

RESEARCH BRIEF 03

Killing old Poplar trees using chemicals

Research findings

There is much discussion about how to reduce the risk associated with the presence of large poplars and willows, and in particular, how to remove them where it is difficult to gain machinery access.

Large or old poplar trees considered a safety risk can be poisoned, killed and left standing, using an appropriate herbicide applied to the conducting tissue in the trunk.

Herbicide should be applied between spring and autumn, with best results achieved when applied in spring and summer.

Advised application is by drilling 3-cm holes angled downwards at 45° into the trunk, at 10-cm intervals around the circumference of the trunk and at a height convenient to the operator, and filling the holes with herbicide at concentrations as per the manufacturer's recommendations for trees. We injected undiluted herbicide (around 10 mL per hole).

At wider intervals, some branches may not have the herbicide conducted up them and remain alive. This will soon become obvious.

Defoliation occurs within weeks, but disintegration of the woody tissues of the tree is gradual.

Disintegration starts with the smaller branches and roots and develops progressively.

The shading and sheltering value of the trees reduces, as does the risk of wind breakage.

Risks associated with disintegrating branches and trunks need to be identified and managed.



Poisoned poplar surrounded by untreated poplars

Other options

Alternatively, old poplar and willows can be ringbarked with a chainsaw or axe. The bark is removed right around the trunk at a safe height. The ring should be at least a hand-span, since these trees have a remarkable ability to heal wounds.

Using a chainsaw on sloping and uneven ground is a job only for an experienced operator.

A ringbarked poplar or willow will sprout new shoots from below the wound i.e. it will remain alive below the wound.

Herbicide applied right around the wound after ringbarking will be transported down to the roots and kill the tree.

If you do not want to use herbicide, then ringbark the tree low enough that stock can browse the new shoots and eventually kill the tree.



Drill holes through the bark and spaced around the trunk of a large poplar

For more information

This is one in a series of research briefs about Poplars and Willows that can be found at poplarandwillow.org.nz
Prepared by The New Zealand Institute for Plant and Food Research Limited.

Contact

Ian McIvor, Plant & Food Research
ian.mcivor@plantandfood.co.nz

Trevor Jones, Plant & Food Research
trevor.jones@plantandfood.co.nz

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