

Guideline

for the management of **parthenium** (*Parthenium hysterophorus*)

Purpose and scope

This guideline has been prepared under section 15 of the *Land Protection (Pest and Stock Route Management) Act 2002 (Qld)* to support successful management of parthenium, a Class 2 declared pest. It sets out an objective, and statutory and non-statutory actions which are consistent with the eight principles of pest management listed in section 9 of the Act.

Operational objective

- To prevent the spread of parthenium into uninfested areas.
- To manage the economic impacts of established infestations.

Operational actions

1. Integration

- Integrate the management of parthenium with broader land management programs designed to improve pasture management, including pasture spelling and burning.

2. Public awareness

- Raise awareness so that the public are able to identify parthenium, and have knowledge of its impacts, its management, and the potential for weed seed spread.
- Target awareness campaigns at landholders in areas at risk of invasion so they can recognise parthenium and help prevent its spread.

3. Commitment

- Enforce compliance when landowners do not take reasonable steps to control parthenium.

4. Consultation and partnership

- Build working partnerships between key stakeholders to generate a holistic approach to the management of parthenium and a sense of community ownership of the problem.
- Ensure adequate representation on the National Parthenium Management Group.

5. Planning

- Refer to the national *Parthenium Weed Strategic Plan* for additional guidance.
- Map the extremities of parthenium infestations.
- Monitor areas potentially at risk of new parthenium infestations.
- Ensure that parthenium management plans are consistent with plans in neighbouring areas.
- Secure adequate resources (i.e. time, funds and personnel) to carry out the actions in this guideline.

6. Prevention

- Limit the spread of parthenium by developing and implementing hygiene and prevention practices, including vendor declarations for the sale of grain, fodder such as hay, and other things, such as machinery (s. 45; s. 46).

Guideline

- Prevent spread of parthenium into uninfested properties by enforcing restrictions on the movement of products and machinery contaminated with seed (s. 45; s. 46). Target especially the movement out of infested regions of grain harvesters and drought fodder. Utilise wash-down facilities where they are available.
- Reduce the spread of parthenium by controlling infestations on roadsides and public areas.

7. Best practice

- Refer to the best practice manual for managing parthenium (see below).
- Put in place measures to prevent any degradation of land, water, and desirable vegetation by control methods.

8. Improvement

- Keep up-to-date with research on the management of parthenium.
- Evaluate herbicides for their potential to replace atrazine (especially for the control of parthenium along roadsides).
- Advance the knowledge of the effectiveness of biocontrol agents on parthenium.

Background

Heavy infestations of parthenium are present throughout central Queensland, and can potentially spread across much larger areas of southern Queensland, including the heavily populated south-east. Seeds are easily spread in mud, fodder, earthmoving equipment and grain-harvesting machinery. Restrictions on the movement of contaminated machinery and materials are therefore necessary to prevent spread to vulnerable areas.

Under favourable conditions, parthenium can form dense stands that exclude other plants, including crops and pastures. All parts of the plant, including pollen and dry material, can produce allergic responses in humans. Parthenium costs Queensland more than \$14 million per annum in control and lost agricultural production. Complete eradication is no longer feasible; however, preventing or reducing its spread into new areas of the state and managing its adverse effects are feasible and desirable.

Responsibility

Landowners: destruction of infestations.

Local governments: compliance, surveillance, local planning, mapping, and raising awareness.

DEEDI: statewide planning, mapping, coordination, raising awareness, and research.

References

Commonwealth of Australia and National Weeds Strategy Executive Committee 2001, *WONS: Parthenium Weed Strategic Plan*, National Weeds Strategy Executive Committee, Launceston.

Spooner, N 2000, *Parthenium Weed Best Management Practice*, DEEDI and the Parthenium Action Group, Brisbane.

Parthenium weed fact sheet available at www.dpi.qld.gov.au

Vogler, W et al. 2002, *Use of Fire to Control Parthenium Weed*, Rural Industries Research and Development Corporation and DEEDI.

Queensland Parthenium Strategy 1999–2004, Pest status review series??

Maps

- Current distribution of parthenium, available at www.dpi.qld.gov.au > Biosecurity > Weeds, pest animals and ants > Pest Mapping > Annual pest distribution maps > search for a map > select parthenium species.
- Potential distribution of parthenium, available at www.dpi.qld.gov.au > Biosecurity > Weeds, pest animals and ants > Pest Mapping > Predictive pest maps > Search for a weed map. Weeds are listed by common name.

The maps are updated as new information becomes available, and the latest maps must be accessed from the website.

Date of approval: February 2004