



Inverell Shire Council

NOXIOUS WEED CONTROL UNIT

Please address all correspondence to the General Manager, Inverell Shire Council,
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Paterson's curse

Paterson's curse (*Echium plantagineum*) – also known as Salvation Jane – is widespread throughout many parts of New South Wales. It's a handy resource for bee-farmers, but a serious problem for graziers!

EFFECT ON ANIMALS

Paterson's curse contains a number of alkaloids, at least one of which acts on the livers of animals causing loss of condition and eventual death in some cases. Animals do not necessarily seek out the plant but if can be consumed with other material, especially when feed is scarce.

Pigs and horses are most affected by continued exposure to Paterson's curse. Their stomachs cannot fully process the plant material, resulting in chronic liver damage. Sheep, goats and cattle are affected but to a lesser extent.

Paterson's curse also causes hay fever and skin irritation for some humans.

IDENTIFICATION

Paterson's curse is easily distinguishable by its attractive, purple flowers. The plant produces thousands of seeds, and, once established, will quickly take over a paddock. That's why it is important to treat any new plants you might find on your property.

Major means of spread is through movement of contaminated hay and other fodder from Paterson's curse areas to clean properties. A glaring example of this is the fact that wherever there are horses, there's usually Paterson's curse in the same paddock (as in photo, below).



The CSIRO and NSW Industry & Investment Dept have been involved in a major biological program for control of Paterson's curse. Seven (7) different types of insects have been approved for release in Australia. The most promising insects so far include a crown weevil (*Mogulones larvatas*), a root weevil (*M. geographicus*) and a flea beetle (*Longitarsus aeneus*). These insects have been released in certain areas of New South Wales, including Tamworth, Bingara, Inverell, Gravesend and Yetman.

All release sites are being monitored by I&I NSW's Weed Biological Control Unit (Tamworth) and/or local council weeds officers. More insects are being released as numbers build up.

Results to date are variable, but showing promise for control of large/inaccessible infestations of Paterson's curse. However, at this early stage the **biological control option is not recommended for small or isolated infestations**.

MORE INFORMATION? PLEASE CONTACT YOUR LOCAL WEEDS OFFICER:

Les Tanner 02 6728 8284 - mobile 0427 241 806

Phil Sutton 02 6728 8244 - 0418 446 068

OR check out Council's website on www.inverell.nsw.gov.au, Environment section

PATERSON'S CURSE (CONTINUED)

CC4(A) MANAGEMENT PLAN – Legal requirements within the Shire of Inverell

The growth and spread of the plant must be controlled by conducting an on-going and effective treatment program to reduce plant numbers and to minimise the plant's negative impact on the land. Boundaries and waterways must be kept free of the plant to prevent spread from the property. All reasonable measures are to be taken to ensure vehicles, machinery and livestock moved off the property are free of the plant.

CONTROL METHODS

Non-Chemical Options: Competitive pastures and/or good grazing management is important in helping to control this problem plant. Manual removal of new plants is an option for small infestations.

Biological control is showing some promise as a means of controlling serious, established infestations in some parts of NSW. Results unreliable to date - not recommended for new and/or lightly/moderately infested areas.

Chemical Options: According to I&I NSW's excellent booklet "*Noxious and Environmental Weed Control Handbook 4rd Edition*", treatments for *Echium* species (Paterson's curse and Viper's/Italian Bugloss) include:

Chemical	Rate: Spot/Boom	Comments
Glyphosate 360 g/L Various trade names	500-700 ml in 100 L of water 2.0-3.0 L/ha	Spot spray. Actively growing plants. Boom application.
2,4-D amine 625 g/L Various trade names	170-220 ml in 150 L of water 1.7-2.2 L/ha	Spot spray - young rosettes. Boom application.
2,4-D 300 g/L + picloram 75 g/L eg Tordon 75-D®	150 mL in 100 L of water	Spot spray. Rosettes to pre-flowering.
Metsulfuron methyl 600 g/kg Various trade names	5 g in 100 L of water 10-15 g/ha	Apply to rosettes after full leaf expansion but before head emergence. Do not spray after emergence of first flowers, as seed set has occurred.
MCPA 500 g/L Various trade names	1-1.5 L/ha	Apply at early rosette stage.
Dicamba 500 g/L Various trade names.	280 ml per 100 L of water 4.0 L/ha	Spot spray. Boom spray. Apply prior to flowering. Add wetter.
Other herbicides not included in I&I NSW booklet:		
Chlorsulfuron 750 g/kg Various trade names eg Glean®	15 g/ha	Registered for use in wheat and triticale only



IMPORTANT: USE OF PESTICIDES – ALWAYS READ THE LABEL

Pesticides must only be used for the purpose for which they are registered and must not be used in any other situation or manner contrary to the directions on the label. Never use herbicide in any way contrary to label recommendations.

DISCLAIMER: The information contained herein is based on knowledge and understanding at the time of writing. However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of Inverell Shire Council or the user's independent adviser.

LRT 30/09/09)

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