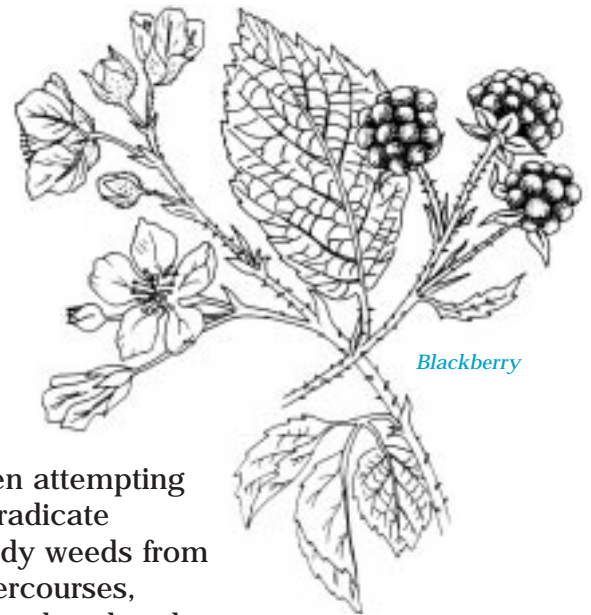


WOODY WEED CONTROL ALONG WATERCOURSES

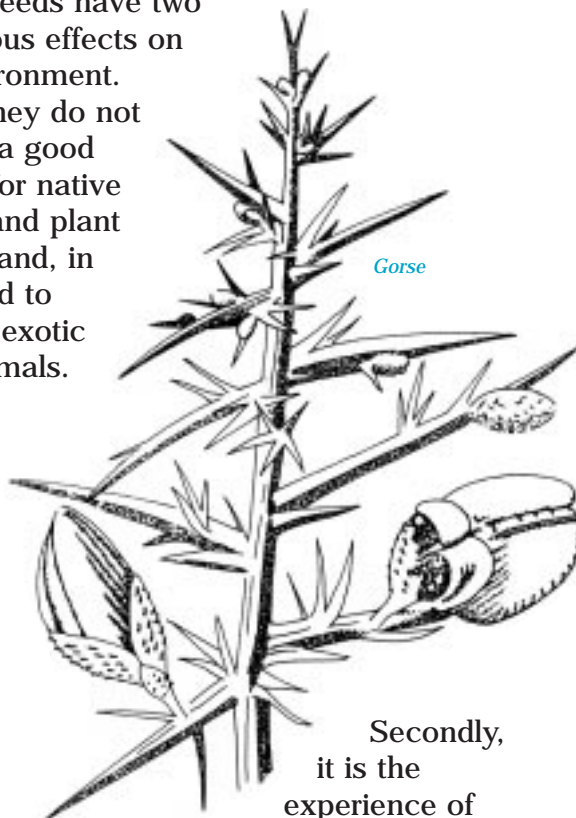
Woody weeds such as gorse, blackberry, briar rose and others are undesirable plants growing in, and adjacent to, watercourses in the Mount Lofty Ranges. Gorse and blackberry are proclaimed weeds under the *Animal and Plant Control Act 1986*, so there is an obligation on landowners to control them.



Blackberry

GORSE AND BLACKBERRY

These weeds have two deleterious effects on the environment. Firstly they do not provide a good habitat for native animal and plant species and, in fact, tend to harbour exotic pest animals.



Gorse

Secondly, it is the experience of many landholders that, in most instances, these woody weeds do not, in themselves, hold banks together. An appropriate mixture of locally indigenous native trees, shrubs and ground cover plants such as sedges, reeds and rushes do a much better job. Perennial grasses and clovers can also provide more stable banks than woody weeds.

When attempting to eradicate woody weeds from watercourses, remember that these streams are dynamic ecosystems and anything you do needs to be undertaken with great sensitivity. For example, never remove woody weeds from watercourses unless you have a program organised to replace them with more appropriate native vegetation.

Remember, big sudden changes can bring on big problems, so small changes over a long period allow the watercourse to compensate for these changes and produce a more manageable and stable stream ecosystem.

CONTROL STRATEGIES

This fact sheet outlines several strategies for woody weed control. These strategies have been developed to take into account the best time to seed or plant replacement vegetation and are sensitive to the delicate nature of a watercourse's ecosystem.

Remember, long term strategies need to be developed to manage the watercourse once the woody weeds have been removed.



Four different strategies are presented and they differ in their timing and costs. For example, strategy one, involving burning then spraying regrowth, uses less herbicide and is much cheaper than where mature gorse is sprayed. Choose the control method best suited to your needs.

Other strategies and variations can be used based on the four listed in this leaflet but the basic timelines should be followed. These strategies are based on three critical components:

Fencing

It is vital for any revegetation to restrict livestock.

Initial stabilisation

In the short term, it cannot be stressed enough that exposed banks should be protected almost immediately. This means that some grasses will need to be established - either short-lived or perennia (eg ryecorn, barley, short-rotation ryes, annual clovers) - to hold the banks .

Long term revegetation

Ideally, a range of native grasses, shrubs and trees, sedges and reeds should be planted as part of a long term revegetation program.

These strategies present broad recommendations on the use of herbicides but these need to be adapted for individual situations and to be site specific. Use common sense and caution when spraying along watercourses.

MINIMISING HERBICIDE USE

Minimising the use of herbicides for woody weed control whenever practical should always be the aim of a good watercourse manager. A range of woody weed control options are presented that enable the minimal use of herbicides. For all herbicide use near watercourses, the only herbicide currently used by the Torrens Catchment Water Management Board for the control of

weeds is Roundup Biactive™. That is, for weeds growing within the area subject to potential flooding. For weeds away from watercourses other herbicides and techniques can be used (contact your local Animal and Plant Control Officer for details).

Cut and paint

This is a technique that has been used successfully to control gorse (using undiluted Grazon™), blackberry, broom and Spanish bamboo (using Roundup Biactive™ mixed 70% herbicide to 30% rain water).

When using this method, plants are cut off at the base and the stems painted as soon as possible (within one minute) after cutting as these plants can seal cuts very rapidly.

Cut scrape and paint

This technique has been successfully used to control blackberries. Plant stems should be cut off less than one metre above ground, one side of the stem is then scraped with a sharp blade (down to the sap layer but not as deep as the pith), and then the exposed surface painted with a mixture of Roundup Biactive™ mixed 70% herbicide to 30% rain water.

Safe application

Methods of herbicide application that do not require spraying should be used whenever practical.

For the manual control methods discussed above herbicide manufacturers application and safety guidelines should be followed.

Only non-spill containers should be used for application. An adapted gardeners hand held water spray unit can be used for manual applications. By securing a piece of sponge over the spray nozzle, a safe non-spill applicator can be made to enable herbicide to be brushed on to plants.



WOODY WEED CONTROL ALONG WATERCOURSES

Methods for the broadscale control of woody weeds are presented in the table below.

STRATEGY 1

| | |
|------------------------------|---|
| Early spring year 1 | Burn or slash woody weeds |
| Spring year 1 | Seed banks with pasture grasses, fence to exclude stock |
| Summer year 2 | Spray gorse and blackberry regrowth |
| Late autumn to spring year 3 | Plant shrubs and trees |

STRATEGY 2*

| | |
|--|--|
| Late autumn year 1 | Spray blackberries with Roundup Biactive™ |
| Winter year 1 | Fence to exclude stock |
| Late autumn year 2 Seed banks with pastures | or December year 1 Harvest kangaroo grass (<i>Themeda triandra</i>) and lay on banks |
| Spring year 3 Allow restricted grazing of stream | Autumn year 2 Seed bank with annual pasture |
| Alternate years after year 3 Spray woody weed seedling growth | Early spring year 2 Spray banks with Roundup Biactive™ or Pulse™ |
| | Spring year 2 Burn vegetation on banks |
| | Summer years 2 - 3 Kangaroo grass germinates |
| | Spring - summer year 3 Spray woody weed seedling growth |
| | Autumn - spring year 4 Plant native trees and shrubs |

STRATEGY 3*

| | |
|---------------------|---|
| Early spring year 1 | Burn or slash woody weeds |
| Spring year 1 | Fence to exclude stock |
| Early summer year 1 | Collect kangaroo grass and lay chaff on banks |
| Autumn year 2 | Seed bank with annual pasture |



| | |
|--------------------|---|
| Spring year 2 | Spray weed regrowth and other vegetation with Roundup Biactive™ |
| Late spring year 2 | Burn dried off vegetation and post-spray |
| Spring year 3 | Spray gorse and blackberry regrowth |
| Autumn year 4 | Plant trees and shrubs |

STRATEGY 4 (least preferred option that should only be undertaken after advice from an experienced watercourse management specialist))

| | |
|-------------------------------|---|
| Spring year 1 | Lay back banks with backhoe, removing gorse at the same time Fence watercourse Seed grass pasture into bank |
| Spring year 1 — summer year 2 | Spray gorse regrowth with Roundup Biactive™ |
| Autumn year 2 | Plant native shrubs and trees |

Information is available on the use of weeping rice grass (*Microlaena stipoides*), windmill grasses (*Chloris spp.*) and spear grasses (*Stipa spp.*) separate from or in addition to kangaroo grass (*Themeda triandra*). More information on woody weed control and other aspects of watercourse management is available in the publication *WATERCOURSE MANAGEMENT: A field guide*, prepared by the Upper River Torrens Landcare Group.

Other relevant publications are:

Hand direct seeding of native plants, Primary Industries (SA) Factsheet 7/95

Direct seeding of trees and shrubs: a manual for Australian conditions, Greg Dalton, Primary Industries and Resources (SA).

FURTHER INFORMATION

For more information contact the Mount Lofty Ranges Catchment Program Upper level, cnr. Mann and Walker Streets Mount Barker SA 5251
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Stirling SA 5152
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Facsimile (08) 8139 9901

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