

Treating weeds in irrigation channels Macalister Irrigation District

Weeds block the flow of water in our irrigation channels. This prevents us from giving good service to our customers. Weeds need to be removed by machines or treated with herbicide.

At times, we treat weeds that float or grow under water with a herbicide. This is the best way for us to prevent weeds causing water delivery problems. The herbicide we use is called Acrolein. Here are some answers to common questions about Acrolein and our use of it.

Southern Rural Waters use of Acrolein

What is Acrolein?

Acrolein is a herbicide used worldwide to control submerged and floating weeds in irrigation channels.

This treatment has been used in Australia since 1977. Southern Rural Water (SRW) has used this many times to control weeds in its irrigation channels.

Acrolein is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA) and the United States Environment Protection Agency for the control of submerged weeds.

Why did SRW decide to use this particular herbicide?

Herbicide is the most effective way of dealing with submerged weeds growing in the channels.

Mechanical removal requires weeds to grow before they can be removed. It is very slow, damages channels and is only partly effective.

Acrolein is the only herbicide approved by the APVMA for use in Australia to treat these types of weeds.

Why does this herbicide need to be used now?

Weeds tend to grow when the weather gets warmer. Treating in late Spring early Summer will limit the weed growth as we move into our peak summer delivery period.

Will customers & the community be notified of the treatment?

Yes, each time this product is used, SRW:

- notifies the public by a public notice in the Gippsland Times
- writes to customers whose properties adjoin the section of channel we will be treating.

How is the herbicide used in the channels?

The channel where the herbicide is added is blocked off.

During the process SRW will:

- test water to keep an eye on the Acrolein levels as they reduce to zero
- ensure that the treated water returns to normal
- not release any water from outfalls into natural waterways for 72 hours, as a safeguard.

How does SRW ensure that no herbicide reaches waterways?

We shut off all spur channels and outfalls and place them in a locked mode to prevent them from being operated automatically. This means the doors can only be re-opened manually on site, when the process is finished.

We also place temporary earthen dams in the drains leading to waterways, just in case water leaks past the outfall doors..

What action will SRW take to prevent spillage?

The herbicide can only be removed from its cylinder (fitted with safety valves) by pumping in dry nitrogen as a propellant. The herbicide is added into the channel by a qualified operator

This herbicide is transported in vehicles, equipped with fittings to ensure cylinders cannot tip over or be damaged.

It is highly unlikely a spill will occur, but if it does we carry spill containment equipment and soda ash to absorb it.

Do other organisations use Acrolein?

Yes, Acrolein is used extensively in Australia and other countries to control weed growth in irrigation channels.



Macalister main northern channel before treatment.

About Acrolein

How does Acrolein work?

Magnacide H, with Acrolein, is a non-selective biocide that attacks and alters the cell structure of plants reliant on dissolved oxygen in water. It is toxic to fish and crustaceans who also take dissolved oxygen from water through their gill-based respiratory system.

Acrolein acts as a “chemical mower”, stripping plants at the base. It does not get rid of the root system, and weeds will regrow.

What weeds are being targeted in the channels?

This type of treatment is for submersed aquatic weeds such as ribbon weed and floating clubrush.

What are the likely effects on humans if they come into direct contact

When used correctly, Acrolein does not have any long-term effects on people or the environment.

To minimise any risk, SRW 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
- if this is not possible contact SRW for further information
- seek medical advice if contact occurs.



Macalister main northern channel after treatment.

What do I do if my child or I swallow treated water from channels? Do not induce vomiting. Call the 13 11 26 Victorian Poisons Hotline which will advise you what to do next.

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 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.

What happens if my dog inadvertently swims or drinks from the channel? Again, it is highly unlikely your dog will be affected. If your dog does show signs of distress, please do not encourage it to vomit. 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 on pastures, vegetables, fodder crops or vineyards. There is no withholding time for either pasture irrigation or stock which has grazed irrigated pastures.

SRW recommends you continue irrigation during this period.

Will Acrolein kill fish? Fish are very sensitive to this herbicide, with their gill-based respiratory system having a similar cell structure to the submerged weeds. We expect that all fish in the channels where we use Acrolein will die.

We have learned from previous use nearly all killed fish are European Carp.

Contingency plans

What happens if fish are killed and washed down the channels system near my property? SRW will remove fish killed in the process. Water Services Officers will patrol the channel with nets to collect fish remains for 1 week after.

Customers and community members should contact SRW on 1300 139 510 if they see dead fish in a channel.

More information For more information, please contact Southern Rural Water on **1300 139 510**, or visit **www.srw.com.au**