



Inverell Shire Council

NOXIOUS WEED CONTROL UNIT

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Silverleaf Nightshade



Silverleaf nightshade (*Solanum elaeagnifolium*) is a deep-rooted summer-growing perennial plant from the tomato family Solanaceae. It is considered by many to be one of the worst weeds in NSW because of the adverse impact it can have on pasture and crop production. It is readily spread by seed and root segments and once established is very difficult to control.

THE PROBLEM

Silverleaf Nightshade is a serious problem in cultivation paddocks. Once established, it's virtually impossible to eradicate. The plant's root system can penetrate to a depth 2 metres or more and chemical control is generally ineffective on these plants because the chemicals cannot reach all of the roots.

Similarly, ploughing breaks up the roots and many of the root parts grow into new plants. The only way control can

be achieved is by preventing plants from producing seed. And, because the seeds can remain viable in the ground for 15 years, this is a long term project!

All parts of the plant, particularly the green or ripe fruit, can be toxic to animals. However, the incidence of poisoning in Australia has been very low as the plant is generally avoided by most stock. Symptoms of poisoning include bloating, trembling, loose faeces, nasal discharge, salivation and breathing difficulties. According to *Noxious Plants of Australia* (Inkata Press) cattle are more susceptible than sheep, while goats appear to be tolerant – poisoning of horses has been recorded but only in South America.

IDENTIFICATION

Silverleaf nightshade grows to a height of around 80 centimetres. It is very difficult to pull out of the ground because of the root system – and the many prickles on the plant! Flowers are purple (sometimes white) with yellow stamens - the plant is usually (but not always) armed with small, sharp prickles, as seen in photo, right. The round fruit (berries) change in colour as they mature, from green stripes to motley yellow and orange. Each fruit contains about 60 seeds.



The fruit is spread by floodwaters, machinery, animals and birds. Sheep can carry the seed in their digestive tract for periods of 7 days or more without affecting the germination capability of the seed.

To further confuse the identification issue, silverleaf nightshade has three (3) common "look-a-likes": (1) Quena (*Solanum esuriale*), (2) Narrawa burr (*Solanum cinereum*) and (3) a much larger and thornier version, Apple of Sodom (*Solanum linnaeanum*).

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 , Environmental Services section	

SILVERLEAF NIGHTSHADE (Cont.)

LEGAL STATUS:

NOXIOUS WEEDS ACT 1993: SILVERLEAF NIGHTSHADE IS A CONTROL CLASS 3 NOXIOUS WEED WITHIN THE SHIRE OF INVERELL, i.e. THE PLANT MUST BE CONTINUOUSLY SUPPRESSED AND DESTROYED.



CONTROL METHODS Non-Chemical Options: The use of strong competitive crops or pastures will give some control; quarantine the infestation and prevent seeding (sheep can carry the seed in their digestive tract for periods of 7 days or more without affecting the germination capability of the seed). Cultivation is ineffective as it aids the spread from root pieces!

Chemical Options: According to NSW Dept of Primary Industries' excellent booklet "*Noxious and Environmental Weed Control Handbook Fourth Edition*", and Dow Agrosiences label information, treatments for silverleaf nightshade include:

Chemical	Rate	Comments
Picloram 75 g/L + 2,4-D 300 g/L (eg Tordon 75 D® or equivalent)	650 ml in 100L of water 15.0 L per hectare	Spray to wet thoroughly, and extend treated areas beyond the last plant for 1 metre. Boom spray. Apply early flowering before berry set.
Glyphosate 360 g/L Various trade names	2.0 L in 100 L of water	Apply at early flowering to berry set stage, spray thoroughly to wet. Use only with good soil moisture conditions.
Fluroxypyr 333g/L (e.g. Starane Advanced®)	300 mL in 100 L of water	Delay applications till majority of shoots have emerged. Follow-up treatment required.
Fluroxypyr 333g/L (e.g. Starane Advanced®) 2,4-D amine (625 g/L) Various trade names Uptake Spraying Oil	Boom spray application 450 - 600 mL <u>per ha</u> OR 225 mL fluroxypyr PLUS 1.2 - 1.6 L 2,4-D amine <u>per ha</u>	Treatment period from onset of flowering to early berry-set (usually spring to mid-summer). Add Uptake Spraying Oil at 1L/ha To ensure maximum effect, delay application until majority of shoots have emerged. Follow-up treatment of regrowth is critical for best control.

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 in any manner contrary to the directions on the label. Never use herbicide in any way contrary to the label recommendations.

DISCLAIMER: 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 03/06/2010

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