



REGIONAL WEED MANAGEMENT PLAN

1.1 PLAN TITLE: **Golden Dodder**

1.2 PLAN PROPONENTS

Regional weed advisory committee: Macquarie Valley Weeds Advisory Committee

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Signature: Chairman: Date:

1.3 NAME OF PLANT(S)

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Botanical name: *Cuscuta campestris* Common name: Golden Dodder

1.4 PLAN PERIOD (not to exceed five years)

Starting date: 01/07/2008 Completion date: 30/06/2013

1.5 AREA OF OPERATION

All Local Control Authorities (LCA's) and Rural Lands Protection Boards (RLPB's) of the Macquarie Valley Weeds Advisory Committee.

1.6 AIM

To successfully manage Golden Dodder in the Macquarie Valley.

1.7 OBJECTIVES

1.7.1 Considerably reduce impacts of existing weeds

1.7.2 Prevent new weed problems

1.7.3 Improve coordination and cooperation

1.7.4 Raise awareness of weeds issues within region

2.0 STAKEHOLDERS

2.1 SIGNATORIES

Participating Councils (LCA's):

- Bogan Shire Council
- Bourke Shire Council
- Brewarrina Shire Council
- Cabonne Council
- Cobar Shire Council
- Mid Western Regional Council
- Orange City Council
- Unincorporated area of Western Division
- Wellington Council

Participating County Council:

- Upper Macquarie County Council

Participating Rural Lands Protection Boards:

- Bourke
- Brewarrina
- Central Tablelands
- Coonabarabran
- Coonamble
- Dubbo
- Hillston
- Molong
- Moree
- Mudgee
- Narrabri
- Nyngan
- Walgett

2.2 OTHER STAKEHOLDERS

- NSW Department of Primary Industries (DPI)
- State Forests
- NSW Department of Environment and Climate Change (DECC) – National Parks and Wildlife Service (NPWS)
- Department of Lands
- Catchment Management Authorities (CMA's)
- Regional Landcare Coordinators
- Aboriginal Lands Councils
- Service providers – Country Energy, Telstra, Australian Rail Track Corp (ARTC)

3.0 BACKGROUND AND JUSTIFICATION

3.1 PLAN JUSTIFICATION AND DESCRIPTION OF PROBLEM

Golden Dodder has the capacity to spread easily around the region and cause massive impact on local agricultural and horticultural industries. This plant has the ability to grow on a wide range of different crops, pastures and other horticultural plants. Golden Dodder is of most concern with Lucerne because it is a more easily infected, broadleaf crop. This plant can germinate in spring, summer and autumn but most commonly in late spring. It contains no root system although has young shoots when it first germinates before making contact with the host plant. As soon as it makes contact the root dies. The seed of this plant can remain dormant in the soil for up to 20 years. Seeding of this plant is very rapid and can occur within two weeks of germination.

The justification for the control of Golden Dodder is due to the massive effect that it can have on the fodder industry in that it contaminates hay and remarkably reduces its yield. This plant has the potential to spread throughout the region particularly in times of drought as hay is being transported from district to district and contaminating other properties.

Local LCA's and RLPB must be effective in spotting this plant and the treatment of this plant on roads and reserves so to best minimise the impact on local agriculture. Council's and RLPB's must initially control their roads and reserves and do follow up inspections of adjacent private properties.

3.2 THE 'DO NOTHING' OPTION

LCA's must continue to have the ability to minimise the spread of Golden Dodder because if nothing is done:

- This weed will have a detrimental effect on the local agricultural and horticultural industries
- It will spread on local LCA and RLPB land if it is not treated along roadsides, as this is where travelling fodder contamination occurs.
- If not treated along creeks and rivers it has the potential to travel long distances down waterways and be carried onto other pasture and cropping land downstream.

3.3 DISTRIBUTION OF INFESTATIONS

Golden dodder occurs in most parts of NSW along rivers, creeks and floodplains. With its principal method of spreading mainly being host plants and livestock along waterways. Most of the Macquarie Valley region is infected with rare and isolated patches of Golden Dodder.

3.4 WEED BIOLOGY

Golden Dodder will germinate predominately in late spring by first producing a root system which will live until it makes contact with a host plant. It loses its root system as soon as it attacks a host plant depleting it of its nutrients. Once becoming established on a host plant the golden dodder will commence flowering at a young age and can start producing seeds within 3 weeks.

3.5 METHOD AND RATE OF SPREAD

Golden dodder has the capacity to spread by land, water, livestock and irrigation. Dodder grows rapidly, flowering and seeding throughout its life. The flowers are mainly coloured white or cream. Seed capsules contain four seeds, each about 1mm diameter. Dodder is a prolific seeder, this being the main method of spread. This seed can be harvested with the host crop and transported in grain, hay or vehicles. The seed is approximately the same size as Lucerne and clover seed so they can't be easily grade out.

3.6 SPECIES MANAGEMENT

Early identification of Golden dodder is essential as seeding can begin within 2 weeks of germination. All areas of Golden Dodder should be extensively mapped and documented so it can be monitored over a period of five years. One method for controlling Golden Dodder is by

- Rotating infested crop and pasture areas to break the plants cycle. Susceptible crops can be replaced with wheat, barley and oats as they are poor hosts for Golden Dodder.
- Small outbreaks of Golden Dodder should be treated immediately on detection to be able to stop the plants spread into unaffected areas.
- Controlling Noogoora Burr and Bathurst Burr along waterways as Golden Dodder is more attracted to these plants. When treating these infestations of Golden Dodder, a buffer zone of 1 metre is required so to stop the spread of extending tendrils. The treated area should be continually monitored.
- Other methods include cutting and burning. This is effective but still need to be constantly monitored as the plants can re-shoot.

- Spraying herbicides on large infestations with a contact herbicide so that the host plant is killed off without the roots of the desirable plant being damaged.

3.7 KEY LAND MANAGERS

- LCA's
- RLPB's
- Landholders
- National Parks
- State Forests
- Department of Lands
- Service providers – Country Energy, ARTC
- RTA

4.0 LEGISLATIVE AND REGULATORY SITUATION

4.1 CURRENT DECLARATION

Golden Dodder (*Cuscuta campestris*) is currently declared as a Class 4 noxious weed. The growth and spread of the plant must be controlled according to the measures specified in a management plan published by the local control authority.

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| <ul style="list-style-type: none"> • Bogan Shire Council • Bourke Shire Council • Brewarrina Shire Council • Cabonne Council • Castlereagh Macquarie County Council • Cobar Shire Council | <ul style="list-style-type: none"> • Dubbo City Council • Mid Western Regional Council • Narromine Shire Council • Orange City Council • Parkes Shire Council • Wellington Council |
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4.2 DECLARATION CHANGES

No alterations to existing declaration are anticipated.

5.0 CONSIDERATIONS AND OPPORTUNITIES

5.1 FINANCIAL SUPPORT TO CARRY OUT THE PLAN

The majority of the financial support for this plan will be provided as part of LCA/RLPB weed control programs. Further support will be sought through DPI's group project funding program. Any other funding source deemed relevant by MVWAC will also be explored.

5.2 LINKS TO OTHER STRATEGIES

- Australian Weed Strategy
- NSW Invasive Species Plan
- MVWAC Regional Weed Strategy
- Catchment Action Plans

5.3 BARRIERS AND CONTINGENCIES

Barriers for this plan are:

- The movement of stock to different areas
- Flooding
- Spread by vehicles and machinery.
- The movement of contaminated Fodder to other areas.

6.0 ACTION PLAN

Objective	Action	Performance indicator	By whom
1.7.1 Considerably reduce impacts of existing weeds	All public lands to be inspected annually	100% of all roadsides, reserves and Travelling Stock Routes (TSR's) inspected.	LCA weed officers & RLPB rangers
	Control methods to be carried out on all infestations on LCA & RLPB lands as seasonal conditions allow	Existing infestations on LCA/RLPB lands reduced by 90%	LCA weed officers & RLPB rangers
	All private properties identified as having infestations are to be inspected annually and regulatory action taken as required	100% of identified properties inspected Existing core infestations on private lands reduced by 50% Existing marginal infestations on private lands reduced by 60% Existing rare and isolated infestations on private lands reduced by 70%	Landholders & LCA weed officers
1.7.2 Prevent new weed problems	Inspect for Golden Dodder as part of routine property inspection program	Golden Dodder is included in the inspection routine	LCA weed officers & RLPB rangers
	Aspects of the rapid response program to be implemented when a new infestation is discovered	100% of located new infestations recorded and mapped 100% of new infestations treated 100% of new infestations to be monitored and follow-up treatment programs implemented	Landholders, LCA weed officers & RLPB rangers
	All infestations to be contained to prevent new weed problems	Buffer zones established around sites known to be infested	Landholders, LCA weed officers & RLPB rangers
1.7.3 Improve coordination and cooperation	All infestations to be recorded and mapped	Maps produced and updated regularly Data recording standards adhered to	LCA weed officers & RLPB rangers
	Plan implementation to be monitored and reviewed	Review process (as outlined in section 7.0) carried out	RPO, LCA weed officers & RLPB rangers
	Actively seek partnerships with other weed management agencies	Partnerships developed where necessary	RPO, LCA weed officers & RLPB rangers
	Develop on-ground management plans with	Plans of management entered into and partnerships	LCA weed officers &

	neighbouring landholders, LCA's and RLPB's	developed with neighbouring landholders, LCA's and RLPB's	RLPB rangers
1.7.4 Raise awareness of weeds issues within region	Golden Dodder to be part of a regional weeds awareness program	Advertisements on television Field days held Displays at local shows attended by Weed Officers Weed pamphlets distributed to landholders during property inspections Weed Calendars distributed by LCA's and RLPB's	DPI, RPO, LCA weed officers & RLPB rangers

7.0 MONITOR AND REVIEW

There will be an annual review of the Golden Dodder management plan to ensure that the performance indicators are realistic and have met. The Weed officers and rangers of the LCA/RLPB that are participating members of the plan will do an annual review.

There will be an ongoing monitoring program by weeds officers and rangers throughout the growing season to check control areas and look for new outbreaks. All information will be mapped and documented.

8.0 BENEFITS

To have control work carried out by LCA/RLPB to reduce the further spread of Golden Dodder. The benefits will be:

- Increased yield
- Reduce spread of Golden Dodder throughout the region
- Improved land values
- Public awareness
- Clean waterways & river systems

9.0 RESOURCES

- Golden Dodder – Identification and Control Agfact P7.6.33
- Cunningham, G.M., Mulham, W.E., Milthorpe, P.L. and Leigh, J.H. (1981) “*Plants of Western New South Wales*” N.S.W. Government Printing Office
- Parsons, W.T. and Cuthbertson, E.G. (1992) “*Noxious Weeds of Australia*” Inkata Press