

WEEDS

of the
GLENELG HOPKINS CATCHMENT

3RD EDITION



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Glenelg Hopkins



C M A



Department of
Primary Industries

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Blood K. 2001. Environmental Weeds, A Field guide for SE Australia

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Introduction

Weeds cost the community millions of dollars each year in lost productivity and have a significant impact on the natural environment. In Victoria, there are over one hundred declared noxious weeds proclaimed under the *Catchment and Land Protection Act 1994*. These weeds are classified under four categories: State Prohibited, Regionally Prohibited, Regionally Controlled and Restricted. The responsibility for management of declared noxious weeds varies for each category.

In addition to declared noxious weeds, there are numerous other weed species that impact on the agricultural and environmental values of the Glenelg Hopkins catchment. The Glenelg Hopkins Catchment Management Authority in partnership with the Department of Primary Industries coordinate a range of weed management programs across the catchment in an effort to minimise weed impacts.

All land managers have a responsibility to manage weeds on their land, irrespective of whether the land is public or private land. As a land manager, it is important to be able to identify weeds that may pose a threat to your land or neighbouring land. Early identification will enable you to implement management plans that prevent weed establishment or spread. The purpose of Weeds of the Glenelg Hopkins Catchment is to provide all land managers, public and private, with a locally relevant field guide that will assist in the identification and management of environmental and agricultural weeds in the Glenelg Hopkins region. For additional copies of this booklet or further information contact:

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The Glenelg Hopkins Catchment



Legislative Requirements

In Victoria, Declared Noxious Weeds are classified as State Prohibited, Regionally Prohibited, Regionally Controlled and Restricted.

State Prohibited Weeds

State Prohibited Weeds either (a) do not yet occur in Victoria but pose a significant threat if they were to invade, or (b) are present, pose a significant threat and it is reasonable to expect that they can be eradicated from the State. **State Prohibited Weeds are the highest category for action under the *Catchment and Land Protection Act 1994*.** There are currently 25 species declared under this category in Victoria. Control of State Prohibited Weeds is the responsibility of DPI wherever they occur across the State.

If you find a State Prohibited Weed please report it to your local Department of Primary Industries Weed Alert Contact Officer via the Customer Service Centre on 136186.

Regionally Prohibited Weeds

Regionally Prohibited Weeds are not widely distributed across the region but are capable of spreading further. It is reasonable to expect that these weeds can be eradicated from the region.

Control is the responsibility of both public and private land managers on land that they are responsible for.

Regionally Controlled Weeds

Regionally Controlled Weeds exist in the region and are usually widespread. Continued control measures are required to prevent further spread to new areas. Control is the responsibility of both public and private land managers on land that they are responsible for.

Restricted Weeds

Restricted weeds seriously threaten primary production, Crown Land, the environment or community health in another State or Territory and have the potential to spread into and within Victoria. If sold or traded in Victoria there would be an unacceptable risk of it spreading within

Victoria and to other States and Territories. There is no requirement for land managers to control restricted weeds on their property. However, they cannot be traded or transported within Victoria.

Undeclared Weeds

These weeds are not classified under the *Catchment and Land Protection Act 1994*, but are recognised as a serious threat to agriculture and the environment.

Environmental Weeds

An environmental weed is a non-indigenous plant species that has invaded (or has the potential to invade) natural ecosystems and threaten (or has the potential to threaten) environmental and/or conservation assets (e.g. reduce biodiversity). They are capable of invading native plant communities and out-competing native species - resulting in a reduction of plant diversity and loss of habitat for native fauna for example "Willow trees along streamside's and waterways can eliminate native vegetation, change water flows, increase bank erosion, and destroy habitat for native species". It may include some Australian native plants not indigenous to a given area. Environmental weeds can be declared as noxious weeds (under schedules in the *Catchment and Land Protection Act 1994*) but many are not declared and hence are defined here separately.

Weeds of National Significance

In order to implement the National Weeds Strategy, 20 weeds of National Significance have been identified and require coordinated action across all States and Territories to reduce their impact on Australia's productive capacity and natural ecosystems. The weeds were determined according to their:

- invasiveness
- impact
- potential to spread; and
- socio economic and environmental values.

How to use this Booklet

The shaded months in this calendar are a guide to indicate the optimum treatment time for each weed in an average year. Treatment times may vary slightly due to topography and local seasonal conditions.



The chart above indicates the optimal treatment times are May, June, July and August, depending on seasonal conditions.



Indicates that the weed is a perennial (growing cycle lasts for more than two seasons).



Indicates that the weed is an annual (growing cycle lasts one year).

The weeds in this booklet are divided into two sections with each page containing a photograph and a botanical description of the weed. The classification of the weed under the *Catchment and Land Protection Act 1994* is listed at the top of each page. A description of these classifications is included on pages 4 and 5.

Pages shaded **ORANGE** in this booklet identify State Prohibited weeds and pages shaded **YELLOW** in this booklet identify Regionally Prohibited weeds.

Pages shaded **DARK GREEN** in this booklet identify Regionally controlled, **LIME GREEN** identifies Restricted and **PURPLE** identifies Environmental weeds these are all considered to pose a threat to agriculture and the natural environment within the catchment.

This is not the full list of weed species found within the Glenelg Hopkins region. For a complete list of weeds please visit the Department of Primary Industries web page: www.dpi.vic.gov.au

Note: A review of Victoria's declared noxious weeds is currently being undertaken and as a consequence the weed classifications described in this booklet may change.

How weeds spread

Weeds may be spread by many or all of the ways represented below. For the purposes of this booklet, only the most significant methods of spread have been indicated for each weed.



Seed or plant pieces spread in farm produce such as grain and fodder



Movement of seed or plant pieces in contaminated soil



Seed eaten or carried by birds and animals



Seed eaten by waterfowl



Seed or plant pieces carried by water



Seed blown by wind



Plant pieces spread by boat



Seed eaten by stock



Seed or plant pieces carried on equipment, vehicles and machinery



Seed or plant pieces spread by cultivation



Seed spread by slashing or mowing

Control Options

Weeds may be controlled by many or all of the ways represented below. For the purposes of this booklet, only the most common methods of control have been indicated for each weed.



Spot spray foliage with appropriate herbicide*



Cut and Paint with appropriate herbicide*



Mechanical removal



Hand weeding



DPI responsible for control



Cultivation prior to flowering

* There are restrictions on the use of some chemicals within the Glenelg Hopkins Catchment. When using herbicides consult an agronomist or rural merchandise store for advice on the appropriate herbicide for your situation and use in accordance with the manufacturer's label.

African Boxthorn

Lycium ferocissimum

(African Boxthorn)



Description: An erect spiny shrub to 5 m tall with spreading branches.

Flowers: White with some purple markings, appearing mainly in Summer but also at other times. 1 cm in diameter and containing of 5 petals. Occurring singly or in pairs. Appears from June to October.

Leaves: Oval, glossy green and appearing in clusters. 3.5 cm long and fleshy when plant is active and shed when the conditions are unfavourable.

Stems: Erect, woody, much branched, bearing spines of up to 15 cm along and at the end of branches.

Fruit: Drooping on short stems and 1 cm in diameter. Green to red when mature. Contains many small seeds.

Note: Forms dense, impenetrable thickets, restricting stock and human access to water, tracks and fences etc. Spikes can cause injury and puncture car tyres. Harbours pest animals.

Similar Native Species: Could be confused with the Australian Boxthorn, *Lycium australe*, though flower differs slightly, and thorns are positioned between nodes, rather than on nodes, as *L. ferocissimum*.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

African Feather Grass

Pennisetum macrourum



Description: An erect grass between 1 and 2m tall.

Flowers: Erect spike-like flower head, purplish yellow to brown, occurring at the end of the stems. Flower spikes are 10 to 30cm long and 1-2cm diameter. They contain many small florets surrounded by hairy bristles. Flowers in summer.

Leaves: Light green on top and darker underneath. Up to 1.2m long and 1cm wide with clear ribs. Sometimes curled at the edges with purple fringes and tips.

Stems: Erect, rounded and unbranched with several emerging from one crown.

Note: Spreads readily from seed and root growth. Tough, unpalatable and grows in dense patches.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Alligator Weed

Alternanthera philoxeroides



Description: Generally aquatic but can be terrestrial. May form a free-floating mat or be rooted with surface growth.

Flowers: Silver/white flower heads 1.2-1.4 cm diameter on 2-7cm stems growing from leaf axils. Flowers generally produced from January to March.

Leaves: Dark green, smooth and waxy. 2-7 cm long and tapering at the tip. Growing in opposite pairs along the main stem with veins clearly visible.

Stems: 10-70cm long, yellow to dark green and often branched. Usually hollow and forming large dense mats.

Note: Highly invasive and destructive weed. Chokes waterways, depletes oxygen and collects sediment. **Weed of National Significance.**

Similar Native Species: Could be confused with knotweeds (*Persicaria* spp.) when immature and without flowers. Also confused with other, less invasive, introduced *Alternanthera* species, such as Mukunu Wenna (*A. sessilis*), used in some Asian cooking. It is unlikely to be confused with the native species, *A. denticulata*.



CONTROL OPTIONS



VECTOR OF SPREAD

Regionally Prohibited Weed

Amsinckia

Amsinckia spp.

(Yellow Burr Weed, Buckthorn, Tar Weed, Yellow Gromwell)



Description: An erect herb between 20-70 cm tall.

Flowers: Bright yellow to orange in small 5 petal trumpets. Usually grouped in a curved spike 5-15 cm long. Flowers appear between July and October.

Leaves: Up to 20 cm long and covered in hairy bristles. Rosette and base leaves occur on short stalks, upper leaves clasp the stem.

Stems: Erect and sometimes branched. Covered with hairy bristles.

Note: Highly competitive and a prolific seeder which can significantly reduce cereal crop yields.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Apple of Sodom

Solanum linnaeanum



Description: A purple flowering erect and spiny spreading shrub, to 1.5m high, reproducing by seed, from berries.

Stems: Green, purple or brown, erect to 2m long, irregularly branched; with numerous straight or slightly curved prickles, with minute stellate hairs.

Leaves: Alternate, oblong to oval, deeply lobed; armed with prickles along leaf stalks and on upper and lower sides of leaf veins.

Flowers: Purple or paler to almost white, about 2.5cm diameter. 5 petals, fused, produced singly or in small clusters.

Fruit: A globular berry, green with white mottling at first, yellow when ripe, diameter, bitter, poisonous.

Roots: Stout woody taproot with prominent crown.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Artichoke Thistle

Cynara cardunculus

(Wild Artichoke, Cardoon)



Description: A spiky erect herb to 2 m tall.

Flowers: Purple to blue in 7-13 cm heads at the end of stems. Surrounded by stiff spines. Flowers during Summer.

Leaves: Grey-green and tending towards white underneath due to a thick covering of fine hairs. Base leaves up to 90 cm long but shorter towards the top. Deeply toothed with each tooth ending with a sharp spine.

Stems: Erect, strongly ribbed and covered in hairs. Up to 2 m tall and usually 1-8 stems per plant.

Note: Will generally colonise waste areas and weaker pastures. Spread mainly by seed.

Similar Native Species: Unlikely to be confused with native species.



Bathurst Burr

Xanthium spinosum



Description: An erect herb with many branches, usually 30-60 cm tall. Can exceed 1 m tall in favourable conditions.

Flowers: Inconspicuous creamy green flowers formed at the end of stems and at leaf nodes during Summer.

Leaves: Shiny dark green above and pale green and downy underneath. Leaves are alternate and clasp the stem. Prominent central vein.

Stems: Greenish yellow and covered in fine hairs. Sharp golden spikes to 2.5 cm shoot from the base of leaves.

Fruit: Brown/straw coloured burr, 1-1.5 cm long. Covered with small hooks. Usually single along stem.

Note: Burrs are one of the worst causes of vegetable contamination in wool. Competes with desirable plants and has vicious spikes, which cause damage to the feet of stock and severe discomfort to people when handling wool.

Similar Native Species: Unlikely to be confused with native species.



CONTROL OPTIONS



VECTOR OF SPREAD

Restricted Weed

Bindweed

Convolvulus arvensis

(Field Bindweed, Morning Glory)



Description: A twinning herb that grows along the ground.

Flowers: White to dark pink, funnel shaped and up to 3 cm in diameter. Occurring on stems shooting from leaf axils up to four at a time. Each flower only lasts one day and they appear between Spring to early Autumn.

Leaves: Alternate and arrow shaped on short stalks, dark green and generally between 2-5 cm long.

Stems: Prostrate or climbing and growing up to 2 m long. Sometimes has short hairs and tends to spiral towards the tips.

Note: Strong competitor in cropping situations where its extensive root system robs desirable plants of moisture. Spreads from seed and root pieces. Similar in appearance to native Bindweed's, although generally much larger.

Similar Native Species: Could be confused with native Bindweed *Convolvulus erubescens*.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Black Knapweed

Centaurea nigra

(Common Knapweed, Knapweed, Lesser Knapweed, Spanish Buttons)



Description: An erect herb growing to 1m tall and spreading by creeping lateral roots.

Flowers: Reddish-purple flowers with forked outer petals. 3-4 cm in diameter occurring singly at the end of branches from December to February.

Leaves: Grey/green to green, hairy and oblong shaped. Lower leaves can be toothed or smooth edged and up to 25 cm long. Upper leaves are much smaller and clasp stem.

Stems: Erect up to 1 m. Ridged, hairy and rough to touch. Initially green but turning purple when mature.

Note: Prohibits the germination and growth of desirable species and is not grazed by stock.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Blackberry

Rubus fruticosus spp. agg.
(Bramble)



Description: An erect woody bush with scrambling and prickly stems (canes).

Flowers: White to pink flowers with 5 petals form in clusters at the end of branches. Flowers from December to February.

Leaves: Oval, dark glossy green on the upper side and lighter underneath with fine hairs. Edges lightly serrated. Leaves shed in winter.

Stems: Erect or sprawling canes up to 7 m long. Green to reddish purple and covered in curved thorns.

Fruit: Produced from December - March. Initially hard green cluster of berry segments turning to red then black on ripening.

Note: Invades natural watercourses as well as agricultural land. Inhibits natural regeneration and reduces agricultural productivity. **Weed of National Significance.**

Similar Native Species: Could be confused with native *Rubus* species, such as the Small-leaf Bramble, *Rubus parvifolius*.



CONTROL OPTIONS



VECTOR OF SPREAD

Blue Periwinkle

Vinca major

(Greater Periwinkle, Periwinkle, Sorcerer's Violet, Vinca)



Description: Blue flowering creeper, able to form large dense mats and will smother all competition. Poisonous to cattle, sheep and horses if eaten.

Stems: Woody at the base, tough, rooting at nodes and contain a milky latex sap.

Flowers: Solitary in leaf axis, petal tube 13-18mm long, lobes 5. Squared at ends, blue/mauve, petals twisted anti-clockwise.

Leaves: Opposite, broad, margins with hairs, both surfaces virtually hairless and glossy.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Boneseed and Bitou Bush

Chrysanthemoides monilifera



Boneseed

Erect, much branched shrub or small tree to 6 m high, commonly 1 to 3 m.

- Flowers - present July -December, yellow, 4 to 8 (commonly 5 or 6) ray florets (petals).
- Leaves - teardrop-shaped, 2-8 cm long, margins irregularly toothed blades thin.
- Stems - branching above ground level.
- Fruit - globular, 6 to 8 mm diameter, light brown when dry; seed usually falling in January or February.

Bitou Bush

Sprawling shrub, 2 to 3 m high but often taller if supported by other vegetation, 2 to 6 m wide.

- Flowers - most of the year, yellow, 11 to 13 ray florets.
- Leaves - fleshy, broadly obovate, 3 to 6 cm long, margins usually entire (sometimes slightly toothed).
- Stems - crown at or below ground level, stems spreading horizontally before ascending.
- Fruit - egg shaped, 5-6 mm long, dark brown to black when dry; seed fall is greatest between June and September.

Note: *Weeds of National Significance.*



CONTROL OPTIONS

VECTOR OF SPREAD

Branched Broomrape

Orobanche ramosa



Description: An upright, fleshy weed lacking green parts (no chlorophyll), parasitising the roots of many broadleaf plants. Often densely hairy with minute glandular hairs 0.2-0.7 mm long, particularly on the flowers and upper parts of the stems, but sometimes almost hairless.

Flowers: Purple, numerous; arranged along upright spikes up to 15 cm long that terminate the branched stems; with a lance shaped bract beneath the flower which is about one third the length of the flower.

Leaves: Few triangular dark brown or purplish scales, arranged alternately on the stem, sparse, mainly near the base of the plant.

Stems: Erect, 5 to 30 cm high (commonly under 20 cm), single or many, irregularly curved, slender, often much branched from just above ground level, brown or straw-yellow in colour.

Fruits: A capsule with one compartment containing the seeds; enclosed by the persistent sepals and petal tube.

Roots: Thick, fleshy, short; attached to the host plant.

Similar native species: Two other *Orobanche* species occur in Australia. Colour and hairiness of the petal tube, along with the shape of lateral calyx segment are important in separating these species. Unlike branched broomrape they have a split (fully divided) calyx (i.e. sepals that are separate rather than joined), a stout petal tube and lack bracteoles.

J F M A M J J A S O N D



CONTROL OPTIONS

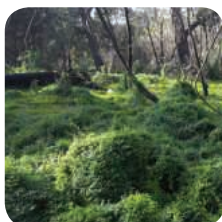


VECTOR OF SPREAD

Bridal Creeper

Asparagus asparagoides

(African Asparagus Fern, Bridal Veil Creeper, Similax)



Description: A climbing herb with an extensive tuberous root system.

Flowers: Greenish-white, 8-9 mm in diameter and appearing in leaf axils between August and September.

Fruit: A round berry 6-10 mm in diameter. Green, turning red and sticky when mature.

Leaves: Oval, glossy green and alternate with pointed tips. Usually 1-4 cm long and 0.5-1.5 cm wide.

Stems: Slender, twining and up to 3 m long.

Note: Highly competitive and invasive in natural bushland and orchards. Climbs on and chokes understorey species. Often spread by the careless disposal of garden waste. **Weed of National Significance.**

Similar Native Species: Unlikely to be confused with native species.



CONTROL OPTIONS

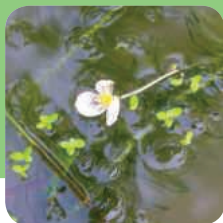


VECTOR OF SPREAD

Cabomba

Cabomba caroliniana

(Fanwort)



Description: Mostly a submersed aquatic herb. Usually rooted but sometimes free-floating in mats.

Flowers: White or cream, sometimes with a pink tinge at the end and 2 yellow spots at the base of each petal. 2 cm in diameter and consisting of 3 petals on short stalks. Appearing between November and March.

Leaves: Submerged leaves opposite or in whorls. Finely divided into many segments that form a fan shape approximately 3 cm long. Surface leaves narrow, 2 cm long and sometimes forked at the tip.

Stems: Slender, branched to 2 m long and covered in a thin mucilaginous (slimy) coating.

Note: Popular aquarium plant. Spreads easily from stem fragments and can restrict water flows. **Weed of National Significance.**

Similar Native Species: Could be confused with Hornwort (*Ceratophyllum demersum*), though Hornwort has a stiffer texture.

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CONTROL OPTIONS



VECTOR OF SPREAD

Californian Thistle

Cirsium arvense

(Perennial Thistle, Canada Thistle)



Description: An erect perennial up to 1.5m tall reproducing from seed and creeping roots.

Flowers: 2-2.5cm long and 1.5 to 2.5cm diameter. Pink to purple in 1-5 heads at the end of branches. Flowering occurs in Dec-Jan.

Leaves: Rosette and lower leaves to 20cm long, deeply toothed and hairy or woolly. Stem leaves alternate and joined to stem. Leaf edges carry sharp spines.

Stems: Erect, ridged and branched near top. Fleshy and slightly hairy.

Note: Extensive creeping root system and release of chemicals into soil inhibits the establishment and growth of desirable plants.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Caltrop

Tribulus terrestris

(Bindii, Cats Head, Goats Head, Yellow Vine)



Description: A prostrate Summer growing annual.

Flowers: Yellow, 8-15 mm in diameter with 5 petals.
Growing from leaf axils in early Summer through to Autumn.

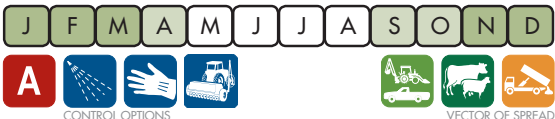
Leaves: Darker on top and slightly hairy underneath. Each leaf consists of 4-8 pairs of small leaflets 5-12 mm long.

Stems: Numerous green to reddish-brown stems radiating from a central crown. Up to 2 m long and sometimes slightly erect when competing for space or light.

Fruit: A woody burr with sharp rigid spines up to 6 mm long, splitting into 5 segments when mature.

Note: Caltrop burrs damage the feet of animals and are a painful nuisance to people, especially on playing fields, walkways and around buildings.

Similar Native Species: Unlikely to be confused with native species.



Camelthorn

Alhagi maurorum

(Camel Thorn Bush, Caspian Manna)



Description: An erect spiny shrub to 1.5 m tall.

Flowers: Red/brown pea like flowers, 7-10 cm long, produced in clusters of up to 8 on short branches and along spikes. Flowering occurs from late Spring to Summer.

Leaves: Up to 2.5 cm long, pale green and usually solitary at the base of spines.

Stems: Rigid and much branched bearing 1-2.5 cm spines with fine golden tips.

Fruit: A reddish brown pod 2.5 cm long containing 1-5 well-defined seeds.

Note: A hardy and vigorous plant with an extensive root system.

Similar Native Species: Could be confused with native Bitter-pea species including *Daviesia genistifolia*.

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CONTROL OPTIONS



VECTOR OF SPREAD

Cape Broom/Montpellier Broom

Genista monspessulana

(Canary Broom, French Broom, Genista, Montpellier Broom)



Description: An erect shrub to 3 m tall and reproducing by seed.

Flowers: Bright yellow, pea like and about 1.2 cm long. Appearing late winter through spring in clusters of up to 9 in leaf axils and at the end of branches.

Leaves: Shortly stalked and made up of 3 leaflets that are hairy underneath. Middle leaflet longer than others.

Stems: Erect, woody, ridged and finely hairy. One main stem with many branches.

Fruit: Silky black or brown pods containing 5-8 seeds that are ejected on hot days in summer.

Note: Spreads readily through seed ejection. Forms dense stands excluding other vegetation.

Similar Native Species: Unlikely to be confused with native species, though may be confused with other introduced brooms.

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CONTROL OPTIONS



VECTOR OF SPREAD

Cape Ivy

Delairea odorata



Identification: CLIMBER- Dense, perennial, creeping, ground cover or climber, usually found entangling other trees. Very dark green foliage and distinctive leaf shape.

Flowers: Conspicuous clusters of small, unpleasantly scented yellow, daisy-like flower heads. July - September.

Leaves: Fleshy, lush, green, ivy-shaped leaf with 5-7 lobes. Leaves arranged singly on alternate sides of stem and variable in size. Paired kidney shaped blades are present at base of large leaf stalks, but may be absent on older stems. Leaves are often shiny.

Seed: A tiny seed with a crown of hairs which drop off after the seed has dispersed.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Cape Tulip (one leaf/two leaf)

Moraea flaccida and *Moraea miniata*



Description: 30-60 cm tall reproducing from seed and corms.

Flowers: Orange or pink (occasionally yellow) with a yellow throat. 3-5 cm diameter with 6 petals. Appearing in clusters at the end of branches in September-October.

Leaves: Flat, ribbed, 1-2 cm wide and up to 1m long.

Stems: Stiff, erect, somewhat alternate and branched near the top.

Fruit: Green, turning brown when mature. A thin capsule, approx 5 cm long.

Note: Toxic to stock. There are two varieties of Cape Tulip; One leaf and Two leaf. The description and lifecycle for both are very similar except Two leaf Cape Tulip does not produce viable seed and instead develops a cluster of many small corms at the leaf axis and the base of the plant. The flowers are also slightly smaller and the plant produces 2-3 leaves rather than one.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Restricted Weed

Chilean Needle Grass

Nassella neesiana



Description: Tussock grass growing to about 1 m tall.

Flowers: A loose flowering head to 40 cm long. Appears between March and August.

Leaves: Narrow, hairless or sparsely hairy, flat or slightly rolled leaves, up to 30 cm long and 5 mm wide.

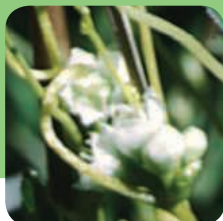
Seed: Raised crown consisting of a sheath with a ridge of small teeth that encircles the base of the awn (long 'tail' of seeds). The awn is 60-90 mm long and bent at two points. The seed is 8-10 mm long, pale brown, warty and usually lacking hairs. The bracts around the seed are purple. Stem seed is also produced at swelling along the stem. The base of the leaves conceals the stem seed.

Note: Invades native grasslands and agricultural land. Is difficult to control selectively. **Weed of National Significance.**

Similar Native Species: Could be confused with a number of native Spear grasses (*Austrostipa* spp).



Dodder

Cuscuta* spp.(Beggar Vine, Golden Dodder)*

Description: Twining parasitic herb that reproduces by seed. Forms dense mats along river banks.

Flowers: White to creamy pink, bell shaped and 4 mm in diameter. Formed in clusters between Spring and Autumn.

Fruit: Globular capsules containing up to 4 tiny brown-grey seeds.

Leaves: Tiny inconspicuous scales.

Stems: Bright yellow to green, thread like and twining with numerous branches. Twists tightly around host plants.

Note: Dodder damages both agricultural and native plants. It has been recorded on over 80 different host plants in Victoria.

Similar Native Species: Native and introduced species of *Cuscuta* spp and *Cassytha* spp occur in Victoria, and these could be confused.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Restricted Weed

English Broom

Cytisus scoparius

(Broom, Common Broom, Scotch Broom, Spanish Broom)



Description: An erect deciduous woody shrub to 3 m tall.

Flowers: Pea like, bright yellow and sometimes with red markings. 2-2.5 cm long occurring singly or in pairs in leaf axis. Flowers occur from October to December.

Leaves: Shortly stalked and occurring singly or in clusters. Each leaf consists of three leaflets except on new growth. Leaflets soft and hairy. Middle leaflet longer than others.

Stems: Green to brown with prominent ridges, erect woody with numerous branches.

Fruit: Brown to black pod to 5cm long containing 6-20 seeds.

Note: Invades bushland, especially after disturbance.

Similar Native Species: Unlikely to be confused with native species, though may be confused with other introduced brooms.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Fennel

Foeniculum vulgare

(Aniseed, Sweet Anise)



Description: An erect herb, 1.5-2.5 m tall.

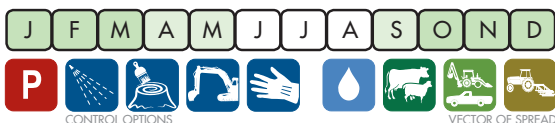
Flowers: Branching from the top of the stem in groups of 15 to 20. Flowers are 2 to 3 mm in diameter and yellow in colour. Appearing in Summer.

Leaves: Stringy and up to 45 cm long. The leaves have a very strong aniseed scent when crushed. Often formed at the base of the plant and break down as the plant becomes mature.

Stems: Smooth with faint ridges and heavily branched with a number of stems emerging from the crown. The stem is also filled with spongy white pith.

Note: Spread easily by soil disturbance through movement of bulbs. Usually found in moist places (e.g. roadsides, channel banks and depressions).

Similar Native Species: Unlikely to be confused with native species.



Restricted Weed

Flax Leaved Broom

Genista linifolia



Description: An erect evergreen shrub to 3m high, commonly 1 to 2.5m, reproducing by seed and Yellow Pea like flowers.

Stems: Brownish green, erect, ridged, young branches densely hairy, usually one main stem at the base, much branched above.

Leaves: Light green: alternate, stalk less, hairy above, densely hairy beneath; consisting of 3 linear-lanceolate leaflets, slender with rolled edges.

Flowers: Bright yellow, pea-like to 1.2cm long shortly stalked, occurring in clusters at the ends of branchlets.

Root: Branched taproot with numerous shallow laterals.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Giant/Japanese Knotweeds

Fallopia spp.



Description: Knotweeds are fast-growing, semi-woody perennials that form dense leafy thickets, flowering in summer with most of the foliage dying back over autumn.

Flowers: Knotweeds flower from December to February. Japanese knotweeds have small, white flowers on slender branched spikes whilst Giant Knotweed has more clustered branches of greenish yellow flowers.

Leaves: Japanese knotweed leaves measure up to 12 cm long and 10 cm wide, often with a truncate base and acuminate (pointed) apex. Giant knotweed leaves can measure 15-40 cm long and 10-25 cm wide, often with a more rounded leaf base and less pointed leaf tip. Hybrid leaves vary in shape and size.

Stems: Hollow, bamboo-like, becoming tough and woody with age; arising at intervals from the rhizomes. New growth may be purplish-red, older growth is often speckled.

Roots: Coarse spreading perennial rhizomes (underground stems) that can reach lengths of up to 20 m and depths of over 1 m.

Fruit: A three-angled papery sheath (10-15 mm long) covers a shiny black - brown 2-3 mm long seed.

Similar native species: Not likely to be confused with any native species.



CONTROL OPTIONS



VECTOR OF SPREAD

Golden Thistle

Scolymus hispanicus

(Spanish Oyster Plant, Spanish Salsify, Sunnariah)



Description: An erect, branched perennial to 90 cm tall.

Flowers: Golden yellow heads 2.5-4 cm in diameter on leaf axils. Heads surrounded by short spines. Appearing between Spring and Summer.

Leaves: Green with light coloured veins and markings. Leaves contain a milky sap. Deeply divided with stout spines on tips. Base of leaves make wings down the stem. Lower leaves to 30 cm long.

Stems: Erect, usually several arising from a single crown. Much branched and covered with fine hairs.

Note: Ferocious spines make dense stands almost impenetrable.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Gorse

Ulex europaeus

(Furze, Golden Gorse)



Description: An erect, much branched shrub to 4 m tall.

Flowers: Bright yellow pea-like flowers 2-2.5 cm long. Found in leaf axils and in clusters at the end of branches. Appearing from July and October and March to May.

Leaves: Dark green, narrow and spiny, 1-2.5 cm long, stalkless and occurring in whorled clusters along the branches.

Stems: Green when young and turning to brown and woody when mature. Ridged and hairy. Covered with spines and bearing short branches with spiny ends.

Note: Introduced as a garden hedge. Prolific seeder and highly invasive. A dense stand can produce 6 million seeds per hectare per year. **Weed of National Significance.**

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Hardheads/Russian Knapweed

Acroptilon repens

(Hardhead Thistle, Creeping Knapweed, Russian Knapweed)



Description: Appearance of a spike-less thistle 40 -100 cm tall.

Flowers: Small, hard, thistle like heads, solitary at the end of branches. Purple, sometimes white, 2.5 cm diameter, appears between November and February.

Leaves: Lance shaped, larger and toothed at base and smaller with edges up the stem. Grey/green with a cover of fine woolly hairs.

Stems: Erect grey/green stems arise from the centre of rosettes and have a covering of fine hair. Branched towards the top.

Note: Hardy, deep-rooted and long living. Can severely reduce crop yields.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Harlequin Flower

Sparaxis bulbifera



Description: A pretty garden plant, perennial herb with above ground parts that die back each year to an underground corm. Plants grow to 65cm and the flowers have numerous colour variations.

Flowers: On few branched stems, funnel shaped, to 4.5cm long. Petals cream to white, outer ones dark red to purple or streaked, tube is pale yellow.

Leaves: From plant base, 5-9 linear sword shaped.

Roots: Bulb or corm, nearly spherical and fibrous.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Hawkweeds

Hieracium spp.



Description: Small pretty orange flowered perennial herb. A hairy herb that grows to 40cm tall and has spreading stolons, it forms large swards, filling inter-tussock spaces necessary for regeneration and survival of indigenous species.

Flowers: A daisy head in tight clusters of 5-30 at the top of each stem, heads about 15 mm diameter. Petals red-orange, purple when dry.

Leaves: Green in rosette at plant base, lance shaped, stalk less, margins smooth or slightly toothed, very hairy, hairs on both surfaces.

Stems: Erect when flowering, 6 – 40 cm tall, with numerous spreading blackish hairs, milky sap.

Roots: Fibrous.

Similar native species: Could be confused with native daisy species.



CONTROL OPTIONS



VECTOR OF SPREAD

Hawthorn

Crataegus monogyna



Description: An erect deciduous shrub to 6 m tall.

Flowers: White, cream or pink, 8-13 mm in diameter and in flat-topped clusters at the end of small branches. Strongly scented and occurring in Spring.

Leaves: Green and varying from oval to triangular. Divided into lobes and generally coarsely serrated.

Stems: Erect and branched with many small branches ending in stout spines. Bark rough at base and smoother towards the top.

Fruit: Clusters of deep red berries 8 mm in diameter.

Note: Provides harbour for pest animals and disease such as Fire Blight.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Hoary Cress

Cardaria draba

(White Weed, Hoary Pepperwort, White Top, Whitlow Pepperwort)



Description: An erect herb 15-75 cm tall.

Flowers: White, 4-6 mm diameter and contains 4 petals. Clustered at the top of the plant. Appearing between September and November.

Leaves: Covered with fine hairs, lower leaves to 10 cm long, common oval or wedge shaped and short stalked. Upper leaves smaller and stem claspings.

Stems: Erect, branched near top, covered with fine downy hairs. Vertically ridged.

Note: Seriously effects crop yields. Difficult to control and spread by seed and root fragments.

Similar Native Species: Could be confused with sweet hounds tongue (*Cynoglossum suavelens*).



CONTROL OPTIONS



VECTOR OF SPREAD

Horehound

Marrubium vulgare

(White Horehound)



Description: An erect bushy herb to 75 cm tall.

Flowers: White, 6-10 mm long, formed in dense rounded clusters surrounding the stem at the nodes. Flowers from Summer through to Autumn.

Leaves: Blue/green with a silvery appearance due to fine hairs on top. Woolly underneath. Crinkled, leathery, and rounded, up to 7 cm in diameter. Edge slightly serrated and veins sunken on the upper surface.

Stems: Woody at the base, covered with dense hairs and branched at the top.

Note: Widespread weed of bushland, roadsides and cropping fringes.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Horsetail

***Equisetum* spp.**

(Field Horsetail, Scouring Rush, Snake Bean, Snake Plant)



Description: Erect, non-flowering herb with ribbed/grooved stems to 80 cm long.

Spores: Pale green to yellowish, produced in cones 1-4 cm long produced at the end of fertile stems.

Leaves: Green, in rings of 6-18 on main stems. Sheath 5-8 mm long with teeth 2-3 mm long.

Stems: 2 types (fertile and sterile), both jointed (She-oak like), ribbed/grooved and hollow to 80 cm long. Fertile stems are often shorter, whitish to brown and appear before sterile stem in early spring. Sterile stems are green and appear in late spring.

Roots: Deep growing (up-to several metres long) with dark brown to black wiry rhizomous roots.

Note: Has the ability to spread by spores, rhizomes and tubers. Potential to spread through the careless disposal of garden waste.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Illyrian Thistle

Onopordum illyricum



Description: An erect annual or biennial to 2m tall, reproducing by seed.

Flowers: Purple flower heads to 8cm diameter appear singly at the end of stems in spring and summer. Surrounding bracts are purple and end in sharp yellow spines.

Leaves: Densely woolly with jagged edges and spines on its margins. Lower leaves to 30cm long and leaf base continues down the stem to form a wing.

Stems: Erect, woolly, whitish, spiny and branched at the top.

Note: Competitive weed in pastures.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Lagarosiphon

Lagarosiphon major

(Oxygen Weed)



Description: A branched fresh water herb that forms tangled mats under the water surface.

Flowers: Inconspicuous, purple, 3 mm across and growing on threads from the leaf axils. Appearing between Spring and early Summer.

Leaves: Stem clasping in tightly grouped spirals at the top and more loosely grouped at the base. Stiff, tapered, 5-20 mm long and curving downwards at the tip.

Stems: Ascending, brittle and branched. Up to 5 m long.

Note: Aggressive weed of reservoirs up to 7 m deep.

Similar Native Species: Could be confused with Hydrilla (*Hydrilla verticillata*). Could also be confused with the introduced *Elodea canadensis*.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Lobed Needle Grass

Nassella charruana



Description: A perennial tussock-forming grass in the spear grass group (Tribe Stipeae) growing to 25-80 cm high with a very distinctive seed with large apical lemma lobes.

Stems: Flowering stems unbranched, up to 1 m high.

Leaves: Basal, 20-50 cm long, 0.7-1 mm wide, rolled inwards, not sharp, not hairy: with a short, membranous ligule (the smallest basal appendage which sheaths the stem on the inner side of the leaf).

Flowers: Occurring on a 10-20 cm length of the upper end of the flowering stem: shiny, not purplish; each floret enclosed by two 14-20 mm long, yellowish white, pointed, 3-5 veined, papery bracts.

Roots: Fibrous.

Similar native species: Could be confused with native *Poa* and *Austrostipa* tussocks.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Mesquite

Prosopis spp.



Description: Six species or subspecies recognised in Australia. Small tree or shrub, between 1-15 m tall.

Flowers: Yellow cylinder shaped flower spikes 5-10 cm long, clusters of 2-5 at the end of branches. Flowers in Summer.

Leaves: Bright green, consisting of 1-3 segments of 6-18 opposite pairs of leaflets. Leaflets are 5-12 mm long.

Stems: Thick and woody with grey-brown or black bark. Older bark is rough and newer growth smooth. Spikes are present on the main stem and on branches above each leaf stalk.

Fruit: Straw coloured seedpods 10-20 cm long, containing up to 20 hard black seeds.

Note: Invasive and aggressive competitors that exclude other vegetation. **Weed of National Significance.**

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Mexican Feather Grass

Nassella tenuissima



Description: A densely tufted perennial tussock grass in the spear-grass group (*Tribe Stipeae*), growing to about 70 cm high; very similar to serrated tussock (*Nassella trichotoma*).

Flowers: A single, bisexual floret per spikelet, surrounded by two persistent glumes that are unequal in size and much longer than the floret (excluding the awn). The lower glume is 9 to 10.5 mm long.

Leaves: Numerous; tightly inrolled so that the edges overlap, thread-like, the outer surface minutely roughened. leaves roll smoothly between the fingers like a needle.

Stems: Culms (flower stems) to 70 cm high, with 2 to 3 unthickened nodes; smooth, hairless and round in cross section. The flower-bearing section of the culm is 15 to 25 cm long and green or purplish in appearance.

Roots: Wiry, fibrous.

Similar native species: Could be confused with native *Poa* tussocks.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Nodding Thistle

Carduus nutans



Description: An erect annual or biennial growing to 1.6m tall.

Flowers: Pink, red, purple or occasionally white. Formed in drooping solitary heads at the end of branches surrounded by stiff spines. 4-8cm diameter and covered in a fine down. Spring and summer.

Leaves: Green, rosette leaves up to 50cm long with spikes around the margins. Pale toothed margins and pale prominent midveins. Stem leaves smaller, deeply toothed, stem clasping with wings running down the stem from leaf base.

Stems: Erect, winged and downy or cobwebby. Branched towards the top.

Note: Forms dense, unpalatable stands. Competes with pastures.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Noogoora Burr/Californian Burr

Xanthium strumarium

(Californian Burr)



Description: Erect up to 2.5 m tall, but usually under 1 m. Can be single stemmed or much branched.

Flowers: Inconspicuous, formed in clusters in leaf axils near branch tips. Flowers late Summer.

Leaves: Green and darker on upper surface. Lower leaves opposite and upper leaves alternate. Similar in shape to a maple or grape and up to 15 cm in diameter. Serrated edge and a rough texture. Prominent red/purple veins and stalks.

Stems: Blotched with purple and covered in short, coarse hairs.

Fruit: A hard, woolly, oval shaped burr with numerous spines and 2 prominent beaks on the end. In clusters of 2-13.

Note: A contaminant of wool.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Onion Weed

Asphodelus fistulosus

(Wild Onion)



Description: An erect, annual, biennial or perennial herb up to 75cm tall.

Flowers: White or pink, 1.5-2cm diameter with 6 petals, each with a brown/red stripe down the centre. Flowers appear spring and summer.

Leaves: Tubular, 50cm long and all emerging from the base. Leaves are many and much shorter than the flower stems.

Stems: Rigid, hollow and smooth, branched towards the top.

Note: Invades disturbed areas such as overgrazed or graded areas. Generally biennial but can be annual or short lived perennial.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D

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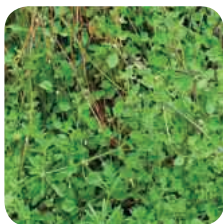
CONTROL OPTIONS



VECTOR OF SPREAD

Pampas Lily of the Valley

Salpichroa organifolia



Description: A semi erect – prostrate perennial herb with trailing stems, reproducing from roots and seed. Small pretty bell shaped flowers all year round.

Stems: Numerous, arising from a perennial rootstock, becoming prostrate and sprawling to 3m long, densely haired.

Leaves: Produced singly or in pairs at the nodes, each pair unequal in size, ovate, 5 to 40mm long. Leaf stalks same length at the leaf, hairy.

Flowers: White or cream, 6 to 8mm long. Tubular but constricted at the top, bell shaped, nodding, stalk about the same length as the flower. Formed singly or in pairs at the leaf axis.

Fruit: A yellow berry when ripe.

Root: Thick, woody, extensive, mostly horizontal to 1m deep.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Parthenium Weed

Parthenium hysterophorus



Description: A branched, pale green, erect herb to 150 cm tall.

Flowers: Flower heads creamy white, 4-10 mm diameter, found in clusters at the top of branches between January and June, depending on conditions.

Leaves: Deeply divided and covered in soft white hairs. Pale green and alternate. Base leaves to 20 cm and stem leaves smaller, all with many segments.

Stems: Erect, branched in the upper half and hairy with vertical grooves.

Note: A prolific seeder and aggressive coloniser producing 15,000 seeds per plant per year. Can cause health problems such as dermatitis and asthma in some people. **Weed of National Significance.**

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Paterson's Curse/Viper's Bugloss

Echium plantagineum

(Salvation Jane, Riverina Bluebell)



Description: Erect, up to 1.2 m tall and covered with coarse hair.

Flowers: Purple (sometimes white or pink), trumpet shaped and 2-3 cm long. Occurring between August and December in curved clusters at the end of branches.

Leaves: Rosette and base leaves broad, paddle-shaped and up to 25 cm long with prominent veins. Stem leaves smaller and clasping stem.

Stems: Usually several rising from the base. Covered with hairy bristles.

Note: Can dominate grazing land and annual pastures. Toxic to some stock in large quantities.

Similar Native Species: Could be confused with Austral bugle (*Ajuga australis*).

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

State Prohibited Weed

Perennial Ragweed

Ambrosia psilostachya



Description: An erect robust perennial from 30-150cm tall, forming dense colonies.

Flowers: Cream to pale-greenish, grouped in short stalked heads on flower spikes at the top of stems. Flowers from mid-summer to early autumn.

Leaves: Grey-green, hairy on short stalks. 5-12cm long, deeply toothed. Lower leaves opposite, upper leaves alternate.

Stems: Hairy, longitudinal markings, tending to be woody at the base. Branched in the upper half.

Note: Causes severe allergic reactions in some people. Strongly competitive with desirable crops and pasture.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Poverty Weed

Iva axillaris



Description: An erect perennial to 40cm tall, reproducing from creeping roots and seeds.

Flowers: Small greenish yellow heads 5-7mm on short drooping stalks in upper leaf axils.

Leaves: Grey-green, hairy, stem clasping and up to 3cm long. Lower leaves opposite, upper leaves alternate and smaller. Emits a strong herbal odour when crushed.

Stems: Erect, can be hairy or smooth, branched mostly near the base.

Note: Extensive root system. Very competitive in cereal cropping situations.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Prairie Ground Cherry

Physalis viscosa

(Cape Gooseberry, Tomato Weed, Chinese Lantern)



Description: An erect perennial growing up to 60 cm tall.

Flowers: Yellow, bell shaped, 2-3 cm in diameter. Made up of 5 petals. Produced in Summer on short stalks from upper leaf axils.

Leaves: Light green, lance shaped with wavy margins. Fine hairs on edges and veins. 4-6 cm long and up to 4 cm wide.

Stems: Branched, spreading, vertically ribbed with very short hairs.

Fruit: An orange berry when ripe, enclosed in a bladder or Chinese lantern like case approx. 2-2.5 cm diameter.

Note: Deep rooted and difficult to control.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Prickly Pear (Drooping/Erect)

Opuntia monacantha

(gazetted as *O. vulgaris*)



Description: There are 14 species of *Opuntia* cactus naturalised in Victoria. Erect prickly pear is a spreading to erect succulent plant up to 2 m high, lacking or having only a poorly developed trunk; reproducing by seed and from branch segments.

Stems: Bluish-green to dull green, paddle shaped, fleshy segments (called cladodes). Mature cladodes at the ends of branches are 15 to 30 cm long, 7 to 15 cm wide and 1 to 2 cm thick. The cladodes have small cavities or depressions (called areoles). The areoles bear tufts of short, barbed bristles and occasionally, on the margins of the cladodes, bear 1 or 2 yellow to brown spines.

Leaves: Small and scale-like, produced at the base of young segments; shed as the segments mature.

Flowers: 5 to 6.5 cm diameter, petals lemon-yellow, borne on a fleshy base on the edge of the cladodes.

Fruit: Reddish-purple when ripe, pear shaped, juicy, 4 to 6 cm long, 2.5 to 4 cm diameter, bearing tufts of barbed bristles. Deciduous when ripe.

Seeds: Yellow or pale-brown, rounded, 5 mm diameter, found in the centre of the fruit.

Roots: Shallow and fibrous.

Similar Native Species: Unlikely to be confused with native species.



CONTROL OPTIONS



VECTOR OF SPREAD

Ragwort

Senecio jacobaea

(St James Wort, Tansy Ragwort)



Description: Shortlived, can flower twice a year producing 250,000 seeds from a mature plant.

Flowers: Bright yellow in colour. In large clusters at the end of the branches. Each flower head is 2.5 cm in diameter with 12-15 petals surrounding it.

Leaves: Can range from dark green with few hairs to pale green, with a downy appearance. Rosette leaves can grow up to 35 cm long. Stem leaves shorter and more wrinkled.

Stems: Can grow either single or several stems from the crown. Branched at the top of the stem. Purple or reddish at the base near the crown.

Note: Causes death in stock due to liver damage. Seeds can remain viable for 8-16 years.

Similar Native Species: Could be confused with native *Senecio* species.



CONTROL OPTIONS



VECTOR OF SPREAD

Saffron Thistle

Carthamus lanatus

(False Star Thistle, Woolly Safflower, Distaff Thistle)



Description: Erect, spiny, up to 1 m tall.

Flowers: Yellow or cream with faint red or black lines. Solitary heads at the end of branches and surrounded by sharp spiky bracts. Occurring between November and December.

Leaves: Lower leaves deeply toothed, 20 cm long and stem clasping. Stem leaves alternate and stiff with vicious spikes. Prominently veined and sometimes downy on upper surface.

Stems: Straw coloured, rigid and ribbed. Single stem branched at the top.

Note: Contributes to contamination of wool.

Similar Native Species: Unlikely to be confused with native species.



Salvinia

Salvinia molesta

(Giant Salvinia, Water Fern)



Description: A floating mat-forming aquatic fern, with slender branching rhizomes occurring just below the water surface.

Leaves: Submerged brown leaves, deeply divided on stalks, ending in hairy root-like filaments. Emergent green, oval, smooth edged and short stalked leaves. In pairs 1-5 cm wide. Top of leaves are covered with fine waxy hairs that make it water repellent.

Stems: Slender, jointed and branched to 30 cm long.

Note: Forms dense mats that restricts water flow, hinders recreational use and reduces oxygen. Reproduces entirely by vegetative growth. **Weed of National Significance.**

Similar Native Species: Not likely to be confused with native species, though from a distance an infestation covering a pond may look like Azolla.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Scotch/Heraldic Thistle

Onopordum acanthium



Description: An erect annual or biennial herb, commonly 1 to 1.2 m high but up to 2m, reproducing by seed. Seed can germinate at any time of the year, however there are two main germination times, late summer to autumn and late winter to spring.

Flowers: Purple or mauve, in heads surrounded by numerous spiny bracts (modified leaves at the base of flower). Heads 2 to 6 cm in diameter, solitary or in groups towards the ends of the branches. Bracts are woolly at the base and end in orange spines. Flowers are produced in late spring and summer.

Leaves: Margins cut or toothed, spiny and undulating. Dense, white woolly hairs on undersides, sometimes sparser on upper sides. Rosette leaves up to 40 cm long, stalked. Stem leaves smaller and without stalks, extending into wings along the stems.

Stems: Generally one main stem with numerous branches, covered with dense woolly hairs giving a whitish appearance, and broad spiny wings

Roots: Taproot.

Similar Native Species: Unlikely to be confused with native species.



CONTROL OPTIONS



VECTOR OF SPREAD

Serrated Tussock

Nassella trichotoma

(*Nassella* Tussock, Yass River Tussock)



Description: Tussock grass up to 50 cm tall and 25 cm wide at base.

Flowers: Tiny, inconspicuous and found at the end of open branched panicles (flower heads) up to 35 cm long. Originally purple and turning straw coloured. Flowers in Summer.

Leaves: Many, tightly rolled, up to 50 cm long and emerging from the base. Finely serrated, green but becoming bleached as they mature.

Stems: Up to 1 m, erect but becoming droopy. Flower heads bear at the end of stems.

Note: Unpalatable, invasive and a prolific seeder (approx. 100,000 seeds per plant). **Weed of National Significance.**

Similar Native Species: Could be confused with native Spear grasses (*Austrastipa* spp.).



Silverleaf Nightshade

Solanum elaeagnifolium

(White Horsenettle, Bitter Apple)



Description: Erect, Summer growing herb, from 30-80 cm tall.

Flowers: Purple, occasionally white, to 3.5 cm diameter. 5 fused petals with 5 prominent yellow anthers. Occurring in late Spring-Summer.

Leaves: Silvery green due to dense covering of hairs. Lance shaped, to 15 cm long, with wavy margins and prickles along underside veins.

Stems: Erect, much branched and covered in fine hairs and numerous fine red prickles.

Fruit: Smooth, round berries, which start out green with darker markings and turn orange on maturing.

Note: Deep rooted and very hardy weed of Summer crops and pastures.

Similar Native Species: Could be confused with native *Solanum* species including Quena *S. esuriale*.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Skeleton Weed

Chondrilla juncea



Description: An erect, much branched perennial herb to 1.25m tall, commonly 60 to 90cm, reproducing from a long taproot and by seed.

Stems: Dense downward pointing bristles at the base, otherwise glabrous except for a few stout hairs, wiry ribbed, much branched.

Leaves: Often with purple pigmentation, glabrous, rosette leaves to 20 cm long. Deeply lobed with the tips of the lobes always pointing to the base of the leaf.

Flowers: Florets yellow, petals strap like, toothed at summit and white streaked beneath.

Roots: Long and thin to a depth of 3m or more.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS

VECTOR OF SPREAD

Slender/Shore Thistle

Carduus tenuiflorus and *C. pycnocephalus*

(Italian Thistle, Plymouth Thistle, Sheep Thistle, Winged Slender Thistle)



Description: Erect annual plant, with spiny leaves and stems and has a stout taproot.

Flowers: Slender pink or purple flower heads surrounded by rows of spines. Usually in groups of 2 or 3. Appears between March and September.

Leaves: Rosette leaves are slightly woolly, particularly on lower surface.

Stems: Spiny green stems, branched and may have single or multiple stems from the base.

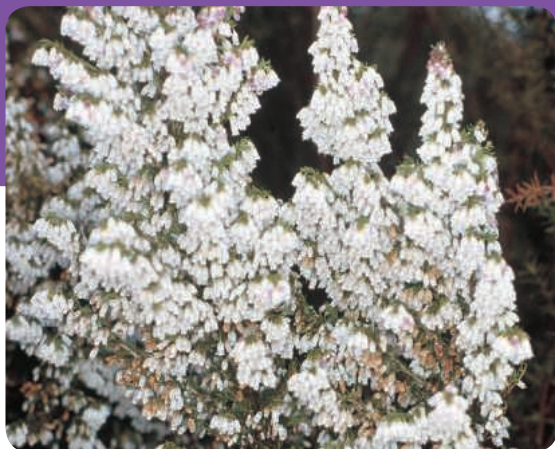
Note: *C. pycnocephalus* often has visible white patches along veins at the base of spines (never in *C. tenuiflorus*).

Similar Native Species: Unlikely to be confused with native species.



Spanish Heath

Erica lusitanica



Description: A woody shrub, like a miniature pine tree, growing up to 2m tall.

Flowers: Papery, 3-5cm long, occurring in clusters on the ends of short branchlets. White to pink in colour.

Leaves: Leaves are 4-7mm long, 0.5mm wide, in rings of 3-4, with the outside of the leaves rolling under and touching.

Stems: Woody, brittle and covered with dense hairs. The trunk can reach 15cm in diameter.

Note: Unpalatable to stock, this plant can be confused with the native Common Heath (*Epacris impressa*). Seed is spread by wind, water and machinery.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Spiny Burr Grass/Gentle Annie

Cenchrus longispinus

(Innocent Weed, Gentle Annie, Sandbur, Burgrass, Field Burr)



Description: An erect spreading grass to 60 cm tall.

Flowers: A spike like head 3-8 cm long, contains up to 40 burrs, each made of 4 florets covered with spines. Spines fine and purple tinged. Appears between December and April.

Leaves: To 20 cm long and 5-8 mm wide, smooth but sometimes twisted and finely serrated.

Stems: Erect or spreading. Several slightly flattened stems produced from the base. May form new roots from nodes where they touch soil.

Note: Spikes cause discomfort to people and stock and contaminate wool.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Spiny Rush

Juncus acutus

(Sharp Rush)



Description: An erect pointed tussock, 1-2 m tall.

Flowers: Dark green to rusty brown, small and in clusters near the top of stems. Appear all year round but largely in Summer.

Leaves: Dark green, cylindrical, unbranched, 3-5 mm in diameter and many rising from the crown. Tapered to a sharp spike.

Stems: Very similar to the leaves, except they bear flower clusters near the top.

Note: Invades poorer soils especially along drainage lines. Commonly harbour rabbits or foxes.

Similar Native Species: Could be confused with a number of native *Juncus* species, as well as other rush species such as *Baumea* spp.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

St Barnaby's Thistle

Centaurea solstitialis

(Yellow Star Weed, Yellow Centaurea, Golden Star Thistle)



Description: An erect annual or short lived perennial thistle, to 75 cm tall.

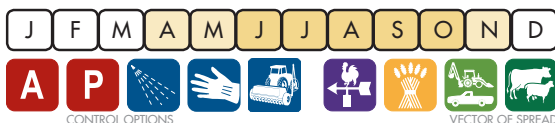
Flowers: Bright yellow on oval shaped heads 1-1.5 cm long. Solitary at the end of branches and surrounded by sharp golden spines. Flowers between late Spring and Summer.

Leaves: Silver/green due to a covering of downy hairs. Lower leaves deeply toothed, 20 cm long. Upper leaves narrow, 5 cm long and clasping the stem, forming wings running downwards.

Stems: Branched, downy, winged and without spikes.

Note: Competes with, and restricts the growth of pastures and crops.

Similar Native Species: Unlikely to be confused with native species.



St John's Wort

Hypericum perforatum

(Goatweed, Klamath Weed)



Description: An erect herb 80-120 cm tall.

Flowers: Bright yellow, 2-2.5 cm wide with 5 petals. In clusters at the end of upper branches. Tiny black dots along margins. Occurring between late Spring and Summer.

Fruit: 3-celled capsule, 5-10 mm long with many seeds.

Leaves: Green, lighter underneath in opposite pairs 1.5-3 cm long. Numerous small oil glands give a perforated appearance when the leaf is held up to the light.

Stems: Several woody, reddish, with two ridges and dark glands. Branched towards the top.

Note: May cause "photosensitisation" in stock.

Similar Native Species: Could be confused with native *Hypericum* species, such as Matted St. John's wort (*H. japonicum*) or Small St. John's wort (*H. gramineum*).



CONTROL OPTIONS



VECTOR OF SPREAD

St Peter's Wort

*Hypericum tetrapterum**(Square Stemmed St John's Wort, Winged St John's Wort)*

Description: Erect, branching herb to 1 m tall.

Flowers: Yellow, 1-1.5 cm wide, in clusters at the end of upper branches with 5 petals. Tiny black dots along the edges. Occurring between late Spring and Summer.

Fruit: 3-celled capsule, 5-10 mm long with many seeds.

Leaves: Opposite, stem-clasping, light green, to 3 cm long with visible veins and black dots along the edges.

Stems: Prostrate at base becoming erect, green to reddish brown with tiny black dots (glands). Branched, almost square with wings along the edges.

Roots: Numerous rhizomes producing new plants.

Note: Differs from St John's wort by having a square stem and prostrate stems at the base.

Similar Native Species: Could be confused with native *Hypericum* species, such as Matted St. John's wort (*H. japonicum*) or Small St. John's wort (*H. gramineum*).

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Stemless Thistle

Onopordum acaulon

(Flat Thistle, Horse Nettle)



Description: A prostrate annual or sometimes biennial, which reproduces by seed.

Flowers: White to purple in 6 cm heads, clustered in the centre of plants. Each head surrounded by many spiny bracts. Occurring in Spring.

Leaves: Arranged in a large rosette. Silvery and woolly to 40 cm long, on short stalks. Deeply toothed and spiky along edges.

Stems: Absent.

Note: Flat form crowds out large areas of pasture.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS

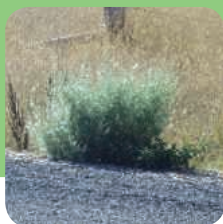


VECTOR OF SPREAD

Restricted Weed

Stinkwort

Dittrichia graveolens



Description: An erect, much branched, strongly aromatic herb from 30-100cm.

Flowers: Yellow in heads 7-10mm long and 3-5mm diameter. Formed singly on branch ends or from leaf axils in autumn.

Leaves: Covered with hairs, stem claspings, linear. Lower leaves to 10cm, edges toothed. Upper leaves to 5cm with smooth edges.

Stems: Erect, much branched and covered with hairs, some of which exude a strong smelling, sticky oil.

Note: Generally not eaten by stock but can taint meat and milk.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Sweet Briar

Rosa rubiginosa

(Briar Rose, Wild Rose)



Description: Erect, thorny and woody shrub to 3 m tall.

Flowers: Pink or white, 2.5-4 cm in diameter and formed in loose clusters at the end of branches. 5 heart-shaped petals. Appear in Spring.

Leaves: Consist of 2-4 pairs of oval leaflets each 1-4 cm long. Margins serrated and slightly hairy. Hairy underneath.

Stems: Smooth when young but becoming rougher. Arched towards the top and bearing many curved thorns. Many stems from one base.

Fruit: Oval berry or "hip", green then red when mature. 2 cm long with small spikes especially at the stem end.

Note: Invades edges of watercourses and farm fringe areas.

Similar Native Species: Unlikely to be confused with native species, though may be confused with cultivated Rose species.



CONTROL OPTIONS



VECTOR OF SPREAD

Tangled Hypericum

Hypericum triquetrifolium



Description: An erect perennial with tangled branches to 45cm high.

Flowers: Yellow, 1-1.5cm diameter, 5 petals. On short stalks in clusters at the end of branches. Occur in summer.

Leaves: Opposite, 5-15mm long and arrow shaped. Stem claspings with tiny black or translucent glands on the underside.

Stems: Erect, much branched and becoming red or brown with age and bearing numerous tiny black glands. Appearing tangled.

Note: Very persistent and competitive weed.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Thorn Apple

Datura spp.

(Angel's Trumpet)



Description: Erect bushy annual or perennial to 1.5 m tall.

Flowers: White, pink to purple, trumpet shaped to 20 cm long. Growing singly from forks of branches. Flowers between Spring and Summer.

Leaves: Alternate, to 35 cm long and oval or broadly triangular. Wavy margins and prominent veins. Unpleasant odour when crushed.

Stems: Erect, green (but sometimes purple tinged), forked and slightly hairy.

Fruit: Capsule 2-5 cm in diameter with stout spines splitting into 4 segments.

Note: Three species declared in Victoria but all have similar characteristics. Most common is *D. stramonium* or Common Thorn apple. All parts poisonous to humans and some stock.

Similar Native Species: Unlikely to be confused with native species.



CONTROL OPTIONS



VECTOR OF SPREAD

Topped Lavender

Lavandula stoechas



Description: An erect shrub to 1 metre high, aromatic when crushed, purple flowers and grey green foliage.

Stems: Often prostrate at the base then becoming erect, quadrangular in cross section, covered with dense hairs leading to its greyish appearance.

Leaves: Greyish to green, downy, opposite to 3cm long. Linear to lancolate with recurved margins, entire, sessile aromatic.

Flowers: Florets deep purple with yellow anthers and strong lavender perfume, tubular, arranged in cylindrical head. Heads are topped with 5 violet bracts, strongly veined (hence name).

Root: Woody, spreading and shallow.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Tree of Heaven

Ailanthus altissima



Description: A medium to large deciduous tree to 25m tall used for gardens, plantations wind breaks and a whole host of other uses. This tree is poisonous and has been described as having the reproductive instincts of a rabbit. The smell from the flowers is linked to its names of sewerage or rotting carrion tree.

Stems: Grey or yellow-grey bark slightly roughened and pitted. Leaf bearing stems smooth, speckled, pitted and reddish.

Leaves: Alternate, compound, 40-60cm long. Margins smooth except 1 toothed margin near base like a small thumb with glands that emit an unpleasant odour when bruised.

Flowers: In clusters to 60cm long at end of branches. Petals white or greenish. Male flowers emit offensive odour to attract insects.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Tutsan

Hypericum androsaemum

(Sweet Amber)



Description: Erect shrub 1-1.5 m tall.

Flowers: Yellow, 2-3 cm in diameter, in clusters at the ends of branches, with 5 petals and numerous stamens. Flowers between Spring and Summer.

Fruit: Globular, 3-celled berry to 8 mm in diameter, changes from green to red to black as it matures.

Leaves: Opposite, stem clasping, green with a reddish appearance in Autumn and to 10 cm long.

Stems: Several reddish stems emerging from a woody base with 2 opposite ridges or wings along the stems.

Roots: Several shallow roots to 30 cm deep.

Similar Native Species: Could be confused with native *Hypericum* species, such as Matted St. John's wort (*H. japonicum*) or Small St. John's wort (*H. gramineum*).

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Water Hyacinth

Eichhornia crassipes

(Pickerel Weed, Water Orchid)



Description: Erect floating weed forming dense mats.

Flowers: Bluish/purple, funnel shaped end and 4-7 cm in diameter with six petals. One petal has a yellow patch surrounded by dark purple. Usually about 8 cm wide growing on a short stalk between mid Summer and Autumn.

Fruit: A narrow 3 celled capsule approximately 1-1.5 cm long.

Leaves: Glossy green. Some 6 cm long, narrow and erect. Others almost round, 3 cm wide and curved upward. Stalks to 5 cm long with bladder-like swelling to enable floating.

Stems: Can be erect to 6 cm long and bearing flowers, or lateral and producing new plants.

Note: Extremely invasive and rapid growing weed that chokes waterways and undermines native ecosystems.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Wheel Cactus

Opuntia robusta

(Prickly Pear)



Description: An erect succulent cactus growing to 3m tall.

Flowers: 5-8cm wide, yellow with red streaks on the back. Fleshy base attached to upper margins of top segments. Appear anytime of year depending on season.

Stems: A series of blue/green fleshy stems which are commonly thought of as leaves. Circular, to 40cm diameter, flat and armed with tufts of sharp spines.

Fruit: Pink/purple, barrel shaped, 8cm long and 4cm across with dark red flesh.

Note: Hardy, drought resistant, can form dense thickets.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Wild Garlic

Allium vineale

(Crow Garlic, Field Garlic, Wild Onion)



Description: An erect, strong smelling bulb, up to 1 m tall.

Flowers: White, pink or greenish, on short stalks formed in terminal heads.

Leaves: Slender, cylindrical, hollow and becoming channelled on one side. Emerging from lower part of stem.

Stems: Erect, cylindrical, unbranched, sheathed for part of its length.

Bulbil (small bulbs): Brown, smooth and shiny.

Notes: Strong odour taints milk if grazed and cereal crops when harvested.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Wild Mignonette

Reseda luteola

Description: An erect annual herb to 2m high. Starting as a green rosette, reproducing by seed.

Stems: Several arising from the base, erect, glabrous, ribbed, unbranched or with few branches.

Leaves: Glabrous, shiny, alternate, rosette leaves to 15cm long, stem leaves to 10cm, occasionally with 1 to 2 glands at the base. Linear to lanceolate, sessile, entire or slightly toothed at the base. Margins undulate.

Flowers: Yellow to white, 4 to 5mm long, spike like clusters to 80cm long at the ends of the stems, 4 sepals and 3 petals.

Root: A short stout taproot with numerous lateral roots.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Wild Teasel

Dipsacus fullonum



Description: An erect biennial herb to 2m high, reproducing by seed.

Stems: Ridged or angled, slightly downward curved prickles on ridges, prickles denser beneath the heads, branches opposite.

Leaves: Rosette leaves to 50cm long, lanceolate, sessile, edges scalloped, surface rough with prickles, toothed and prickles on lower side of midvein.

Flowers: Florets pink, purple or lilac, heads cylindrical. Heads are solitary at the ends of branches and surrounded by long curved unequal bracts arising from the base of the heads.

Root: Fleshy, yellow taproot.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Wild Watsonia

Watsonia meriana var.

(Bulbillifera)



Description: An erect perennial growing to 2m tall from a corm each year.

Flowers: Spike 20-40cm long with between 10-15 flowers on each spike. Flowers orange-red, or rarely pink or purple. Flowers 5-7cm long, tubular, with 6 lobes slightly spreading at the end of the flower. Flowering occurs in late spring early summer.

Leaves: Rigid, strap-like and sword shaped, growing up to 70cm long, 4-5cm wide. Has a central vein with numerous parallel veins, spreading from the corm.

Stems: Reddish-brown colour, standing erect with occasional branching occurring near the top.

Note: Spread easily by disturbance of sites by spreading numerous cormils that are formed on the flowering stems where the flower joins the stem. 50+ cormils per stem.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Willow - Crack

Salix fragilis

(Basket Willow)



Description: Deciduous, spreading shrub or small tree with multiple stems and a rounded crown to 15 m tall.

Flowers: Drooping catkins (clusters of small flowers) 4-6 cm long produced in Spring.

Leaves: Alternate, shiny, dark green above and bluish-green below, narrow with a toothed edge, 9-15 cm long and 1-3 cm wide.

Stems: Multi-stemmed with an irregular shaped crown.

Note: Spreads easily from stem fragments and can restrict water flows. Only male trees found in Australia but can cross with other *Salix* spp. to produce seed. **Weed of National Significance.**

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Willow - Weeping

Salix babylonica

Description: Deciduous, single trunked tree with weeping form and 10-15 m tall.

Flowers: Drooping catkins (clusters of small flowers) 3-4 cm long appearing in early Spring.

Leaves: Yellowish green, alternate, long and narrow with a toothed edge, 8-15 cm long and 1-2.5 cm wide.

Stems: Drooping, slender, smooth, light green to pale yellowish-brown with greyish brown bark.

Note: Spreads easily from stem fragments and can restrict water flows. Only female trees found in Australia.

Similar Native Species: Unlikely to be confused with native species.

J F M A M J J A S O N D



CONTROL OPTIONS



VECTOR OF SPREAD

Glossary

Awn: a hair or bristle-like appendage on a plant.

Bract: an organ resembling a leaf or scale that arises from a branch of a flower cluster where the flowers develop, and where the entire cluster itself develops above a bract.

Bracteole: A small bract.

Culms: refers to the above-ground or aerial stems of grasses and sedges.

Floret: a small flower, especially one in a flower head consisting of many flowers.

Glabrous: is an adjective used to describe a morphological feature as smooth, glossy, having no hair or bristles.

Glume: either of a pair of dry leaves at the base of the spikelet in an ear of a grass or cereal plant.

Leaf axils: the space between a leaf or branch and the stem to which it is attached.

Lobes: a rounded segment on a leaf that is not divided all the way to the midrib.

Obovate: describes leaves that are oval with the narrow end at the base.

Obovoid: describes fruits that are egg-shaped, with the narrow end at the base.

Ovate: Shaped like an egg.

Sessile: describes a leaf or flower that has no stalk but is attached directly to the stem.

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