



FACT SHEET

Genetically Modified Ornamental Fish: Restrictions on Importation and Possession

It is illegal to import or possess genetically modified (GM) fish without appropriate authorisation.

Genetically modified (GM) fish are subject to regulation under the Commonwealth *Gene Technology Act 2000* (the Act) and *Gene Technology Regulations 2001* (the Regulations), and corresponding State and Territory legislation.

Persons found to be in possession of GM fish without the requisite authorisation may be subject to the penalties under the Act. The maximum penalties are 2 years imprisonment or a \$55,000 fine, or 5 years imprisonment or a \$220,000 fine for an aggravated offence.

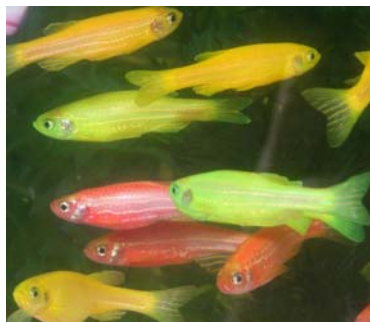
The types of fish for which GM varieties are currently known to be available in some countries are *Danio rerio* (commonly known as zebrafish or danios) and *Oryzias latipes* (commonly known as Japanese rice fish, Japanese killifish, Japanese medaka or tooth-carp).

Conventional (non-GM) zebrafish and Japanese rice fish are commonly used for ornamental purposes in aquaria. The GM varieties of these fish have been modified to express fluorescent proteins that enhance their colour. They are sometimes referred to as GloFish[®] or fluorescent fish and they are available in a variety of different colours including red, green, orange and pink (see picture below).

GloFish[®] –

GM zebrafish

(source: www.glofish.com)



Claims that these colours are created by dyeing the fish or feeding them hormones are incorrect. Red, green, orange or pink zebrafish or Japanese rice fish should be considered as potentially GM.

Authorisation requirements for GM fish

All live fish imports to Australia must comply with quarantine requirements set by the Australian Quarantine and Inspection Service. Any import of GM fish also requires authorisation under the *Gene Technology Act 2000*.

Import for research purposes

Import of GM fish for research or for display purposes may be authorised as a Notifiable Low Risk Dealing (NLRD). NLRDs are subject to strict requirements prescribed in the Regulations, including advising the Gene Technology Regulator (the Regulator), keeping records and housing the fish in a Physical Containment Level 2 (PC2) facility certified in accordance with guidelines issued by the Regulator.

Information about NLRDs and certification requirements, respectively, can be found on the following pages of the OGTR website:

<http://www.ogtr.gov.au/internet/ogtr/publishing.nsf/Content/nlrdclass-2> and
<http://www.ogtr.gov.au/internet/ogtr/publishing.nsf/Content/certifications-1>

Import for sale

The importation of GM fish for commercial sale would be classified as a Dealing Involving intentional Release (DIR) of a GMO into the environment, and would require a licence from the Regulator.

A DIR licence application must contain information specified by the Regulator, including information on the non-GM organism, the effects of the genetic modification and potential interactions in the environment.

For each DIR application the Regulator must prepare a comprehensive Risk Assessment and Risk Management Plan (RARMP) and must consult with a wide range of experts, agencies and authorities, and the public. The Regulator must not issue a licence unless satisfied that any risks to human health and the environment can be managed. The statutory timeframe for considering commercial release applications is 255 working days.

Licences are subject to statutory conditions specified in the Act, and the Regulator may impose additional conditions to manage identified risks.

Information about the evaluation process for DIR applications can be found on the following page of the OGTR website:

<http://www.ogtr.gov.au/internet/ogtr/publishing.nsf/Content/process-1>

Applicants are advised to contact the OGTR prior to submitting their application.

What to do if you are in possession of GM fish without authorisation

The Regulator is able to issue an inadvertent dealings licence for the purpose of allowing a person who has unintentionally come into possession of a genetically modified organism (GMO) to dispose of it without breaching the Act.

If you have come into possession of GM fish inadvertently you should contact the OGTR for more information, by telephoning the freecall number on the front of this fact sheet or by e-mail to ogtr@health.gov.au.