CropLife AUSTRALIA

*Representing **the best** of the plant science industry*

SUBMISSION TO STANDING COMMITTEE ON AGRICULTURE AND WATER RESOURCES' INQUIRY INTO GROWING AUSTRALIAN AGRICULTURE TO $100 BILLION BY 2030

14 October 2019

1 INTRODUCTION

CropLife Australia (CropLife) is the national peak industry organisation representing the agricultural chemical and plant biotechnology sector in Australia. CropLife represents the innovators, developers, manufacturers and formulators of crop protection products (including fungicides, herbicides and insecticides) and agricultural biotechnology products. The plant science industry provides products to protect crops against pests, weeds and diseases, as well as developing crop biotechnologies that are key to the nation's agricultural productivity, sustainability and food security. A 2018 Deloitte Access Economics report, *Economic Activity Attributable to Crop Protection Products*[1], estimates $20.6 billion of Australian agricultural output (or 73 per cent of the total value of Australian crop production) is attributable to the use of crop protection products. The same report found the plant science sector contributes 9,225 in full time equivalent employees. This consists of 1,725 directly in the manufacturing sector and 7,500 in the sectors that supply inputs to the industry.

CropLife and its members are committed to the stewardship of their products throughout their lifecycle ensuring human health and safety, and the responsible and sustainable management of the environment and trade issues associated with agricultural chemical use in Australia. Our member companies contribute millions of dollars each year on stewardship activities to ensure the safe and effective use of their products. CropLife ensures the responsible use of these products through its mandatory industry code of conduct and has set a benchmark for industry stewardship through programs such as ***drum****MUSTER*, ChemClear® and Agsafe Accreditation and Training. Our stewardship activities demonstrate our industry's commitment to ethical and responsible practices from discovery and development of crop protection products through to their use and the final disposal of container waste and unwanted chemicals. These programs are also supplemented by the range of world leading industry stewardship initiatives and best practice guidelines that form CropLife Australia's StewardshipFirst suite of measures.

CropLife welcomes the opportunity to take part in the *Inquiry into Growing Australian Agriculture to $100 billion by 2030* and commends both the National Farmers' Federation for developing the road map and the Australian Government for seeking to define the opportunities and impediments to the primary production sectors to realise this ambitious plan. CropLife's submission focuses on the crucial role innovations, such as those the plant science sector delivers for Australian farmers, play in the creation of a stronger, sustainable and more competitive agriculture sector in Australia.

Australian farmers produce almost 93 per cent of Australia's daily domestic food supply.[2] To continue to combat the threat of food insecurity and the impacts of climate change and increasing costs, while remaining internationally competitive, they must be able to adopt the latest safe and proven agricultural technologies and innovations. This includes access to agricultural biotechnology innovations, as well as biological and chemical crop protection products. Crop protection and biotechnology solutions can assist farmers in producing high yields with fewer natural resources by reducing water consumption, increasing nutrient uptake and reducing the need for other inputs.

Increased innovation, productivity, investment and trade are not tenable without nationally consistent agricultural regulations that are efficient and effective. The world's population is predicted to increase to 9.7 billion by 2050, requiring an increase in global food production of 70 per cent. Providing enough food in the context of production constraints, volatile consumption patterns and a changing climate will be an unprecedented scientific, economic and public policy challenge. The situation provides an opportunity for Australian farmers to both assist in the global food security effort and to profit from increased demand for their agricultural products. By adopting innovative farming practices, such as the sustainable and efficient use of biological and chemical crop protection products and genetically modified (GM) crops, the Australian farming sector will be able to produce more sustainably and with greater productivity.

Tackling the challenges presented by sustainably increasing food production to meet growing global demand will require science-based policies that support all production systems, including existing and future production tools and technologies. Sustainable production systems will include the conventional systems reliant on the timely, responsible and considered application of crop protection products in ways that maximise yield and manage potential environmental and other risks. Crop protection products (including fungicides, herbicides and insecticides) are currently relied upon to increase global food production by between 30 and 50 per cent[3].

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1 *Deloitte Access Economics 2018, Economic Activity Attributable to Crop Protection Products, Canberra.*
2 *National Farmers Federation (2018). Food, Fibre and Forestry facts. A Summary of Australia's Agriculture Sector.*
3 *Deloitte Access Economics (2018). Economic Activity Attributable to Crop Protection Products, Canberra.*

Supporting industries to develop and introduce newer crop protection products that are better targeted to Australian pests, climates and crops will help Australia play its part in addressing global food security.

The plant science industry's chemical (both synthetic and organic) and biological crop protection products are critical to maintaining and improving Australia's agricultural productivity to meet global food security challenges in coming decades. Each of these products is rigorously assessed by the Australian Pesticides and Veterinary Medicines Authority (APVMA) to ensure they present no unacceptable risk to users, consumers and the environment. It takes over 11 years of research and development, requiring the testing of more than 140,000 compounds, to bring just one new successful crop protection product to market. This carries a cost of over US$286 million. Without access to these products, Australian farmers could lose up to two-thirds of their annual production to pests, weeds and diseases.

Crop protection products must be used sparingly, carefully and responsibly. The responsible use of agricultural chemicals must be supported by a regulatory scheme that maximises the benefits associated with their responsible use, while minimising the costs from excessive, inappropriate and ineffective regulation. Farmers need these products because of the benefits they provide to their businesses and consumers need these products to ensure they have access to safe, affordable and nutritional food. While it is important for governments to provide for appropriate and rigorous regulation of pesticides and biotechnologies, any regulation must be mindful of the effects that poorly considered and excessive regulation will have through increasing production costs, discouraging investment and innovation, while not delivering any improvement in safety, health or environmental outcomes.

Crop protection products are crucial to modern integrated pest management techniques and systems used by farmers. Access to fewer crop protection tools would facilitate faster development of resistance among target pests, diminishing the efficacy of remaining chemical options. The economic impact of weeds alone is estimated to be in excess of $4.8 billion each year, or $13 million per day[4]. It is imperative that the Australian Government maintain the primacy of science and facts. There is a need for a paradigm shift in thinking from regulating the science (as it has been proven safe) to facilitating the growth of the Australian economy by driving the plant science industry (both in the public and private domain) to its full potential.

GM crops, an application of modern biotechnology, are just another step along the same path of technological innovation that led to Australian agricultural inventions such as the combine harvester and 'Federation' wheat varieties. The utilisation of these innovations has delivered safe and affordable food to the nation and the world. Over 1 billion acres of GM crops have been cultivated since 1996 and over 1 trillion meals containing GM food ingredients have been consumed globally. GM crops are the most tested and regulated food product in history. There are no substantiated scientific reports of any food safety issues related to the consumption of genetically modified crops, nor any unexpected effects on ecosystems. The development, planting and consumption of an approved GM crop is safe. Every scientific and regulatory body that has examined the evidence has arrived at the conclusion that GM crops and the foods they produce are as safe as their conventional counterparts. This includes the World Health Organization, the Australian Academy of Science, the European Commission, the American National Academy of Sciences, the Royal Society of Medicine and many more.

GM crops are a necessary and important tool in meeting the global food and nutrition security challenge. Since being first commercially cultivated in 1996, GM crops have contributed to global food security, sustainability and helped farmers to adapt to and mitigate climate change by:

- Increasing the value of crop production by US$186 billion[5]
- Reducing pesticide usage (kg active ingredient) by 671 million kg[6]
- Reducing CO2 emissions in 2018 alone by 27.1 billion kg[7] (equivalent to taking 16.7 million cars off the road for one year, more than all the passenger vehicles registered in Australia; and 86% of all vehicles registered in Australia)
- Increasing the incomes of more than 17 million small farmers and their families – some of the poorest people in the world, and thereby helping to alleviate poverty[8]

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4 https://invasives.com.au/wp-content/uploads/2019/01/Cost-of-weeds-report.pdf

5 *Brookes G and Barfoot P (2018) 'GM crops: global socio-economic and environmental impacts 1996-2016'. PG Economics, Dorchester, UK.*

6 *Ibid.*

7 *ISAAA (2019) 'Global Status of Commercialized Biotech/GM Crops in 2018: Biotech Crops Continue to Help Meet the Challenges of Increased Population and Climate Change. ISAAA Brief No. 54. ISAAA: Ithaca, NY.*

8 *Ibid.*

GM crops have helped farmers financially. Globally, GM technology directly increased farm income by US$18.2 billion in 2016[9], with over half the gains going to farmers in developing countries[10]. According to the meta-analysis published by Klumper and Qaim, GM crops have reduced pesticide use by 37 per cent, while increasing crop yields by 22 per cent and increasing farmer profits by 68 per cent[11].

Cultivation of GM crops has equally proven to be beneficial to the environment. Crop biotechnology is an important tool helping farmers become more sustainable by allowing them to produce more while using fewer natural resources and decreasing their usage of pesticides. Since GM crop cultivation started in 1996, more than 183 million hectares of land have been saved from ploughing and cultivation, leading to improved water storage, limited soil erosion and increased availability of land for other environmental uses.

GM crops currently under research and development in Australia will help our farmers address the unprecedented challenges they are facing in a changing climate. GM traits currently investigated at the national level will be crucial tools for farmers to combat drought, soil acidity and/or salinity, as well as emergent diseases. There is also considerable Australian research into GM traits that will bring health benefits to consumers, such as healthier starches and oils modified to be lower in saturated fats and with improved cooking qualities.

One threat to the potential success of this important agricultural innovation is the lack of a nationally consistent scheme for gene technology regulation in Australia. Unnecessary and overly stringent regulation brings with it an equally unnecessary cost burden. All regulation should be commensurate with the associated risk, cost and benefit to the community. The current gene technology regulatory system in Australia already imposes a much greater level of regulatory burden on the industry than occurs in some other countries and this burden is exacerbated by unclear and inconsistent market interventions by state governments.

9 *Brookes and Barfoot (2018) Op. Cit.*
10 *ISAAA (2019) Op. Cit.*
11 *Klümper, W. and Qaim, M., (2014). 'A meta-analysis of the impacts of genetically modified crops'. PloS one, 9(11), p.e111629.*

2 RECOMMENDATIONS

CropLife Australia submits the following recommendations for a competitive and productive Australian agricultural industry to achieve its 2030 goals.

Recommendation 1: Ongoing and increased funding to improve access to crop protection for minor uses and specialty crops

Recommendation 2: Government regulators to benefit from a greater financial contribution from public sources while being subject to the same productivity dividends as other government agencies

Recommendation 3: National harmonisation of 'control of use' of crop protection products

Recommendation 4: Need for an efficient regulatory environment for agricultural and veterinary chemicals

Recommendation 5: Need for increased funding and participation in stewardship programs

Recommendation 6: A consistent national regulatory scheme for GM crops to ensure a clear path to market and freedom to operate

Recommendation 7: Need for the National Standard for Organic and Biodynamic Produce to be brought into line with the rest of the world to accommodate low level accidental presence of GM organisms

RECOMMENDATION 1:

Ongoing and increased funding to improve access to crop protection for minor uses and specialty crops.

Efficient and effective regulation is essential to support an innovative, productive and sustainable agricultural industry in Australia. Unfortunately, from an agricultural chemical perspective, innovation is undermined by a regulatory system that is inefficient and operated to discourage investment in modern crop protection technologies.

These regulatory burdens are not without consequence. In addition to raising costs and delaying introduction of innovative new products, excessive regulation increases the pre-market barrier for new products, meaning that fewer tools for farmers are ultimately registered and approved for use. It is well-recognised that, where the market size does not justify the necessary investment in data generation and registration costs by a registrant, a company will not generally make the necessary investment to register that product. Exacerbating this problem in Australia is the equivalent cost of regulation for a crop protection product in Australia and the United States, despite the size of the Australian market being one-tenth that of the United States. This means that Australia is uniquely susceptible to the effects of excessive regulatory cost on the availability of chemical products for minor uses.

A lack of available pest and weed protection products provides a significant barrier to the development of new agricultural industries. New crops are less likely to be commercially cultivated for domestic and export markets if there are no options for pest control. Horticultural crops in particular face challenges as the smaller areas under production often render the registration of new chemical products unfeasible.

Where a registered or permitted product is not available, farmers may be forced to rely on state legislation that allows ‘off-label’ use. Off-label uses are not risk assessed and may therefore result in unacceptable risks to users, consumers or the environment, or pose impediments to trade. For these reasons, CropLife does not support off-label use of agricultural chemical products.

The consequences of these regulatory barriers are not, however, limited to minor crops. Major commodities such as wheat and barley can still be susceptible to minor pests and diseases that are not significant enough to justify investment by registrants to extend labels or develop new control technologies. Pests may not always be a problem for a particular crop, or unusual and unexpected weather conditions in a particular season may lead to new pest and disease pressures.

These issues are addressed internationally through ‘minor use’ programs to coordinate and subsidise necessary research to support minor use of agricultural chemical products. An appropriately targeted and funded minor use program in Australia can safeguard Australian agriculture by increasing its productivity and diversity. Ensuring that farmers have access to adequate crop protection technologies can facilitate:

- development of new industries growing new crops for domestic and overseas markets;
- agricultural development of new regions for new crops as pest issues can be sustainably controlled;
- reduced risk to users, consumers, the environment and trade from off-label use;
- reduced reliance on APVMA-issued permits, increasing the Regulator’s capacity for providing high quality risk assessments and registrations; and
- ongoing sustainable production within existing farming systems as new tools facilitate better, more effective and long-lived resistance management strategies.

CropLife estimates that total funding of about $45 million spread over four or five years would be the likely requirement for a fully operational program.

In the 2014 Federal Budget, where very few project proposals received funding, the Australian Government committed an initial $8 million over four years towards helping farmers gain improved access to safe and effective agricultural chemicals. Further funding of $4 million over two years was announced in the 2018 Federal Budget towards correcting the market failure caused by a mandatory regulatory system, by better enabling the inclusion of minor uses and specialty crops on agvet labels.

These investments, leveraged by additional funding from CropLife, its members and research and development corporations, have begun to deliver significant value to the Australian agricultural sector through the approval of label uses for minor crops and specialty uses. In 2017:

- 360 unique crop/pest issues were identified by grower industry bodies;
- 160 of these had no identified solution, for which 51 new potential solutions were identified by registrants; and
- an additional 64 new solutions were identified by registrants adding to existing options proposed by industry.

The momentum achieved so far is only the tip of the iceberg. Structural change and further funding are required to alleviate the existing economic and regulatory market failure, deliver more sustainable pest management practices and increase the Australian GDP.

Similar programs in the United States have demonstrated that every dollar invested in the minor use program generates a net return to the economy of US$500. The minor use and specialty crops program in the US, known as IR-4 or Interregional Research Project number 4, began over 50 years ago and receives government funding of approximately US$14 million a year. The success of the IR-4 Project, with additional U.S. Department of Agriculture funding, is proven and can be measured in its development of data to support nearly 20,000 food use and ornamental horticulture label approvals.

IR-4 is managed by Rutgers, the state university of New Jersey. Part of its success is due to the program leveraging a network of university researchers. With appropriate funding from government, the University of New England could accomplish similar feats in Australia through the establishment of a centre of excellence for agriculture.

In 2002, the Ministers of Health Canada and Agriculture and Agri-Food Canada announced funding of CAD$61.8 million to address problems in the minor use system. These included slow access to pesticides, loss of uses due to reliance on older chemistry, international competitiveness, and the high cost of data generation to support minor uses.

The then Department of Agriculture and Water Resources held their Agvet Chemical Minor Use Prioritisation forum in late 2018 to allocate the funding $2 million in for the 2018-19 year. Grant applications, however, totalled over $8 million. This shows significant demand and need for an additional and ongoing funding commitment. The successful expansion of the existing minor use program is crucial for increasing productivity and efficiency in Australian agriculture.

RECOMMENDATION 2:

Government regulators to benefit from a greater financial contribution from public sources while being subject to the same productivity dividends as other government agencies

Prohibitive cost recovery arrangements from government regulators leads to inequity and reduces Australia's agricultural competitiveness

The plant science industry is subjected to significant duplication of regulation between the three main regulators – the Office of the Gene Technology Regulator (OGTR), the Australian Pesticides and Veterinary Medicines Authority (APVMA) and Food Standards Australia New Zealand (FSANZ). This duplication has significant cost and resource implications both for applicants and government.

Currently, the cost of the APVMA risk assessment is cost recovered from applicants, whereby the OGTR risk assessment is paid for through government appropriation funding. With the possibility of cost recovery for the OGTR currently under review by the Department of Health, there is the risk that if implemented, applicants could be 'double-charged' for what is effectively the same risk assessment. Like any regulatory cost in this sector this would eventually be passed onto growers and eventually consumers in the form of higher food prices.

A report published by ABARES in 2013[12] found that "Australia's regulatory environment governing the path to market of genetically modified food crops continues to impose an unnecessary burden on many agricultural businesses through inconsistent regulation and lengthy decision-making." The report concluded "the Australian Government could play a coordination role in negotiating for a shorter, well-defined regulatory path to market."

The Australian Pesticides and Veterinary Medicines Authority

Currently, the cost of the APVMA is almost entirely met through application fees and levies recovered from applicants and registrants of agricultural chemicals and veterinary products. This has led to some public criticism that agricultural chemical manufacturers have captured the APVMA, leading to perceptions that the decisions of the APVMA are not independent.

A cost recovered regulatory environment poses no scope for undue influence from the industry it regulates. CropLife recognises, however, that the perception of independence by the Australian public and therefore confidence in the APVMA, would be considerably increased under a public funding arrangement. This would align the APVMA with the OGTR, which is entirely funded via government appropriation, receiving more than $8 million each year to conduct its regulatory responsibilities.

The regulatory environment in Australia is set to increase further, with the Department of Agriculture currently undertaking a Cost Recovery Impact Statement process, which proposes to further increase fees to registrants. Simultaneously, the government has proposed re-instating the APVMA's Governing Board, at an estimated annual cost to registrants of $600,000.[13] This exorbitant and unnecessary cost to what is already one of the world's most expensive agricultural chemical regulators will be an additional direct cost to the farming sector and further limit access to crucial crop protection products.

Comparable regulators internationally receive a significant level of public funding. For example: The European regulator for agricultural and veterinary chemical products, the European Food Safety Authority (EFSA), was publicly funded by the EU at a cost of approximately €79 million for 2017[14], while the United States Environmental Protection Agency (US EPA) and Health Canada's Pest Management Regulatory Agency (PMRA) operate on a partial cost recovery basis. Under this arrangement, the PMRA received approximately CAD$36.5 million in government funding in 2016-17, with an additional CAD$7.9 million received via cost recovery.[15] Similarly, the US EPA received US$128.3 million in government funding in 2017, along with approximately US$46 million via industry fees.[16]

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12 *Gibbs C, Harris-Adams K and Davidson A, 2013, 'Review of Selected Regulatory Burdens on Agriculture and Forestry Businesses', ABARES, Canberra.*

13 *Rural and Regional Affairs and Transport Legislation Committee Senate Estimates Hansard, Wednesday, 23 May 2018, page 95.*

14 *https://www.efsa.europa.eu/sites/default/files/corporate_publications/files/ar2017.pdf*

15 *https://www.canada.ca/en/health-canada/services/consumer-product-safety/reports-publications/pesticides-pest-management/corporate-plans-reports/annual-report-2016-2017.html#a8*

16 *https://www.epa.gov/pria-fees/annual-reports-pria-implementation*

While CropLife accepts the need for cost recovery, different elements of the APVMA's functions may be considered separately. There may well be a difference between the registration and assessment functions of the APVMA and the monitoring, compliance and enforcement functions. The significant public benefit enjoyed by consumers and the environment from assurance about the safety, quality and integrity of the regulatory system justifies consideration of the appropriate level of public funding.

Although the APVMA is a cost recovered agency, it should be subject to the same productivity dividends as other government agencies, with dividends either reinvested into core operations of the agency or providing fee relief to registrants. Indeed, a more equitable split between cost recovered and government funding should encourage the APVMA and the Department of Agriculture to seek out and implement genuine efficiency and productivity reforms.

Alternatively, comprehensive public funding for the APVMA would address and neutralise the ongoing criticism from activist organisations who claim the APVMA is not independent of industry as a result of its funding structure. Comprehensive public funding would significantly reduce barriers to market entry for smaller registrants and facilitate the deployment of new products by small and medium businesses tailored for lesser grown crops and smaller industries.

The APVMA's monitoring, compliance and enforcement activities are critical to supporting and maintaining the integrity of the regulatory system. This does require the APVMA to take a broad approach to monitoring and compliance. The APVMA must not only focus on product registrants and approval holders, but manufacturers and importers that deliberately seek to avoid Australia's regulatory system.

The Federal Government's Cost Recovery Guidelines[17] outline that it is usually inappropriate to cost recover some government activities, such as general policy development, ministerial support, law enforcement, etc. In certain circumstances, cost recovery may also be contrary to intended policy outcomes, such as industry support. The CRGs also point out that if the same cost recovered activity is provided to both government and non-government stakeholders, charges should be set on the same basis for all stakeholders.

Publicly funding monitoring, compliance and enforcement activities of pesticides will offer significant benefits to governments, industry and the community. It will:

- Ensure the magnitude and scope of compliance and enforcement activities can be effectively matched to the size of the problem. It will not be restrained by the APVMA's limited budget;
- Demonstrate that registrants and approval holders have not captured the regulator and increase public perception of an independent compliance function; and
- Facilitate greater voluntary stewardship initiatives by industry to support government compliance functions.

An appropriately funded regulatory scheme should reflect the commitment of all interested parties to enforcing the scheme. Increased public resourcing for monitoring, reconsideration, compliance and enforcement would demonstrate the government's commitment to ensuring the appropriate regulation of agricultural and veterinary chemicals in Australia.

[17] *Department of Finance, 'Australian Government Cost Recovery Guidelines', Resource Management Guide No. 304, July 2014 - Third edition*

RECOMMENDATION 3:

National harmonisation of 'control of use' of crop protection products

CropLife promotes improved harmonisation of state control of use regulations in Australia to remove duplication and inconsistencies and reduce unnecessary costs to industry. CropLife members find it difficult, confusing and costly to meet the multiple regulatory requirements of all the jurisdictions in Australia.

It is deeply concerning that the Council of Australian Governments (COAG) 2010 direction to the Primary Industries Ministerial Council (now Agriculture Ministers' Forum) to develop a national framework for harmonised agricultural chemical regulation in Australia has not yet been delivered. While some progress was made in 2013 via an intergovernmental agreement, considerable differences remain between jurisdictions, particularly regarding off-label use of agricultural chemical products. Nearly 10 years after the initial COAG directive, these differences continue to create confusion among users and increased costs associated with compliance for industry. Substantial reform is urgently required to create a nationally harmonised framework for agricultural chemical regulation in Australia, to reduce confusion and costs for both industry and Australian farmers.

As a matter of principle, CropLife and our members do not support off-label use of agricultural chemical products, as these uses are not specifically risk assessed by a scientifically competent regulator for Australian conditions. CropLife is, however, cognisant that where an agricultural chemical product use pattern approved by the APVMA, or a permit supporting that use pattern is not available, farmers are left with little options for crop protection.

While significant investment by the Australian Government, research and development corporations, CropLife and our members has led to the successful establishment of the minor use and specialty crops program, further investment is urgently required to ameliorate the failings of the regulatory environment, as described above. The APVMA has established an official Australian list of crop groupings and representative crops, which will exponentially increase the minor uses on APVMA approved agricultural chemical labels. These initiatives significantly reduce the need for the existing state legislative arrangements that allow off-label use in some jurisdictions. With further investment in time, this will provide a platform for national harmonisation of control of use legislation to occur.

It is important that once off-label use provisions are harmonised between state jurisdictions, the approach to managing those measures and monitoring compliance with them is also harmonised between state jurisdictions. Implementing harmonised state control of use laws pertaining to off-label use of agricultural chemical products but allowing for variation in enforcing and managing those laws will fail to reduce confusion among farmers, agronomists and manufacturing companies attempting to adhere to those legal requirements.

RECOMMENDATION 4:

Need for an efficient regulatory environment for agricultural and veterinary chemicals

The current regulatory system for agricultural chemicals in Australia is scientifically competent and technically proficient. CropLife's only concerns with this system relate to the APVMA's ability to regulate agricultural chemicals efficiently, predictably and consistently.

The Australian National Audit Office's (ANAO) 2017 performance audit report on the implementation of pesticide and veterinary medicine regulatory reform highlights the serious failure of the reform processes to deliver real regulatory efficiencies[18].

The Department of Agriculture imposed the previous government's 2014 reform package on the APVMA without realistic implementation timeframes or sufficient funding. These two factors directly contributed to the ANAO's poor assessment of the implementation processes by the APVMA. The ANAO's detailed and considered performance audit report confirms CropLife's long-standing call that urgent action is needed. The main findings of the report reflect industry's justified criticism of the Department and are best summed up on page eight of the report that, '…overall, the regulatory burden on industry has not been reduced since the reforms were implemented.'

Promising signs emerged in 2016, with the APVMA's timeframe performance for assessing pesticide applications within statutory timeframes reaching 82 per cent in the September quarter. These promising signs, however, were devastated during 2017, with the Regulator achieving only 24 per cent of work within statutory timeframes for crop protection products in the June quarter.

Two years later, timeframe performance for approvals of crop protection products finally returned to the level seen prior to the announcement of the relocation of the APVMA to Armidale, at 80 per cent in the September 2018 quarter. Since then, however, overall timeframe performance appears to have plateaued, at 85 per cent in the June 2019 quarter. As a result of significant operational improvements by the APVMA, the number of complex applications that would deliver Australian farmers with new, innovative crop protection products currently being approved within timeframe has improved from just 44 per cent in the September 2018 quarter to 66 per cent in the June 2019 quarter. Nevertheless, the APVMA's continued inability to finalise more than two-thirds of the more complex agricultural chemical applications within timeframe denies Australian farmers access to new and innovative products that the plant science industry provides. This further limits farmers' ability to improve productivity and compete internationally and highlights the urgent need for meaningful reform to streamline the APVMA's functions.

To this end, the Government recently committed to conducting a comprehensive review of the regulatory framework underpinning the National Registration Scheme for agricultural and veterinary chemicals regulatory environment, with the review panel due to deliver its report to the Minister for Agriculture by February 2021. In conducting the review, the panel will consider the framework's aims, structure and operation and have regard to the regulatory roles and responsibilities at the national, state and territory level. CropLife and our members welcome the Government's commitment to review the appropriateness and efficiency of the regulatory framework for agricultural and veterinary medicines products.

CropLife has, for two years, sought the urgent implementation of well-considered regulatory reform to address the expected significant resource and capability losses of experienced regulatory scientists at the APVMA during its transition to Armidale. Despite constructively engaging in numerous reform consultation processes with the Department, not a single piece of legislative reform was passed by the Government prior to the relocation, which was completed in July 2019.

There have been many parliamentary, departmental and regulatory reviews and inquiries into the APVMA's regulatory reform processes over the last few years. CropLife and our members have constructively engaged in all previous reform agendas and proposed specific and targeted initiatives to improve the system. The importance of this regulator maintaining its technical competencies whilst significantly improving efficiencies is crucial to the plant science industry and the nation's farming sector. It's time for the development and implementation of real reform that delivers genuine improvements to the Regulator's efficiency, which have been outlined by industry over many years. Without this, regulatory inefficiencies will continue leading to hundreds of millions of dollars in lost productivity every year.

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[18] *Pesticide and Veterinary Medicine Regulatory Reform, Australian National Audit Office website, sourced 29 June 2017, https://www.anao.gov.au/work/performance-audit/pesticide-and-veterinary-medicine-regulatory-reform*

RECOMMENDATION 5:

Need for increased funding and participation in stewardship programs

CropLife and its members are committed to the stewardship of their products throughout their lifecycle ensuring human health and safety, and the responsible and sustainable management of the environment and trade issues associated with agricultural chemical use in Australia. Our member companies contribute millions of dollars each year on stewardship activities to ensure the safe and effective use of their products. CropLife ensures the responsible use of these products through its mandatory industry code of conduct and has set a benchmark for industry stewardship through programs such as ***drum****MUSTER*, ChemClear® and Agsafe Accreditation and Training. Our stewardship activities demonstrate our commitment to managing the impacts associated with container waste and unwanted chemicals.

These programs support the safe, sustainable and responsible transport, handling and use of agricultural chemicals. Through CropLife's wholly-owned subsidiary company, Agsafe, the ***drum****MUSTER* and ChemClear® programs are world-leading initiatives to responsibly deal with waste containers and chemical products. The Agsafe Accreditation and Training Program ensures that facilities handling and storing agricultural chemical products are compliant with all Commonwealth, state and territory legislative requirements.

These activities minimise the burden on jurisdictions to enforce their legislation and are supplemented by the range of world-leading industry stewardship initiatives and best practice guidelines that form CropLife's StewardshipFirst suite of measures. Our resistance management strategies support the effective and responsible use of chemical products to delay and prevent the development of pest and weed resistance, while our Pollinator Protection Initiative provides resources to ensure that modern, innovative crop protection products are used responsibly and in a manner that minimises risk to pollinators. Our world-first BeeConnected smart-phone app enables collaboration between beekeepers, farmers and spray contractors to facilitate best-practice pollinator protection. CropLife has also developed a one-stop-shop for resources regarding off-target spray drift and continues to collaborate with industry and farming organisations to develop additional resources to enable the responsible use of our members' products, to help farmers and spray contractors minimise and manage the potential for off-target drift.

It is critical that farmers are equipped to use all registered crop protection products safely and responsibly, to ensure they retain access to a wide range of effective agricultural chemical products. Access to fewer crop protection tools would, for example, facilitate faster development of resistance among targeted pests, diminishing the efficacy of remaining chemical options.

Additional support and commitment, by both government and industry, to industry-led stewardship activities to support government compliance functions is required to ensure farmers maintain access to innovative and new crop protection products.

RECOMMENDATION 6:

A consistent national regulatory scheme for GM crops to create a clear path to market

GM cotton, soy, maize and canola with productivity enhancing input traits have all been rapidly adopted globally[19]. The US, Brazil, Argentina, Canada, Uruguay and China are some of the main countries growing and exporting GM crops. For Australia to remain on a competitive footing with other major exporting nations, barriers to future Australian commercialisation of GM crops must be lifted. By facilitating a clear path to market for future crop biotechnology traits, the Australian Government can ensure that Australian farmers remain internationally competitive and become truly sustainable in their farming practices.

GM crops are rigorously regulated in Australia. The Gene Technology Regulator is responsible for approving any dealings with genetically modified organisms (GMOs). Food Standards Australia New Zealand is required to approve any GM food ingredient and the APVMA regulates GM crops with inbuilt pest protection. The GM canola, GM cotton and GM safflower crops that are grown in Australia have all passed these regulatory assessments.

While farmers in New South Wales, Victoria, Western Australia and Queensland have the opportunity to grow GM crops, like 18 million farmers globally in 2018[20], South Australian and Tasmanian farmers are currently still denied access to this technology.

As clearly shown in the Anderson report[21], GM crop moratoria have an important negative economic impact on the States that put them in place. The South Australian GM crop moratorium has had a cumulative cost of $33 million for the state's canola industry over 2004-2018, with no tangible trade or marketing benefits. Moreover, the failure to implement a consistent national regulatory scheme has created uncertainty for the Australian agricultural biotechnology industry. Regulation of GM crops by state governments has acted as a brake on technological innovation. For example, the South Australian GM crop moratorium has discouraged public and private agricultural research and development investment in the State[22]. This disincentive is counterproductive if Australia wishes to foster a modern, sustainable and profitable agricultural sector.

The announcement by the South Australian Government of its intention to lift the GM crop moratorium on mainland South Australia is clear evidence that state moratoria based on marketing purposes fail to provide farmers and the State with tangible trade or marketing benefits.

The Australian Government should recognise that all GM crops approved by Australia's Gene Technology Regulator for commercial purposes are as safe for human health and the environment as their conventional (non-GM) counterparts. Consequently, state and territory moratoria on these crops are not commensurate with the risk.

19 *ISAAA (2019). Op. Cit.*
20 *Ibid.*
21 *Anderson, K (2019) 'Independent Review of the South Australian GM Food Crop Moratorium', Report to the SA Minister for Primary Industries and Regional Development.*
22 *Ibid.*

RECOMMENDATION 7:

Need for the National Standard for Organic and Biodynamic Produce to be brought into line with the rest of the world to accommodate low level accidental presence of GM organisms

The National Standard for Organic and Biodynamic Produce (National Standard) lists GMOs as "prohibited inputs". This has led some Australian certifiers to interpret this to mean zero tolerance for the unintended presence of approved GMOs in organic and biodynamic production systems. However, the National Standard does not explicitly state a zero tolerance to GMOs.

This flawed interpretation is scientifically and technically unenforceable. The current sensitivity of DNA detection methods cannot go as low as 0.00 percent. Moreover, it is impossible to prove with absolute statistical confidence that a product contains 0.0 percent GM without destroying the product in its entirety.

Australian organic producers are being forced to certify their produce using an entirely product-based system that has no threshold for adventitious presence. Thresholds recognise that there could be some accidental mixing of GM commodities and non-GM commodities due to the reality of agricultural supply chains and global trade.

The perceived zero tolerance for the unintended presence of approved GMOs erroneously applied by some certifiers in the Australian National Standards undermines the capacity for different, approved cropping systems to coexist within the same farming region in the Australian grains value chain. It limits the amount of available organic sowing seed in Australia and compromises the integrity of both the approved GM and conventional planting seed required by growers across Australia.

The current National Standard does not align with international standards and is inconsistent with other Australian Government policies regarding food labelling and thresholds. This is both a policy and regulatory matter that needs immediate action by the Government. The National Standard is also out of line with Australian Government policies regarding food labelling, which allow for a 1 per cent threshold for the accidental presence of an approved GM food ingredient. This threshold recognises that occasionally, accidental presence of a GMO will occur at very low levels and low-level thresholds prevent this occurrence from becoming either a trade irritant, or a dispute between neighbours. Thresholds also exist in virtually every Australian grain standard for the unintended presence of a range of things, including insect legs, cracked grain, weed seeds and other crops.

CropLife considers it critical for Australian agriculture and for the Australian agricultural biotechnology industry, that the National Standard is modernised to accommodate low level accidental presence of GMOs. The current situation undermines both organic and GM crop farmers, the credibility of Australian Government regulation and the coexistence framework of the Australian farming sector.

3 CONCLUSION

The *Inquiry into Growing Australian Agriculture to $100 billion by 2030* is a great opportunity to explore the key challenges and opportunities facing the Australian farming sector as it aims to enhance the contribution of Australian agriculture to economic growth, employment, national prosperity and environmental sustainability through increased innovation, productivity, investment and trade.

CropLife submits that the inclusion of crop protection and crop biotechnology products is essential to the development of any industry action plan that seeks to be productive, profitable, innovative and sustainable, and avoid unnecessary 'red-tape' or regulation that is not commensurate with risk.

Maintaining the economic, environmental and social sustainability of agricultural production systems will not be achieved by limiting the options for farmers to manage their businesses. Each individual farm faces specific challenges in terms of climate, soil type, farming system, demography and economy. These circumstances all have an impact upon the choices available to farmers to manage their farms.

Over the next 100 years, growing enough food for people to eat will challenge all countries. Australia, as one of the few large food exporting countries, has an unprecedented opportunity to take the lead in innovating to produce safe, nutritious and affordable food for domestic and export markets.

As farmers face increasingly extreme and unpredictable climatic conditions, stressed natural resources and shrinking available arable land, Australian farmers need access to the same safe, effective tools and technologies as their international competitors to meet food security challenges and maintain or increase yields into the future.

Agricultural chemicals and genetically modified crops are currently major contributors to the sustainability and productivity of Australia's food production systems. The benefits they generate for farmers, other users, consumers and the environment far outweigh any manageable or imagined risks associated with their adoption or use. These tools are currently assisting to produce nutritious, healthy, affordable and disease-free food for Australian and overseas consumers.

CropLife and its members are committed to supporting all farming systems in Australia by providing farmers with the innovation, technologies, tools and products they need to ensure sustainable and profitable farming practices. Providing for access to reliable, safe, effective and efficient new technology crops and crop protection products will build both sustainability and resilience into all Australia's agricultural systems.