

LANTANA 600
 HERBICIDE

Lantana 600 for Lippia Control

What is Lippia?

Lippia also known as Condamine couch/curse (*Phyla canescens*) is a serious environmental and pastoral weed in the Queensland and New South Wales Murray–Darling river system (See photographs RHS below).

It is well adapted to floodplains and adjacent areas, and is extremely difficult to control. Its thick, woody taproot enables it to rapidly establish and persist in poorly structured soils. Lippia will also readily establish on bare ground.

It is an aggressive weed and has the ability to out-compete and dominate in pastures, where it can reduce stocking rates by up to 90% and reduce livestock productivity. Lippia also causes problems in cropping situations.

How does it spread?

Lippia spreads both vegetatively and by seed. A period of significant rainfall and flooding will likely result in an 'explosion' in the Lippia population similar to that observed throughout many catchments during the 1990s. Lippia is primarily dispersed on flood waters and readily establishes on bare ground. The plant tolerates frost and heat and can survive inundation for at least three months.

Where is it found?

Lippia occurs predominantly on the clay soil floodplains of the inland river system in the 500-800mm annual rainfall zone of Queensland and NSW, although it is present in varying density within each of the 19 catchments Murray Darling Basin. The worst affected catchments are the Condamine, Border Rivers, Gwydir, Namoi, Lachlan, Murrumbidgee and the Murray. Lippia is currently estimated to be distributed across at least 5% of the Murray Darling Basin occurring across a total area in the order of 5.3 million hectares.

Cost to agriculture

The cost of Lippia to the livestock grazing industries of the Murray Darling Basin is conservatively estimated to be \$38 million per annum in lost production. In addition there are significant costs associated with herbicide application, clearing and development costs and damage to rural infrastructure. The majority of respondents to a farmer survey nominated Lippia as their worst weed.

The average reduction in stocking rate attributed to Lippia was 55%, however, a significant number of respondents reported 100% de-stocking of some areas severely affected by Lippia.

Lippia control

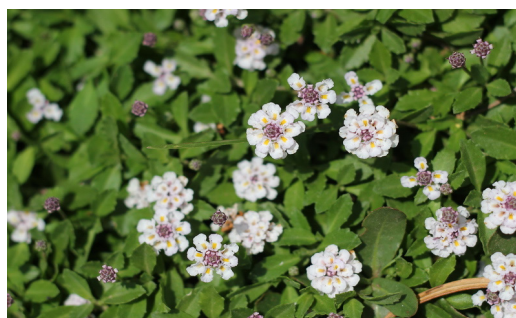
Lippia is difficult to control. Some conventional control methods are not cost effective, or can be impractical under certain conditions.

The use of only one control method is usually ineffective. Therefore, long-term control is best achieved by using a combination of herbicides, mechanical control and pasture management.

• Mechanical control

Short-term control of lippia can be achieved where infestations can be ploughed or harrowed. However, machinery easily spreads Lippia, so it is recommended that machinery working in Lippia-infested areas is washed down before leaving that area.

When Lippia is actively growing and soil moisture levels are good, herbicide can be used in conjunction with mechanical control to give better results.



Lippia flowers are small, 5 to 10 mm diameter, lilac or pink in colour. Leaves are in pairs, 20 - 50 mm long with greyish-green appearance.



• Herbicide control

As Lippia is a broadleaf weed that occurs in pasture situations, some herbicides such as Lantana 600 can be used to reduce Lippia without harming competitive grasses.

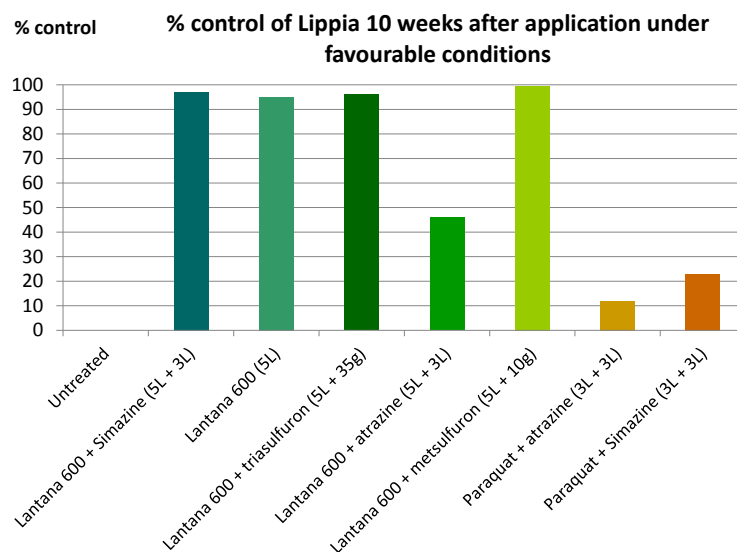
There is no herbicide currently available that will effectively suppress the growth of Lippia in the long term. Due to its ability to rapidly recover and spread, multiple herbicide applications within a season have been shown to give better Lippia suppression than single applications.

Herbicide trial results - Graph 1

Plants in the trial were not suffering from moisture stress at the time of herbicide application which is the best time to apply herbicides for Lippia control.

Lantana 600 alone and in mixtures with simazine, triasulfuron and metsulfuron all performed well but a tank mix of Lantana 600 + atrazine was antagonistic. Lantana 600 alone was almost as effective as the best performing mixtures. Paraquat mixtures with either atrazine or simazine gave very poor control.

Graph 1: % control of Lippia 10 weeks after application - favourable conditions



Directions for use for Lantana 600

Application method	Herbicide	Rate	Comments
Foliar spray (boom)	600g/L Lantana 600	5L/ha	Completely wet all leaves and stems of target plants. Boomspray using high water volumes - minimum 100L/ha. For best results apply at flowering. (For non - crop and right-of-way situations)
Foliar spray (knapsack)	600g/L Lantana 600	5ml/1L of water	Completely wet all leaves and stems of target plants. (For non - crop and right-of-way situations)

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER THE APPROPRIATE LEGISLATION

Acknowledgements: Sipcaml would like to acknowledge the following information source: NSW Weed Risk Assesment (<http://www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds/wrm-system/lippia>).

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