

Silverleaf nightshade (*Solanum elaeagnifolium*)

August 2017



Silverleaf nightshade can form very dense and intractable infestations if left unmanaged

Credit: John Heap PIRSA

Silverleaf nightshade grows from spring to autumn and forms large infestations that compete indirectly with winter-growing crops, and it is easily spread. Reduced production and high costs of control greatly reduces the value of infested land.

Silverleaf nightshade is a declared plant under the *Natural Resources Management Act 2004* (NRM Act). Landholders must control the plant on their property. Sale or movement of plants or goods containing plants or plant parts is prohibited within the state.

Description

Silverleaf nightshade is a deep-rooted perennial weed of broadacre situations. It is an erect, summer-growing perennial herb, measuring up to 80 cm high, but more commonly 35-40 cm high.

Stems are erect, branched, covered with fine hairs giving a silver-white appearance. Lower stems are usually armed with sharp spines.

Leaves are 6-15 cm long and 2-3 cm wide. Leaves often have sharp spines, and are 2-4 mm long on the underside of veins. Leaf margins are undulated and often scalloped.

Flowers begin in November and continue throughout summer. They are purple to violet-coloured, occasionally white, up to 3.5 cm in diameter, have 5 fused petals and prominent yellow anthers.

Silverleaf nightshade bears up to 60 tomato-like berries per stem, each containing 20-100 seeds.

It reproduces by seed, plant fragments and clonal growth. Seeds germinate in autumn but grow slowly and rarely survive the cold winter months in SA.



Silverleaf nightshade growing on the Northern Adelaide Plains during summer
Credit: John Heap, PIRSA

Established perennial plants become dormant in winter, but grow during spring and summer using water reserves from deep in the soil.

The deep, perennial system of roots and rhizomes, two metres or more below ground, help it withstand drought and enables it to regenerate repeatedly and compete with crop and pasture plants.

Seed is viable for at least 5 years in the soil and can be spread by fodder, floodwater and through the gut of stock. In SA sheep are the most important vector, and spread by plant fragments is rare.



Impacts

Silverleaf nightshade forms large, clonal infestations that are not easily controlled by herbicides or management practices.

It competes with winter-growing crops and pastures by taking water and nutrients from the soil throughout the preceding summer. It can cause up to 70 per cent reduction in crop yield.

Silverleaf nightshade is unpalatable to stock and displaces valuable pasture species, but stock will graze plants and mature berries when available pasture is low.

Distribution

Originally introduced from America, silverleaf nightshade is now scattered to widespread in the northern suburbs, northern horticultural and agricultural districts in the Adelaide and Mount Lofty Ranges region.

Hygiene practises

The best control strategy for silverleaf nightshade is prevention, so continued vigilance on your property for new outbreaks is required to prevent its establishment.

Keep silverleaf nightshade off the property and destroy plants that are present before they set seed to prevent reproduction and further infestations.

Sheep can carry seed internally for up to a month so keep stock away from fruiting plants. Ensure purchases of fodder, stock, produce and soil are free of silverleaf nightshade seeds.

If stock are brought from infested areas they should be kept for at least 14 days in a holding paddock to clean out. This paddock should be checked for weed seedlings later.

Cultivation will spread root fragments across a paddock and these can also be carried to other properties on machinery. These root fragments are viable so they can form new infestations.

Reduced production and high costs of control of silverleaf nightshade greatly reduce the value of infested land.

What to do

Any plants found should be destroyed before setting seed to prevent further infestations.

Mechanical

Slash before flowering in spring; this treatment will suppress the weed temporarily and synchronise flowering prior to herbicide application.

Chemical

For advice on chemical control techniques, contact your nearest natural resources centre. Please refer to the *Weed control handbook for declared plants in South Australia* for advice on chemical control. You can find it on Biosecurity SA's website at: www.pir.sa.gov.au/biosecuritysa



Silverleaf nightshade flower and developing green berries that will turn to orange when mature in late summer. Credit: John Heap PIRSA

Declarations

The following sections of the NRM Act apply to Silverleaf nightshade in the Adelaide and Mount Lofty Ranges region:

175 (2) Cannot transport the plant or anything with the plant in it

177 (1) Cannot sell the plant

(2) Cannot sell any produce/goods carrying the plant

182 (2) Land owner must control the plant on their land

185 NRM authority may recover costs for control of weeds on roadsides from adjoining land owners

More information

Please contact your local Natural Resources Centre for further information, advice and assistance in controlling silverleaf nightshade.

Gawler

8 Adelaide Road, Gawler South 5118

T: 08 8523 7700

Black Hill

115 Maryvale Road, Athelstone 5076

T: 08 8336 0901

Willunga

5 Aldinga Road, Willunga 5172

T: 08 8550 3400