



Bayer CropScience

Agriculture and Food Policy Reference Group Submission July 2005

Summary

In this submission Bayer CropScience offers some background to its current operations both internationally and locally as well as an insight into its strategic investment in innovation drivers such as plant biotechnology.

Some of the major issues and challenges facing the agriculture and food sector in Australia are unique, whilst others are common to the agricultural environment of other countries. Bayer CropScience offers some comparative comments on these aspects from a global vantage point.

We have included some specific insight on innovation and technology including highlighting some challenges most apparent to us in the current regulatory environment. We also support the submissions provided by the industry organisations, namely Avcare and Agrifood Awareness Australia.

The consultative approach to finding the best way forward through current and most important challenges facing the agricultural industry is critical and a formidable goal for industry participants. We clearly, share the goal to enhance Australia's profitability and sustainable growth in agriculture. We commend the agriculture and food policy group to present some practical and achievable recommendations to Government as a result of this consultative process.

Introduction – Bayer CropScience

Bayer CropScience, a subsidiary of Bayer AG with annual sales of about EUR 6.0 billion, is one of the world's leading innovative crop science companies in the areas of crop protection, non-agricultural pest control, seeds and plant biotechnology. The company offers an outstanding range of products and extensive service backup for modern, sustainable agriculture and for non-agricultural applications.

Bayer CropScience has a global workforce of about 19,000 and is represented in more than 120 countries. In Australia, the company employs 270 people and has agricultural chemical production plants in 3 States. Global investment of around \$1.1 billion (2004) in research and innovation by Bayer CropScience will enable 17 new products to be launched in Australia and New Zealand over the next 5 years.

Bayer CropScience has a significant global interest in crop production innovation through the investment in research of modern agricultural biotechnology techniques. Biotechnology is considered to be a major innovation driver.

The BioScience division within Bayer CropScience is focused on providing sustainable, high value plant-based solutions for agriculture, nutrition, health and biomaterials. Globally, BioScience has three business fields in vegetables, agricultural crops, and new business ventures.

The first generation of plant biotechnology products developed by Bayer CropScience globally are aimed at improving crop productivity such as through crop protection traits (herbicide tolerance and insect resistance), and yield enhancement (hybrid system) traits applied to three important crops; cotton, canola and rice. Further development is focused on improved resistance to abiotic stresses such as heat, cold and drought. Plant biotechnology tools are regularly used in plant breeding and development of seed products without resulting in a genetically modified organism.

Beyond the agronomic applications, plant biotechnology will enable us to bring plant-based specialty products for the nutrition, health and biomaterial sectors to the market. Our longer-term quality trait research programs are exploring health and nutrition related innovative products and novel renewable resources.

The Australian BioScience division of Bayer CropScience is involved mainly in the development of GM canola and cotton suitable for the Australian agricultural environment. The company has conducted trials with GM canola in Australia since 1996. In 1998, the company formed an alliance with the CSIRO to support fundamental plant science research that leads to innovative and valuable discoveries predominantly in cotton and other crops. The CSIRO / Bayer CropScience alliance has already seen some significant scientific advances including innovations in the control of insect pests, cotton fibre development and the mechanisms that control seed development. In 2006/07, Bayer CropScience hopes to launch its first Australian GM cotton product, which will complement the comprehensive range of crop protection technology that the company has provided to the cotton industry for many years.

In July 2003, the Office of the Gene Technology Regulator determined that Bayer CropScience's InVigor[®] hybrid canola to be as safe to human health and the environment and approved its general release into the Australian environment. Following this all States, except Queensland, introduced moratorium legislation to stop the cultivation of the GM canola on the basis of impact on trade. Bayer CropScience remains committed to developing biotechnology products suitable to the Australian agricultural environment. Under the moratoriums Bayer CropScience will only carry out small scale contained trials with its GM canola, however, a clear and predictable path to market must be provided for the industry to allow farmers to benefit from the latest technologies.

Current GM crops provide environmental, economic and indirect health benefits. In the near future, they will provide direct health benefits as well. We believe that all technologies and best practices should be available for farmers and consumers. Our support for coexistence is based on the requirement for rigorous science based

regulatory approval and pragmatic thresholds for the adventitious presence of GMO's in seed, food and feed.

Issues for Crop protection

In general, we are supportive of the issues raised in the discussion paper that impact crop protection products and support the key issues as raised by the Avcare submission. However we feel that three important additional issues have been overlooked.

Minor use registrations and permits. The liability issues arising from the Trade Practices Act are seriously hampering the support of agricultural chemical manufacturers, such as Bayer CropScience, for minor crop registrations and permits. This is having a negative impact on farmers, as they are prevented access to suitable chemistry for control of pests, weeds and diseases in minor crops. As long as regulations exist that place full responsibility on the Supply Company for the performance of products to be registered in the minor use program, agricultural chemical manufacturers will continue to take a very conservative approach to the support of these registrations and permits.

Increasing costs of funding the agricultural pesticides and veterinary medicines regulator, the APVMA. An increase in APVMA costs may be unavoidable given that the regulator is being asked to increase the level of monitoring for compliance and other worthwhile regulatory programs. In an increasingly competitive market however, it is becoming difficult for the agricultural chemical industry to absorb the increasing costs of regulation. As a consequence, it can be expected that these increasing costs will be passed on to the farmer. Since the regulator is there to protect the consumer, the farmer and the industry it has to be asked how the consumer is going to contribute more to the cost of regulation.

Non tariff trade barriers. The continuing problem of import residue tolerances being used by trading partner nations as a form of non tariff trade barrier needs to be taken up at a government to government level but in a co-ordinated manner.

Issues for Biotechnology

A clear path to market for GM crops

Australian farmers are currently being denied access to the choice of GM canola varieties as a result of the imposition of State Government moratoria legislation. Research and innovation investment is suffering from this situation with major negative consequences for sustainability and profitability of the agriculture and food sector over the next decade.

The Australian Federal Government has established rigorous science based regulatory systems for assessment of GM crop and food impact on public health and safety to the environment. These systems are currently undergoing formal review and public consultation to establish whether they are meeting their desired goals and whether further legislative amendments are necessary. Bayer CropScience, together with

industry, have contributed to these consultations in order to ensure a world's best practicing, science based, robust and publicly acceptable regulatory system is in place to support on going research and innovation involving products of agricultural biotechnology. Consideration of important regulatory issues raised in current consultations by the agriculture and food policy reference group is critical to understanding the current significant challenges for the industry and substantial impact on the agriculture and food sector's future profitability and sustainability. Bayer CropScience especially supports the issues relevant to agricultural biotechnology raised in the submissions to this group by Avcare and Agrifood Awareness Australia.

The current situation is that the scheme does **not** provide an efficient and effective regulatory system for the application of gene technologies. While the Office of the Gene Technology Regulator (OGTR) approves applications based on environmental and health grounds, any approval at the OGTR level can be effectively "vetoed" by State Governments, based on grounds that a particular dealing could adversely affect trade and market access.

At present 5 out of 6 States have imposed moratoriums of various forms within their respective jurisdictions. Moratoriums in two States, apply to all GM food crops (SA) or to all GM crops (WA). In at least one State (SA), after obtaining OGTR approval, it will also be necessary to apply for approval from the State government. This is regardless of whether the OGTR approval is for a small scale research trial or for large scale commercial releases. Separate OGTR and State approvals must be obtained.

This separation of OGTR function and States function has created a two-tiered system, which is unpredictable and unclear for any company wishing to invest in and develop a biotechnology product, in particular, agricultural biotechnology. It is a significant disincentive for future investment in this field in this country.

While the OGTR regulatory system is backed up by best regulatory practices, to a large extent, the States systems are in the main prohibitory legislation and do not have the transparency nor a process by which best regulatory practices are apparent. State legislations are all different in scope, jurisdiction and administration.

In the Commonwealth Government's own document titled Australian Biotechnology 2000, A National Strategy one of the goals stated on page 7 (Government's Vision for Australian Biotechnology) is "To enhance the economic and community benefits of biotechnology through an internationally competitive environment for investment and enterprise development". Under the current prevailing situation this goal may never be achieved.

Coordination and clear delineation of responsibilities between Federal regulatory agencies should also be improved. There are areas of overlap of regulatory jurisdiction – eg an insecticide resistant plant needs assessment by both the OGTR and the APVMA. Similar data for food approvals may also need to be submitted to both the OGTR and FSANZ.

The current scope of the Gene Technology Act, though adequate to protect human health and the environment, is from the wider viewpoint, inadequate to provide for a scheme that is nationally consistent and through this failure has allowed the regulation of gene technology in this country to be fragmented and dysfunctional. Through this failure it has discouraged investment in and development of the biotechnology industry, jeopardising Australia's future resource base in this field and threatening its own economic viability because of the importance of biotechnology to deliver future productivity in the field of agriculture. Any further restrictions that may be introduced through a new amended Act (eg, expansion of strict liability) would certainly ensure the decimation of the biotechnology industry and halt any further research or development in this field.

A Federal regulatory system that is consistent and predictable nation-wide and solves the current impasse whereby OGTR approvals can be vetoed at State level (with its multiplicity of ad hoc legislation) is, therefore, essential. Such a system would give surety to researchers and developers of agricultural biotechnology and would give a measure of comfort to the public that the environment, human health, etc are properly assessed and regulated by a world class regulatory system.

This submission now addresses some specific areas of the discussion paper requesting response.

Markets

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| <ul style="list-style-type: none">• <i>What more should Australia (industry and government) be doing to identify emerging trade trends and future challenges for the sector?</i> |
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From the perspective of GM crop development it appears the political will of State Governments has overridden the content and significance of independent reports generated on trade trends and future challenges for the sector.

The moratoriums imposed on GM canola by State Governments were cited as being specifically based on concerns of impact of GM canola introduction on the State's markets and trade.

In at least two States however, independent reports commissioned by the Governments on the trade related impacts of GM canola concluded minimal impact from its introduction in Australia, yet the State Governments chose to ignore the reports and rather than accept and embrace the challenges identified have established moratoriums preventing commercial application of GM canola, already proven safe via the federal regulatory system.

This reaction of Government to ignore trade reports and rather use it as political leverage to prohibit farmers' access to products of agricultural biotechnology may well be problematic of an industry that has not been vocally supportive enough of its own future.

International market trends in agricultural biotechnology are currently being mapped by the ISAAA (www.ISAAA.org) who provide annual figures on growth of markets

and adoption rates globally. In 2004 for instance, approximately 8.25 million farmers grew GM crops on over 80 million hectares of land in 17 different countries, representing 1.25 million more farmers and a 20% increase in land area planted from 2003. Ninety percent of farmers (by number) growing GM crops are located in developing countries.

The reports provide a useful basis for political speeches on trends but historically have also drawn criticism from the local anti-GM activists – without much further rebuttal from industry or Government.

These international trends in the growth and adoption of GM crops should play a greater role in shaping the basis for our industry responses and encourage Government to understand the market forces at play rather than disrupt them with impractical and unfair politically driven policies.

Market reports on GM cotton success in Australia are just emerging after 10 years of successful commercial production. In 2004, Australian cotton growers planted 240,000 ha of GM cotton, representing 80% of the total cotton area. The impact of sustained and successful adoption of GM varieties by the cotton industry in Australia is significant and obviously in stark contrast to the situation faced by approved varieties of GM canola prohibited from commercial production in Australia by State Government moratoria. GM cotton has delivered clear agronomic, economic, environmental and social benefits to Australia. The significance of this contribution and trend should be embraced more by the industry and Governments. It makes no sense that GM cotton, which represents the second largest supplier to the domestic food oil industry and a contributor to the domestic feed industry, where on both counts it competes directly with canola should be treated differently at a Government policy level than GM canola. Some politicians appear to have remained in blissful denial over the fact that cotton seed is used as a significant food oil source.

Bayer CropScience is particularly interested in developing new products for emerging markets – that may not exist today but will rapidly become the basis of our future. Our investment in such new business sectors is significant and a critical part of our strategic commitment to agriculture. Technology driven agriculture will drive future productivity improvements. Australian industry and government policy should also embrace the important role future markets play in long-term sustainable activities and should develop policy to support a vision into the future.

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| <ul style="list-style-type: none">• <i>Are there particular impediments to improving the agriculture and food sector's trade performance and opportunities?</i> |
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As outlined in the regulatory sections earlier in this submission, the current ability for State Governments to intervene with moratoria legislation prohibiting commercial production of GM canola on the basis of State based concerns for trade in commodities is a clear impediment to Australia's trade performance and opportunities.

One of the drivers for rapid uptake of GM canola in Canada, for example, was the requirement to secure quantity of supply to major export markets. The industry, backed heavily by their growers remain convinced that the GM canola varieties on offer ensure that market objective is fulfilled.

The Australian oilseed industry has also identified trends where canola is competing globally in the oilseed market against soybean for example. Security of supply and delivery of key specifications in future markets are critical for survival of Australia's canola crop in the face of increasing global market pressure from the oilseed alternatives which become cheaper to produce, more readily available and adapted over time to fulfil specialty requirements.

- *How can Australia play a more effective role in encouraging multilateral trade reform?*

Australia plays a key role in contributing to trade and policy discussions with its closest Asian neighbours. In the case of GM crops these countries over time have expected leadership and guidance from Australian Government policy and experience. That responsibility remains and should follow with updated guidance once policies and issues evolve.

In the case of larger trading nations, in the GM debate, Australia tends to watch from the sidelines. For example, the US and Canada (and to some extent Mexico) have worked diligently on bilateral policy agreements that harmonise their assessments of gene technologies. As such these arrangements facilitate further investment and progress on research and innovation and ultimately generate and support further trade opportunities.

Australia needs to learn from these examples and apply similar principles with neighbouring and key trading nations.

Continue Australia's active participation in international fora such as CODEX and the COP-MOP processes of the Biosafety Protocol. Such fora are crucial to achieving international standards that are practical and ensure trade can be conducted in a fair and equitable environment.

- *Is there a need for the Australian agriculture and food sector to have more timely and better quality information on consumer expectations about retail food presentation, packaging, cooking and shopping preferences? If so, how might this be achieved/provided?*

The consumer information feedback loop has been a challenging prospect for the agricultural industry for many decades. Essentially consumer survey data can be shaped to support any desired outcome. More reliable consumer data suggests consumers may comment in one way about a topical issue but their actual buying patterns contradict these sentiments. Biotechnology Australia has already produced some interesting data on these aspects.

Good research must form the basis for sound policies and influence properly structured education programs that are based on sound science.

From a GM food perspective, the Australian food labelling legislation was established on the basis of consumers right to know rather than safety however there still appears confusion amongst the public over the robustness of this labelling system and the regulator and industry are continually challenged on whether the current requirements support an informed choice by consumers.

Clarity of labelling information on pesticides for example still competes with increasing regulatory requirements based on legal wording versus use of simple, pragmatic instructions.

There remains a need for industry and government to work together on information flows of this nature. Our experience would suggest only incidents really drive parties to the discussion table but the outcomes following are significant. Certainly Government could play a role in facilitating such cross-sectoral supply integration. Government leadership is useful in bringing together the diversity of groups that make up the supply chain and agreeing on complimentary messages and effective information flows.

- *What significant changes in domestic and export markets, with respect to labelling and product traceability, are likely? Are the systems currently in place or under development likely to be sufficiently responsive to future consumer requirements for quality assurance, audit and product information? Should industry responses to such demands be left to businesses (individually or collectively) or is there a role for government here?*

Traceability has been on the agenda for some time throughout international food markets. In Europe, the debate is well advanced and industry is engaged with Government on policy development that has already lead to legislation proposals. The Australian government and industry would do well to keep an eye on the progress of the European debate. When appropriate, expert industry and policy speakers could be invited to lead discussion in Australia.

It is important to note that the traceability debate and policy development in Europe is occurring regardless of progress or otherwise of GM crops. In the Australian context, traceability may have been falsely portrayed as a necessity driven by GM crop introductions – this should not be the case.

In the European debate on traceability, industry involvement is critical and is well ahead of Government policy development, which ideally supports and enhances the desired objectives rather than hinders business and trade. Industry leadership should then work appropriately with Government to fill in details on the market constraints, challenges and opportunities.

Identity preservation and traceability tools are now used extensively in international trade as a marketing advantage to deliver to the customer a product of a guaranteed

quality and status, not unlike the traceability measures being adopted in the mainstream farm animal sectors in Australia.

- How can food safety, labelling and other consumer requirements best be achieved in ways that minimise the need for regulation, encourage investment in the sector, and allow maximum flexibility and innovation in product manufacture and marketing?*

In the GM food context, we believe that the regulators (FSANZ and OGTR) must publicly and more actively engage in communication about their decision-making and requirements of labelling. If the goal of our present food labelling is informed consumer choice, then further work is required on ensuring all avenues of information provision and explanation are provided from industry, the supply chain, farmers and the regulator. To date this does not occur sufficiently with respect to GM foods in Australia. Biotechnology Australia could also more actively support the regulators communication goals.

Regulatory decision-making must not be influenced by politics or pressure groups. The present situation for GM canola with State government moratoria legislation must be addressed in order to secure future investment in research and innovation in Australia's agriculture and food sector.

- What is the appropriate role for government in resolving the above issues and in relation to the efficient operation of the manufacturing, distribution and retail parts of the food supply chain?*

Government can play a leadership role in facilitating industry stakeholders to the discussion table and ensuring effective consultation on any relevant food policy prior to it being legislated. Effective and timely review of existing government policy is also required ensuring adequate consultation with industry stakeholders. Government resources for information provision are also critical but must be accountable to goals shared with industry.

Competitiveness

- Are additional policy or regulatory actions needed to encourage strong competition in the supply chain? Is enough being done to minimise barriers to entry and to ensure that market power, especially of retailers, is not abused?*

Significant barriers to entry have been created for GM crops with substantial regulatory support required to get a product cleared for safe use – then to be further barred as a result of State Government legislation, with no path forward. Agricultural

retailers perhaps have a role at some point to add weight to farmer requests for access to new technologies and innovations.

Regulatory chaos faced by the agricultural biotechnology industry is a definite impediment for Australia's competitiveness. Crucial agricultural industry participants such as the grains, meat and dairy industries recognise the potential for agricultural biotechnology to improve productivity and competitiveness but the regulatory situation does not provide a clear and predictable path to market and moratoriums discourage investments into research and development of agricultural biotechnology. This is a serious impediment and must be resolved.

At present there are no application fees for OGTR applications. This situation must be maintained until such time as the biotechnology industry is more mature with a more sustainable income stream. Any attempt to introduce application fees for OGTR submissions can only discourage development of this industry. There are already substantial costs to development of the necessary safety packages for FSANZ and OGTR risk assessment processes. The regulators and legislators must resist attempts by non-scientific pressure groups to force them to apply unnecessarily restrictive regulatory regimes including, for example, strict liability provisions for dealings involving GMO's.

Any strict liability regime imposed for GM crops will discourage research and development work in this area and would almost certainly stop future investments into this technology.

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| <ul style="list-style-type: none">• <i>What actions, if any, should government and industry be taking to encourage improved supply chain linkages and management — including greater transparency in pricing and better information flows that benefit all participants from the farmer to the consumer?</i> |
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Suggest Government facilitates more regular supply chain stakeholder meeting opportunities and is at the table with the willingness and ability to support the agreed outcomes – especially where Government policy changes or precedents may be required. The function and experience of the gene technology grains committee is an interesting model where all parties were brought to the table, however Government ultimately failed to commit to implementing complimentary policy changes which supported the progress of supply chain stakeholders.

It is proper for government to ensure the safety of people and the environment through legislated frameworks. However, it is a desirable principle in our economic framework to allow as far as possible the free operation of market forces. In keeping with this principle, in considering market risk the Primary Industries Ministerial Council (PIMC) determined on 7 May 2002 that risks to agricultural production and trade from GM crops should be self-regulated by industry, supplemented by government monitoring. The Plant Industries Committee (PIC), acting under this mandate, subsequently developed protocols for industry that were adopted by the

GTGC in their stewardship guidelines for industry to implement a policy of co-existence of agricultural production systems, including GM, conventional and organic crops. This path was subsequently abandoned when the States chose to introduce moratoriums. Governments now have a responsibility to devise a way forward to address the dysfunctional system with regards to the development of agricultural biotechnology. Any delay moving forward will have serious negative impacts on future productivity of the agricultural sector.

- How can Australian food manufacturers improve their competitiveness in order to take advantage of growing consumer demand for more value added products and services, especially in export markets?*

At a global level, many of the large and innovative food manufacturers are in discussion with agricultural production companies such as our competitors, and ourselves and especially those able to bring innovations including gene technologies into value added products of the future. This is principally why such companies have not established GM policies which lock them out of future innovations, perhaps Australian food manufacturers should be encouraged to look to their international counterparts and examine what relationships and business synergies are being developed with other members of the agricultural supply chain.

- **research and development, innovation and technology**

- Is there a need for a consistent national research and development agenda? How should this agenda be integrated with industry specific research programs with clear definitions of roles and responsibilities?*

Bayer CropScience would support a national approach to research and development agenda relevant to GM crop issues assuming it is part of the State Government clarification of a path forward for GM crops. It makes no sense to isolate key commodity growing States from a national agenda.

- Does Australia need to widen the scope for agricultural research and development to place greater emphasis on issues such as food safety, value chains, natural resource management, biosecurity and capacity building?*

In the context of GM crop development, research and development work could be encouraged on value chain issues. Food safety and biodiversity issues are well catered for by international providers.

Since Australia is relatively small, the large costs involved in conducting significant food safety and biodiversity research programs would probably not be warranted.

This aspect could be further considered in Single Vision research on emerging trends for uses of cereals, oilseeds and pulses in food and new market areas.

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- *Are the evaluation systems currently in place for assessing returns to research and development adequate and appropriate? How can these be improved to ensure better value for money invested?*

As discussed above there is a need to provide a clear and predictable path to market for products of agricultural biotechnology.

- *What is the optimal model for the structure of research and development corporations and companies? How can research and development provision be made more responsive and relevant to industry? What opportunities exist for rationalising Australia's research and development infrastructure?*

Our future success and our position as a leader in the industry are founded upon the innovation we seek and the research partnerships we build today. The research alliance between CSIRO and Bayer CropScience in plant biotechnology is an important and valuable example of a successful partnering framework.

The private sector requires incentives to fund more research with Government institutions, in this plan there must exist a clear path to market.

Organisations like GRDC should be retained and supported to focus on important market sectors.

- *Is there sufficient understanding of the drivers of adoption and how can this be improved? How important is technology adoption to the variation in productivity growth between and within agricultural industries?*

Technology adoption is an interesting area and one that perhaps should be discussed further amongst industry and Government in the context of GM crops. Refer especially the model of GM cotton adoption over the past 10 years in Australia. The adoption of GM canola in Canada, now ten years down the track, may also provide some further insight. The Canola Council of Canada have initiated and published several studies of this kind.

This is perhaps, one area in which more research is required in Australia.

Regulatory framework and government policy must be place to allow a path to the market for investors in this area. After that, the commercial risk is taken by private sector company or companies - this will place the commercial risk with the technology developer, where it should be.

- *What are the tradeoffs in determining an optimal balance between the privatisation of the benefits from research and maximising its uptake by making results freely available?*

“Publish or perish” – the desirability to publish research work conducted by international companies including Bayer CropScience remains imperative in the

context of a scientifically robust research and innovation organisation. In 1998, Bayer CropScience has established a successful collaboration with the CSIRO to conduct basic plant research. The collaboration is considered a highly successful global model and already there have been numerous patent applications and many research publications in the world's best scientific journals. In our experience, there would appear to be very few tradeoffs for a successful public and private partnership on research that encourages publication of important findings to assist research value and robustness.

The common myth attached to patenting is that it becomes a locked away secret for the benefit only of its creator – when in actual fact it supports and promotes research and investment, with public access secured following a reasonable period of return on the initial investment in research. Further public communication on the topic of patents and their purpose will assist on-going research and innovation investment in Australia.

Regulatory systems however must also recognise the inherent value in research data generation. As such they must also include appropriate provisions for data protection in order to support and enhance investment in ongoing and future research and innovation. The agricultural chemical industry has struggled for more than a decade to introduce appropriate data protection mechanisms in legislation. It is hoped that other areas of innovation and research such as agricultural biotechnology do not have to endure a similar, prolonged activity to achieve data protection.

- *What actions need to be taken to address both producer and community concerns about GM products? Can Australia expect to keep GM foods out of the supply chain if other countries are accepting of these products? Would it be feasible to have GM and non-GM supply chains concurrently?*

Government needs to take a stronger role in public education and dissemination of factual information about GM technology and about the integrity of its own regulatory processes.

A debate based on facts and appropriate dealing with misinformers is needed and is a key role for Government communication resources (includes regulators and Biotechnology Australia). Farmers should be encouraged to become more informed about the GM debate. The supply chain needs to be linked on common communication messages and needs to be more effective at dealing with misinformation and activist mischief – since issues and information is regularly recycled around the world and should be readily rebutted.

Freedom to operate in the agricultural environment is critical, without further non-scientific regulatory burden.

It is not surprising that there are occasional reports that producers generally may have concerns with GM products since they have been restricted in accessing the information that they would normally expect when evaluating innovations for

agriculture. Unlike conventional seed breeding companies, GM crop developers are required to cover a significant array of regulatory assessments before they even get seed in the ground. In the case of GM canola, further strict regulatory controls have prevented the company following the regular development of new varieties including generating data to support the launch of a suitable product to Australian farmers. This aspect has been a source of recent frustration to some growers and confusion as to why independent variety data is not yet able to be generated. Once approved for safety, GM crops should be afforded the same path to market as their conventional counterpart, given they have been assessed to be of no greater risk than these crops. In the current situation with State Government moratoria, there is no clear path to the market for GM canola in Australia.

The market should be able to decide the frequency and extent to which GM foods are a part of the Australian scene. This occurs already for all internationally traded manufactured foods following pre-market safety approvals by FSANZ and includes product labeling to identify GM content where required.

Australia must pick up the ball on the threshold debate, which has been engaged internationally for some time. The reality for industry members supports pragmatic thresholds, which operate for a range of product specifications every day. Thresholds capturing the desired outcomes of GM products are a regular part of this. Government policy can support market reality in legislating pragmatic industry standards for adventitious presence.

Through the nature of agricultural systems it must be recognised that when a trait is in general circulation in a GM crop (eg approved in a commodity grain product which is in commercial production in another country) there is a possibility that the trait could occur in a low level, even in countries where there has been no commercialisation of that GM commodity but in which that type of crop is cultivated. This may happen through the importing of seed stock containing a low level of GM traits. This low level is commonly referred to as adventitious presence (AP).

The Gene Technology Act currently does not tolerate AP, regardless of levels, and regards any dealings containing AP to be breaches of the Act. There should be provision within the Act to allow the setting of thresholds of AP for, at least, events that have had regulatory approvals for commercialisation in another country with a credible regulatory system or for an event that has been approved by FSANZ. This would be consistent with the progress made in other countries including Europe and Japan.

Government must address the public need for transparency and explanation of how they decide that GM crops are safe, much like they explain how chemical residues/and use of chemicals on food crops is safe.

Concurrent supply chains are not necessarily required in Australia, thresholds, tolerances and market requirements will determine whether this is necessary on a case by case basis.

- **biosecurity and quarantine**

- *Are there opportunities for Australia to improve its risk management approach to quarantine? What further investments are needed and how should these be funded?*

Any further improvements to Australia's risk management approach to quarantine must not duplicate other regulatory assessments for example OGTR assessments of GMO's for import should continue to be recognised by biosecurity and quarantine authorities. These Government authorities must continue to work together on key common issues including for example thresholds and adventitious presence.

- *What actions are required to improve food safety and security for Australian agriculture and food industries — including improvements and extensions to current systems such as trace back?*

Australia is already actively involved in the progress of the BioSafety protocol, an international treaty for the protection of biodiversity resulting from the transboundary movements of living modified organisms. The Governments involvement and engagement with industry on this Protocol should be encouraged and long-term commitment assured in order to protect Australia's current systems and ensure no new overly burdensome policies are created which might impact our agricultural trade.

Regional and rural communities

Regional and rural communities have been actively involved in the GM crop debate over the past 10 – 15 years. Mechanisms supporting their continued engagement in the debate should be encouraged and secured for the long term.

Importantly the role of local Government in assessment of GM applications has been an interesting one. Many local councils have indicated their frustrations with the consultation process and lack of clarity of what part of the environmental risk assessment and risk management considerations may be relevant to their expertise and areas of influence. Government must address the feedback loops, especially to consulted stakeholders like the local governments in order to provide an effective and efficient regulatory system and ideally one that is respected at all levels of society, as well as overseas.

Conclusions

Bayer CropScience appreciates the opportunity to contribute to the agriculture and food policy reference group consultation.

Bayer CropScience believes that Australia is well placed to take advantage of some of its future innovative technologies including stress tolerant crop varieties, specialty oil product development, etc. In an increasingly competitive global environment, these are important developments for Australia. Australia's major grains industry groups support ongoing research into GM crops to ensure sustainability, competitiveness and continued access to research and innovation for Australian farmers.

The current lack of a regulatory framework to assess the impact of GM products on agricultural trade at State Government level places the commercialisation of these products, for the benefit of Australian farmers, at risk. This situation jeopardises future investment into innovative technology involving plant biotechnology in Australia.

The experience with GM cotton in Australia is an important precedent for market freedom to operate successfully. Internationally, the adoption of GM crops continues to grow (by double figures). Australian industry and policy makers should study the global experience carefully.

Bayer CropScience believe that all technologies and best practices should be available for farmers and consumers. Our support for coexistence is based on the requirement of rigorous science based regulatory approval and pragmatic thresholds for the adventitious presence of GMO's in seed, food and feed.

We encourage Government to make far reaching assumptions about the future of agriculture and design policy framework to support this recognising that agricultural productivity for increased food production and new biobased crop uses offer Australian farmers greater opportunities in the coming years.