

Alligator Weed National Priority Framework 2009-2011

Prevent the spread

Eradicate/contain non core infestations

Manage core infestations

Improve control methods and initiate research

To minimise the adverse impacts of alligator weed on Australia

Priority

1

- ★ Continuation of National Coordination and management group (2.1.5)
- ★ Education and awareness programs, incorporating community awareness and Identification Training (2.1.4)
- ★

- ★ Conduct eradication programs at high priority non core sites (2.2.1)
- ★ Implement tools and new approaches for eradicating non core infestations*

- ★ Strategic management of core areas, including management of sites identified as high risk of further spread or impact

- ★ Continuation of biological control agent research (2.3.3)
- ★ Improve herbicide and non herbicide control techniques and develop integrated control methods (2.3.3)
- ★ Continue development of imaging techniques (ie UAV platform) for detection and mapping of alligator weed (2.3.3)

2

- ★ Undertake survey programs in catchments at high risk of invasion (2.2.1)
- ★ Inspect and audit progress towards eradication. (2.2.2)

- ★ Build capacity of local government and landholders to implement best practice.

- ★ Quantify the economic and environmental impact of alligator weed*
- ★ Conduct herbicide translocation studies*
- ★ Hydrological modelling to predict post flood spread of alligator weed and other aquatic weeds*

Priorities are based on the National Strategy and/or the National Aquatic Weeds Management Group five year plan. Numbers in brackets correspond to actions in the National Strategy whilst * corresponds to priorities identified in NAWMG five year plan

Detailed information regarding the Alligator Weed National Priority Framework

The alligator weed priority framework is divided into 4 sections

1. Prevent spread
2. Identify and eradicate non core infestations
3. Manage core infestations
4. Research and development

This document provides further detail regarding each of the priorities listed. It's advisable for potential applicants contact the National Aquatic Weeds Coordinator before developing applications.

Prevent spread

Priority 1

- Support the National Aquatic Weeds Management Group in coordinating strategic management of alligator weed in Australia
- Attract sponsors/partners to promote, implement and help fund priority alligator weed management actions

Support the implementation of education programs address education components of the national strategies and the National Aquatic Weeds Communication plan. This includes:

- awareness campaigns amongst earthmoving contractors, rural property owners and boating and fishing audiences in alligator weed core infestation areas
- Alligator Weed & aquatic weeds identification workshops in regions at high risk of invasion
- Alligator Weed field days to communicate best practice information.
- TV advertisements in key areas to increase awareness and detect new infestations

Identify and eradicate non-core infestations

Priority 1

Support eradication programs and conduct downstream surveillance at non core infestations in the following high priority regions:

- South East Queensland
- Melbourne Central
- NSW Northern Rivers (Richmond River Catchment)
- Murray Darling Basin
- New outbreaks

Implement new tools and approaches for eradicating non core infestations. This includes:

- Importing and registering (or minor use permit) of herbicides with proven efficacy in either terrestrial or aquatic situations.
- Updating best practice, based on results of future research efforts

Priority 2

High risk regions/catchments of invasion include:

- Northern NSW
- South East Queensland
- Metro Melbourne

- Murray Darling Basin (QLD, NSW, VIC and SA)
- Gippsland (VIC)
- All catchments within 50km of State Capital Cities
- All catchments within 200km of the Alligator Weed core area.

Survey programs need to target areas at high risk of invasion, as determined by the Aquatic Weeds Early Detection framework.

Inspection/audit progress towards eradication of non core infestations in Australia to:

- Establish timelines for eradication for each infestation
- Measure progress towards eradication of non core infestations
- Identify and rectify deficiencies in management
- Provide guidance and direction for future eradication efforts.

Manage core infestations

Priority 1

The alligator weed core infestation region covers the Greater Sydney and Hunter basins in NSW.

Priority 1 actions for strategic management of the core alligator weed include:

- Establishment of cross regional taskforce to oversee regional alligator weed management strategies to contain and reduce impact of the core alligator weed infestation
- Implement containment/eradication strategies for alligator weed infestations deemed to be at high risk of further spread or impact
- Engagement of key stakeholders, including CMAs and water authorities in alligator weed management.

Priority 2

Building capacity of local government and landholders to better manage alligator weed includes:

Delivery of targeted extension material

Research

Priority 1

Alligator weed biological control research involves:

- Continuing host specificity testing of priority insects
- Mass rearing and release of host specific insects with Australian Government approval for release
- Alternative biological control approaches such as studying plant pathogens from South America and developing native pathogens for use as bioherbicides.
- Genetic analysis to determine the origin of alligator weed populations in Australia

Improvement of and integration of control techniques (herbicide and non herbicide) to develop effective eradication strategies for alligator weed involves:

- Efficacy trials of new herbicides and wetting agents
- Efficacy trials of non herbicide options, including steam and solarisation
- Developing cost effective integrated strategies for eradication/containment, utilising both herbicide and non herbicide treatments.

Key priorities for the development of imaging techniques for early detection and mapping of alligator weed and other high priority aquatic weeds involves

- Continuing development of Unmanned Aerial Vehicles to provide cost effective methods for alligator weed reconnaissance and detection

- Utilising high resolution aerial photography for mapping core alligator weed infestations.

Priority 2

Quantify economic and ecological impacts of alligator weed to Australia, including:

- The current economic and ecological impacts
- the key economic and ecological assets at risk (eg Irrigation schemes, RAMSAR wetlands and critical aquatic habitats) of invasion and potential impacts to them.
- Benefit/cost analysis of control programs

Herbicide translocation studies that build on previous research to

- Identify plant factors that prevent translocation of Glyphosate and Metsulfuron-methyl
- Identify lifecycle stage of plant that is most susceptible to herbicides