



Australian Government

Department of Health

Office of the Gene Technology Regulator



## Genetically modified (GM) canola in Australia



- GM canola currently grown in Australia is resistant to glyphosate herbicides. It offers potential economic and environmental gains for farmers.
- GM canola can only be grown with the approval of the Gene Technology Regulator (the Regulator), who carries out a science-based risk assessment before the crop is approved for release.
- Some state governments have further restrictions on growing GM canola.
- There are additional guidelines for use of GM canola in stockfeed and for dealing with GM canola growing on the roadside (volunteer plants)
- Criminal charges can apply for non-authorised dealings with GM crops of any kind.

Canola is grown for its seed which is crushed for the oil used in margarine, cooking oils, salad oils and edible oil blends. After the oil is extracted, the by-product is a protein-rich meal used to feed livestock. Canola is grown around Australia and is easily recognised by its vivid yellow flowers.

About 20 per cent of the national canola crop is genetically modified. GM canola currently licenced to be commercially grown in Australia is resistant to herbicides. The ACT, South Australia and Tasmania have legislation banning farming of GM canola due to marketing concerns.

### Assessment of GM canola

The OGTR carried out scientific assessments of GM canola and the Regulator authorised the first commercial release of two herbicide-resistant types in 2003. The OGTR risk assessment found that these types of GM canola posed no more risk to

health and the environment than non-GM canola.

Since 2003, the Regulator has issued six additional licences for the commercial release of GM canola. This allowed the approved GM canola to be grown throughout Australia.

Currently, the only GM canola grown commercially in Australia is glyphosate-tolerant canola.

Other types of GM canola have been approved for commercial release in Australia including canola tolerant to the herbicide glufosinate, and canola tolerant to both glyphosate and glufosinate. However, these are not currently being grown commercially.

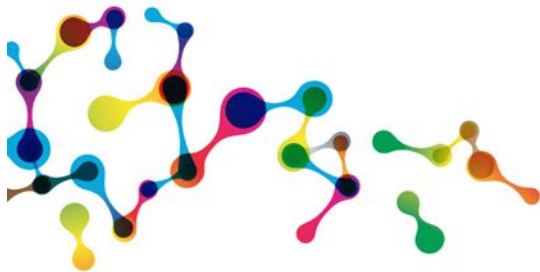
The commercial approvals of GM canola to date are listed below. The latest information on commercial approvals is available online as part of the [GMO Record](#) at the OGTR [website](#).

Licence number	Licence holder	Trade name	Modified trait/s	Issued
<a href="#">DIR 175</a>	BASF Australia Ltd	N/A	Herbicide tolerance; hybrid breeding system	12 May 2021
<a href="#">DIR 155</a>	Nuseed Pty Ltd	DHA canola	Omega-3 oil content	13 Feb 2018
<a href="#">DIR 139</a>	Pioneer Hi-Bred Australia Pty Ltd	Optimum™ GLY canola	Herbicide tolerance	29 Mar 2016
<a href="#">DIR 138</a>	Bayer CropScience Pty Ltd	InVigor® x TruFlex™ Roundup Ready® canola	Herbicide tolerance; hybrid breeding system	22 Mar 2016
<a href="#">DIR 127</a>	Monsanto Australia Ltd	TruFlex™ Roundup Ready® canola (MON 88302)	Herbicide tolerance	21 Nov 2014
<a href="#">DIR 108</a>	Bayer CropScience Pty Ltd	InVigor® x Roundup Ready® canola	Herbicide tolerance; hybrid breeding system	2 Dec 2011
<a href="#">DIR 021/ 2002</a>	Bayer CropScience Pty Ltd	InVigor® canola	Herbicide tolerance; hybrid breeding system	25 Jul 2003
<a href="#">DIR 020/ 2002</a>	Monsanto Australia Ltd	Roundup Ready® canola	Herbicide tolerance	19 Dec 2003

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The OGTR monitors scientific and other literature for any new information relevant to GM crops, and assesses that information in relation to existing licences. The OGTR also maintains oversight of commercially grown GM canola, to ensure it remains safe.

If something changes, and a GM crop can no longer be considered safe, the Regulator has the power to revoke existing licences to grow the crop. To date, no information has arisen in Australia or internationally to indicate that GM canola commercially grown in Australia is no longer safe, or that licences issued since 2003 should be suspended.

You can read the risk assessment and risk management plan for each application and other details of the licences through the [GMO Record](#).

### Other regulators

The OGTR does not regulate the use of GM products in food. This is the role of Food Standards Australia New Zealand (FSANZ). They have a process for assessing the safety of GM foods. Read more at the [FSANZ website](#).

The use of herbicides on GM herbicide-tolerant canola varieties is regulated by the [Australian Pesticides and Veterinary Medicines Authority](#), which applies conditions to ensure responsible use of herbicides, and to minimise the development of weeds with herbicide resistance.

### Why isn't GM canola grown in all states?

Each state and territory has the power to temporarily or indefinitely ban GM crops for trade or marketing reasons on a case-by-case basis.

GM canola in Australia is primarily grown in New South Wales, Victoria, Queensland and Western Australia. Canola is generally not grown in the Northern Territory.

The ACT, South Australian and Tasmanian governments have a range of restrictions.

After the Regulator approved GM canola commercial releases in 2003, most states and territories passed laws to delay the commercial release of GM crops (including GM canola), allowing them to investigate issues such as marketability and trade before the first commercial plantings of GM canola. Some states and territories have since allowed GM crops such as canola, while some moratoria (bans) remain in place.

The following list describes the status of GM canola in each State and Territory to date:

- **Australian Capital Territory's** [moratorium](#) remains in force.
- **New South Wales** amended its [moratorium](#) to provide for the case-by-case approval of commercial cultivation of GM food crops based on the relevant industry's capacity to meet specified trade and marketing criteria. GM canola restrictions were lifted in 2008.
- **Northern Territory** allows GM canola but canola isn't a commercial crop.
- **Queensland** has allowed GM canola since 2003.
- **South Australia** allows GM crops to be commercially cultivated in all areas except Kangaroo Island since late 2020.
- **Tasmania** has indefinitely extended its [GM crop and animal moratorium](#).

- **Victoria** allowed its moratorium order on commercial production of GM canola to lapse in 2008.
- **Western Australia** granted an exemption in 2010 allowing cultivation of GM canola and revoked its moratorium legislation in 2016.

It is important to note that the state and territory rules relate to issues of market access and not to safety of human health or the environment. You can get more information from the relevant state or territory government – see the links above.

### Related factsheets:

- [GM in agriculture](#)
- [Genetically modified \(GM\) crops in Australia - overview](#)
- [Genetically modified \(GM\) canola in Australia](#)
- [Weed control of genetically modified \(GM\) canola](#)
- [Genetically-modified \(GM\) wheat trials](#)
- [Stockfeed and GM crops](#)

### Further reading

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

