

DARWIN'S BARBERRY

Berberis darwinii

Management programme

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
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Impacts

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

Objectives

Reduce the amount of Darwin's barberry and limit the locations that have it within the Waikato region.

Why is it a pest?

Darwin's barberry grows in scrub, forests, plantation margins and roadside. It tolerates moderate to cold temperatures, damp to dry conditions, high wind, salt, shade, physical damage, grazing (not browsed), and a range of soil types. While it occasionally spreads by soil and water movement, it's primarily spread via seed. It fruits earlier in summer than many other species (both native and exotic) and the large quantities of seed it produces are dispersed widely by birds and other vertebrates such as possums. It can also regenerate via root suckers and layering.

Darwin's barberry is poised to become a serious forestry pest. Dense infestations near the Waikato region include Rainbow Mountain near Rotorua, within exotic forest in the Bay of Plenty region and the entire Kaingaroa Forest. There are also significant patches in the Manawatu-Wanganui region, southwest of Pureora Forest.

Responsibility for control

Occupiers within the Waikato region are responsible for the control of Darwin's barberry.

- All occupiers are encouraged to report sightings of Darwin's barberry to Waikato Regional Council (rule DARB-1 of the **Waikato Regional Pest Management Plan 2022-2032**).
- All occupiers are responsible for controlling Darwin's barberry on their property (rule DARB-2) and to liaise with Waikato Regional Council in areas where control programmes are in place.

Developers

- If Darwin's barberry 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.

Darwin's barberry is banned from being sold, propagated, distributed, or included in commercial displays.



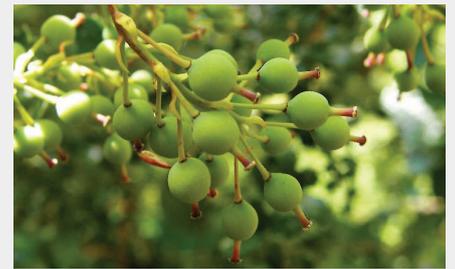
What does it look like?

Darwin's barberry is a woody, evergreen shrub that grows to between 4m-5m tall.



Flower

- Hanging clusters (racemes) of yellow-orange flowers (each 5mm-6mm diameter).
- Flowers from July to February.



Fruit/seed

- Clusters of oval dark purple to black berries on red stalks.
- Each berry is between 5mm-7mm.
- Berries have a bluish-white waxy bloom.



Leaves/stems

- Leaves are stiff, dark green and glossy.
- Leaves are about 3cm long, with 3-5 spiny tips.
- There are five short spines below each group of leaves.
- Stems are tough, woody and densely hairy with five-pronged, needle-sharp spines.

How can I control Darwin's barberry?

Physical control

Smaller plants can be grubbed out. Leave on site to rot down (all year round). Cut stumps resprout quickly and can be hard to kill and seeds will germinate onto bare land. Follow up six monthly.

Herbicide control

Basal treatment of trunk

- Apply with a low pressure sprayer using solid cone nozzle or a paintbrush. Liberally treat the full circumference and the basal parts of the shrub or tree trunks in a manner that thoroughly wets at least 2 to 3 times the diameter of the lower stem or trunk including the root collar area.

Cut stump treatment

- Cut the plant down, leaving a stump no higher than 5cm above ground level. Paint herbicide immediately over the entire stump surface, including the sides.

Frilling

- Make shallow downward cuts around the trunk and near the ground using a machete or axe. Cuts should overlap to effectively ringbark the tree. Apply herbicide immediately to the point of runoff into each cut.

Spray application

- Most suitable for smaller plants but pulling out plants by hand may be cheaper and easier. Total coverage of leaf surfaces is required for effective control.

Summary of herbicides and application methods for control

Herbicide	Application
X-Tree Basal®	Basal treatment of trunk (all year round).
Glyphosate or metsulfuron or picloram gel or triclopyr/picloram mix or triclopyr	Stump swab (all year round), frilling.
Metsulfuron	Cut and inject (all year round), frilling.
Metsulfuron or triclopyr/picloram mix	Spray (spring to autumn).

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.



Similar plants

All *Berberis* species present in New Zealand have been introduced, mainly for use as ornamental or hedge plants. European barberry (*Berberis vulgaris*) is deciduous and has red berries. *Berberis souliena* and Mrs Wilson's barberry (*Berberis wilsonae*) are both cultivated; the former grows to 2m with hairless stems and black fruit, the latter is deciduous and has pink fruit. Barberry (*Berberis glaucocarpa*) has paler yellow flowers, less glossy leaves and at 7m is taller than other *Berberis* species present in New Zealand.



European barberry (*Berberis vulgaris*)

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
- *Waikato Biosecurity Strategy 2022-2032* – waikatoregion.govt.nz/biosecurity-strategy