
Senate Standing Committee on Rural and Regional Affairs and Transport

Australia's biosecurity measures and response preparedness



1. INTRODUCTION

CropLife Australia is the national peak industry organisation representing the agricultural chemical and plant biotechnology (plant science) sector in Australia. CropLife represents the innovators, developers, manufacturers and formulators of crop protection (organic, synthetic and biologically based) and agricultural biotechnology products. CropLife's membership is made up of both large and small, patent holding and generic, and Australian and international companies and accordingly, CropLife advocates for policy positions that deliver whole of industry benefit. The plant science industry provides products to protect both crops and Australia's vast, biodiverse natural spaces, such as national and state parks, against invasive and damaging weeds, insects, and diseases that pose a serious threat to the nation's agricultural productivity, sustainability, food security and our beautiful natural environment and delicate biodiversity.

CropLife welcomes the opportunity to provide comments to the Senate Standing Committee on Rural and Regional Affairs and Transport regarding the adequacy of Australia's biosecurity measures and response preparedness, in particular with respect to foot-and-mouth disease (FMD) and Varroa mite. While management of neither FMD nor the *Varroa destructor* mite are part of CropLife's purview, it is within CropLife's interest that broader biosecurity measures protect the economy, the environment and the community against threats to biodiversity from introduced, invasive insects, weeds and diseases.

2. THE PLANT SCIENCE INDUSTRY PROVIDES SOLUTIONS TO INCURSIONS BY INVASIVE WEEDS, DISEASES AND INSECTS

The products of the plant science industry play a prominent role in protecting Australia's rich biodiversity, both during containment and eradication of invasive species incursions, but also in managing and mitigating established invasive species. CropLife would request that consistency and specificity be used regarding the term "pest". Weeds, insects and diseases are all pests. Frequently, insect pests are referred to simply as "pests". This lack of specificity, when reference is made to "pests, weeds and diseases", fosters public misunderstanding of pesticides. Herbicides, fungicides and insecticides are all pesticides.

It is particularly alarming that, noted in the State of the Environment Report, Australia now has more foreign plant species than native species. This is not a new trend. In 2006, the then NSW Department of Environment and Conservation listed weeds and other pests as second only to habitat loss as a cause of biodiversity decline¹ and cautioned that weeds presented the greatest threat to our National Parks². A more recent study by researchers at the CSIRO and Flinders University demonstrated that invasive plants are the costliest pests in Australia, costing \$200 billion since 1960.³ In 2021, the Invasive Species Council's report 'Glyphosate: A Chemical to Understand' highlighted that herbicides offer the only truly effective option for removing invasive weeds from Australia's bushland reserves and that, without them, most of the remaining indigenous vegetation in Australia would decline in both quantity and quality⁴.

A Deloitte Access Economics report released in 2018, 'Economic activity attributable to crop protection products', estimates that up to \$20.6 billion of total Australian agricultural output (or 73 per cent of the total value of crop production) is attributable to the use of crop protection products. In Australia, 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 targeted pests, diminishing the efficacy of remaining chemical options. The economic impact of weeds alone is estimated to be over \$4.8 billion each year, or \$13 million per day.

¹ <https://researchprofiles.canberra.edu.au/en/publications/the-impact-of-weeds-on-threatened-biodiversity-in-new-south-wales>

² <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Parks-reserves-and-protected-areas/state-of-the-parks-2004-050051.pdf>

³ Corey J A Bradshaw and others, 'Detailed Assessment of the Reported Economic Costs of Invasive Species in Australia', *NeoBiota*, 67 (29AD), 511–50 <<https://doi.org/10.3897/neobiota.67.58834>>.

⁴ <https://invasives.org.au/wp-content/uploads/2020/11/Glyphosate-A-Chemical-to-Understand.pdf>

The current regulatory system for agricultural chemicals in Australia is scientifically competent, technically proficient and globally recognised. CropLife maintains that regulation of the registration and use of crop protection products in Australia must be efficient and effective so that environmental land managers, farmers, state departments and municipalities across Australia have access to the innovative tools and products the plant science industry provides that are the foundation of combating, managing, mitigating and eradicating many biosecurity threats. Each of these products is rigorously assessed by the Australian Pesticides and Veterinary Medicines Authority (APVMA) to ensure they are safe to use and present no unacceptable risk to applicators, consumers, the community as a whole, the environment or Australia's domestic and international trade of agricultural produce.



3. BIOSECURITY MEASURES AND RESPONSE PREPAREDNESS

The plant science industry's crop protection products include organic and synthetic chemical and biologically based fungicides, herbicides and insecticides that are also critical products for defending against and combating biosecurity threats (as well as underpinning Australian farming productivity and sustainability). Further to the biosecurity threats already being combated, invasive exotic weeds, insects and diseases not currently established in Australia would cause significant damage to Australia's beautiful, unique and fragile environment in addition to the nation's farming sector if they become established. Vigilant monitoring for the arrival and introduction of these species, as well as education of both state agencies, industry and the community, is required to inform stakeholders of the threats they pose, and the responses required to mitigate or eradicate them.

In 1995, it took the assessment of 52,500 compounds to develop one effective new pesticide chemical active constituent. It now requires the assessment of more than 160,000 compounds and expenditure of more than \$400 million (\$286m USD) over an 11-year period to bring just one successful pesticide to the market.⁵ More than one-third of this cost directly relates to compliance with regulation and registration requirements. Without access to these tools, farmers could lose as much as 50 per cent of their annual production to insect pests, weeds and diseases, and environmental land managers would have no ability to prevent, eradicate and manage threats to the natural environment. Ongoing research and development to identify new pesticides and ensure that these new innovations will be accessible to Australia are imperative for maintaining Australia's biosecurity future. Regulation of the use of pesticides must be efficient and effective so that stakeholders have access to the innovative tools the plant science industry provides to mitigate invasive alien species – be they plant, insect or pathogen. Above all, this requires an efficient, adaptive and science-based regulatory environment to encourage both continued innovation in next-generation tools, but also support for existing, proven, effective and safe solutions to be integrated with novel technologies, which is then economical for Australian taxpayers. Exorbitant costs involved in deploying control measures for biosecurity incursions must not be the inhibitor for developing an efficacious and sustainable containment and eradication system.

⁵ <https://www.agriculture.gov.au/sites/default/files/documents/agvet-chemicals-market-drivers-barriers.pdf>

The current consultation for the NSW Biosecurity and Food Safety Strategy illustrated that insect and disease introductions into Australia have quadrupled in the last five years, forming an increasing upward trend. This underpins the need for effective partnerships across government, industry, research bodies, the private sector and non-government organisations. The plant science industry, represented by CropLife, is critical to meeting these challenges of the future and addressing emerging biosecurity and food safety threats. This includes developing disease and pest resistant crops, as well as new and novel pesticides, including biological control agents. Furthermore, the plant science industry also invests in improving the stewardship of existing products through understanding of antimicrobial and pesticide resistance and zoonotic pathways, as well as the development of resistance management strategies. These partnerships of industry technical experts in Australia and globally, as well as state department and university scientists, demonstrate the value of these partnerships, both ongoing and as a pillar of Australia's response to future biosecurity incursions.

Modern and data-based resistance management strategies that deal with the changing status of pests are crucial to ensuring the longevity and viability of pesticides used to mitigate threats to biosecurity. Hence, CropLife's Resistance Management Strategies are reviewed and updated on an annual basis by expert scientific technical review committees, in consultation with relevant national and international experts. Climate change will be one of the biggest challenges to agricultural pest management and production over the coming decades, as changing temperatures and weather patterns are introducing changes in crop pests. Introduced and established weeds, pest insects and diseases will continue to be major threats to the productivity and sustainability of Australia's biodiversity, environment, farming sector and human food security. Many pests that are detected upon arrival may bring with them existing or novel resistance mechanisms. Resistance management must be flexible and timely to anticipate and mitigate this risk.

4. DEDICATION TO STEWARDSHIP

CropLife members recognise they have an ongoing responsibility to ensure the safe and sustainable use of their products. For this reason, CropLife and our members support and adhere to the *International Code of Conduct on Pesticide Management* of the Food and Agriculture Organization and the World Health Organization of the United Nations. This Code specifies obligations about the stewardship of agricultural chemicals throughout their lifecycle, from innovation, discovery and development, through to ultimate disposal of waste. In addition, CropLife members are required to adhere to our mandatory code of conduct and a suite of world-leading industry stewardship initiatives and programs, StewardshipFirst, to ensure the responsible use of their products.

The StewardshipFirst suite also include a Pollinator Protection Initiative (PPI), which recognises the importance of pollinators for Australian agriculture and the environment. The PPI is comprised of two components. The first component is the Seed Treatment Stewardship Strategy, which provides best practice guidance to ensure that modern, innovative crop protection products are used responsibly and in a manner that minimise risk to pollinators. The second component of the PPI is BeeConnected, a world-first, user-driven smart-phone app and website that facilitates and encourages collaboration between the cropping and beekeeping industries. BeeConnected was launched in Australia in September 2014 and has since been launched internationally.

In addition to CropLife's Resistance Management Strategies and PPI, StewardshipFirst also includes stewardship programs delivered through Agsafe, CropLife Australia's internationally recognised and awarded not-for-profit stewardship organisation. CropLife's flagship environmental stewardship programs **drumMUSTER**[®] and ChemClear[®] are managed and operated by Agsafe. These stewardship programs are fully funded by industry. Since **drumMUSTER**[®] started operations in 1999, more than 40,000 tonnes (almost 40 million containers) of plant science industry product container plastics have been diverted from landfill sites into recycling programs. There are over 800 collection sites throughout Australia for farmers, environmental land managers and other pesticide users to return their drums.

The ChemClear[®] initiative further demonstrates the plant science industry's rigorous commitment to product stewardship. ChemClear[®] supports the removal of obsolete chemicals off farms and out of regional Australia, allowing farmers to safely dispose of these unwanted products. This is particularly pertinent during events such as floods and bushfires. ChemClear[®] has a successful history in partnering with state governments to conduct collections to safely capture, remove and dispose of unwanted or unknown pesticides from properties or surrounding public lands following natural disasters. These partnerships have diverted thousands of litres of pesticides from landfill, waterways and inadequate storage, which has minimised the risk of pollution events.

5. CONCLUSION

Pesticides, whether they be organic, synthetic or biologically based, play a crucial role in Australia's biosecurity measures and response preparedness and will only become even more significant and important in coming years as further threats evolve. All relevant government agencies, industries and stakeholders will need to work collaboratively and efficiently driven by scientifically based policy and initiatives supported by efficient regulatory systems to safeguard Australia's biosecurity future. The plant science sector will continue to foster and enable environmental conservation and the protection of Australia's rich natural biodiversity through product innovation and development.

