



Genetically modified (GM) wheat trials



- Wheat is one of a number of GM crops that have been approved for experimental field planting in Australia.
- There have been trials of GM wheat that sought to improve salt tolerance, drought resistance, disease resistance, yield, grain quality and nutrient use efficiency.
- GM wheat is not grown commercially in Australia, and is not licenced for commercial release.
- The Gene Technology Regulator (the Regulator) carries out science-based risk analysis before approving field trials of GM wheat.
- Any work with GM wheat in Australia must be licenced by the Regulator. Criminal charges can apply for unauthorised dealings with GM plants of any kind.

Since 2005, the Regulator has issued 21 licences for small-field, early-stage research trials of GM wheat. To date, seven of these field trial licences are still current. For further details, see the table on the next page.

There has been no commercial release of GM wheat in Australia, and to date the Regulator has not received any licence applications for the commercial release of GM wheat.

Each field trial is limited in its size (0.4–3.0 hectares per year) and duration (up to 5.5 years, that is, six seasons). The trials are subject to strict containment conditions to manage the potential for spread and persistence of the GM wheat and its introduced genes into the wider environment.

The OGTR actively inspects trials to make sure they are compliant with licence conditions. There have been no breaches of containment with any of these field trials.

GM wheat from these trials is not permitted to enter commercial human food or animal feed supplies. CSIRO researchers are developing wheat and wheat products that might improve nutritional properties such as glycaemic index. The Regulator has

authorised CSIRO to conduct trials involving feeding foods containing GM wheat to animals and people under some licences. These studies are also subject to approval by ethics committees who consider animal and human ethical issues.

Some of these trials are ongoing, while some have concluded. For full details on each trial visit the [GMO record](#).

Related factsheets

[Genetically modified \(GM\) crops in Australia](#)

[Genetically modified \(GM\) canola in Australia](#)

[Stockfeed and genetically modified \(GM\) crops](#)

Further reading

[Genetically modified organisms in Australia](#)

[How are genetically modified organisms \(GMOs\) regulated in Australia?](#)

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Current licences for limited and controlled releases (field trials) of GM wheat

Licence No	Licence holder	Modified Trait	Issued
DIR 162	CSIRO	Disease resistance	July 2018
DIR 152	University of Adelaide	Enhanced yield, abiotic stress tolerance	July 2017
DIR 151	CSIRO	Disease resistance, drought tolerance, Composition - food (processing), Composition - food (human nutrition)	May 2017
DIR 142	Vic DEDJTR	Yield & abiotic stress tolerance	April 2016
DIR 130	Murdoch University	Improved grain quality	March 2015
DIR 128	University of Adelaide	Abiotic stress tolerance	August 2014
DIR 111	CSIRO	Altered grain composition, nutrient utilisation efficiency, disease resistance or abiotic stress tolerance	February 2012

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