

#### What is a Weed?

Weeds may be either introduced plants, or native plants growing outside their natural range.

A weed is a plant which has, or has the potential to have, a detrimental effect on economic, social or conservation values. (National Weeds Strategy, 1997)

Weeds invade or take over ecosystems and are not in balance with other flora and fauna in that ecosystem.

Many ornamental plants growing in backyard gardens have the potential to become environmental weeds in local bushland.

#### **Characteristics of a Weed**

- The ability to spread by vegetative means (e.g. bulbs, roots or stem fragments);
- Produce seeds in fruit that can be eaten or dispersed by birds (e.g. olives);
- Produce large amounts of seeds which can be dispersed by wind;
- The ability to survive and in some cases thrive in varied and often harsh conditions:
- A history of being a weed in similar climates.

## **Weed Dispersal**

Weeds are often spread by a number of methods:

- Dispersal of seeds by wind, birds, animals or human or vehicle movement;
- Through underground root systems;
- By garden rubbish dumping.

## **Impacts on Bushland**

Weeds can:

- displace native plant species;
- harbour pests and diseases:
- · create fuel loads for fires:
- impact negatively on fauna and flora and their habitats:
- compete with native species for space, water and nutrients.

Planting unsuitable native or exotic species in your garden increases the risk of these plants 'escaping' to bushland areas and negatively impacting upon biodiversity values.

## **Garden Rubbish Dumping**

Dumping of garden waste is one of the main ways that weeds escape from gardens and inhabit bushland and waterways. Always dispose of green waste through green waste collections or at the City's Green Waste Recycling Facility in Wangara.

Disposal of green waste in your weekly green bin collection is discouraged. For more information on green waste collections contact the City on 9400 4940.

## Tips for Managing the Spread of Weeds

- Identify plants in your garden that have the potential to become bushland weeds. Manage weeds to prevent escaping (e.g. cut off flowers to stop seeds spreading) or remove them completely;
- Ensure you dispose of all garden waste correctly (City green waste collections, mulching etc);
- Maintain your property so weeds do not re-establish (apply dense mulch, replant weeded areas with suitable plants);
- For future planting, consider using local, native species where possible;
- Consider joining a Friends Group to participate in bushland restoration and enhance your knowledge of native plant species.

The following weed species have invaded many of the City's natural areas, through escaping backyard gardens or through dumped garden waste. Weed species impact upon local biodiversity. Weed identification can assist in prevention and ongoing management of weed species.

This Guide provides an overview of common and threatening weed species regularly planted in the City of Joondalup.

## **Key for Weed Species**

**Declared** – Legislation under the *Agriculture and Related Resources Protection Act 1976* that requires landholders to control or eradicate the weed when it grows on their land.

**WONS** – Under National Weed Strategy 1997 identified as a Weed of National Significance because of its invasiveness, potential for spread, and economic and environmental impacts.

## **Purchasing and Growing Native Plants**

For a list of alternative plants to grow in your garden see the City of Joondalup publications:

 'Growing Locals' - In Quindalup, Cottesloe, and Karrakatta Soils.

These publications list plants that suit your soil and climatic conditions and don't pose any adverse effects to local bushland.

Native plants can be purchased from many specialist nurseries. For a list of native nurseries in your area visit the Australian Native Plants Society website > Search 'Nurseries'>Western Australia or enquire at your local nursery.

# Additional Resources Books

- Hussey, B, Keighery, G and Dodd, J (2007)
   Western Weeds.
- Brown, K and Sandiford, L (2002) Bushland Weeds: A Practical Guide To Their Management.

#### **Online**

- Department of Agriculture and Food WA www.agric.wa.gov.au > 'Weeds'
- Department of Environment and Conservation www.dec.wa.gov.au > 'Invasive Plants'
- Florabase www.florabase.calm.wa.gov.au/weeds

For more information on weeds in your local area visit the City of Joondalup website.

## **Bulbous Plants**

This group of plants have an underground storage organ, e.g. bulb, corm or tuber, which are the primary means of survival in difficult climatic conditions and for some, a means of reproduction. Management of these plants is difficult and labour intensive due to the need for manual weed removal.



Freesia alba x leichtlinii

Perennial bulb up to 40cm high. Displays cream, white, yellow or purple flowers from winter to spring. Found commonly amongst grasses in bushland or in disturbed areas.



Yellow Soldiers

Lachenalia reflexa

Displays yellow upturned flowers on a short stem close to the ground from winter to spring. Found extensively in bushland areas.



Arum Lily (Declared)

Zantedeschia aethiopica

Engulfs gutters, streams and wetlands through large dispersal of seed. Flowers in spring to early summer. Listed as a Declared Weed in W.A making it illegal to introduce, sell or propagate.

#### **Ornamental Grasses**

Annual or perennial tufted plants, usually grown for lawns and their foliage. Recently, have become popular landscaping plants. Many produce large amounts of windblown seed. Can germinate prolifically after fire or disturbance and usually dry off over summer, leaving a highly flammable fuel load. Lawn clippings often carry grass seed as well as high nutrient levels and should be disposed of in green waste collections or composted for use in your own garden.



Fountain Grass
Pennisetum setaceum

Densely tufted, perennial to 1m tall. Displays moderately dense, erect and spike-like flowers with cylindrical purple flower heads from spring to summer.



Tambookie Grass
Hyparrhenia hirta

Densely tufted perennial to 1.5m tall with pale, greyish/green leaves. Flowers from spring to summer. Found along road verges and in bushland.



Pampas Grass Cortaderia selloana

Large, tufted perennial with leaves up to 1m long, crowded at the base of the plant. Leaves are sharp and easily inflict cuts when handled. Displays silvery or sometimes pink or purple flowers from late summer to autumn. Serious weed of wetlands. Its windblown seeds are capable of dispersing long distances.

## Succulents

Succulents are plants that have the ability to store water in their leaves or stems, enabling them to tolerate long periods of dry weather. Many succulents can grow from discarded leaves or stems, some even producing plantlets on each leaf which can drop and rapidly establish into new plants. Plants such as Agave (Century Plant) can produce secondary shoots from their base or roots making them extremely difficult to remove.



Agave, Century Plant Agave americana

Robust, perennial with giant rosettes of stiff, spine tipped leaves, with many teeth (to 1cm long) along their margins. Flowers once in summer, then dies soon after.



Pig face / Hottentot Fig Carpobrotus edulis

A large, short-lived flat growing perennial up to 6m across with triangular succulent leaves up to 14cm long. The large flowers open yellow and age pink. Found in coastal areas.

# **Daisy Family**

Daisies are generally easy to distinguish from other plants, because of their characteristic inflorescence (group or cluster of flowers arranged on a stem).

Daisies produce a large amount of seed that can be easily dispersed making it such a successful garden escapee.



Gazania

Gazania linearis

Clump forming perennial with upright, linear leaves, dark green with a white undersurface. Displays yellow, orange and red flower heads that may be up to 10cm across. Commonly found on roadsides in coastal areas.



**Veldt Daisy** 

Dimorphotheca ecklonis

Woody perennial with large (8cm) flowers. Large bluish-white or purple petals and blue-purple centres. Displays flowers from winter to spring.



Ragwort (Declared)

Senecio jacobaea

Erect, hairless biennial (blooms in second year) to 1.5m. Displays yellow flower heads in spring to autumn.



Clump forming plants are commonly used for landscaping as border plants.

Plants of this type produce large amounts of seed which are dispersed by wind, water and soil. Also spread by dumping of garden waste into bushland.



Agapanthus

Agapanthus praecox Ssp. orientalis

Stout, perennial that displays a spherical cluster of blue or white flowers on stalks 1-2m high in summer. Commonly found on roadsides and bushland areas.



**Dietes** 

Dietes bicolor Dietes iridioides Dietes grandiflora

Dietes, belonging to the Iris family, are perennial, root spreading, strappy leaved plants that form clumps.

Dietes display white, yellow and mauve flowers on tall stems in spring.



Aquatic plants grow rapidly in waterways. Plants form dense stands in nutrient rich water impeding water flow, harbouring mosquitoes and severely disrupting life of wetland communities.



Parrot's Feather (Declared)

Myriophyllum aquaticum

Aquatic weed with stems up to 2m long, densely covered with leaves of two kinds in coils of four to six. Submerged leaves up to 4cm long. Aerial portion 3.5cm long. Flowers from spring to autumn.



Water Hyacinth (Declared)

Eichornia crassipes

One of the world's worst water weeds. Forms a free floating clump with upright, circular leaves with swollen, spongy leaf bases. Displays lilac and purple flowers. Spreads rapidly and can easily grow from fragments.



# Salvinia (WONS) (Declared)

Salvinia molesta

Perennial, free floating fern and major threat to aquatic habitats. Has eggbeater shaped hairs on upper surface of its leaves. Found on still bodies of fresh or slightly brackish water.

## **Shrubs and Trees**

Shrubs and trees are widely used as ornamental garden features. Seeds are spread by birds and often form dense thickets in bushlands.



Olive Olea europaea

Grows to 15m, cultivated for its oil-rich, edible fruits. The stiff, narrow leaves are white and scaly on the lower surface, but dark green above.

Displays white flowers in spring.

Spread mainly by birds.



Brazilian / Japanese Pepper

Schinus terebinthifolius

Evergreen tree common in older suburbs as street tree and garden specimens. Displays white and cream flowers from summer to autumn. Has escaped from cultivation and forms thickets on disturbed land.



Castor Oil Tree

Ricinus communis

Soft wooded, spreading shrub to 5m tall. Leaves are on stalks 20-60cm long. Large flowers (male are yellow, female are red), with poisonous seeds. Found on road verges, vacant land and wetlands.



These members of the Poaceae family are widely planted as a lawn grass. Can spread rapidly by seed and runners and even small fragments will root if dumped with garden refuse. Grass clippings should be disposed of in green waste collections or composted. Grasses readily invade bushlands and wetlands.



**Kikuyu** *Pennisetum clandestinum* 

Perennial grass up to 15cm high. Displays green flowers from spring to autumn. Prefers moist habitats.



Buffalo

Stenotaphrum secundatum

Flat growing perennial grass up to 50cm high. Displays green or purple flowers from spring to autumn.



Couch

Cynodon dactylon

Flat growing perennial grass up to 30cm high. Displays green or purple flowers from winter to summer.



The trees and shrubs from the Acacia family are fast growing colonising plants which outcompete native species following a disturbance event such as fire. Eastern States Wattles usually have an abundance of small yellow or orange flowers.



Sydney Golden Wattle

Acacia longifolia

Dense, bushy shrub or small tree to 10m with dark grey bark. The cylindrical, yellow flower spikes grow individually or in pairs. Grows commonly on roadsides and bushland.



Cootamundra Wattle

Acacia baileyana

Large, bushy shrub or small tree to 10m, with smooth, brown bark and silvery or blue-grey leaves to 5cm long. Displays round sprays of golden yellow flowers. Commonly found along roadsides.



Flinders Range Wattle

Acacia iteaphylla

Dense shrub to 4m. Displays greengrey narrow leaves to 14cms with a slightly curved tip. Flower heads are round, lemon-yellow, in small sprays.



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