



CONTROL OF SILVER WATTLE

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Biological control measures, with the possible exception of specific seed-attacking insects, cannot be used on silver wattle (*Acacia dealbata*), due to the possibility that biological control agents might attack the closely related black wattle (*Acacia mearnsii*). Black wattle is extensively cultivated in Natal for use in the tannin and wood-chip industries, whereas silver wattle is inferior in both these qualities.

Alternative successful control methods are mechanical in nature: these include ring-barking (usually up to chest height) where the bark is completely stripped away from the tree, and the eradication of seedlings.

The following is recommended by the Forestry Branch of the Department of Environment Affairs:

Mature trees can be killed by a combination of felling and burning. The branches of the felled trees are stacked around the stumps. When the branches are sufficiently dry, fire is set to the stacks (in accordance with fire regulations). Fire stimulates the germination of the numerous wattle seeds present in the soil, and results in dense mats of wattle seedlings. These seedlings may be suppressed by sowing a

suitable grass species (for example, *Eragrostis curvula*) immediately after the ashes have cooled. This will reduce infestation of the area by other species, produce valuable grazing and minimize the danger of soil erosion. Subsequent rains will promote the germination of wattle seeds. These seedlings should be hoed out manually. Follow-up spot spray treatments with a suitable herbicide selective to broad-leaf species are necessary to eliminate the remaining seedlings.

Currently the major control method for *A. dealbata* in South Africa is by chemical means. Registered recommendations are presented in Table 1. All forms of control should be followed by revegetation with suitable desirable species.

For the latest recommendations on chemical control, always consult "A guide to the use of herbicides", which is updated annually by the Department of Agriculture and Water Supply (Plant Protection Research Institute), and available from the Directorate of Agricultural Information, Private Bag X144, Pretoria, 0001.

TABLE 1 - Chemical control of silver wattle

Generic name and formulation (pure active ingredient)	Trade name and registration No.	Dosage	Label recommendations* (except for diesel)**
picloram 65 g/l + 2,4-D 240 g/l as the amine salts	Tordon 101 mixture (L 471)	500 ml/100 l water (0.5% mixture) 200 ml/9,8 l water (2% mixture) 1:1 with water 1 ml/injection 1 cut/40 mm diameter of trunk 1:1 with water 1 ml/cut 1 cut/40 mm diameter of trunk	<p>General: Apply Tordon 101 mixture only when trees are growing actively. Do not apply when rain is imminent, or to wet plants.</p> <p>Overall leaf-stem spray: Apply as a coarse, low-pressure drenching spray. Add G-49 wetter at 60 ml/100 l water.</p> <p>Cut stump: Cut trees to a height of 300 mm or less from the soil surface. Immediately apply the mixture to the cut surface to the point of run-off. Spray any regrowth up to 1 m tall. Add G-49 wetter: 6 ml/10 l of final spray solution.</p> <p>Tree injection: Apply with a suitable tree injector. Place injections around the circumference of the trunk at the convenient height.</p> <p>Caution: Space injections evenly and into the sapwood. Treat each stem separately.</p> <p>Partial frill method: With an axe, make horizontal downward angled cuts through the bark into the sapwood. Space cuts around the circumference of the trunk at a convenient height. Treat each stem separately.</p>
triclopyr 480 g/l ester formulation	Garlon 4 (L 2353)	750 ml/100 l water (0,75% mixture) 200 ml/100 l diesel (2% mixture)	<p>General: Apply Garlon 4 only when trees are growing actively. Do not apply when rain is imminent, or to wet plants.</p> <p>Overall leaf-stem spray: Apply to trees up to 1,5 m tall with full leaf cover. Use a spray mix volume from 250-400 l/ha, depending on plant size. Add Actiproton 500 ml/100 l water.</p> <p>Cut stump: Apply to cut surface, bark and root crown of stumps with paint brush or low-pressure spray by knapsack.</p> <p>Basal stem: Apply by paint brush or as a coarse, low-pressure spray by knapsack to the bark up to a height of 750 mm above soil surface, and to any exposed roots. Rough bark may require more diesel. In multi-stem plants treat each stem separately.</p>

*Caution: Read full label instructions prior to herbicide application. When in doubt, contact your local technical representative

**Caution: The application of diesel to the bark of silver wattle is not a registered treatment. Diesel should therefore only be applied initially as a trial treatment

