

Silverleaf Nightshade

Silverleaf nightshade (*Solanum elaeagnifolium*) is a significant weed that grows in summer. It grows in dense colonies and is very difficult for landowners to control.

WHAT IS SILVERLEAF NIGHTSHADE?

It is a weed that reduces production in crop and pasture enterprises throughout Australia. It is a long-lived perennial plant with deep, resilient roots growing in warmer seasons.

The spread is relatively slow, but once established, it is extremely difficult to eradicate. The weed when unmanaged and removed can:

- Halve summer crop yields through direct competition;
- Reduce winter crop yields by depleting soil moisture;
- Invade pasture and reduce sub-clover growth;
- Reduce annual pasture growth in autumn and winter;
- Poison stock if they eat ripe berries;
- Be expensive to control.

LIVESTOCK POISONING

Silverleaf nightshade contains toxic alkaloids. These are most concentrated in ripe fruit. Livestock poisoning is uncommon.

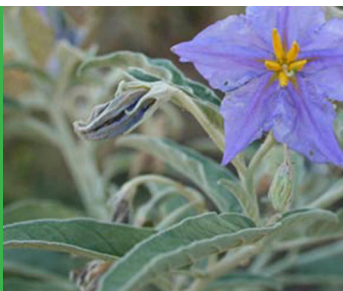
Symptoms of poisoning include:

- Diarrhoea
- Head held low or pressing the head against solid objects
- Weight loss
- Death after 1 – 2 weeks

HOW TO IDENTIFY

Leaves are:

- 5 – 10cm long;
- With wavy edges;
- Silvery-green on top;
- Pale underneath;
- Sometimes with brown-yellow spines underneath.



Berries are:

- Green striped when young;
- Yellow-orange and about 1 cm in diameter when ripe;
- Round and smooth;
- Green berries as small as 7 mm can contain viable seeds. Plants produce up to 60 berries, each containing 10 – 210 seeds.



Flowers are:

- Star-shaped when open;
- Up to 25mm in diameter;
- With five purple or white petals;
- With five yellow stamens 7 – 9mm in length.



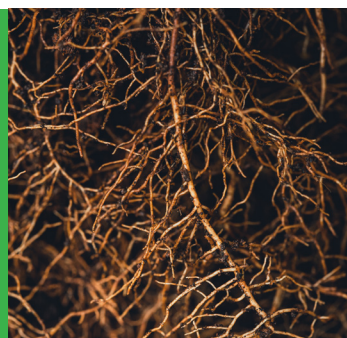
Stems are:

- covered in spines that are:
 - about 5mm long;
 - brown-yellow.



Roots are:

- Deep, growing from 2 – 5m;
- Extensive and interconnecting;
- Interconnected root systems help give silverleaf nightshade its competitive ability and persistence.



HOW DOES IT SPREAD?

The climate affects how silverleaf nightshade spreads. In summer rainfall areas silverleaf nightshade grows from seed and root segments. In winter rainfall areas, it tends to produce more from root fragments.

By Seed

Birds and livestock eat the fruit and spread the seeds. Seed can take up to 2 weeks to pass through the gut. About 10% of seed that passes through the digestive tract remain viable.

Seeds can also be spread by water and in contaminated grains and hay.

By Plant Parts

Cultivation breaks roots and machinery spread them to new areas. Silverleaf nightshade can grow from root fragments as small as 1 cm. All parts of the root system can form shoot buds.

If kept damp, root pieces can remain viable in the soil for up to 15 months.

CONTROL AND MANAGEMENT

Prevention



To reduce the risk of moving silverleaf nightshade to clean areas hold stock that have been in contaminated areas in an easy to monitor area for two weeks before moving into clean paddocks. Keep up agricultural cleaning on machinery before moving from infested to clean areas.

Pasture Management



Healthy spring and summer pastures compete with silverleaf nightshade during its growing season. Growing lucerne, dries out the soil and limits the weed regeneration. In summer rainfall areas, perennial pastures provide the best competition.

Do not let livestock, particularly sheep, graze fruiting plants.

Cultivation



Avoid cultivating as it moves root pieces to clean areas.

Chemical control



Immediately after winter harvest spot spray small infestions on new shoots in spring or summer when berries are young. Do not spray when plants are stressed or dormant. Cover all above ground parts with herbicide. Repeat sprays are necessary.

Allelopathy



Some plants release chemicals from their roots that inhibit other species (called allelopathy). Varieties of eucalyptus trees have been known to be allelopathic to Silverleaf nightshade. The most promising have been *Eucalyptus brokwayi* (Dundas mahogany), *E. dundasii* (Dundas blackbutt), *E. spathulata* (Swamp mallet) and *E. salubris* (Gimlet gum). These trees gave good control to just outside their drip lines.

Slashing



Slashing does not control silverleaf nightshade. It recovers quickly, even in drought. Berries can grow close to the ground below the slash height.

YOUR RESPONSIBILITY

Landowners under the Biosecurity Act 2015 have a General Biosecurity Duty (GBD) are expected to, within reason, know about any weeds which may impact their land.

Regional Recommended Measure – CONTAINMENT

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate the spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

GET THE FREE WEEDS APP

NSW Department of Primary Industries have developed an app that provides key information to help users reduce the impact of over 320 weeds in NSW, called NSW WeedWise.

Users can search or browse weed names (common or scientific), recognise a weed by its physical description and image gallery, and find out about its impacts, where it occurs, how it spreads and its preferred habitat.



NSW WeedWise is a free smartphone app available through app stores.

FOR MORE INFORMATION

Visit Council's website midwestern.nsw.gov.au, or the NSW DPI website www.dpi.nsw.gov.au and search 'weeds'. Council's Weeds Team are available to assist on 6378 2939 or at weeds.admin@midwestern.nsw.gov.au.

DISCLAIMER

The information contained in this fact sheet is general in nature and should not be relied upon as the complete source of information to be considered. This document is not intended as a substitute for consulting relevant legislation or for obtaining appropriate professional advice relevant to your particular circumstances.

References: NSW DPI, Plantnet FloraOnline