Australian Government
Department of Health, Disability and Ageing
Office of the Gene Technology Regulator

August 2026

Summary of Licence Application DIR 227

The University of Melbourne has made an application under the *Gene Technology Act 2000* for Dealings involving the Intentional Release (DIR) of genetically modified organisms (GMOs) into the Australian environment.

Project Title	Commercial release of wheat genetically modified for increased nicotianamine
Parent organism	Wheat (*Triticum aestivum* L.)
Genetic modifications	
Introduced genes	Introduced gene to increase nicotianamine levels: • *OsNAS2* gene from rice for biosynthesis of nicotianamine. Nicotianamine is a metal-binding molecule that is naturally present in all crop plants. It helps plants to absorb and internally transport micronutrients such as iron and zinc from soil. Introduced marker genes: • *hph* gene from the bacterium *Escherichia coli* conferring resistance to the antibiotic hygromycin B • *nptIII* gene from the bacterium *Enterococcus faecalis* conferring resistance to the antibiotic kanamycin and structurally related antibiotics.
Genetic modification method	*Agrobacterium*-mediated transformation
Identifier	OECD Unique Identifier: UM-12115T-1
Purpose of application	Commercial cultivation of the GM wheat
Previous releases	The GM wheat has been previously grown in field trials in Australia under licence DIR 165

Other regulatory approvals

The primary intended use for the GM wheat is animal feed, but it may also enter human food. Food Standards Australia New Zealand (FSANZ) has received an application for the GM wheat, A1356, and is currently assessing the safety of the GM wheat and its products as food for human consumption. More information is available on the FSANZ website.

Consultation on this licence application

The Gene Technology Regulator's staff will prepare a Risk Assessment and Risk Management Plan (RARMP) for this application. The Regulator will seek comment on the RARMP from the public, as well as a wide range of experts.

Public consultation on the RARMP is expected to start in **December 2026**. We will notify subscribers to OGTR News of the consultation and advertise it in newspapers and on our website. The consultation will be open for written submissions for about 2 months.

More information is available from the OGTR website on:

- this application (search for **DIR-227**)
- how to subscribe to our client list
- genetic modification methods for plants and marker genes in GM plants
- Australia's national scheme for regulation of gene technology and
- the approval process.