

GM Crop Moratorium Review Secretariat
NSW Department of Primary Industries
Locked Bag 21
ORANGE NSW 2800



Dear Sir / Madam

On behalf of the Members of the Grains Council of Australia, I am providing this submission to the New South Wales Government's Genetically Modified Crop Moratorium Review.

The removal of the moratorium on the production of GM canola in New South Wales will reinvigorate the Australian oilseed industry and open up new industry sub-sectors, including the production of sustainable biofuels from oilseeds, with the concomitant increase in regional employment and wealth creation.

Significant efforts have been made by the grains industry over the last 3 years to prepare the sector of the coexistence of GM and non GM canola at the farm level and through the storage and handling system.

The Australian grains industry now has the capability, systems and levels of competence required to manage coexistence in the value chain. Importantly, the industry has the capacity to ensure that export or domestic customer requirements for segregated storage and handling can be met.

The Grains Council of Australia and its members believe that commercialisation of genetically modified canola should proceed immediately following the removal of the moratorium on commercialisation of this technology in New South Wales.

Such a move would be consistent with the Council's agri-biotechnology policy adopted in June 2005 and would recognise the preparedness of the industry to handle coexistence.

Yours sincerely

A handwritten signature in black ink that reads "Murray Jones". The signature is written in a cursive, flowing style.

Murray Jones
Chairman
Wednesday, 25 July 2007

The purpose and objectives of the moratorium

The Grains Council of Australia and its members believe that the New South Wales moratorium on the commercial release of GM canola should be lifted after the current review, for the following reasons:

- Significant time has elapsed since the approval by the Office of the Gene Technology Regulator (OGTR) of GM canola events (8 on July 23rd 2003 and 1 on December 19th 2003), which has allowed the industry to prepare its infrastructure and management systems to accommodate coexistence between GM and non-GM canola varieties.
- Significant developments in the sophistication of bulk commodity management having been made over the time since the moratorium was imposed, the result being that the Australian grains industry is now ready to manage the co-existence of GM and non-GM canola varieties.
- The industry, given the 'breathing space' provided by the moratorium, now has the capacity to provide stewardship programs, commercial practices, process and protocols which will address the marketing and technical requirements of a coexistence based supply chain.
- These measures will provide certainty and confidence to supply chain participants and to domestic and export customers.
- Access to GM canola will allow our customers greater choice and allow producers to exercise choice in what they grow and what they sell.

We believe that the moratorium has now served its original purpose, which was to provide the industry time to ready itself for the introduction of GM canola.

We are also satisfied that protocols developed to separate GM from conventional canola varieties will work for both the domestic and export markets.

The industry has had, due to the moratorium, 3 years to prepare for commercial release of this technology. The industry is now prepared and ready.

We urge the New South Wales government to recognise the grains industry's commitment and support the commercialisation of approved GM canola in Australia.

The impact of the moratorium

The international competitiveness, industry profitability and environmental sustainability, of the Australian oilseed industry have been significantly eroded with the imposition of the GM moratoria in South Australia, Western Australia, Victoria and New South Wales.

If there is any extension of the current moratorium on commercialised GM canola beyond 2007 in New South Wales, the following impacts can be expected;

- Our competitors' terms of trade will continue to be well in advance of Australian canola growers. Research indicates that Australian farmers are suffering significant reductions in efficiency.
 - In Canada the introduction of hybrid herbicide tolerant canola varieties led to yield increases of up to 20% compared to open pollinated varieties.
 - The market share of hybrid herbicide tolerant canola varieties in Canada in 2006 was 59%.
 - Trials on the same varieties in Australia have indicated increases in yields of 16% over benchmark varieties.
 - Hybrid varieties grown in Canada and other countries can reduce input costs by 10% or more.
- Our competitors will have an advantage in the uptake of second and third generation agri-biotech crops.
- In 2005, over 10 million farmers grew GM crops on 90 million hectares.
- Over 85 per cent of the Canadian canola crop is now sown to GM varieties and these have been marketed successfully for over a decade.

Without access to the latest varieties of canola, this sector of the Australian grains industry faces a dramatic decline in economic fortunes. The economics of canola production are becoming more marginal as our technology lags further behind that of competitors.

Using ABARE 2007 predictions and an estimate of 15% gain in productivity, we estimate a net gain to New South Wales canola farmers of over \$20 million.

Area sown Ha	Production T	Est. Price \$/T	Total value \$	Productivity %	Value gained \$
212,000	297,000	466	138,402,000	15	20,760,000

Source - ABARE. June 2007. Australian Crop Report, No. 142, 19 June 2007

Many of the current cereal and pulse cropping systems rely on canola as a 'break crop', with productivity benefiting greatly from the agronomic benefits conferred by rotations with brassica species. Should there be a major reduction in the use of canola as a rotation crop, there will be a corresponding reduction in the efficiency and profitability of cereal and pulse production across Australia.

Thus, there is a very real risk that, should grain producers continue to be denied access to more advanced varieties of canola, the economic sustainability of *all* cropping systems, not just the oilseed component, will be seriously compromised.

Benefits from removing the moratorium

In Australia, two herbicide tolerant GM canola varieties have been approved by the Office of the Gene Technology Regulator (OTGR). The science proving that these technologies provide no human health or environmental threats is now very well established.

International experience has proven that, despite alarmist claims, GM canola has not had major environmental impacts. In fact the opposite is indicated. There have been major environmental and economic gains from the adoption of GM crops.

The October 2006 PG Economics report on the global impact of GM crops 1996 – 2004, indicated that the introduction of GM canola had;

- In 2004 a positive economic benefit of US\$135 million in direct farm income and
- Since 1996 a cumulative increase in direct farm income of US\$713 million, of which US\$617 had been captured by the largest adopter of GM canola, Canada.

The same report indicated that uptake of GM crops had;

- Allowed the environmental footprint of cropping to be reduced by 14% in total over 1996 – 2004 and that the total volume of chemical active ingredients applied to crops had fallen by 6%, and;
- In the canola sector globally, the footprint of the industry had been reduced by 21%, mainly as a factor of the switch to more environmentally benign herbicides.

The environmental footprint of the domestic canola industry has not been reduced in the same manner. As a consequence of the moratorium, the Australian canola industry is both less environmentally sustainable than it was prior to the imposition of the moratorium and less sustainable than its competitors.

While the Australian grains industry has made huge productivity strides over the past two decades with the adoption of 'Australian' farming practices (such as minimum or zero tillage, controlled traffic, chemical fallow, etc.), the industry has reached a point where advances in machinery and farming practice technology are *not matched* by advances in plant technology.

The Australian canola industry is heavily reliant on triazine and imidazolinone tolerant varieties. There is little opportunity or point in transferring 'old' triazine tolerance (TT) technology into new, hybrid varieties; given the considerable vigour and yield penalties this technology confers.

Varieties developed using advanced biotechnology will allow Australian grain and oilseed farmers to;

- Become more efficient fossil fuel users – lowering greenhouse gas emissions and energy based input costs, lowering the environmental footprint of grain production,

- Open up new markets for where biotech crops that contain specific 'consumer use' traits, for food and industrial uses,
- Adopt and produce crops for the future 'carbohydrate economy',
- Adopt crop varieties that increase water use efficiency and better cope with increased climate variability.

Research into, and development of, crops with advanced genetic properties will aid in the constant battle Australian grain producers have with declining terms of trade and the input / output 'cost price squeeze'.

Recent increases in the cost of energy inputs have made grain and oilseed production a more financially marginal business. This places increasing financial strain on grain producers and their families. Regional communities also suffer when farming terms of trade are impacted by cost increases.

Industry readiness

The Grains Council of Australia and its member organisations have joined a range of other organisations from across the grains value chain in signing the June 2007 *Delivering Market Choice with GM Canola* research document. This paper outlines the steps that have been taken by the industry to prepare for GM / non GM canola coexistence and choice.

The paper is supported by a technical document, *Principles for the Process Management of Grains Within the Australian Supply Chain: An environment where GM and non-GM grain is marketed*.

The support from across the value chain for the positions expressed in these papers is a strong signal that the industry is now totally prepared for the commercialisation of this technology.

Grains Council Policy Statement on Agricultural Biotechnology

Adopted in June 2005

The biotechnology policy of the Grains Council of Australia takes account of several key factors;

1. The release in March 2004 of the Australian Grains Industry Strategy 2005 – 2025. That report identified the major role agricultural biotechnology will play in the future of the Australian grains industry.
2. The potential of biotechnology to deliver new consumer foods and health solutions, and new industrial products.
3. The ability of biotechnology to deliver tools that will aid natural resource management.
4. An awareness that agri-biotechnology is much broader than modification of plant varieties to confer chemical resistance, the latter accounting for only about 10% of the technology.
5. The adoption by competitors of agri-biotechnology that is providing them with a productivity advantage over Australian producers.

The Grains Council of Australia believes that in order to grow the value of our grains industry, create sustainable prosperity in regional Australia and increase the profitability of Australian grain producers; it is vital our industry becomes an 'early adopter' of biotechnology.

Policy Statement:

Agricultural biotechnology is critical to the future of Australian plant industries, as it will allow greater freedom for the development of more efficient, environmentally and socially sustainable food, fibre and industrial product value chains that will;

- *Facilitate the offer of a wider range of consumer benefits through the development of innovative food and health solutions,*
- *Allow producers to access new options for managing the interface between farming and the natural resource base,*
- *Provide a range of alternatives to meet the challenges of global climate change and*
- *Allow the Australian plant industries to diversify into the production of a range of new industrial and renewable energy products.*

References

- ABARE. June 2007. Australian Crop Report, No. 142, 19 June 2007.
- Alexander. F and Kokic. P, 2005. Productivity in the Australian Grains Industry. ABARE eReport 05.3 Australian Bureau of Agricultural and Resource Economics, Canberra, pp50.
- Brookes. G and Barfoot P. October 2006. "GM crops: the global socioeconomic and environmental impact – the first nine years 1996 – 2004" PG Economics Ltd.
- CSIRO, February 28th 2006, "New wheat has healthy potential" www.csiro.au/HAWheat.
- GRDC, 2007 "Delivering Market Choice with GM Canola".
- GRDC, 2007 "Principles for the Process Management of Grains Within the Australian Supply Chain: An environment where GM and non-GM grain is marketed"
- Kamm, B and Kamm, M. 2004. "Principles of Biorefineries", Applied Microbial Biotechnology (2004) 64: 137–145. DOI 10.1007/s00253-003-1537-7
- Monjardino, M, Pannell, DJ and Powles, SB. June 4th 2004. "The economic value of glyphosate-resistant canola in the management of two widespread crop weeds in a Western Australian farming system". Elsevier, Agricultural Systems, www.elsevier.com/locate/agsy.
- O'Donovan, JT, Harker, KN, Beckie, HJ, Blackshaw, RE and VanGessel, MJ. 2007, Lessons learned from adoption of GM crops in North America. Agribusiness Crop Updates, Dept. of Agriculture and Food, Western Australia and the Grains Research and Development Corporation.
- Salisbury, P and Green, A. October 2006. "Non Food Uses: Opportunities for the Australian Oilseed Industry", Australian Oilseeds Federation.
- van Beuzekom, B and Arundel, A. OECD Biotechnology Statistics - 2006
- Ugalde. D, Brungs, A. Kaebnick. M, McGregor, A. Slattery, B. (Unpublished 2006) Implications of Climate Change for Tillage Practice in Australia. Department of the Environment and Water Resources. Australian Greenhouse Office.