

A Guide for Gardeners in South Australia







The Nursery Industry - Protecting Our Environment





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Acknowledgements

The 'Grow Me Instead' project was first initiated by the Nursery and Garden Industry of NSW & ACT (NGINA) as a voluntary partnership with its member nurseries to encourage the removal from production and sale of plants known to be invasive in the natural environment.

This South Australian 'Grow Me Instead' has been produced by NGIA in conjunction with the Australian Government.

We sincerely thank all of the people who generously contributed their time and expertise and who provided a wealth of information towards the production of this booklet; with special thanks going to the members of the original South Australian Invasive Plant Stakeholders Committee



Australian Government

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This edition of the South Australian "Grow me Instead SA reprint 1" has been funded by way of the Government of South Australia Department of Water, Land and Biodiversity Conservation 2009-10 State Community Natural Resources Management Grants

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- Dr John Virtue, Senior Weed Ecologist and Mr David Cooke, Senior Technical Adviser - Pest Plants, Animal & Plant Control Group, Department of Water Land & Biodiversity Conservation, South Australia
- The Nursery & Garden Industry Australia through it's National GMI Committee -Delwyn Thomas (Project Manager), Robert Prince (Chief Executive Officer NGIA) Tracey Wigg (National PR and communications manager), Anthony Kachenko (National Environmental and Technical Policy Manager) and Robert Chin (NGIV)
- The Blue Mountains City Council for providing the section on controlling weeds. For further information and additional resources please contact (02) 4780 5000.
- The many people and organisations who contributed photographs used in this booklet.

2) Introduction from the Ministers

The nursery and gardening industry has joined with the Australian Government in the fight against invasive garden plants. In championing this initiative, Nursery and Gardening Industry Australia (NGIA) is taking a significant step forward in tackling one of the nation's most serious environmental problems – the spread of weeds.

The Grow Me Instead campaign is a great industry-driven initiative providing relevant local information to nursery operators and gardeners about plants which are potential weeds in their area and less invasive plants for gardeners to use.

This cooperation between the horticulture and nursery industries, the Australian Government and weed management bodies will help ensure horticulturalists and gardeners receive the information they need to combat the spread of weeds.

It is estimated that weeds cost the Australian agricultural industry around \$4 billion a year. The real cost of weeds to the environment is difficult to calculate, however it is likely to be at least equal to the cost to agriculture.

Of the almost 3000 introduced plant species now known to be established in the Australian environment, 65% are 'escaped' garden plants. An important step in preventing the spread of weeds is public education to help change attitudes and behaviours that contribute to the weed problem.

The collection of seed or cuttings from native plants on public land requires a permit from the Department for Environment and Heritage.

Permission from the authority responsible for the land (eg local Council) is also required.

Application forms for a Permit to Collect Native Plant Material can be obtained from the DEH website, or contact:

Flora Permits Officer

1 Richmond Road, Keswick

Mail: GPO Box 1782 Adelaide 5001

Phone: (08) 8124 4700

Email: DEHflorapermits@sa.gov.au

The Government is committed to investing in initiatives that have real on-ground benefits for the environment and for industry. We commend this initiative to you.

The Hon Peter Garrett AM MP

Minister for the Environment, Water, Heritage and the Arts

The Hon Tony Burke MP

Minister for Agriculture, Fisheries and Forestry

grow me

3) Introduction

The Nursery and Garden Industry in Australia employs about 45,000 people in some 22,000 businesses across the country. For many years the Industry has been conscious of their environmental responsibilities and they have been proactive in furthering educational programs, including those concerning invasive garden plants. Garden escapes are not a new issue: weeds have been around since the first settlers brought along reminders of 'home' to help them settle into a new and strange land. How strange the Australian landscape must have seemed then, and how natural it would have been for the settlers to want only the tried and true familiar garden plants of the British Isles. Despite the difficulties of creating a garden in the Antipodes, it took many years for the average Australian to appreciate the native flora of this great land.

Then, there were the early 'acclimatisation societies' who thought it a good idea to introduce plants and animals from the old country and also to spread Australian native plants from state to state.

Although great damage to the environment has occurred as a result of these indiscriminate introductions, this has not been solely the fault of the horticultural industry: certainly other industries have contributed. Graziers have imported new grasses and fodder crops and there were 'accidental' imports that came about unwittingly through inappropriate packaging, movement of plant and machinery, as seed in fodder and in ships' ballast.

However, the weed issue and who is actually responsible should not become a 'blame game'. Together we must seek to repair what damage we can and to work together as a community to prevent similar damage occurring in the future.

The Nursery & Garden Industry is actively participating in lessening the availability of invasive plants in Australia by preventing their production and sale. The Industry has recently established a greater understanding and cooperation with both State and Federal Governments, culminating in this important 'Grow Me Instead' booklet.

Greater awareness and education of the home gardener is a major part of the answer to this problem. By using the information in the 'Grow Me Instead' booklet as a guide and consulting with your local garden centre or plant nursery, you can help to minimise garden escapes and create a better environmental future for following generations of gardeners.

4) What is Grow Me Instead?

The original 'Grow Me Instead' booklet developed by the Nursery & Garden Industry NSW & ACT (NGINA) has now been extended as a national program by the Nursery & Garden Industry Australia (NGIA), in partnership with the Federal Government, to reduce the numbers and impact of invasive plants in Australia.

'An environmentally invasive plant' is just another term for a weed. Quite simply, a weed is any plant that poses a threat to the environment, adversely impacts human or animal health, or causes crop or stock losses. For most gardeners, many of the characteristics we most desire in garden plants are the same as those that make them weedy: i.e. plants that are fast growing and disease resilient and those which reproduce easily by the distribution of seeds or plant parts.

A modern definition of a weed is "a plant that requires some form of action to reduce its effect on the economy, the environment, human health and amenity".

Many of the plants that are now considered to be 'environmental weeds' were introduced by early settlers, or by gardeners and farmers who had little or no knowledge of their future impact on the native environment. It is only in recent years that this threat has become apparent.

Weediness is not confined to introductions from overseas. Some Australian native plants introduced from other regions may impact adversely on the natural environment. Non-indigenous (i.e. not local) species may invade and displace species natural to that area or they may cross pollinate to produce new species which may in time alter regional biodiversity. Cootamundra Wattle (Acacia baileyana) is a good example of the former, while many eucalypts are known to interbreed.

Introduced species may sometimes be controlled in a foreign climate by various vectors such as small animals, insects, diseases or climatic conditions such as frost, thus reducing potential invasiveness.

To gardeners, farmers or botanists, the term 'weed' may mean different things. Pasture weeds reduce the productivity of agricultural land and may also have negative effects on human and animal health. Environmental weeds cause various problems in natural areas and ecosystems and the cost of control for both farmers and government is estimated at billions of dollars per annum.



The purpose of this Grow Me Instead booklet...

is to identify common garden plants that have now become environmental weeds in your local area, and to suggest better, alternative plants that benefit garden diversity while lessening their potential to become weeds of the future.

Apart from nurseries, garden centres or the resources of the local botanic gardens, valuable information may be provided by the Natural Resource Management Boards or you may wish to check out their websites. Here you will find lists of declared weeds for the local area and contact details should you need further information regarding invasive plant identification and approved methods of disposal.

It is important to reduce the spread of environmental weeds because...

better and more effective management of invasive plants will help to reduce the high cost of chemical control, and to reduce the amount of time and energy lost in management of weeds in productive land for food crops, grazing land, cut flowers and forestry. Weed management in public spaces and on natural heritage land is costly, laborious and at times seems overwhelming.

Invasive plants are defined and grouped as follows.

- **1. Noxious weeds -** are those legally declared as noxious plants by the various State or Territory Governments. The declaration of noxious weeds will vary from state to state and from region to region within a state. In general, most state legislation will say that declared noxious plants cannot be grown, sold or transported or transposed, and removal is required.
- 2. Weeds of National Significance ('WoNS') are some of the most significant weeds in Australia. All WoNS have been declared illegal for sale in each state of Australia.
- **3. Environmental weeds** plants that are or have the potential to impact the natural environment by destroying habitat or overrunning indigenous species and altering local biodiversity. Many of our worst environmental weeds are garden escapes.
- 4. Agricultural & Horticultural weeds are those plants that have a negative effect on crop or animal production. This may be through the infiltration of weed seed in grain crops, burrs in wool production or weeds which make animals sick or cause death. In the horticultural industry, weeds within cut flower, fruit and vegetable crops can harbour pests and diseases which reduce productivity.

5) Establishing the criteria for Grow Me Instead

It has been very important to establish a set of consistent criteria which could be adhered to across all regions and states.

A) The Invasive Plants

The Nursery & Garden Industry South Australia, in consultation with its members, State and Federal Governments, and interested environmental groups has developed a list of 27 invasive garden plants. There are several weed lists in existence provided by a variety of environmental and conservation organisations that often include species which are problems only in their local area. As such, including all garden escapes in a national list was considered inappropriate. Therefore, the 'weediness' criteria for inclusion in 'Grow Me Instead' were determined as follows.

- 1. The plant must be shown to be invasive across more than one area or part of the state.
- 2. It can be either an Australian native or imported (exotic) species.
- The plant must be shown to or have potential to damage the environment, human or animal health or create stock or crop losses.
- 4. The plant must be proven to have naturalised in bushland to the detriment of the natural environment.

This 'Grow Me Instead' list is not definitive for each area or region of South Australia. There may be other problem plants in your locality, most of these being included in lists prepared by your local government or other relevant organisation. In addition to the plants listed in 'Grow Me Instead', you should also be aware of your local problem plants.

B) The Alternatives

Not all of the alternatives would be suitable across the broad range of soils and climates of South Australia. Therefore, consideration of these differences and adaptation to your local area or region will be necessary.

For this booklet to be of benefit in helping you select 'good' garden plants, it should be used as a guide to plant selection. In addition to the listed alternatives, there will be many other plant selections available to you at your local nursery or garden centre. Together with their help, expertise and guidance, you needn't have any fear that your garden will become an environmental hazard in the future.

Selection criteria for the 'non-weedy plants' included:

- Must be recognised as non-invasive.
- Must be readily available to the gardening public.
- Must be reliable garden plants.

We have endeavoured to recommend at least one Australian native plant alternative for all of the invasive species listed in the booklet.



The role of the nursery industry

In more recent years, the Nursery & Garden Industry has been environmentally responsible by encouraging the production of non-invasive plants that do not require copious amounts of reticulated water, fertiliser or other chemicals to thrive in the garden.

The Nursery & Garden Industry in Australia instigates accreditation programs among its members, and it continually strives to establish standards of excellence in plant production in order to provide trustworthy products.

The Nursery & Garden Industry provides information not only through publications such as the 'Grow Me Instead' booklet, but also through its education programs. Many educational and self-help programs are also offered by local nursery or garden centres.

Your local nursery or garden centre can assist you by:

- Helping with identification of suspected 'weedy' plants;
- Providing information concerning local invasive plants;
- · Offering alternatives and environmentally friendly plants;
- Providing information concerning good weed management, disposal of unwanted plant material, further preventing the spread in your garden and neighbourhood.

On a broader scale the Nursery & Garden Industry can assist by:

- · Increasing public awareness through education programs;
- Promoting the sale of superior, alternative plants thereby reducing the number of invasive plants grown and sold;
- Working with government, with research organisations, the media and other key stakeholders to help reduce the distribution and sale of undesirable plants.

6) What you can do!

By checking the plants in your garden with the help of the 'Grow Me Instead' booklet you may identify plants you should replace, while at the same time find others you may enjoy growing more!

Your **local** nursery or garden centre plant specialists will have additional suggestions of plants proven to be successful in your area. Plants purchased in another region, no matter how lovely they are, may not always prove hardy in yours. Furthermore, by purchasing plants from another region you may unwittingly introduce another environmental weed!

It is also a good idea to consider your garden setting and to then make a list of the plants to fill your specific house and garden needs. For example, aspects of the house exposed to hot western sun will benefit from a deciduous tree to provide summer shade and will allow penetration of winter sun, while privacy from neighbours can be provided by carefully chosen hedging plants. Or you may simply want to create beds or borders of colourful flowers and dramatic foliages to enhance your home décor. All of these wishes and needs are valid and they will vary between gardeners.

Garden plants provide many useful purposes, and in time they will become an integral part of your environment, chosen to suit the architecture of both your home and your personal lifestyle. Good garden cultivation is your contribution to establishing a special microclimate and will help to protect and preserve the local environment.

In recent times, many new plant varieties have been introduced through modern production methods and the work of plant breeders, resulting in plants which are attractive and hardy but which are non-invasive. These may be plants which are sterile or rarely produce seed. Many new varieties have low water needs or are tolerant of the air pollution found in the urban environment. In this way the Nursery Industry is contributing to the elimination of damaging or invasive species.

Purchasing plants from markets and other sources such as 'car boot sales', as well as plant swapping and trading between friends may also result in inadvertent movement of declared or noxious weeds.



Are you creating a weed problem in your area?

Are your garden plants 'jumping the fence'? Garden escapes are said to be one of the main sources of environmental weeds. Homeowners have a responsibility to protect natural resources.

Here are some simple ways to enjoy gardening without creating problems outside the garden fence.

- Recognise and remove plants known to be 'weedy' and destroy them responsibly, according to local Natural Resource Management Board or council.
- Replace problem plants with non-invasive alternatives, as suggested by the 'Grow Me Instead' booklet or by your local nursery or garden centre. They will help identify any suspect invasive plants.
- When purchasing new plants for the garden read labels to establish good characteristics such as drought tolerance and non-weedy habit.
- Good gardening practices include removal of spent flowers that can set seed within your garden or spread to bushland.
- Do not dump green garden waste in neighbouring or public space as many plants can regenerate to become a nuisance.
- Do not dump spent cut flowers into the garden or on to adjoining property. Florists often use seed heads, vines and other plant parts that may establish in your garden.
- Never tip the water or plants from your aquarium into ponds, rivers or waterways. There are numerous, serious aquatic plants threatening rivers and waterways because of the thoughtless actions of some people.
- There are many good sources of information in regard to weeds and their control. See the back cover for a list.
- Think global act local. Consider plants local to your area. Your local council or shire will be able to provide a list of indigenous plants for your garden.
- Encourage friends and neighbours to become involved as custodians of their environment by following the same guidelines.

Native plants or imported species?

One of the most commonly asked questions at nurseries and garden centres is whether one should use native or exotic plants in the garden. There has long been discussion about this in gardening circles, and more recently the topic of using only locally indigenous or local area natives has become topical. The primary concern of most horticulturists is that gardeners should know the difference so that they may make informed choices.

Natives are, as the name suggests, those plants that occur naturally within Australia. Quite properly, they should be referred to as Australian native plants. Grevilleas, Eucalypts and Acacias are all examples. Of course, Australia is a big continent, so what is native to one area or region, may be very different to those found in another. Think for example, of native plants from the dry soils of Western Australia and compare them to the tropical rainforest plants native to Queensland – all Australian natives – but very different plants, with different growing requirements.

In recent years, plant breeders have hybridised many or been able to choose better or 'select' forms that have been sourced from plants growing naturally in the wild. Both hybrids and select forms will have improved characteristics to the parent species. It may be they flower more often or earlier in the season, they may produce better fruit, be disease resistant or they may have a longer life span.

Imported or so called 'exotic' plants are those originating elsewhere, not necessarily the 'exotic tropics' as some people may think.

Indigenous plants are plants that grow naturally in your local area. They are naturally occurring plants of the region and can be seen in local parklands, as remnant plants on roadsides or riverbanks and in local bushland.

Some Australian native plants become 'naturalised' or take over in an area where they would not normally occur such as Cootamundra Wattle (*Acacia baileyana*), Bluebell Creeper (*Billardiera heterophylla*) and Sweet Pittosporum (*Pittosporum undulatum*).

Of concern to some conservationists and indigenous plant enthusiasts is the possibility that some introductions may interbreed with local or indigenous plants, thus impacting on the local gene pool.

Most invasive plants are imported or introduced plants. One needs to be informed about these plant species which are the basis of the 'Grow Me Instead' program. However, it is fact that there are a far greater number of well behaved, imported garden plants that are not invasive.



Working on the known statistic that 27,000 plants have been imported into Australia and some 2,700 of these are listed as environmental weeds, it is estimated that approximately 10% of the imported plants in our gardens are invasive.

In modern horticulture, plants are bred, developed or selected for desirable traits such as hardiness, drought tolerance, long flowering season, larger flowers or fruits, their disease resistance and general appeal.

Of primary importance in selecting plant material for your garden is sourcing accurate information about the plant. We suggest that you ask for advice at your local nursery or garden centre.

Consult your local council or Natural Resource Management Board if still in doubt!

Australian native plants have greater appeal today than in the past; they generally grow better because of the improvements made in their selection.

Indigenous species should be grown from seed sourced locally to be of best benefit in your locality.

Australian gardens today have become an eclectic mix of both native and imported plants, and can be complimentary to one another. Choosing one or the other is not the question; ultimately it is the gardeners choice!

Any plant should be acceptable to the Australian gardener so long as it is non-invasive and does not require copious amounts of water, fertilisers and other chemicals to survive.

Genetic implications

Some plant species are indigenous to your local area. When you choose to plant indigenous species, and in particular when planting near to natural reserves or parks, it is highly recommended that the origin of the material to be planted is identified and, where possible, plants originating from 'local provenance' parents should be used. There is also potential risk of some indigenous plants hybridising with local species. It is therefore advisable to seek expert advice (Local Council Officers) on which species may pose potential threat to adjacent natural vegetation communities.

Sustainability principles

In developing any garden, it is recommended that the sustainable landscapes principles be followed in order to achieve maximum sustainability benefits. The principles are:

- · Design to suit local environmental conditions
- Select low water use plants
- Select non-invasive plants
- Conserve water
- Provide habitat for native fauna
- · Avoid harmful chemicals
- Minimise non-renewable energy consumption
- Use sustainably and locally sourced products and materials

More information about how to apply these principles is available on the Sustainable Landscapes website:

www.environment.sa.gov.au/botanicgardens/sustainable.html

7) Controlling weeds

Using herbicides

Many of the weed control techniques suggested on this and the following pages involve the use of herbicides. Herbicides are poisons, and should be handled with the greatest respect. They can be absorbed very easily through the skin, by breathing the vapours, and by ingestion (eating or drinking).

By law, herbicides must be used strictly in accordance with the manufacturer's label. They should be kept well out of the reach of children, preferably secured in a locked cabinet. They should always be stored in the original labelled container.

USE OF HERBICIDE: SAFETY PRECAUTIONS

- Read the label before opening the container and follow the instructions.
- Wear protective clothing: long sleeves, long pants, sturdy shoes, gloves, eye protection.
- Always wear waterproof gloves. A respirator is advised when mixing or pouring the liquid.
- Do not eat, drink or smoke while using herbicide. Keep children and pets away.
- Wash skin and equipment afterwards. Wash contaminated clothing separately.



Bushcare Officers take no risks

 Clean up any spills with large amounts of water; shovel up contaminated soil, dispose of it at the tip.

Types of herbicide

There are two widely used herbicides licensed for use at home: Glyphosate, sold under various trade names, including Roundup® and Zero® (which have different concentrations), and Triclopyr, sold as Tree, Blackberry and Woody Weed Killer (etc.).

How herbicides work

Glyphosate is a systemic, non-selective herbicide. It inhibits the action of an enzyme, preventing the production of an amino acid essential to plant life and growth. It must be applied to green leaves, or directly to the plant's sapwood, which lies under the bark.

Triclopyr is a selective systemic herbicide for woody and broadleaf plants. It is a growth inhibitor which moves to the plant's roots, stops growth, and eventually leads to the death of the plant. Triclopyr can be applied to green leaves and to bark.

Herbicides, waterways and steep land

Some of the chemicals which are added to herbicides are not safe to use near waterways. They have the potential to seriously affect the quality of aquatic ecosystems. If you need to remove weeds, particularly trees, within 20 m of any kind of watercourse, even a drain that runs only when it is raining, you should seek advice and assistance from your local council's environmental management department or Natural Resource Management Board.

Control of woody weeds

CUT AND PAINT

Suitable for small to medium sized woody shrubs up to 10 cm in diameter (or larger if using a chain saw). See below for trees.

- Clear around the base of the plant.
- Cut the stem horizontally as close to the ground as possible, using secateurs, loppers, or a saw. Make sure there is no soil on the cut.
- Apply herbicide to the cut stem immediately. Squeeze, not squirt if using an applicator.
- Ensure there is no runoff of poison.
- Use as little herbicide as possible.



TIPS

- Make cuts horizontal to prevent herbicide from running off the stump. Sharp angled cuts are hazardous.
- Apply herbicide immediately after cutting within a few seconds, before plant cells close and translocation of herbicide ceases.
- If plants resprout, cut and paint the shoots after sufficient regrowth has occurred.
- Stem scraping can be very effective on certain woody weeds, e.g.
 Japanese Honeysuckle, Blackberry, vines and rhizomatous plants.

STEM INJECTION

A method for weedy trees and large shrubs

- Use a cordless drill (9 mm bit), hammer and chisel, or brace and bit.
- Below any branches, drill or chisel holes round the base of the tree, into the sapwood, angled down at 45°, and at 5 cm intervals.
- Make the holes about 40 mm deep.
- Within a few seconds of drilling each hole, fill it with herbicide.
- Use this method only when falling branches, as the tree dies, will not be a safety hazard.





HAND REMOVAL OF WEEDS

Suitable for seedlings, herbaceous weeds, many grass species.

- Before starting work, remove and bag seeds and fruit, and place in bin.
- If the weed has a tap root, push a narrow trowel or long knife deep into the ground beside the root. Loosen the soil. Work round the root and then work the plant out gently.
- Many plants which will not regrow from their roots (e.g. many grasses) can be crowned: see diagram to the right. Hold leaves and stems together, and use a knife to cut through all the roots below the 'crown'.



crowning

 Plants with bulbs, corms or tubers (e.g. Watsonia) may need deep digging to ensure complete removal. Bag bulbs, corms and tubers and send to the tip; do not compost.

STFM & I FAF WIPING

This method is suitable for plants with bulbs, tubers, corms or rhizomes, e.g. Watsonia.

- Remove and bag any seed or fruit.
- Using a weed wiper, start at the base and wipe all the stems and/or leaves with a dilute mix of herbicide.
- If leaves have soil on them, wipers must be regularly washed out.



leaf wiping

Take great care when wiping: do not allow the herbicide to touch your skin or to run off into the soil, or to get on a non-target plant.

There are many control methods which are specific to certain weeds – e.g. large infestations where spraying, or covering to exclude light may be options. Contact your local nursery for up to date techniques.

WHEN TO TREAT WITH HERBICIDE

- Apply herbicide when the plant is actively growing.
- Do not apply herbicide when the plant is under stress: extreme heat or cold, drought, waterlogging, or disease.
- Choose early morning or late afternoon in summer.
- Do not apply when wet or windy weather is anticipated.
- Treat deciduous plants in late spring or summer, when in full leaf.

Control of ground covers, vines & scramblers

SCRAPE AND PAINT

This method is suitable for vines and scramblers with woody stems.

- Using a knife, and starting from the base, scrape 20 to 100 cm of leafy stem to expose the sapwood below the bark.
- Within seconds, apply herbicide to the scraped area.



TIPS

- Do not ringbark the stem: scrape about one third of the diameter.
- Stems larger than 1 cm in diameter can be scraped on both sides.
- Vine curtains can be cut at chest level, then again at about 30 cm. Scrape or cut and paint these stumps.
- Blackberry can be cut back to 1 m if there are plenty of leaves; then scrape and paint the cut stems.
- Pulling vines (especially twiners) out of trees and shrubs may do a lot of damage. They can be left hanging to die.

By Law

Herbicides must be used according to the label, or according to Australian Pesticides and Veterinary Medicines Authority (APVMA) permits. If the plant on which you wish to use the herbicide is not named on the label, contact APVMA for permit information (www.apvma.gov.au).

THE DIG OPTION

On previous pages you will find advice on using herbicides to control weedy plants: often this causes minimal disturbance and less germination of seedlings.

However, if you have the energy and want to minimise herbicide use, you can often take the dig option, making absolutely sure that you remove all the parts of the plant from which it can regrow.

TIPS

- Seedlings and small plants may be pulled by hand when the soil is moist.
- Try to stager weed removal. Large areas of exposed soil are an open invitation to weed invasion and erosion, carrying weed seed into the bush.
- Mulch bare soil, and stabilise it by planting bush-friendly plants into it as soon as possible.



Trees & Shrubs



Pinus halepensis

These hardy, large, evergreen trees have been widely planted in Australia as windbreak and timber trees. Radiata Pine, from California, grows to 50 m high and is common in high quality plantation areas. Aleppo Pine, from the Mediterranean, grows to 20 m high and was widely planted as a shade and specimen tree across South Australia. Unfortunately, both species have readily spread into nearby native vegetation. Their large size enables them to dominate all other native plants.

HOW THEY SPREAD

- The winged seeds are contained in woody cones from which they are released when ripe and spread by wind. Cockatoos, which eat the seeds, may also carry the cones several kilometres and spread the seeds at great distance from mother plants.
- Self-sown young trees are a very common sight near mature trees. Other pine species may also be as invasive.

Please note: It is desirable to replace the pines with native conifers as exotic conifers do not harbour our native birds and small mammals.

Other suggested alternatives are the SA native Slender Cypress Pine (Callitris gracilis) and White Cypress Pine (Callitris glaucophylla).

8) The weeds and their alternatives



An Australian native tree, the Black She-oak will grow very well both inland and in coastal zones. It grows to about 8 m high by 4 m wide. The tiny male flowers turn the whole tree a rusty-red during autumn and are followed by small red female flowers. This is a moderately drought hardy species and can handle very poor soils.



This native Australian conifer develops into an erect tree to 15 m high with spreading branches. It is drought and frost tolerant.

Photo: Jackie Miles



moderately fast-Evergreen, growing coniferous trees that are mainly used for hedging and windbreaks. There are several popular cultivars available including 'Naylors Blue', with blue-gray foliage and 'Castlewellan Gold' which has golden-yellow young foliage that matures to bronze-green with age. Seek advice at your garden centre for the best cultivar for your garden.





This very popular Australian native garden wattle is invasive outside its natural region of south west NSW. It has fine silvery-grey feathery foliage and soft balls of golden-yellow flowers. This species can cause pollution', 'genetic able to hybridise with other indigenous species, such as the endangered Downy Wattle (Acacia pubescens), putting it at further risk of extinction

HOWIT SPREADS

- The seeds are carried by ants, small mammals and humans and are very long lived in the soil.
- They have a high rate of germination especially after a bush fire or soil disturbance.

Avoid growing any weedy wattles. Visit your local garden centre or a specialist native plant nursery to source endemic, local wattle species.



This tall shrub has foliage with a silver-blue tinge and rich golden spring flowers. The combination of foliage and flowers creates a stunning combination in the garden. Although rare in nature, this species has now becoming available from nurseries. It has proved to be fast-growing, frost tolerant, drought resistant and free flowering.



A pendulous, fast-growing tree with striking blue-grey foliage. Growing to 12 m, it develops inconspicuous, small yellow flower balls during spring. Thrives in an open full-sun position, it is drought and frost tolerant.

Photo: SA DWLB0



A fast-growing deciduous tree of warm climates that is widely grown as an avenue tree or lawn specimen. Growing to a height of 15 m by 10 m wide, it is best suited to larger gardens. It is well known for its trumpet-like mauve-blue flowers from late spring to early summer.

Photo: Macbird Floraprin

Additional suggested alternatives are *Grevillea* species except Silky Oak (*Grevillea robusta*).





This Western Australian native medium-sized shrub grows to 10 m high by 6 m. It is fastgrowing and was widely used in parks, revegetation and for control. Pendulous erosion branches are often blue-grey in colour when young. Bright vellow to orange flowerheads borne profusely in late winter -early summer develop into smooth brown pods.

Photo: Fagg, M - ANBG

HOW IT SPREADS

- Produces masses of seed pods that ripen on the tree and disperse with the help of birds, ants and small native mammals.
- It regenerates well both from seed and suckers, enabling it to spread rapidly.



Australia's floral emblem and South Australian native wattle. This is a large shrub or small tree to 8 m with strongly perfumed golden-yellow, ballshaped flowers from August to October. A gland at the base of the leaf-stem provides food for nectar-eating birds. Grows in dry soil and is very drought tolerant.



A tall, hardy shrub or small tree growing to 8 m in height. This SA native thrives in poorly drained soils in a sunny position. Globular yellow-lemon flowers appear from December to January.

Photo: Bill Leithhead



This is an erect shrub to small tree reaching 2-9 metres in height. It has attractive, pale grey-green leaves 3-6 cm long. Spectacular pink and cream globe-shaped flower clusters appear in late autumn and early winter, and resemble a sea urchin in appearance.





This species grows to 4 m high with a distinctive grey bark with mid green lanceolate leaves. This wattle is native to NSW and Victoria and flowers in late winter with masses of goldenyellow blooms.

HOW IT SPREADS

• Produces masses of seed pods that ripen on the tree and disperse with the help of birds, ants and small native mammals.

Avoid growing any weedy wattles. Visit your local garden centre or a specialist native plant nursery to source endemic, local wattle species.



This South Australian wattle grows 3-6 m high by 3-7 m wide. It has a shrubby habit and develops golden-yellow flowers in winter and early spring. It will tolerate clay, sandy and alkaline (lime) soils and is frost and drought tolerant. Plant in full-sun to semi-shade and prune to shape if necessary. Bird attracting.



Australia's floral emblem and a South Australian native wattle. This is a large shrub or small tree to 8 m with strongly perfumed golden-yellow, ball-shaped flowers from August to October. A gland at the base of the leaf-stem provides food for nectar-eating birds. Grows in dry soil and is very drought tolerant.

Photo: SA DWLB0

Native Frangipani Hymenosporum flavum



fast-growing, evergreen tree to 9 m with glossy, rich green, oval leaves. In spring this Australian native plant bears terminal clusters of very fragrant, tubular, cream flowers that age to a golden yellow. Ideal for small and large gardens, parks and road sides. Flowers best when grown in the open, but will tolerate some shade. Protect young seedlings from frost. This tree will benefit from watering during extended dry periods.

Photo: Macbird Floraprin

Additional suggested alternatives are Callistemon species and Swamp Wattle (*Acacia retinodes*).





This fast-growing green leaf form was a popular street or shade tree. It is also used as an understock for other ornamental grafted maples. Silver and gold variegated forms will also revert back to this green form. They all grow to 9 m to form deciduous shade trees, however, due to their free seeding habit, they are regarded as major bushland invaders.

Photo: Lorna Rose

Sycamore maple Acer pseudoplatanus



Along-lived, vigorous, deciduous tree that reaches 30 m high. This hardy species seeds profusely and can naturalise in fertile forests as well as roadsides, creeks and wetlands.

HOW THEY SPREAD

- Produce masses of 'winged' seeds which are readily carried by wind.
- Seeds germinate rapidly in gardens, guttering, gaps in paving and driveways etc.
- Wind transfers them from garden to bushland, parks and reserves.

Removal of these invasive plants is both difficult and costly.

Additional suggested alternatives are *Liquidambar styraciflua* cultivars.



This variety is sterile and does not self seed. Growing to 9 m high with lovely bronze-burgundy growing tips that mature to medium green in summer and become bright red in winter. A beautiful shade tree once established and will tolerate heat and drought.



This sterile cultivar will grow 10-15 m high and is an ideal specimen tree for garden or street planting. A deciduous shade tree with leaves turning stunning deep claret red in autumn. Best planted in cool areas in fertile, well-drained soil. Will tolerate dry conditions once established and prefers full-sun.



Decorative, deciduous, highly ornamental, medium size trees grown for their prolific spring blossom and persistent, showy red crab apples in autumn and winter. Flower colours range from white to deep cerise and reddish-purple. They are often used as feature trees, in avenue plantings and provide wonderful summer shade.





Formerly known as *Fraxinus* oxycarpa. Desert ash is a spreading deciduous tree growing to a height of 10-12 m. Leaves consist of seven leaflets and turn various shades of yellow and gold in autumn. Inconspicuous flowers appear in winter when the tree is bare followed by large quantities of winged seeds.

Photo: Delwyn Thomas

HOW IT SPREADS

 Desert ash has been widely used as a street and park tree in south east Victoria and South Australia where it has become naturalised. Its flowers are wind-pollinated producing seeds that are winged which aids dispersal by wind. Desert ash will also spread from root suckers. Seeds washed down gutters enable it to invade creeks and wetlands. It can also establish in grassy woodland from windblown seeds.

Please note: Avoid all seed grown trees. Sterile forms of Fraxinus are recommended and safe to grow, the most popular being the Claret Ash, *Fraxinus angustifolia* 'Raywood' or the Golden Ash *Fraxinus excelsior* 'Aurea'. For advice on these and other sterile forms, ask at your local garden centre.



This variety is sterile and does not self seed. Growing to 9 m high with lovely bronze-burgundy growing tips that mature to medium green in summer and become bright red in winter. A beautiful shade tree once established and will tolerate heat and drought.

Photo: Flemina's Nurseries

Claret Ash Fraxinus angustifolia 'Raywood'



This sterile cultivar will grow 10–15 m high and is an ideal specimen tree for garden or street planting. A deciduous shade tree with leaves turning stunning deep claret red in autumn. Best planted in cool areas in fertile, well-drained soil. Will tolerate dry conditions once established and prefers full-sun.

Photo: Lorna Rose

Callery Pears *Pyrus calleryana 'Glen's Form' Chanticleer*®



This is a superb ornamental pear with dense green foliage that turns gold, plum and burgundy in autumn. Growing to a height of 11 m, it is a popular specimen tree in parks and gardens. This species can tolerate quite dry conditions as well as intermittently wet, heavy soils.

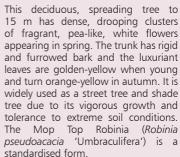
Photo: Fleming's Nurseries





Golden-leaved Black Locust

Robinia pseudoacacia 'Frisia' and other arafted cultivars





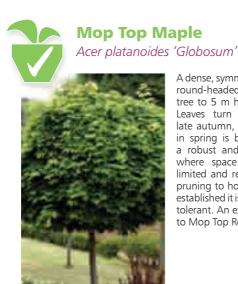
HOW THEY SPREAD

- They are prone to suckering. This happens because the variety is grafted onto a vigorous understock, Robinia pseudoacacia, also known as the False Acacia. The False Acacia can grow to 20 m. It is a deciduous tree with green compound leaves and sharp thorns.
- If its roots are damaged (for example by a mower, whipper snipper or by digging) or if the roots hit an obstacle, such as a heavy clay soil or garden edging, they will produce suckers. This characteristic is retained when the tree is used as an understock.
- The hard-coated seed may also be spread long distances in soil, water or occasionally by animals.



This deciduous tree is an ideal specimen tree for large open spaces such as parks and gardens. Growing to 13 m high, it is noted for its yellow to burgundy-red autumn colour. Performs best in a moist full-sun position.

Photo: Fleming's Nurseries



A dense, symmetrical and formal round-headed deciduous small tree to 5 m high by 4 m wide. Leaves turn golden-yellow in late autumn, the young foliage in spring is bronzy-green. It is a robust and ideal street tree where space and height are limited and requires little or no pruning to hold its shape. Once established it is relatively drought tolerant. An excellent alternative to Mop Top Robinias.

Photo: Fleming's Nurseries

Golden Chain Tree Laburnum × watereri 'Vossii' A small, uprightee that groby 3 m wide. outstanding pof yellow flow abundance in a semi-weep It prefers fulltrained effortior or pergola feeffect. Good mand larger land

A small, upright, multi branched tree that grows to 4 m high by 3 m wide. It is noted for its outstanding pendulous racemes of yellow flowers produced in abundance in late spring giving a semi-weeping appearance. It prefers full-sun and can be trained effortlessly over a frame or pergola for a spectacular effect. Good for small gardens and larger landscapes.

Photo: Macbird Floraprint

Other suggested alternatives are Evergreen Magnolia (Magnolia grandiflora) and Melaleuca Revolution Gold (Melaleuca bracteata 'Revolution Gold').



African and European Olives

Olea europaea ssp. europaea and cuspidata



Hardy, long-lived, evergreen, small to medium trees which produce green or black fruits. African olives produce small spherical black fruits which are only edible by birds whereas European olives produce green and black oval shaped fruits which are harvested for the production of olive oil and table fruit. Unpicked fruit can be spread by wildlife and the resulting seedlings are extremely invasive. Feral olives impact on native vegetation over large areas of Australia.

HOW THEY SPREAD

- Unviable production trees left to grow wild produce fruit which is not managed.
- Fruit is attractive to and spread by birds and small mammals.

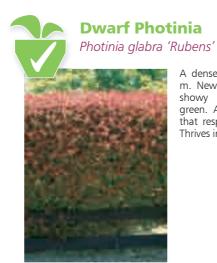
If you have fruiting olive trees and are not harvesting the fruit then have them removed.

Olive Leaved Grevillea

Grevillea olivacea



This vigorous Australian native shrub will grow to a height of 3.5 m high by 2 m wide. It is a dense screening shrub with greygreen leaves and bird attracting red, orange or yellow flowers from June to October. It prefers a well-drained soil and has a very low water requirement once established. Frost tolerant and suitable in coastal conditions



A dense evergreen shrub to 5 m. New leaves are bright red, showy and mature to dark green. An ideal hedging plant that responds well to pruning. Thrives in full-sun to part-shade.

Photo: Lorna Rose



This fruitless olive grows to 6 m high by 6 m wide. It was discovered growing in an orchard near Swan Hill Victoria. Grows best in full-sun and freely-drained soils.

Photo: SA DWLBC







Photo: Machird Floranrin

A native east Australian tree that grows 12 m high by 7 m wide. It has coarse grey bark and glossy green elliptical leaves. The small, white, highly fragrant flowers occur in spring and early summer. Flowers are followed by orange-tan berries in autumn, which can persist for several months. It is a hardy and adaptable plant which can withstand extended dry periods once established.

HOW IT SPREADS

 It has become very invasive in home gardens and bushland, colonising moist areas such as gullies and areas of disturbed soil. It grows rapidly and quickly competing with native vegetation. Its berries are attractive to birds and can be carried quite far from the parent plant. It has become an environmental weed in high rainfall areas of South Australia.

Although these are popular cut flowers, the use of this plant must be discouraged for the home garden. Its spread must be stopped.



An Australian native tree to 9 m with fine scented foliage and profuse white flowers appearing in spring–summer. This species tolerates waterlogged soils and moderate frosts.

Photo: Macbird Floraprint



A dense-foliaged, medium tree that grows 8-10 m high by 6 m wide. The leaves are glossy green. Flowers are creamy-white in spring-summer followed by fleshy fruits, white to purple in colour. This is an extremely hardy plant that will grow in full-sun to partial shade. It is most often used for hedging and topiary where it can be trimmed to shape. New growth is glossy bronze-red in colour, maturing mid-green. Generally considered to be resistant to Lilly Pilly Psyllid.

Photo: Macbird Floraprint



Indigenous to South Australia it is a long lived erect of spreading tree 5–30 m high. Thrives in a moist sheltered position. The small ball-shaped pale yellow flowers appear in winter through to spring followed by curving pods which split open to shed the seed. It is fast-growing, tolerates drought and can thrive in most soils.

Photo: Macbird Floraprint





Photo: Macbird Floraprint

This vigorous species from southeastern Australia is one of the most widely cultivated Melaleucas available. With light green, narrow leaves and white, bottlebrushlike flowers, it grows into a large spreading shrub or small tree to 8 m. Although it is an attractive small tree, is has become invasive in high rainfall areas of South Australia, spreading from roadsides into adjacent bushland.

Note that *Melaleuca armillaris* ssp. *akineta* is indigenous to northern Eyre Peninsula, where it is rare.

HOW IT SPREADS

- Vast quantities of seed are set in capsules. These are released with age and readily germinate in damp, open areas.
- Seed spread by water.



This tree with graceful, weeping foliage will reach 15 m in ideal growing conditions. It has fibrous bark and lance-shaped leaves. The white, 5-petalled flowers are massed along the branches in spring and summer. There are several popular cultivars available including 'Nana', a compact form to about 4 m and 'Variegata', a dainty form with variegated foliage.

Photo: Macbird Floraprint



This round-headed, small-to-medium-sized bushy tree from south-eastern Australia will grow to 9 m high. It is tolerant of sandy, dry soils, and coastal salt spray. Although known as a coastal plant, it also grows successfully on heavy clay soils tis extremely heat-tolerant and once established will grow with minimal additional irrigation.

Photo: Macbird Floraprin

Dryland Tea-tree Melaleuca lanceolata This is native some high white of flowering and specific cooler in and will soils, bright limestool and dusalt lake

m high. Flowers are showy white or cream in large clusters flowering mainly in summer and sporadically throughout the cooler months. It is very hardy and will grow on clay or loam soils, brown, grey or white sand, limestone ridges, coastal cliffs and dunes, salt flats and near salt lakes.

This is a South Australian native shrub or small tree, 1–8

Photo: Macbird Floraprin





Coastal Tea-tree. Victorian Tea-tree, **Australian Myrtle**

Leptospermum laevigatum



A tall bushy shrub or small tree to 6 m from coastal south-eastern Australia. It is tolerant of salt spray and has been widely used as a windbreak, hedging plant and for soil erosion control. It is widely naturalised outside its natural range where it competes effectively with native vegetation and has spread rapidly into bushland and along road verges. It has abundant white flowers 15-20 mm across that develop into woody capsules which subsequently open at maturity to shed large numbers of seeds.

Green Tea-tree

Leptospermum coriaceum

A dense, spreading shrub native to South Australia that grows to 2 m high by 2 m wide. Flowers are white, about 2 cm in diameter, and seen mainly in spring. A good, hardy screen or windbreak plant for semi-arid climates. It is frost hardy and thrives in full-sun.

Photo: Fagg, M - ANBG

Cross-leaved Honey-myrtle

Melaleuca decussata



This is an open, rounded large shrub to 3.5 m high. In late spring, mauve flowers develop in small, cylindrical spikes on short, lateral branches or at the base of leafy branches. Flowers sporadically during summer. It prefers full-sun and can tolerate dry and coastal condition.

Photo: Macbird Floraprint

Honey-myrtle Melaleuca nesophila



A large shrub to small tree native to Western Australia. Globular heads of mauve-purple flowers appear in large clusters in late spring through the summer. A spectacular plant when in flower. It is very hardy in most soils and aspects and is frost hardy.

Photo: Macbird Floraprint





A shrub to about 3 m tall by 6 m wide. Plants are grey-green with slender, drooping branches and tiny leaves. Flowers are white, pea-like and fragrant. A similar looking closely related species, White Weeping Broom (Retama monosperma), is a popular garden plant in Australia and also a potential weed. White Weeping Broom is spreading on the Yorke and Eyre Peninsulas and eastern Mt. Lofty Ranges.

HOW IT SPREADS

- · Each plant produces thousands of long-lived seeds.
- It is a very drought-tolerant making it a serious threat in dry regions and during drought years.



A small to medium native shrub from Western Australia reaching 1.5-2 m high with linear, narrow highly aromatic leaves up to 4 cm long. The small, pale pink flowers occur profusely in spring through to summer and darken as they age. A highly recommended cut flower, it can be picked in bud or at the full flowering stage. Several colour forms are available including 'Alba'; white, 'Purple Pride'; purple and 'University'; purplered.



A hardy shrub that will grow to 2.5 m tall by 2.5 m wide. It will grow in full-sun or part-shade and prefers moist but well-drained soils. Once established it will withstand very dry periods. White flowers appear for most of the year. It responds well to pruning and forms a neat compact hedge. Tolerant of wind, drought and salt winds.

Photo: Macbird Floraprint



A small woody shrub to 2 m with silvery-grey narrow leaves. Yellow flowers borne in small clusters appear in the leaf axils during spring—summer. Thrives in full-sun and prefers good drainage. Native to South Australia.

Photo: Fagg, M - ANBG





Photo: SA DWLBC

This South African shrub to 2 m high is widely naturalised across southern Australia and has become invasive in coastal areas. These shrubs are most readily recognised by their mauve-purple, pea-shaped flowers produced throughout most of the year, predominantly during spring. Flowers develop two-celled flattened seed capsules that ripen from green to papery brown. Whilst the plainer form with greenish lower petals is frequently observed as weedy, the showier cultivar 'Grandiflora' with larger flowers and purple lower petals has also been observed readily spreading from plantings.

HOW IT SPREADS

- Seeds are spread by water, birds, ants, dumped garden waste, and even equipment used at the beach, such as surfboards and towels.
- The seeds are long lived and can germinate in heavy shade.
 Germination usually takes place in autumn, but it can happen at any time providing sufficient moisture is available.



DazzlerPolygala dalmaisiana 'Dazzler'

This non-invasive form of Polygala is an ideal alternative to the invasive species. It is a delightful compact small shrub that grows 1.5 m high by 1 m wide with striking purple pea flowers for most of the year. Grown best in full-sun to part-shade.

Photo: Greenhills Propagation Nursery

Geraldton WaxChamelaucium uncinatum



A small to medium native shrub from Western Australia reaching 1.5–2 m high with linear, narrow highly aromatic leaves up to 4 cm long. The small, pale pink flowers occur profusely in spring through to summer and darken as they age. A highly recommended cut flower, it can be picked in bud or at the full flowering stage. Several colour forms are available including 'Alba'; white, 'Purple Pride'; purple and 'University'; purplered.

Photo: John Virtue

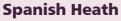
Spotted Emu Bush Eremophila maculata This comp grows 0.9—3.0 m win appear in winter through colour is be pink, ror yellow, spotted the infull-sun mildly frost great scree and responding. Bit is specified to the property of the property

This compact, dense shrub grows 0.9–2.4 m high by 0.9–3.0 m wide. Tubular flowers appear in the leaf axis from winter through to spring. Flower colour is variable and may be pink, mauve, red, orange or yellow, often with a pale, spotted throat. It grows well in full-sun or part-shade and is mildly frost tolerant. It makes a great screening or hedge plant and responds well to hard pruning. Bird attracting.

Photo: Macbird Floraprint

Other suggested alternatives are Native Hibiscus (*Alyogyne huegelii*), *Hebe* species and Honey-myrtle (*Melaleuca nesophila* 'Little Nessie').





Erica lusitanica, Erica baccans, Erica arborea



Photo: Jackie Miles

These fast-growing long-lived erect woody shrubs grows to 2 m high. They are densely covered in green needle-like leaves and produce masses of pendulous pink-white flowers between the leaves singly or in clusters. They can produce millions of tiny seeds that can rapidly spread along roadsides and drainage lines via water, wind and machinery invadina coastal woodland, grassland, heathland, forests and riparian vegetation. Berry Heath (Erica baccans) is a new invader of bushland in the Mt. Lofty Ranges.

HOW THEY SPREAD

- Tolerates drought, grazing, slashing and trampling.
- Roots readily sucker and spread.
- Seeds spread by wind, water, soil, machinery and dumped garden refuse.
- Seeds remain viable in the soil for many years.

Paynes Thryptomene Thryptomene saxicola 'Paynes Hybrid'



A small, hardy, evergreen shrub to 1 m that has aromatic foliage. It has masses of dainty, pale-pink flowers which are borne along branches throughout winter and spring. Ideal in cottage gardens and as an informal hedge. Sought after in floral arrangements.

Photo: Macbird Floraprint

Eriostemon

Philotheca myoporoides (Syn. Eriostemon myoporoides)



This hardy shrub grows to 2 m high. Its mid-green leaves are pleasantly aromatic when crushed. Pale pink buds open to waxy, white flowers in winter to late spring. Grows well in full-sun to part-shade and can withstand extended dry periods once established. They can be used as a hedge and are particularly attractive as cut flowers.

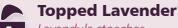
Photo: Macbird Floraprin



evergreen ranging in size from prostrate to medium in size and form. Most Correa species flower from winter to spring and are favourites of nectar-seeking birds. Some have bell-shaped flowers while others have tubular flowers with protruding stamens. Many flower colours are available including red, pink, orange, cream and green. Most Correas are drought and frost hardy. They require well-drained soil and prefer full-sun. Some species flower in semi-shade.

Photo: Macbird Floraprint







An erect or spreading, aromatic shrub with silver-grey foliage growing to 1 m high by 1 m wide. Purple flowers are packed in tight, upright clusters at tips of branches from July to December. Each flower cluster has 4–6 distinctive flags at the top, usually purple but sometimes pink or white. It occurs as a weed of neglected areas, poor pastures and grassy woodland throughout the Mt Lofty Ranges.

Photo: Machird Floraprint

Important note: Lavenders are valuable, reliable, sought after garden shrubs and are extremely important crops for the perfume, therapeutic, florist, honey, home garden and craft industries.





This vigorous but compact hybrid selection of Italian lavender provides a brilliant display of deep purple flower spikes and aromatic foliage over many months. It grows 0.8 m high by 0.6 m wide. Ideal for pots, hedging and cottage gardens. It prefers a well-drained soil in full-sun. Responds well to pruning after flowering to maintain shape. Once established it is drought hardy.

Photo: Macbird Floraprint



Attractive small evergreen shrub to 1.5 m high by 1.5 m wide. Grown for its aromatic soft grey-green foliage and heads of perfumed mauve-purple flowers and bracts in winter/spring and sporadically throughout the year. Thrives in a sunny, well-drained position and may be lightly pruned at any time. Ideal for pots, hedging and cottage gardens. Excellent cut flowers.

Photo: Delwyn Thomas



Commonly grown for florists as fresh cut flowers and dried stems, it is also used for pot pourri. There are numerous hybrids available with various huse of colour and fragrance. Summer flowering, it will grow to almost 1 m high by 1.2 m wide. Prefers an open full-sun position. It is frost tolerant and once established drought tolerant. Suitable for hedging, borders, pots and coastal gardens. Ask your local garden centre for advice about the best Lavenders for your garden.

Photo: Macbird Floraprint





This white lily with large spathes is widely used as a cut flower. However, the plants of the Arum Lily will engulf gutters, streams, waterways and wetland bogs. It is now a widespread environmental weed. The green form called 'Green Goddess' is also invasive and can be found clogging up natural waterways.

HOWIT SPREADS

• These plants produce prolific amounts of seed that wash down gutters and streams and readily germinate. Birds and small mammals also disperse the seeds through their droppings. These plants produce several small rhizomes (roots) that are easily spread in contaminated soil. Any moist soil will be quickly infiltrated.

Although these are popular cut flowers, the use of this plant must be discouraged for the home garden. Its spread must be stopped.



A cultivar of the New Zealand Rock Lily that grows to 1 m high by 1 m wide. The upright, broad, glaucous green foliage is a year round feature. In summer the plant is crowned with sprays of tall panicles of starry white flowers on long, slender, wiry stems held above the foliage.



This Australian native plant has rosettes of broad leaves and clusters of white, highly fragrant flowers on 1 m stems. Flowers appear from November to March. An extremely hardy specimen, it thrives in full-sun or dappled shade. It is mildly frost tolerant and can withstand poor drainage and clay soils.

Photo: Lorna Rose



Grown for their deep green strap-like leaves and funnel-shaped, yellow-throated, orange to red flowers in spring. A clump forming perennial to 0.5 m high that thrives in full-shade to part-shade in most soils. Is drought hardy and can be grown in containers. Yellow Clivea and deep orange-red 'Belgium Hybrid' forms are also available.

Photo: Elwyn Swayne



Climbing and Ground Cover Plants

This very useful group of plants was often used to cover unsightly objects and provide green barriers. Unfortunately we now know that the attributes that make them useful can also provide them with a means to grow outside their given area and invade nearby bushland. There are many alternative less invasive plants available. Please consider from the list opposite or ask your local garden centre for other alternatives.



A widely planted ornamental, this species was unsuspectingly used to cover brick walls, sheds or was used as a ground cover beneath trees. It is extremely hardy and can survive in full-sun to shade. Easily distinguished by its dark green lobed leaves. Without pruning control, it smothers everything, debilitates trees and sets large quantities of seed.

Photo: Lorna Rose

HOW IT SPREADS

- Tenacious and invasive aerial roots cling to trees smothering the bark. Trailing stems will easily take root and spread along the ground. When the plant is allowed to mature to the shrubby adult form, the small umbels of white flowers are followed by a prolific amount of blue-black berries which are quickly spread by birds. Aerial roots may destroy mortar joints on walls.
- Clippings easily take root when dumped on unused ground or in bushland areas.

Additional suggested alternatives are Creeping Boobialla (*Myoporum parvifolium*), Dusky Coral Pea (*Kennedia rubicunda*) and Wonga Wonga Vine (*Pandorea jasminoides*).

Japanese Star Jasmine

Trachelospermum asiaticum



This twining, evergreen climber with dark green, glossy leaves can be grown as a ground cover plant. It is covered with masses of lightly fragrant, small white flowers from summer through to mid-autumn. It will grow in semi-shade or full-sun in a wide range of soils.

Photo: Macbird Floraprin

Native Sarsaparilla

Hardenbergia violacea 'Happy Wanderer'



Photo: Macbird Floraprin

This is a vigorous, popular and generally hardy Australian native plant that grows to about 1 m high by 1 m wide. The pea shape flowers appear in late winter and early spring and are violet in colour. It can be used as a ground cover and will climb on a support. It prefers an open sunny position. Pink and white flowering cultivars are also available.





Photo: Macbird Floraprint

Among the highly recommended varieties are 'Royal Mantle', 'Bronze Rambler' 'Bedspread' and 'Gin Gin Gem'.

All are fast-growing ground cover plants ideal for mass planting and covering of large areas. The red toothbrush flowers occur in spring and autumn. These species grow to about 0.3 m high by 2 m across and are frost tolerant. Grown as 'living mulch', they will trail over banks or walls and attract nectarfeeding birds. Mass planting is highly recommended.





Asparagus Ferns

Asparagus scandens, Asparagus densiflorus Asparagus plumosus



Multi-branched prostrate and/or climbing herb from the lily family that form a dense underground mat of rhizomatous roots. The fern-like branches grow to 0.6 m high and up to 2 m wide with a covering of small sharp spines. These natives from South Africa have small white-pink clusters of flowers in late summer which ripen to bright red, orange or black fruits.

HOW THEY SPREAD

• By dumping of garden waste. The seeds are readily dispersed by birds and small mammals.

Asparagus species are highly invasive environmental weeds. Eight Asparagus species are major weeds in Australia at present, including Bridal Creeper (Asparagus asparagoides), a declared Weed of National Significance. These 'ferns' overtake natural species by developing dense thickets that deprive other plants of light and nutrients as well as destroying habitat. The most effective means of removal is to dig out the growth crown which lies just below the soil surface



Grevilleas

Grevillea species and cultivars

Among the highly recommended varieties are 'Royal Mantle', 'Bronze Rambler' 'Bedspread' and 'Gin Gin Gem'

All are fast-growing ground cover plants ideal for mass planting and covering of large areas. The red toothbrush flowers occur in spring and autumn. These species grow to about 0.3 m high by 2 m across and are frost tolerant. Grown as 'living mulch', they will trail over banks or walls and attract nectar-feeding birds. Mass planting is highly recommended.

Photo: Macbird Floraprint



A native of South Australia, this evergreen hardy plant forms a dense, weed suppressing ground cover that will easily cover one square metre. This species thrives if grown in freelydrained soil and full-sun. The flowers are white or pink and occur from winter to summer. Sweet fleshy fruits provide food for native birds.

Photo: Macbird Floraprint



This evergreen twining climber from China has dark, glossy foliage and masses of small, highly fragrant starry-white flowers in summer. Initially it can be slow-growing, however becomes vigorous with age. Variegated leaf forms 'Tricolor' 'Variegatum' are also and available

Additional suggested alternatives are Dusky Coral Pea (Kennedia rubicunda) and Native Wisteria (Hardenbergia comptoniana).





Formerly known as Sollya heterophylla. A vigorous, evergreen, West Australian native plant growing to a height of 4 m. It may be a dense shrub or a climbing plant. Dainty drooping clusters of blue or white flowers are mainly carried in spring and summer, producing fleshy, green cylindrical berries that darken with age.

HOW IT SPREADS

• This species produces copious amounts of seeds which are eaten by birds and foxes and spread in their droppings. It can smother native ground covers and shrubs and can invade adjoining bushland.



This sterile form of the popular Bluebell creeper is a small dense shrub that will twine along posts or walls. It has small blue flowers in summer and thrives in full-sun or light shade in freely draining soils. Ideal for containers, this form cannot set fertile seed so is a safe alternative.

Native Sarsaparilla

Hardenbergia violacea 'Happy Wanderer'



This is a vigorous, popular and generally hardy Australian native plant that grows to about 1 m x 1 m. The pea shape flowers appear in late winter and early spring and are violet in colour. It can be used as a ground cover and will climb on a support. In prefers an open sunny position. Pink and white flowering cultivars are also available.

Photo: Macbird Floraprint

Native Wisteria Hardenbergia comptoniana



A hardy, vigorous, evergreen, native climber that produces profuse small, pea shape flowers in July, August and September. Flowers tend to be purple, however lilac-pink and white varieties are also available. Great for training over fences and suitable in semi-shaded positions.

Photo: Macbird Floraprint







This is a low spreading ground cover that will scramble over rocks or uneven ground. It is a perennial with lax stems and narrow hairy leaves and produces a mass of small open faced daisy type flowers most of the year, particularly during summer. It can be invasive if not controlled and grows in moist disturbed areas. It has escaped into coastal dunes and other exposed disturbed sites.

HOW IT SPREADS

- Produces masses of seeds which are dispersed by wind and water.
- Dumping of garden waste that may easily take root.
- Plants can be spread by layering.

This plant grows readily in damp areas to create shady thickets crowding native species and destroying habitat. Remove these plants from gardens and choose superior species that will prove more environmentally friendly.



These delightful Australian perennials come in a range of colours such as yellow, pink, mauve, pale and deep blue as well as a range of compact cultivars flowering from late winter to autumn. These daisy plants, with their delicate flowers and soft feathery foliage, are surprisingly hardy and are an excellent addition to a waterwise garden. Thrive in full-sun and will tolerate frost.

Golden Everlasting Daisy Xerochrysum bracteatum An Australian annual lived perennial, it varies from prostrate to a

An Australian annual or shortlived perennial, it varies in habit from prostrate to a shrubby plant of about 1 m in height. The leaves are grey-green in colour and the deep golden flowerheads are borne from spring through to late winter. The individual flowers are formed into a large cluster surrounded by large papery bracts. The Golden Everlasting Daisy has been cultivated for many years and a number of forms have been selected for cultivation. Ask at your local garden centre for the best varieties for your garden.

Photo: Macbird Floraprint



A vigorous ground cover with large coppery-purple leaves and masses of large colourful deep blue flower spikes in Spring. It will grow to a height of 30 cm with a spread of 60 cm in a sunny or partly shaded position. This fast-growing variety is perfect for covering large areas.

Photo: Robert Chir



This spreading perennial ground cover to 50 cm was widely cultivated because of its dense green foliage and small blue flowers. It has spread and successfully established in moist and damp areas such as wet gullies and creek banks. Although it does not produce seed in Australia, it spreads by runners and by fragments carried in water or in relocated soil. It forms dense mats suppressing all other plants. A variegated form may also be invasive.

Photo: Macbird Floraprint

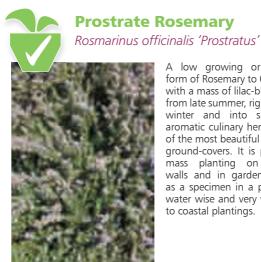
HOW IT SPREADS

- Although it does not produce seed in Australia, it spreads by runners and by fragments carried in water or in relocated soil.
- The spread of this plant has been aided by gardeners who have dumped cuttings into the bush.



An attractive evergreen perennial with a spreading prostrate habit. Leaves are green, soft in texture with funnel form flowers in blue to violet appearing in late spring to autumn. Suitable as a ground cover, spill-over plant in rockeries and is ideal in large containers or hanging baskets. Reaching a height of about 20 cm, it will spread to 2 metres wide. Prefers a moist well-drained site and is frost tolerant.

Photo: Macbird Floraprint



A low growing or prostrate form of Rosemary to 0.4 m high with a mass of lilac-blue flowers from late summer, right through winter and into spring. An aromatic culinary herb and one of the most beautiful and useful ground-covers. It is perfect for mass planting on retaining walls and in garden beds, or as a specimen in a pot. Hardy, water wise and very well suited to coastal plantings.

Photo: Delwyn Thomas

Native Rosemary, Coastal Rosemary Westringia fruiticosa 'Jervis Gem'

A native, hardy, compact, bushy form of Westringia with greygreen foliage and a mass of bluemauve flowers that extend over long periods. It stays compact and requires only a light prune annually. Growing to 1.2 m high by 1 m wide, this species is useful for low hedging and borders. Prefers well-drained soil and thrives in full-sun to part-shade. Will tolerate frost, dry and even severe coastal conditions.

Photo: Macbird Floraprint



Gazania

Gazania species especially rigens and linearis



Photo: Ramm Botanicals

A favourite of gardeners living in coastal areas because of their bright, sunny, daisy style flowers and their ability to withstand coastal conditions. Older varieties are considered very invasive, particularly in residential areas near coastal and mallee environments where they will spread along roadsides from seeds blown from nearby gardens and dumped garden waste.

HOW IT SPREADS

- Produce abundant seeds that are spread by wind and water.
- Spread by dumping of garden waste.
- Also spread by runners which prevent native ground covers from growing.

Avoid any seed grown plants specifically *Gazania linearis* and *Gazania rigens*.

Please note:

It is safe to grow the new sterile Gazania hybrids listed below. They have been specially bred as non-invasive and relatively drought tolerant with improved growth habit, foliage, flower colour and size without viable seed set. Look for these new improved sterile varieties of Gazania at your local garden centre.



Montezuma



Sunset Jane



Sahara



Sun About



Avalon

Photo: Ramm Botanicals



Native to South Australia, this low-growing shrub will grow to 1 m high by up to 2 m wide. It is a fast-growing, very hardy grey—leaved succulent that readily self seeds. It produces edible yellow or red berries and is frost hardy.

Photo: Sustainable Landscapes Project



Photo: Bushland Flora

Prostrate forms of this South Australian native provide a low, blue-grey foliage contrast for gardens in a similar manner to some Gazanias. It grows 0.2–0.3 m high by 1–1.2 m wide. The flowers and fruits are insignificant. Tolerates frost, drought and coastal conditions.

Fan Flower Scaevola species and cultivars An Australian native ground



Photos: Ramm Botanicals

Additional suggested alternatives are Native Pigface (*Carpobrotus rossii*).



Berried Plants

Gardeners often choose trees and shrubs with showy persistent berries for winter colour in their gardens when flowers are scarce. Unfortunately these berries often attract birds and small mammals that unwittingly aid the spread of these unwanted plants into bushland and open spaces.



Photo: Delwyn Thomas

These common shrubs grow from prostrate to 4 m and were commonly used as hedging plants due to their vigorous nature. They produce clusters of white flowers during spring and summer followed by red berries which hang on the branches for months after flowering. These plants have become widespread weeds in bushland and farming land. Prostrate forms sold as ground covers or rockery plants do not appear to be invasive.



Photo: Delwyn Thomas

Vigorous evergreen shrubs to 4 m high that produce prolific clusters of white flowers followed by red, orange or yellow berries. These species were commonly planted as hedges. Pyracantha and Cotoneaster species are often confused with each other. Cotoneaster species are similar but lack thorns.

Flowering Crabapples

Malus hybrids and cultivars



Photo: Fleming's Nurserie

Decorative, deciduous, highly ornamental, medium size trees grown for their prolific spring blossom and persistent, showy red crab apples in autumn and winter. Colours range from white to deep cerise and reddish-purple. They are often used as feature trees, in avenue plantings and provide wonderful summer shade.

BottlebrushCallistemon 'Kings Park Special'



Photo: Macbird Floraprint

A small bushy Australian native tree to 5 m high with attractive weeping branches and grey-green leaves. Deep red bottlebrush flowers are grouped together in bunches and produce a spectacular display. There are many other Bottle Brushes to choose from which produce bright red flowers and attract and feed native honeyeaters. Ask at your local garden centre for the best cultivars for your garden.

Sasanqua Camellias Camellia sasangua and cultivars



These hardy, evergreen shrubs are available in a wide range of heights, colours and forms. Single and double blooms in light to deep pinks, white, red and many bi-colours are available. Choose from sun hardy or shade tolerant varieties. They are frost and drought tolerant once established and are suitable as a container, hedging or specimen plant. Seek advice at your garden centre for the best Camellias for your garden.

Photo: Lorna Rose



Grasses

Mainly chosen because of their various architecturally interesting forms and drought hardiness, yet many of them are considered invasive. Mislabelling with incorrect species names has been an occasional problem. To reduce further spread of invasive grasses, seek professional advice at your garden centre, read all labels carefully and avoid purchasing from any other source. There are many native South Australian grasses commercially available from your local garden centre providing a safe alternative.



A tall perennial grass, forming tufts to 1 m high. Arching, thin, leathery leaves 20–30 cm long with prominent veins running lengthways. Flowers are small and occur in pink or purple, bristly, upright spikes at the ends of bamboo-like canes. Fruit are small and dry with long, showy bristles.

HOW THEY SPREAD

• Seeds are readily spread by humans, wind, animals and water. It is commonly seen along roadsides, displaces natives and increases fire risk.



This sterile hybrid is a showy and popular ornamental perennial grass. It grows rapidly in dense clumps of burgundy coloured foliage up to 1.5 m high with arching purple-pink flower plumes in summer. The blooms are foxtaillike, are displayed above the foliage and produced in warm weather. A very hardy grass species that can tolerate periods of drought and

light frosts.

Blue Flax Lily, Paroo *Dianella species and hybrids*



There are 15 species of Dianella found across Australia. These hardy plants with fine straplike leaves to 0.6 m high have blue, purple or white starshaped flowers which appear in spring and summer. Flowers are followed by decorative blue berries containing shiny black seeds. Ask your garden centre for advice about the best Dianellas for your garden.

Photo: Macbird Floraprint

Spiny-headed Mat-rush Lomandra longifolia



Photo: Macbird Floraprint

This is a small tufted perennial rush with long strap-like green leaves to 1 m. A tall, slender, yellow flower spike appears from the leaf base in the early growing season and persists for many weeks. As the spike matures, the structure is replaced by a tan, fruit-bearing shaft, composed of attractive clusters of small nutlets. This species is extremely hardy and tolerant of climatic extremes and most soil conditions. Widely grown stabilisation. for soil are various smaller and more compact forms available such as Lomandra longifolia 'Tanika' and Lomandra confertifolia 'Little Con'

Additional suggested alternatives are SA native grasses Wallaby Grass (*Austrodanthonia fulva*), Soft Spear-grass (*Austrostipa mollis*) and Lemon Grass (*Cymbopogon ambiguus*).



Succulent Plants

These have become very popular due to their drought hardy status and architectural appeal. Most succulents are non-invasive, however there are a number of succulents that can rapidly spread from dislodged plant parts, leaves or by seed. Be sure to read the plant label carefully and ask for advice about the non-invasive succulents at your local garden centre.



A robust, fleshy perennial plant with prostrate stems up to 1 m long. The leaves act as water storage organs enabling the plant to survive hot dry summers. Flowers are light purple appearing through spring/summer and seeds are small and edible. It is

headlands and sand dunes.

Baby Sun Rose Aptenia cordifolia



Prostrate, scrambling succulent herb with small rose-pink flowers and dark green, heart-shaped leaves. A garden escape with considerable potential to invade coastal dunes. Forms mats and can smother native ground covers.





African Carrion Flower

A grey, prostrate succulent with fleshy, finger-like leaves. The showy white and red flowers have a putrid smell to attract flies for pollination. Fluffy seeds are readily spread by wind. It has invaded arid shrub lands in the Whyalla and Port Augusta regions. It out competes native ground covers and can even kill large saltbush shrubs, threatening fodder supplies for livestock.



A clump forming, frost tolerant succulent plant with attractive bi-coloured yellow orange flowers. A hardy, fast-growing plant suitable for full-sun to part-shade. Produces reddish flowers in late spring-early summer. Mass plant for an excellent effect in a dry weather garden.

Photo: Gientiela Nursery



A clump forming, evergreen, ground cover succulent with spoon shaped leaves covered in soft grey hairs to 10 cm tall. It produces yellow-orange flowers through the summer months. Plant in pots or along borders in full-sun. Requires minimal watering.

Photo: Glenfield Nurser



Common on coastal dunes, this prostrate plant which spreads to 2 m has thick, succulent leaves up to 10 cm long. The flowers are daisy-like and usually have mauve to purple petals and white centre. The fruits and leaves are edible. It is an attractive plant for a well-drained soil in full to partial sun. It is well suited to exposed, coastal locations.

Photo: Sustainable Landscapes Project







This plant has grey, sharp-tipped, strap-like leaves which rosettes about 1.8 m wide. Its common name is Century Plant, due to the mistaken belief that it only flowers once every 100 years. In fact, after 10 years, it produces pale yellow flowers on a very tall, branched stem. Its spread is mainly vegetative, with new plants arising from stolons and from dislodged plant fragments. Commonly naturalized around old rural homesteads and coastal shacks, it has spread to form dense, impenetrable thickets along roadsides and in coastal vegetation.



Upright habit on a tall stem. Heads to 0.9 m with stems up to 1.5 m. Clumping habit when young. It is an ideal specimen for pots and very popular accent plant. Extremely hardy and can withstand extremes in temperature. This specimen has high architectural appeal.

Photo: Macbird Floraprint

Cabbage Tree Cordyline australis species and cultivars



Cordylines are hardy, erect, palm-like trees from New Zealand. They are easy care, generally unbranched and develop a broad crown of spreading, sword-like pointed leaves. Plant in a full-sun or part-shade position and protect from heavy frosts while young. There are many new improved cultivars now available. For more information visit your local garden centre.

Photo: Andrew Smith, Warners Nurseries



A small, evergreen tree that is one of the most versatile indoor and outdoor foliage plants. It develops a thick, branching trunk reminiscent of an elephant's foot. Mid-greed leaves are leathery and finely toothed. Adaptable to a wide range of climates and conditions and is drought, salt and frost tolerant. This specimen has high architectural appeal.

Photo: Macbird Floraprint



Aquatic Plants

In recent years aquatic plants have become a major invader. The cost of removal and control runs into many millions of dollars. These aquatic plants include Salvinia (Salvinia molesta), Water Hyacinth (Eichornia crassipes) and Cabomba (Cabomba caroliniana). There are many alternative plants which are more suitable for aquaria and garden ponds.



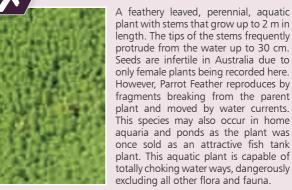


Photo: Terry Inksor

Please note: Do not dump aquatic plants into waterways as they may become invasive.



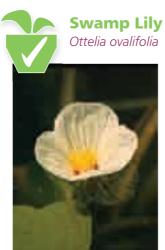
A vigorous native perennial aquatic species with foxtail-like stems held above the water. Plants occur in shallow waters and provide shelter and spawning areas for fish. Thrives in full-sun to light-shade at a depth of 60 cm.

Photo: Glenfield Nursery

Common Nardoo Marsilea drummondii This is a

This is a native, aquatic fern that prefers slow moving or still water. Fronds produce leaflets in the shape of four-leaf clovers and generally float on the water's surface. Attractive foliage and vigorous growth make Common Nardoo an excellent water feature.

Photo: Oz Water Garden



Native to all mainland states and grows in slowly flowing fresh water or the still water of ponds, dams and lagoons. The Swamp Lily may form extensive colonies in nutrient-rich water. The open flowers are the most visible and are white with reddish or purple centres and emerge in the warmer months. Blooms appear regularly and last for less than a day.

Photo: Fagg, M - ANBG

All species are recommended for attracting frogs into the garden.



Gardeners' notes and checklists

Use this page to make notes experts.	s, plant list	ts or questic	ons to ask	gardening







9) Further information and additional resources

There are many areas of information regarding invasive plants and it can become overwhelming! Here are some useful sources of information to help you learn more about invasive plants.

- Your local nursery or garden centre Most employ trained nursery professionals or qualified horticulturists who are knowledgeable in regard to all aspects of plant selection.
- 2. Your local council Have information about plants considered invasive in your local area and some good indigenous alternatives.
- 3. Regional Natural Resource Management Boards Provide information on managing weeds to protect bushland and farms. Visit www.nrm.sa.gov.au for more information.
- **4. State Government -** The Department of Water, Land & Biodiversity has useful information about invasive plants. Visit www.dwlbc.sa.gov.au for more information.
- **5. Australian Government -** Weeds in Australia Website. An excellent website with a good range of information, references, lists, databases and pictures and other resources. Visit www.weeds.gov.au for more information.
- 6. Weeds Australia via the Australian Weeds Committee
 - A national website resource created by the Australian Weeds Committee to promote access to key weed policies, regulations, current issues, national initiatives, research, extension, training and personnel. Visit www.weeds.org.au for more information.
- 7. The Nursery & Garden Industry South Australia (NGISA) 505 Fullarton Road
 NETHERBY SA 5062
 Ph. +61 8 8372 6822 Fax. +61 8 8372 6833

email: gfuller@ngisa.com.au

8. Nursery & Garden Industry Australia - The Nursery & Garden Industry Australia is the national peak body for the nursery and garden industries in Australia. Their website provides useful information on invasive plants. Visit www.ngia.com.au and www. lifeisagarden.com.au for more information.







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