CropLife Australia

December 2024

Inquiry into the extent, regulation, and management of PFAS

Senate Select Committee on PFAS

INTRODUCTION

CropLife Australia (CropLife) is the national peak industry organisation representing the agricultural chemical and plant biotechnology (plant science) sector in Australia. CropLife represents the innovators, developers, manufacturers, formulators and suppliers of crop protection products (organic, synthetic and biological based pesticides) and agricultural biotechnology innovations. CropLife's membership is made up of both large and small, patent holding and generic, Australian and international companies. Accordingly, CropLife advocates for policy positions that deliver whole of industry and national benefit. However, our focus is specifically on sustainable environmental land management and an Australian farming sector that is internationally competitive through globally leading productivity and sustainability practices. Both of which are achieved through access to world-class technological innovation and products of the plant science sector.

The plant science industry contributes to the nation's agricultural productivity, environmental sustainability and food security through innovation in plant breeding and pesticides that protect crops against pests, weeds and disease. More than $31 billion of the value of Australia's agricultural production is directly attributable to the responsible use of crop protection products, while the plant science industry itself directly employs thousands of people across country.[1] CropLife Australia is a member of CropLife Asia and part of the CropLife International Federation of 91 CropLife national associations globally.

CropLife welcomes the opportunity to comment on The Senate Select Committee's inquiry into the extent, regulation and management of PFAS.

What are PFAS?

CropLife recommends the Committee acknowledge **PFAS is not a single chemical**. A clear definition for the scope of this inquiry must be adopted, which delineates between "forever chemicals" and other fluorinated organic carbon compounds. The term "PFAS" as adopted by the Organisation for Economic Co-operation and Development (OECD) is broad, overly simplistic and non-specific; merely indicating that a group of compounds share the common feature of a fully fluorinated methyl or methylene carbon moiety (per- and polyfluoroalkyl substances). This categorisation does not convey whether a compound is bio-accumulative, persistent or harmful.

[1] Deloitte Access Economics, "Economic Contribution of Crop Protection Products in Australia," August 2023, https://www.croplife.org.au/resources/reports/economic-contribution-of-crop-protection-products-in-australia/.

PFAS are a vast and complex group of synthetic chemicals that have been utilised in consumer products worldwide since the 1950s. Given that PFAS represent a diverse chemical class with varying molecular structures and physical, chemical and biological properties, it is crucial that this diversity is recognised and communicated to prevent fear mongering and misinformation.[2] This complexity is underscored by a 2024 project led by the International Union of Pure and Applied Chemistry, which aims to provide a rigorous definition for PFAS, advancing chemical nomenclature and terminology.[3]

When discussing PFAS, it is crucial to first define specifically which compounds are being referred to and what characteristics are of interest. In one example, the United States Environmental Protection Agency's development of a PFAS strategic roadmap has set functional criteria for PFAS delineation – it considers the likelihood of the compound to present risks to health or the environment:[4]

> "*The final definition does not include substances that only have a single fluorinated carbon, or unsaturated fluorinated moieties. The latter set of substances…, are less likely to persist in the environment. EPA has determined that, for the purpose of this rule, it is unnecessary to extend reporting requirements to substances that only have a single fluorinated carbon or unsaturated fluorinated moieties and are therefore less likely to persist in the environment, unlike substances like PFOA, PFOS and GenX.*"

Given the complexity and diversity of PFAS compounds, categorising them based on overly simplistic chemical structure criteria is unhelpful, often inconsistent and uninformative, especially for non-experts. With different users applying distinct criteria to define PFAS based on their specific needs, a one-size-fits-all approach is impractical.[5] **It is essential that the Committee recognises that PFAS compounds are not identical and that they should neither be regarded nor regulated under a single, undifferentiated approach.**

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2 OECD, *Reconciling Terminology of the Universe of Per- and Polyfluoroalkyl Substances: Recommendations and Practical Guidance* (Paris: Organisation for Economic Co-operation and Development, 2021), https://www.oecd-ilibrary.org/environment/reconciling-terminology-of-the-universe-of-per-and-polyfluoroalkyl-substances_e458e796-en.

3 "Terminology and Classification of Per- and Poly-Fluoroalkyl Substances (PFAS)," IUPAC | International Union of Pure and Applied Chemistry, accessed November 14, 2024, https://iupac.org/project/.

4 United States Environmental Protection Agency, "Toxic Substances Control Act Reporting and Recordkeeping Requirements for Perfluoroalkyl and Polyfluoroalkyl Substances," September 28, 2023, https://www.epa.gov/system/files/documents/2023-09/prepublicationcopy_7902-02_fr-doc_aa_esignatureverified_2023-09-28.pdf.

5 OECD, *Reconciling Terminology of the Universe of Per- and Polyfluoroalkyl Substances*.

PFAS regulation in Australia

The regulation of PFAS is managed through a coordinated approach involving multiple regulatory agencies. The focus is on controlling specific PFAS compounds known to pose environmental and health risks based on the scientific evidence available regarding their risks and prevalence. PFAS regulated in Australia include:

- perfluorooctane sulfonic acid (PFOS);
- perfluorooctanoic acid (PFOA); and
- perfluorohexane sulfonic acid (PFHxS).

Australia's regulation of PFOS, PFOA and PFHxS aligns with the Stockholm Convention on Persistent Organic Pollutants.[6]

The vast diversity within the PFAS class means that each compound may have distinct properties regarding toxicity, bioaccumulation and persistence. Existing regulatory mechanisms for pesticides and medicines have appropriate safeguards to review the risk profiles of individual PFAS. Therefore, a blanket regulatory approach to all PFAS would be scientifically unsound and would ignore the societal benefits provided by those PFAS that are approved and verified as safe.

PFAS in Australian agriculture

At its public hearing on Wednesday, 13 November 2024 in Canberra, the Committee was misinformed about the presence of "forever chemicals" in pesticide active ingredients and co-formulation products. While pesticide formulations may include fluorinated compounds as active ingredient or co-formulant, they do not meet the persistent, bio-accumulative or toxicity criteria to be called a "forever chemical". Further, pesticide active ingredients and co-formulants undergo thorough, rigorous risk assessment by the Australian Pesticides and Veterinary Medicines Authority (APVMA).

The APVMA conducts thorough scientific hazard and risk assessments for every pesticide product to ensure that it is safe for humans, animals and the environment when used according to label instructions. This process includes a detailed evaluation of potential risks associated with each ingredient in a pesticide product, ensuring comprehensive protection. The APVMA's legislative mandate ensures agricultural practices in Australia are carried out responsibly, supporting both environmental stewardship and the safety of agricultural workers and the broader community.

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[6] "Listing of POPs in the Stockholm Convention," accessed November 19, 2024, https://www.pops.int/TheConvention/ThePOPs/AllPOPs/tabid/2509/Default.aspx.