education.
- include indigenous vegetation, rocks, diversity of plants and gardens. Include different spaces and settings for learning, both in and about the environment.
- include plants/gardens designed for learning to double as play areas, including 'secret' places and quiet places for recreation and include low spreading trees, groves and rockeries for creative and/or active play.
- include large trees to provide as much shade as possible, and don't forget around the car park.
- welcome the casual visitor.

Early childhood centres should be 'learnsaped' not merely landscaped. Learnsaping not only plans for aesthetic beauty, but considers the learning needs of the child and creates that environment. Learnsaping is not something that can be bought or created overnight. It takes time, thought, involvement, experimentation and risk.

Where to begin

This is where you decide **what** it is you want to do, **why** you want to do it and **who** might be involved. It is preferable that parents, children and teachers be involved in this process. Some useful questions to ask include:

- Is this a plan for a whole playground project or just improving a small corner?
- Does the project need to be done in stages?
- Ask students where they have just been in the playground, what is pleasant or unpleasant and why?
- What would the children like to have in the playground?
- How can the school grounds be used in teaching?
- What is needed to do this, eg. trees, shrubs, fruit, sensory plants?
- How can the groundstaff be involved and what things make the job difficult?
- Are the school grounds safe, interesting, fearful, quiet, noisy for children?
- How can parents be involved, eg. time, money, expertise?

These questions provide some useful information on which a plan can be based. When drawing site plans, include features such as soil type, slope, aspect, existing built features including underground pipes and services and future building requirements. You should now be able to list the features you want in the project, and why you want them.

Plants and their uses

Greening Australia seeks to educate and encourage the community to use local Australian vegetation. Therefore, the plants which will be referred to in this document will be predominantly south-east Queensland species. There are many organisations which can assist with lists of local plant species for your particular locality, eg. Greening Australia, DPI, Society for Growing Australian Plants and local naturalists. When choosing which plants to grow, consider your local site characteristics, eg. soil type, which may restrict the species that can be grown successfully. In some instances the environment can be modified to allow for a greater range of plants to be grown, eg. raise garden beds into mounds.

It is important to consult a local plant expert as to the appropriateness of using certain native species for your area.

Plant selection and design

Plants can be grouped according to a particular theme such as planting for wildlife, Australian plants as food, and/or they can be planted for particular purposes, eg. climbers, windbreak, shade. A limited number of situations and species will be discussed. There are numerous good reference books which can assist in selecting the most appropriate species for your situation. The headings referred to are only a sample of what may be considered.



Theme Planting

Using our Senses

Many Australian plants have aromatic foliage and others have highly perfumed flowers. Many of the leaves need to be crushed for the fragrance to be released. Bear in mind that not all perfumes are pleasant. Another option is a herb garden, which can be both a visual and sensory delight.

Aromatic Plants

<i>species name</i>	<i>common name</i>	<i>feature</i>
<i>Eucalyptus citriodora</i>	lemon scented gum	leaves
<i>Eucalyptus nicholii</i>	willow peppermint	leaves
<i>Mallotus claoxyloides</i>	smell of the bush	scrub smell leaves
<i>Backhousia anisata</i>	aniseed tree	aniseed smell leaves
<i>Backhousia citriodora</i>	lemon scented myrtle	leaves
<i>Leptospermum petersonii</i>	lemon scented tea-tree	leaves
<i>Polyscias elegans</i>	celery wood	leaves
<i>Acacia species</i>	wattle	flowers
<i>Hymenosporum flavum</i>	native frangipani	flowers
<i>Hoya australis</i>	hoya	flowers
<i>Melaleuca quinquenervia</i>	broad leaved paperbark	flowers

Textures

The trunks, leaves, flowers and fruits of some plants have characteristic surface textures which lend themselves to sensory stimulation.

<i>species name</i>	<i>common name</i>	<i>feature</i>
<i>Allocasuarina species</i>	she oaks	trunk, leaves, cones
<i>Banksia species</i>	banksias	flowers, seed pod
<i>Callistemon species</i>	bottlebrush	flowers
<i>Eucalyptus curtisii</i>	plunkett mallee	trunk
<i>Eucalyptus ptychocarpa</i>	swamp bloodwood	leaves, gum nuts
<i>Ficus coronata</i>	sandpaper fig	leaves
<i>Flindersia australis</i>	teak	seed pod
<i>Hakea species</i>	hakea	seed pod
<i>Leptospermum laevigatum</i>	coast tea-tree	trunk
<i>Macadamia integrifolia</i>	macadamia nut	fruit
<i>Melaleuca species</i>	paperbark	trunk
<i>Melastoma affine</i>	native lasiandra	leaves and flowers

Endemic plants

Endemic plants are those plants which grew in a particular locality prior to European settlement and development. These plants create a distinctive and unique environment which reflects the original identity of the area. By planting endemic species it helps preserve some of the natural history of the area. Seek advice from local experts who may be able to assist in selecting the right species.

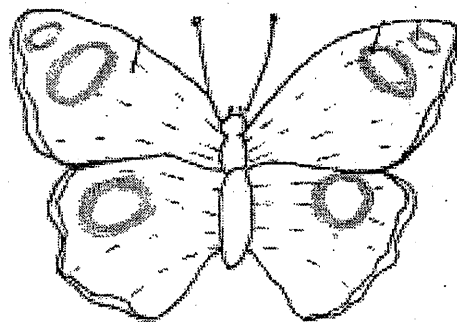
Habitat plants (birds, butterflies, insects, frogs, possums, bats)

Birds are attracted to more plants than just the nectar producing plants. Succulent fruits provide for the fruit-eating birds (fig birds), seeds attract seed-eaters (finches). Other plants provide protective nesting sites. Birds need water to bathe in, so why not include a bird bath. If there are no hollow logs in the vicinity, consider installing a nest box.

species name	common name	provides
<i>Acacia spp</i>	wattles	seed
<i>Banksia spp</i>	banksias	nectar
<i>Callistemon spp</i>	bottlebrush	nectar
<i>Citriobatus pauciflora</i>	orange thorn	nesting
<i>Eucalyptus spp</i>	gum trees	nectar, nesting hollows
<i>Grevillea spp</i>	grevilleas	nectar, some seeds
<i>Hakea spp</i>	hakeas	seeds
<i>Melaleuca spp</i>	paperbarks	nectar, nesting
<i>Stenocarpus sinuatus</i>	firewheel tree	nectar
<i>Xanthorrhoea spp</i>	grass tree	nectar, seeds

Butterflies help to pollinate plants. The plants in return provide food for both the butterfly and butterfly larvae (caterpillars).

species name	common name
<i>Alphitonia excelsa</i>	soap tree
<i>Brachychiton populneus</i>	kurrajong
<i>Eucalyptus spp</i>	gum trees
<i>Jacksonia scoparia</i>	dogwood
<i>Lophostemon confertus</i>	brush box
<i>Parsonsia spp</i>	
<i>Pandorea pandorana</i>	wonga wonga vine
<i>Xanthorrhoea spp</i>	grass tree



Resource plants

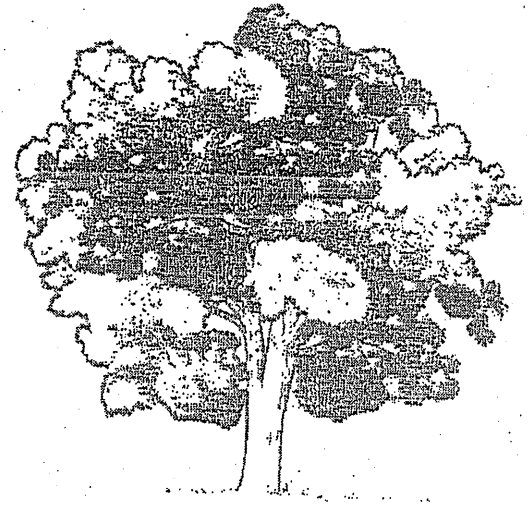
The following plants may provide food, oils, dyes, honey or timber for Aborigines and/or Early Settlers.

species name	common name	provides
<i>Austromyrtus dulcis</i>	midyim	edible berry
<i>Alpinia caerulea</i>	native ginger	edible buds, stems, root, fruit
<i>Dianella spp</i>	flax lily	berries produce dye
<i>Eucalyptus citriodora</i>	lemon scented gum	oil
<i>Eucalyptus microcorys</i>	tallowwood	timber
<i>Hardenbergia violacea</i>	false sarsparilla	flowers edible and give dye
<i>Leptospermum petersonii</i>	lemon scented tea tree	oil, leaves used in tea
<i>Lichens</i>	lichens	dye
<i>Melaleuca quinquenervia</i>	broad leaved paperbark	honey
<i>Syzygium australe</i>	scrub or bush cherry	edible berries
<i>Grevillea robusta</i>	silky oak	timber

Trees - may be planted singly as a specimen or in clumps. If clump planting, consider access for future maintenance and mowing. Often it is beneficial to mulch heavily between plants grown in clumps, so as to remove the need for mowing between trees. Before planting any of the trees, ensure there is adequate space for the full grown tree.

Shade trees

<i>species name</i>	<i>common name</i>
<i>Araucaria cunninghamii</i>	hoop pine
<i>Casuarina cunninghamii</i>	river she-oaks
<i>Capaniopsis anacardioides</i>	tuckeroo
<i>Elaeocarpus grandis</i>	blue quondong
<i>Eucalyptus cloeziana</i>	Gympie messmate
<i>Eucalyptus microcorys</i>	tallowwood
<i>Eucalyptus propinqua</i>	grey gum
<i>Eucalyptus planchoniana</i>	Planchons stringybark
<i>Eucalyptus robusta</i>	swamp mahogany
<i>Ficus virens banyan</i>	white fig
<i>Ficus obliqua</i>	small leaved fig
<i>Flindersia australis</i>	crows ash
<i>Flindersia schottiana</i>	bumpy ash
<i>Harpullia pendula</i>	tulipwood
<i>Lophostemon confertus</i>	brushbox
<i>Melaleuca leucadendron</i>	white paperbark
<i>Peltophorum pterocarpum</i>	yellow flame tree
<i>Pongamia pinnata</i>	poonga oil tree



Small shrubs and tufty plants - these plants should be planted in clumps, as their lower limbs may cause difficulties when mowing underneath. Very few plants are suitable to be grown as single specimens. A clump of these plants may also be an effective barrier. Often these plants will have interest at eye level.

<i>species name</i>	<i>common name</i>
<i>Baeckea virgata</i>	twiggy heath myrtle
<i>Bulbine bulbosa</i>	bulbine lilly
<i>Callistemon citrinus</i>	lemon scented bottlebrush
<i>Callistemon sp</i>	Little John
<i>Cassia artemisioides</i>	silver cassia
<i>Dianella species</i>	flax lily
<i>Dodonaea triquetra</i>	hop bush
<i>Grevillea sp</i>	Robyn Gordon
<i>Grevillea sp</i>	Ned Kelly
<i>Helichrysum diosmifolium</i>	sago plant
<i>Hovea acutifolia</i>	pointed leaf hovea
<i>Lomatia silaifolia</i>	crinkle bush
<i>Lomandra longfolia</i>	mat rush
<i>Melaleuca thymifolia</i>	thyme honey myrtle
<i>Melastoma affine</i>	native lasiandra
<i>Patersonia glabrata</i>	native iris
<i>Pultenea villosa</i>	hairy bush pea
<i>Scaevola aemula</i>	fairy fan flower
<i>Themedia triandra</i>	kangaroo grass
<i>Viola hederacea</i>	native violet

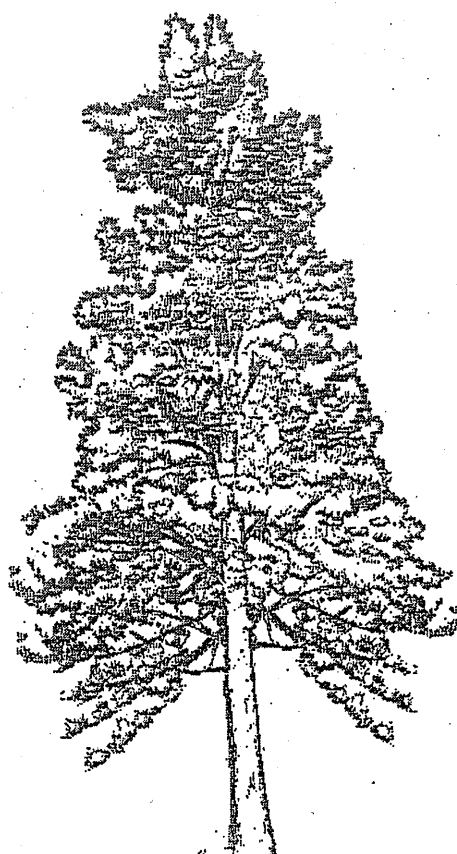
Plants for windbreaks - Air should be able to flow through as well as over the plants. Windbreaks are most effective if the foliage goes to the ground. Plant the shrub layer thicker than the trees.

<i>species name</i>	<i>common name</i>
<i>Allocasuarina</i> spp	she oaks
<i>Callistemon salignus</i>	white bottlebrush
<i>Leptospermium</i> spp	tea-tree
<i>Melaleuca</i> spp	paperbark
<i>Callitris columellaris</i>	coast cypress pine

Shade tolerant plants - most rainforest species will tolerate low levels of light. Understorey plants from Eucalypt forests prefer dappled light. It is difficult to establish and maintain grass in shady areas, such as on the southern side of a building or under a shady tree. Consider replacing the grass with groundcovers, ferns or small shrubs around a log seat creating a delightful resting place.

Rainforest - a rainforest is a plant community in which the trees are closely spaced with the crowns intermingling forming an unbroken canopy. Usually it has two or more layers of trees and shrubs and includes vines, ferns and orchids. South facing slopes are the ideal location for establishing a rainforest. Please be aware that rainforests are a specialised vegetation type that require specific conditions. Check as to the suitability of rainforest for your area.

<i>species name</i>	<i>common name</i>
<i>Archontophoenix cunninghamiana</i>	piccabeen palm
<i>Acmena smithii</i>	creek lilly pilly
<i>Alpinia caerulea</i>	native ginger
<i>Asplenium australasicum</i>	birds nest fern
<i>Backhousia citriodora</i>	lemon scented myrtle
<i>Brachychiton acerifolius</i>	flame tree
<i>Cordyline petiolaris</i>	broad leaved palm lily
<i>Elaeocarpus reticulatus</i>	blueberry ash
<i>Ficus coronata</i>	sandpaper fig
<i>Adiantum</i> spp	maidenhair fern
<i>Glochidion ferdinandi</i>	cheese tree
<i>Grevillea robusta</i>	silky oak
<i>Hymenosporum flavum</i>	native frangipani
<i>Orthosiphon aristata</i>	cats whiskers
<i>Pittosporum rostrifolium</i>	hollywood
<i>Polyscias elegans</i>	celerywood
<i>Syzygium australe</i>	brush cherry
<i>Syzygium leuhmannii</i>	small leaved lilly pilly
<i>Syzygium wilsonii</i>	powderpuff lilly pilly
<i>Viola hederacea</i>	native violet



Climbers - some of these plants can be used as groundcovers or be used to cover unattractive fences.

species name

Eustrephus latifolius

Geitonoplesium cynosum

Pandorea pandorana

Hoya australis

Hibbertia scandens

Kennedia rubicunda

Hardenbergia violaceae

common name

wombat berry

scrambling lilly

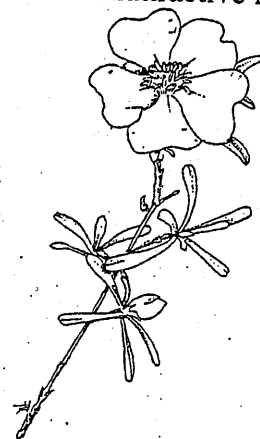
wonga wonga vine

Australian wax plant

snake vine

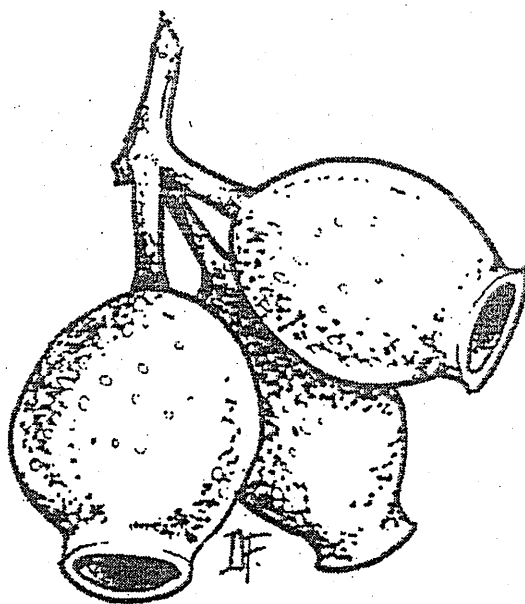
dusky, coral pea

native sarsparilla



Summary

Consult with all parties who use the playgrounds of the centre. Consider how the playgrounds of the centre can assist in the learning process and which types of plantings are appropriate for your locality. Keep a written and photographic record of the changes to the grounds. It's amazing how quickly we forget what it looked like before the plantings occurred.



*Remember - plant the **right** tree in the **right** place for the **right** reason.*

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