



Weed treatment in irrigation supply channels (Acrolein)

Aquatic weeds cause problems by blocking the flow of water in irrigation channels. Weeds reduce delivery capacity, clog pumps and prevent us from providing an efficient service to our customers. The most effective way for us to deal with weeds growing in supply channels is to treat them with a herbicide called Acrolein.

What is Acrolein? Acrolein is a contact herbicide used to control submersed and floating weeds, as well as algae, in irrigation channels. Acrolein is a restricted chemical product, used extensively worldwide to control weed growth in irrigation channels.

Why did MI decide to use this particular herbicide? Acrolein is the only herbicide approved by the Australian Pesticides and Veterinary Medicines Authority (APVMA) to treat weeds in irrigation channels.

When do you treat channels with herbicide? When required, the herbicide is added into channels by AQF3 qualified and licenced operators. This is usually in late Spring to early Summer to limit weed growth before our peak summer delivery period.

Will customers and the community be notified of the treatment? Yes, each time Acrolein is used, MI:

- Advises customers through the MI Newsletter
- Places a notice, including a location map, on the MI Website, and
- Writes to customers whose properties adjoin the section of channel we will be treating.

How is the herbicide used in the channels? The section of the channel where the herbicide is added is blocked off. During the process MI will not release any water from this section for 72 hours after application. We monitor the Acrolein levels as they dissipate, to ensure that the treated water returns to normal.

How does MI ensure that no herbicide reaches waterways? We close off all spur channels and place them in a locked mode to prevent them from being operated automatically until the process is finished.

What action will MI take to prevent spillage?

The Acrolein cylinder is fitted with safety valves and the herbicide can only be removed by pumping in a propellant.

This herbicide is transported in specially equipped vehicles. It is highly unlikely a spill will occur, but if it does we carry spill containment equipment and soda ash to absorb it.

How does Acrolein work? Acrolein, with the active ingredient *Magnacide H*, is a general biocide that attacks and alters the cell structure of plants reliant on dissolved oxygen in water. Acrolein treatment is used for submersed aquatic weeds such as pondweed and ribbon weed.

Will Acrolein kill fish? Acrolein is toxic to fish and crustaceans. We expect that all fish in the channels where we use Acrolein will die. We have learned from previous use that nearly all killed fish are European Carp. MI will remove fish killed in the process. MI staff will patrol the channel to collect fish remains for one week after the channel has been treated.

What are the likely effects on humans if they come into direct contact with the herbicide? When used correctly, Acrolein does not have any long-term effects on people or the environment. To minimise any risk, MI recommends that during the process:

- Don't come in contact with channel water
- Don't swim in channels (any time!)
- If you need to work next to, or near channels, do so before the process or wait until afterwards, or this is not possible contact MI for further information, and
- Seek medical advice if contact occurs.

What do I do if anyone swallows treated water from channels? Do not induce vomiting. Call the NSW Poisons Information Centre on **13 11 26** for advice.

Is it likely to affect stock if they drink or enter treated water? At the concentration levels we use it is highly unlikely that stock, or animals such as pets, will suffer any effects, but as a precaution, we recommend you do not use channel water for domestic and stock use until 72 hours after the start of the process. If your animals show signs of distress contact your veterinary clinic straight away.

Is it safe to use treated water for irrigation? Yes, it is safe to use the water for irrigation. MI recommends you advise your Division Operator if you plan to use irrigation water during an advised treatment period.



General weeds management

These guidelines describe how Murrumbidgee Irrigation manages weeds in our waterways and on our land, and what customers can do to assist with weed management.

What we do

One of our highest priorities is to ensure the efficient delivery of water to all customers through our irrigation network of over 5,000 kilometers of supply and drainage channels. This requires management of weeds that restrict water flows as well as weeds on the associated access ways that form part of routine maintenance activities.

Sections of our irrigation supply channels are treated with the herbicide Acrolein. Drainage channels and access ways are treated throughout the year with various methods including slashing, the use of Roundup herbicide and the use of machinery during de-silting and de-weeding processes.

Our annual weeds management schedule is determined by our monitoring programs as well as by notifications from MI staff, customers, local Councils and the community.

Due to our large area of operation, and the costs involved in managing weeds, we prioritise our weed control activities by considering:

- Safety issues (safe access for maintenance staff and interference with the vision of road users)
- The noxious classification of the plant species
- Weed invasiveness
- Water flow impedance, and
- Water quality.

Our trained and licenced vegetation control officers:

- Keep a chemical spray diary in accordance with MI's Environmental Protection License (EPL) requirements
- Liaise with local Council's weeds officers
- Report quarterly to the Riverina Regional Weeds Committee
- Report on weed management in our Annual Compliance Report, and
- Manage noxious weeds under the direction of the *Noxious Weeds Act 1993* and the *Pesticides Act 1999*.

What can you do to help?

Many customers like to control weeds on land adjacent to their property boundary which may include areas around MI infrastructure.

If you are considering weed control on MI land, please contact us first, so we can work together:

- Your safety is essential, so we need to discuss work health and safety practices around waterways and to ensure you understand the risks associated with the use weed control chemicals
- To ensure you understand your responsibilities around the potential risk for contamination of irrigation water and your liability for damage to neighbouring properties
- We can advise you on methods to keep debris out of waterways to avoid restricting water flows or blocking infrastructure downstream that affect irrigation flows for other customers
- We can provide further information on your local environment or sensitive areas that need to be avoided, such as stands of native vegetation, and
- We can work together and advise if any weed management works are scheduled for your area.



Where can I get more information on weed control?

The NSW Government, through the Department of Primary Industries, provides extensive information on their **NSW WeedWise** website and phone app. They have information on over 300 weeds, describing weed profiles, control methods and legal requirements.

See www.weeds.dpi.nsw.gov.au/ or download the NSW WeedWise app to your smartphone.

For information on your individual responsibilities regarding noxious weeds and chemical use, see the *Pesticides Act 1999* and the *Noxious Weeds Act 1993*, available on the NSW Government website.

Further information

We have associated fact sheets available on our website. For further information contact Customer Services on (02) 6962 0200.



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