

Silverleaf Nightshade

Silverleaf nightshade is a significant agricultural weed that grows in summer. It grows in dense colonies and is very difficult to control for land owners.

WHAT IS SILVERLEAF NIGHTSHADE?

Silverleaf nightshade is a weed that reduces production in crop and pasture enterprises throughout the Australian wheat-sheep zone. It is a long-lived perennial plant with very deep, resilient roots growing in warmer seasons.

The spread is relatively slow but once established, is extremely difficult to eradicate.

Birds and livestock eat the fruit and spread the seeds. Seeds can also be spread through cultivation, by water and in contaminated grains and hay.

IMPACTS TO THE REGION

Silverleaf nightshade is one of the most costly weeds for grain crop producers in the region. The weed when unmanaged 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 winter;
- poison stock if they eat ripe berries; and
- be expensive to control.

Silverleaf nightshade also contains toxic alkaloids which may result in livestock poisoning. These are most concentrated in ripe fruit.

HOW TO IDENTIFY

Silverleaf nightshade is upright and branched. It grows up to 60cm tall. Leaves are 5–10cm long with wavy edges, silvery-green on top and pale underneath. Flowers have purple or white petals with five yellow stamens. Green berries as small as 7mm can contain viable seeds. Plants produce up to 60 berries, each containing 10–210 seeds. The roots are deep, growing from 2– 5m, with extensive and interconnecting root systems.



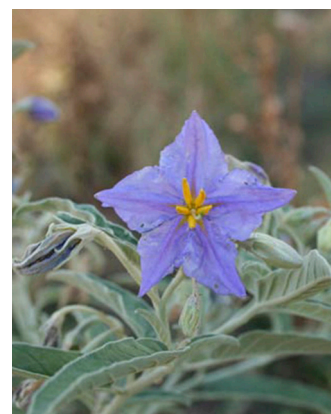
PURPLE AND YELLOW FLOWERS



GROWS UP TO 60CM TALL



FRUIT IS TOXIC TO LIVESTOCK



LEAVES ARE SILVERY GREEN

Images: NSW DPI

GROWTH HABITS

- up to 80% of seeds are viable;
- depending on rainfall, seedlings emerge from late spring until autumn;
- flowering is from November to March;
- berries grow from December to March;
- plants are dormant in winter and produce new shoots in spring; and
- controlling seedlings and seed set for 3–5 years reduces seed numbers in the soil.

CONTROL AND MANAGEMENT

Successful weed control requires follow up after the initial efforts. This means looking for and killing regrowth or new seedlings. Council advises land owners to use a combination of control methods as follows.

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.



Slashing

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



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.



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.



Cultivation

Avoid cultivating as it moves root pieces to clean areas.



Chemical Control

Spot spray small infestations immediately after winter harvest, on new shoots in spring or in 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.



RESPONSIBILITY

For land owners under the Biosecurity Act 2015, you have a General Biosecurity Duty (GBD) where you are expected to, within reason know about any weeds which may impact your land. Owners should have a plan of management in place to reduce, minimise or eliminate the risk posed by weeds on your property.

When you report Silverleaf nightshade, the infected area will be inspected Council along with a management strategy plan. A follow-up inspection will then be arranged. Council is responsible for enforcing the Biosecurity Act 2015 and its regulations. This includes fines for failure to comply with GBD.

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.