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‘We want to ensure that developments in biotechnology are captured for the benefit of the Australian community, industry and the environment, while safeguarding human health and ensuring environmental protection.’

Would there be any impact on organic honey?

Current standards specify that bees may only forage on organic crops or natural flora, and that hives must be placed more than five kilometres from either conventional or GM crops. So the impact on organic honey production is expected to be minimal.

What about other GM crops?

The commercialisation of GM canola can be expected to have very little, if any, direct impact on organic farming in Australia but this conclusion does not extend to the potential impacts of commercialising other GM crops. The commercialisation of GM varieties of crops which are more extensively grown in Australia as certified organic would be more likely to have a direct impact on Australia's organic sector.

How do I find out more?

This brochure is one in a series of Biotechnology briefs presenting summaries of key reports on biotechnology and Australian agriculture.

More information is available in the report:

Apted, S. and Mazur, K. 2007, Potential impacts from the introduction of GM canola on organic farming in Australia, ABARE Research Report 07.11. Prepared for the Australian Government Department of Agriculture, Fisheries and Forestry, Canberra, May 2007.

Other titles in this series?

Biotechnology briefs: GM grains in Australia - Identity preservation

Biotechnology briefs: GM oilseed crops and the Australian oilseed industry

Biotechnology briefs: Market acceptance of GM canola

The Australian Government's National Biotechnology Strategy funded the production of these reports and brochures.



Photo courtesy of CSIRO

Biotechnology

GM canola - Potential impacts on organic farming in Australia

briefs

We can expect that the commercialisation of genetically modified (GM) canola would have very little, if any, impact on organic agriculture in Australia.

The direct impacts on organic canola production are likely to be negligible. Only very small amounts of organic canola and organic canola meal, if any, have been produced in recent years in Australia. The organic livestock industry has been able to source suitable feed other than organic canola and could continue to do so regardless of any future domestic production of GM canola.

Conventionally produced crops are not suitable forage for bees for the production of organic honey. Consequently, growing GM canola as a substitute for conventional canola would have no additional effect on organic honey production.

Is genetically modified canola grown in Australia?

In 2003, the Gene Technology Regulator approved two varieties of GM canola for commercial release in Australia. However, a number of concerns related to marketing prompted several states to impose moratoria to delay the cultivation of the GM varieties. So, although genetically modified canola is not currently grown here, this is a real possibility for the future. In fact, GM canola is likely to be the next GM crop commercially produced in Australia.

Why does this matter to organic farmers?

It matters because organic farming in Australia is subject to strict certification standards. These standards prohibit the use of genetically modified organisms (GMOs) and even the unintentional inclusion of any GM material.

The potential commercialisation of GM crops, such as

canola, means that there could be an increased risk of GM material occurring in organic products.

Can GM cropping coexist with organic farming systems?

Our only real experience of GM cropping in Australia comes from growing cotton, and also carnations. At the moment Australia doesn't grow any GM crops that are primarily for food or feed. We will need to ascertain, case-by-case, what this would mean for our organic farmers if it happens in the future.

How large is Australia's organic farming sector?

Australia has over 1500 organic farms, or about 1.2 per cent of the total of all farms. In 2003, around 72 per cent of these farms were involved in vegetable and fruit and nut production, around 22 per cent in beef production and around 15 per cent in the production of grains. (Farms can be classified in more than one industry.)

The market for organic products has grown rapidly in recent years and is expanding by a substantial 15 per cent each year. Organic produce currently accounts for 0.5% of our total food sales.

Australia exports organic products to all the main global organic markets – the United States (US), the European Union (EU) and Japan. Figure 1 gives details of the main organic products exported in 2001–03. These exports were valued at \$50 million in 2000, but have declined in recent years because of drought.

What would GM canola mean for our organic farmers?

Commercial production of GM canola is unlikely to have any substantial impact on the organic sector.

What about exports?

Organic standards in Australia and overseas markets are generally well aligned. In fact our certification standards are more stringent than those of our major export destinations.

Proposed changes to EU organic standards would have implications for our trade in organic products. In particular, the EU is proposing to establish a threshold of 0.9% for acceptance of the unintentional presence of approved GM material in organic products and 0.5% for organic seed. Australian standards are stringent and could potentially disadvantage our producers. These producers may face financial losses if their products or farms no longer qualify as being organic - unlike their international competitors who qualify more easily.

What would be the impact on organic canola production?

If GM canola were commercialised in Australia, the direct impacts on organic canola production in Australia are likely to be negligible, as there is very little, if any, organic canola grown here. Under the Australian organic certification standards, organic production is to be isolated from the production of non-organic products. Producers of organic canola would already be required to establish measures to avoid contact with non-organic canola crops, whether or not these were GM canola.

What would be the impact on organic livestock?

In recent years Australia has produced negligible amounts of organic canola oil and meal. This indicates that the organic livestock industries use feed other than organic canola meal. The introduction of GM canola would therefore have minimal impact on the organic livestock industry.

fig 1 Australian organic exports, by commodity
annual average 2001–03

