

# TAKE CARE WITH INJECTABLE LIVER FLUKE TREATMENTS CONTAINING IVERMECTIN

## Why do I need to test my herd for liver fluke?

Milking cows should always be tested for liver fluke prior to treatment to establish whether treatment is required.

Injectable liver fluke treatments are very important to control adult (greater than eight weeks old) liver fluke in milking cows, when triclabendazole, which has a milk withholding period, cannot be used. To protect the Australian dairy industry's international reputation in key export markets, injectable liver fluke treatments need to be used carefully to minimise the risk of residues in milk.

## How do I test my herd for liver fluke?

There are multiple tests available including a bulk milk (vat) test, a blood test, faecal egg counts and a copra-antigen ELISA (chemical test on faecal samples).

The type of test you use will depend on the fluke history of your farm. Your vet can help you to choose the right test for your herd and determine if treatment is required. In many instances, treatment is not required, so testing provides the additional benefit of saving you the expense and hassle.



### KEY MESSAGES

Injectable treatments are an important tool for controlling liver fluke

However, these treatments can occasionally result in ivermectin residues in milk

There is no risk to food safety, but detections may impact some dairy product exports overseas

Only treat your milking cows with injectable treatments after they've been tested for liver fluke

Your vet can help you with to choose the right liver fluke test for your herd

## Australian Milk Residue Analysis survey

Every year, around 1,000 milk samples from Australian dairy farms are tested for chemical residues and contaminants as part of the Australian Milk Residue Analysis (AMRA) survey. The survey results are published on the Dairy Australia website and play an important role in the Australian dairy industry's reputation and in facilitating ongoing international market access. The survey results are overwhelmingly positive with close to 100 per cent compliance over the history of the survey.

## Injectable liver fluke treatments containing ivermectin

Many injectable liver fluke treatments contain clorsulon and ivermectin. In Australia, these treatments have no milk withholding period so may be used in milking cows. However, they have been implicated in a small number of low-level ivermectin detections in the AMRA survey since 2014.

In all cases, treatments were used according to label directions and the residue levels were less than the Australian Maximum Residue Limits (MRLs). While there is no risk to the safety of dairy products manufactured from this milk, many of Australia's international trading partners (particularly the EU) have no established MRL, so even low-level detections are considered by them to be unacceptable.

## Other options

### Non-chemical control

Swampy areas, irrigation delvers and drainage channels are also prime habitat for the liver fluke snail and should be fenced off to prevent access by stock. Leaking or overflowing troughs should also be repaired to further reduce the liver fluke snail habitat.

## Alternative treatments

An alternative treatment containing oxyclozanide is available. It is an oral treatment and is effective against fluke greater than 12 weeks of age. As it has no milk withholding period, it can be also be used in milking cows.

Treatment at drying off with an oral triclabendazole or a triclabendazole-oxfendazole combination product could help to improve the control of liver fluke and reduce the need for treatments during lactation.

## Part-herd treatment

Treating only part of your herd at a time could help to reduce ivermectin residue risk. This is likely to be most practical for batch or split-calving herds. Injectable fluke treatments are best given 16 weeks after the dry-off triclabendazole treatment.

**Table 1** List of APVMA registered injectable ivermectin-clorsulon products (December 2019)

Product	Manufacturer
Covine Toromec Plus Injection	Ruralco Holdings Limited
Zeromec Gold (Ivermectin and Clorsulon) Broad Spectrum Antiparasitic Injection for Cattle	Abbey Laboratories Pty Ltd
Bimectin Plus (Ivermectin plus Clorsulon) Solution for Injection for Cattle	Bimeda (Australia) Pty Ltd
Vetmec F Broad Spectrum Antiparasitic Injection for Beef and Dairy Cattle	Chemvet Australia Pty Ltd
Baymec Gold Injection Broad Spectrum Endectocide for Dairy and Beef Cattle	Bayer Australia Ltd (Animal Health)
Ivaclor Broadspectrum Antiparasitic Injection for Cattle	Boehringer Ingelheim Animal Health Australia Pty Ltd
Bomectin F Broad-Spectrum Antiparasitic Injection for Cattle	Bayer Australia Ltd (Animal Health)
Noromectin Plus Broad Spectrum Antiparasitic Injection for Cattle	Norbrook Laboratories Australia Pty Limited
Virbac Virbamec Plus Injection Endectocide and Flukicide for Cattle	Virbac (Australia) Pty Ltd
Ivomec Plus (Ivermectin plus Clorsulon) Broadspectrum Antiparasitic Injection for Cattle	Boehringer Ingelheim Animal Health Australia Pty Ltd

## References and further information

Dairy Australia. (2019). *Australian Milk Residue Analysis Survey*. Retrieved from [dairyaustralia.com.au/industry/food-safety-and-regulation/regulatory-framework/australian-milk-residue-analysis-survey](http://dairyaustralia.com.au/industry/food-safety-and-regulation/regulatory-framework/australian-milk-residue-analysis-survey)

NSW Department of Primary Industries. (2019). *Liver Fluke*. Retrieved from [dpi.nsw.gov.au/about-us/services/laboratory-services/veterinary/liver-fluke](http://dpi.nsw.gov.au/about-us/services/laboratory-services/veterinary/liver-fluke)

Parkinson, T., Vermunt, J., Malmo, J., & Laven, R. (2019). *Diseases of cattle in Australasia* (2nd ed.). Auckland, New Zealand: Massey University Press.