



Information Paper 13

GM canola, local government and choice

Genetically modified (GM) cotton and carnations have been grown commercially in Australia since 1996, and GM canola was grown commercially for the first time in 2008 in New South Wales and Victoria. This latter development has seen a number of local government authorities reconsider the option of so-called Genetic Engineering (GE) Free Zones.

This fact sheet considers GE Free Zones and the implications such zones have in relation to consumer and producer choice. Legal, economical and logistical issues are also raised.

Background

Despite two GM herbicide varieties being approved for commercial release by the Federal gene technology regulatory agency, the Office of the Gene Technology Regulator (OGTR) in 2003, bans in place at the state level in Australia's canola growing regions have delayed roll-out of the new plant varieties until now.

As early as 2001, councils and shires throughout Australia held public meetings to discuss the issue of gene technology and GM crops, and several investigated the option of declaring their region as a GE Free Zone. Then, the bans imposed at the state level effectively allowed councils to step back from the issue. However, recent moves by the NSW and Victorian State Governments to allow the commercial production of GM canola have seen this issue re-visited by some councils.

What is a GE Free Zone?

In defining such a zone, it is important to understand how broadly gene technology currently impacts on our lives – in medicines, foods and also crops.

Medicine - biotechnology and gene technology are used in medical research and to produce medicines, including insulin for diabetics. It would be difficult to place a ban on such products within a region.

Food - GM ingredients can be found in much of the processed food we consume however, there are no GM

fresh fruits, vegetables or meats sold in Australia. Foods from GM crops have been in the Australian marketplace since 1996. For example, imported GM soy may be present in soy beverages, tofu, soy oil, soy flour and lecithin and more refined products such as breads and pastries. Since 2001, foods containing GM

content require labelling as such, so it is relatively easy to identify GM food products. There are, however, wider ethical, economic and logistical issues that councils would need to consider before banning such products from supermarkets or council-operated facilities within their jurisdictions.

Crops - GM cotton has been grown commercially in New South Wales and Queensland since 1996. In addition to this commercial crop, there are a large number of GM crop field trials taking place across Australia. Prior to a GM crop being approved for the marketplace, it must undergo a series of field trials over several years or seasons. These field trials are assessed on an individual basis, are highly regulated, and must be conducted in line with stringent conditions or field management plans. Field trial locations are also available from the OGTR.

A zone free of GM crops – the reasoning

Firstly, councils must determine why they, or their local consumers, wish to establish a zone free of GM crops. Reasons for considering such a zone may include:

- Uncertainty about the science behind gene technology, and the resulting GM crops, and how these are managed (including the field trial process)
- Concern about the risks that such crops pose
- A belief that the local area can enhance its image and economic base by growing only non-GM crops
- A belief – based on ethics or religious grounds for example – that this technology should not be adopted.

A zone free of GM crops – the establishment

In considering such a zone, councils must consider the wider implications of such a decision. Firstly, a national gene technology regulatory system is in place to ensure that gene technology is used appropriately in Australia,

and that any commercial releases or trials of GM products take place under stringent conditions. Do councils have the expertise or resources to potentially duplicate or oppose such a science-based authority?

Secondly, councils do not currently regulate or determine what products can be grown on agricultural land. If councils intend to regulate GM crops, are they going to take on the regulation of all agricultural activities within their council boundary?

Thirdly, councils banning GM crops within their boundaries are effectively removing consumer and producer choice. Farmers need to select the method of agricultural production that best suits their needs and buying markets – be it organic, conventional or genetically modified. Will growers be compensated if the choices removed from them prove to be more economical?

Legal considerations – A number of councils has investigated the legal means by which they would establish a zone free of GM crops. Some councils, particularly in the eastern states of Australia, have considered including this within their Local Environment Plan (LEP) however, their investigations have led to the general belief, that taking such an action, could place council in a position of liability if a GM crop, grain or seed were found within the council boundaries. Of course, councils seeking to establish such zones should seek independent legal advice.

Logistics - To establish a zone free of GM crops, the area would firstly need to be clearly defined. Councils would need to consider how they were going to achieve this, particularly where farmers' properties overlapped two shires. Once defined, many other logistical arrangements would need to be considered. These include:

- How will council administer and enforce such a zone?
- Will compliance/inspection officers need to be employed and provided appropriate training?
- Will council need to construct testing centres at major entry points to the shire to assess transport vehicles carrying grain, and agricultural machinery travelling through the shire?
- How will this new zone be communicated to local citizens, transport carriers and tourists? Will council need to invest in a broad communication and advertising campaign?
- If a GM crop, grain, seed or carnation is found within the council area, what action will be taken? Is one GM grain considered a 'breach' under the GM free crop zone?

Economic considerations – Establishing a zone free of GM crops has the potential to impose considerable economic costs. The potential costs involved were the subject of a report commissioned by Avcare, now CropLife Australia, several years ago. The report estimated that the cost of maintaining such a zone would be approximately \$2,260,250 per annum – including staff, infrastructure, testing equipment, communication and advertising, legal costs, and quality assurance programs for farms.

Of course, such a zone may also impact on issues beyond the shire. For example, if trucks carrying GM grain are required to travel around the shire or zone, than this may impact and deteriorate surrounding roads.

GM canola in the spotlight

The introduction of GM cotton into Australia in 1996 received minimal attention beyond the scientific and cotton-growing communities. It has proven very successful, with pesticide applications reduced by more than 90 per cent each season which has significant positive benefits for the environment and local communities. However, despite the success of GM cotton, the progression of the GM canola technologies to the marketplace has been far from smooth sailing.

Genetically modified canola has been at the centre of a well-funded anti-GM campaign. This campaign has focused on the use of GM canola in the food chain, its on-farm management, and its impact on the export market.

Consumers have been led to believe and/or are under the impression that GM canola is the first GM food crop to end up in supermarket products. However, cotton seed oil from GM cotton, and products from GM soy, corn and canola produced overseas are already present in the marketplace. Furthermore, following the refinement process, a highly refined oil like canola oil, is not required to be labeled because it contains no genetic material or protein, and is chemically identical to canola oil from a non-GM crop.

Much attention was also focused on the on-farm management of canola, particularly cross-pollination, managing GM content in non-GM crops, herbicide resistance, and weed and volunteer management. The status of key export markets in relation to accepting GM crops was also a major issue.

For reasons such as those listed above, the imminent release of GM canola into the marketplace provided impetus for the majority of local government areas (particularly those in rural regions) discussing the idea

of a GE Free Zone. They were particularly interested in looking at their options to prevent the commercial production of GM canola and/or future field trials of other GM crops.

Delivering market choice with GM canola

The grains industry and governments made a concerted effort to address the issues noted above with numerous reports produced. Most recently this culminated in *Delivering market choice with GM canola* a statement endorsed by the Australian grains industry and key agriculture entities.

This report outlines the grains industry's ability and commitment to incorporate GM canola into the supply chain with a certainty and confidence that it can be managed to meet market and customer requirements.

In relation to GM canola, the report states, "The Australian grains industry has assessed the two types of approved GM canola varieties against the market choice criteria [see table], and as they are met, agrees that planning for the commercialisation of the approved GM canola varieties can commence for the 2008 planting season...The industry urges governments to recognise the grains industry's ability and commitment, and to support the commercialisation of the approved GM canola in Australia."

Market choice criteria

Step	Action	Status
1	Australian regulatory approval gained - GM canola varieties were approved by the OGTR in 2003.	√
2	Market requirements identified.	√
3	Thresholds endorsed by the Australian Seed Federation, NACMA and with key trading partners such as Japan (5%) and Europe (0.9%) - for contractual or labelling purposes.	√
4	Importing market approvals in place GM canola varieties have approvals in key importing countries.	√
5	Supply chain processes to meet market requirements. Protocols available to segregate throughout the supply chain.	√

Australia's multi-million dollar grains industry is confident in allowing Australian growers access to a technology successfully being used by its global competitors. Local governments considering banning such crops need to consider if they are as confident and considered about removing such a choice?

Gene technology – community consultation

In Australia, all gene technology work is regulated by Federal regulatory bodies. This regulation extends from scientific laboratories, through to final products - including crops and food products. During the development of a GM product the key regulatory agency – the Office of the Gene Technology Regulator – provides one or more consultation periods, to allow relevant local governments and members of the community, the opportunity to provide comment and input. Interested individuals and organisations can also join the Regulator's mailing list by visiting the website at www.ogtr.gov.au.

Community views are also considered during the process, through the Gene Technology Ethics and Community Consultative Committee (GTECCC).

Before establishing a GE Free Zone, or zone free of GM crops, it is important for local government authorities to investigate all options and considerations, and to ensure that in making such decisions, wide consultation is sought. Councils should also seek independent legal advice.

Further reading

Delivering market choice with GM canola, Single Vision Grains Australia (SVGA). 2007 - www.afa.com.au/pdf/Delivering_Market_Choice_with_GM_canola.pdf.

"Genetic Engineering Free Zones – An Information Paper", November 2001, Avcare. Available from CropLife Australia by telephoning (02) 6230 6399.

GM Crop Field Trial locations, Office of the Gene Technology Regulator (OGTR) - www.ogtr.gov.au.

GM Foods, Food Standards Australia New Zealand (FSANZ) - www.foodstandards.gov.au/foodmatters/gmfoods/index.cfm

The papers in this series aim to provide information and promote discussion about these issues.