

# North West Regional Best Practice Guide for:

## Silverleaf Nightshade



**Botanical name:** *Solanum elaeagnifolium*

**Common names:** Silverleaf nightshade

Silverleaf nightshade is a serious problem in cultivation paddocks. Once established it is almost impossible to eradicate. The roots penetrate to a depth of more than 2m making chemical control unreliable. All parts of the plant, particularly the green or ripe fruit, can be toxic to animals. Symptoms include bloating, trembling, loose faeces, nasal discharge, salivation and breathing difficulties. Cattle are more susceptible than sheep.

### Your responsibilities

Under the the General Biosecurity Duty - Biosecurity Act 2015, a General Biosecurity Duty applies to all dealings (as defined in the Act) with this species. Any person who deals with this species who knows (or ought to know) of any biosecurity risk posed by the plant, a carrier or a dealing, has a duty to ensure the biosecurity risk is prevented, eliminated or minimised, so far as is reasonably practicable.

### The penalties

The maximum penalties for not complying with the general biosecurity duty or a direction issued under the Biosecurity Act 2015 are:

- In the case of an individual—\$220,000 and, in the case of a continuing offence, a further penalty of \$55,000 for each day the offence continues, or
- In the case of a corporation—\$440,000 and, in the case of a continuing offence, a further penalty of \$110,000 for each day the offence continues.

The maximum penalty for an offence that is committed negligently is:

- In the case of an individual—\$1,100,000 and, in the case of a continuing offence, a further penalty of \$137,500 for each day the offence continues, or
- In the case of a corporation—\$2,200,000 and, in the case of a continuing offence, a further penalty of \$275,000 for each day the offence continues.

### Recommendations and requirements

Under the Regional Recommended Measure, the following is needed to demonstrate compliance with the Act:

- Land managers should prevent seed and propagules spreading from their land
- Land managers should mitigate the risk of new weeds being introduced to their land
- Land managers reduce the impacts of the plant on priority assets.

Mandatory measure - A person must not import into the State or sell.

Under Gunnedah Shire Local Control Requirements:

1. Reduce the size and density of infested area by chemical control methods, and
2. Eliminate or minimise the risk of spread onto neighbouring lands. Ensure all cultivation equipment is thoroughly cleaned down before being moved off the infected property or onto another paddock within the infected property.

# North West Regional Best Practice Guide for: **Silverleaf Nightshade** Control Calendar



## Growth cycles

Dormant: May to September

Germination: mid-September December; March and April

Stem emergence: September to April

Flowering: November to April

## Integrated control techniques and alternatives

Herbicide optimum: September to May

Grazing: mid-October to mid-January

Summer cropping: November to February

- Control methods/techniques: Combinations of the following methods are effective.
- Manual/mechanical: Cultivation is not useful tool to use against silverleaf nightshade and is more likely to drag root particles to clean areas.
- Chemicals: There are a number of registered herbicides for use on silverleaf nightshade for foliar and spot spraying and boom spraying methods.
- Cultural/biological: Currently, there are no successful biological control agents for use on silverleaf nightshade.

## Registered herbicide application rates:

- 2,4-D 300 g/L + Picloram 75 g/L (Tordon® 75-D) Rate: 650 mL in 100 L of water Comments: Spot spray. Spray to wet thoroughly.
- 2,4-D 300 g/L + Picloram 75 g/L (Tordon® 75-D) Rate: 15.0 L/ha Comments: Boom spray. Apply at early flowering before berry set.
- Fluroxypyr 333 g/L (Starane™ Advanced) Rate: 300 mL in 100L of water Comments: Delay applications till majority of shoots have emerged.
- Glyphosate 360 g/L (Roundup®) Rate: 2.0 L in 100 L of water Comments: Apply at early flowering to berry set stage, spray thoroughly to wet.

### Critical hints:

- Apply when bushes have good leaf growth and cover with no leaf fall.
- Consult your LCA Biosecurity Officer- Weeds for application tips
- Always read and follow the Label instructions and SDS of respective herbicides.

## Note:

a) All Control Techniques involving herbicide use, must comply with the directions on the herbicide label or the conditions set out in a current permit to use a nominated herbicide.

(b) All chemical control programs must be carried out in accordance with the Pesticides Act 1999 and Pesticide Regulation 2017.

(c) All Chemical application programs used must be undertaken by or be designed and supervised by an appropriately Certified and Accredited Chemical user.

(d) Growth patterns and the changes to optimum treatment times will vary with seasonal conditions due to air temperature changes that may coincide with soil and moisture availability.

### DISCLAIMER:

This document has been prepared by the North West Regional Weed Committee and Local Government Control Authorities in good faith and on the basis of best available information.

Users of this document must obtain their own specific advice and conduct their own investigations and assessments of their individual circumstances.

## For further information:

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