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Dear Members of the Victorian Review Panel,

Please find enclosed Agrifood Awareness Australia Limited's submission to the Victorian moratorium review on genetically modified (GM) canola.

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 moratorium on GM canola 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 Victorian 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: ASSESS THE ECONOMIC IMPACT OF VICTORIA ON THE MORATORIUM ON GM CANOLA

Moratoria cost - 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".

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

The State of Victoria, 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, such as the Australian oilseeds industry.

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.

Canadian benefits - 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 of 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.

Potential benefits to Australia - 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 in 2003 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.

CONCLUSION – The moratorium on GM canola in Victoria 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.

B: ASSESS THE EXPECTED ECONOMIC IMPACTS OF:

- **ALLOWING THE MORATORIUM TO EXPIRE**
- **EXTENDING THE MORATORIUM**

Allowing the moratorium to continue will have a substantial negative impact on Victoria and the Australian agricultural sector. It will deny Victoria the opportunity to explore the benefits 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”.

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 Victoria to exploit the benefits offered by GM canola and explore opportunities to commercialise other R&D outcomes, in which the Victorian Government has a substantial investment.

C: RECOMMEND WHETHER GOVERNMENT SHOULD ALLOW THE MORATORIUM TO EXPIRE OR BE EXTENDED

Australian agriculture - 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 grains industry – 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, QA procedures, stewardship programs, codes of practice and commercial contractual arrangements.

The key elements of the document include:

- Acknowledgement that approved 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 fundamental tenet is 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 the document as a pathway for commercialisation and agree the Australian grain industry is ready to move ahead with approved GM canola.

CONCLUSION - the Victorian 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 broader Victorian community to explore the opportunities offered by GM canola and gene technology more broadly.

D: RECOMMEND ANY COMPLEMENTARY POLICIES AND PRACTICES REQUIRED TO ADDRESS THE CONSEQUENCES OF THE MORATORIUM ENDING.

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 Victoria 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.