



13 August 2007

GM Canola Review Panel Secretariat,
Department of Primary Industries,
Level 19, 1 Spring Street,
GPO Box 4440,
Melbourne VIC. 3001

Dear Panel,

The Australian Institute of Agricultural Science and Technology (AIAST) is the peak body representing the agricultural science and natural resource management professions in Australia. AIAST supports new innovation, science and technology that contribute to more sustainable management of agriculture and natural resources.

With more than 1,100 members nationwide, including scientists, advisers, agribusiness, food industry and farmers, AIAST believes it is in a well-informed position to contribute to the Review by the Victorian Government.

AIAST has taken the initiative recently to heighten the awareness within the profession and the general public of the issues surrounding genomic research, including GM, through a comprehensive series of independent, factual and objective papers entitled *The Genomic Age* in its Journal 'Agricultural Science' (Vol 20, No. 1 – May 2007). A copy of these papers is attached in support of the arguments presented below.

Background to the AIAST Position

1. AIAST is pro choice – that is to say, once the OTGR, FSANZ & APVMA through application of its rigorous regulatory and public consultation processes have approved a variety or 'event' from the standpoints of human health and environment, breeders and commercial service suppliers should be free to operate in the market, and buyers, such as farmers, should have the freedom of choice. Whilst we strongly endorse that an evidence-based, case-by-case analysis is necessary, this relates largely to health and environmental issues and should occur within a framework of an open market/trade environment.
2. Neither Australia, nor any of its industries or regions should be disadvantaged vis-a-vis other market participants by the application of State restrictions. To do so imposes unfair constraints on trade, with effects on producers similar to that of restrictions imposed by some nations for phytosanitary reasons, which has been opposed by Australian governments for years.

3. GM and the use of genomic technologies generally provide the opportunity for production of crops which are higher yielding, better quality, more reliable (such as with drought tolerance, insect or disease resistance) and often cheaper to grow per unit. Efficiencies in the use of production, handling, transport and marketing infrastructure are critical components of marketing success and profitability.
4. All of these factors are central to the successful development of sustainable markets in a very competitive international market place dominated by countries with either GM crops or cheaper labour rates. Australia needs to become smarter and adopt new technologies if our agricultural industries are to prosper and remain competitive on global markets.
5. The only crop likely to be affected for several years in southern Australia is canola – there are no cereal or other species GM crops in the pipeline (Vic DPI has drought tolerant traits being tested this year in the northern Mallee but these are only at the proof of concept stage and many years from a commercial entity). In the case of canola, part of the crop goes to crushing for biodiesel and the remainder is exported to countries which are not GM sensitive (and often mixed with GM grain). It is significant that even the EU, which has been very GM sensitive, now allows imports of GM canola for industrial and feed uses.
6. Issues specific to canola which need to be noted are:
 - a. Australian canola production is small in global terms (< 5%), but remains a significant exported commodity (~20% of world trade).
 - b. Canola is an important break crop in modern farming systems (increasing industry diversification). Production involves higher input costs than for cereals (caused by lower and more variable yields and volatile prices).
 - c. Nevertheless, a sustainable, value-adding canola industry would ultimately be linked to regional prosperity via its multiple end uses being in oil (for human consumption), bio-diesel and the use of meal from crushing plants for livestock supplements (apart from seed exports). Future crushing plants could eventually be sited near intensive regional livestock enterprises, thereby enhancing regional industry integration & diversification.
 - d. The use of herbicide tolerant GM canola is linked to major production constraints, especially weed & disease control. GM allow crops to be sown earlier (facilitated by post-sowing herbicide applications), which in turn improves yield and oil content and lessen impacts from fungal infection (thereby optimising economic return). Canadian experience with canola and Australian experience with cotton show herbicide tolerant varieties lead to greater adoption of sustainable no-till systems (which use less fuel, use and produce less C emissions).
 - e. Other GM canola traits are in the pipeline – higher in oleic oil (desirable for human health); disease resistance; and nitrogen efficiency.
 - f. Australia may lose competitive advantage from canola to other vegetable oil crops on the world market, eg soy.
7. Recent studies by ABARE have shown no convincing evidence that in importing countries non-GM canola was earning higher prices than GM canola. Therefore the decision by industry, including farmers, will be based on these other production and market related factors.

8. Given the future scenarios regarding irrigation water availability and competition from non agricultural users, Australia will be increasingly reliant on rain fed agriculture in what is also likely to be harsher climatic environments. In this situation we need to have at our disposal all possible avenues to improve the profitability and security of producing and marketing our produce.
9. GM and non-GM crops can coexist – practical protocols are known and can be implemented. Studies of segregation protocols show that it is possible, given the current testing regimes (which are likely to become quicker and cheaper), and stack management practices at grain receival points, that a dual situation is manageable. Individuals or regions wishing to produce GM or non-GM for niche markets can do so through the establishment of market related protocols between seller and buyer. This already exists in other areas, such as the organics industry.

In 2006, a shipment of GM canola was imported to NSW from Canada as a result of the drought. This GM was successfully handled by the grain industry supply chain, demonstrating that the existing risk management protocols do work.

10. It is worth commenting on the success of introducing transgenic cotton into Australia (see Constable *et al.* in the enclosed May 2007 Issue of the AIAST Journal). Through the industry embracing change and a careful, transparent integration of GM technology, GM cotton now comprises 93% of eastern Australia's cotton area and yields there are the highest in the world. The benefits have been in production efficiencies and to the environment through huge reductions in chemical use.

Unfortunately growers in northern WA are unable to enjoy the benefits due to the WA moratorium. This prevents any relocation away from the water-poor areas in the south to the north which still has huge untapped irrigation potential

11. There are encouraging signs that farmer attitudes towards GM crops are changing. A recent study in Victoria shows that more than 90% of respondents were in favour of removing the moratorium in that State. Further, Heather Baldock's forum/survey in six regional SA centres in 2006 showed that following balanced addresses by GM specialists, 87% responded (315 people) that GM crops had potential to deliver benefits; 80% were in favour of gaining access to GM crops, but 64% still had areas of concern – 32% market and consumer demand; 9 % on segregation; and 12% on cross contamination.

Apart from the results themselves, the surveys indicate that public education is the major issue for changing public perceptions about GM technology.

The AIAST Response to the Specific Terms of Reference

A: Assess the economic impact of Victoria on the moratorium on GM canola

12. The experience to date is that uncertainty caused largely by State GM moratoria have seriously dampened investment in agricultural GM developments (or products) and related genomic research. State and Commonwealth Governments are reducing their investments in research and development, especially where it is judged to be a private good. This means greater reliance on private enterprise which is reluctant to invest

without some prospect of a commercial optimism. This has obvious implications not only for production but for marketing and our reputation as a credible trade player.

13. ABARE (Apted S et al, Vol 13 No 3, Sept. 2005) estimates that between \$1.5 and \$5.8 billion will be lost in the GNP nationally by 2015, should the current moratoria in Australia be continued for current and future transgenic crops (canola, wheat, barley).
14. Victoria, through the Government and private companies, has a significant investment in this technology. The moratorium results in:
 - a. Considerable future investment uncertainty;
 - b. no clear path to market for approved GM products;
 - c. no opportunity to explore the commercial outcomes of R&D investment;
 - d. uncertainty for the future global competitiveness of agricultural sectors, such as the Australian oilseeds industry.

B: Assess the expected economic impacts of:

- **Allowing the moratorium to expire**
- **Extending the moratorium**

15. Allowing the moratorium to expire will provide investment certainty for future R&D projects. It will also allow the Victorian oilseed industry, particularly producers, to explore the positive commercial opportunities presented by the approved GM canola varieties.
16. Allowing the moratorium to continue will have a negative impact on Victoria's oilseed Industry. The 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 weak 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".
17. Australia is quickly losing its reputation as a world leader in rain fed cropping/livestock farming and this slide will continue unless there is continued investment in agricultural biotechnology, building our capacity to retain GM research capability and the accrument of associated intellectual assets.

C: Recommend whether Government should allow the moratorium to expire or be extended

18. Australian agriculture supports choice¹ which allows individuals (city or regionally-based consumers) to choose the production methods or products best suited to their needs. The government should allow the moratorium to expire to allow the community to choose. Currently, the moratorium denies choice.

¹ (http://www.affa.com.au/n_industry_policies_landing.asp)

19. The view of AIAST is that the majority of the industry will wish to embrace GM and should not be unreasonably constrained from doing so. Health and environmental aspects are covered by OTGR and other regulatory bodies. There is no demonstrable price advantage in GM and there are other advantages to be derived from the technologies, many of which provide opportunities for Australia to maintain its competitive trade position and its world-class genomic research capability.

D: Recommend any complementary policies and practices required to address the consequences of the moratorium ending.

20. The moratorium was established on trade and marketing grounds. During the development and GTR 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.

For the above reasons, AIAST believes that the Victorian Government should allow the Moratorium legislation to expire, in order to restore the right of farmers (and communities of practice) to choose new technologies that promote both competitive and sustainable agriculture.

In order to prevent similar obstacles to pathway to market for future OGTR approved GM crops, a process must be found that considers market and trade considerations during the development and approval phase.

Yours sincerely

Claude Gauchat
National President AIAST