



Shoalhaven City Council Weed Management Plan – Lantana

Common name: Lantana

Botanic name: *Lantana camara*

South East Regional Priority Weed Objective - Containment

Exclusion Zone: *The plant is eradicated from the land, or if that is not practicable then as much of the plant as is practicable is destroyed and the spread of any remaining plant is suppressed*

Management Zone : *Land managers reduce impacts from the plant on priority assets*

Lantana is one of Australia's most debilitating invasive weeds. It is recognised as a Weed of National significance because of its impacts on primary industries, conservation and biodiversity, and the extent of its distribution. Widespread lantana infestations regularly impact on agriculture, the environment, forestry management, recreation and transport. Lantana, however, does provide some minor benefits for native fauna.

All forms of lantana are thought to be toxic, with the red-flowered forms being the most dangerous to stock.

Lantana poisoning in cattle is quite common and causes major economic losses. Most cases of poisoning occur in animals newly introduced into areas where toxic forms of lantana are already growing. Older cattle that are used to grazing lantana-infested areas are not as susceptible. During droughts or when other feed is scarce, stock are also more likely to graze lantana. Early symptoms of lantana poisoning include depression, loss of appetite, constipation and frequent urination, followed by 24–48 hours of jaundice. The eyes of poisoned animals can also become inflamed with a slight discharge. The muzzle may become inflamed, moist, and very sensitive, with a pink nose. Photosensitisation usually follows with death typically occurring 1–4 weeks after the appearance of symptoms. This slow and painful death is due mainly to liver insufficiency, kidney failure and, in some animals, myocardial damage and internal paralysis.

Lantana is also highly toxic to humans, and can cause serious illness and death. All parts of the plant, particularly the green berries, are poisonous if ingested, causing vomiting, diarrhoea, muscular weakness and respiratory distress. The plant is also a skin and eye irritant.

General Biosecurity Duty

All plants are regulated with a **general biosecurity duty** to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable

Exclusion zone: That part of the local government area that is south of 35 11'42" S (A line through the Bandalong Rd and Princes Highway intersection), The plant should be eradicated from the land and the land kept free of the plant.

Management Zone: Land managers should mitigate the risk of new weeds being introduced to their land.

The **Biosecurity Act 2015** and the **Biosecurity Regulation 2017** set out a range of penalties for non-compliance with the provisions of the legislation. Penalties range from \$1,000.00 on the spot fines, through to court imposed penalties of up to a maximum of \$220,000 for individuals or \$440,000 for corporations for failing to discharge a biosecurity duty. If an offence is proven to have been committed negligently, the court may impose a penalty of a maximum of \$1,100,000 for an individual and \$2,200,000 for a corporation.



Chemical control calendar											
January	February	March	April	May	June	July	August	September	October	November	December
		2,4-D 300 g/L + Picloram 75 g/L (Tordon® 75-D)									
		2,4-D amine 625 g/L (Amicide® 625)						2,4-D amine 625 g/L (Amicide® 625)			
		Dichlorprop 600 g/L (Lantana 600®)						Dichlorprop 600 g/L (Lantana 600®)			
		Fluroxypyr 140 g/L + Aminopyralid 10 g/L (Hot Shot™)						Fluroxypyr 140 g/L + Aminopyralid 10 g/L (Hot Shot™)			
		Fluroxypyr 200 g/L (Starane™)						Fluroxypyr 200 g/L (Starane™)			
		Glyphosate 360 g/L (Roundup®)						Glyphosate 360 g/L (Roundup®)			
		Glyphosate 835 g/kg + Metsulfuron-methyl 10 g/kg (Trounce®)						Glyphosate 835 g/kg + Metsulfuron-methyl 10 g/kg (Trounce®)			
		Metsulfuron-methyl 300 g/kg + Aminopyralid 375 g/kg (Stinger™)						Metsulfuron-methyl 300 g/kg + Aminopyralid 375 g/kg (Stinger™)			
		Metsulfuron-methyl 600 g/kg (Brushoff™)						Metsulfuron-methyl 600 g/kg (Brushoff™)			
		Picloram 100 g/L + Triclopyr 300 g/L + Aminopyralid 8 g/L (Grazon Extra®)							Picloram 100 g/L + Triclopyr 300 g/L + Aminopyralid 8 g/L (Grazon Extra®)		
		Triclopyr 300 g/L + Picloram 100 g/L (Grazon® DS)							Triclopyr 300 g/L + Picloram 100 g/L (Grazon® DS)		
		Picloram 44.7 g/kg + Aminopyralid 4.47 g/L (Vigilant II®) (Cut stump or basal bark method)									
		Triclopyr 240 g/L + Picloram 120 g/L (Access™) (Cut stump or basal bark method)									
		Triclopyr 600 g/L (Garlon® 600) (Cut stump or basal bark method)									
<p>Herbicides are a safe and effective method of control as part of an integrated lantana management plan. Use of herbicides does not stop the need to manage lantana infestations effectively. The aim of herbicide treatment is to minimise the spread of lantana. Always treat “outliers each season and work continuously on larger sections to reduce the density and abundance of lantana.</p> <p style="text-align: center;">ALWAYS READ THE LABEL AND USE CHEMICALS IN ACCORDANCE WITH MANUFACTURER’S RECOMMENDATIONS</p> <p style="text-align: center;">Refer to NSW DPI Weedwise website: http://weeds.dpi.nsw.gov.au/WeedBiosecurities?Areald=114</p> <p style="text-align: center;">Lantana page: http://weeds.dpi.nsw.gov.au/Weeds/Details/78</p>											

Integrated weed management uses a range of control methods in order to achieve more effective control. Lantana can be controlled by using a combination of manual control, mechanical control, herbicides, fire, pasture improvement, and grazing management techniques. Variables such as seasonal conditions and lantana varieties must be considered when planning control strategies. For example, lantana must be actively growing for foliar herbicide applications, and fire and biological control agents may be effective only at certain times of the year.

Lantana is an extremely hardy and persistent weed. Follow up control is always required to prevent re-infestation by regrowth or new seedlings. Prioritise control work in situations where there will be enough resources to allow ongoing control in the following months or years. Removing lantana can be a waste of time unless follow up management is carried out. For integrated control strategies in various situations see the lantana control manual.

Manual control methods include hand grubbing (of individual plants, regrowth, or frost affected plants); hand cutting (to create access through thickets to carry out other control methods); and hand pulling (of seedlings and regrowth stems). Manual control methods are effective for small infestations or scattered clumps over large areas, especially where machinery and vehicles cannot access. Manual control minimises soil disturbance and damage to desirable vegetation.

Mechanical control by bulldozing or slashing plants can be successful for removing large mature bushes quickly. Mechanical control needs to be followed up by herbicide control of seedlings and replacing the lantana with pasture or other vegetation cover. Follow-up spot spraying or further mechanical control is therefore essential until the preferred desirable species becomes dominant. **Care should also be taken when mechanically clearing areas on steep land or near stream banks to prevent soil erosion.** Avoid clearing or disturbing large areas at any one time to avoid leaving bare ground.

Grazing management of pastures is a preventative technique for many pasture weeds including lantana. Overstocking and overgrazing will lead to pasture degradation and allow the invasion of weedy species. Allowing a bulk of pasture to remain in the paddock all year round under normal weather conditions will help to prevent the establishment of weeds such as lantana. Oversewing treated areas with suitable pasture mixes will provide competition for emerging lantana seedlings. Consult your local agronomist for a suitable pasture improvement program.

Control with herbicides can be a practical, effective and efficient method of lantana management. They are cost effective for smaller infestations and for treating regrowth. The effectiveness of herbicides depends on the lantana type. Pink flowered lantana is usually successfully controlled with herbicide, while success with the red flowered varieties is varied.

Foliar spraying is only effective if the lantana is actively growing and the plants are less than two metres high

Basal barking is the application of an oil soluble herbicide which is first mixed with diesel and then sprayed at low pressure or painted with a brush around the circumference of all the stems from the ground to a height of 30 cm. Basal barking can be effective on plants that have been defoliated by biological control agents and is effective at any time of year.

Cut stump method is where the stems are cut off completely at about 15 cm and herbicide is applied to the stump within 15 seconds. Lantana plants regrow vigorously from untreated cut stems so it is important to treat every cut stem.

Useful references:

NSW Weedwise: <https://weeds.dpi.nsw.gov.au/>

Weedwise Lantana page: <https://weeds.dpi.nsw.gov.au/Weeds/Lantana>

Biosecurity Act 2015: <https://www.legislation.nsw.gov.au/acts/2015-24.pdf>

Biosecurity Regulation 2017: <https://www.legislation.nsw.gov.au/regulations/2017-232.pdf>

South East Regional Strategic Weed Management Plan: http://southeast.ils.nsw.gov.au/_data/assets/pdf_file/0006/722706/South-East-Regional-Weed-Mgmt-Plan.pdf

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