

# LET'S GET WEED WISE

A pocket guide for landholders in  
Fairview, Wandoan, Wallumbilla and Yuleba.

Developed as part of the  
Powerlink Queensland and  
Queensland Murray-Darling  
Committee Community  
Relations Program



QUEENSLAND  
MURRAY-  
DARLING  
COMMITTEE





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# Welcome

In 2015, Powerlink Queensland and the Queensland Murray-Darling Committee (QMDC) partnered together to deliver a Community Relations Program aimed at enhancing biosecurity and weed management in the areas of Fairview, Wallumbilla, Wandoan and Yuleba. The partnership delivered a number of valuable initiatives, most importantly an Integrated Weed Management Strategy which provides landholders and stakeholders with a regional snapshot of current biosecurity and weed management issues.

The Strategy was prepared following targeted and widespread engagement activities, in particular the development of a Working Group comprising landholders and representatives from local government, state government, environmental groups, industry, QMDC and Powerlink. The group shared insights and experiences about weed management, associated challenges, opportunities and priorities, and explored ideas to proactively tackle biosecurity issues in the future.

We also worked closely with landholders and stakeholders during several Community Action Days held as part of the Community Relations Program. These events largely involved schools, local councils, and catchment and community groups joining forces with Powerlink and QMDC to plant trees, remove weeds and rehabilitate important sites throughout the region.



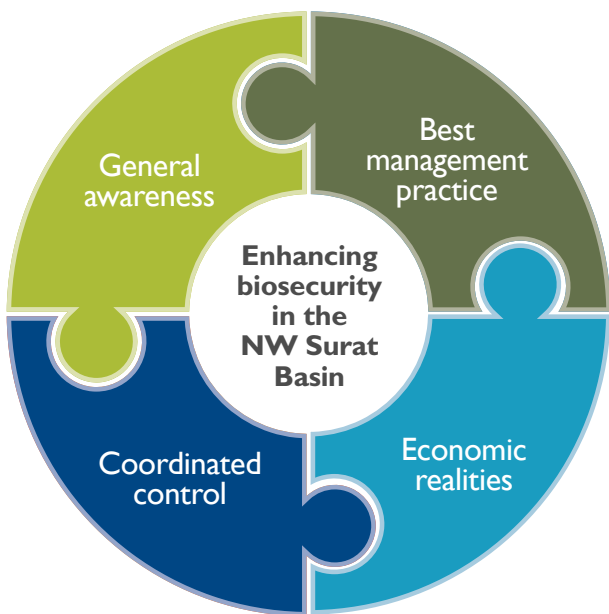
The *Let's Get Weed Wise Pocket Guide* brings the comprehensive Integrated Weed Management Strategy to life in a compact and easy to read format. It enables landholders and stakeholders to identify current and emerging weed threats, and better understand how these weeds spread and can be effectively controlled. In addition, we invite you to access our corresponding Let's Get Weed Wise App, also produced by Powerlink and QMDC, which electronically and interactively presents key findings from the Integrated Weed Management Strategy. More information about the App is available on Page 24 of this guide.

We hope you find this Pocket Guide a timely, practical and helpful overview of weed management activities that assists with strengthening and consolidating biosecurity practices in your local area.

## 2 Key weed challenges identified

A multitude of themes and issues regarding weed management were identified following the comprehensive landholder, stakeholder and community consultation that took place to guide the development of the Integrated Weed Management Strategy.

We consolidated the key themes that emerged and mapped out our four key focus areas for the Community Relations Program. It is these four areas that have provided the 'compass' for delivering the partnership and ensuring it delivers tangible and long-lasting benefits to the region.



These 'pieces of the puzzle' are explored in more detail below:

Focus area	Community Relations Program rationale
<p><b>GENERAL AWARENESS</b> Current information about weed identification and management is helpful and available but still not widely known by the general public</p>	<ul style="list-style-type: none"> <li>✓ Raise local awareness of weed management as a regional priority across the community, and promote information and resource sharing.</li> <li>✓ Provide landholders and stakeholders with practical and locally relevant information on how weeds are dispersed across properties, regions and catchments.</li> <li>✓ Reinforce the notion that everyone has a role to play in minimising and mitigating the effects of weeds.</li> </ul>
<p><b>BEST MANAGEMENT PRACTICE</b> Arm landholders and stakeholders with proven, practical and effective solutions to tackle weeds</p>	<ul style="list-style-type: none"> <li>✓ Assist with educating landholders and stakeholders about the value of effective biosecurity management and best management practice principles.</li> <li>✓ Empower and support the wider community to 'join forces' and address this complex issue.</li> </ul>
<p><b>ECONOMIC REALITIES</b> Financial and economic impacts of inaction</p>	<ul style="list-style-type: none"> <li>✓ Promote the financial and economic importance of effective biosecurity control, to broaden the relevance of weed management activities within the region.</li> </ul>
<p><b>COORDINATED CONTROL</b> Need for landholders and stakeholders to work collaboratively on a catchment-based scale for effective control</p>	<ul style="list-style-type: none"> <li>✓ Provide guidance to landholders for setting up local area weed management groups to facilitate more strategic and effective weed control.</li> <li>✓ Highlight the importance of sharing information to create accurate local mapping to track weed distribution, which is essential to assisting with long-term biosecurity management.</li> <li>✓ Call to action – point landholders and stakeholders to practical tools to facilitate enhanced mapping records and associated data collection.</li> </ul>

# 3 List of current and emerging weed threats

QMDC and Powerlink, in association with landholders and stakeholders in the North West Surat Basin, have identified the following four weed species as the most significant current weed threats:

- **Parthenium**
- **Giant rat's tail grass**
- **Mother of millions**
- **African love grass.**

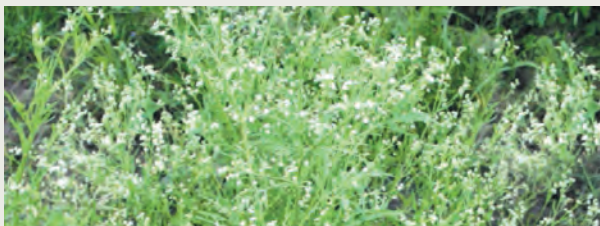
There are several other weed species that have been identified as 'on the move' and may also pose a significant threat for the region:

- **Sulfur cactus**
- **Harrisia cactus**
- **Boxing glove cactus**
- **Prickly acacia**
- **Parkinsonia**
- **Mesquite**
- **Rubber vine**
- **Cat's claw creeper**
- **Coolatai grass.**

More detailed information about these weeds can be found from Page 5 onwards of this *Let's Get Weed Wise Pocket Guide*, which incorporates photos of each species and a table outlining what time of year they grow, how they are spread, ways to minimise dispersion and control methods. Further information about different control methods is included in Page 26 of this guide.

# 4 Detailed weed descriptions

## Current weeds



**Common name:** Parthenium

**Scientific name:** *Parthenium hysterophorus*

**Classification:** Class 2 Pest Plant

### Description and seasonal characteristics

Predominantly an annual plant germinating in spring and early summer; however it can grow and produce flowers all year round with suitable conditions.

Can set seed within four weeks of germination, particularly if stressed.

### Weed spread pathways

Seeds are spread by:

- Vehicles
- Machinery
- Stockfeeds
- Livestock
- Flood waters and waterways
- Feral animals.

### Strategies to minimise risk of weed spread

Ensure all property staff, contractors and visitors are aware of and can recognise Parthenium and how it spreads.

Monitor for outbreaks, particularly along roadsides, in disturbed areas around stockyards and where introduced fodder is fed out.

Ensure all vehicles entering the property are clean.

Obtain Weed Hygiene Declarations from suppliers for all hay and other stockfeed or seed purchases.

Use quarantine paddocks for potentially affected livestock or stockfeeds.

### Control methods

- Best practice grazing strategies
- Chemical control
- Mechanical removal of isolated plants
- Biological control on larger infestations.

### Notes

*Timing is critical for control of Parthenium and action should be taken when the plant is young and prior to it producing seeds.*

*Maintaining competition is also very important so use a selective herbicide that will not kill other species.*

*Photo acknowledgement: Our thanks to QMDC.*

# 4 Detailed weed descriptions

## Current weeds



**Common name:** Giant rat's tail grass (GRT)

**Scientific name:** *Sporobolus pyramidalis* / *Sporobolus natalensis*

**Classification:** Class 2 Pest Plant

### Description and seasonal characteristics

Tufted perennial grass that flowers most of the year.

### Weed spread pathways

Seeds are spread by:

- Livestock (up to 30,000 viable seeds/beast/day) in manure and on fur and hooves
- Feral and native animals
- Vehicles and machinery (slashers and earthmoving equipment)
- Hay and untested pasture seed
- Fast-flowing water over turf
- Wind.

### Strategies to minimise risk of weed spread

GRT is not yet widely established in the area so improved awareness of what to look for and vigilant monitoring for early detection and eradication is crucial.

Maintaining vigorous and dense pastures.

Quarantine potentially-infested stock for at least five days.

Maintain buffer zones.

Sound vehicle and machinery hygiene practices.

### Control methods

Chemical control best suited to the local conditions followed by pasture establishment.

Work from the least affected area towards the worst affected zone.

### Notes

*Recovers rapidly from fire.*

*Photo acknowledgement: Our thanks to Craig Hunter.*





**Common name: Mother of millions (MOM)**

**Scientific name:** *Bryophyllum delagoense*

**Classification:** Class 2 Pest Plant

**Description and seasonal characteristics**

A perennial herb that flowers (and is most obvious) during winter and spring.

**Weed spread pathways**

Seeds and plantlets are spread by:

- Floods and overland flow of water
- In mud on vehicles and livestock.

**Strategies to minimise risk of weed spread**

MOM is particularly adapted to drought conditions so it is important to establish and maintain more desirable species to prevent infestation and spread.

Ensure weed hygiene practices are undertaken for all vehicles and machinery entering properties.

Avoid known infestations particularly during wet conditions.

**Control methods**

Control may include chemical, mechanical, fire and biological methods combined with land management changes.

The control methods chosen should suit the specific weed and particular situation.

Fire and follow-up spot spraying is particularly effective.

Biological (thrips) control may be useful for dense infestations.

**Notes**

*Control should be coordinated with both upstream and downstream properties.*

*Photo acknowledgement: Our thanks to QMDC.*

# 4 Detailed weed descriptions

## Current weeds



**Common name:** African love grass (ALG)

**Scientific name:** *Eragrostis curvula*

**Classification:** Not Declared

### Description and seasonal characteristics

Tufted, tussocky perennial grass that grows in summer and flowers mostly during summer and autumn, but can flower and seed any time of the year.

### Weed spread pathways

ALG is spread by grazing animals, slashing, vehicles, water, fodder and short distances by wind.

Spread is enhanced by drought conditions and over-grazing. Paddocks with low ground cover are more susceptible to invasion.

### Strategies to minimise risk of weed spread

Prevention is the best form of control for ALG.

Ensure property hygiene practices are adhered to by all users of vehicles and machinery entering a property.

Use best management practice grazing strategies to increase competition and prevent establishment.

Maintain a buffer zone around any properties adjacent to infested roads or other corridors.

### Control methods

Requires an integrated approach.

Grazing strategies that maintain and encourage the vigour, persistence and competitiveness of more desirable species.

Chemical control is most effective for ALG when it is able to be replaced by other vigorous pasture species.

Graze heavily when ALG is young and more palatable to stock. Avoid grazing ALG while in seed.

### Notes

*It is important to understand the current withholding periods that apply to flupropanate (which is highly recommended for use on ALG). For more information read the label and product MSDS, or consult a product sales representative or manufacturer.*

*Photo acknowledgement: Our thanks to Sandy Robertson.*



**Common name:** Sulfur cactus

**Scientific name:** *Opuntia sulphurea*

**Classification:** Class I Pest Plant

### Description and seasonal characteristics

Low shrub with red, orange or yellow flowers, and two to eight grey-white twisted spines per areole.

### Weed spread pathways

Spreads by seed and vegetatively.

### Strategies to minimise risk of weed spread

Awareness and familiarity with the plant and where it is.  
Avoid infestations except when undertaking control works.  
Remove stock from infested areas.

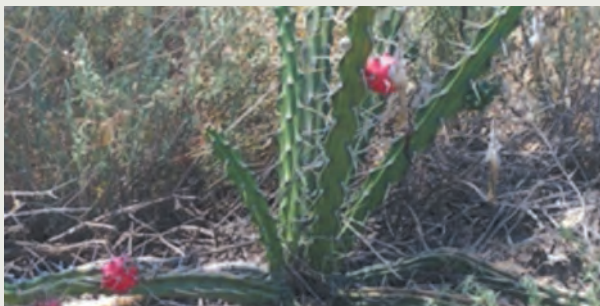
### Control methods

Very long barbed spines make manual control difficult.  
Foliar spraying and pad injection.  
Cut the stump of isolated plants.  
Can be impacted by the cactoblastis moth.

### Notes

*Not yet widely established. Chemical control presumed to be as for the common Prickly pear (*Opuntia stricta*).*

*Photo acknowledgement: Our thanks to Craig Hunter.*



**Common name:** Harrisia cactus

**Scientific name:** *Harrisia martinii*

**Classification:** Class 2 Pest Plant

#### Description and seasonal characteristics

Perennial cactus.

Flowers during summer. Flowers open at night and on overcast mornings.

#### Weed spread pathways

Seeds are distributed in fruit pulp being eaten by birds and mammals.

Stem segments (moved by vehicles and animals) may also produce new plants.

#### Strategies to minimise risk of weed spread

Early detection and treatment to prevent spread.

Implement and observe property hygiene practices.

#### Control methods

Biological control – mealy bug and stem boring longicorn beetle.

Mechanical – dig out plants and burn.

Plough if followed by an annual crop.

Apply herbicide when plant is actively growing.

#### Notes

*Photo acknowledgement: Our thanks to QMDC.*



**Common name:** Boxing glove cactus

**Scientific name:** *Cylindropuntia fulgida* var. *mamillata*

**Classification:** Class 2 Pest Plant

#### **Description and seasonal characteristics**

Shrub with distorted segments.

Rarely produces flowers or fruit.

#### **Weed spread pathways**

Spreads vegetatively by movement of segments which form roots where they contact the ground.

Much of the movement is by water down watercourses.

#### **Strategies to minimise risk of weed spread**

Awareness and familiarity with the plant and where it is located.

Avoid infestations except when undertaking control works.

Remove stock from infested areas.

#### **Control methods**

Foliar spraying of registered chemical.

Biological – plants are damaged to a limited extent by the *Dactylopius tomentosus* (a cochineal insect present in Australia).

#### **Notes**

*Has the potential to become a widespread and abundant pest throughout South West Queensland.*

*Photo acknowledgement: Our thanks to Craig Hunter.*

# Detailed weed descriptions

## Potential weeds



**Common name:** Prickly acacia

**Scientific name:** *Acacia nilotica* subsp. *Indica*

**Classification:** Class 2 Pest Plant

### Description and seasonal characteristics

Perennial (prickly) woody weed.

Flowers late January to June.

Seed drop October to January. Seeds germinate after significant rainfall in late spring and summer.

Seedling growth can be rapid, and trees flower and set seed within two to three years after germination under ideal conditions with unlimited water.

### Weed spread pathways

Seeds are most significantly dispersed by livestock (mainly cattle) through passing ingested seed in faeces.

Seeds are also spread by:

- Water
- Mud on vehicles, machinery and livestock hooves.

### Strategies to minimise risk of weed spread

Quarantine incoming stock that may have consumed Prickly acacia (can last in livestock stomachs for up to six days).

Avoid driving through infested areas during wet and muddy conditions.

Manage grazing pressure, particularly along watercourses and bore drains.

### Control methods

Map infestations so that an integrated strategy can be developed.

Chemical control – herbicide treatment should be applied when the plant is actively growing. Do not treat during hot dry summers. Methods include foliar spray, basal bark, cut stump and soil applied herbicides.

Biological control – tip boring, leaf feeding and seed feeding insects.

Mechanical control – grubbing, chain pulling and stick raking with cutting blades between the tynes.

### Notes

*Photo acknowledgement: Our thanks to Chris Love.*



**Common name:** Parkinsonia

**Scientific name:** *Parkinsonia aculeata*

**Classification:** Class 2 Pest Plant

#### **Description and seasonal characteristics**

Small tree, flowers in the summer of its second or third year of growth then exploits variable seasonal conditions.

#### **Weed spread pathways**

Seeds are spread primarily by flood waters.

Minor spread possible by mud sticking to vehicles and animals.

#### **Strategies to minimise risk of weed spread**

Be aware of the weed and what it looks like. Monitor for outbreaks and treat weed infestations when they are small – do not allow them to establish.

#### **Control methods**

Slow moving grass fires can be effective.

Stick raking ploughing or ripping in areas away from watercourses followed by treatment of subsequent seed germination.

Herbicide control.

Biological control includes seed-eating and leaf-eating insects.

Also a fungal pathogen in Northern Australia.

#### **Notes**

*Photo acknowledgement: Our thanks to Nathan March (Department of Agriculture and Fisheries).*



### Common name: Mesquite

**Scientific name:** *Prosopis glandulosa*, *P. pallida* and *P. velutina*

**Classification:** Class 2 Pest Plant (N.B. All other *Prosopis* species and hybrids are Class 1 Pest Plants)

### Description and seasonal characteristics

Deciduous shrub to 5m with twin spines above each leaf axil. Branches have a characteristic zig-zag shape.

Yellow "rod" flowers in spring and early summer and 20mm long flat seed pods that drop in late summer.

### Weed spread pathways

Initially spread through the use of the tree as an ornamental, shade or fodder tree.

Seeds are primarily dispersed by livestock that feed on the seed pods but can also be spread by flood waters.

### Strategies to minimise risk of weed spread

Quarantine of stock moving to unaffected areas.

Reducing feral animal numbers.

Control of infestation at the head waters of a catchment.

### Control methods

Integrated management – i.e. combining chemical and mechanical control with fire, grazing management and biological control methods.

### Notes

*Sometimes confused with Mimosa bush. There are also several species and hybrids.*

*Photo acknowledgement: Our thanks to QMDC.*





**Common name:** Rubber vine

**Scientific name:** *Cryptostegia grandiflora*

**Classification:** Class 2 Pest Plant

#### **Description and seasonal characteristics**

A long-lived, many stemmed shrub which can climb 30m into tree canopies, or grow 1–3m high when unsupported in open areas.

Most flowering takes place in summer with seed pod formation usually in late summer or early autumn.

#### **Weed spread pathways**

Wind and water are the main ways in which Rubber vine spreads.

Also spread by accidental/unintentional planting.

#### **Strategies to minimise risk of weed spread**

Raising public awareness of the risk of this species and preventing its sale and planting.

#### **Control methods**

Biological, chemical, fire and mechanical are the four main methods used to control Rubber vine.

Mapping of infestations and destroying plants before they first set seed.

Ongoing follow-up is crucial to any successful control of Rubber vine.

#### **Notes**

*Rubber vine is a weed of National Significance. It is regarded as one of the worst weeds in Australia because of its invasiveness, potential for spread, and economic and environmental impacts.*

*Photo acknowledgement: Our thanks to Hellen Haapakoski (Department of Agriculture and Fisheries).*



**Common name:** Cat's claw creeper

**Scientific name:** *Macfadyena unguis-cati*

**Classification:** Class 3 Pest Plant

**Description and seasonal characteristics**

Perennial woody vine with bright yellow trumpet shaped flowers in spring and early summer.

Seed capsules mature in late summer to autumn, approximately eight to 10 months after flowering. Seed begins to drop in late May, with peaks in July and August.

Seeds germinate best when not buried and will germinate readily in moist leaf litter.

**Weed spread pathways**

Numerous seeds with papery wings that aid dispersal, particularly by water and wind.

Humans can also spread the tuberous roots.

**Strategies to minimise risk of weed spread**

Raising awareness and preventing planting of new plants.

**Control methods**

Develop and implement a long-term weed management plan.

Coordinated control programs involving neighbouring landholders can maximise effectiveness and reduce ongoing spread.

Chemical control through cut stump and foliar spray of regrowth.

Physical control by cutting stems, however regrowth will need to be controlled chemically as digging out tubers is not practical.

Biological control includes a tinged bug and a leaf mining jewel beetle.

**Notes**

*Cat's claw creeper completely smothers native vegetation, even growing up over trees. The species also changes soil chemistry.*

*Photo acknowledgement: Our thanks to Sandy Robertson.*



**Common name: Coolatai grass**

**Scientific name:** *Hyparrhenia hirta*

**Classification:** Not Declared

**Description and seasonal characteristics**

Coolatai grass is an invasive drought, fire and herbicide tolerant tussock forming perennial grass.

It will flower and set seed from spring to autumn, however it will flower all year if conditions are suitable.

**Weed spread pathways**

The hairy seeds readily adhere to the hair and wool of animals and clothing, and is easily caught on and in vehicles.

Seeds are spread by the common practice of roadside slashing.

The light weight of the seed also facilitates the spread by air movement and passing vehicles, particularly trucks.

If eaten, some seed will survive in the digestive tract of cattle.

**Strategies to minimise risk of weed spread**

Coolatai grass is easily spread by stock, machinery, fodder and seed. Land managers must ensure stock, fodder, grain and machinery coming onto their land has not come from a Coolatai grass infested area.

New stock or animals returning from agistment must be quarantined in a small paddock for at least a week. This quarantine paddock needs to be monitored for Coolatai grass establishment for the next two summers.

Early detection and eradication.

**Control methods**

Chemical control.

In areas suited to cropping – cropping for two to three years with a competitive pasture.

Rotational grazing and maintaining ground cover of competitive desirable species.

**Notes**

*Coolatai grass is one of the few perennial grasses capable of invading undisturbed natural ecosystems and is a major threat to natural biodiversity in stock routes, nature reserves and National Parks. Pasture dominated by Coolatai grass can be productive, although the management requirements are higher than those commonly employed.*

*Photo acknowledgement: Our thanks to Sandy Robertson.*

# 6 Local vehicle cleandown information

Maintaining good vehicle hygiene plays a critical role in property biosecurity. It is important to ensure that sound vehicle hygiene practices are being followed by all visitors to a property including:

- neighbours
- stock and station agents
- visiting agronomists
- NRM personnel
- shooters
- visitors - even from the city - as they could be carrying fire ants or other pathogens on their vehicle.

The time it takes to adequately clean vehicles and machinery can vary greatly, but it is important to be done properly.

Here are some tips for undertaking effective cleandowns and associated weed spread prevention:

- Use a combination of cleaning methods including high pressure/low volume hoses, low pressure/high volume hoses, vacuums, brushes, brooms and air compressors.
- High pressure/low volume cleaners are handy but do not effectively clean the underside of a vehicle unless it can be lifted on a hoist. Low or high pressure/high volume hoses are the best method to flush out hard to reach places such as chassis rails, cross members and other cavities.
- Use an air compressor to blow down a vehicle in dry conditions.
- Always clean down vehicles in a designated location where weed outbreaks can be monitored and controlled.
- Avoid cleaning down where runoff can enter waterways.
- Avoid driving through known weed infestations, particularly during wet conditions.
- Use a temporary cover over grills to prevent seeds from lodging in internal parts of a vehicle such as the radiator. For example, a piece of shade cloth and cable ties can be temporarily attached to the front of a vehicle and later removed and disposed.

## Public washdown facilities in the region

### Banana Shire:

- Rannes Road, Baralaba
- Paines Road, Biloela
- Dawson Highway, Moura
- Leichhardt Hwy, Taroom
- Taroom-Roma Road, Taroom.

A charge of \$2 per 10 minutes applies to all facilities. Council staff are available to conduct vehicle inspections if required. For further details, phone Council on 07 4992 9500.

### Maranoa Region:

- Public washdown facilities are located in Injune and at the Roma Saleyards on the Warrego Highway.

Both are accessible using an Av-Data key. Contact Council on 1300 007 662 for more details.

### Western Downs Region:

- Wandoan Saleyards situated off the Leichhardt Highway.

Washdown facility users will need to purchase an Av-Data key from Council's Wandoan Customer Service Centre located at 6 Henderson Road. The office is open between 8am and 5pm on weekdays. Phone 1300 268 624 for more information.



# 7 For more information

If you think you may have come across some of these weeds on your property, or are currently implementing weed control measures and would like further advice, there are many resources available to help you effectively manage this risk.

Here is a list of organisations and tools that can assist.

## Organisations

### Biosecurity Queensland

Biosecurity Queensland coordinates the State Government's efforts to prevent, respond to and recover from pests and diseases that threaten the economy and environment. It helps to ensure that Queensland's land and environment is healthy and resilient while working to provide continued market access for our products, maintain our reputation for high standards of animal care, and reduce the risks of chemical contaminants to agricultural food production systems and the environment.

**For more information:**

Web: [www.daf.qld.gov.au/biosecurity/about-biosecurity](http://www.daf.qld.gov.au/biosecurity/about-biosecurity)

Phone: 13 25 23

### Natural Resource Management Groups

Queensland Murray-Darling Committee (QMDC) is a community-based, not-for-profit organisation that delivers NRM and environmental services across the Queensland Murray-Darling Basin.

**For more information:**

Web: [www.qmdc.org.au](http://www.qmdc.org.au)

Phone the Roma Office: 07 4620 4600

Phone the Toowoomba Office: 07 4637 6200

### Local Landcare Groups

Local Landcare Groups can assist with the establishment and facilitation of local catchment-based action groups.

### Maranoa Regional Landcare Association

This is a Roma-based group of dedicated landholders in the Maranoa region who work together for the betterment of land management across the catchment.

**For more information:**

Phone: 0428 226 010

Email: [maranoalandcare@qmdc.org.au](mailto:maranoalandcare@qmdc.org.au)

### **Murilla Landcare Group Inc.**

This is an association of small Landcare groups in the Maranoa-Balonne catchment. It is dedicated to supporting and facilitating sub-catchment scale planning and implementation groups aimed at achieving integrated and sustainable land management practices.

#### **For more information:**

Web: [www.murilla\\_landcare\\_group.websyete.com.au](http://www.murilla_landcare_group.websyete.com.au)

Phone: 07 4627 2125

Email: [murillalandcare1@bigpond.com](mailto:murillalandcare1@bigpond.com)

### **Dawson Catchment Coordinating Association (DCCA)**

The main DCCA office is based in Theodore. Field staff are located across the catchment in Taroom, Theodore and Dululu and travel throughout the catchment for property visits and workshop delivery.

#### **For more information:**

Web: [www.dawsoncatchment.org](http://www.dawsoncatchment.org)

Phone: 07 4627 4336 or 0427 274 455

Email: [andrea.beard@dcca.net.au](mailto:andrea.beard@dcca.net.au)

### **Livestock Biosecurity Network**

The Livestock Biosecurity Network has Regional Officers in all states and territories who endeavour to provide livestock producers with the necessary tools and useful information to manage disease (endemic and exotic), and pest and weed events on their farms.

#### **For more information:**

Web: [www.lbn.org.au](http://www.lbn.org.au)

Phone: 0403 863 413 (Southern Queensland and Northern New South Wales group)

Email: [crgimmett@lbn.org.au](mailto:crgimmett@lbn.org.au)

### **Meat and Livestock Australia (MLA)**

MLA provides a range of extension and training tools (including BusinessEDGE) to help better manage red meat enterprises and to put research findings into practice.

#### **For more information:**

Web: [www.mla.com.au](http://www.mla.com.au)

Phone: 07 3620 5200

Email: [businessedge@jkconnections.com.au](mailto:businessedge@jkconnections.com.au)

# 7 For more information

## Weed Spotters' Network Queensland

This organisation aims to find, identify and document new occurrences of potential weeds at an early stage so that preventative action can be taken. Weed spotters collect, identify, deliver and report specimens of potential, new and emerging weeds in their region. This group seeks to continue a community-based weed alert system in Queensland and as part of this landholders are encouraged to collect suspected weed specimens from their properties.

**For more information:**

Web: [www.qld.gov.au/environment/plants-and-animals/plants/herbarium/weed-spotters](http://www.qld.gov.au/environment/plants-and-animals/plants/herbarium/weed-spotters)

## Farm Biosecurity

This information hub includes resources related to protecting farm biosecurity, including an Action Planner tool that can be used to assess biosecurity risks on a farm and take steps to address them.

**For more information:**

Web: [www.farmbiosecurity.com.au](http://www.farmbiosecurity.com.au)

## Powerlink Queensland

Powerlink is a State Government Owned Corporation, which owns, develops, operates and maintains the high voltage electricity transmission network that extends 1,700km from north of Cairns to the New South Wales border. In carrying out its activities, Powerlink is committed to working with landholders and stakeholders impacted by its activities to identify any potential biosecurity risks and develop effective and appropriate methods to manage declared weeds – from the planning phase right through to construction, operation and maintenance for its infrastructure.

**For more information:**

Web: [www.powerlink.com.au](http://www.powerlink.com.au)

Phone: 1800 635 369 (during business hours) or 1800 353 031 (24 hours a day, seven days a week in case of emergency, fallen transmission lines, or to report damage or vandalism)

Email: [website.enquiries@powerlink.com.au](mailto:website.enquiries@powerlink.com.au)



## Other publications

### 'Weeds of Southern Queensland'

This book is prepared by the Weed Society of Queensland and provides detailed information on weed species prevalent across Southern Queensland. It incorporates photos of an extensive range of weed species as well as advice regarding weed management techniques.

**For more information:**

Web: [www.wsq.org.au](http://www.wsq.org.au)

Copies of '*Weeds of Southern Queensland*' can usually be obtained by contacting your local Landcare Group, Local Council Service Centre or QMDC in Roma or Toowoomba.

### 'Grow Me Instead'

This is an initiative of the Nursery and Garden Industry Australia (NGIA) to promote a positive change in the attitude of both industry and consumers towards invasive plants. It provides regionally-specific information on common garden plants that have now become invasive environmental weeds and suggests alternative plants that benefit garden diversity while lessening their potential to become weeds in the future.

**For more information:**

Web: [www.growmeinstead.com.au](http://www.growmeinstead.com.au)

### WEEDeck

A series of weed identification cards that:

- is constantly under review by experts in this field and therefore contains current information
- is easy to update because it is a card system
- can be customised to suit the needs of your geographical area.

**For more information:**

Web: [www.sainty.com.au](http://www.sainty.com.au)

### Integrated Weed Management Strategy

This is the comprehensive document prepared as part of the Powerlink and QMDC Community Relations Program. It is the more detailed 'foundation' document about weed management in the North West Surat Basin and underpins this Pocket Guide and associated App.

**For more information:**

Web: [www.powerlink.com.au](http://www.powerlink.com.au) (go to 'Community & Environment') or [www.qmdc.org.au](http://www.qmdc.org.au) (go to 'Corporate partnerships with QMDC')

# 7 For more information

## Apps

### Let's Get Weed Wise App

This newly developed App, also based on the Integrated Weed Management Strategy prepared for the Powerlink and QMDC Community Relations Program, enables landholders and stakeholders to access current information about weed management in the North West Surat Basin.

The App was developed in conjunction with this Pocket Guide and aims to provide locally relevant information on weeds in the Fairview, Wallumbilla, Wandoan and Yuleba areas. Accessible via a range of devices including smartphones, tablets and computers, the App is a digital, portable and interactive source of spatial information regarding current and emerging weed threats.

It allows landholders to enter their address or find their location to view information about weeds of interest in their local region. The App also incorporates tailored information on how various weed species are spread, what can be done to control them and regionally-specific information on who to contact for more assistance.

#### **For more information:**

Web: [www.powerlink.com.au](http://www.powerlink.com.au) (go to 'Community & Environment') or [www.qmdc.org.au](http://www.qmdc.org.au) (go to 'Corporate partnerships with QMDC').



*Access the App by scanning the QR Code on the left or visit <http://arcg.is/ljBDTO>*

### The Ute Guide App

The Grains Research and Development Corporation's publication 'Weeds: The Ute Guide' is now available as an App to assist landholders with identifying the most common weeds found in paddocks across Australia. Where possible, photos have been provided for each stage of the weed's lifecycle, from seedlings through to mature and flowering plants.

#### **For more information:**

Web: [www.grdc.com.au/Resources/Apps](http://www.grdc.com.au/Resources/Apps)

# 7 For more information

## Apps (continued)

### Environmental Weeds Australia App

Environmental Weeds Australia is available as a weed identification App. It includes a full identification key, weed fact sheets and more than 10,000 images. It is a valuable resource for everyone with an interest in weeds, from landholders and biodiversity researchers, to environmental advisors and local environmental groups.

**For more information:**

Visit the iTunes or Google Play stores:

- <https://itunes.apple.com/au/app/environmental-weeds-australia/id898685476?mt=8>
- <https://play.google.com/store/apps/details?id=org.lucidcentral.mobile.ewa&hl=en>

### SoilMapp App

Learn more about what's beneath your feet with the CSIRO's SoilMapp App, which makes soil information accessible from your location. Information such as soil depth, acidity, salinity, carbon, water holding capacity and other attributes can help landholders, farmers and rural advisors make on-the-spot and informed decisions about how to more effectively manage their land.

**For more information:**

Web: <http://www.csiro.au/en/Research/AF/Areas/Sustainable-farming/Decision-support-tools/SoilMapp>

### Weeds of Southern Queensland App

The latest edition of the '*Weeds of Southern Queensland*' book, produced by the Weed Society of Queensland (discussed on Page 23), is also available electronically as an App. This offers landholders a quick and easy to access resource on weed identification for species located across the region.

**For more information:**

Web: [www.wsq.org.au/WSQ%20app.htm](http://www.wsq.org.au/WSQ%20app.htm)

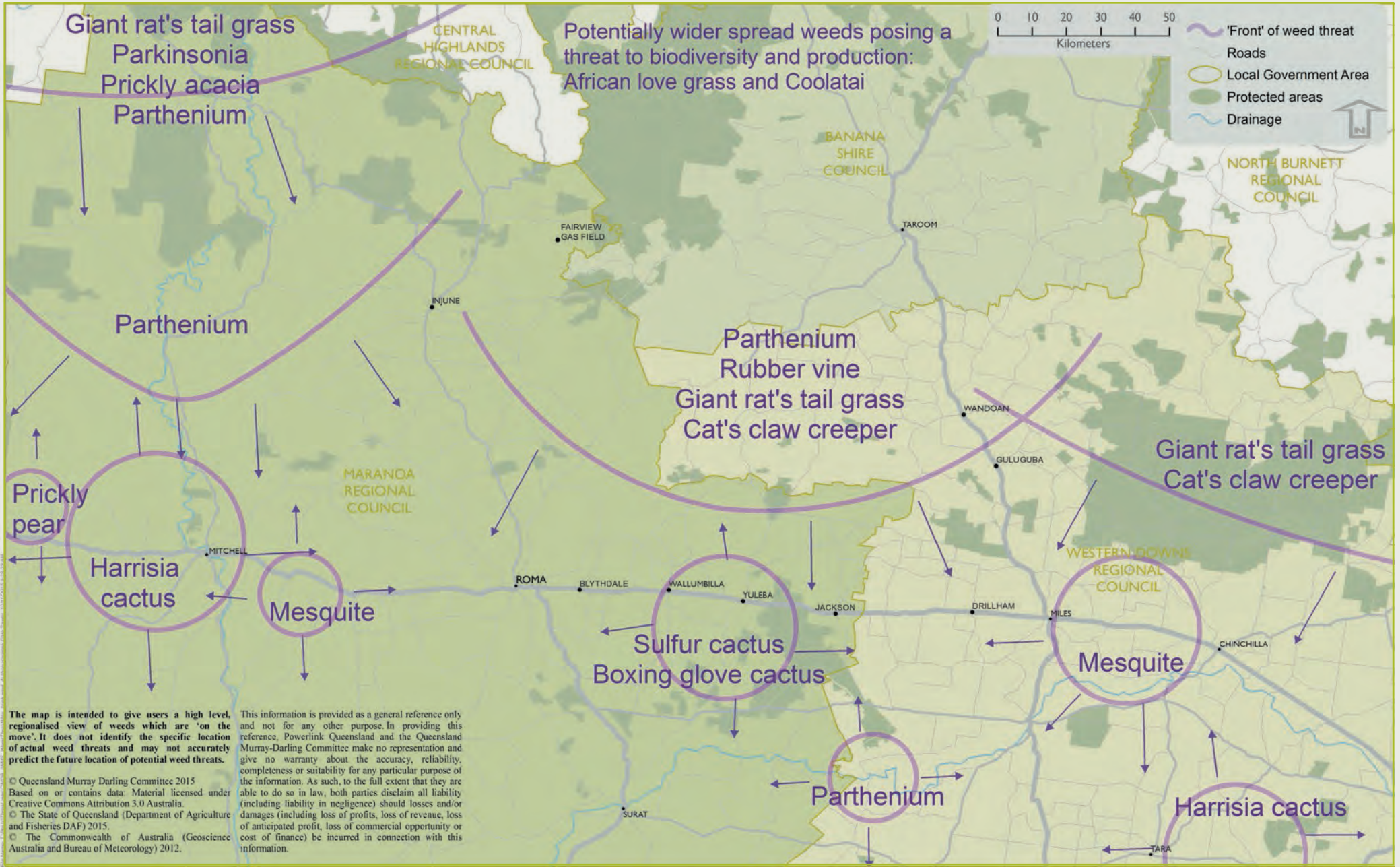
### Australian CliMate App

This App provides information for farmers to assist with decision-making about their farming operations based on recent weather and likely climate probabilities. It allows the user to interrogate climate records and ask questions relating to rainfall, temperature and radiation, as well as derived variables such as heat sums, soil water and soil nitrate.

**For more information:**

Web: <http://www.australianclimate.net.au>

# 8 Potential weed threats in the North West Surat Basin



The map is intended to give users a high level, regionalised view of weeds which are 'on the move'. It does not identify the specific location of actual weed threats and may not accurately predict the future location of potential weed threats.

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 © The Commonwealth of Australia (Geoscience Australia and Bureau of Meteorology) 2012.

# 9 Effective control methods

There are many different weed control options available to landholders that are discussed throughout this Pocket Guide. An overview is provided below.

## **Integrated control**

This involves controlling weeds through a long-term management approach, using several techniques to prevent weeds adapting to any one approach – for example, minimising weed resistance build-up to certain chemicals.

## **Prevention**

Prevention is the most effective method of dealing with weeds. Maintaining stringent property hygiene and cultivating good ground cover will prevent weeds from becoming established on a property.

## **Early detection and eradication**

Knowing what signs or triggers to look out for, when to look out for them, and taking immediate action will help prevent weed species from reaching a point where control becomes ongoing and costly.

## **Physical control**

This includes methods such as mulching, grazing, slashing, tilling, burning or hand removal of weeds. It is crucial to be aware of the growth stages of the targeted weed and the most appropriate timing and method to apply to that particular species.

## **Cultural control**

Cultural control consists of manipulating farming practices to suppress weed growth and encourage desirable plants via practices such as crop rotations, choosing vigorous competitive desirable species, specific timing of fertiliser use to the best advantage of the desirable species, and rotating between herbicides with different modes of action.

## **Biological control**

This involves releasing an approved biological control agent to eradicate a weed. Biological control is a weed's natural enemy such as insects, grazing animals or pathogens.

## **Chemical control**

Use of chemicals such as a herbicide is not always essential but in some situations it is an important and effective method of weed control. When choosing to use chemicals, ALWAYS READ THE LABEL. Registered chemical information and application rates can be found in the '*Weeds of Southern Queensland*' book (see Page 23 for more information on this publication). Additionally, refer to the Australian Pesticides and Veterinary Medicines Authority for information on chemicals: [www.apvma.gov.au](http://www.apvma.gov.au)

For more information on the Powerlink and QMDC Community Relations Program, please contact:

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