



Misconceptions about GM technology

Will GM canola contaminate neighbouring farms or crops?

The internationally recognised standard for canola to be considered 'non-GM' is for the canola grain to contain less than 0.9 per cent adventitious (or accidental) presence of GM material. Under Australian growing conditions, contamination of neighbouring farms/crops at levels approaching the 0.9 per cent threshold is not expected to occur because:

- GM canola does not cross-pollinate to any greater level than existing non-GM types.
- While pollen can move considerable distances, the actual transfer of genes between canola varieties is very limited. Extensive Australian tests show a field average GM content of less than 0.1 per cent, well below the 0.9 per cent standard required for all Australian and most international, non-GM canola.
- Gene flow from GM canola is not expected to be any different to non-GM canola.
- Gene flow to any other plant species is generally nil, except for some related Brassica species where crossing is extremely rare and the resultant hybrid typically have reduced fertility.

Will GM canola risk our competitiveness in the international canola market?

While there are clients who specify 'non-GM' or 'GM-free' canola, the demand is small, declining, and usually does not offer a significant premium.

- *Japan* - often considered an anti-GM market – imports 1.5 million tonnes of GM canola from Canada every year. Oil from non-GM and GM canola is used interchangeably in this market.
- *Europe* - which has been importing non-GM canola, this year announced approvals for importation of Liberty Link canola[®] (GM with herbicide tolerance) for human and food use.
- *Canada* - studies on market premiums have shown no significant price difference between Australian non-GM canola and Canadian GM canola.

Is there any turning back?

With an effective segregation system WA can grow and market both GM and non-GM canola, in the same way we grow organic and non-organic vegetables.

Farmers who want to grow non-GM canola or any other crop after growing GM canola will be able to do so in the confidence of being able to meet the 0.9 per cent accidental presence standard required of non-GM canola.



The GM canola varieties currently registered for use in Australia only confer one additional attribute to the plant – that being a partial tolerance to a particular class of herbicides. They remain sensitive to all other herbicides and control mechanisms; and gain no other attributes which would cause them to proliferate more than any other canola.



Farmers using well recognised integrated weed management principles before and/or during the cropping phase are required to control any volunteer growth from previous GM canola crops. Furthermore, standard disease management practices make it unlikely that a non-GM canola crop will be grown within two years of a GM canola crop.



Where a GM canola crop is to be followed by any other crop, or pasture, a range of registered herbicide options will control volunteer growth from previous crops.

In addition, larger seeded crops such as wheat, barley, oats or pulses can be very effectively screened to remove canola seed if required.

Even if Western Australia moved to the widespread, commercial production of GM canola, it would be able to 'turn back' to a non-GM status by following the principles outlined above.

Does WA risk losing its 'clean and green' image?

WA will still be able to market non-GM canola into global markets as growers and marketers implement whole-of-supply chain management.

An important part of this process will be the use of a grain handling system, such as currently run by Cooperative Bulk Handling Limited, which segregates all types and qualities of grains, such as feed barley from malt barley, and hard wheat from soft wheat.

Testing at the point of receipt for non-GM canola is cheap, fast and reliable and can be used to assure buyers that non-GM grain will be below the 0.9 per cent threshold for adventitious (or accidental) presence of GM canola.

Will farmers end up suing other farmers?

The issue of legal liability over contamination of non-GM crops by GM canola has caused some concern with a view that farmers will have to sue other farmers in the event of contamination between farms.

Farmers already face the need to cooperate and act responsibly towards neighbours across a whole range of issues including soil and water management, control of pests and diseases, fencing, spray drift and the requirements of organic and biodynamic growers. It is rare that these issues are not accommodated amicably, and no cases have been reported where a farmer has been sued for accidentally contaminating a neighbour's farm with GM material.

A review of the *Commonwealth Gene Technology Act* in 2005-06 found that, if a dispute were to arise, then current common law provisions would be adequate to deal with it.



Will farmers have to pay royalties if their crop is contaminated?

It is very difficult for accidental contamination to occur through either pollen or seed flow to an extent which would raise the presence of GM material beyond the threshold level of 0.9 per cent.



However, if the threshold were to be exceeded by a farmer either deliberately introducing GM seed without signing a licence agreement, or deliberately selecting GM plants, then the patent owners may seek to protect their patent.



Is this a plan by big business to take over our food supply?

It is important to point out that no farmer would be forced to grow GM canola or sign a contract against their will.

Farmers are smart business people who will weigh up the economic and system advantages/disadvantages of GM technology and make their own choices as to its usefulness for them.

It is not only the large multinationals that drive the development of GM technologies, with an increasing number of universities and other publicly-funded bodies directly involved in gene discovery and variety development.

Furthermore, as patents on gene technology expire, other companies will have the opportunity to provide alternative varieties and products in competition with the original owners.

Do GM crops and crop products pose a risk to human health?

The Australian regulatory bodies – the Office of the Gene Technology Regulator and Food Standards Australia New Zealand - have determined that oil from Roundup Ready canola is safe for human consumption and indistinguishable from oil from non-GM canola, and that Roundup Ready canola meal is safe as an animal feed.

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For further information visit www.agric.wa.gov.au/gmcrops