



CONTROL OF BLACK WATTLE

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Biological control agents, with the possible exception of certain seed-attacking insects cannot be used on black wattle (*Acacia mearnsii*), due to its extensive cultivation as a commercial plantation species in Natal. Alternative control methods are mechanical or chemical in nature. Mechanical control techniques include ring-barking (usually up to chest height) where the bark is completely stripped away from the tree; felling of old trees which do not coppice, and subsequently die; 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 stack (in accordance with fire regulations). Fire stimulates the germination of the numerous wattle seeds present in the soil, and this results in dense "carpets" 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 undesirable 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 is necessary to eliminate the remaining seedlings.

Currently the major control method for *A. mearnsii* 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 black wattle

Generic name and formulation (pure active ingredient)	Trade name and registration No.	Dosage	Label recommendations*
pictoram 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)	<i>General:</i> Apply Tordon 101 mixture only when trees are growing actively. Do not apply when rain is imminent, or to wet plants. <i>Overall leaf-stem spray:</i> Apply as a coarse, low-pressure drenching spray. Add G-49 wetter at 60 ml/100 l water. <i>Cut stump:</i> 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. <i>Tree injection:</i> Apply with a suitable tree injector. Place injections around the circumference of the trunk at the convenient height. <i>Caution:</i> Space injections evenly and into the sapwood. Treat each stem separately.
triclopyr 480 g/l ester formulation	Garlon 4 (L 2353)	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	<i>Partial fill method:</i> 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.
glyphosate 359 g/l isopropylamine salt	Roundup (L 407)	750 ml/100 l water (0,75% -mixture) 1,5 l/100 l water (1,5% -mixture)	<i>General:</i> Apply Garlon 4 only when trees are growing actively. Do not apply when rain is imminent, or to wet plants. <i>Overall leaf-stem spray:</i> 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 Actipron wetter 500 ml/100 l water. <i>General:</i> Apply Roundup only when trees are growing actively. Do not apply when rain is due within 6 hours, or to wet plants. <i>Foliar spray:</i> Apply to trees up to 1 m tall. Use a spray mix volume from 200-300 l/ha, depending on plant size.
tebuthiuron 752 g/kg wettable powder	Reclaim (L 3014)	1 sachet/750 ml water 750 ml water % clay = 0-20: 2 x 2 ml doses/plant % clay = 21-40: 3 x 2 ml doses/plant	Spot treatment to the soil half-way between the stem and the drip-line, using an automatic vaccinator syringe. Concentrate each dose in a small spot. Double the number of 2 ml doses if the plants are taller than 2 m. <i>Caution:</i> Do not overdose. Space spots evenly around the stem.

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

