

Silverleaf nightshade (*Solanum elaeagnifolium*)

Weed management guide

Weed type
Herb

November 2022

www.lls.nsw.gov.au/regions/central-west



In NSW, weeds are regulated by the NSW Biosecurity Act, 2015. All land managers have a General Biosecurity Duty to contain the spread of weeds.

“General Biosecurity Duty means that any person dealing with plant matter must take measures to prevent, minimise or eliminate the biosecurity risk (as far as is reasonably practicable).”

The Regional priority for Silverleaf nightshade is to protect assets from the weed’s impacts and to prevent its arrival and establishment in the region. In order to achieve this, Land Managers are asked to: *Mitigate the risk of new weeds being introduced to their land and reduce impacts on priority assets. The plant should not be bought, sold, grown, carried or released into the environment.*

For further information, contact your local Biosecurity (Weeds) Officer via Central West Local Land Services or visit NSW WeedWise.

NSW WeedWise



Habit and description

Silverleaf nightshade is an erect perennial herb up to 600mm tall native to North and South America. The stems of Silverleaf nightshade have abundant reddish prickles. Leaves are hairy-wooly and silvery 2.5 to 10cm long. The flowers are in clusters (1-4), usually blue but can be white, pink or purple. Fruit are formed as berries which mature to orange-brown. Silverleaf nightshade flowers in late spring to summer.



Photo: © J. J. Dellow | NSW DPI

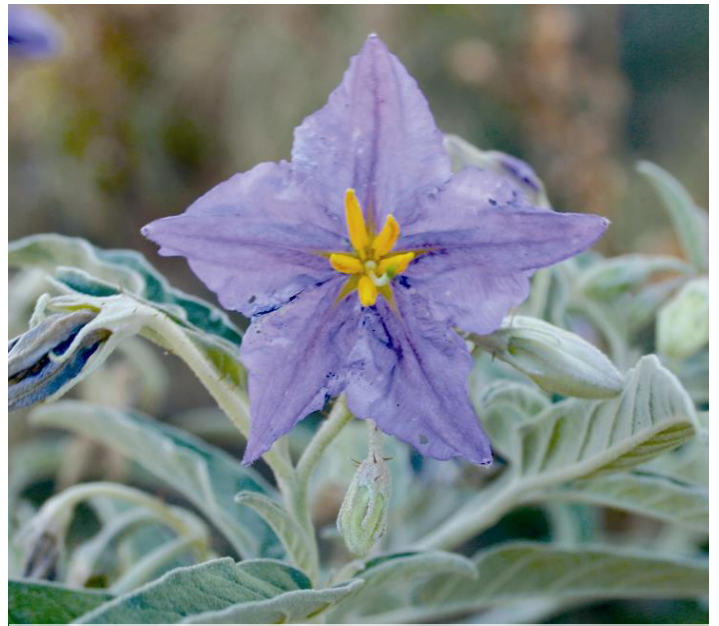


Photo: © A. Johnson | NSW DPI



Photo: © J. J. Dellow | NSW DPI



Photo: © A. Johnston | NSW DPI

Reproduction and spread

Climate, particularly rainfall, can affect how Silverleaf nightshade spreads. It grows from seed and root fragments in summer rainfall areas but predominately from root fragments in winter rainfall areas. Seed can be spread by animal vectors after digestion but only around 10% of seed remains viable. Cultivation of soil and the use of machinery can spread Silverleaf nightshade to new areas. It can shoot from root fragments as small as 1cm and can remain viable for up to 15 months under ideal conditions.

Impacts

Agriculture



- Is one of the costliest weeds for grain crop farms.
- It can reduce yields in summer and winter by competition and water depletion in soil.
- The berries are poisonous to stock if eaten while ripe.

Native vegetation



- Silverleaf nightshade is a Weed of National Significance (WoNS) in Australia (NSW Department of Primary Industries, 2017).
- It can outcompete native vegetation
- The berries can poison wildlife.

Management

Chemical



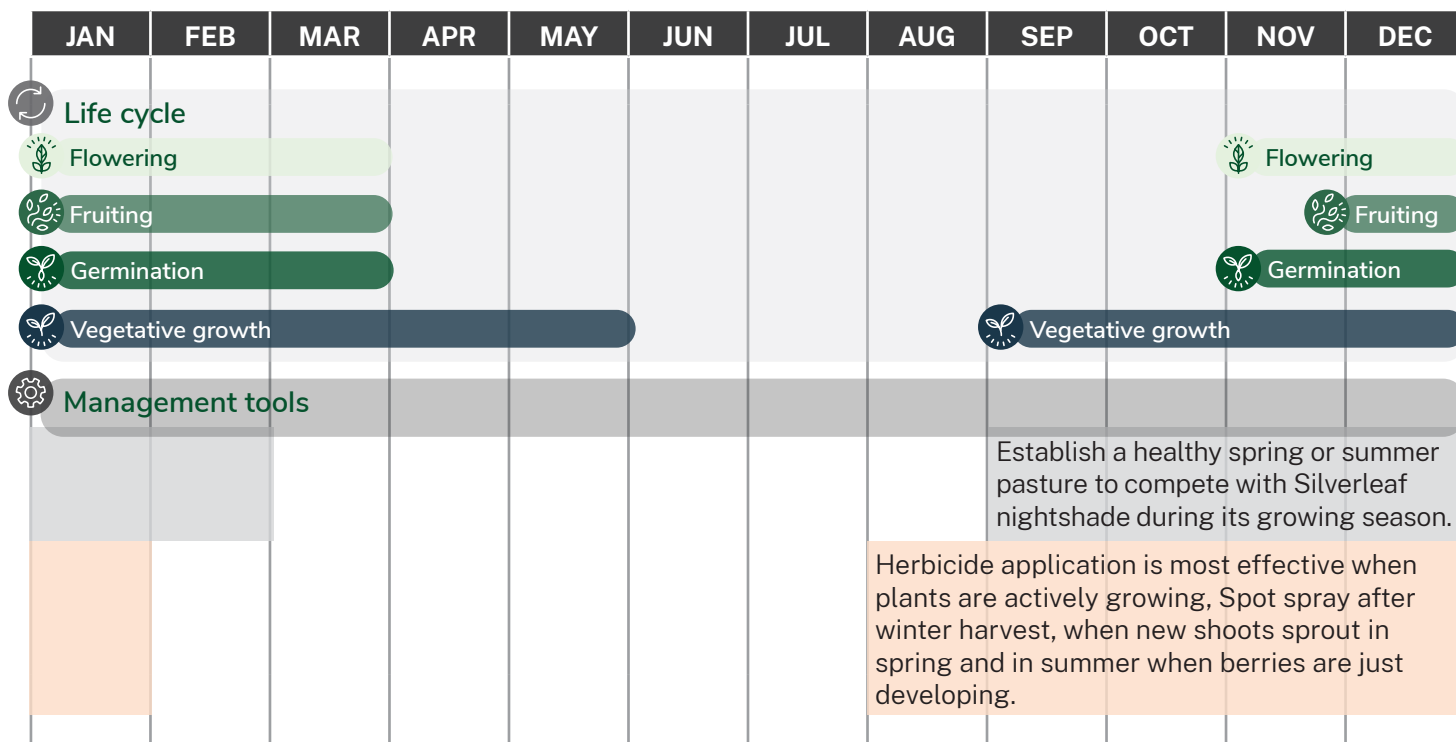
- Spot spraying can be used on small infestations.
- Seek the guidance of an experienced Weeds Officer for expert advice on herbicide use.
- Visit www.apvma.gov.au for a list of registered products, product labels and permit requirements.
- NSW DPI (2021) provides a list of recommended herbicides for the control of Silverleaf nightshade at <https://weeds.dpi.nsw.gov.au/weeds/silverleafnightshade>.

Non-chemical



- Cultivation and slashing are not advisable as it will spread the weed to new areas.
- Producing a healthy pasture during spring or summer can outcompete Silverleaf nightshade. A perennial pasture is most effective in summer rainfall areas.
- Turner et al. (2021) suggests a light tillage followed by irrigation to stimulate off-season germination of the seed bank. Seedlings can be eliminated before vegetative reproduction is possible.

Management calendar



Optimal control options may vary depending on your location and climate. Consult an experienced Weeds Officer based in your local government area for control methods suited to your conditions.

All herbicides must be used in accordance with the herbicide label and permit requirements.

Further information

For more information on your general biosecurity duties, visit www.dpi.nsw.gov.au/biosecurity.

For the best guidance on how to meet this duty on your property, contact your expert Weeds Officer at your local council or via Local Land Services www.ils.nsw.gov.au/regions/central-west.

NSW WeedWise



References

NSW DPI. (2017). *Weed categories*. <https://www.dpi.nsw.gov.au/biosecurity/weeds/weed-categories>

NSW DPI. (2021). *NSW WeedWise*. <https://weeds.dpi.nsw.gov.au/Weeds/SilverleafNightshade>

Turner, N. J., Sanchez, J., Vavra, C., Dhaliwal, L. K., Emendack, Y., Coldren, C., & Angeles-Shim, R. B. (2021). *Seed germination dynamics of silverleaf nightshade (Solanum elaeagnifolium Cav.) and implications for effective weed management*. *Weed Biology and Management*, 21(3), 146–155. <https://doi.org/10.1111/wbm.12233>

Damian Wray
Biosecurity & Weeds Officer

Bogan Shire Council
81 Cobar Street
PO Box 211
Nyngan NSW 2825

P: (02) 6835 9000

F: (02) 6835 9011

E: damian.wray@bogan.nsw.gov.au

W: www.bogan.nsw.gov.au

