Australian Government

Australian Pesticides and Veterinary Medicines Authority

APVMA Gazette Tuesday 16 June 2026 - Proposed variation to Schedule 20 in the Australia New Zealand Food Standards Code

Submissions received

August 2026

Submission on the Proposed Amendment to Schedule 20 (Amendment number: Variation Instrument No. APVMA 2, 2026; Proposal M1023)

This submission addresses **public health and safety** concerns arising from the proposed change to Schedule 20 that would permit higher residues of **Isocycloseram** on berries. The proposal as publicly noted would allow a **500 fold increase** in the MRL for blueberries/berries compared with the current detectable limit, a change that demands rigorous, precautionary justification before any approval.

Key risks (summary table)

Attribute	Risk if MRL increased	Regulatory context
Human health	Increased dietary exposure; links to cholesterol, kidney, immune, liver, reproductive and thyroid effects; suspected carcinogenicity.	PFAS concerns are driving bans/phaseouts in EU/Canada.
Environmental persistence	**Isocycloseram is a PFAS "forever" chemical**; resists breakdown and bioaccumulates.	PFAS persistence means long-term contamination of waterways and wetlands.
Secondary breakdown product	Breaks down to **trifluoroacetic acid (TFA)** which accumulates in rain, soil and water and is considered highly toxic.	ECHA and other regulators have raised concerns about TFA.
Exposure to children	Berries are widely consumed by children, increasing lifetime exposure during vulnerable developmental windows.	Proposal targets berries specifically; children are a high-risk group.

Evidence and rationale

- **Precautionary principle required:** PFAS chemicals are persistent, bio-accumulative and associated with multiple adverse health outcomes; increasing MRLs by orders of magnitude without long term epidemiological data is inconsistent with precautionary public health practice.
- **Environmental contamination already documented as a community concern:** Local spraying on the mid north coast has been reported to pollute sensitive waterways and marine parks; expanding use risks irreversible contamination of drinking water and ecosystems.
- **Generational impacts:** Because PFAS persist and can affect in utero and early childhood development, any policy that increases population exposure will likely have **multi-decadal** public health consequences.
- **Regulatory precedent:** The EU and Canada are moving to restrict or phase out PFAS; Australia should align with these jurisdictions rather than relax limits.

Requested actions

1. **Withdraw the proposed MRL increase** for Isocycloseram on berries (Variation Instrument No. APVMA 2, 2026 / Proposal M1023) until independent, peer reviewed long term toxicology and environmental fate studies are completed.
2. **Adopt a PFAS phase out policy** for agricultural pesticides, consistent with EU/Canadian approaches.
3. **Require monitoring and public reporting** of PFAS residues in berries, soils, surface water and drinking water in affected regions before any change to Schedule 20 is made.

[redacted]

Moonee Valley Sustainability

13th July 2026

Dear Australian Pesticides and Veterinary Medicines Authority,

Isocycloseram should not be approved for use in Australia

This submission is made on behalf of Moonee Valley Sustainability (MVS) to assist the APVMA in considering the proposal to vary Schedule 20 – Maximum residue limits in the Australia New Zealand Food Standards Code gazetted on 16th June 2026. The aim of our submission is to put forward our objection to approving Isocycloseram (which is a highly persistent insecticide that the European Union classifies as a PFAS, or 'forever chemical') for use on berries.

About Moonee Valley Sustainability

We are a volunteer run community organisation with a vision for a *climate-safe and pollution-free Moonee Valley for all*, because we know that a healthy community depends on a healthy climate.

Our approach is to act, educate, advocate and collaborate in the most effective ways to *inspire our community to care for Country and act on climate* to help achieve our vision. In this submission, we are responding from a healthy environment perspective with a particular focus on land and waterway health as well as food safety.

Reasons for MVS Objection

Although isocycloseram has been approved by the US Environmental Protection Agency (EPA), that decision should not be taken as evidence that the chemical is without risk. The EPA's assessment has been the subject of legal challenge by environmental and public interest organisations, which argue that the agency failed to adequately consider the pesticide's impacts on endangered species and the environment (The Guardian, 25 Jan 2026).

Regulatory approaches also differ internationally. In contrast, the European Union has not approved isocycloseram because it falls within the PFAS classification and raises significant concerns regarding environmental persistence and long-term contamination. These differing regulatory outcomes demonstrate that there is substantial scientific uncertainty surrounding the safety of isocycloseram and reinforce the need for the APVMA to apply a precautionary approach.

Isocycloseram should not be approved for use in Australia. Firstly, it "is likely to have a significant impact on beneficial arthropods in field conditions (Syngenta)". It is also classified as toxic to fish and very highly toxic to aquatic invertebrates (Syngenta safety data sheet) requiring strict management, so it does not enter waterways.

Secondly, isocycloseram, a PFAS, breaks down into further PFAS or forever chemicals such as trifluoracetic acid (TFA). These products accumulate in the soil and water over time and bioaccumulate up the food chain. The impacts of PFAS on animals and people is well known (endocrine disruption, neurological effects, weakened immune system, cancer). In June 2026, the European Chemicals Agency's scientific committee concluded that TFA should be classified as toxic to reproduction (Category 1B), meaning it 'may damage the unborn child' and is 'suspected of damaging fertility.'

As with all approved chemicals, it is left to community and scientists to provide irrefutable evidence of their danger once the first signs of harms are seen. The onus should be on Syngenta and the government to prove that the pesticide is safe. Not on community and scientists to prove it is unsafe, which can take decades to gather enough evidence. This has been shown with neonicotinoids. It took ~~roughly~~ 20 to 25 years from the commercial launch of neonicotinoids for the global scientific community and beekeepers to build an undeniable case that these chemicals were harming non-target insects. Short term testing failed to measure long-term environmental effects or impacts of sub-lethal doses on insect behaviour and immunity. Red flags were already showing 4 to 5 years after commercialisation of neonicotinoids but the pesticide companies pushed back for another 20 years until bans across Europe came into force. Isocycloseram has undergone more rigorous, long-term testing and been found to have impacts on non-target insects and aquatic life. To control for this, rules around using the product are stipulated. Farmers can only spray at certain times within a buffer zone. They must not allow isocycloseram to enter waterways. Relying on farmers to self-regulate is extremely risky. There are known practices of farmers spraying in windy weather, not wearing suitable PPE and not diluting the chemical appropriately.

The case for isocycloseram's safety is not yet proven. There is enough evidence to show it is detrimental to humans, insects and aquatic species. It is yet another toxic chemical on our food. If we eat a range of fruit, veg and grains, as recommended by doctors, we are exposed to a cocktail of several different insecticides, fungicides, herbicides and plant growth regulators.

Moonee Valley Sustainability respectfully urges the APVMA to reject the proposed maximum residue limits for isocycloseram and not approve its use on food crops in Australia. The APVMA has a responsibility to ensure that agricultural chemicals do not pose an unacceptable risk to

human health, the environment or Australia's food systems. Where there is credible evidence of persistence, toxicity and the potential for irreversible harm—as is the case with this PFAS pesticide—the precautionary principle should guide decision-making.

Australia could avoid repeating the costly mistakes made with other persistent pesticides by preventing the introduction of another long-lived environmental contaminant into our soils, waterways and food supply. We urge the APVMA to place the long-term protection of public health, biodiversity and future generations ahead of the short-term benefits of introducing this chemical.

Yours truly,

Jan Allison and Angela Clarke

On behalf of Moonee Valley Sustainability

Healthy Environment Collective

Moonee Valley Sustainability

For a climate safe and pollution free Moonee Valley for all

PESTICIDE ACTION AUSTRALIA

13 July 2026

Submission to the Australian Pesticides and Veterinary Medicines Authority - proposed amendment to Schedule 20 - maximum residue limits for isocycloseram on berries as per APVMA Gazette No. 12, 16 June 2026

Subject: PFAS pesticide use on Australian berries

Pesticide Action Australia (PAA) is a charity promoting the health and environment of Australians by addressing the harm being caused by hazardous pesticides, and supporting Australia's transition to nature-positive alternatives.

Pesticide Action Australia is deeply concerned by the proposal to sharply increase the maximum amount of isocycloseram allowed to be used on Australian berries.

Isocycloseram is a '**forever chemical'** insecticide that falls into the class of highly persistent PFAS, or per- or polyfluoroalkyl substances. Isocycloseram breaks down into a smaller forever chemical called TFA (trifluoroacetic acid).

In June 2026, the European Chemicals Agency (ECHA) officially classified TFA as toxic to reproduction (Category 1B), concluding it **"may damage the unborn child"** and is **"suspected of damaging fertility"**. TFA is one of the most widespread and persistent PFAS in the environment, accumulating in rain, soil, drinking water and food and is very hard to remove once present.

Isocycloseram (sold by Syngenta as PLINAZOLIN® technology) is a relatively new insecticide. The Australian Government was one of the first governments in the world to permit the use of this PFAS pesticide, despite finding significant health and environmental risks. It is a chemical that has not been approved for use in the EU or UK.

Pesticide regulators have found that isocycloseram reduced testicle size, lowered sperm counts and harmed the liver in animal studies sponsored by the pesticide's manufacturer. The APVMA also found that the pesticide induced skeletal malformations in fetal rats. There is also evidence that isocycloseram poses a cancer risk. It is highly toxic to bees.

3. Real world consumption and harm

Pesticide Action Australia is deeply concerned by the increased use of a PFAS forever chemical on Australian berries. Blueberries, strawberries and raspberries are among the most popular fruits given to toddlers and young children, who eat more food relative to their body weight than adults. Berries are also marketed as a health food. People eat more berries precisely because they are told berries are good for them; higher consumption means higher exposure to any residue allowed on them.

For a persistent, PFAS-class chemical, these factors compound. A 70- to 500-fold increase in the permitted residue is therefore most harmful on the a food most consumed by children.

PAA is calling for:

1) The Albanese Labor Government to ban this dangerous chemical for the reasons set out above, and to prioritise Australia's public health and our environment ahead of industry interests.
2) Identify and explain how the breakdown product TFA was considered - not just the parent chemical - given its recognised persistence in water and food and intergenerational harms.
3) Apply the precautionary principle, given Australia's current, costly experience with other persistent fluorinated chemicals.
4) Financially support farmers transition away from harmful chemical dependency towards nature-friendly farming practices.

To: Australian Pesticides and Veterinary Medicines Authority

Submission on the proposed amendment to Schedule 20: [8] Section S20—3 (table entry for Agvet chemical: Isocycloseram), published on 16 June 2026

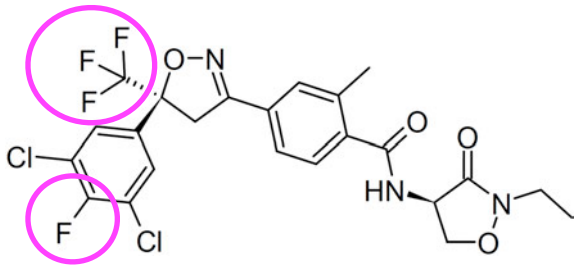
I note that APVMA is proposing to increase the maximum residue limit (MRL) for bush berries by a factor of 300, cane berries by a factor of 500, and low growing berries by a factor of 700 (APVMA 2026).

Although APVMA has said that it is satisfied that the proposed limits are not harmful to public health, it would have been helpful were the APVMA to provide a detailed rationale as to why it proposed changing the maximum residue limits.

I **object to the proposed amendment** with respect to the increased MRLs of isocycloseram for berries.

1. Isocycloseram

Isocycloseram with the long chemical name, (4-[(5S)-5-(3,5-dichloro-4-fluorophenyl)-5-(trifluoromethyl)-4H-1,2-oxazol-3-yl]-N-[(4R)-2-ethyl-3-oxo-1,2-oxazolidin-4-yl]-2-methylbenzamide), importantly contains one **CF_3 group** and a **separate C—F bond**.



(Image adapted from Meodipt, 25 November 2025, Public Domain)

Carbon-fluoride (C—F) bonds are very strong and exceedingly difficult to break, and chemicals containing such bonds tend to last a long time — they are **persistent**. Living things are slow to eliminate them from their systems and though they may metabolise them to some extent, breaking longer molecules into smaller molecules, the C—F bonds tend to remain intact. In soil and sediment, such chemicals are also stable. They can leach into waterways and contaminate groundwater and drinking water. Chemicals containing such bonds are very hard to destroy, even in high temperature incinerators, where again long molecules may be broken into shorter molecules but those shorter molecules containing C—F bonds can themselves be longlasting. Substances such as isocycloseram are not broken down into basic “innocent’ substances such as water (H_2O), carbon dioxide (CO_2) and fluorine (F_2).

By the definition of the OECD (2021), isocycloseram is a PFAS, in the per- and polyfluoroalkyl substance category. PFAS, commonly referred to as “forever chemicals”, are ones we should rightly look into, as some have been found to have serious health effects in humans and in wildlife. Of importance is the matter of longevity of isocycloseram and its metabolites or breakdown products, and its health effects. In the words of one researcher, Nathan Donley, “it doesn’t matter whether you think these are PFAS or not. They are forever chemicals, and the fluorinated parts of these pesticides will be around for the birth of your grandchildren’s grandchildren” (Held 2024).

2. Isocycloseram and registration

Isocycloseram is of interest to the agricultural industry because it is an insecticide and miticide able to stay on leaf surfaces and remain effective longer so crops such as berries can be sprayed less often than would be needed with a nonfluorinated alternative.

Its introduction is part of a trend — nearly 70% of all pesticides introduced into the global market in the years between 2015 and 2020 were fluoroorganic compounds (Alexandrino et al. 2022; Wilcox 2022).

APVMA released an evaluation on isocycloseram in Simodis Plinazolin Technology Insecticide in October 2022 as part of the application by Syngenta Australia for registration of its product

(APVMA 2022). It was noted that the compound was metabolised slowly by insects and pests would assimilate doses beyond the toxic dose before symptoms set in.

With respect to toxicology data, it is noted that the APVMA did **not** carry out testing independently — the data came from the applicant. “A full package of **toxicological data** for isocycloseram was **submitted by the applicant**, which was sufficient to assess the toxicity of isocycloseram” (APVMA 2022, p. 10).

Listed below are a **tiny subset of worrisome findings** on isocycloseram and its breakdown products.

3. Effect on pollinators

Isocycloseram produces uncontrolled excitation that results in paralysis and death in a variety of insects including moths, thrips, aphids, leaf-cutting ants and mites. It is also highly toxic to **bees** (US EPA 2025a), which in Australia are already challenged by the varroa mite. and other pollinators. The Center for Biological Diversity (2025) reported on an EPA finding (in the 2025a report) that pollinators could be exposed to 1,500 times the lethal level of the pesticide just by collecting nectar and pollen near treated fields.

4. Effect on rats

Pregnant rats dosed with just 15 mg/kg/day isocycloseram produced two fetuses in two separate litters with bifid sternum (APVMA 2022, p. 12). It is noted that as a result APVMA called for an acute reference dose (ARfD) for women of child-bearing age on the basis of this study (APVMA 2022, p. 13).

The US EPA reported that “The testes, epididymides, and liver were the target organs of isocycloseram in oral toxicity studies in rats. Tubular degeneration of testes, and cellular debris and reduced sperm in the epididymides were observed in subchronic, chronic/carcinogenicity, and one-generation reproduction studies in rats. Additionally, hepatocyte vacuolation and/or inflammatory cell infiltrate were noted in the chronic/carcinogenicity and one-generation reproduction studies in rats” (2025c, p. 19). The Center for Biological Diversity argued that a child-safety buffer should be implemented to account for the fact that children are more sensitive to chemical pollutants than adults. “If that safety buffer were included, as it is with some other pesticides, young children would have been found to be at high risk of those effects from dietary exposure” (Center for Biological Diversity 2026).

5. Effect on mice

In an 80-week mouse carcinogenicity study, the EPA reported “various neoplastic and non-neoplastic causes of death” US EPA 2025b, p.88). The Center for Food Security has commented that the EPA’s rodent trials do not conform to the EPA’s own guidelines for testing (2026, p. 5).

6. Effect of dogs

Male dogs fed isocycloseram at 80 mg/kg/day experienced “slight body tremor and vomiting”, clear neurological symptoms (US EPA 2022b, p. 8).

7. Effect on fish

Isocycloseram has a high bioconcentration factor in fish, ranging from 823 to 982 L/kg-wet weight fish, so that “fish accumulate isocycloseram in their tissues to levels that are 823 to 982 times higher than its presence in the surrounding water” (Center for Food Safety 2026).

8. Isocycloseram in soil

‘Isocycloseram is moderately persistent in soils, with aerobic soil metabolism half-lives ranging from 56-293 days, and field dissipation half-lives of 4 to 382 days. This means that half an initial amount of isocycloseram present in soils persists for up to a year, depending on soil type, pH and other factors. Because isocycloseram is also slightly to hardly mobile in soil, levels could under certain circumstances build up over time. When isocycloseram does break down, it forms 24 major degradates (with “major” signifying that the degradate comprises 10% or more of the initial amount of parent compound). The degradates generally have considerably greater persistence than parent isocycloseram (Center for Food Safety 2026; US EPA 2025a, p. 42).

9. Effect of metabolites/degradates

Isocycloseram breaks down into a multitude of compounds (US EPA 2022, Appendix A) in the digestive systems of mammals and other animals, as well as in soil and water. Twenty-four of the thirty-six comprise more than 10% of the amount of the original parent compound in various tests conducted to assess breakdown in living organisms or in abiotic systems, and so are considered "major". Eleven of these pose human health concerns in drinking water (US EPA 2025b, p.30).

The Center for Food Safety (2026) commented that the EPA only collected toxicological data on one of these, SYN548569, and that the tests conducted were extremely limited genotoxicity assays, though the data suggested the metabolite could be carcinogenic. The paucity of testing on the other breakdown products begs the question as to what adverse effects might have been indicated had they been tested.

The EPA is apparently **assuming** that, because the metabolites have a structure similar to the parent isocycloseram, they have similar toxicity to the parent compound (US EPA 2025b, p.33). This type of assumption has been found to be **false** in the case of another metabolite found to be four times more toxic to honey bees than the parent (Center for Food Safety 2025).

Recommendations

Despite the short list of findings listed above, as well as many others described in the literature in the reference list below, both APVMA and US EPA have listed isocycloseram for use.

I have argued that this is **inappropriate**. A **precautionary approach** should be adopted and **thorough longterm testing** of isocycloseram and its metabolites in living things and degradates in soil, sediment and water be carried out **independent** of the applicant, industry bodies and other governments.

Isocycloseram is a PFAS and we should be warned by the results of numerous studies coming out as to the **adverse effects of other PFAS** on humans and wildlife.

I therefore appeal to you to seriously reconsider the current position of the APVMA and withdraw listing of isocycloseram for use in Australia, thus joining with the European Union in this regard, and certainly **not increase the allowed maximum residue limits** for the pesticide on **berries**.

Carole Stanford

[redacted]

[redacted]

References

Alexandrino, DAM, Almeida, CMR, Mucha, AP & Carvalho, MF 2022, 'Revisiting pesticide pollution: The case of fluorinated pesticides', *Environmental Pollution*, Vol. 292, Part A, 1 January, https://doi.org/10.1016/j.envpol.2021.118315, https://www.sciencedirect.com/science/article/abs/pii/S0269749121018972?via%3Dihub

Australian Pesticides and Veterinary Medicines Authority 2022, 'Public Release Summary on the evaluation of the active constituent isocycloseram in the product Simodis Plinazolin Technology Insecticide, APVMA product number 89460, October, https://www.apvma.gov.au/sites/default/files/publication/105636-220926_20_gazette_-_public_release_summary_on_the_evaluation_of_the_active_constituent_isocycloseram_in_the_product_simodis_plinazolin_technology_insecticide.pdf

Australian Pesticides and Veterinary Medicines Authority 2026, 'Commonwealth of Australia Gazette: Agricultural and veterinary chemicals', 16 June, No. APVMA 12, https://www.apvma.gov.au/sites/default/files/2026-06/Gazette%20No%2012%2C%20Tuesday%2016%20June%202026.pdf

Center for Biological Diversity 2026, 'PFAS pesticides: Frequently asked questions', 2 February, retrieved 14 July 2026, https://www.biologicaldiversity.org/campaigns/PFAS-pesticides/PFAS-pesticides-frequently-asked-questions.html#isocycloseram

Center for Food Safety 2025, 'Docket ID: EPA-HQ-OPP-2021-0641 New active ingredient Isocycloseram', 10 June, retrieved 14 July 2026, https://www.regulations.gov/comment/EPA-HQ-OPP-2021-0641-0304

Held, L 2024, 'Study finds "forever chemicals" are increasingly common in pesticides', 24 July, *Civil Eats*, retrieved 12 July 2026, https://civileats.com/2024/07/24/study-finds-forever-chemicals-are-increasingly-common-in-pesticides/

OECD 2021, ''Reconciling terminology of the universe of per- and polyfluoroalkyl substances: Recommendations and practical guidance', *OECD Series on Risk Management*, No. 61, 9 July, OECD Publishing, Paris, https://www.oecd.org/content/dam/oecd/en/publications/reports/2021/07/reconciling-terminology-of-the-universe-of-per-and-polyfluoroalkyl-substances_a7fbcba8/e458e796-en.pdf

United States Environmental Protection Agency (EPA) 2022a, 'Isocycloseram**.** Report of the Residues of Concern Knowledge base Subcommittee (ROCKS)', 2 August, https://www.regulations.gov/document/EPA-HQ-OPP-2021-0641-0011

United States Environmental Protection Agency (EPA) 2022b, 'Isocycloseram: Summary of Hazard and Science Policy Council (HASPOC) Meeting on October 27, 2022: Recommendations on the need for a subchronic inhalation toxicity study, an immunotoxicity study and a developmental neurotoxicity study, and adequacy of subchronic neurotoxicity, rat and rabbit developmental toxicity, and two-generation reproduction toxicity studies', 6 December, https://www.regulations.gov/document/EPA-HQ-OPP-2021-0641-0009

United States Environmental Protection Agency (EPA) 2025a, 'Ecological risk assessment and biological evaluation including effects determinations for federally listed endangered and threatened species and designated critical habitat for the Section 3 registration of the new active ingredient isocycloseram', 8 May, https://www.regulations.gov/document/EPA-HQ-OPP-2021-0641-0021

United States Environmental Protection Agency (EPA) 2025b, 'Isocycloseram. Human health risk assessment for the Section 3 Registration of the new active ingredient isocycloseram on treated seeds, agricultural field crops, indoor/outdoor residential areas, residential/commercial turf, greenhouse, commercial/industrial areas, industrial structures, and agricultural structures', 29 April, https://downloads.regulations.gov/EPA-HQ-OPP-2021-0641-0015/content.pdf

United States Environmental Protection Agency (EPA) 2025c, 'Memorandum supporting final decision to approve registration for the new active ingredient of isocycloseram', 20 November, https://www.regulations.gov/document/EPA-HQ-OPP-2021-0641-0309

Wilcox, M 2022, 'Pesticides are spreading toxic 'forever chemicals', scientists warn', 15 June, *Scientific American*, retrieved 12 July 2026, https://www.scientificamerican.com/article/pesticides-are-spreading-toxic-lsquo-forever-chemicals-rsquo-scientists-warn/

SUBMISSION ON THE PROPOSED AMENDMENT SCHEDULE 20.

When I first heard about the approval of a banned PFAS pesticide, Isocycloseram in Australia on the news I thought this is complete madness.

It is the duty of all Humans to protect other Humans and their environment the planet Earth from harm.

This PFAS Chemical Isocycloseram has been banned in the European Union and Canada. Is that not enough for Australian authorities to ban it too ?

Isocycloseram breaks down into Trifluroacetic Acid(TFA). TFA is highly toxic to humans and the greatest danger is in-vitro, pregnancy and early childhood.

A Lady I know with three boys , prides herself on making sure her young children have a healthy diet. Each day they eat a punnet of berries after school and childcare. What will the future be for these children if Isocycloseram is used on the berries they eat.

Fresh fruit and vegetables need to be safe for all of us to eat. How can the person going to buy fruit and vegetables in the supermarkets for their family determine what is safe for them to eat with the use of these forever chemicals. The safety of our Children must be the Australian Governments and their Officers top priority.

What about the health of our Farmers and their Families. Are they made aware of the danger of using such toxic forever chemicals to them, their Families and their Farm? Such as reduced kidney function, suspect link to cancer, thyroid issues, reproductive health issues and the unknown. Aren't our Farmers and their Families already suffering very high cancer rates. Do the Pesticide companies treat Farmers and their Families just as collateral damage in making their profits.

A friend who was a Farmer blamed his cancer on the farm chemicals he used in the past. He tried to keep himself alive for as long as he could for his Family.

If Isocycloseram and Trifluroactic Acid cause such harm in humans what are going to be the effects on our Australian Fauna, Flora and Sealife ?

Has this Committee taken advice from the CSIRO or other Farming Experts in New Agriculture, such as Charles Massy ? Or from Natural Farmers and /or Organic Farmers , on safe methods of growing berries and vegetables ?

With out clean water and non- contaminated foods civilisations die. We cannot allow this PFAS Pesticide Isocycloseram to destroy our civilisation. BAN IT NOW !

Yours Sincerely.

Cita Murphy.

Submission on the proposed amendment to Schedule 20", 72856-220809

I strongly oppose the proposed increase in the Maximum Residue Limit (MRL) for the PFAS pesticide Isocycloseram on berries.

Australia should follow the lead of the European Union and Canada by moving towards the phase-out of PFAS chemicals rather than approving a significant increase in their permitted use.

On the Mid North Coast of New South Wales, pesticides used on blueberry and raspberry farms are already contributing to concerns about contamination of sensitive waterways, coastal wetlands and the Solitary Islands Marine Park. Increasing the permitted residues of another PFAS chemical risks adding to an already growing environmental burden.

Isocycloseram is a PFAS "forever chemical." Because of the strength of the carbon-fluorine bonds that define PFAS compounds, these chemicals can persist in the environment for extremely long periods. Scientific research indicates that PFAS can bind to proteins within the human body and may remain there for extended periods.

The proposal would increase the maximum residue limit for berries by up to 500 times the current limit, which is presently set at the lowest detectable level. Such a substantial increase raises serious concerns about potential impacts on human health and the environment, particularly given the persistence of PFAS chemicals.

Exposure to certain PFAS chemicals has been associated in scientific studies with elevated cholesterol, impaired immune response, reduced kidney and liver function, reproductive and developmental effects, thyroid hormone disruption and increased risks for some cancers. Given these concerns, the precautionary principle should be applied before permitting substantially higher levels of PFAS residues in food.

Isocycloseram also degrades into trifluoroacetic acid (TFA), an extremely persistent fluorinated compound that accumulates in rainwater, soil, drinking water and food. The persistence and increasing presence of TFA in the environment have become a growing concern for scientists and regulators internationally.

The European Chemicals Agency has identified significant concerns regarding TFA, including potential reproductive and developmental toxicity. These risks are particularly concerning for unborn children, infants and pregnant women.

The proposed amendment specifically affects berries, a food that is widely consumed by Australian families and especially by young children. Any increase in PFAS residues in these foods should be subject to the highest level of scientific scrutiny.

This issue is also deeply personal for me. I have now been diagnosed with oesophageal cancer while living in an area surrounded by intensive blueberry and raspberry farming. Although I am not claiming that my illness was caused by pesticide exposure, my

diagnosis has made me acutely aware of the importance of protecting communities from avoidable chemical risks. Living alongside intensive agricultural operations has heightened my concerns about the cumulative impacts of pesticide use on local residents, water quality and the environment.

The long-term consequences of widespread use of persistent PFAS chemicals may not become fully apparent for decades. Once these substances contaminate soils, waterways and food systems, they are extraordinarily difficult and costly to remove.

Since the usage of these types of Chemicals in the Mid North Coast on many of the Berry Farms, I have now been diagnosed with oesophageal cancer and am undergoing treatment while trying to manage the financial and emotional impact of this matter. I also live in an area surrounded by extensive blueberry and raspberry farms, and I have ongoing concerns about the environmental conditions in my local area and the effect they may have had on my health and wellbeing as well as the community that also has been greatly affected with a huge increase in Cancer in the area since these types of chemicals were being used here in the Nambucca Valley .

For these reasons, I respectfully urge the APVMA to reject the proposed increase in the Maximum Residue Limit for Isocycloseram on berries and instead adopt a precautionary approach that prioritises public health, environmental protection and the wellbeing of future generations.

Patricia Wilkins

14th July 2026

Submission on the proposed amendment to Schedule 20 - 3

To whom it may concern,

I'm writing to express my concern with your proposed variation to Schedule 20 in the Australia New Zealand Food Standards Code, being Schedule 20 - Maximum Residue Limits - Section S20—3 (table entry for Agvet chemical: isocycloseram).

Repeal:
Bush berries T*0.01
Cane berries T*0.01
Low growing berries T*0.01

Substitute:
Bush berries T3
Cane berries T5
Low growing berries T0.7

My concerns are 5-fold:

1. There is no explanation as to why this increase is needed, nor are we advised who requested it or who benefits from it. As your main purview is (or should be) the well-being of the citizens of Australia and New Zealand, an explanation for this increase should be provided.

2. There is an increasing amount of evidence being presented that isocycloseram, a new type of pesticide, is harmful to human health, and as such, any increase in its use should not be proposed as a single line on page 50 of a 52-page document. There should be a far more open consultation process on why this increase is required. Indeed, we should be trying to minimise our use of it until more is known about its potential health hazards.

3. We're advised to wash berries before we eat them to get rid of the huge number of pesticides that are used on them in this country, but the OECD, the European Chemicals Agency, and Australia's environment departments classify isocycloseram as a type of per- and polyfluoroalkyl substance (PFAS), a family of compounds dubbed "forever chemicals" because they don't break down in the environment, nor do they wash off. If we eat berries, we have no choice but to consume isocycloseram.

4. Your consideration for this increase comes at the same time as the federal government launches a class action against the manufacturer of another PFA for its devastating impact on the lives of Australians.

5. Isocycloseram is toxic to bees and other pollinators, which produce one out of every three bites of food we eat. With the entry of the varroa mite into Australia, we need to do everything possible to help our bees, not increase the use of products that harm them.

Thank you for considering my submission.

Kindest Regards,
Patricia Wilkins

Australian Pesticides and Veterinary Medicines Authority (APVMA)

To Whom It May Concern,

RE: submission on the proposed amendment to Schedule 20

I have many public health and safety concerns regarding the loosening of MRL regulations for Isocycloseram and the impact potential use in my local Coffs Coast area. These include:

- Our daily interaction with the beautiful outdoors is marred by the fears of PFAS chemicals. There are so many local waterways that I am not able to let my children play in or fishing from. It is sad to think about the long-term impacts and ongoing consequences for future generations, particularly if even more PFAS are entering waterways, rather than reducing the use in this area.
- The need for Australia must follow the lead of the European Union and Canada and commit to phasing out PFAS chemicals, not approving a massive increase in their use!
- Pesticides sprayed on berries and other crops on the mid north coast are already polluting sensitive waterways, coastal wetlands and even the Solitary Islands Marine Park.
- Isocycloseram is a PFAS forever chemical, when ingested the chemical attaches itself to proteins within the body and has an extremely long life in the body due to its make up of unbreakable carbon-fluorine bonds.
- An increase of the maximum residue limit for berries by 500 times the current limit (which is currently at the lowest detectable limit for berries) poses unknown risks to human and environmental health
- Exposure to PFAS has been associated with increased cholesterol, reduced kidney function, impaired immunity and liver function, reproductive health issues and impacted thyroid hormones, the chemicals are also suspected to be linked to cancer
- Isocycloseram breaks down into Trifluoroacetic Acid (TFA), which is the most potent of all PFAS chemicals and accumulates in rain, soil, drinking water and food
- **The European Chemicals Agency** has determined that TFA is highly toxic, with people most vulnerable to harm in utero, early childhood and during pregnancy
- The APVMA amendment focuses on berries, which are a widely consumed product, particularly amongst children
- Widespread spraying of Isocycloseram will have generational impacts, the entire scope of harm will not be realised until decades in the future

I am imploring those with the means to make further limits in the use of PFAS chemicals to please do so, for the health of our environment and children who are relying on us to make wise choices for their future well being.

Resident

[redacted]

WinZero Inc
P.O. Box 1193
Bowral NSW 2576

info@winzero.com.au
www.winzero.com.au

Submission on the Proposed Amendment to Schedule 20 – Isocycloseram Maximum Residue Limits

Submitted by: WinZero Inc.

Introduction

WinZero is a community environmental charity based in the Southern Highlands of New South Wales. Our work focuses on climate action, biodiversity conservation, healthy waterways and evidence-based public policy.

WinZero opposes the proposed amendment to increase the Maximum Residue Limit (MRL) for isocycloseram on berries.

While MRLs are not direct measures of safety, increasing an MRL by a factor of 500 for a PFAS pesticide raises important public health, environmental and policy questions that warrant careful consideration before any decision is made.

A precautionary approach is warranted

Isocycloseram is a fluorinated insecticide that meets the internationally recognised OECD definition of a per- and polyfluoroalkyl substance (PFAS).

Australia is simultaneously investing significant public resources in investigating and remediating PFAS contamination arising from historical industrial and firefighting uses. In this context, proposals that could increase the environmental loading of additional PFAS chemicals deserve particularly careful scrutiny.

The precautionary principle should apply where there is scientific uncertainty regarding persistent chemicals.

Environmental persistence

Unlike many conventional pesticides, PFAS chemicals are characterised by extremely strong carbon-fluorine bonds.

Scientific assessments indicate that isocycloseram is environmentally persistent, with studies demonstrating long degradation times in soil under some conditions.

Persistence is important because chemicals that remain in the environment over extended periods have greater opportunity to move into soils, waterways and ecosystems through repeated agricultural use.

Degradation products require greater consideration

Published scientific assessments indicate that isocycloseram can degrade to trifluoroacetic acid (TFA).

TFA is extremely persistent and highly mobile in water. It is increasingly being detected internationally in rainfall, rivers, groundwater and drinking water.

Because TFA is difficult to remove once released into the environment, greater consideration should be given to long-term environmental accumulation when assessing PFAS pesticides.

Protecting waterways and biodiversity

WinZero works extensively on protecting rivers, wetlands and wildlife habitat.

Many berry-growing regions occur within catchments that ultimately discharge to sensitive waterways.

Runoff from agricultural land has the potential to transport pesticides beyond the point of application. Where persistent PFAS chemicals are involved, the consequences may extend well beyond individual farms.

In the Southern Highlands, the Wingecarribee River at Berrima has been identified as a PFAS hotspot. A deceased platypus found in this area was reported to have PFOS (perfluorooctane sulfonate) in its liver, highlighting the potential for these substances to accumulate in wildlife and impact vulnerable species within local ecosystems.

Before substantially increasing allowable residues associated with a PFAS pesticide, Australia should ensure there is sufficient independent evidence regarding:

- environmental persistence;
- transport into waterways;
- impacts on aquatic ecosystems;
- impacts on soil health; and
- long-term accumulation.

Impacts on pollinators and beneficial insects

Scientific literature on modern insecticides, including compounds with similar modes of action to isocycloseram, indicates potential risks to non-target insects such as bees and other pollinators.

Pollinators play a critical role in berry production and broader ecosystem health. Exposure to insecticides can occur through residues on flowers, pollen and nectar, as well as through contaminated water sources.

Studies on related insecticide classes have identified potential sublethal effects on bees, including impacts on navigation, foraging behaviour, reproduction and colony health. While specific long-term field data for isocycloseram may be limited, these findings highlight the importance of carefully assessing risks to pollinators before increasing allowable residue levels.

Given the ecological and economic importance of pollinators, further independent evaluation of potential impacts on bees and other beneficial insects is warranted, particularly under conditions of repeated agricultural use.

Public confidence

Berries are widely consumed by Australian families, including young children.

Although an MRL is a legal trading standard rather than a direct indicator of toxicity, a proposed 500-fold increase in the residue limit is likely to reduce public confidence unless accompanied by clear scientific justification that is readily understood by consumers.

Greater transparency would assist public confidence by explaining:

- why such a substantial increase is proposed;
- what new scientific evidence supports the change;
- how cumulative PFAS exposure has been considered; and
- what monitoring will occur following implementation.

International context

International approaches to PFAS regulation continue to evolve.

The European Union has not approved isocycloseram for agricultural use and is actively considering broader restrictions on PFAS because of concerns regarding environmental persistence.

Australia should continue monitoring emerging international scientific evidence and regulatory developments to ensure its framework reflects best available knowledge.

Recommendations

WinZero recommends that the APVMA:

1. Suspend the proposed increase in the isocycloseram MRL until further independent assessment has been completed.

2. Commission an independent review of the environmental persistence and degradation products of PFAS pesticides registered in Australia.

3. Consider cumulative PFAS exposure from all sources, rather than assessing individual PFAS chemicals in isolation.

4. Increase transparency by publicly identifying registered pesticide active ingredients that meet accepted PFAS definitions.

5. Expand environmental monitoring of PFAS pesticides and their degradation products in agricultural soils, waterways and downstream ecosystems.

6. Include specific assessment of impacts on pollinators and beneficial insects in any future evaluation of isocycloseram and similar compounds.

7. Develop a long-term strategy to reduce Australia's reliance on persistent PFAS pesticides where safer alternatives are available.

Conclusion

Australia has learned difficult lessons from historical PFAS contamination.

Future policy should seek to prevent new long-term contamination rather than managing it after the fact.

WinZero respectfully urges the APVMA to adopt a precautionary approach and defer the proposed amendment until independent evidence demonstrates that increasing the MRL for a PFAS pesticide will not result in unacceptable long-term risks to human health or the environment, including impacts on pollinators and biodiversity.

Thank you for considering this submission.

Here are the key points against loosening MRL regulations for Isocycloseram:

- Australia must follow the lead of the European Union and Canada and commit to phasing out PFAS chemicals, not approving a massive increase in their use!
- Pesticides sprayed on berries and other crops on the mid north coast are already polluting sensitive waterways, coastal wetlands and even the Solitary Islands Marine Park.
- Isocycloseram is a PFAS forever chemical, when ingested the chemical attaches itself to proteins within the body and has **an extremely long life in the body** due to its **make up of unbreakable carbon-fluorine bonds.**
- An increase of the maximum residue limit for berries by 500 times the current limit (which is currently at the lowest detectable limit for berries) poses unknown risks to human and environmental health
- **Exposure to PFAS** has been associated with increased cholesterol, reduced kidney function, impaired immunity and liver function, reproductive health issues and impacted thyroid hormones, the chemicals are also suspected to be linked to cancer
- Isocycloseram breaks down into Trifluoroacetic Acid (TFA), which is the most potent of all PFAS chemicals and accumulates in rain, soil, drinking water and food
- **The European Chemicals Agency** has determined that TFA is highly toxic, with people most vulnerable to harm in utero, early childhood and during pregnancy
- The APVMA amendment focuses on berries, which are a widely consumed product, particularly amongst children
- Widespread spraying of Isocycloseram will have generational impacts, the entire scope of harm will not be realized until decades in the future

Send your submission to: **enquiries@apvma.gov.au**

Sincerely,
[redacted]

To whom it may concern
Australia was one of the first countries to begin using Isocycloseram. It is not approved in any EU countries, or the UK.

While communities across Australia are still seeking justice for PFOS, a PFAS 'forever chemical', contaminating their drinking water as a result of the historical use of firefighting foam, we cannot allow any more PFAS chemicals to be knowingly released into the environment - let alone sprayed on the food we eat!

The following are the key points as to why we should stop using this pesticide:-

1. Australia must follow the lead of the European Union and Canada and commit to phasing out PFAS chemicals, not approving a massive increase in their use!
2. Pesticides sprayed on berries and other crops on the mid north coast are already polluting sensitive waterways, coastal wetlands and even the Solitary Islands Marine Park.
3. Isocycloseram is a PFAS forever chemical, when ingested the chemical attaches itself to proteins within the body and has an extremely long life in the body due to its make up of unbreakable carbon-fluorine bonds.
4. An increase of the maximum residue limit for berries by 500 times the current limit (which is currently at the lowest detectable limit for berries) poses unknown risks to human and environmental health
5. Exposure to PFAS has been associated with increased cholesterol, reduced kidney function, impaired immunity and liver function, reproductive health issues and impacted thyroid hormones, the chemicals are also suspected to be linked to cancer
6. Isocycloseram breaks down into Trifluoroacetic Acid (TFA), which is the most potent of all PFAS chemicals and accumulates in rain, soil, drinking water and food
7. The European Chemicals Agency has determined that TFA is highly toxic, with people most vulnerable to harm in utero, early childhood and during pregnancy
8. The APVMA amendment focuses on berries, which are a widely consumed product, particularly amongst children
9. Widespread spraying of Isocycloseram will have generational impacts, the entire scope of harm will not be realised until decades in the future

--
Ingrid Ralph

To whom it may concern,

I am writing to strongly oppose the proposed amendment to Schedule 20 that would significantly increase the maximum residue limit (MRL) for the PFAS pesticide Isocycloseram on berries.

I am about to become the father of a baby daughter. Like every parent, I want to know that the food available to my child is as safe as possible. Decisions made today about chemical regulation will shape the world that my daughter and her generation inherit. Where there is credible uncertainty about long-lasting environmental contaminants, regulators should apply the precautionary principle rather than weaken existing protections.

PFAS chemicals are widely known as "forever chemicals" because they persist in the environment and can remain in the human body for long periods. Australia has already experienced the significant financial, environmental and human costs associated with PFAS contamination. Given that history, it is difficult to understand why Australia would consider allowing substantially greater residues of another PFAS chemical on food.

The proposed increase of the MRL for berries by 500 times is particularly concerning. Berries are commonly consumed by children and are often recommended as part of a healthy diet for young families. Before any increase of this magnitude is considered, there should be clear, independent evidence demonstrating that it poses no unacceptable risk to human health or the environment.

I am also concerned about the broader environmental impacts. PFAS chemicals are persistent and have the potential to accumulate in soils, waterways and ecosystems. Once contamination occurs, remediation is extremely difficult and expensive. The long-term costs are often borne by communities and taxpayers rather than those who profit from the chemicals' use.

Reports that Isocycloseram breaks down into trifluoroacetic acid (TFA), another highly persistent fluorinated compound, further reinforce the need for caution. The long-term consequences of increasing environmental levels of these substances are not yet fully understood, particularly for future generations.

Australia should be moving towards reducing reliance on persistent PFAS chemicals, not expanding their permitted use. Other jurisdictions have taken far more precautionary approaches to PFAS regulation, and Australia should carefully consider those international developments when making decisions that affect public health.

As someone about to welcome a daughter into the world, I ask the APVMA to consider not only the immediate agricultural benefits but also the legacy this decision will leave. Once persistent chemicals are released into the environment, they cannot simply be recalled. Future Australians will live with the consequences.

For these reasons, I respectfully request that the APVMA reject the proposed amendment to increase the maximum residue limit for Isocycloseram and instead prioritise policies that reduce exposure to persistent PFAS chemicals and better protect public health, Australia's environment, and future generations.

Thank you for considering my submission.

Yours sincerely

[redacted]

In June, the Australian Pesticides and Veterinary Medicines Authority (APVMA) quietly published a proposal to increase the limit of how much a highly toxic PFAS chemical can be applied to blueberries by 500 times! According to **the European Chemicals Agency, which has banned the chemical,** Isocycloseram is highly toxic, can cause issues during pregnancy and for young children, and has potential links to some cancers. Australia should never have approved its use in the first place.

- Australia must follow the lead of the European Union and Canada and commit to phasing out PFAS chemicals, not approving a massive increase in their use!
- Pesticides sprayed on berries and other crops on the mid north coast are already polluting sensitive waterways, coastal wetlands and even the Solitary Islands Marine Park.
- Isocycloseram is a PFAS forever chemical, when ingested the chemical attaches itself to proteins within the body and has **an extremely long life in the body** due to its **make up of unbreakable carbon-fluorine bonds.**
- An increase of the maximum residue limit for berries by 500 times the current limit (which is currently at the lowest detectable limit for berries) poses unknown risks to human and environmental health
- **Exposure to PFAS** has been associated with increased cholesterol, reduced kidney function, impaired immunity and liver function, reproductive health issues and impacted thyroid hormones, the chemicals are also suspected to be linked to cancer
- Isocycloseram breaks down into Trifluoroacetic Acid (TFA), which is the most potent of all PFAS chemicals and accumulates in rain, soil, drinking water and food
- **The European Chemicals Agency** has determined that TFA is highly toxic, with people most vulnerable to harm in utero, early childhood and during pregnancy
- The APVMA amendment focuses on berries, which are a widely consumed product, particularly amongst children
- Widespread spraying of Isocycloseram will have generational impacts, the entire scope of harm will not be realised until decades in the future.

While communities across Australia are still seeking justice for PFOS, a PFAS 'forever chemical', contaminating their drinking water as a result of the historical use of firefighting foam, we cannot allow any more PFAS chemicals to be knowingly released into the environment - let alone sprayed on the food we eat!

Finally, this is being proposed at the exact time that the Albanese Government is gearing up to take legal action against PFAS chemical giant 3M for the pollution legacy they've left us to clean up. What hypocrisy.

I object to increased PFA use in Agriculture, This is an extremely dangerous proposal.

The PFAS forever chemical, Isocycloseram, now being sprayed on berries, should be completely banned. When it is ingested by human beings, Isocycloseram attaches itself to proteins within the body where it remains for a very long period of time. Isocycloseram breaks down into Trifluoroacetic Acid (TFA), which is the most potent of all PFAS chemicals and accumulates in rain, soil, drinking water and food. The European Chemicals Agency has determined that TFA is highly toxic.

Irresponsibly allowing an increase to the maximum residue limit for berries by 500 times the current limit (which is now the lowest detectable limit for berries) poses unknown risks to human and environmental health. However we do know that exposure to PFAS has been associated with increased cholesterol, reduced kidney function, impaired immunity and liver function, reproductive health issues and impacted thyroid hormones. Moreover, these chemicals are also strongly suspected to be linked to cancer. Widespread, unrestricted spraying of Isocycloseram will doubtless have generational impacts, because berries are a widely consumed product, particularly amongst children. But it will also have shorter term health consequences will add to the strain on the already overburdened health system and will also impose preventable financial costs.

Australia should adopt the best practice European Union and Canada regulations and commit unreservedly to phasing out all PFAS chemicals. Yet while the NSW government take no action, pesticides sprayed on berries and other crops on the mid north coast are already being allowed to contaminate highly sensitive waterways, coastal wetlands and even the Solitary Islands Marine Park.

To the Australian Pesticides and Veterinary Medicines Authority,

I am writing to register my strong opposition to the proposed amendment to Schedule 20 that would increase the Maximum Residue Limit (MRL) for Isocycloseram on berries by up to 500 times the current limit. I urge the APVMA to reject this proposal in full.

1. Isocycloseram is a PFAS "forever chemical" with serious health risks

Isocycloseram belongs to the PFAS family of "forever chemicals," compounds built around extremely stable carbon-fluorine bonds that do not break down in the environment or the human body. Once ingested, PFAS compounds bind to proteins and persist in the body for extended periods. PFAS exposure has been associated with increased cholesterol, reduced kidney function, impaired immune and liver function, reproductive health issues, disrupted thyroid hormones, and a suspected link to certain cancers.

Isocycloseram also breaks down into trifluoroacetic acid (TFA), one of the most potent PFAS compounds, which accumulates in rainwater, soil, drinking water and food. The European Chemicals Agency has classified TFA as highly toxic to reproduction, with people most vulnerable to harm in utero, during pregnancy, and in early childhood. Isocycloseram is not approved for use in any EU country or in the UK.

2. The proposal targets a food widely consumed by children

Berries are a staple food, particularly for children and pregnant women — precisely the populations the ECA has identified as most vulnerable to TFA-related harm. Increasing the MRL 500-fold, from a level that currently sits at the lowest detectable limit, introduces unknown and unquantified risks to public health with no adequate margin of safety.

3. Environmental and cumulative harm

Waterways, coastal wetlands and marine environments — including the Solitary Islands Marine Park and other sensitive ecosystems along the mid north coast — are already affected by agricultural pesticide use. Approving significantly higher application rates of a persistent PFAS chemical risks compounding this contamination for generations, since the full scope of environmental and human harm from PFAS exposure will not be understood for decades.

4. Regulatory and policy inconsistency

Australia should be following the lead of the European Union and Canada, both of which are moving to restrict and phase out PFAS chemicals, not approving a massive increase in their use. This proposal is also strikingly inconsistent with the Australian Government's own actions: at the same time as the Albanese Government prepares legal action against 3M over the legacy contamination and clean-up costs of PFAS chemicals such as PFOS, the APVMA is proposing to authorise a large increase in the use of another PFAS substance on a food crop. Communities across Australia are still seeking justice and remediation for PFOS contamination of their drinking water. Approving further PFAS use in food production runs directly counter to the lessons of that experience.

Conclusion

For the reasons set out above, I oppose the proposed amendment to Schedule 20 increasing the MRL for Isocycloseram on berries, and I ask the APVMA to:

- Reject the proposed 500-fold increase in the MRL for Isocycloseram on berries;
- Commission an independent, precautionary assessment of Isocycloseram and its breakdown product TFA before any consideration of expanded use, taking into account the ECA's classification of TFA as highly hazardous to early-life development;
- Align Australia's regulatory approach with the European Union, the UK and Canada by moving to restrict and phase out PFAS pesticides rather than expanding their permitted use.

Thank you for considering this submission.

Yours sincerely,

[redacted]

Please do not allow more 'forever chemicals' into our ecosystems, environment and us. They have been proven to be devasting to both environments and human health.

Spraying particular crops has historically always led to leakage into the wider environment and their surrounding communities.

The points listed below are all important, and I would like them accepted as part of my submission

- Australia must follow the lead of the European Union and Canada and commit to phasing out PFAS chemicals, not approving a massive increase in their use!
- Pesticides sprayed on berries and other crops on the mid north coast are already polluting sensitive waterways, coastal wetlands and even the Solitary Islands Marine Park.
- Isocycloseram is a PFAS forever chemical, when ingested the chemical attaches itself to proteins within the body and has an extremely long life in the body due to its make up of unbreakable carbon-fluorine bonds.
- An increase of the maximum residue limit for berries by 500 times the current limit (which is currently at the lowest detectable limit for berries) poses unknown risks to human and environmental health
- Exposure to PFAS has been associated with increased cholesterol, reduced kidney function, impaired immunity and liver function, reproductive health issues and impacted thyroid hormones, the chemicals are also suspected to be linked to cancer
- Isocycloseram breaks down into Trifluoroacetic Acid (TFA), which is the most potent of all PFAS chemicals and accumulates in rain, soil, drinking water and food
- The European Chemicals Agency has determined that TFA is highly toxic, with people most vulnerable to harm in utero, early childhood and during pregnancy
- The APVMA amendment focuses on berries, which are a widely consumed product, particularly amongst children
- Widespread spraying of Isocycloseram will have generational impacts, the entire scope of harm will not be realised until decades in the future

Many Thanks,

Submission about Section 20 (8) amendment in the Australian New Zealand Food Standards Code.

I am writing about concern over the proposal to increase the limit for isocycloseram applied to blueberries by an astonishing amount.

I note that isocycloseram is not approved for use by European countries or by the United Kingdom. Isocycloseram is itself toxic and has a breakdown product trifluoroacetic acid which is a potent PFAS chemical that accumulates in rain, soil, drinking water and food.

Blueberries have been considered a healthy food by my family including small children. Eating blueberries that may be contaminated with a forever PFAS chemical will not be acceptable in my family. We are also concerned about the environmental contamination that will inevitably result.

I ask APVMA to work to phase out all PFAS chemicals to safeguard our health and the health of the environment.

Yours sincerely

[redacted]

Australian Pesticides and Veterinary Medicines Authority (APVMA) public consultation

Email: chemicalreview@apvma.gov.au

Subject: Submission on the proposed amendment to Schedule 20 [8]

Dear APVMA Review Panel,

I am writing to you as a concerned member of the community. With a growing awareness of the dangers of PFAS I have been careful to limit my exposure however I was until recently unaware that people and the environment have been exposed to these forever chemicals through the use of pesticides. I understand that the APVMA has adopted a narrower definition of PFAS which does not include Isocycloseram.

I urge the APVMA to ban the use of Isocycloseram and all pesticides containing PFAS in Australia. The impact of these chemicals will be felt for generations given that these chemicals remain indefinitely (forever chemicals).

Isocycloseram is persistent in the environment however it also breakdowns into 40 smaller PFAS chemicals including trifluroacetic acid which has been found by the European Chemicals Agency's scientific committee to potentially cause birth defects and fertility problems. TFA is the most potent of all PFAS chemicals and accumulates in rain, soil, drinking water and food. TFA is highly toxic, with people most vulnerable to harm in utero, early childhood and during pregnancy. Given the potential impacts for the environment and human health I urge the APVMA to ban the use of this chemical.

\

Sincerely,

Fiona Bennett

I am lodging a submission to express my concerns about the serious health and safety risks that the Australian Pesticides and Veterinary Medicines Authority (APVMA) is exposing the Australian community.
I am very concerned about the public health and significant safety implications of the APVMA proposal to reduce MRL regulations for the use of Isocycloseram. As a PFAS pesticide, these are many.
I was appalled to discover the APVMA is proposing to increase the amount of highly toxic PFAS chemical that can be applied to blueberries by 500 times!
I've only bought organic berries since I discovered that APVMA is allowing and actively encouraging our food system to be poisoned. However, I have since discovered that spray drift from non-organic farms is poisoning all berry products. None in the Australian food chain are safe thanks to APVMA.
And now APVMA is proposing increasing the level of highly toxic Isocycloseram on berries despite the fact that the European Chemicals Agency has banned that chemical because it is so highly toxic to humans and the environment. It begs the question why APVMA is inexplicably (against all scientific safety evidence) continuing to approve, and even trying to increase, its use.
And this at a time when Australian communities are seeking legal justice for PFOS, a PFAS 'forever chemical', contaminating their drinking water as a result of the historical use of firefighting foam. And also when the Albanese Government alleges it will take legal action against PFAS chemical giant 3M for the pollution legacy they've left to clean up. What hypocrisy.
We cannot allow any more PFAS chemicals to be wilfully released into the environment - let alone sprayed on the food we eat!
Australia was one of the first countries to begin using Isocycloseram. It is not approved in any EU countries, or the UK.
The current APVMA proposal concerns its use on all berries.
The European Union and Canada have committed to phasing out toxic PFAS chemicals. Australia should be doing so too not approving a massive increase in their use!
Pollution from such pesticides sprayed on berries and other crops are already polluting sensitive north coast waterways, coastal wetlands and even the Solitary Islands Marine Park.
Isocycloseram is a PFAS forever chemical, when ingested the chemical attaches itself to proteins within the body and has an extremely long life in the body due to its make up of unbreakable carbon-fluorine bonds.
An increase of the maximum residue limit for berries by 500 times the current limit (which is currently at the lowest detectable limit for berries) poses serious health risks to human and environmental health.
Exposure to PFAS is associated with increased cholesterol, reduced kidney function, impaired immunity and liver function, reproductive health issues and impacted thyroid hormones, the chemicals are also suspected to be linked to cancer
Isocycloseram breaks down into Trifluoroacetic Acid (TFA), which is the most potent of all PFAS chemicals and accumulates in rain, soil, drinking water and food
The European Chemicals Agency has determined that TFA is highly toxic, with people most vulnerable to harm in utero, early childhood and during pregnancy
The APVMA amendment focuses on berries, which are a widely consumed product, particularly amongst children
Widespread spraying of Isocycloseram will have generational impacts, the entire scope of harm will not be realised until decades in the future

---

To Whom It May Concern,
I am writing to you my submission on the proposed Amendments: schedule 20 in reference to The
Agricultural and Veterinary Chemicals Code (the Agvet Code) and changes to the Industrial Chemicals Environmental Management Standard (ICHEMS) framework legislation that governs the legal usage of PFAS chemicals, isocycloseram and other pesticides across all Australian states and territories.
The Australian Pesticides and Veterinary Medicines Authority has quietly published a proposal to increase the limit of how much a highly toxic PFAS chemical can be applied to blueberries by 500 times! According to the European Chemicals Agency, which has banned the chemical, Isocycloseram is highly toxic,.
I'd like to remind all involved, YOU have a legal obligation and duty of care to the public when it comes to the health and safety of this nation.
And that the Blueberry Farming Industry and companies are also not excluded from these responsibilties nor exempt from consequences of legal challenges within our civil court rooms.
Medical health reports have factual evidence to support that exposure to PFAS has been associated with increased cholesterol, reduced kidney function, impaired immunity and liver function, reproductive health issues and impacted thyroid hormones, the chemicals are also suspected to be linked to cancer.
I would also like to hope that members of parliament also take in consideration the risks and dangers to their own health and well-being when making these decisions of using poisons in our nation's agriculture.
And consider the impacts these decisions will have on the environment in which they also live in.
The usage of Poisons on the foods we grow and consume will put strain also on our economy.
Such as our medical system, our public hospitals, urgent care clinics and GPs will be of higher demand. Not to mention the health of our Drs and nurses too.
A healthy nation means a productive nation!
We are yet to see the full consequences of having to already be living with PFAS in our bodies due to contaminated waters and soils.
Which is why the agriculture companies and blueberry farmers are opening themselves up for civil lawsuits.
Parliament is exempt from the consequences of these decisions.
As an intelligent race or species it does not make sense to even consider raising the legal limit of forever chemical usage on (IChEMS).
We proclaim to be this planet "most intelligent species", then why keep using methods that harm us as a collective??
Our very survival depends on the well-being of this planet and the environment we work eat and live in.
To become an advanced species, it does not make sense to continue practices that cause harm and are technically a failure in the long story of it all.
So why even keep it on (ICHEMS)???
We don't use Nuclear Waste because we don't know how to deal with Nuclear Waste and so it's on a different listing.
I believe these chemicals should be listed in the same category and chart as Nuclear Waste and NOT on the (IChEMS).
PFAS and Isocycloseram are labeled 'forever chemicals'.
As of right now, we have no proven scientific method of removing these chemicals which is why they have been classified as a 'forever chemical.'
We cannot shoot PFAS and Isocycloseram acid out into space through the hole in the ozone layer or dump it in a desert like we did decades ago with Nuclear Waste.
Giving more reason to why it should join the Nuclear Waste listing chart and REMOVED from (IChEMS) instead.

PFAS and ISOCYCLOSERAM are similar to that of NUCLEAR WASTE.
- No known method of disposal.
- Cannot recycle it.
- In the past methods that created the unusable and disposable waste had CEASED in operations or very limited.

This generation seems less intelligent than their predecessors, which shows concerns today over the logic of our decision makers today.
Making the public lose confidence in the Government.
Isocycloseram break down into Trifluoroacetic Acid (TFA), which is the most potent of all PFAS chemicals and accumulates in rain, soil, drinking water and food.
Due to this going into our rain and clouds has even more concerning reasons to the stupidity of even considering raising it let alone using it anymore period??
* Not to mention it goes against 20 other policies structured in different levels of government that's an obligation currently.
* Not to mention budget $$ allocated towards restoration of our Environments eco systems, such as national parks.
* Right when the Albanese Government took legal action against the PFAS chemical giant 3M for the pollution legacy they've left us to clean up.
(Which is confusing why the Australian Pesticides and Veterinary Medicines Authority (APVMA) is even putting this proposal to parliament, to which it acts as an arm to??)
* This goes against multiple policies and public consultations on lowering greenhouse emissions that have already taken place.
The fact this proposal being considered at next week's parliamentary sitting, gives me concerns of whether 'sound minded decisions' are being made in regards to our public health and safety??
This experience has made me want to spread awareness on these chemicals to the public and start a campain to BAN the usage of PFAS in our country.
Thank you for your time and giving me the opportunity to write a submission on this topic.
yours sincerely
[redacted]

MRL Contact Officer
Australian Pesticides and Veterinary Medicines Authority
GPO Box 574 Canberra
ACT 2601

Please accept this email as my submission to the above-mentioned proposed amendment regarding the insecticide, isocycloseram. This email will be sent at around 5:40 pm on 14 July so it should meet the 14 July deadline. I permit my submission to be published in full with my name.
I strongly oppose this proposed amendment to increase the isocycloseram MRL on berries by 70 to 500-fold. The OECD classifies the insecticide as a PFAS. It is criminal that any PFAS can be sprayed on food, especially on soft fruit like berries.

According to the Center for Biological Diversity, isocycloseram degrades over decades into the smaller forever chemical TFA (trifluoroacetic acid). In June 2026, the European Chemicals Agency's scientific committee concluded that TFA is toxic to reproduction (Category 1B) – meaning it 'may damage the unborn child' and is 'suspected of damaging fertility.' TFA is one of the most widespread and persistent PFAS in the environment, building up in rain, soil, drinking water and food, and is very hard to remove. Pesticide regulators have also found that isocycloseram reduced testicle size, lowered sperm counts and harmed the liver in animal studies sponsored by the manufacturer.

The APVMA has also identified skeletal malformation in fetal rats. There are also concerns about cancer risk.

The APVMA should, like other regulators, ban this insecticide instead of proposing to increase its use and MRL. This criminal negligence speaks to the total capture of this government agency by BIG AG.

Best regards,

Louise Taylor

14 July 2026

To Whom It May Concern,

Dear Sir/Madam,

I am writing to express my concern regarding the proposed variation to Schedule 20 (Maximum Residue Limits) in the Australia New Zealand Food Standards Code, as published in APVMA Gazette No. 12 of 16 June 2026. In particular, I am troubled by the proposal to substantially increase the maximum residue limits for isocycloseram in a wide range of berries, commonly consumed by Australians.

As reported publicly, the proposed changes would permit materially higher residues of isocycloseram, a PFAS-related pesticide described as a "forever chemical" due to its persistence in the environment. Internationally, concerns have been documented regarding potential health and environmental impacts of isocycloseram, including findings from animal studies that have reported reproductive toxicity, liver effects and developmental abnormalities. There are also demonstrated impacts on pollinators and environmental persistence.

In circumstances where the long-term health effects of exposure are not fully understood, the precautionary principle should be paramount. Historically, some of the most significant public health and environmental harms have resulted from widespread population exposure occurring before the full extent of risks became apparent. The precautionary principle exists precisely to prevent such outcomes. Where credible health concerns exist – as in this case - the burden should rest on demonstrating safety, rather than risking population health while awaiting definitive long-term evidence.

I am particularly worried that the proposal would increase permissible residues in foods that are commonly consumed by children and families. Children have smaller bodies, longer potential lifetime exposure and may be more vulnerable to adverse effects. Given the persistence of PFAS-related compounds, a decision to increase allowable residues should be supported by robust evidence demonstrating long-term safety. I am also mindful that the manufacturer of isocycloseram, Syngenta, has been subject to significant scrutiny and litigation concerning the health impacts of other chemicals in its portfolio. This highlights the importance of rigorous independent evaluation and regulatory caution. Public confidence in regulatory bodies depends on the understanding that health is protected above commercial interests.

The Australian public rightfully expects food standards to reflect the highest standards of safety and precaution. Therefore, I respectfully urge the APVMA to:

- Reconsider the proposed increase in maximum residue limits for isocycloseram.
- Apply the precautionary principle in its assessment of this proposal.
- Prioritise the protection of public health.
- Publish the evidence supporting the proposed increase in residue limits.
- Commission independent scientific review of the long-term health impacts of lifelong exposure to isocycloseram, prioritising consideration of cumulative lifetime exposure, particularly in children.

Yours sincerely,

Bronwyn

Prof. Bronwyn King AO, MBBS, FRANZCR