



Agrifood
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Dear New South Wales Review Panel Members,

Please find enclosed Agrifood Awareness Australia Limited's (AFAA) submission to the New South Wales (NSW) moratorium review on genetically modified (GM) canola.

Agrifood Awareness Australia Limited is an industry initiative established in 1999, to increase public awareness of, and encourage informed debate and decision-making about, gene technology. The organisation has three founding members – CropLife Australia, the Grains Research and Development Corporation and the National Farmers' Federation.

In 2006, the global area of GM crops continued to climb for the tenth consecutive year at a sustained double-digit growth rate of 13 per cent, reaching 102 million hectares.

A total of 10.3 million farmers from 22 countries (both developed and developing) planted GM crops in 2006. These countries, in order of hectareage were, USA, Argentina, Brazil, Canada, India, China, Paraguay, South Africa, Uruguay, Philippines, Australia, Romania, Mexico, Spain, Colombia, France, Iran, Honduras, Czech Republic, Portugal, Germany, and Slovakia – which includes small GM crop plantings in six European Union countries.

The major GM crops being grown and traded around the world were soybean occupying 58.6 million hectares, followed by corn (25.2 million hectares), cotton (13.4 million hectares) and canola (4.8 million hectares).

Genetically modified canola has been successfully grown and traded around the world for over a decade. The NSW moratorium on is denying Australia access to a technology which is becoming widely accepted and is being fully utilised by our global competitors. Australia, particularly the Australian grains industry, is now ready to commercialise GM canola. It is time for the NSW Government to remove the moratorium on GM canola and allow the industry to manage the commercial introduction.

Yours sincerely,

Paula Fitzgerald
EXECUTIVE DIRECTOR

ADDRESSING THE TERMS OF REFERENCE

A: THE EXPECTED IMPACTS ON MARKETING, TRADE AND INVESTMENT FOR NSW OF:

Extending the Act and maintaining the moratorium orders on the cultivation of GM canola.

The NSW moratorium presents little investment certainty for research and development in this area and no clear path to market for approved GM food crops. Allowing the moratorium to continue will have a substantial negative impact on NSW and the Australian agricultural sector. It will deny NSW the opportunity to explore the benefits which the Australian cotton industry has experienced and which are offered by GM canola and other GM crops.

The Australian Oilseed Federation (AOF) states that, "There is industry concern that Australia will be left behind and frozen out of markets in the next 5-10 years if biotechnology is a tool not available to it. This is due to underlying need for improved varieties. Current oilseed genetics are not sufficient against weed resistance and the heavy reliance on one technology (TT canola) is a threat to the canola industry. The longer term implications of access to improved genetics such as drought, frost and nutritional characteristics are critical. The application of GM technology is giving yield/cost advantage to North and South American producers".

ABARE concluded in September 2005 that, "A continuance of the current moratoriums, and extension to other transgenic broadacre crops, is expected to result in a loss of gross national product of \$3 billion, in net present value terms, over the next ten years".

(see: www.abareconomics.com/publications_html/ac/ac_05/ac05_sept.pdf)

The State of NSW, through the Government and private companies, has a significant investment in this technology. The moratorium provides:

- Considerable future investment uncertainty
- No clear path to market for approved GM products
- No opportunity to explore the commercial outcomes of R&D investment
- Uncertainty for the future global competitiveness of agricultural sectors, including the Australian oilseeds industry.

Amending the Act and removing the moratorium orders on the cultivation of GM canola; or allowing the act to expire.

The moratorium provides considerable investment uncertainty which will continue to impact Australia's breeding programs and R&D projects. Australian agriculture has a reputation for investment in R&D, adoption of new technologies and innovation. Allowing the moratorium to expire will allow NSW to exploit the benefits offered by GM canola and explore opportunities to commercialise other R&D outcomes, in which the NSW Government also has a considerable investment.

Genetically modified cotton has been grown in NSW for over a decade and has not required government intervention, in the form of a moratorium. The technology has been successfully managed through a combination of science-based regulation

overseen by federal government agencies, and a strong commitment by industry to stewardship.

A subsection of the grains supply chain already demonstrated its ability to manage GM canola in 2006 when a shipment of GM canola from Canada was brought into NSW as a result of the drought. This GM canola was handled within the existing grains industry supply chain. The needs and requirements of customers were met and the supply chain's capacity to meet customer requirements was demonstrated.

The removal of the NSW moratorium on GM crops will allow the agricultural sector to explore the benefits of the technology which Australia's global competitors have already experience. These include:

Economic benefits - PG Economics, in its report entitled *Global Impact of Biotech Crops: Socio-Economic and Environmental Effects in the First Ten Years of Commercial Use* (<http://www.agbioforum.org/v9n3/v9n3a02-brookes.htm>) states that there has been significant positive environmental and economic impacts from GM crops including:

- Substantial net economic benefits at the farm level amounting to five billion dollars in 2005 and \$27 billion for the ten year period.
- A reduction in pesticide spraying by 224 million kg (equivalent to about 40 per cent of the annual volume of pesticide active ingredient applied to arable crops in the European Union) and as a result, decreased the environmental impact associated with pesticide use by more than 15 per cent.
- A significant reduction in the release of greenhouse gas emissions from agriculture, which, in 2005, was equivalent to removing four million cars from the roads.

Benefits to Canada - In 2004 in Canada 70 per cent of canola grown was GM varieties. In 2000, the Canadian Canola Council commissioned a study to qualify and quantify the agronomic and economic impacts of GM canola.

The study entitled *An Agronomic and Economic Assessment of Transgenic Canola* (http://www.canola-council.org/manual/GMO/gmo_main.htm) found that:

- Growers chose GM varieties for several reasons. The key benefit and motivator to adopting GM varieties was more efficient weed control and ease of herbicide management in preventing weed resistance.
- Other reasons, related to weed management, included cleaning up fields, reducing the number of passes to control weeds and perennial weed control.
- Some producers reported better yields, higher yields, the ability to reduce costs and generate most profits.
- Other reasons for choosing GM varieties were to reduce tillage, seed earlier, conserve moisture and to compare GM varieties to conventional canola on a trial basis.

The Canadian Canola Council reports that the direct economic impact to growers from the adoption of GM canola from 1997 to 2000 is within the range of \$144 and \$249 million, varying between the farmer-based estimate and the value determined by the economic model.

Further, the Council notes that when a technology like GM canola is adopted, it can impact the whole community (examples include added investment in canola crushing capacity, impacts on local seed, herbicide and equipment industry investments and development, added shipping, handling, marketing etc). The

total indirect impact from the 1997 to 2000 period is estimated to range between \$58 and \$215 million.

The removal of the moratorium in NSW will also allow NSW growers to explore the benefits of GM canola which were reported in a 2003 study which examined the Australian situation.

In his report entitled *Conservation farming systems and canola* ([www.croplifeaustralia.org.au/files/biotechnology/information/Conservation%20farming%20systems%](http://www.croplifeaustralia.org.au/files/biotechnology/information/Conservation%20farming%20systems%20)) Dr Rob Norton of the University of Melbourne noted that:

- Research in Australia has demonstrated that wheat following canola has a 20 per cent yield benefit over wheat following wheat.
- The introduction of two lines of GM canola with tolerance to either Roundup or glufosinate-ammonium herbicides will give farmers additional weed control options.
- GM canola will allow farmers to sow earlier, achieve better weed control when compared to current conventional canola weed control systems and avoid the inherent yield and oil penalties associated with Triazine Tolerant (TT) canola.
- Based on a scenario of GM canola replacing 50 per cent of the TT canola and 40 per cent of the conventional canola, and with an additional 160,000 hectares of canola plantings because of the new technology, it could be estimated that:
 - An extra 200,000 hectares of canola would be grown under direct drilling or minimum tillage
 - 640 tonnes less triazine herbicide would be used each year
 - average Australian canola yields would increase from 1.27 tonnes per hectare to 1.38 tonnes per hectare, with an increase of canola production estimated at 295,000 tonnes annually
 - wheat production would increase by 64,000 tonnes on the additional canola area.

This increase in canola and wheat production would be worth \$135 million to the Australian grains industry.

The moratorium on GM canola in NSW is denying the agriculture sector access to a technology which has delivered benefits to Australia's global competitors and which offers significant potential benefits (economic and other) for Australia. The benefits offered by GM canola, are not only relevant to the oilseed industry, but also have broader benefits for Australia's wheat industry, given the increased yields of wheat grown after canola. In addition, as has been the case in Canada, the introduction of GM canola has potential flow-on benefits to regional communities through seed and equipment investment, marketing etc. The removal of the NSW moratorium will allow the Australian community to access these considerable benefits.

B: ON THE BASIS OF THE ABOVE ASSESSMENTS, MAKE RECOMMENDATIONS TO GOVERNMENT ON THE MOST APPROPRIATE OPTION TO ADOPT

Australian agriculture supports choice (see http://www.afa.com.au/n_industry_policies_landing.asp) – which allows individuals (city or regionally-based consumers) to choose the production methods or products best suited to their needs.

The Australian cotton industry has demonstrated the ability of the agriculture sector to consider and manage issues that arise in relation to the introduction and management of GM crops and to deliver choice.

The Australian grains industry has recently demonstrated its ability and commitment to manage GM canola in the supply chain and meet customer requirements, through the launching of a statement entitled “Delivering market choice with GM canola” (www.afa.com.au). This document details the protocols and processes that the grains industry supply chain either has available or can implement to allow the commercialisation of GM canola, and meet marketplace, trade and regulatory requirements.

The information in the document has been compiled from extensive consultation with key stakeholders across the grains supply chain, from technology developers, through farmers and bulk handlers to marketers and industry representative organisations. Consultation revealed a wide and strong support for the commercialisation of GM canola for the benefits it can provide to Australian agriculture.

Behind this document sits the comprehensive “Principles for process management of grain within the Australian supply chain” report (www.afa.com.au) which states in detail the protocols, procedures and processes that are to be managed along the supply chain; which include standards, quality assurance procedures, stewardship programs, codes of practice and commercial contractual arrangements.

The key elements of the document include:

- Acknowledgement that GM canola varieties were approved in 2003 by the Australian regulatory process providing assurance of food and environmental safety; and that GM canola has been grown and traded around the world for more than a decade.
- The principles underpinning GM canola commercialisation are that:
 - trade in Australian canola is maintained or enhanced
 - market choice along the supply chain is enabled
 - it is open and transparent
 - confidence is provided to all stakeholders.
- The grains industry recognises that participants right along the supply chain have the ability to exercise choice. The industry recognises that not all supply chain participants may choose to adopt GM canola, and hence, the supply chain must be in a position to offer and provide choice at all times.
- In providing market choice, supply chain participants can source, supply and manage the production, processing, manufacturing and delivery of product to a pre-determined set of specifications.

- Recognition that the Australian grains industry's supply chains are flexible and have the required capacity for existing or new processes to: enable GM grains to co-exist, use a semi-integrated system, or provide separate supply chains and infrastructure.
- Five criteria which have been developed to evaluate GM canola against to provide assurance that the approved GM canola meets the requirements for market choice.

Key supply chain stakeholders have endorsed this document as a pathway for commercialisation and agree the Australian grain industry is ready to move ahead with the commercialisation of approved GM canola.

Australian agriculture, particularly the Australian grains industry, recognises that market and trade considerations for new GM crops need to be discussed during the development and approval phase. The industry also recognises that any new GM crops, with the exception of new cotton varieties, are likely to be at least seven years away from commercialisation – during which time many changes in agriculture are likely to occur and GM crops are likely to be more widely adopted. The grains industry, through the development of the “Delivering market choice with GM canola” statement, has demonstrated that the industry can come together and implement systems, where required, and adopt an agreed position on GM crops. The industry will continue to do this as new GM crops proceed through the federal regulatory process towards commercialisation.

The NSW Government should allow the moratorium to expire to allow the community and all members of the supply chain to choose the products of their choice. The moratorium denies choice and is denying the agricultural sector and the wider NSW community the opportunity to explore the benefits offered by GM canola and gene technology more broadly. Further, the Australian grains industry has demonstrated its ability and commitment to further dialogue and the development of industry processes to address future GM grain crops nearing the commercialisation phase.

C: IN THE EVENT THAT THE PANEL RECOMMENDS EXTENSION OF THE LEGISLATION, RECOMMEND APPROPRIATE AMENDMENTS TO THE LEGISLATION.

It is important that the panel recognises the views of the Australian agricultural sector, as have been reinforced by the recent NSW Farmers' Association GM policy. In the review of the Federal Gene Technology Act, industry and farmers that supported the choice to grow GM crops noted that the moratoria were:

- halting the path to market for GM food crops, which have been approved through the OGTR process, by imposing a prohibition on commercial release;
- creating regulatory uncertainty, as under the moratoria legislation there is lack of transparency in the process (including the criteria that would allow the approval of commercial releases);
- stopping further investment in food crop GMOs;
- undermining the Regulator's science-based decision in relation to health and safety and the environment;
- denying Australian farmers the ability to grow GM food crops, leaving them at a disadvantage in a competitive global marketplace;
- resulting in an inability to respond to rapid changes in the market; and

- diminishing confidence in the nation's ability to capture the benefits of biotechnology, as outlined in the National Biotechnology Strategy.

Further this review also recommended that the "Commonwealth and States through the GTMC (Gene Technology Ministerial Council) reconfirm their commitment to a nationally consistent scheme for gene technology including a nationally consistent transparent approach to market considerations as soon as practicable".

(Further information:

<http://www.health.gov.au/internet/wcms/publishing.nsf/Content/CE28398A33AF02E6CA25707400080A57>)

In May 2002, the Primary Industries Ministerial Council (PIMC) agreed that any GM risks to agricultural production should be managed by industry self regulation, supplemented by government monitoring.

Australian producers want the opportunity to have access to the approved GM canola varieties. Their main global competitors have enjoyed the benefits of these crops for over a decade.

The moratorium was established on trade and marketing grounds. During the development and federal regulatory approval (which considers human health and safety and environmental safety) of a GM product, trade and marketing considerations need to be discussed within and along the particular supply chain and associated supply chains. This industry dialogue should be encouraged within each commodity group to ensure that market considerations are understood prior to the commercialisation of an approved GM product.

The launch of the grains industry's "Delivering market choice with GM canola" document has demonstrated that the industry is both committed to, and capable of, discussing and resolving issues in an appropriate timeframe to ensure that products can be managed and choice can be delivered. It is recognised that discussion will need to take place for future GM grain crops and the agriculture sector will commence this in a timely manner, recognising that the next GM grain product is, at best, seven years from commercialisation.

The NSW Government is strongly encouraged to recognise the commitment and ability of the Australian grain industry and the broader agricultural sector and support the industry's desire to commercialise GM canola and deliver market choice.