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**SUBMISSION TO THE INQUIRY INTO THE  
ROLE OF GOVERNMENT IN ASSISTING  
AUSTRALIAN FARMERS TO ADAPT TO THE  
IMPACTS OF CLIMATE CHANGE**

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## 1. EXECUTIVE SUMMARY

CropLife Australia is the peak representative body for the plant science industry in Australia. Our members produce the crop protection and crop biotechnology products that equip Australian farmers to fight pests, protect the environment and grow high quality and plentiful food, feed and fibre.

CropLife welcomes the opportunity to contribute to this inquiry's examination of the role government can play in assisting Australian farmers to adapt to the impacts of climate change.

Australian agriculture will face a considerable challenge in climate change adaptation due to its heavy and direct reliance on the natural environment. This challenge comes at a time when the farming sector is dealing with a range of other pressures, including the global financial crisis.

In the past, Australian farmers have shown the capacity to overcome diverse challenges by using ingenuity and applying innovative tools and approaches. Innovation will again be needed if farmers are to meet the challenges that climate change presents. Adaptation strategies will require the latest innovative technologies, tools and crops so that farmers can continue to produce high quality and affordable food while facing new pests, plant diseases and climatic conditions.

The Federal Government has a significant role to play in ensuring that Australian farmers can access the most modern crops, tools and approaches. This can be achieved by providing a modern and responsive regulatory system that encourages innovation and attracts the manufacturers of these tools to the Australian market.

CropLife and its members have identified a number of barriers to innovation in the markets for crop protection products (also known as pesticides) and genetically modified (GM) crops. We also have identified simple and effective ways to overcome these barriers that have broad support from a range of agricultural stakeholders.

These proposed initiatives are in four key areas:

- Improving the efficiency of pesticide registrations, regulation and policy development.
- Completing legislative reforms on protection of registration data (intellectual property).
- Assisting the registration of necessary pesticides for emerging innovative industries.
- Encouraging the commercialisation of the latest crop varieties including GM crops.

CropLife Australia strongly believes that increased innovation in the Australian plant science industry is vital to provide farmers with the tools they need to be resilient and successful in a time of climate change and we look forward to working with the Government to achieve this.

## 2. INTRODUCING CROPLIFE AUSTRALIA AND THE PLANT SCIENCE INDUSTRY

CropLife is the voice of the plant science industry in Australia. One of our key goals is to raise awareness of the contribution that our industry makes in helping farmers to sustainably produce food, feed and fibre. This contribution will gain even more importance as farmers face the challenges brought about by climate change.

CropLife works with governments and other stakeholders to achieve a science-based, efficient and effective regulatory and policy environment that supports innovation and encourages high quality products. Our members invent, develop, manufacture and market 85% of crop protection and 100% of the crop biotechnology products used by Australia's primary producers. Sales of our industry's products are a vital input to Australia's agricultural industry and are in excess of \$1.2 billion annually.

CropLife Australia is one of 90 associations in the CropLife international network, which spans six continents and represents the industry globally. Our member companies are committed to safety, stewardship and quality. On their behalf CropLife facilitates a number of stewardship programs to show industry's commitment to lifecycle management by fostering the safe and responsible use of products.

Crop protection products, used responsibly, are crucial to the productivity and sustainability of modern agriculture and the protection of Australia's unique environment. They protect crops and the natural environment from a wide range of pests, diseases and weeds. They also are an essential component of strategies used to protect plants during production, and food commodities during transport and storage.

## 2. INTRODUCING CROPLIFE AUSTRALIA AND THE PLANT SCIENCE INDUSTRY (cont.)

### 2.1 Crop protection products increase and protect agricultural production

Crop protection products play an important role in sustainable farming practices and maintaining biodiversity and ecological balance. Thanks to the judicious use of crop protection products, we now enjoy abundance of safe food that is affordable and of high quality. However, the recent dramatic global increases in food prices emphasise that we cannot be complacent about technology-based agricultural production. Globally, an average of 30-40% of crop yields is lost to pre-harvest pests and 10-20% to post-harvest pests. Crop losses would be doubled if existing pesticide uses were abandoned.

Almost all Australian farmers use pesticides to protect their crops, land and the environment from weeds, with pesticides and fertilisers comprising 7-10% of total farm inputs in Australia. Australian farmers have increased their crop yields by about 40% through the use of pesticides and this has increased the value of food produced in this country by about \$13 billion each year.

Other pesticides can be used after harvest to protect the quantity and quality of food supplies from, for example, grain insects and fruit rots. Most aspects of agricultural biosecurity require the responsible use of pesticides as part of pest risk management, whether it be fumigation of imported goods, spraying of exotic invasive ants or treatment of export produce. Biosecurity strategies include measures aimed at keeping exotic pests out of Australia (eg. fire blight disease of apples and pears), and domestic strategies that control the spread of pests (eg. fruit fly exclusion zone) or destroy introduced species (eg. fire ant eradication program).

Quarantine authorities rely on pesticide treatments to prevent pests from entering Australia on imported goods and to facilitate international trade. Treatment of imports is important to maintain Australia's freedom from many major pests that occur overseas, thus giving Australian exporters a competitive advantage on world markets and maintaining our 'clean and green' image. Exclusion of exotic pests protects the environment and agricultural production. Chemical control of regional pests is also used to facilitate interstate trade.

### 2.2 Pesticides are also vital in controlling environmental and other pests

Pesticides are an important part of the strategies employed to eradicate established pests in the natural environment. Sometimes a chemical method is the only practical way to control or eradicate the pest and the use of several chemicals can be required to manage pests in different contexts and reduce the risk of them developing resistance to pesticides. For example, at least six different insecticides have been used to eradicate imported red fire ant populations following a quarantine incursion in south-east Queensland.

Weeds also pose a major threat to the natural environment and pesticides are often the only means to control them, particularly in large or inaccessible areas. It has been estimated that weeds cost the Australian economy \$4 billion a year<sup>1</sup>. Of that amount, \$1.5 billion is spent by farmers to control about 1,000 agricultural weed species. Another 2,300 weed species are considered to be a problem for natural ecosystems, including native bushland and waterways. The number of invasive weed species in Australia is constantly increasing, with about 10 species added to the list annually.

Finally, pesticides are also used to protect public health by controlling insects that can spread infectious diseases such as malaria and dengue fever.

### 2.3 Genetically modified crops and modern agriculture

Genetic modification (GM) is a powerful and precise breeding method that can add traits to a crop that cannot be achieved through conventional breeding techniques. In theory, any trait that occurs in nature and is dependent on genetics can be transferred to a crop through GM.

There are only two GM traits currently available in Australia and these are insect resistance and herbicide tolerance (herbicides are pesticides that fight weeds). In 2008 Australia cultivated approximately 110,000 hectares of GM crops, comprised of 100,000 hectares of GM cotton and 10,000 hectares of GM canola. In 2009 it is anticipated this area will at least double as recent rainfall has allowed increased cotton plantings and seed producers are able to provide greater quantities of GM canola in NSW and Victoria (this is predicted to increase to 100,000 hectares in 2009).

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<sup>1</sup> *Australia's Agricultural Industries 2008 At a Glance*, Department of Agriculture, Fisheries and Forestry

## 2. INTRODUCING CROPLIFE AUSTRALIA AND THE PLANT SCIENCE INDUSTRY (cont.)

### 2.3 Genetically modified crops and modern agriculture (cont.)

The number of varieties of GM crops available globally continues to increase and this trend is expected to continue. Future crops will be nutritionally enhanced, drought tolerant, salt tolerant, disease resistant and could contain new types of insect resistance and herbicide tolerance. These traits will protect crops from losses and allow them to thrive in environments (such as saline soils) that other crops cannot survive. Yield increases are also being developed, with some technology providers predicting that yields in core crops could double by 2030.

GM crops represent the largest innovation in crop breeding in several decades. It is vital that Australian farmers have access to these crops in order to adapt to changing environmental conditions, fight pests and sustainably increase yields.

## 3. CHALLENGES TO AGRICULTURE FROM CLIMATE CHANGE

Climate change is anticipated to present particular challenges for Australian agriculture. Impacts are likely to vary between regions and agricultural industries, with the potential for both negative and positive impacts. Whatever changes do occur, farmers will need to revise their land management practices, farming systems and crops as part of their adjustment to a climate that is potentially more uncertain and variable.

For crops and pastures, climate change could lead to plants facing heat stress, water stress (both drought and flood), and changes in the distribution, abundance and severity of pests, diseases and weeds. Higher temperatures and changed water availability may improve yields in some crops and regions and decrease yields in others. Rising water tables and reduced availability of irrigation water will lead to increases in soil salinity and acidification problems. More frequent and severe drought will deplete water storages (on-farm dams, river flows and reservoirs) and restrict irrigation, as is already occurring in the Murray Valley. Drought will increase soil erosion from the wind, whereas heavy rainfall and floods can increase erosion from fragile soils desiccated by drought. All of these factors will lead to changed growth patterns and economic viability of crops in particular regions and ultimately the shifting or even demise of some crops. New crops more suited to the changed climatic conditions will need to be adopted.

If the climate continues to become warmer in southern Australia, and wetter in north-western Australia, and crops shift accordingly, many tropical pests could spread to these regions, eg. some tropical fruit fly species, which would jeopardise fruit and vegetable exports.

While an increase in atmospheric carbon dioxide concentration could lead to increases in plant growth and biomass, it could also reduce the nutritional quality of crops and pastures.

The agriculture sector accounts for 16-18% of Australia's net greenhouse gas emissions<sup>2</sup>, which include carbon dioxide, nitrous oxide (primarily from fertiliser applications) and methane (primarily from livestock). Some modern agricultural practices have reduced greenhouse emissions, such as reduced tillage (reducing nitrous oxide emissions from soil and reducing fossil fuel consumption from farm equipment) and stubble retention. As a net emitter, agriculture needs to take further steps to reduce emissions and/or increase carbon storage. This is a particular challenge for intensive cropping. Agricultural soils can act as a sink for carbon storage, and carbon sequestration can be increased by agro-forestry or changing cultivation and other cropping practices.

Climate change is an important risk factor for food production and development. According to the World Bank<sup>3</sup>, increasing crop failures and livestock deaths are already imposing high economic losses and undermining food security in parts of sub-Saharan Africa, and they could get far more severe as global warming continues. More frequent droughts and increasing water scarcity may devastate large parts of the tropics and undermine irrigation and drinking water in entire communities of already poor and vulnerable people. This presents opportunities for Australian farmers to contribute to global food security through exports of produce and agricultural technology, particularly Australia's expertise in farming in arid areas.

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<sup>2</sup> Carbon Pollution Reduction Scheme White Paper, Dec 2008

<sup>3</sup> World Development Report 2008

#### 4. THE IMPORTANCE OF INNOVATION IN ADDRESSING CHALLENGES FROM CLIMATE CHANGE

Modern farming uses innovation in response to changing circumstances so as to remain viable and competitive while meeting community expectations.

These challenges are not restricted to climate change, but also include changing commodity markets (domestic and export), new technologies, labour markets, economic pressures, weather, pest and disease outbreaks and regulations.

Innovative pesticides and plant varieties provide the tools farmers need to adapt to climate change, compete globally and minimise their impact on natural systems. New innovative pesticides, or new uses of existing pesticides, are constantly being developed to help farmers respond to new pest and disease threats, new crops, changed market requirements (eg. lower levels of residues, infestations or blemishes) and new regulations (eg. environment and safety).

In addition, new pesticide chemistry is constantly being developed to provide more effective and selective products that have lower potential risks to health and the environment.

Conservation agriculture techniques such as low or no-till agriculture, made possible through the use of selective herbicides (pesticides that combat weeds), prevent wind and water erosion and loss of ground moisture, improve soil biodiversity, increase soil fertility, and reduce greenhouse gas emissions. Herbicides used in combination with conservation tillage have reduced soil erosion by 50% to 98%. In 2005, fuel savings associated with the switch to no-till/reduced tillage farming systems, and less frequent pesticide applications made possible by biotech crops, saved about 96,200 tonnes of carbon dioxide globally, equivalent to removing nearly 430,000 cars from the road. The combined effect since 1996 is equal to taking over 2 million cars off the road for one year. No-till farming practices also increase carbon sequestration within soils.

Some of the effects of climate change on the agricultural sector can be mitigated through developing new crop varieties (particularly GM varieties) that are suited to new environmental pressures. Insect pests may be able to relocate and survive in higher latitudes as temperatures increase because of climate change. An increased range of pests will pose additional needs for insect control, therefore insect-resistant crops are a unique tool for pest management and can effectively manage pests that are not controlled by insecticide spraying. Some insect pests reside on the lower side of crop leaves, others develop resistance to chemical sprays, while others use the canopy provided by the crop to avoid exposure to insecticides. GM insect-resistant crops contain proteins from an organic insecticide, which allows pests to be controlled without relying exclusively on insecticide sprays. This reduces fuel use and preserves beneficial insect populations that prey on pest insects.

#### 5. BARRIERS TO INNOVATION

It is a source of considerable frustration for CropLife members that their customers, Australian farmers, are forced to wait far longer than necessary to access innovative new pesticides, new pesticide uses and new plant varieties.

These delays are created by a combination of factors: an inefficient regulator, inappropriate policy, incomplete intellectual property rights and government inaction.

Continued innovation by the plant science industry in Australia is strongly influenced by government regulations and policies. Australia is a small market for both pesticides and GM crops, and an inefficient or inappropriate regulatory environment can make it unattractive for both international and Australian companies.

Significant investment in research and development is necessary before a pesticide is approved to control a pest. On average, it costs an innovator around \$200 million over ten years to develop a new crop protection chemical. The chemical ('active constituent') can then be put in various formulations and mixtures with inert ingredients or other active constituents to make a variety of pesticide products.

Before introducing a new pesticide to Australia, companies must register the compound with the national regulator, the Australian Pesticides and Veterinary Medicines Authority (APVMA).

There is considerable evidence that there are inefficiencies within the APVMA, driven mostly by inappropriate policies, which are unnecessarily delaying or discouraging the introduction of innovative products and uses.

## 5. BARRIERS TO INNOVATION (cont.)

The efficiency and timeliness of APVMA registration and review processes is of grave concern to pesticide registrants and there has been little improvement over the past few years despite repeated complaints from industry and the broader community and an Australian National Audit Office Review that recommended improvements in these areas.

The extended registration delays are causing farmers to wait longer than they should to access new innovative products and uses. In some cases, the combination of Australia's small market size and anticipated APVMA delays is causing companies to decide not to bring certain pesticide products to the Australian market at all.

Two further barriers to private investment in pesticide innovation and registration in Australia are inadequate protection of intellectual property in the form of research data, and the lack of specific government assistance to foster the registration of pesticides for small markets ('minor uses').

Many peak industry bodies in agriculture and the environment have been trying to get legal access to a broader range of pesticides for many years, but little progress can be made until the Government assists industry to resolve the issues associated with pesticide registrations and regulation, data protection, minor use and GM crops.

## 6. UNSHACKLING AGRICULTURAL INNOVATION

A package of initiatives is required to unshackle the agricultural innovations needed to help Australian farmers adapt to climate change.

### 6.1 Review APVMA's policy framework and improve timeliness of product registrations

APVMA registration processes must be more efficient and timely to give pesticide manufacturers predictability in getting new pesticides onto the market for the benefit of farmers. There is ample evidence to show that lack of timely registration has resulted in products being delayed from introduction in Australia for several growing seasons.

The APVMA has recently argued that additional revenue is required to address the factors that it believes are causing the inefficiencies and delays. Given the regulator recovers over 90% of its \$25 million budget from industry, this means increased fees from 1 July this year and ultimately increased costs for Australian farmers and those members of the Australian community who buy food, feed or fibre.

CropLife has advised the APVMA that it opposes any fee increase until:

- APVMA performance improvements are clearly demonstrated;
- a comprehensive review of the APVMA's policy framework is complete, and
- the global economic climate has improved.

We have taken this position based on analysis undertaken by ACIL Tasman for CropLife Australia and the Animal Health Alliance (Australia) which shows that raising APVMA fees, as proposed, will not address the factors that are contributing to the inefficiencies and delays. It is in fact the policy framework established for the APVMA by the Primary Industries Standing Committee (PISC) (a COAG entity) in July 2002 that must be reviewed and restructured.

ACIL Tasman's report shows that the APVMA's registration system will remain "clogged" until the Authorities' market intervention role is relinquished, cross-subsidisation eliminated from the fee structure, and governments adequately resource the APVMA's compliance and other public good activities.

Consequently, **CROPLIFE RECOMMENDS** that any planned increase in APVMA fees be suspended and that a review of the APVMA policy framework be commenced immediately. The review should be conducted independently of the Federal Department of Agriculture, Fisheries and Forestry and the APVMA, and should encompass all elements of the framework set by the Signatories Working Group and endorsed by PISC in July 2002.

## 6. UNSHACKLING AGRICULTURAL INNOVATION (cont.)

### 6.1 Review APVMA's policy framework and improve timeliness of product registrations (cont.)

CropLife strongly believes that a freeze on APVMA fees will not place the organisation in financial difficulty as there currently exist a number of APVMA activities that are unnecessary or do not provide value to industry. We believe there are considerable cost-savings to be made and that the APVMA should be directed to work with industry to identify these redundant activities and then eliminate them from the APVMA work plan.

Finally, CropLife recognises the APVMA needs to upgrade its IT capability but believes it is not appropriate for industry to finance any such capital expenditure. **WE THEREFORE RECOMMEND** that the Federal Government provide the funding (either outright or as a loan) to immediately address APVMA's IT capability issues. As stated above, we also believe that the Government should fund the APVMA's compliance/public good activities so as to maintain community confidence in the objectivity and integrity of the regulatory system.

### 6.2 Data protection

Pesticide innovators require intellectual property rights, called data protection, to protect the research data they submit during the registration process from misuse by their competitors for a set period of time. This allows the innovators time to recoup the costs of their research once their product is commercialised. Without this, there is no commercial driver for innovators to continue to undertake research and development (R&D) activities.

Data protection provisions in Australia are inadequate to ensure that innovators can gain an appropriate return on their investment. This has created a strong disincentive for companies to develop new pesticides or register overseas pesticides in Australia.

In 2005, legislation was passed by the Federal Government to implement partial data protection for information relating to active constituents, products and labels, but the provisions did not cover information provided for reconsiderations (ie. chemical reviews), minor uses or permits. The data protection legislation was prepared hurriedly to meet deadlines during implementation of the US Free Trade Agreement, and its incomplete nature has proved to be counterproductive.

CropLife and its members, in collaboration with the Department of Agriculture, Fisheries and Forestry, have been trying for over six years to have legislation drafted to secure data protection for reconsiderations and to repair flaws in the existing data protection provisions. These delays in extending and improving data protection legislation are stifling innovation and thereby limiting the introduction of new and better crop protection products for Australian farmers.

Government intervention is urgently needed to establish adequate intellectual property protection for companies generating research data to develop and then register new pesticides or new uses for existing pesticides. **CROPLIFE RECOMMENDS** that the Government raise the priority of the Data Protection Bill so that it can be allocated a parliamentary draftsman and guaranteed passage into parliament.

### 6.3 Specialty crops and minor uses

Warmer temperatures and changes in precipitation are likely to lead to shifts in the ideal location for growing crops. This will mean that farmers will need to adopt new crops that are better suited to their changed local environment. However the options that are available to Australian farmers are currently limited by the extremely poor pest control options available to many industries. This situation discourages growth in these high value industries, creates gaps in pest management strategies and increases the risk of illegal pesticide use which can produce trade-disrupting residue violations. Climate change may also change the distribution of environmental pests and weeds and the options for controlling most of these are limited at present.

Australian farmers need access to a range of pesticides to manage changing pest problems due to climate change and diversification into new crops. However, many small industries, and some larger ones, do not have access to a sufficient range of pesticides with which to legally manage pests, diseases and weeds in their current crops, let alone innovative crops. This is the case for most of Australia's horticulture industries.

## 6. UNSHACKLING AGRICULTURAL INNOVATION (cont.)

### 6.3 Specialty crops and minor uses (cont.)

There is broad support from agricultural industries, environmental managers and the public sector for access to newer, more effective and lower risk pesticides for many situations. Peak agricultural industry bodies, researchers, agronomists and environmentalists have expressed frustration that they do not have legal access to pesticides that are available to other industries and competitors overseas. Some recent examples of industries that expressed an urgent need for access to new pesticides are given below:

- Grains industry needs additional pesticides for sporadic pest outbreaks and use on rotation crops.
- Broad-acre crop producers have an urgent need for new herbicides to manage the risk of weeds developing resistance to currently registered herbicides, eg. due to herbicide resistance in some weeds in cereal and pulse crops in Western Australia, there are no longer any registered herbicides that are effective and legally available for farmers to use.
- Hay export industry has gaps in the range of pesticides registered for use against certain pests and diseases on some cereal crops (eg. oats) and pastures. The lack of acceptable pesticides for some situations and the risk of pesticide residues in hay are causing serious concern, particularly for exports to Japan.
- Horticulture Australia Ltd has conducted a pesticide gap analysis for many horticulture industries. The mango industry, for example, has many unaddressed needs for pest and disease management.
- Registrations of certain herbicides are urgently needed to control 'Weeds of National Significance' before they spread and cause irreparable environmental damage, eg. 10 herbicide active constituents approved for use in aquatic environments in the USA are not registered for use in Australia.
- The problem of unavailability of pesticides is particularly acute in the ornamentals, cut flower, nursery, herbs and spices industries due to the multiplicity of species grown in small areas.

Smaller markets simply do not have the sales volume to justify the investment required to register pesticides. Inadequate research can also create liability and stewardship concerns for companies. The implications of farmers having limited crop protection options in these industries can be significant because specialty crops are often high value, representing potential growth industries and diversification options for Australian producers that will be essential in adapting to climate change. The extremely limited range of pesticide options in these situations can also lead to over-reliance on a particular chemical, greatly increasing the risk of pests developing resistance to certain pesticides.

There is also an insufficient range of registered pesticides for many 'minor' pests in major crops or for use in the natural environment against invasive pests or pests that pose a threat to agriculture. Crops or areas that are unable to be protected from pest infestations can also act as reservoirs for pests that can subsequently infect other local crop industries or the natural environment. Environmental weeds with limited distribution may initially represent a small market for herbicides, but could pose a major threat if not controlled before they spread widely. This spread may be assisted by changes in climate that allow weeds to thrive in areas that were previously not conducive to their growth.

The cost of developing registration data for a new pesticide use pattern is independent of the size of the market. Pesticide registrants spend between \$100,000 and \$250,000 generating data for registration of any additional uses. The costs of additional trial data and registration need to be justified by potential additional sales. If the market for the product is small, and there is no opportunity for the innovator to recoup these costs, then the extended uses for the product will not be developed and farmers and environmental managers will be denied the benefit of that pesticide.

Emerging industries often lack a levy mechanism or even a peak body and are typically unable to fund the data generation needed to authorise a new use for a pesticide.

The USA and Canada have for many years successfully addressed these needs for pesticide registrations in small markets through the IR-4 program. Australia needs a program similar to the North American IR-4 to facilitate access to a broader range of crop protection products. Otherwise Australian farmers will struggle to remain productive and competitive, innovation in product research and development and integrated pest management will be stifled, environmentalists will remain hampered in their attempts to contain and eradicate invasive weeds and pests, and trade will be put at risk of chemical residue violations and exotic pests.



## 6. UNSHACKLING AGRICULTURAL INNOVATION (cont.)

### 6.3 Specialty crops and minor uses (cont.)

An appropriately funded minor uses and specialty crops research program, paired with sound data protection, would provide the following benefits to Australian farmers, exporters, consumers and the environment:

- foster innovation in integrated pest management;
- reduce off-label uses of pesticides that can lead to residue violations in food, export bans, risks to workers, or crop and environmental damage;
- ensure that farmers have sufficient crop protection options to manage the risk of pest resistance;
- ensure that farmers can develop environmentally sustainable integrated pest management systems through access to the best chemistry;
- ensure that Australian food producers have access to a range of state-of-the-art pesticides that allow them to compete in global markets, including pesticides available to overseas competitors;
- encourage development of niche markets for new crops;
- ensure safe, high quality, Australian produced food;
- facilitate international data sharing, collaboration, harmonisation and regulatory decisions; and
- provide additional options for more effective and safer control of environmental noxious weeds.

The Federal Government conducted a number of initiatives in this area over the past decade, but despite several proposals, no additional funding has yet been committed to resolve the issue.

Government intervention is also needed to help the industry give more choice to farmers and horticulturists for pesticides that can be used on specialty or 'minor' crops, or to deal with uncommon pests in 'major' crops. This would enable more farmer innovation in pest management strategies and also allow innovation in the types of crops that farmers can grow to adapt to climate change.

In 2007, a broad range of key Australian peak industry bodies supported the establishment of a \$4 million/year research program (modelled on the highly successful IR-4 minor use program that has operated successfully in the USA for 45 years) to address the market failure. There is still widespread industry support for this proposed government-industry partnership program for registering minor uses.

**CROPLIFE RECOMMENDS** that the Government provide the modest funding needed for this initiative so that industry can generate the research data needed for minor use registrations. This would provide many established and emerging Australian agriculture industries with lawful access to the pesticides needed to improve farm productivity, enhance food safety, protect the natural environment, be competitive in global markets and adapt to climate change. Perhaps most importantly, it will also increase the number of profitable options available to Australian farmers faced with climate shifts and the need to change crops.

### 6.4 Genetically modified crops

Despite unprecedented scientific scrutiny of GM crops and consistent findings by reputable scientific and international bodies that these crops are safe, there remains a number of barriers that limit the development and adoption of GM crops in Australia.

The primary barrier to increased adoption of GM crops is a perceived lack of public acceptance. This perception is despite national surveys by Australia's independent food regulator, Food Standards Australia New Zealand, indicating that the level of concern about GM crops in Australia is low. The myth that the Australian public is concerned about eating GM crops has led to state-based moratoria and to a small number of food companies sourcing non-GM ingredients. However, the number of state-based moratoria has decreased in recent years after reviews by the New South Wales and Victorian Governments concluded that the Australian supply chain could continue to meet customer requirements for both GM and non-GM crops.

## 6. UNSHACKLING AGRICULTURAL INNOVATION (cont.)

### 6.4 Genetically modified crops (cont.)

Before late 2007, all canola producing states in Australia banned the commercial cultivation of GM canola despite federal regulatory approvals that showed the crop was safe for the environment and human health. New South Wales and Victoria have subsequently allowed commercial GM canola production, while Western Australia has announced that it will trial the technology, prior to reviewing its moratorium in 2009. South Australia continues to ban commercial GM crop cultivation.

An issue that may limit adoption of GM crops in the future is the type of food labelling that is required. Anti-GM activists are currently campaigning for an expansion of Australia's current food labelling laws to include labelling meat, milk and eggs from animals fed GM crops, to remove adventitious presence<sup>4</sup> thresholds and to include the labelling of refined oils. There is a vast body of scientific evidence that indicates that such meat, milk, eggs and refined oils are identical to those that are produced from feeding conventional crops. Adventitious presence thresholds are common in the international grain trade and recognise the practicalities of bulk handling systems. Labelling of these commodities would impose significant costs on industry and would be extremely difficult and expensive to enforce. These increased costs could make GM crops uncompetitive with conventional crops.

The Government has a role to play as a provider of scientifically sound and balanced information on GM crops. Until 2008, an inter-departmental agency known as Biotechnology Australia was responsible for providing this information to the public. However in 2008, funding for Biotechnology Australia ceased and this agency has not been replaced. This creates a confusing situation for consumers, where they are unable to access information from a source that is free from vested interests. The reintroduction of a federal communications initiative on biotechnology would greatly assist in educating the broader public and provide an independent umpire on issues where industry and activists are diametrically opposed.

There is a need to continually review Australia's current regulations on GM crops to ensure that duplication is removed and that the level of regulation is commensurate with current scientific knowledge on risk. The current Gene Technology Act requires a review every five years, however, this process should be continual as knowledge and public opinion evolves. The goal should be to provide the public with the level of assurance they require from regulation, while minimising costs to Australia's food producers.

**CROPLIFE RECOMMENDS** that the Government should insist on labelling of GM crops that reflects the level of scientifically established risks. If there is no safety issue, but there is consumer demand for non-GM foods, then the market will establish this and a company or companies will provide these products. Mandatory labelling implies that there is a risk associated with an ingredient and should only be used when an ingredient poses a risk to a particular sector of the community (eg. peanuts).

All GM crops undergo a regulatory assessment that identifies any risks and if these risks cannot be managed in a way that removes any threat to human health or the environment, then they will not be approved for use. For example, a GM crop containing a known or suspected allergen would not be approved for use in Australian food. Non-GM crops do not undergo this assessment so they arguably present a greater risk to consumers than GM crops. CropLife believes there is no reason for mandatory labelling of GM food and encourages the Australian Government to adjust its policy to reflect the safety of approved GM foods.

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<sup>4</sup> The term "adventitious presence" refers to the unintentional and incidental commingling of trace amounts of one type of seed, grain or food product with another. Adventitious presence is an unavoidable reality of plant biology, seed production and the distribution of commodity crops. There are a number of factors that contribute to commingling of approved biotech products in nonbiotech products: Pollen flow; volunteerism; mixing during harvesting, transport, storage and processing; human error; and accidents can all play a role in adventitious presence.

## 7. ROLE OF GOVERNMENT

To help farmers adapt to meet the challenges of climate change, government policy changes are required to remove the disincentives that are stopping the pesticide industry from innovating, so that farmers can access a broader range of pesticides, crops and applications.

More pesticide options will help Australian farmers be more innovative in safely reducing the impact of pests, diseases and weeds in a wide range of crops, as well as in the natural environment while meeting community and customer expectations for quality produce and environmental responsibility in Australian and overseas markets.

Completion of the data protection legislation and modest funding for a minor use initiative will encourage industry research, development and pesticide registrations, thereby giving farmers and environmental managers access to the additional pesticides and new technologies they need for effective, adaptable, safe and sustainable pest management.

CropLife encourages the Federal Government to continue to provide scientifically sound and balanced information on GM crops and food and to support the scientific assessments of its gene technology and food regulators. The broader regulatory framework should be reviewed regularly to ensure that it is commensurate with current scientific knowledge of risk. The goal should be to provide the public with the level of assurance they require from scientifically sound regulation, while minimising costs to Australia's food producers. There is no need for mandatory labelling of GM foods unless there is a scientifically proven risk to human health.

However, the most important role the Government can play is to urgently review the policy framework that guides regulation of pesticides in Australia.