

# WOOLLY NIGHTSHADE

*Solanum mauritianum*

## Management programme

Exclusion	Eradication	Progressive containment (Taupō & Rotorua)	Sustained control	Site-led
-----------	-------------	--	-------------------	----------

## Impacts

Economic	Biodiversity	Soil resources	Water quantity/ quality
Human health	Social and cultural wellbeing	Amenity/recreation	Animal welfare

## Objectives

Reduce the amount woolly nightshade and the number of locations that have it within the Taupō and Rotorua districts and reduce its effects on land free of or being cleared of it elsewhere in the Waikato region.

## Why is it a pest?

Woolly nightshade is a rapidly growing shrub or tree. In large numbers it can invade poorly managed land and forest margins, totally excluding the regeneration of native plants. Dense stands can invade pasture on poor soils, especially in hill country, and impede livestock movement.

Fine hairs on its leaves and stems, that are shed when brushed or touched, can also be an irritant to some people and cause respiratory problems. The berries of woolly nightshade are moderately toxic to people (especially children), and they may be poisonous to livestock.

A single woolly nightshade plant can produce many thousands of seeds, which are spread by birds. These seeds can lie dormant in the soil and germinate up to 20-30 years later.

Woolly nightshade is now well established in many areas of the Waikato region north of Taupō (it is relatively frost intolerant). Within the Taupō and Rotorua districts, woolly nightshade has a limited distribution, however, where it occurs it may have significant impacts.

## Responsibility for control

### Taupō and Rotorua district (within the Waikato region)

Waikato Regional Council is responsible for controlling woolly nightshade in the Taupō and Rotorua districts (within the Waikato region). If you think you have seen it, call us – don't try to control it yourself. Everyone is encouraged to report sightings of woolly nightshade in these parts of the region (rule WNS(TR)-1). Occupiers are encouraged to liaise with the Waikato Regional Council in areas where control programmes are in place.

### Waikato region, outside Rotorua and Taupō districts

All occupiers in the Waikato region outside Rotorua and Taupō districts are responsible for controlling woolly nightshade on their property within 50 metres of a shared boundary where that neighbouring land is being managed for woolly nightshade. Occupiers need to be good neighbours and do the same so that their neighbour's control efforts are not fruitless (Good Neighbour Rule GNR WNS-1).

## Developers

If woolly nightshade is present on a property that is to be subdivided or developed, there are additional rules and requirements that apply under section 6.6 of the RPMP 2022-2032.

**Woolly nightshade is also banned from being sold, propagated, distributed, or included in commercial displays.**

## What does woolly nightshade look like?

Woolly nightshade is a spreading shrub or small tree up to 10m in height with a trunk up to 20cm in diameter.



### Flower

- Each flower (1.5cm-2cm across) has five mauve to purple petals with a yellow centre.
- Flowers grow in clusters (panicles) at the end of the branches.
- Flowers all year round.



### Fruit/seed

- Berries are round (1cm diameter) initially green, ripening to yellow.
- Each berry contains many small seeds (1mm-2mm long).
- Most berries are produced in late spring to summer.



### Leaves/stems

- Leaves (10cm-25cm long) are grey green, oval shaped and densely covered with furry hairs.
- Leaves have a strong kerosene-like smell, especially when rubbed or crushed.

## How can I control woolly nightshade?

You can control woolly nightshade yourself on land in the Waikato region outside Taupō and Rotorua districts. If you live within the Taupō and Rotorua districts, please call Waikato Regional Council and report any sightings of woolly nightshade.

### Physical control

Small plants (less than 60cm) can be pulled out and left to dry after shaking all dirt from the roots. Larger plants that are cut down need to have the stump treated with herbicide or they will regrow. Try not to disturb the soil.

### Herbicide control

#### Cut stump treatment

- Cut the tree down, leaving a stump no higher than 5cm above ground level. Immediately (within two minutes of cutting) paint herbicide over the entire stump surface, including the sides.

#### Drill and inject

- Drill 10mm holes around the trunk at a 45 degree angle, 50mm deep and 50mm apart. Fill each hole with herbicide.

#### Stem frilling

- To control larger trees, make shallow downward cuts around the trunk below the lowest branch and near the ground using a machete or axe. Cuts should overlap to effectively ringbark the tree. Apply herbicide liberally to each cut.

#### Basal treatment of trunk

- Using a specific basal treatment herbicide\* liberally paint or spray the trunk from the ground to a height of 30cm to 50cm, making sure to cover the entire trunk. \*Talk to your local herbicide retailer for more information.

#### Spray application

- Totally cover the leaf surfaces with herbicide. This method is most suitable for smaller plants, but pulling out plants by hand may be cheaper and easier.

## Summary of herbicides and application methods for control

Herbicide	Application
<b>Glyphosate</b>	Drill and inject, stump swabbing, stem frilling (Note: Glyphosate is NOT suitable for overall spraying).
<b>Amitrole</b>	Drill and inject, stump swabbing, stem frilling, spray application.
<b>Triclopyr</b>	Stump swabbing, drill and inject, stem frilling, trunk base treatment.
<b>Picloram gel</b>	Stump swabbing.
<b>Triclopyr/picloram mix</b>	Drill and inject, stump swabbing, stem frilling, spray application.

Herbicide rules will apply. You may need to notify neighbours if spraying. The Waikato Regional Plan explains the agrichemical (herbicides) use rule in section 6.2.

If applying herbicide over water, a resource consent may be required. Please check with Waikato Regional Council before you begin.

## Management

After initial control, it is important to:

- check the site again at least annually to control any new seedlings and/or regrowth
- stop weeds invading the site by replanting with non-pest plants (preferably native plants) once the pest plant is no longer a problem.



## More information

### Advice

For advice and additional information on control methods, call our pest plant staff on freephone 0800 800 401.

Chemical company representatives, farm supply stores, garden centres or the Weedbusters website can also be good sources for advice.

### Publications

The following publications are available from the Waikato Regional Council. Contact us to request a copy (freephone 0800 800 401).

- National Pest Plant Accord (Manual of plants banned from sale, propagation and distribution) (free)
- Plant Me Instead! (Plants to use in place of pest plants) (free)

### Web

- Waikato Regional Pest Management Plan 2022-2032 – [waikatoregion.govt.nz/RPMP](http://waikatoregion.govt.nz/RPMP)
- Waikato Biosecurity Strategy 2022-2032 – [waikatoregion.govt.nz/biosecurity-strategy](http://waikatoregion.govt.nz/biosecurity-strategy)

## Contact

For more information call 0800 800 401 or visit [waikatoregion.govt.nz](http://waikatoregion.govt.nz)

Waikato Regional Council biosecurity factsheet series