Rainbow&Brown

TOLL-FREE CALL
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WEED FILE:
WILDING PINES

Wilding pines are conifers unintentionally growing and multiplying outside managed forestry areas as a result of wind-blown seeding spread. The most well known wilding species is radiata pine, but the most aggressive by far is the lodgepole pine *(Pinus contorta).*

Infestation of wildings into pastoral, recreational and conservation land begins with isolated plantation trees establishing via wind-blown seed outside the forestry boundaries as 'outliers'. Over a period of 20–40 years, these scattered individuals will multiply to dense stands that take over from all native and desirable plant species in the affected area. Conifers are prolific seeders, with a single mature tree producing as many as 17,000 seeds annually. This results in a visible annual spread downwind from the original outlier location. Densities of well over 100,000 stems per hectare have occurred.

Wilding species will generally reach cone-bearing (and therefore seeding) age at about 8-12 years, so once a new wilding infestation has passed that point, the speed and density of spread increases alarmingly.

Wilding pine infestation is a massive problem in the South Island, with 200,000 hectares under severe threat from wildings, and another 600,000 hectares requiring some level of control action. In the North Island, the total area considered affected at some level is 300,000 hectares.

MANUAL CONTROL

Hand pulling is a practical and effective control measure for seedling trees of up to about 500mm in height. Because of the inevitable presence of further seeds on the site, the hand pulling will need to be repeated about every three years to prevent the infestation from getting beyond manual control capacity.

Felling of larger trees is also a useful control measure, as long as the numbers involved don't make it impractical. All live growth must be removed from the stump, and the fresh cut stump surface swabbed with herbicide (see Drilling, below). Felling may not always be practical because of terrain or other constraints, or because of the sheer numbers of trees involved.

Ring Barking

Mature trees can be killed standing by making two encircling parallel axe cuts through the bark layer, spaced 5cm apart and positioned low down on the trunk. Remove all bark between the cuts, which must circle the full circumference of the tree. Ring barking is not 100% successful; some trees manage to survive it. Swabbing the freshly ring barked area with herbicide (see Drilling) will increase the success rate.

HERBICIDE CONTROL

Drilling & Injecting

In spring and early summer, drill holes of about 20mm diameter angled downwards and spaced every 20cm around the trunk of the tree. Depth should be well into the growth layer, which is the soft, pale wood immediately beneath the bark. This is where the tree transports moisture and nutrients, and that's where you want your herbicide. Don't drill too deeply or effectiveness may suffer; about 50mm into the growth layer is enough.

Prepare in advance a mixture of 200g ***MSF600*** herbicide to 1L of water. This mixture should be applied at a rate of not less than 10ml per hole using a squeeze bottle, large syringe or drench gun, modified if necessary to ensure that correct doses of the thick herbicide mixture can be consistently dispensed. Apply the herbicide mix immediately after each trunk has been fully drilled. Don't keep herbicide mixture longer than 24 hours.

Trees will generally show signs of distress (yellowing etc.) after about 6 weeks and should be largely desiccated and 'dead' in appearance within 6-8 months.

All small seedlings growing on the site must be hand pulled before or during the process of drilling the larger trees.

Aerial Spraying

In areas of heavy infestation aerial spraying is the most efficient approach, as long as potential collateral damage factors such as what else is on the site, and what is on adjacent sites, are taken into account. The usual primary herbicide applied will again be metsulfuron-methyl (MSF600).

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