

GENETICALLY MODIFIED DANIOS

Information for aquarium fish owners

The Issue

MAF Biosecurity New Zealand is working to trace a number of genetically modified danio fish that have been sold around New Zealand.

The danios concerned have been genetically modified with a red fluorescent protein to make them a bright red/pink.



GM *Danio rerio*

It is illegal to hold, breed or sell this particular genetically modified species for private aquarium use in New Zealand. MAF Biosecurity New Zealand is the government agency charged with locating these illegally held fish and humanely putting them down.

We are visiting your home or premises because we have information that you may have these fish in your possession. If we find GM danios or other danios that could potentially have been cross-bred with the GM danios we will need to euthanase them.

We appreciate your cooperation in this issue and below are some answers to questions you may have about this process.

Questions and Answers

Why is it illegal to have these red/pink danios? I bought them in good faith.

Genetically modified organisms can only be in New Zealand with the approval of the Environmental Risk Management Agency (ERMA). There has not been such approval granted for these particular fish for aquarium use, and as such, the ones currently in New Zealand are in breach of the Hazardous Substances and New Organisms (HSNO) Act.

How are you going to kill my fish?

The danios are put down humanely with an aquatic anaesthetic called AQUI-S – an authorised fish anaesthetic used in fish farms and aquariums. Initially they are given a small dose to anaesthetise them, at which point they are overdosed. The fish are watched constantly for any sign of distress. In operations to date, this has not occurred.

Are all my fish going to be destroyed?

ONLY danios are being taken, NOT any other fish species. Non-danio species are removed from the tank prior to the AQUI-S being administered.

Some breeders have been crossing the GM danios with other varieties of danios and off spring have presented in a range of colours. For this reason, any danios that are suspected to have been crossed with the GM danios are being seized (because they could potentially carry the modified genes). Not all danios will necessarily need to be taken.

What will happen to my tanks?

Following the euthanasing of the fish, tanks are sterilised with chlorine. Community tanks are unlikely to be sterilised due to the extremely low risk of eggs and fry surviving in them. This means that if you are breeding GM danios, the breeding and holding tanks will be sterilised, but if you just have the GM danios in a community tank, the danios will be removed and euthanased separately. Your other fish and the tank will not be harmed.

Will I get compensation for my fish killed?

There are provisions under the Biosecurity Act 1993 for compensation where verifiable losses have incurred as a result of MAF Biosecurity New Zealand exercising powers under the Act for the purpose of the management or eradication of any organism. The amount of compensation will be determined on a case by case basis.

If you believe you may be entitled to compensation, please read the *Guide to completing a claim for compensation under section 162A of the Biosecurity Act 1993* available at:

<http://www.biosecurity.govt.nz/strategy-and-consultation/strategy/compensation.htm>

You can also write or phone for information to:

Craig Sengelow
MAF Biosecurity New Zealand,
PO Box 2526
Wellington
Ph: 04 894 0546

Will I be prosecuted?

We are keen to stress that our current priority is not prosecution, but rather our main focus is retrieving as many of the fish as possible. Prosecution will only be undertaken as a measure of last resort where the degree of culpability or potential/actual consequences of the actions are considered serious enough to warrant action.

What if I know of other GM fish out there?

Please alert the biosecurity officer visiting you, or call MAF Biosecurity New Zealand's freephone **0800 80 99 66**.

Further information about the GM danios is available on the MAF Biosecurity New Zealand website:

www.biosecurity.govt.nz.



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