Woolly nightshade

Solanum mauritianum

www.weedbusters.org.nz

Family
Solanaceae (nightshade)

Also known as
Tobacco weed, flannel-leaf, kerosene plant, *Solanum auriculatum*

Where is it originally from?
America

Photo: Trevor James

What does it look like?
Spreading, capsicum-smelling shrub or small tree (<10 m tall) with all parts covered in dusty hairs, and whitish, branching, soft-woody stems. Velvety, oval, grey green leaves (10-35 x 3-15 cm) are whitish underneath with prominent 'ears' (25mm) at base which clasp the stem. Dense clusters of mauve to purple flowers (15-20 mm diameter, Jan-Dec) with yellow anthers are followed by clusters of round berries (1 cm diameter) that ripen from hard green to soft, dull yellow.

Are there any similar species?
Solanum marginatum has spiny leaves and stems. *Brugmansia* species have similar leaves but giant hanging white (occasionally mauve, red, orange) flowers with a sweet scent.

Photo: Trevor James

Why is it weedy?
Grows and matures rapidly, forming dense tall stands and producing many well-dispersed seeds most of year. Allelopathic (produces toxins that poison the soil), inhibits regeneration. Tolerates wet to dry conditions, salt, all well-drained soils, hot to cool temperatures, semi-shade, damage and grazing.

How does it spread?
Birds, especially native pigeon, spread the seeds. Common seed sources are gullies, roadsides, neglected farms, waste land.

What damage does it do?
Forms dense, often pure stands. Inhibits or prevents establishment of native plant seedlings, and slows regeneration rate of native forests.

Photo: Trevor James

Which habitats is it likely to invade?
Heavily disturbed forest and light gaps, shrublands, coastal and estuarine margins, inshore islands, consolidated sand dunes, wetlands, some tussocklands, well-drained low-frost areas.

What can I do to get rid of it?
Contact your regional council to determine the status of this species and responsibility for control.
1. Physical removal - Hand pull small plants, or dig out entire plant including roots (all year round).
2. Cut and paste - Apply picloram gel (43g/l strength) to the entire cut stem. Do not use near desirable plants or overwater or wetlands. When a gel is inadequate apply a solution of diesel and triclopyr (20:1 diesel:triclopyr) or commercial formulations (120g triclopyr/l of oil or product containing triclopyr and picloram 50ml/L water mix) can be used. Apply the mixture over the entire exposed surface of the cut stump, i.e. top and sides.
3. Basal spray - stems up to 20cm diametre with X-Tree Basal. Apply from the ground to a height of 6 times the diameter of the plant, ensure the base is thoroughly covered at ground level.
4. Drill and frill - Drill downward sloping holes around the circumference of the trunk about 8-10 cm apart. Fill drilled holes with neat picloram/triclopyr herbicide.
5. Foliar spray - Seedlings and small plants - Apply Triclopyr herbicide (600g/L active ingredient) at 6ml/L plus organosilicone penetrant (1ml/L) to thoroughly wet all parts of plant.
All sizes - Apply Picloram/triclopyr herbicide (picloram 100g/l and triclopyr 300g/l active ingredient) at a rate of 6ml/L plus organosilicone penetrant (1ml/L) to thoroughly wet all parts of plant.
Note: Triclopyr and picloram herbicides are 'grass friendly' but overspray will kill other (desirable) broadleaf plants. Picloram has residual activity in the soil which may leach through soil and kill other plants. Do not use under and around other (desirable) broadleaf plants. Do not use over or near water bodies or wetlands and use only as directed on

label.
Tip Woolly nightshade wood does not burn well and takes a long time to break down after it has been cut. It is likely that many small seedlings will grow in the area that has been controlled. Cutting down trees and leaving them on site when controlling large dense areas, may cause a hinderance to future control efforts. Using a basal spray on standing trees in these circumstances may allow better future access to pull or spray seedlings.
6. Biocontrol - For information about the woolly nightshade lace bug please visit:
https://www.landcareresearch.co.nz/discover-our-research/managing-invasive-species/weed-biocontrol/projects-agents/biocontrol-projects/woolly-nightshade
CAUTION: When using any herbicide or pesticide, PLEASE READ THE LABEL THOROUGHLY to ensure that all instructions and directions for the purchase, use and storage of the product, are followed and adhered to.

What can I do to stop it coming back?
Cut stems resprout quickly. Reseeds profusely in bared sites within 1-2 years.