

WEEDS OF THE PYRENEES REGION

Identification Guide for the Weeds
of the Pyrenees Region and Beyond

2007



Pyrenees
Shire Council

Weeds of the Pyrenees Region

2007

Copyright of Pyrenees Shire 2007

Acknowledgements

The Pyrenees Shire wishes to acknowledge the following people for their assistance in the creation of this publication.

Kate Blood -CRC Weed Management Systems, DPI Vic
Stuart Lardner – Catchment Management Officer, DPI Vic
Andrew Leach – Design & Assets Manager, Pyrenees Shire
Pamela Manning -Landcare Facilitator, Pyrenees Shire, Goldfields Shire & Hepburn Shire
Michael Moerkerk –Weed Alert Training Officer, Technical Specialist Weeds, DPI Vic
Richard Plant –Weed Incursion Officer, DPI Vic
Sheri Streilein – Landcare Coordinator, Gannawarra Shire
Greg Wood –DPI Kerang
Stephen Young - Partnerships Officer Landscape Protection, DPI Vic

Photos:

Kate Blood DPI Vic
Simon Bonwick DPI Vic
Mark Farrer DPI Vic
Lalith Gunasekera DPI Vic
Ian Higgins NCCMA
Jackie Miles
Michael Moerkerk DPI Vic
Sarah Partington DPI Vic
Richard Plant DPI Vic
Ros Shepherd
Andrew Steed Pyrenees Shire Council
David Steed
Jim Wilding GBCMA
Colin Wilson
Brian Worboys Maitland City Council
Andrew Storrie DPI NSW
Golburn Murray Water 2007
Department of Primary Industries 2007
Cunningham, Mulham Milthorpe
& Leigh 1992

R.G. & F.J. Richardson www.weedinfo.com.au

Victorian Resources Online website (www.dpi.vic.gov/vro)

Department of Primary Industries – **Mark Imhof**

Prepared by: **Andrew Steed**
Weed Management Officer
Pyrenees Shire Council

Contents

What is a Weed? _____	1
Weed Categories _____	2
State Prohibited Weeds	
Regionally Prohibited Weeds	
Regionally Controlled Weeds	
Undeclared Weeds	
Restricted Weeds	
Sleepers Weeds	
Weeds of National Significance	
How Weeds Spread _____	4
Controlling Weeds _____	5
How to Use this Book _____	7
Weed Descriptions _____	8 - 58
Index _____	59
References _____	62
Other Contacts _____	62
Further Information _____	Back Cover

What is a Weed?

The term 'weed' can have many different definitions and interpretations depending on where and in what case it may be used. The definition that the "Victorian Weed Strategy 1999" describes is, **"a plant that has, or has the potential to have, a detrimental effect on economic, conservation or social values"** – Victorian Weed Strategy 1999

The Weed Problem

Weeds have been present in Australia ever since the time of European settlement. New exotic species of plants were brought out to Australia both accidentally & deliberately & many spread over a large vast area with the help of humans & human activity. Weeds pose a large threat & cause many hardships within the community & are one of the most widespread land degradation issues within Australia. Weeds follow the path of humans, either a direct or indirect result of human activity on the land. Often these plants are highly invasive, well adapted & easily spread, possess certain properties that can aid their success in their spread & can cause serious problems for economic, environmental & social values. The weed problem is now widespread throughout Australia & many species are largely threatening the land & land practices nation-wide. Although some of these weed species will be impossible to eradicate from the land, it is however possible to contain their spread, limit their distribution & help decrease the damage inflicted.

What Makes a Plant a Weed?

The success of a potential plant to become a weed depends on the characteristics that it possesses. A successful weed possesses the necessary adaptations to enable it to colonise & naturalise within the Australian environment. A plant may be referred to as a weed if it is covered by one or more of these properties:

- Competes & interferes with native vegetation
- Competes on farm lands with pasture species
- Possesses spines, burrs or thorns
- Contains poison, is an irritant, or harmful to humans or animals
- Is unpalatable to stock on pasture lands
- Contaminate of agricultural produce or interferes with agriculture
- Aesthetics are downgraded
- Hosts for disease, insect pests or is parasitic on other plants
- Harbour for vermin
- Restricts movement or access
- Releases allopathic or toxic materials (Davies 1992)

Weed Categories

State Prohibited Weeds

State Prohibited Weeds either do not yet occur in Victoria but pose a significant threat if they invade, or are present, do pose a serious threat and it is reasonable to expect that they can be eradicated from the state.

Control of these weeds is the responsibility of DPI wherever they occur throughout the state.

All state prohibited weeds within this book are marked as **'State Prohibited'** under 'Status'.

Regionally Prohibited

Regionally Prohibited Weeds are not widely distributed in 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 the private and public land managers on their land, Vic Roads on Declared Roads under the Transport Act 1983 and DPI on other roadsides.

All regionally prohibited weeds within this book are marked as **(R P) or (R Prohibited)** under 'Status'.

Regionally Controlled

Regionally Controlled Weeds exist in the region and are usually widespread. Continued control measures are required to prevent further spread to clean land.

Control is the responsibility of private and public land managers on their own land and adjoining roadsides except where Vic Roads has responsibility for Declared Roads under the Transport Act 1983.

All regionally controlled weeds within this book are marked as **(RC) or (R Controlled)** under 'Status'.

Undeclared Weeds

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

All undeclared weeds within this book are marked as **Undeclared** under 'Status'.

NOTE: Even though some plants are undeclared does not mean they don't pose any potential to cause hardships within the environment & within agricultural practice. Many troublesome weeds are not declared.

Restricted Weeds

These weeds either do not yet occur in Victoria but pose a significant threat if they invade, or are present, and do pose a serious threat and that it is reasonable to expect that they can be eradicated from Victoria. Control of these weeds is the responsibility of the Department of Primary Industries wherever they occur throughout Victoria.

All restricted weeds within this book are marked as **(Restricted)** under 'Status'.

(Weed categories taken from Catchment and Land Protection Act 1994)

Sleeper Weeds

There are many plants that currently are laying dormant, waiting for the right circumstances such as, suitable climate conditions, pollination or appropriate disturbance. In the situation that one of these 'sleeping' weeds obtains its suitable conditions, it may dramatically spread and become a serious weed. It is important to recognise these plants in their dormant stage to prevent fewer hardships to the environment and agriculture and also more beneficial regarding the resources needed to combat this new weed. (It is cheaper and easier to eradicate these weeds in their dormant stage, rather than attempting to control them after they have spread over a large area.












Weeds of National Significance (WONS)

Twenty-eight weeds were identified as serious weeds that are currently causing significant damage and pose serious threats to the natural environment. Seven of these weeds are currently occurring or have occurred within the Pyrenees Shire. All weeds ranked as WONS are marked as **'WONS'** under 'Status'.

How Weeds Spread

One of the major issues when dealing with weeds is to understand how weeds can spread & all the factors that enable their spread. One of the reasons why weeds are such a problem in agriculture & the environment is that many of them possess the ability to spread with ease through both natural & human activity. When working directly with weeds, or working in weed-infested areas, it is important to understand how easy it is to spread seeds from area to area & that they can spread in many ways.

These are some of the major methods of weed spread, with the corresponding icon that states each weed's main dispersal method.

Wind – Seeds that are spread by the wind.	
Waterways – Seeds & vegetation fragments carried by water through catchments.	
Animals – Fruits containing seeds that can be eaten, or seeds attaching themselves to animals.	
Earth Works and Contaminated Soil - The moving of soil containing seeds, bulbs & vegetation fragments.	
Transportation and Vehicles – Seeds that are carried from vehicles. (e.g. cars & utes)	
Machinery and Equipment - Seeds, bulbs or vegetation fragments that are carried on machinery & equipment.	
Grain and Fodder – Seeds or plant fragments spread through grain, fodder & other agricultural produce.	
Stock – Seeds that are eaten by stock, or are carried by stock.	
Cultivation – Roots or plant fragments that are spread by cultivation.	
Slashing – Seeds or plant fragments that are spread from slashing or mowing.	
Gardens – Weeds that spread from garden waste dumping.	

Controlling Weeds

There are many different ways & techniques in which weeds can be controlled. Different methods can be used in certain cases. The decision on which weed controlling techniques may be used could be determined by various factors:

- **The Weed Species**
- **Distribution, Size & Density of Infestation**
- **Location & Accessibility**

Controlled methods should be determined for each site, taking into consideration the influencing factors present. Often a combination of weed control techniques is required for successful control of some weed species. It would depend on the infestation extent & accessibility as to whether multiple methods may be needed. Some control methods will be the most appropriate for one site, & at another site may be useless.

The following information is the general recommendations for weed control outlined in this book. Information regarding control is in the form of icons & located along the sides of the pages throughout this ID book.

For more information, contact your local DPI office.



Cut & Paint

Cut the plant at the base & immediately apply concentrated herbicide to cut. Often used on larger & woody weeds.



Scrape & Paint

Scrape away stem of plant & immediately apply concentrated herbicide to cut. Used on vines & creepers.



Drill & Fill

Involves drilling into trunk & immediately applying concentrated herbicide. Often used with large trees.



Hand Removal

Removal using hands, shovel or mattock.



Revegetation

Used to out-compete the weed populations. Most effective when conducted after initial control.

Burning

Burning is often used to reduce the mass of the weed vegetation, to prevent seeding, or to encourage mass seed germination & exhaustion of the seed bank within the ground. Most effectively used in conjunction with other methods.



Chemical Spray

Depending on size & extent of infestation, knapsacks, spray units or boom sprays are used, & diluted herbicides are sprayed onto plants.

NOTE: Legislation & restrictions apply to certain chemicals & in certain areas. Consult DPI before using herbicides.



Slashing and Mowing

Slashing is a technique often used to prevent a large patch of weeds from flowering. However if slashing is conducted at the wrong time of year it can help the weeds' spread. Often used to control annuals.



Cultivation

Cultivation can be an effective means of control for certain weeds. Many summer growing annuals may be effectively controlled through repetitive cultivation. Cultivation needs to be conducted at the right time of year & at the right intervals. Some weeds are easily spread through cultivation.



Pasture Management

Some weeds will be readily grazed by stock & can be effectively managed by heavy grazing, as it may prevent flowering. However in some cases grazing can aid weeds' spread through elimination of other plant species. (Especially if weed is grazing tolerant). Cultivation & sowing of competitive pastures can help in out-competing & prevention of a weed's return.



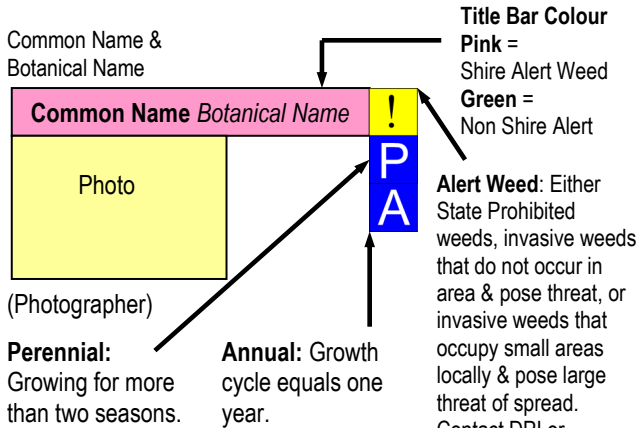
Mechanical

Using bulldozers, excavators, mulching or felling. Often used for large infestations covering a large area.

NOTE: Mechanical control is not selective & can destroy off target species, damage sensitive areas & in some cases is illegal. (Such as waterways & significant areas) Consult with DPI before using mechanical control techniques.



How to Use this Book



Status:

- Regionally Prohibited = **RP**
- Regionally Controlled = **RC**
- Undeclared = **Undeclared**
- Weed of National Significance = **WONS**
- Restricted Weed = **Restricted (All CMA's)**
- State Prohibited = **State Prohibited (All CMA's)**



Icons stating general control recommendations. See page 5 for details.

- Wimmera Catchment = (W)
- North Central Catchment = (NC)
- Glenelg Hopkins Catchment = (GH)
- Corangamite Catchment = (C)



General control method to be conducted in conjunction with (the following control) for best results

Eg: RP (W), RC (NC)
 (Regionally Prohibited within Wimmera & Regionally Controlled within North Central)



Can be used as a control method, however if conducted at the wrong time, or in the wrong manner, may assist in weed spread.

Origin: Native distribution of the weed

Description & Importance:

Brief description with main identifying features.
 General comments on weed significance & importance



Icons stating the weed's method of spread. See page 4 for details.

CONTACT DPI IF FOUND - 136 186

Contact DPI on 136 186 if found & ask for your local Weed Alert Contact Officer

See back of book for weed index of common & botanical names.

Angled Onion *Allium triquetrum*



P



Status: Regionally Controlled (C) **Origin:** West Mediterranean
Description & Importance: Small bulb perennial, growing to 50cm. Long, fleshy leaves 50cm long & 5-20mm wide. Small drooping bell-shaped flowers, white petals with a green central stripe, forming loose clusters of 5-10. (Late winter-late spring) Invades watercourses, drains, roadsides & wastelands. Displaces native vegetation, forming dense stands. Taints animal meat & milk. Bulbs easily spread by soil disturbance.



Wild Garlic *Allium vineale*



P



Status: RP/RC (W), RC (NC), (GH), RP (C)

Origin: Mediterranean area

Description & Importance: Long, slender, cylindrical leaves with groove on one side, growing to 1.2m high. Flowers are white, pink or green in late spring-summer. Small deciduous bulbs grow on long, hollow stalks. Troublesome weed of agriculture, contaminant of agricultural products, taints animal meat & milk.



Photos:
Andrew Steed

8

Cape Tulip *Moraea flaccida* & *Moraea miniata*

P



Status: RP/RC (W), R Controlled (NC), (GH), R Prohibited (C)

Origin: Southern Africa

Description & Importance: Erect stems growing to 75cm. Flat ribbon-like leaves. Flowers located on ends of stalks, orange-pink with a yellow centre. (Sep–Oct). Two Leaf Cape Tulip has two or three leaves & does not produce viable seed but develops a cluster of small cormils at the leaf axis & at the base of the plant. Weed of pasture, cropping, roadsides & disturbed areas. Poisonous to stock and humans.

Photos: Left: **Michael Moerkerk DPI**
Right: **Andrew Steed**



Wild Watsonia *Watsonia meriana* var. *bulbillifera*

P



Status: R Controlled (GH), (C) **Origin:** Southern Africa

Description & Importance: Growing up to 2m, has dull orange curved flowers growing 6.5cm long, (Late spring – early summer) & produces many small deciduous bulbs in clusters along flower spike. Weed of roadsides, wastelands, pastures, bushland & disturbed sites.

Photos: **Kate Blood DPI**

9



Spiny Rush *Juncus acutus*



P



Status: Regionally Controlled (W), (NC), (GH), (C)

Origin: Europe & South West Asia

Description & Importance: Tussock species, long, rigid, sharp-pointed leaves & rigid flowering stems up to 1.6m high. Flower clusters form at the end of stems. Widespread weed of saline affected areas, drains, low lying areas, watercourses, roadside depressions & wastelands. Forms dense infestations, restricting access to water, harbours pest animals & displaces native vegetation.



Photos: Jim Wilding

South African Weed Orchid *Monadenia bracteata*



P



Status: Undeclared

Origin: South Africa

Description & Importance: An erect perennial orchid growing to 75cm tall. A rosette consisting of large leaves (15cm long), appears in spring, followed by a large fleshy stem. Stem leaves are smaller than rosette leaves. Flower head is a large green-brown spike which looks similar to an asparagus spear. Up to 30 flowers per head appearing Oct–Dec. Weed of bushland, grasslands & can self-pollinate & produce many seeds.



Photos: Michael Moerkerk DPI

10

Onion Weed *Asphodelus fistulosus*

P
A



Status: RC (W), (GH), (C)

Photos: Right: R.G. & F.J. Richardson

Origin: Southern Europe to India

Left: Jackie Miles



Description & Importance: Erect, tufted annual or biennial herb growing to 70cm. Leaves are cylindrical, hollow (5-40cm long). Flowers are small (25mm across), pale pink with a reddish-brown streak on each petal & forming a globular-shaped capsule containing seeds. Flowers spring-summer. Weed of roadsides, wastelands, crops & pastures and invades disturbed areas.



Bridal Creeper *Myrsiphyllum asparagoides*

P



Status: Restricted (All CMA's) **WONS Origin:** Southern Africa

Description & Importance: Much-branched, wiry, twining-stemmed climber growing to 3m long. Leaves are shiny, green, oval-shaped with pointed tips, turning yellow as fruit ripens, then dropping off. Berries are globular & red when mature. Flowers in spring. Serious environmental weed. Forms dense infestations, smothering native vegetation & preventing native regeneration. Spread by seeds & root tubers. Can prove difficult to control.

Photos:

Left: Jim Wilding

Right: Andrew Steed



Espartillo *Achnatherum caudata*

Status: Undeclared
Origin: South America
Description & Importance: Densely tufted poa to 1m high with narrow, stiff leaf blades (2.5mm wide). Leaves have strong ridges on both sides. Flowers are hairy & arranged on long spikelets of 15-25cm long. (spring–summer). Weed of pasture, roadsides, wastelands & disturbed areas & can form dense infestations. Spreads easily by machinery & equipment.

Photos: **Andrew Steed**



P



Spiny Burr Grass *Cenchrus longispinus*

Status: R Prohibited (W)
(GH) R Controlled (NC)
Origin: Warm dry regions of the Northern Hemisphere
Description & Importance: 60cm high spreading grass with slightly flattened stems. Leaves grow to 20cm long & 5-8mm wide, are smooth but occasionally twisted & slightly



serrated. Flowers consist of a spike-like head (3-8cm long) that contains up to 40 burrs covered with purple-tinged spines. (Dec–April).
Weed of pastures & cultivation, burrs are a contaminate of wool & are of discomfort to humans & stock.



Photos: R.G. & F.J. Richardson

A





Chilean Needle Grass *Nassella nessiana*



Status: Restricted (All CMA's) **WONS** **Origin:** South America
Description & Importance: 1m high tussock forming grass that grows in dense clumps. Leaves are narrow & slightly rolled. Loose flowering head (to 40cm) are purplish colour & are very sharply pointed. (mainly Sep–Dec) Invades both agricultural lands & the environment, displacing desired species & can cause injury to stock. Difficult to control, contains seed within base of plant, stem segments & seed heads.

Photos:
Kate Blood DPI



Serrated Tussock *Nassella trichotoma*



Status: RP(NC), (C). RC (GH) **WONS** Photos: Left: **Andrew Steed**
Right: **R.G. & F.J. Richardson**

Origin: South America
Description & Importance: Tussock grass grows 50cm high and 25cm across at base. Leaves are many, tightly rolled, finely serrated, green colour, but fading as maturing. Flower heads are up to 35cm long with tiny flowers originally purple but turning a lighter brown colour. Serious agricultural & environmental weed, unpalatable, highly invasive, forming dense infestations in grasslands, woodlands, pastures, roadsides & wastelands.



13



African Feather Grass *Pennisetum macrourum*



Status: Regionally Prohibited (NC), (GH) **Origin:** Southern Africa
Description & Importance: 1.8m high, erect grass with creeping underground rhizomes. Stems are rounded & unbranched, with several sprouting from one crown. Leaves are light green on top, & darker underneath, growing up to 1.2m long & 1cm wide & sometimes curled at edge with purple tips. Spike-like flower heads are coloured purplish, yellow to brown. (summer) Forms dense patches & spreads easily from root growth & seeds.



Photos:
Kate Blood DPI



Long Style Feather Grass *Pennisetum villosum*



Status: Undeclared **Origin:** Africa
Description & Importance: Tussock forming perennial, growing 75cm high. Possesses underground rhizomes. Inflorescence is a cylindrical plume-like spike to 12cm long, with many soft, white-pale green bristles. (summer) Weed of wastelands, roadsides & nature strips. Spreads mainly by rhizomes or from the crown.



Photos:
Andrew Steed

African Love Grass *Eragrostis curvula*

P



Status: Regionally Prohibited (NC) **Origin:** South Africa
Description & Importance: 1.2m high perennial, greyish-green grass with long, arching stems. Leaves are coloured green to blue-green, normally hairless, rough with tips bleached or curled. Flowers are green – green-blue, found in clusters on small branches at end of stem in summer. Clusters may contain 3-14 flowers. Highly aggressive summer weed that can out-compete desirable plants in disturbed areas or sparsely covered areas.



Photos: Right: **Andrew Steed**
Left: **Mark Imhof VRO DPI**

P

Pampas Grass *Cordateria selloana*



Status: Undeclared **Origin:** South America
Description & Importance: Growing to 4m high, leaves are narrow, long & rough, growing from the base. Flowers are large plume-like spikes on tall cane-like stalks. Environmental weed of waterways, drainage lines, low lying areas & roadsides, often blocking water flow & excluding native vegetation.

15



Photos:
Andrew Steed

Alligator Weed *Alternanthera philoxeroides*



CONTACT DPI IF FOUND - 136 186

Status: State Prohibited (All CMA's) **WONS** Photos: Jim Wilding
Origin: South America

Description & Importance: A perennial, aquatic herb with hollow, creeping stems to 10m long. Roots are thin & stringy which trail in the water. Leaves are shiny, dark green with an easily seen middle vein & arranged opposite around stem. Flowers are silvery-white in rounded clusters on stalk in the leaf axils or at ends of stems. (Jan–March) Easily spreads from stem fragments & forms dense infestations, chokes waterways, depletes oxygen & catches sediment.



Khaki Weed *Alternanthera pungens*



Status: RP (W), RC (NC) **Origin:** Tropical America
Description & Importance: A perennial, prostrate creeping plant forming dense patches. Several reddish coloured stems grow out of the crown & roots can form at the stem nodes. Oval-shaped leaves occur in opposite pairs of unequal size. Flowers occur in leaf axils & are surrounded by sharp pointed bracts which develop into burrs. Weed of lawns, nature strips, recreation reserves, roadsides & caravan parks. Causes injury to humans & animals & is a contaminant of wool.



Photo: Colin Wilson



Horsetails *Equisetum spp*

P

CONTACT DPI IF FOUND - 136 186



Status: Undeclared

Origin: Central South America

Description & Importance: An erect, perennial herb with annual, non-flowering stems growing 10-60cm high. Stems come in two types; fertile stems & sterile stems. Fertile stems are whitish, growing to 30cm high, non branching, & joined with nodal sheaths of fused leaves. Sterile stems, which can spread vegetatively, grow over 50cm high, 1.5-5mm in diameter, are hollow, grooved & with whorls of 3-4 angled branches rising below the cup-shaped nodal sheaths. Very invasive species that can prove very hard to kill & is highly toxic to stock.



Photos: R.G. & F.J. Richardson



Parrots Feather *Myriophyllum aquaticum*

P



Status: Undeclared

Origin: Central South America

Description & Importance: Bright green, aquatic freshwater herb which can grow up to 5m long. Bright green, leaves feathery leaves appear in whorls around the stem growing up to 3.5cm long. Each feather-like leaf is made up of 10-14 thread-like segments. Leaves which are submerged under the water surface often decay which leaves the bare stem. Invasive, aquatic weed which can form dense infestations, congesting waterways & changing aquatic environments, killing off other aquatic species.

Photos: R.G. & F.J. Richardson



Hemlock *Conium maculatum*



A



Status: Regionally Controlled (GH),(C)

Origin: Europe, West Asia, North Africa

Description & Importance: 2m high, erect & branching biennial herb. Stems are hollow with fine grooves & purple blotches. Leaves are fern-like & 10-50cm long. Flowers are white, dense & umbrella-shaped. (spring) Distinct mousy odour when crushed. Weed of wasteland, waterways & rubbish tips. All parts of the plant are highly toxic.



Photos:
Andrew Steed



Fennel *Foeniculum vulgare*



P



Status: Regionally Controlled (GH),(C)

Origin: Europe and Asia

Description & Importance: Large, many-stemmed perennial, growing in large crown-like clumps & reaching up to 2-3m high. Leaves are very fine, feathery & fern-like, divided into many small segments. Small yellow flowers occur in umbrella-like clusters, (summer) & smells of aniseed when handled. Weed of waterways, irrigation channels, drains, wastelands, roadsides & railways. Can form dense infestations & monocultures.



Photos: Right: Jim Wilding
Left: Andrew Steed



18

Blue Periwinkle *Vinca major*

P



Status: Undeclared

Origin: Mediterranean area

Description & Importance: Dense, spreading ground creeper, with small five-petaled purple-blue flowers. Leaves are broad, (2-8 x 1-5cm) hairless, glossy & opposite on stem. Very persistent environmental weed forming dense infestations preventing any other plant growth. Tolerates many conditions favouring moist areas, invading watercourses, forests, roadsides, wastelands & drains. Can regenerate from vegetation fragments.



Photos: Andrew Steed

English Ivy *Hedera helix*

P



Status: Undeclared

Origin: Europe

Description & Importance: Dense, spreading creeper that covers the ground & other vegetation. Leaves alternate, glossy & leathery, hand-like & visible margins. Very persistent plant, & difficult to manage. Forms dense infestations, smothers & kills other vegetation & prevents native regeneration. Invades a range of natural ecosystems.



Gazania *Gazania* spp



P



Status: Undeclared

Origin: South Africa

Description & Importance: A low growing, perennial herb (30cm), with large, bright, daisy-like flowers & lance-shaped leaves. Flower colours vary from orange, bronze to yellow. Often found in gardens, nature strips, urban areas as well as invading bushlands, grasslands & roadsides, forming dense infestations.



Photos: Andrew Steed

Boneseed *Chrysanthemoides monilifera*



P



Status: R Controlled (W), (GH), (C). R Prohibited (NC) **WONS**

Origin: Western Cape Province, South Africa

Description & Importance: 3m high, woody shrub, with bright green, oval-shaped leaves that taper at the base & appear alternating on stems. Stems are woody, much-branched & upper stems are often reddish-purple. Bright yellow flowers grow to 2-3cm wide & form clusters at the ends of branches in winter & spring. Invasive & easily re-establishes after disturbance such as earthworks or fires. Forms dense infestations & out-competes native vegetation.



Photos: Left: Andrew Steed
Right: Kate Blood DPI

Skeleton Weed *Chondrilla juncea*

P



Photos: Ian Higgins
NCCMA

Status: Regionally Controlled (GH) **Origin:** Europe & Asia
Description & Importance: Deep-rooted, rosette-forming, perennial herb with many upright & mostly leafless, tangled branches. Small yellow flowers occur singularly or in clusters along stems. (summer & autumn) Troublesome agricultural weed & can tangle with cropping machinery & reduce crop yield.



Belgian Endive (Chicory) *Cichorium intybus*

P



Status: Undeclared **Origin:** Europe & Asia
Description & Importance: Perennial herb with dark green leaves & rigid, grooved and bare stems. Purple – whitish blue flowers occurring singularly or in small groups. Weed of roadsides, wastelands & irrigation channels. Readily grazed by stock & rarely invades farmland.

Photos: Left Jim Wilding
Right: Simon Bonwick DPI



Stinkwort *Dittrichia graveolens*



Status: R Controlled (GH),(C)

Origin: Mediterranean area

Description & Importance:

Bushy herbs, sticky hair-covered leaves and stems.

Leaves are narrow, leaf-clasping & alternate. Flowers are small (7-10mm long) & yellow occurring in autumn. Widespread summer growing weed of roadsides, wastelands & over-grazed pastures. Can taint animal meat & milk if grazed, stains wool & can cause dermatitis in humans.



Photos: Left: **Jim Wilding**
Right: **Andrew Steed**

A



Branched Broomrape *Orobanche ramosa*



Status: **State Prohibited (All CMAs)** **Origin:** Europe & Asia

Description & Importance: An erect, parasitic herb without chlorophyll, growing to 150mm tall. Leaves are alternately arranged & scale-like. Stems branch near ground level & are straw coloured or light brown, flowers are tubular & coloured white, yellow or pale blue to purple. (Sep–Oct) Parasitic roots attach to host plants' roots, robbing them of nutrients & water. Can cause severe damage to crops.



Photos: **Michael Moerkerk DPI**

!

CONTACT DPI IF FOUND - 136 186



Hawkweeds *Hieracium* spp.

P

Status: State Prohibited (All CMA's) **Origin:** Europe

Description & Importance: Daisy-like flowers varying from yellows to oranges. (Nov–March) Plants form large rosettes at their base, spreading by underground stems & above ground stems, forming dense patches. Several species;

Orange Hawkweed *H. aurantiacum*

Mouse-Ear Hawkweed *H. pilosella*

King Devil *H. praealtum*

Hawkweeds are very invasive weeds of pastures & native vegetation which spread quickly & can form large, dense infestations out-competing desired species. Hawkweeds are allelopathic, releasing chemicals that inhibit growth of nearby plants & spread by above ground & below ground creeping stems.

Orange Hawkweed *H. aurantiacum*



Mouse-Ear Hawkweed *H. pilosella*



Photos: R. G. & F. J. Richardson

CONTACT DPI IF FOUND - 136 186



Ragwort *Senecio jacobaea*



Status: Regionally Controlled (GH), (C) **Origin:** Europe
Description & Importance: Short-lived, perennial or biennial herb to 1.5m tall, with bright yellow flowers in large clusters at the end of branches. Flowers are 2.5 wide, with 12-15 petals occurring Dec-March. Leaves are dark green – pale green with few hairs. Can flower twice a year, producing 250,000 seeds from large plants. Can cause death in stock from liver damage if grazed. Invades pasture & the natural environment.

Photos:
Michael Moerkerk DPI



P



African Daisy *Senecio pterophorus*

Status: R Prohibited (W), (NC), (GH)

Origin: South Africa

Description &

Importance: Bushy shrub to 1.5m high with bright yellow flowers arranged in flat topped clusters at the end of stems. Flowers late spring-summer. Leaves are dark green, tapered, leathery, woolly underneath & toothed along edges. Aggressive weed often invading after disturbance, particularly fire, along roadsides, forest fringes, grasslands & disturbed sites.



Photo: Mark Farrer DPI



P



24



Nodding Thistle *Carduus nutans*



CONTACT DPI IF FOUND - 136 186



Status: State Prohibited (All CMA's) **Origin:** Europe & Asia
Description & Importance: Annual or biennial, with many thick branches growing to 1.6m tall. Leaves are deeply-toothed, stem-clasping & very spiny. Flowers are purple, pink, red, sometimes white, (4-8cm) drooping down from the tops of branches (spring-summer) Agricultural contaminant & forms dense unpalatable stands restricting access.



Photos: Left: Jackie Miles
Right: Brian Worboys

Slender Thistle / Shore Thistle *Carduus spp*



Photos: Andrew Steed

Status: R Controlled (GH), (C) **Origin:** Europe
Description & Importance: Annual thistle with spiny leaves, bracts & stems. Flowers are slender, coloured pink or purple & surrounded by numerous spine bracts. (Sep-Dec) Two species; **C. pycnocephalus** & **C. tenuiflorus**. Widespread weeds of wastelands, roadsides, pastures, urban areas, drains & depressions. Contribute to wool contamination & may poison stock if eaten in large amounts.

25



Spear Thistle *Cirsium vulgare*



Photos: Andrew Steed

Status: R Controlled (GH), (C) **Origin:** Europe, Asia & N Africa
Description & Importance: Annual or biennial thistle growing to 1.2m tall. Leaves are rough, hairy, deeply-toothed with spiky margins. Base leaves grow to 35cm & stem leaves grow to 25cm. Flowers are pinkish-purple & surrounded by spiny bracts. (late spring to autumn) Colonises disturbed areas, overgrazed pastures, wastelands, cropping areas & wastelands.



Californian Thistle *Cirsium arvense*



Status: RP (W), RC (NC), (GH), (C) **Origin:** Europe
Description & Importance: Perennial thistle growing to 1.5m tall, with large, creeping root system that can produce new plants. Leaves are deeply-toothed, hairy & leaf edges have sharp spines. Flowers are pink to purple, (2-2.5cm long x 1.5-2.5cm wide), in 1-5 heads, occurring in Dec-Jan. Releases chemicals into soil inhibiting the growth of other plants.



Photos: R. G. & F. J. Richardson

A



P



Scotch Thistle *Onopordum acanthium*

A



Status: R Prohibited (NC), (GH)

Origin: Europe

Description & Importance: Whitish-grey annual or biennial thistle growing to 2m tall with a woolly appearance. Leaves are lance or oval-shaped with toothed, spiky edges & woolly covering. Normally main stem, with numerous branches, covered with spiny wings. Purple flowers surrounded by spikes. (spring-summer) Weed of improved pastures & fertile land.



Photos: R.G. & F.J. Richardson

Illyrian Thistle *Onopordum illyricum*

A



Status: Regionally Prohibited (NC)

Origin: Europe

Description & Importance: Erect annual or biennial thistle growing to 2m tall. One main stem, branching at the top, covered with spines, dense woolly leaves & armed with spines on jagged edges. Purple flowers are 8cm wide, occurring in spring & summer. Weed of improved pasture & fertile lands.

27



Photos: Jackie Miles

Stemless Thistle *Onopordum acaulon*



A



Status: Regionally Controlled (W) **Origin:** Mediterranean
Description & Importance: Annual, sometimes biennial rosette with whitish-grey, woolly, deeply-lobed leaves with spiny tips. White-purple flower heads growing 6m in diameter occur in the centre of the rosette, each surrounded by spiny bracts. (Oct–Nov) Competes in pastures & cropping areas with desirable plants. Thorns can cause injury to stock & can contaminate wool.



Photos: Right: Mark Imhof - VRO DPI
Left: Andrew Steed

Artichoke Thistle *Cynara cardunculus*



P



+

Status: Regionally Controlled (NC) **Origin:** Mediterranean
Description & Importance: Tall, erect herb growing to 2m high. Leaves are grey-green, spined, deeply-toothed, with each tooth ending with a long, sharp spine. Flowers are purple to blue, 7–15cm in diameter, surrounded by stiff spines during summer. Invades wastelands, pastures, roadsides & disturbed areas.



Photos: Jim Wilding

Golden Thistle *Scolymus hispanicus*

P



Status: RC (NC), RP (GH)

Origin: Europe

Description & Importance: Erect, perennial thistle growing to 90cm tall. Many-branched stems with green coloured, veined, deeply divided, strong spined leaves. Contains a milky sap.

Flowers occur in summer, are golden yellow, 2.5-4cm in diameter & surrounded by short spines. Forms dense patches, restricting access & strong spines cause harm to mouths & hooves of stock.

Photos: Andrew Steed



Soldier Thistle *Picnomon acarna* (*Cirsium acarna*)

A



Photo:
Michael
Moerkerk
DPI

Status: R Controlled (W), (NC) **Origin:** Southern Europe

Description & Importance: Erect annual growing over 75cm, densely-branched with winged stems, covered in woolly cobwebs. Long-narrow leaves, slightly lobed, end with a large yellow spine. Pink-purple flower heads are long, cylindrical, solitary or in groups surrounded in spiny bracts & forked spines. (early summer) Weed of cereal crops, injures stock & clogs farm equipment.



Saffron Thistle *Carthamus lanatus*



A



Status: R Controlled (W), (GH) **Origin:** Europe & Asia
Description & Importance: Spiny annual thistle growing to 1m tall. Main stem from rosette, then branching at the top. Lower leaves deeply-toothed, upper leaves alternate around stem, armed with many spines. The yellow-cream flowers have faint red or black lines, which are located singularly on stem ends surrounded by spiny bracts. (Nov–Dec) Common widespread weed of cropping & pasture & is a contaminant of wool.



Photos: Andrew Steed

Variegated Thistle *Silybum marianum*



A



Status: R Controlled (GH), (C) **Origin:** Europe & Northern Africa
Description & Importance: Bush-forming rosette, developing into an erect 2.5m high thistle. Leaves are shiny, green, with large white blotches around veins & very spiny. Flowers are purple (up to 13cm diameter) & surrounded in long vicious spines. (Oct-Dec) Very competitive weed in high fertile lands.



Photos: Andrew Steed

30

St Barnaby's Thistle *Centaurea solstitialis*

A
P



Status: Undeclared

Origin: Europe

Much-branched, wiry, erect annual or short-lived perennial to 75cm. Stems are white, woolly & spineless. Deeply-lobed rosette leaves, stem leaves are narrow, silvery-green & clasp the stem where they form downward running wings. Yellow flowers (1.5cm long), are solitary on branch ends, surrounded by vicious golden spines, 3cm long. Late spring to summer flowering.



Photos: Michael Moerkerk DPI

Malta Thistle *Centaurea melitensis*

A



Photos: Left: R.G. & F.J. Richardson
Right: Michael Moerkerk DPI

Status: Undeclared

Origin: Europe

Similar to *C. solstitialis*. An erect biannual to 80cm high, with winged stems with cotton-like hairs. Leaves are lobed & spineless. Yellow flowers (8-12mm in diameter), are surrounded by several bracts with large reddish spines, (1cm long). Spring to summer flowering. Both species are weeds of pastures & cropping areas, wastelands, roadsides, & stock routes.



Star Thistle *Centaurea calcitrapa*

Status: Undeclared
Origin: Europe
 A bushy annual or biennial growing to 1m high. Many pale green stems are tangly, scraggly, possess long & narrow, hairy, dark green, spineless leaves. Flowers are purple, occasionally pink or white, surrounded by long, vicious spines & occurring singularly at end of branches. (spring–early summer) Weed of pastures & crops & harbours pests.



Photos: Top: R.G. & F.J. Richardson
 Bottom: Michael Moerkerk DPI



A



Hardheads / Russian Knapweed *Acroptilon repens*



Status: Regionally Prohibited (W), Regionally Controlled (NC)
Origin: Russia & Eastern Europe, Northern Africa & Asia
 Grey-green herb, spineless thistle appearance. Leaves are long, narrow, lance-shaped, larger & toothed at the base, smaller & non-toothed at the top. Flowers are pink/purple/white, grow up to 2.5cm wide, hard, & similar to a thistle, appearing Nov-March. Spreads from very intensive root system. Severely reduces crop yields. Releases allelopathic chemicals preventing desired plants & poisonous to stock.



Photos: Left: Cunningham, Mulham
 Milthorpe & Leigh 19992
 Right: DPI 2007

!

P





Black Knapweed *Centaurea nigra*

P

CONTACT DPI IF FOUND - 136 186



Status: State Prohibited (All CMA's)

Origin: Britain, Central Europe, & Scandinavia

Description & Importance: Erect, perennial herb growing to 1m high. Rough, rigid, hairy, green stem, turning purple with maturity. Grey-green leaves, oblong-lance shape. Upper leaves smaller and stem clasping. Flowers are reddish-purple with forked outer petals, (3-4cm in diameter), occurring Dec-Feb.



Normally flowers during Nov-March. However in suitable conditions is able to flower & seed at any time of the year. Reproduces by seed or by an extensive root system. Not grazed by stock & releases chemicals that prohibit other plants' growth. Highly invasive species & a strong competitor that invades roadsides, railways, crops, pastures & railways.



Photos:
Top Left: Andrew Steed
Top Right: Richard Plant DPI
Middle: Andrew Steed
Left: Richard Plant DPI



Bathurst Burr *Xanthium spinosum*



Status: R Controlled (W), (NC), (GH), (C) **Origin:** South America

Description & Importance: Much-branched herb growing up to 1m high. Leaves are a dark, shiny green, pale green underneath, alternate, & clasp the stem with a mid-vein visible. Stems are covered in very sharp spines (2.5cm) & usually found in groups of three. Oval-shaped burrs are covered in small hooked spines. Serious summer growing agricultural weed, contaminant of wool & spines can injure stock & cause discomfort to humans when handling wool.

Photos: Left: **Andrew Steed**
Right: **Jim Wilding**



A



Noogoora Burr *Xanthium strumarium*



Status: R P (W), (GH). R C (NC), **Origin:** South America

Description & Importance: Single stemmed or much-branched herb to 2.5m high, but usually 1m. Leaves are green, rough, have serrated edges & similar shaped to maple or grape leaves & occur on purple-blotched stems. Hard oval-shaped burrs are covered in spines growing 1.2-2cm long. An invasive summer growing agricultural weed that contributes to wool contamination.

Photo: **Colin Wilson**



A



Amsinckia *Amsinckia* spp.

A



Status: R Controlled (GH) **Origin:** Native of the Americas
Description & Importance: Annual herb growing to 70cm high. Erect stems, sometimes branched & covered with fine bristles. Leaves also covered with bristles, upper leaves clasp the stem. Bright yellow, trumpet-like flowers with five petals occur in groups in a curved formation. (July-Oct). Very invasive agricultural weed, reduces crop yields & contains harmful alkaloids.



Photos:
Mark Imhof VRO DPI

Paterson's Curse *Echium plantagineum*

A



Status: Regionally Controlled (W), (NC), (GH), (C)
Origin: Europe & Mediterranean
Description & Importance: Erect, annual herb, growing to 1.2m high & covered with coarse hair. Rosette leaves are flat, broad leaves up to 25cm long. Stem leaves are narrower, smaller & are stem-clasping. Flowers are purple, trumpet-shaped, (2-3cm long), occurring during Aug-Dec. Very invasive weed of roadsides, wastelands, annual pastures & cropping fringes. Poisonous to certain stock if grazed excessively.



Photos: Andrew Steed

Common Heliotrope *Heliotropium europaeum*



Status: Undeclared **Origin:** Mediterranean area
Description & Importance: Spring-summer growing herb to 30cm high. Leaves are oval-shaped, grey-green/green-blue & visible margins. Flowers are white, small and trumpet-shaped in a curved caterpillar formation. Contains five harmful alkaloids which can cause jaundice, photosensitisation & indirect copper toxicity in stock. Poisoning usually occurs after second year of exposure & grazing to *H. europaeum*.



Photos: Left – Andrew Steed
Right – Jim Wilding

Blue Heliotrope *Heliotropium amplexicaule*



Status: Undeclared **Origin:** South America
Description & Importance: Prostrate or spreading perennial, with dull green, veined leaves, hair-covered, with a creeping root system. Flowers are shades of purple, trumpet-shaped & grouped together in a curved caterpillar formation. (Nov-March) Can re-grow from root buds. Contains the indicene alkaloid that causes toxæmic jaundice in stock. Weed of pastures, cropping fringes, roadsides & channels.



Photo:
Andrew Steed

A



P



Hoary Cress / White Weed *Cardaria draba*

P



Status: R Controlled (GH), (C)

Origin: Europe

Description & Importance: Erect herb to 75cm high. Leaves are green, toothed, short-stalked & have wavy margins. Flowers are small, white & densely clustered together at the top of the plant. (Sep–Nov) Extensive root system, which can produce new plants. Troublesome weed of cropping that can significantly reduce the yield. Ploughing up roots can aid the spread & can prove difficult to control.



Photos: **Andrew Steed**

Soursob *Oxalis pes-caprae*

P



Status: Regionally Controlled (GH), (C)

Origin: Europe

Description & Importance: Perennial herb that is seen often growing in urban areas. Heart-shaped leaves are green with occasionally purple blotches on top, & grow to 3.5cm wide & 2.5cm long. Three to 20 large, bright, yellow, trumpet-shaped flowers occur on the ends of erect stems during winter & early spring. Bulbs form underground & are pulled down to a depth of 10cm by contractile roots. Invades gardens, residential areas, waterways, roadsides, wastelands, pastures & native vegetation.



Prickly Pears *Opuntia stricta* & *Opuntia monacantha*



P



Status: R C (NC) (Both prickly pear species) **Origin:** America
Description & Importance: An erect, succulent cactus growing up to and occasionally over 2m high. Leaves are large, flattened, fleshy succulent, are coloured various shades of green – green-yellow & are covered in long, strong spines. Flowers are pale yellow, developing into red, pear-shaped fruit. Capable of growing in a range of habitats, drought resistant, very hardy and able to form dense infestations, restricting access. Difficult to manage & hard to kill.

Photos: R.G. & F.J. Richardson



+



Wheel Cactus *Opuntia robusta*



P



Status: R Prohibited (W), R Controlled (NC) **Origin:** America
Description & Importance: An erect cactus growing to 3m high, leaves or stems are large, rounded & flat, up to 40cm in diameter, & possess tufts of vicious spines. Flowers are yellow with red streaks on the back, (5-8cm in diameter), & depending on the season can appear at any time. Fruits are 8cm long, barrel-shaped & coloured pink-purple. Very hardy, drought tolerant, forms dense infestations, restricts access & difficult to destroy.



+



Photo: Andrew Steed

St John's Wort *Hypericum perforatum*

P



Status: R Controlled (W), (NC), (GH). R Prohibited (C)

Origin: Europe, North Africa & Western Asia

Description & Importance: An erect, rhizomatous herb growing to 1m tall. Stems have a reddish tinge, with two ridges with dark glands. Leaves are green, in opposite pairs, to 3cm long with many oil glands. Flowers are bright yellow, consisting of 5 petals, to 2.5cm in diameter & occur in clusters at top of plant during late spring & summer. Can cause photosensitisation & nervous disorders in stock & invades the environment & agricultural land.



Photos: Jim Wilding

Tutsan *Hypericum androsaemum*

P



Status: RC (C) **Origin:** Europe, North Africa & West Asia

Description & Importance: Semi evergreen shrub growing to 1.5m. Leaves are opposite & stems are a reddish colour. Yellow flowers which develop into red fruits, are round & up to 1cm in diameter. (spring- summer) Poisonous weed of wastelands, damp forests, disturbed sites, roadsides & waterways.

39



Photos: Mark Imhof VRO DPI

Dodder *Cuscuta* spp.



A



Status: Regionally Prohibited (W), Regionally Controlled (NC)
Origin: Native & Cosmopolitan species
Description & Importance: Twisting, twining, leafless, parasitic, annual herb. Vine-like stems are red, bright yellow or green, much-branched & twisting tightly around host plants. Flowers are 4mm in diameter, cream-pink, bell-shaped, formed in clusters in spring-autumn. Attaches to the host plant with small suckers. Damages both native plants & agricultural plants & seeds contaminate grain. Has been recorded on over 80 different host plants within Victoria



Photos: Left: **Andrew Steed**
Right: **Jackie Miles**

Bindweed *Convolvulus arvensis*



P



Status: Regionally Controlled (W), (C) **Origin:** Europe
Description & Importance: Prostrate, twining, perennial herb. Leaves are dark green, arrow-shaped, alternate & are on short stalks. Stems climb or creep along the ground, growing to 2m long. Flowers are white-dark pink, grow up to 3m across & are funnel-shaped. (spring-early autumn) Weed of pastures & crops & competes with desired species for water, nutrients & soil.



+



Photos: **Michael Moerkerk DPI**

40

Prickly Paddy Melon *Cucumis myriocarpus*

A



Photos: Andrew Steed

Status: Undeclared

Origin: Africa

Description & Importance: Annual prostrate vine with rough stems. Leaves have five sections, each deeply lobed, rough hair on underside & no hair on top. Yellow flowers are in groups of 2-4, developing into round fruits, (2-3cm wide), covered with light & dark green stripes & soft bristles. Melons turn yellow when mature. Weed of pastures, crops, roadsides & wastelands after summer rains.



Wild Melon *Citrullus lanatus*

A



Status: Undeclared

Origin: South Africa

Description & Importance: Annual prostrate, summer-growing vine. Leaves are deeply lobed, short hairs on the underside & no hairs on upper surface. Yellow flowers are located in leaf axils, developing into melons growing to 15cm in diameter. Weed of pastures, crops, roadsides & costal areas after summer rains.

41



Photos: R.G. & F.J. Richardson

Wild Teasel *Dipsacus fullonum*



P



Status: R Controlled (GH), (C) **Origin:** Southern Europe
Description & Importance: Erect, prickly, angular-stemmed, perennial herb. Basal leaves are lance-shaped, large mid-rib & covered with prickles. Stem leaves are opposite on stem. The large, dome-shaped flower head consists, of small, white-purple inflorescence located between bristles. (summer) Large pointed bracts protrude out of flower head base. Weed of pasture, damp areas, fence lines, creek lines & depressions.



Photos: Right: R.G. & F.J. Richardson
Left: Andrew Steed

Spanish Heath *Erica lusitanica*



P



Status: Undeclared **Origin:** Portugal, Spain & France
Description & Importance: Woody shrub, growing to 2m tall. Stems are woody, covered with dense hairs & brittle. Leaves are small, slender & tightly rolled. Papery-flowers are white-pink, round-lobed, occurring in large numbers on stems & turning down with age. (July–Sep). Invasive environmental weed of roadsides, grasslands, forests & excluding native vegetation.



Photos: Andrew Steed

Cape Broom *Genista monspessulana*

P



Status: Regionally Controlled (W), (GH), (C)

Origin: Mediterranean, Portugal & Azores

Description & Importance: An erect, perennial, evergreen shrub growing to 3m high. One main stem with many woody, rigid branches & covered with fine hairs. Leaves are hairy on underside & made up of three leaflets with the middle leaflet longer. Flowers are pea-like, 1.2cm long, yellow-coloured, (winter-spring) & form black or brown seed pods. Environmental weed forming dense infestations & monocultures, out-competing native species. Harbour for pest animals & increases fire loads.



Photos: Left: **Jim Wilding**

Right: **Andrew Steed**

Flax Leaf Broom *Genista linifolia*

P



Status: R Controlled (W), (C) **Origin:** Mediterranean area

Description & Importance: An erect, perennial shrub growing to 3m high with woody, rigid, & hairy stems. Leaves are made up of three oval-shaped leaflets, (2-4mm long), curved margins & ending in a short spike. Yellow, pea-like flowers occur in spring, singularly or in clusters, developing into brown or black pods, (1.3-3cm long) Environmental weed forming dense infestations & monocultures, excluding native vegetation, & harbouring pests.

43



Photos: **Andrew Steed**

Spanish Broom *Spartium junceum*



P



Status: Undeclared **Origin:** Mediterranean & Portugal
Description & Importance: Large, deciduous shrub growing to about 3m high. Stems are cylindrical, waxy & mostly leafless. Flowers are yellow, pea-like, occurring in summer-autumn, then develop into flat pods. Environmental weed of bushland & roadsides. Seeds & leaves are poisonous.



Photo: R.G. & F.J. Richardson

English Broom *Cytisus scoparius*



P



Status: Regionally Controlled (W), (C) **Origin:** Europe
Description & Importance: Large shrub growing to about 3m high. Stems have ridges, are woody, coloured green to brown & much-branched. Small leaves occur in clusters or singularly & normally in groups of three. Yellow flowers are pea-like, 2.5cm long, sometimes with red markings, occurring in October to Nov. Invasive species of bushlands, grasslands, roadsides, & disturbed areas. Spreads easily by soil disturbance.



Photos: Andrew Steed

44

Spiny Broom *Calicotome spinosa*

P



Status: Undeclared

Origin: Mediterranean area

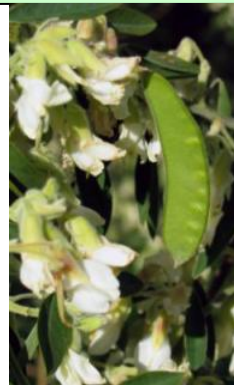
Description & Importance: Large shrub growing to 3m high. Stems are woody, coloured green to brown & much-branched with many spines. Leaves are made up of 3 leaflets, with the middle the largest. Yellow flowers are pea-like, 1.5cm long & developing into pods, (2.5-4cm) ending with a spine & occurring in Nov-Dec. Weed of roadsides, wastelands, bushland fringes & disturbed areas.



Photos: Andrew Steed

Tree Lucerne *Cytisus palmensis*

P



Status: Undeclared

Origin: Canary Islands

Description & Importance: Large shrub or small tree growing to 4m high. Branches are woody & drooping. Leaves are made up of 3 leaflets, the middle being the longest. White-cream, pea-like flowers occur in June-Oct. Weed of bushlands, grasslands, wastelands & roadsides. Often spreads through garden waste dumping. Seeds are poisonous.

45



Photos: Mark Ihhof VRO DPI

Gorse / Furze *Ulex europaeus*



P



Status: Regionally Controlled (W), (NC), (GH), (C) **WONS**

Origin: Western Europe

Description & Importance: An erect, woody, much-branched, spiny shrub growing to 4m high. Leaves are dark green, narrow, spines growing to 2.5cm long & appearing in clusters around stems. Yellow, pea-like flowers are up to 2.5cm long & found in clusters at the end of branches. (July–Oct) Invasive weed of bushlands, grasslands, wastelands, roadsides, waterways, & pastures. Has a long-living seed bank & difficult to control.



Photos: Andrew Steed



Camelthorn *Alhagi maurorum*

!



P

CONTACT DPI IF FOUND - 136 186

Status: State Prohibited (All CMA's) **Origin:** Europe & Asia

Description & Importance: An erect, much-branched shrub with rigid, spiny branches, growing to 1.5m high. Lance to oval-shaped leaves are sparse. Pea-like flowers are pinkish-purple to yellow & red, located in small loose clusters & flowering in summer. Pods are red-brown. Weed of crops, pastures, wastelands & riverbanks in drier areas.



Photos: Simon Bonwick DPI

46

Horehound *Marrubium vulgare*

P



Status: Regionally Controlled (W), (NC), (GH), (C)

Origin: Europe, Mediterranean, North Africa & Middle East

Description & Importance: An erect, woody stemmed, spreading, bushy herb growing to 75cm tall. Leaves are crinkled, leathery & coloured blue-green, but sometimes appearing silvery due to woolly hairs. White flowers are formed in dense rounded clusters surrounding the ends of stems. (summer-autumn)
Common weed of pastures, cropping fringes, wastelands & roadsides. Can contaminate meat if eaten by stock.



Photos: Right **Jim Wilding**
Left: **Andrew Steed**

Topped Lavender *Lavandula stoechas*

P



Status: R Prohibited (NC) **Origin:** Mediterranean & Portugal

Description & Importance: A spreading, perennial shrub. Leaves are coloured grey-green, finely haired & linear-shaped. Flowers are pink-purple coloured & occur densely within a cylindrical head at tops of branches. Garden escape plant that can invade bushlands, wastelands & sometimes pasture lands.

47



Photos: **Michael Moerkerk DPI**

Tufted Honey Flower *Melianthus comosus*

Status:

R Controlled (GH)

Origin: Africa

An erect, multi-stemmed shrub growing to 1.5m high with drooping leaves. Grey-green leaves are serrated & clustered towards the tips of the branches. Flowers are located in short clusters. (spring)

A garden escape that invades, wastelands, roadsides, bushland fringes & disturbed areas. Omits a strong, unpleasant smell when damaged & is poisonous to stock.



Photo: Top: R.J & F.J. Richardson
Above: Andrew Steed

P



Cootamundra Wattle *Acacia baileyana*



P



Status: Undeclared

Origin: Small region in Southern NSW

Description & Importance: Small shrub or tree, growing to 8m high. Leaves are feathery & made up of many small silvery-blue to blue-green leaflets. Flowers are bright yellow & occur in clusters. Pods are flattish, black or brown & grow 4-11cm long. Cootamundra Wattle has become a pest plant invading bushlands, grasslands & roadsides outside its natural range.



Photos: Andrew Steed

Karoo Thorn *Acacia karroo*



Status: State Prohibited (All CMAs) **Origin:** Southern Africa
Description & Importance: Fast growing tree to 25m high. Leaves are feathery & stems are covered in 'v' shaped spines growing to 25cm long. Flowers are yellow and develop into smooth slender pods. An invasive species with potential to invade grasslands, woodlands, roadsides & pasture lands. Very large thorns can cause injury to stock.

Mesquite *Prosopis spp.*



Status: State Prohibited (All CMAs) **Origin:** Native of America
Description & Importance: Six species known within Australia. Small trees or shrubs. Stems are covered with thorns. Leaves are bright green & made up of many opposite leaflets. Yellow flowers are cylindrical in shape. (5-10cm) Pods are straw coloured & grow to 20cm long. Very aggressive species that out-competes native vegetation.



Radiata Pine *Pinus radiata*



P



Status: Undeclared **Origin:** California, USA & Mexico
Description & Importance: Large, evergreen tree growing up to 50m tall. Mature trees are flat topped, while juvenile trees are normally cone-shaped. Leaves are long, narrow, dark green needles. Seeds are located in large pine cones. Commonly used in tree plantations. Invades bushlands, grasslands, heathlands, coastlands & can tolerate a range of climatic conditions.



Photos: Andrew Steed

Wild Mignonette *Reseda luteola*



P



Status: Regionally Controlled (C)
Origin: Mediterranean, North Africa & the Middle East
Description & Importance: An erect annual or biennial herb growing to 2m high. Leaves grow up to 10cm long, alternate & are spear-shaped. Flowers are green-yellow to white & occur densely along the ends of stalks. (late spring–summer) Weed of wastelands, roadsides, pastures, crops & irrigation channels.



Photos:
 Mark. Imhoff VRO DPI

Hawthorn *Crataegus monogyna*

P



Status: R Controlled (GH), (C) **Origin:** Europe & Western Asia
Description & Importance: An erect shrub to small tree, growing up to 6m high. Leaves are green, usually 3-7 lobed with toothed margins. Flowers are white, cream or pink, 8-12mm in diameter, & occur in clusters at the end of branches. (spring) Fruit are red berries, 8mm in diameter & located in clusters. *C. monogyna* can form dense patches restricting access. Provides habitat for pest animals, & has been known to spread Fire Blight.



Photos: Left & Middle: **Andrew Steed**
Right: **Jim Wilding**

Sweet Briar / Briar Rose *Rosa rubiginosa*

P



Status: R Controlled (W), (GH), (C)
Origin: Europe, West Asia to North India
Description & Importance: A large, erect, prickly, deciduous shrub with woody, thorny branches. Leaves are two oval-shaped leaflets that have serrated margins. Flowers are white or pink, up to 4cm in diameter, made up of 5 heart-shaped petals & flowering in spring. Fruit are red, oval-shaped & have small prickles. Stems are covered with curved thorns. A weed of watercourses, roadsides, bushlands, wastelands & pasture land fringes.



Photos: Left & Bottom Right: **Mark Imhof VRO DPI**
Top Right: **Andrew Steed**

Blackberry *Rubus fruticosus* agg



P



Status: RC (W), (GH), (NC), (C) **WONS** **Origin:** Europe
Description & Importance: An erect, woody, scrambling perennial bush with prickly canes. Leaves are dark glossy green on upper side, lighter & finely haired on underside, oval-shaped, with serrated edges & shed in winter. Erect or sprawling canes grow to 7m long & are covered in curved thorns. White to pink, 5 petalled flowers form black segmented berries. (Jan–March) Serious weed of waterways, forests, agricultural land, roadsides & pastures that displaces native vegetation.



Photos: Right: **Michael Moerkerk DPI**
Left: **Andrew Steed**

Willows *Salix* spp.



P



Status: Restricted (All CMAs) **WONS**
Origin: Northern Hemisphere
Description & Importance: Various different species of willow. All are deciduous, large shrubs or trees, having single or multiple trunks, generally flowering during Aug-Nov. All willow species (except Weeping Willow, Pussy Willow, & Sterile Pussy Willow) are WONS. Willows help speed up bank erosion, change watercourses, degrade water quality & compete with native species in riparian environments.



Photos: **R.G. F.J. Richardson**

Great Mullein *Verbascum thapsus*

A
P



Status: Regionally Controlled (C) **Origin:** Eurasia
Description & Importance: An erect, biennial herb, growing to 2.5m tall. Rosette leaves are up to 50cm long with dense hairs giving it a furry appearance & coloured grey-green. Stem leaves are much smaller & have large veins underneath. Yellow flowers form clusters at the top of stem during Jan-March. Weed of wastelands, degraded pastures, roadsides & less fertile soils.



Photos: Andrew Steed

Tree of Heaven *Ailanthus altissima*

P



Status: R Controlled (GH) (C). **Origin:** China
Description & Importance: A deciduous tree growing to 25m, but more commonly to 4m tall. Dark green leaves up to 1m long are made up of to 20 opposite leaflets. Large tap root & lateral root system can create new plants. Flowers are white or green & occur in clusters at branch ends. (Dec-Jan) Weed of old homesteads, degraded pastures, wastelands, roadsides & bushlands. Bark & leaves are poisonous & flowers that fall into water can contaminate water.



Photos: Mark Imhof VRO DPI

Boxthorn *Lycium ferocissimum*



P



Status: R Controlled (W), (NC), (GH), (C) **Origin:** South Africa
Description & Importance: An erect, densely branched, woody, thorny shrub growing up to 5m high. Fleshy, oval-shaped leaves grow to 3.5cm & appear in clusters. Leaves may shed if plant is under stress. Stems possess spines that can reach up to 15cm long. Five-petalled flowers are white with purple markings & develop into round red berries when mature. Boxthorn forms dense infestations, restricting access, harbouring pest animals & thorns can cause injury to stock as well as puncture car tyres.



Photos: Left: **Jim Wilding**
Right: **Andrew Steed**

Thorn Apples *Datura spp.*



A



Status: RC (NC), (GH), (C) **Origin:** The Americas
Description & Importance: Annuals or perennial bushy herb to 1.5m. Stems are often forked, with triangular or oval-shaped leaves with wavy margins. Flowers are white, pink, or purple, trumpet-shaped growing to 20cm long. (spring-summer) Fruit consists of capsules with strong spines. All parts of plant are poisonous & can cause irritation to the skin. Three declared species within Vic; **Common Thorn Apple** *D. stramonium*, **Recurved Thorn Apple** *D. inoxia* & **Long Spine Thorn Apple** *D. ferox*



Photos: **Andrew Steed**



Silverleaf Nightshade *Solanum elaeagnifolium*



Status: R Prohibited (W), R Controlled (NC) **Origin:** America
Description & Importance: An erect, prickly, woolly, summer growing perennial. Leaves are lance-shaped to 15cm, have wavy margins, & fine dense hairs give it a grey-green coloured appearance. Stems are much-branched & covered in small red prickles. Flowers are purple, sometimes pink & white, made up of 5 fused petals with 5 yellow anthers. (spring-summer) When mature, fruit are small, round, orange berries. Serious agricultural weed. Drought tolerant, hardy, deep roots can produce new plants & can be hard to kill.

Photos: Left: Department of Primary Industries 2007
 Right: Cunningham, Mulham, Milthorpe & Leigh, 1992



Apple of Sodom *Solanum linnaeanum*



Photos: Michael Moerkerk DPI



Status: R Controlled (GH) **Origin:** Mediterranean & South Africa
Description & Importance: 1m high, hairy shrub, covered with many prickles. Pale blue-purple flowers develop into berries up to 3cm in diameter. Flowers all year. Weed of roadsides, wastelands, disturbed sites & degraded pastures. Poisonous to humans & stock.



55



Photos: Michael Moerkerk DPI

Prairie Ground Cherry *Physalis viscosa*



Status: R P (W), R C (NC) (C) **Origin:** The Americas
Description & Importance: An erect perennial herb with spreading root system that grows up to 60cm tall. Leaves are lance-shaped growing to 6x4cm, have wavy margins & are light green coloured. Five yellow petals form a bell-shaped flower, 2-3cm in diameter during summer. Produces a small, orange berry located within a yellow casing. (Bladder or Chinese Lantern-like case) Troublesome weed of cropping, pastures & wasteland. Hardy & deep roots can produce new plants.



Photos: Mark Imhof - VRO DPI



Peppercorn Tree *Schinus molle*



Status: Undeclared **Origin:** Northern South America & Mexico
Description & Importance: Growing to a large tree with slender, drooping, frond-like leaves alternating on the stem. Round, reddish pink berries. Drought tolerant plant, invades native woodlands, rocky outcrops, grasslands, roadsides & railways. Is a very hardy species & can be difficult to get rid of.



Photos: R.G. & F.J. Richardson
Right: Andrew Steed



Salvinia *Salvinia molesta*



Status: State Prohibited **Origin:** South America
Description & Importance: A free-floating herb which forms large, dense mats on the water surface. Stems consist of slender, branching rhizomes floating under the water surface. Leaf size can vary depending on infestation size. Floating leaves are green in colour & submerged leaves are brown. Chokes waterways, prevents sunlight to the water, uses up water faster than evaporation & changes aquatic ecosystems.



Photos: Colin Wilson



Water Hyacinth *Eichhornia crassipes*



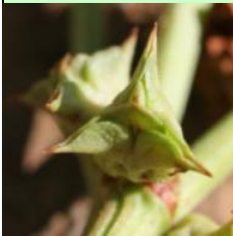
Status: State Prohibited **Origin:** Amazon Basin
Description & Importance: An erect perennial, floating herb which forms dense mats over the water surface. Leaves grow up to 60cm long & are round or long & narrow-shaped. Vertical stems produce flowers & horizontal stems produce new plants. Funnel-shaped flowers are blue-purple consisting of 6 petals occurring summer to autumn. Highly invasive aquatic weed which chokes waterways & changes natural ecosystems.



Photos: Colin Wilson



Three Corner Jack / Spiny Emex *Emex australis*



Photos:
**Andrew
Storrie**
DPI NSW



Status: Undeclared

Origin: Southern Africa

Description & Importance: A prostrate or erect annual herb with stems growing up to 50cm. Green leaves are triangle or oval-shaped, growing 3-12cm long and 2-10cm wide. Male & female flowers on same plant & appear late winter-early summer. Fruit consists of hard, brown capsules with three sharp spines on the ends. Competes with crop species & causes injury to humans, animals & burrs can puncture bike tyres.



A



Caltrop *Tribulus terrestris*



Status: P (GH), C (W), (NC), (C) **Origin:** Cosmopolitan species

Description & Importance: A prostrate, summer growing annual with creeping, green-reddish brown stems growing from a centre crown up to 2m long. Leaves are made up of up to 8 pairs of small leaflets growing to 1.2cm long. Small, yellow, 5-petaled flowers occur in summer-autumn & produce a hard, woody burr with sharp spines up to 6mm long. Injures humans & animals, punctures bike tyres & are troublesome on playing fields, parks, recreation reserves, lawns & around buildings.



Photos: Left: **Jim Wilding**
Right: **Ian Higgins NCCMA** (Both)

A



WEED INDEX

Acacia baileyana	48	Cape Broom	43
Acacia karroo	49	Cape Gooseberry	56
Achnatherum caudata	12	Cape Tulip	9
Acroptilon repens	32	Cardaria draba	37
African Boxthorn	54	Carduus nutans	25
African Daisy	24	Carduus pycnocephalus	25
African Feather Grass	14	Carduus tenuiflorus	25
African Love Grass	15	Carthamus lanatus	30
Ailanthus altissima	53	Cenchrus longispinus	12
Alhagi maurorum	46	Centaurea calcitrapa	32
Alligator Weed	16	Centaurea melitensis	31
Allium triquetrum	8	Centaurea nigra	33
Allium vineale	8	Centaurea repens	32
Alternanthera philoxeroides	16	Centaurea solstitialis	31
Alternanthera pungens	16	Chamaecytisus palmensis	45
Amsinckia spp.	35	Chicorium intybus	21
Amsinckia	35	Chicory	21
Angled Onion	8	Chilean Needle Grass	13
Apple of Sodom	55	Chondrilla juncea	21
Artichoke Thistle	28	Chrysanthemoides monilifera	20
Asparagus asparagoides	11	Cirsium acarna	29
Bathurst Burr	34	Cirsium arvense	26
Belgian Endive	21	Cirsium vulgare	26
Bindii	58	Citrullus lanatus	41
Bindweed	40	Common Heliotrope	36
Bitou Bush	20	Conium maculatum	18
Bitter Melon	41	Convolvulus arvensis	40
Black Knapweed	33	Cootamundra Wattle	48
Blackberry	52	Cordateria selloana	15
Blue Heliotrope	36	Crataegus monogyna	51
Blue Periwinkle	19	Creeping Knapweed	32
Boneseed	20	Crow Garlic	8
Boxthorn	54	Cucumis myriocarpus	41
Branched Broomrape	22	Cuscuta spp.	40
Brazilian Water Milfoil	17	Cynara cardunculus	28
Briar Rose	51	Cytisus palmensis	45
Bridal Creeper	11	Cytisus scoparius	44
Broomrape	22	Datura spp.	54
Cabbage Thistle	30	Dipsacus fullonum	42
Calicotome spinosa	45	Dittrichia graveolens	22
Californian Thistle	26	Dodder	40
Caltrop	58	Echium plantagineum	35
Camel Melon	41	Eichhorina crassipes	57
Camelthorn	46	English Broom	44
Canada Thistle	26	English Ivy	19
Canary Broom	43		

WEED INDEX

Equisetum spp	17	Illyrian Thistle	27
Eragrostis curvula	15	Italian Thistle	25
Erica lusitanica	42	Juncus acutus	10
Espartillo	12	Karoo Thorn	49
European Broom	44	Khaki Weed	16
Fennel	18	Lavandula stoechas	47
Field Bindweed	40	Long Style Feather Grass	14
Field Garlic	8	Lucerne Tree	45
Flat Thistle	28	Lycium ferocissimum	54
Flax Leaf Broom	43	Malta Thistle	31
Flax Leaved Broom	43	Maltese Cockspur	31
Foeniculum vulgare	18	Marrubium vulgare	47
French Broom	43	Melianthus comosus	48
French Endive	21	Mesquite	49
Furze	46	Monadenia bracteata	10
Gazania	20	Moraea flaccida	9
Gazania spp.	20	Moraea miniata	9
Genista linifolia	43	Mouse Ear Hawkweed	23
Genista monspessulana	43	Myriophyllum aquaticum	17
Gentle Annie	12	Nassella neesiana	13
Golden Dodder	40	Nassella trichotoma	13
Golden Thistle	29	Nodding Thistle	25
Gorse	46	Noogoora Burr	34
Great Mullein	53	Onion Weed	11
Hardheads	32	Onopordum acanthium	27
Hawkweed	23	Onopordum acaulon	28
Hawthorn	51	Onopordum illyricum	27
Hedera Helix	19	Opuntia monacantha	38
Heliotrope	36	Opuntia robusta	38
Heliotropium amplexicaule	36	Opuntia stricta	38
Heliotropium europaeum	36	Opuntia vulgaris	38
Hemlock	18	Orange Hawkweed	23
Heraldic Thistle	27	Orobanche ramosa	22
Hieracium aurantiacum	23	Oxalis pes-caprae	37
Hieracium pilosella	23	Paddy Melon	41
Hieracium spp.	23	Pampas Grass	15
Hoary Cress	37	Parrots Feather	17
Horehound	47	Paterson's Curse	35
Horse Nettle	55	Pennisetum macroum	14
Horsetails	17	Pennisetum villosum	14
Hypericum perforatum	39	Pepper Tree	56
Hypericum androsaemum	39	Peppercorn Tree	56

WEED INDEX

Perennial Thistle	26	Spartium junceum	44
Periwinkle	19	Spear Thistle	26
Physalis viscosa	56	Spiny Broom	45
Picnoman acarna	29	Spiny Burr Grass	12
Pine	50	Spiny Emex	58
Pinus radiata	50	Spiny Rush	10
Portuguese Heath	42	St Barnaby's Thistle	31
Potato Weed	36	St John's Wort	39
Prairie Ground Cherry	56	Star Thistle	32
Prickly Paddy Mellon	41	Stemless Thistle	28
Prickly Pear	38	Stinkwort	22
Prosopis spp.	49	Sweet Briar	51
Radiata Pine	50	Teasel	42
Ragwort	24	Thorn Apples	54
Reseda luteola	50	Three Corner Garlic	8
Rosa rubinosa	51	Three Corner Jack	58
Rubus fruticosus	52	Topped Lavender	47
Russian Knapweed	32	Tree Lucerne	45
Russian Thistle	32	Tree of Heaven	53
Saffron Thistle	30	Tribulus terrestris	58
Salix spp.	52	Tufted Honey Flower	48
Salvation Jane	35	Tutsan	39
Salvinia	57	Ulex europaeus	46
Salvinia molesta	57	Variiegated Thistle	30
Schinus molle	56	Verbascum thapsus	53
Scolymus hispanicus	29	Vinca major	19
Scotch Broom	44	Water Hyacinth	57
Scotch Thistle	27	Watsonia	9
Senecio jacobaea	24	Watsonia meriana	9
Senecio pterophorus	24	Weeping Lovegrass	15
Serrated Tussock	13	Wheel Cactus	38
Sheep Thistle	25	White Weed	37
Shore Thistle	25	Wild Garlic	8
Silverleaf Nightshade	55	Wild Melon	41
Silybum marianum	30	Wild Mignonette	50
Skeleton Weed	21	Wild Rose	51
Slender Thistle	25	Wild Teasel	42
Solanum elaeagnifolium	55	Wild Watsonia	9
Solanum linnaeanum	55	Willows	52
Soldier Thistle	29	Winged Groundsel	24
Soursob	37	Woolly Safflower	30
South African Weed Orchid	10	Xanthium spinosum	34
Spanish Artichoke	28	Xanthium strumarium	34
Spanish Broom	44	Yellow Burr Weed	35
Spanish Heath	42		

References

Information sourced from the following;

North Central Weed Action Plan 2001-2004
North Central Catchment Management Authority
Glenelg Hopkins Weed Action Plan 2001-2004
Glenelg Hopkins Catchment Management Authority
Corangamite Weed Action Plan 2001-2004
Corangamite Catchment Management Authority

Weeds of the North Central Region
A Field Identification Guide 1st Edition March 2003
North Central Catchment Management Authority
©State of Victoria, Department of Primary Industries 2003

Parsons, W.T. and Cuthbertson, E.G. (1992) Noxious Weeds of Australia.
Melbourne, Inkata Press.

B.A.Auld and R.W. Medd –Weeds, An Illustrated botanical guide to the weeds
of Australia,
Department of Agriculture New South Wales 1987

F.J. Richardson, R.G. Richardson, R.C.H. Shepherd 2006, Weeds of the
South-East, An Identification Guide for Australia

Elizabeth M. 1985, Felfoldi, Identifying the Weeds Around You

Blood K. CRC Weed Management Systems, 2001 Environmental Weeds –A
Field Guide for SE Australia

Grains Research & Development Corporation
Primary Industries & Resources
Michael Moerkerk - Victorian DPI
Michael Wurst – Rural Solutions SA
Tom Yeatman – Rural Solutions SA
Weeds: The Ute Guide, Southern Edition Version 2

Other Contacts

Department of Primary Industries

DPI Customer Service Centre – 136 186

DPI Website – www.vic.gov.au

North Central Catchment Management Authority

Huntly Office - (03) 5448 7124

Website - www.nccma.vic.gov.au

Wimmera Catchment Management Authority

Horsham Office – (03) 5382 1544

Website – www.cma.vic.gov.au

Glenelg Hopkins Catchment Management Authority

Hamilton Office – (03) 5571 2526

Website – www.glenelg-hopkins.vic.gov.au

Corangamite Catchment Management Authority

Colac Office – (03) 5232 9100

Website – www.ccma.vic.gov.au

Further Information

Pyrenees Shire Council

5 Lawrence Street
Beaufort Vic 3373
Telephone: (03) 5349 2000
Facsimile: (03) 5349 2068
Email: pyrenees@pyrenees.vic.gov.au
www.pyrenees.vic.gov.au

Department of Primary Industries

DPI Customer Service Centre – 136 186
DPI Website – www.vic.gov.au

North Central Catchment Management Authority

Huntly Office - (03) 5448 7124
Website - www.nccma.vic.gov.au

Wimmera Catchment Management Authority

Horsham Office – (03) 5382 1544
Website – www.cma.vic.gov.au

Glenelg Hopkins Catchment Management Authority

Hamilton Office – (03) 5571 2526
Website – www.glenelg-hopkins.vic.gov.au

Corangamite Catchment Management Authority

Colac Office – (03) 5232 9100
Website – www.ccma.vic.gov.au

Weeds Australia

www.weeds.org.au

Victorian Resources Online Website, Department of Primary Industries

www.dpi.vic.gov.au/vro/weeds

Disclaimer

The Pyrenees Shire makes no claim as to the accuracy of this book and will not be held in any way liable. The information contained herein is considered to be correct at the time of publishing.