



LOSE THE WEEDS

LEUCAENA - LEUCAENA LEUCOCEPHALA

“IF A TREE DIES, PLANT ANOTHER IN ITS PLACE”.

- CAROLUS LINNAEUS (1707 – 1778) - SWEDISH BOTANIST, ZOOLOGIST, TAXONOMIST.

The word ‘weed’ can have a variety of definitions, but I will define it simply as a plant in the wrong place. And because we are advocating for our local biodiversity any exotic species could be considered a weed.

Now I can hear some people screaming, ‘My roses aren’t weeds!’, or similar. Fair enough. I am not advocating the immediate wholesale destruction of all exotic plants in south-east Queensland. I would not even if I could.

I am advocating for native plants to become more and more of a backyard feature until the time we have the majority of our citizens with 50% or more of their backyards [plus schools, parks, businesses, shopping centres etc] dominated by locally native species. This, I would consider a success.



At the moment exotic plants are wildly common in our backyards and streets and while it can be argued that they provide some habitat value, forage for some insects or nectar from their flowers, for example, they do not provide anywhere near the ecological value of native plants.

Check your exotic plants and inspect their leaves. If they are uniformly intact it is a clear sign that they are being ignored by local insect larvae.

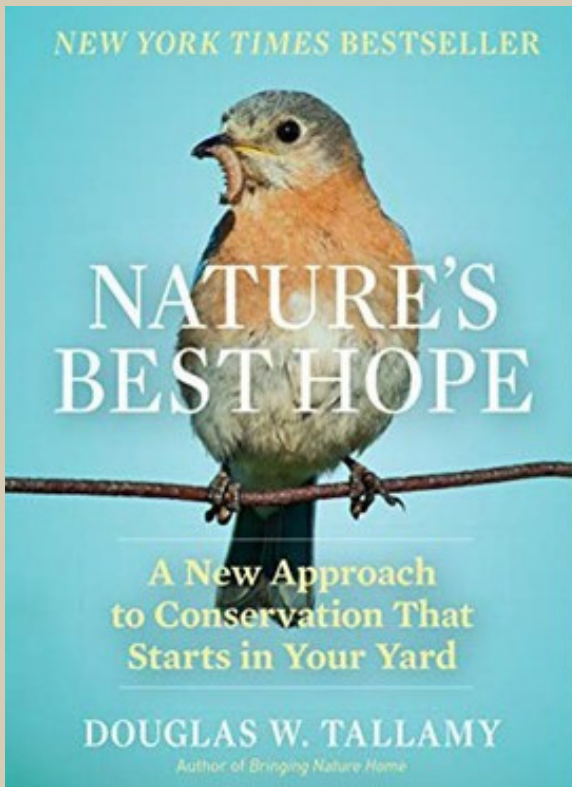
Why do we have so many exotics? It is clear that many exotic plant species are beautiful in form, flower, and fruit.

I do think, however, that Australian plants, have been under-valued and we have, and still take our lead, from British and American garden fashion. We should question this fashion and these values.

In ecological terms native plant species clearly are more beneficial than exotic species. In a recent book, *Nature’s Best Hope* by entomologist Doug Tallamy, [which I thoroughly recommend] this comparison is made clear. The book is written by an American, for Americans, about America; however, the same generalisations I’m sure would hold true down under.

Tallamy and his students compared areas of primarily native plants and areas in which exotic plant species dominated. They identified, counted and weighed caterpillars at each site along a transect to quantify differences in carrying capacity between the different areas. Perhaps not surprisingly the caterpillar community [and by association the number of organisms that preyed on caterpillars] were sadly diminished in areas where exotic plant species dominated. In the exotic planted areas, even when there was more biomass [the combined weight of all the plants], there were 64% fewer caterpillar species, 91% fewer caterpillars, and 96% less caterpillar biomass.

Nature's Best Hope and the author, Doug Tallamy



WHAT ARE SOME OF THE WEED SPECIES TO EXCLUDE FROM YOUR GARDEN?

Tallamy and his students followed up with bird related research to consider the effect of exotic plants on small insectivorous birds. Their subject? The Carolina Chickadee.

Chickadees were studied in suburbs and backyards with a mix of native and exotic plant species. The study produced some interesting facts:

- In mixed plant species backyards chickadees spent 75% of their foraging time within native plants.
- In backyards where exotic plant species dominated chickadees were 60% less likely to breed.
- If a chickadee did nest in an exotic plant species dominated backyard they had, on average, 1.5 eggs less than nests in backyards with many native plant species.
- The chicks from eggs in nests in backyards dominated by exotic plant species had their maturation rates slowed and were 30% less likely to survive.

This information helps us understand what could be happening with the biodiversity within our backyards. It makes a sound argument to exclude exotics where possible to introduce in their stead a healthy variety of local native plants.

Consider carefully if there are exotic trees you could replace. Or if there are exotic shrubs that could be replaced.

We would not discourage you to 'axe' all exotics, however, some are worse than others and these are the species that do not only exist in people's backyard but have spread aggressively into a variety of natural vegetation types.

The list of weeds for south-east Queensland is long and, sadly, increasing every year. We have included a long list of weeds in our appendices. Below is a smaller, hopefully more manageable list of ten species. To concentrate on the ten below, to my mind at least, replacing them with natives as we go, could make a great overall difference to biodiversity.

10 COMMON WEED SPECIES AND NATIVE REPLACEMENT SPECIES

To choose ten species of weeds in SE Queensland is difficult for the numbers to choose from. Below are but 10 common species . Please check the weed references so you acknowledge all of the weeds on your property.

1. **Cocos Palm** *Syagrus romanzoffiana* - Made popular by the landscape industry during the 70's. Their orange fruits are spread by flying foxes, and germinate easily in bushland areas.

Replace with: **Piccabeen Palm** *Archontophoenix cunninghamiana*, **Cabbage Tree Palm** *Livistona australis*

2. **Camphor Laurel** *Cinnamomum camphora* - Aggressive invader along waterways forming dense infestations. Toxic to most wildlife. Class 3 declared plant of Queensland.

Replace with: **Tuckeroo** *Cupaniopsis anarcardioides*, **Hairy Three-veined Laurel** *Cryptocarya triplinervis* var. *pubens*, **Cooloola Ironwood** *Rhodamnia acuminata*, **Muttonwood** *Myrsine variabilis*

3. **Umbrella Tree** *Schefflera actinophylla* [**below left**] - Easily recognised Australian native from North Queensland but highly invasive in South-east Queensland.

Replace with: **Beach Acronychia** *Acronychia imperforata*, **Pink Euodia** *Melicope elleryana*, **Bleeding Heart** *Homalanthus populifolius*, **Three veined Laurel** *Cryptocarya triplinervis* var. *pubens*

4. **Broad-leaved Pepper Tree** *Schinus terebinthifolius* - Native to Brazil, this tree can grow to 8m. Aggressive invader in coastal wetlands, sand dunes, and disturbed areas. Class 3 declared plant of Queensland.

Replace with: **Blueberry Ash** *Elaeocarpus reticulatus*, **Tuckeroo** *Cupaniopsis anarcardioides*, **Beach Bird's Eye** *Alectryon coriaceus*, **Cooloola Ironwood** *Rhodamnia acuminata*

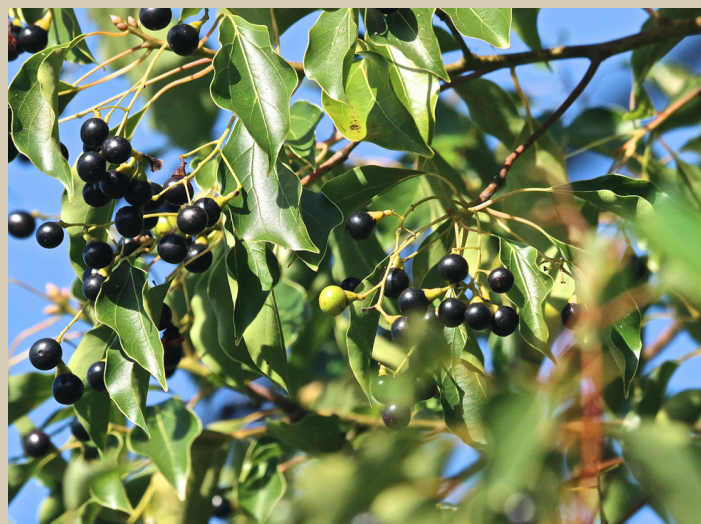
5. **Small and Broad leaved Privet** - *Ligustrum sinense* & *L. lucidum* [**below right**] -

These two tree species occur naturally in north east Asia. They spread here via birds eating their fruit and thus can be invasive.

Replace with: **Lilly Pillys** - *Acmena spp*



E. Anderson



6. **Singapore Daisy** *Sphagneticola trilobata* Native to tropical America, Singapore daisy is a vigorous ground cover that spreads rapidly and out-competes native plants. Category 3 restricted invasive plant. **Replace with: Midyim** [*Austromyrtus dulcis*], **Native Plumbago** [*Plumbago zeylonica*], **Yellow Buttons** [*Chrysocephalum apiculatum*]

7. **Groundsel Bush** *Baccharis halimifolia* Groundsel is a declared plant in Queensland. Its removal is required by law. **Replace with: Grey Myrtle** *Backhousia myrtifolia*, **Weeping Baeckea** *Baeckea frutescens*, **Plum Myrtle** *Ptilidostigma glabrum* **Beach Acronychia** *Acronychia imperforata*

8. **Lantana** *Lantana camara* Highly invasive, forms dense thickets that smother native vegetation. Class 3 declared plant of Queensland. **Replace with: Golden Candlesticks** *Banksia spinulosa*, **Blue Tongue** *Melastoma malabathricum* subsp. *malabathricum*, **Velvet leaf** *Callicarpa pedunculata*, **Hairy bush pea** *Pultenaea villosa*

9. **Easter Cassia** *Senna pendula* var. *glabrata* Sprawling shrub from South America that colonises bushland areas preventing native regeneration. Yellow flowers around Easter. **Replace with: Sweet Wattle** *Acacia suaveolens*, **Hairy Bush pea** *Pultenaea villosa*, **Swamp Banksia** *Banksia robur*, **Wallum Geebung** *Persoonia virgata*

10. **Chinese Elm or Chinese Celtis** *Celtis sinensis* A large spreading tree with smooth greyish-coloured bark. Its alternately arranged leaves have glossy upper surfaces. Its flowers are small, with inconspicuous petals and a feathery stigma. Its small rounded, berry-like fruit turn from green to orange and then red as they mature. **Replace with: Blueberry Ash** *Elaeocarpus reticulatus*, **Tuckeroo** *Cupaniopsis anarcardioides*

Clockwise from top left - Lantana [*Lantana camara*], **Chinese Elm** [*Celtis sinensis*], **Easter Cassia** [*Senna pendula*] [E.Anderson]



RESOURCES

Websites to aid weed identification and Control

[Queensland Government - Weeds of National Significance](#)

[Brisbane City Council Weeds](#)

[Sunshine Coast Council - Weeds and weed control](#) - Including some videos on weed control

[Weeds of South-East QLD App](#) - This free mobile App provides an identification key to over 700 garden and environmental weeds and includes fact sheets, colour photographs and a glossary of commonly used botanical terms.

WEED CATEGORIES IN QUEENSLAND.

Restricted invasive plants may fall into 1, a combination or all of Categories 2 to 5 (listed below). Under each Category the restricted invasive plant has listed restrictions. The specific restriction requirements also apply to a person when dealing with restricted invasive plants unless they have a restricted matter permit.

Restricted invasive plant categories and restrictions:

- Category 2: the invasive plant must be reported within 24 hours Biosecurity Queensland on 13 25 23.
- Category 3: the invasive plant must not be distributed either by sale or gift, or released into the environment.
- Category 4: the invasive plant must not be moved.
- Category 5: the invasive plant must not be kept.

LOSE THE LAWN

PICTURE - CANVA.COM

“A LAWN IS NATURE UNDER
TOTALITARIAN RULE”.

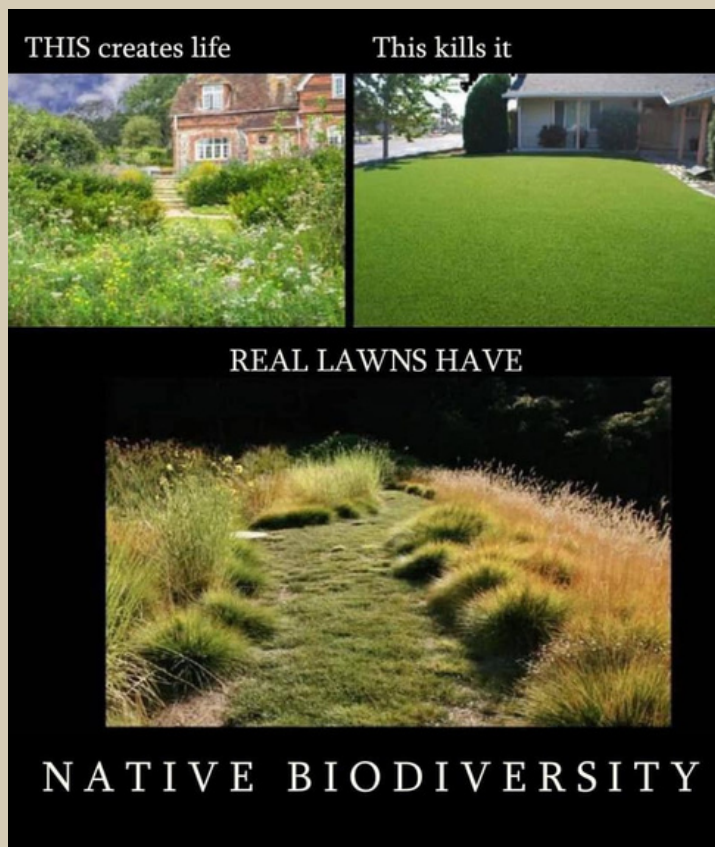
- MICHAEL POLLAN –
AMERICAN EDUCATOR

Your lawn is the biggest weed of all.

Why do we have lawn? It is a question worth asking. Sadly the main reason we have lawn in the overwhelming majority of locations is fashion. Imagine: If we had gardens without lawn try to imagine the arguments needed to talk you into digging up a variety of plants supporting a fascinating diversity of life to replace it with a uniform monoculture of low-cut grass.

Lawn has been a landscaping fashion for some 150 years or so across the western world. The United States president Thomas Jefferson was apparently impressed by polite lawns of green turf surrounding the manors of the more-wealthy of the British and tried to copy the look at his estate at Monticello. No doubt others, including George Washington, were impressed, and aspired to it as well. Lawn started as a status symbol, a symbol of wealth and class. To a degree it still does, both in the United States and in Australia as well.

A tight cut, uber green, well-maintained lawn reflects one's status. It signifies that the property owner has the time, money, and resources to create this symbol. It also shows that the owner respects the neighbours, the community, and its values by blindly conforming to this entrenched landscaping ideal. At the end of the day your lawn is, more often than not, a statement of mere fashion!



***A lawn though is expensive
- it costs both money and
time - as it must be mowed
regularly, weeded,
fertilised, sprayed with
weed and pest killers and
watered.***

Consider, too, the combined cost to a street's residences to have the luxury of lawn. Twenty houses need twenty mowers, most of them noisily using fossil fuel. Twenty catchers. Twenty rakes. At least twenty hoses, sprinklers, and tonnes of water. Given that Australia is the driest continent in the world, perhaps it might be better to design more water wise forms of landscaping...

Lawn, for biodiversity, is practically a desert. Most of our lawn grass is exotic with few insects being able to survive the weed monoculture and / or the frequent mowing. Similarly, few other critters can survive using a lawn alone.

Plant biomass is important for carbon sequestration and for every animal that needs to survive. Plants biomass determines the carrying capacity for the organisms above it on a food chain or web. Grass, lawn especially, does not compare favourably with a mixed vegetation of a variety of forms from herbs to shrubs to mature trees. Compare the raw weight of food available to animal consumers between a simple lawn and within a patch of mixed plant forms. This simple comparison emphasises the cost on local biodiversity of a lawn.

Now, you may like lawn. You may, especially if you have kids, **need** some lawn. Lawn makes excellent pathways through gardens and across our road verges...

But... One of the projects that every backyard biodiversity gardener should consider is to reduce the lawn [and your mowing].

What to replace a lawn with?

Exotic lawns, in low wear areas, can be replaced with natural grass lawns. Or they can be reduced and replaced with low growing flowering gardens for a similar aesthetic, or they can be turned into meadows - with a mix of Australian native flowers, native grasses, and ground covers. Your footpath area also can be partially replaced with a greater variety of plants, the verge garden. Many council areas have good information about their self-regulating rules as they apply to verge gardens and even have suggested species to plant.



Right source: [Australian Butterfly Society](http://AustralianButterflySociety.com).

“MY MUM SAID THE ONLY REASON MEN ARE ALIVE IS FOR LAWN CARE AND VEHICLE MAINTENANCE”.
TIM ALLEN – AMERICAN COMEDIAN



Above source: [Australian Butterfly Society](#).

Native Grass Lawns are now available as turf, for example, Jari Blu Zoysia Native Turf is one variety available for suburban lawns. Being a native grass, it needs less water or fertilizer than other varieties and, as it grows more slowly, it requires less mowing and maintenance. At the end of the day though even a native lawn is still a monoculture and thus less than ideal for a variety of life.

If you are interested in replacing an exotic lawn with an Australian native lawn it is worth visiting [Native Seeds](#) or [Harvest Seeds](#).

Other options do exist for grassy meadows formed from predominately local grass species. Some of these species can be planted through seed or planted as plugs available from some nurseries. Again, these local grasses are hardy, having evolved in our local climates and often attract a variety of insect species. For the best results mow some of your native lawn and let some grow long and seed thus attracting seed eating species. Many native grass species are food for the caterpillars of butterflies.

Australian grass meadows, centrally mown with longer grasses allowed around the borders can make a wonderful effect. The adventurous gardener can make the longer sections more enchanting for wildlife by planting wildflowers [native] into the mix or some of a selection of native ground covers. Their colourful flowers and fruit, in addition to the pollinators attracted will be an enviable sight. For sites where line of sight is required for security or views, low gardens can be established. Species that rarely grow past one metre high, can be chosen to replace some of your lawn. This will create a new aesthetic, rich in insect life, that does little to change the backyard view.

Yet another option involves using a mix of Couch Grass [considered by some as an indigenous grass of our north], Kangaroo Grass and wildflowers. This mix, being trialled, could result in a pleasing product that needs mowing a couple of times per year.



Clockwise from top left: Christmas Bells, Milkmaids, Coastal Scaevola, Native Iris, Blue Flax Lily, Yellow Buttons [E.Anderson]

LAWN ALTERNATIVES

10 LOCAL AUSSIE NATIVES FOR A WILDFLOWER GRASS MEADOW

1. Kangaroo Grass
2. Lomandra for edges
3. Native Irises [Patersonia spp]
4. Christmas Bells
5. Yellow Buttons
6. White Paper Daisy
7. Hop Goodenia
8. Golden Guinea Vine
9. Milk Maids
10. Blue Flax Lily



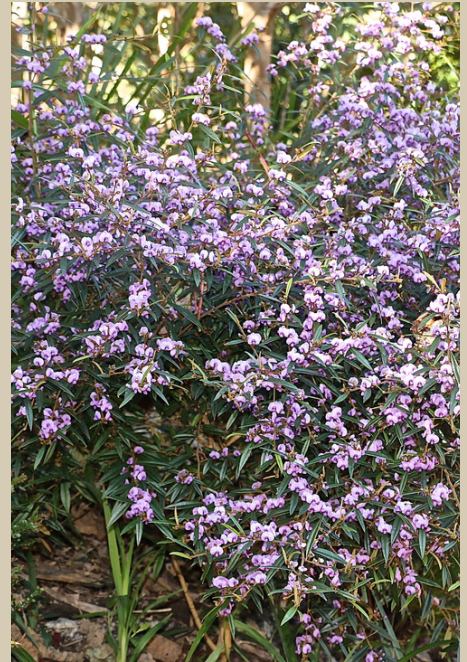
10 AUSSIE NATIVES FOR A WILDFLOWER GRASS MEADOW***

1. **Rosy Sunray** *Rhodanthe chlorocephala*
2. **Pilliga Daisy** *Brachyscome formosa* 'Pacific Reef'
3. **Brachyscome Daisy** *Brachyscome multifida*
4. **Fan Flower** *Scaevola aemula* 'Purple Fanfare' - below left [K.Cross]
5. **Pink Everlasting** *Schoenia cassiniana*
6. **Showy Everlasting** *Schoenia filifolia*
7. **Splendid Everlasting** *Rhodanthe chlorocephala* subsp. *splendida*
8. **Wreath Flower** *Lechenaultia macrantha*
9. **Darling Pea** *Swainsona galegifolia*
10. **Native Sarsaparilla** *Hardenbergia violacea*

*** Australian natives but not necessarily from South east Queensland.

SCC has produced a nice brochure on Wildflowers of the Sunshine Coast

Clockwise from top left - Prickly Moses, Wallum Hakea, Golden Candlestick, Pointed leaf Hovea, Australian Indigo, Lemon scented Leptospermum. [E.Anderson]



10 Flowering Shrubs < 3m

1. *Acacia hubbardiana* - **Wallum Prickly Moses** - 2m - pale yellow flowers W & Sp
2. *Acacia ulicifolia*, **Prickly Moses** - 2m - circular cream flowers A to Sp
3. *Aotus ericoides* - **Heath Aotus** - 2m - Yellow flowers with red patches Sp
4. *Aotus lanigera* - **Woolly Aotus** - 1.5m - Bright yellow flowers W to Su
5. *Baeckea frutescens* - **Weeping Baeckea** - 2m - masses of white flowers Su & W

6. *Banksia spinulosa* - **Golden Candlesticks** - 2-3m - Golden flowers W
7. *Hakea actites* - **Wallum Hakea** - 3m - white flowers late A to Sp
8. *Hovea acutifolia* - **Pointed-leaved Hovea or Purple Pea Bush** - 2-3m - purple flowers - Sp
9. *Indigofera australis* - **Australian Indigo** - 2 -3 m - pink to red flowers - throughout year
10. *Leptospermum petersonii* - **Lemon-scented Tea Tree** - 3m - trim if needed - masses of white flowers - Sp to Su

VERGE GARDENS

Please consider, too, replacing some of the lawn between your yard and the street, to make a verge garden. Brisbane City Council, for example, states on their website, "Establishing a verge or footpath garden helps to beautify local streets, show pride in your neighbourhood and contribute to a clean, green Brisbane".

Verge gardens are an excellent idea and it very pleasing that some Councils, but not all, have encouraged these gardens via publishing self-assessable guidelines and indicating recommended native species. Some Councils still require residents to detail their specific plans and get Council approval, while some, disappointingly have not accepted biodiversity as the overall important theme and so recommend mainly exotics! Wherever you live please check your Council's stance on verge gardens and please lobby them for changes if necessary.



Top - a typical, and too common, Sunshine Coast grassy verge [K.Cross] Below - a well planted native verge garden [Gayle Dalliston]

Some of the arguments for verge gardens, apart from their biodiversity value, include mitigating climate change through carbon storage in plants and soil. A pattern of verge gardens creates aesthetic walkable suburbs that are cool, shady, interesting, and safe. This offers suburban residents both physical and mental health benefits from being able to walk in nature from your door. Street side gardens and street trees mitigate the urban heat island effect; making it cooler for walkers and cooler in adjacent homes. Lastly, Verge gardens offers a reduction of noise and emissions from mowers, whipper snippers, hedge clippers and blowers! I applaud the efforts thus far of Gayle Dalliston, creator of the **Shady Lanes Project**, who is promoting the verge garden concept in Brisbane.

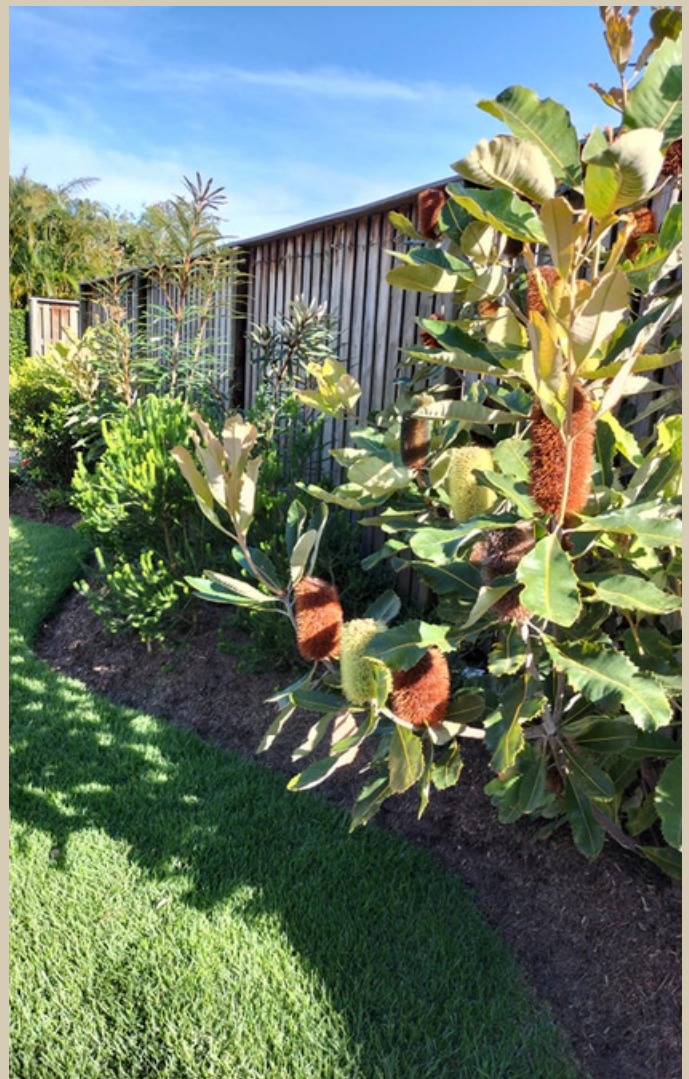
We will offer a brief summary of some of the expectations of Brisbane City Council [BCC] regarding Verge Gardens but please consult the Council's on-line advice before beginning. Similarly, if you reside in another council area, **please check your Council's requirements.**

- *Very importantly contact 'Dial before you dig' on 1100 to ensure that there are no underground infrastructure that could endanger you or others.*
- *Allowances must be made for pedestrians to cross your verge – a footpath of approximately 1.8 metres is adequate.*
- *Space must also be left such that people can safely and comfortably remove themselves from cars parked at the curb.*
- *Consideration must be made so Postal Officers can deliver mail and rubbish can be collected. Plants chosen should be low growing so as not to obstruct the line of sight of motorists.*
- *There should be no timber structures, or wire nor hard surfaces like gravel or stone [use biodegradable mulches].*
- *Care should be taken when choosing plants such that thorns, prickles etc are not present and pedestrians will not be negatively affected by them.*
- *Lastly there should be no permanent irrigation system.*

So, there are a few common-sense regulations. One other element which all should be aware of is that the verge garden is your responsibility; to water and maintain.

All in all, though if the verge garden is planned properly, it should require less time to maintain than constantly mowing a footpath.

Below_ a variety of non-lawn options for road verges [K.Cross]



BCC website encourages residents to discuss their plans with their immediate neighbours and so gauge possible concerns. To give it a slightly more positive spin: this could be an excellent street project to engage your neighbours with and establish a street-long native themed garden.

Suggested plants for the Brisbane Verges include a range of low growing shrubs [to be kept between 1 to 2 metres] plus a range of local grasses, flowers and ground covers and ferns. Below are ten suggested species to start you off on a Brisbane verge garden.

10 Suggested Plants for a Brisbane Verge Garden

1. **Common Flax Lily** *Dianella caerulea*
2. **Kangaroo Grass** *Themeda triandra*
3. **Many-flowered Mat Rush** *Lomandra multiflora*
4. **Native Iris** *Patersonia sericea*
5. **Yellow Buttons** *Chrysocephalum apiculatum*
6. **Dogwood** *Jacksonia scoparia*
7. **Native Indigo** *Indigofera australis*
8. **Orange Pultenaea** *Pultenaea euchila*
9. **Pointed-leaved Hovea or Purple Pes** *Hovea acutifolia*
10. **Queensland Rosemary** *Westringia eremicola*

10 Recommended Plants for an Ipswich Verge Garden

Ipswich City Council have done some excellent environmental work. They are leaders for example with reserve acquisitions. Currently, though, the recommended plant lists for Ipswich City Council for nature strips are disturbing. While there are some locally native species mentioned, they are small in number and definitely in the minority. Hopefully soon in the future they will follow the lead of other Councils and promote natural planting.

1. **Short Flowered Flax Lily** *Dianella brevipedunculata*
2. **Barbed-wire Grass** - *Cymbopogon refractus*
3. **Wattle Mat Rush** - *Lomandra filiformis*
4. **Pale Fan-Flower** - *Scaevola albida*
5. **Hop Goodenia** - *Goodenia ovata*
6. **Golden Candlesticks** *Banksia spinulosa*
- 7.- **Little Kurrajong** - *Brachychiton bidwillii* - [Pictured bottom left]
8. **Showy Parrot Pea** *Dillwynia floribunda*
9. **Wedge-leaved Hop Bush** - *Dodonaea viscosa cuneata*
10. **Sago Flower** *Ozothamnus diosmifolius*



10 Recommended Plants for a Coastal Verge Garden

The following plants would be recommended if your house is within 500 metres or so from the coast. Many of these species favour sandy soils and are salt tolerant.

1. *Spinifex sericeus* - **Hairy Spinifex** 30cm Salt tolerant, Erosion control, found on coastal sand dunes
2. *Dianella congesta* - **Beach Flax Lily** 1m Butterfly host, Salt tolerant, Perennial lily-like herb. Mauve-blue flowers with yellow centres throughout the year. Fruit a bright purple-blue berry. Hardy. It grows naturally in sea coast dunes. Food plant **Dingy Grass Skipper**.
3. *Apium prostratum* - **Native Celery / Sea Celery** - Perennial herb native to coastal areas. White or pink flower clusters in spring and summer. Edible, named for its celery-like flavour. Viable substitute for parsley or celery.
4. *Carpobrotus glaucescens* - **Coastal Pig Face** 10cm Salt tolerant, Coastal groundcover with attractive large pink flowers. Edible purplish/red fruit. Hardy and vigorous in coastal sandy areas.
5. *Myoporum boninense* - **Mangrove Boobialla** - 50cm Salt tolerant, Prostrate shrub to 50cm with 1.5m spread. Small clusters of white flowers in Summer and Autumn. Hardy but prefers sandy soil types. Shiny lilac to purple edible fruits that are 8mm. The fruits are bitter when eaten raw but can be added to cooking as a spice.
6. *Scaevola calendulacea* - **Dune Fan Flower or Beach Scaevola** 40cm Salt tolerant, Sprawling multi-stemmed herb. Purple-blue flowers all year. Fruits are edible and attract birds.
7. *Sesuvium portulacastrum* - **Sea Purslane** 30cm It is a sprawling perennial herb that grows in coastal areas throughout much of the world. Flowers are pink or purple.
8. *Acacia sophorae* - **Coastal Wattle** - to 3m - It is a prostrate shrub, with its trunk and lower branches usually growing along the ground, reaching up to 3 m in height and spreading to 4 m or more horizontally. The bright yellow flowers mainly in late winter and spring. It occurs on primary dunes, in coastal heath and open forest.
9. *Aotus lanigera* - **Woolly Aotus** - 1-1.5m - Wallum, Ornamental small dense shrub excellent for gardens. Densely branched close to the ground with stems covered in long, soft usually dark hairs. It grows in scrub or heath on sandy soils in the Wallum. Flowers from July to October are profuse and spectacular, good for bees, a typical pea-shape and bright yellow to 12 mm across.
10. *Banksia oblongifolia* - **Dwarf Banksia** - 1-2m - Butterfly host, Ornamental Banksia Low woody shrub with Pale yellow flower spikes December to May. Coastal conditions. Attract nectar feeding birds.

