

SUBMISSION ON

Reassessment of Chlorpyrifos

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To: HS Reassessment, Environmental Protection Authority

Name of Submitter: Horticulture New Zealand

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OVERVIEW

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Our submission

Horticulture New Zealand (HortNZ) thanks EPA for the opportunity to submit on “Chlorpyrifos reassessment - proposed ban” and welcomes any opportunity to continue to work with EPA and to discuss our submission.

The details of HortNZ's submission and decisions we are seeking are set out in our submission below.

Overall, HortNZ supports the EPA's findings and conclusions, on the proviso that the EPA actively prioritises the registration of new chemistry and label claims. As the global regulatory movement toward the phase-out or ban of chlorpyrifos due to concerns over its impacts on human health and ecosystems, HortNZ supports EPA's proposal to revoke approvals for chlorpyrifos. HortNZ would like to highlight to EPA the importance of enabling our growers to access new and safer crop protection with workable conditions. Whenever our growers have access to modern and more environmentally friendly alternatives, they proactively and voluntarily move away from the old ones.

This submission is supported by:
Strawberry Growers NZ, NZ Tamarillo Growers Association,
New Zealand Apples & Pears, New Zealand Avocado,
Zespri Kiwifruit

Submission Form

Please indicate whether you intend to present on behalf of your submission if a hearing is held for this application

- I wish to present on behalf of my submission
- I do not wish to present on behalf of my submission.

Are the views expressed on behalf of an individual or an organisation?

- I am expressing my own personal views
- I am expressing the views of a company, organisation, or business group

Please indicate which submitter group(s) you belong to:

- Industry group

Do you agree with the EPA's proposal to revoke the approvals for chlorpyrifos?

- Yes
- No
- Agree or oppose in part (provide comment)

HortNZ's Role

Background to HortNZ

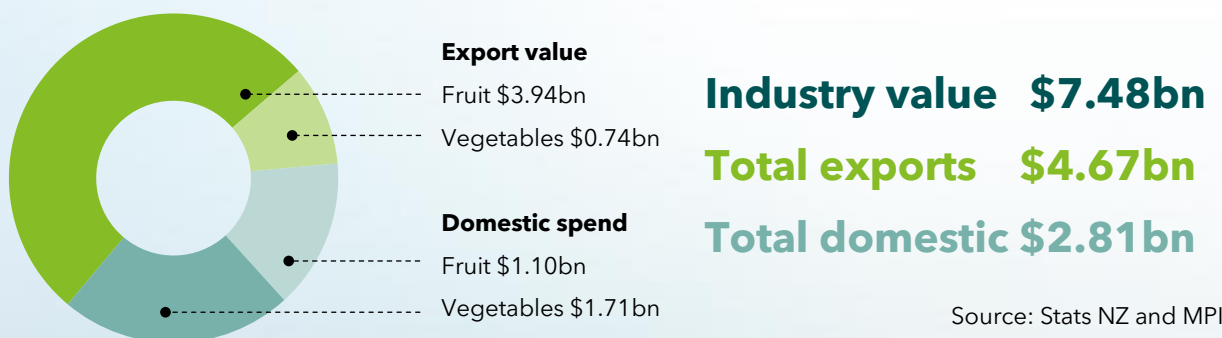
HortNZ represents the interests of approximately 4,200 commercial fruit and vegetable growers in New Zealand who grow around 100 different fruits and vegetables. The horticultural sector provides over 40,000 jobs.

There are approximately 80,000 hectares of land in New Zealand producing fruit and vegetables for domestic consumers and supplying our global trading partners with high quality food.

It is not just the direct economic benefits associated with horticultural production that are important. Horticulture production provides a platform for long term prosperity for communities, supports the growth of knowledge-intensive agri-tech and suppliers along the supply chain; and plays a key role in helping to achieve New Zealand's climate change objectives.

The horticulture sector plays an important role in food security for New Zealanders. Over 80% of vegetables grown are for the domestic market and many varieties of fruits are grown to serve the domestic market.

HortNZ's purpose is to create an enduring environment where growers prosper. This is done through enabling, promoting and advocating for growers in New Zealand.



HortNZ's involvement with crop protection regulation

On behalf of its grower members HortNZ works to help ensure that the regulatory settings and services that affect the availability and affordability of crop protection products in New Zealand are appropriate, workable, and cost-effective.

Executive Summary

HortNZ supports the global regulatory movement to phase out chlorpyrifos due to its impacts on human health and ecosystems, aligning with international actions such as its consideration under the Stockholm Convention. New Zealand's horticulture industry has proactively reduced chlorpyrifos use in many crops where there are available effectively alternative, demonstrating our growers' commitment to sustainability and innovation. However, for some sectors, such as onions and avocados, still use chlorpyrifos due to limited effective alternative pest control options.

The loss of chlorpyrifos highlights broader challenges facing the horticulture sector, including a dwindling range of crop protection tools, delayed approval of modern alternatives, and increasing resistance issues. While programs like *A Lighter Touch* showcase the industry's investment in sustainable pest management, growers urgently need access to modern, effective, and environmentally friendly tools to maintain productivity, meet export market requirements, and enhance environmental outcomes.

HortNZ emphasises the need for balanced regulatory approaches that ensure new agrichemicals are approved promptly with practical and workable conditions. Excessively unnecessary restrictive conditions, stemming from a lack of industry input and coordination between EPA's Assessment and Reassessment teams, often render approved products inaccessible to growers. Clear transitional arrangements and stronger collaboration between the EPA and industry stakeholders are essential to ensure that growers, particularly those in smaller horticulture sectors, can adapt to regulatory changes effectively.

To address these challenges, HortNZ recommends:

1. **Prioritising and Expediting Approval of New Tools:** Ensure the timely approval of modern, safer crop protection products with practical conditions of use. Establish a fast-track process for chemicals with EPA's recognised international regulators approvals (e.g., EPA-USA, APVMA-Australia).
2. **Improving Coordination:** Strengthen communication between EPA's Assessment and Reassessment teams to avoid conflicting decisions.
3. **Collaborating with Stakeholders:** Foster greater collaboration between the EPA, MPI, and industry to align regulatory actions with growers' needs.
4. **Providing Clear Transitional Guidance:** Support growers with phased transitions and practical solutions for sectors still reliant on chlorpyrifos.

By adopting these measures, the EPA can support New Zealand growers in achieving sustainable pest management while maintaining productivity, environmental and human health protection.

Submission

1. Acknowledging Global Trends and Movement of Chlorpyrifos and EPA's Decision

HortNZ understands and supports the global regulatory movement to phase out or ban chlorpyrifos due to its impacts on human health and ecosystems. We agree with the EPA's reassessment and its alignment with international regulatory actions, including the potential listing of chlorpyrifos as a Persistent Organic Pollutant under the Stockholm Convention. These international actions reinforce the need for regulatory consistency to ensure market access and consumer trust and New Zealand's international reputation.

2. Horticulture Sectors Voluntarily and Proactively Moved Away from Using Chlorpyrifos

Horticultural sectors in New Zealand have already made significant strides in reducing reliance on chlorpyrifos. Many crops such as kiwifruits, pipfruits, tamarillos, strawberries, and potatoes have stopped using chlorpyrifos, as growers have transitioned to alternative solutions.

This demonstrates that when safer, effective alternatives are available, growers naturally phase out older chemicals. HortNZ urges the EPA to prioritise the approval of new chemicals over removing older ones, enabling a smoother transition.

Otherwise, due to limited alternative pest control options, some sectors such as onions and avocados, are forced to continue use chlorpyrifos remains. The loss of chlorpyrifos will heighten pressure on growers and may exacerbate challenges in pest management in these sectors. For example, early-season onion maggot control is dependent on chlorpyrifos due to the lack of viable alternatives. For crop like avocados of the lengthy growing season, the replacement of chlorpyrifos is more likely to require the introduction of two new product in the programme. This is because the number of applications of a product per season is restricted in new chemistry labels to manage resistance development.

3. Horticulture is Investing in Agroecological Crop Protection

New Zealand's horticulture industry has been facing a problem of dwindling crop protection products for many years due to older products being phased out, newer products not becoming available, and increasing issues with pests, diseases and weeds developing resistance to the remaining products. At the same time consumers have increasingly been asking for food that is as free from chemical residues as possible, is grown sustainably, and is ethically produced. The industry realised that a step-change was needed in its approach to crop protection, and many sectors have been investing in developing and commercialising agroecological approaches to crop protection.

Started in 2015, A Lighter Touch¹ (ALT) is one of the larger programmes of work that is supported by the horticulture, arable and wine sectors. It is jointly funded by industry and government via MPI's Sustainable Food and Fibre Futures Programme. Some of the individual sectors, such as NZ Apples & Pears and Potatoes NZ, also support their own programmes for their sectors.

A Lighter Touch focuses on understanding and better managing aspects of agroecosystems that lead to increased levels of pests and diseases, and how to integrate more sustainable crop protection practices, which reduces the need for crop protection interventions.

These efforts align with global trends toward residue-free, sustainably grown, and ethically produced food, enhancing New Zealand's competitive edge in international markets.

4. Now More Than Ever, Horticulture Growers Need Access to Modern and Safer Tools

The loss of another tool like chlorpyrifos highlights the urgent need for newer crop protection tools to be approved and registered in NZ with workable conditions. HortNZ would like to remind EPA that each time the sector loses a tool, our growers are facing increased risks of not being able to adequately control pests and disease. This has significant economic and operational impacts on our growers. Just during the second half of 2024, many chemicals such as chlorpyrifos, DPCA, and paraquat that can be used to control pest, disease and weed on onion sector have been taken away or under reassessment.

Ensuring access to safer and more effective alternatives is paramount to maintaining productivity and meeting residue limits for key export markets. Amid crop protection tool shortage, our growers are-

4.1. Struggling to Sustain Food Production

Growers rely on a diverse range of crop protection tools to sustain commercial-scale food production. However, as older broad-spectrum chemicals are deregistered, the availability of newer, targeted, and environmentally "softer" products lags significantly behind, particularly compared to markets like Australia, the USA, and Canada. This lag accelerates the development of resistance and threatens the viability of the horticulture sector, with a 2019 NZIER report estimating potential losses of up to 75% of crop value (approximately \$5 billion annually)². The impacts extend to domestic food security, with New Zealand's heavy reliance on locally produced vegetables being at risk due to the diminishing toolkit for pest control.

4.2. Facing Increased Challenges in Reducing Environmental Impacts

As mentioned above, wherever effectively and safer alternatives available, our growers proactively and voluntarily moved away from older chemicals to reduce their adverse

¹ [A Lighter Touch - Horticulture New Zealand \(a-lighter-touch.co.nz\)](https://a-lighter-touch.co.nz)

² [The importance of crop protection products for the New Zealand economy \(nzier.org.nz\)](https://nzier.org.nz)

impact on environment. However, stringent regulatory requirements have delayed the approval of new, environmentally friendly agrichemicals, forcing growers to rely on older, more harmful products. These legacy products lack the advanced, targeted mechanisms of newer alternatives, undermining efforts to reduce environmental harm and adopt sustainable practices. A more balanced, risk-based regulatory approach is necessary to enable the dual goals of environmental protection and agricultural sustainability.

4.3. Facing Export Challenges

The lack of access to modern, internationally compliant crop protection tools could jeopardize New Zealand's ability to meet the evolving pesticide standards of key export markets, such as the European Union. Without these tools, New Zealand risks losing valuable trading partnerships and its competitive position in the global fresh produce market. Ensuring access to modern crop protection tools is critical to maintaining export opportunities and achieving growth targets for horticultural exports.

4.4. Failing to be the Leadership in Sustainable Pest Management

New Zealand's growers are leaders in integrated pest management (IPM), an agroecological approach that enhances on-farm biodiversity and minimizes chemical use, e.g., A Lighter Touch Programme. However, replacing older broad-spectrum pesticides often requires multiple targeted alternatives, which are limited in New Zealand. This crop protection tool shortage hinders horticulture sector's ability to fully adopt IPM practices and risks New Zealand falling behind other countries in sustainable pest management.

5. Balancing Practicality and Precaution in Agrichemical Approvals

HortNZ emphasizes that access to agrichemicals must be accompanied by practical and workable conditions of use. **Securing approvals for new products is only one part of the equation; ensuring the conditions of use are realistic and achievable is equally critical.** Recently, there has been an increase in the number of restrictive conditions being added to new chemical approvals, raising concerns about their practicality for growers.

HortNZ is encouraged by the EPA's acknowledgment that the approval of Sivanto Prime may provide an alternative or replacement for Chlorpyrifos in certain applications³. However, this potential benefit could be undermined by unworkable requirements—such as restrictive application windows or costly and impractical measures (see Case Study)—that make such tools ineffective or inaccessible for growers.

This disconnect highlights a lack of coordination between the EPA's Assessment and Reassessment functions. HortNZ strongly recommends that, while these teams work independently, they must communicate effectively to ensure approvals and conditions are aligned and practical for industry needs.

³ [APP204694-Chlorpyrifos-staff-assessment-report.pdf](#)

CASE STUDY: CONFLICTING APPLICATION WINDOWS AND IMPRACTICAL BIRD-RISK CONDITIONS RENDER SIVANTO PRIME INACCESSIBLE

SIVANTO PRIME MEMO

Example 1. Conflicting Application Conditions

Page 26: "To mitigate the potential transitory effects of flupyradifurone to bees, foliar applications are to be made in the early morning or evening when bees are not actively foraging, namely from 2 hours prior to sunset until sunrise."

This condition suggests that Sivanto Prime should be applied in the early morning or evening, BUT not be applied during the day.

Page 234: "Sivanto Prime must not be applied if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise."

This condition implies that Sivanto Prime should not be applied in the evenings, at night, and early morning.

These conflicting requirements create a scenario where there is no viable window for growers to apply Sivanto Prime.

We recommend that the EPA conduct a comprehensive review and oversight of the overall impact of all the prescribed conditions.

Example 2. Leafy Vegetable Growers Impact

Another impractical condition impacts leafy vegetable growers:

Bird Risk Management (Page 21):

A risk via the consumption of drinking water was identified following application of Sivanto Prime to leafy vegetables. Therefore, additional controls limiting access to contaminated drinking water and precautionary statements are proposed to minimise any potential risks to birds following use of Sivanto Prime.

"To protect birds, cover the crop for up to 3 days after application on leafy vegetables (from the start of filling of the head)."

This condition raises important questions:

- *How likely is it that birds will drink water from leafy vegetables that happen to be sprayed with Sivanto Prime?*
- *Covering crops for three days is not only costly but can also damage the vegetables, impacting yield and quality.*

The precautionary requirement to cover crops introduces an unnecessary burden that could render the product inaccessible for leafy green growers.

This underscores the assessor's lack of industry knowledge or the absence of industry input during the assessment process.

We recommend that the EPA, when imposing conditions, consider not only the level of potential risk but also the likelihood of that risk occurring in the field, and the practicality of the condition.

Unworkable conditions often stem from an excessive application of the precautionary principle, insufficient overarching review of the overall effects of the imposed conditions, and a lack of industry input and expertise during the assessment process. While the EPA's precautionary measures aim to mitigate risks, it is equally important that these measures remain practical and workable for growers. Striking the right balance is essential to avoid imposing prohibitive conditions that undermine the availability and practicality of these vital crop protection tools.

The EPA's lack of industry consultation and limited understanding of modelling for evergreen crops with larger and heterogeneous canopies, such as avocados, has led to label restrictions on new chemistry that limit product application rates per hectare. These restrictions can result in ineffective product use on larger canopies, increasing the risk of under-dosing and, consequently, resistance development. We recommend that the EPA, in consultation with the avocado industry, review its modelling approach when imposing hectare-based application limits. Collaborating with industries such as avocados will help ensure the modelling accurately reflects the needs of evergreen crops, enabling effective and sustainable product use rather than inadvertently restricting their application on larger canopies.

HortNZ urges the EPA to immediately cease placing unnecessarily restrictive controls on approvals for new products. Such actions significantly impact growers' access to crop protection tools, especially for smaller horticulture sectors that lack products registered specifically for their crops.

6. Transitional Arrangements and Support for Growers

HortNZ requests a more practical phase-out period of at least 18 months for chlorpyrifos to allow growers sufficient time to transition effectively. The EPA's currently proposed six-month timeframe is inadequate, as it does not align with the seasonal use patterns of certain crop groups, such as avocados, nor does it provide enough time for growers to identify, access, and adapt to effective alternative pest control solutions.

A longer transition period is essential to ensure minimal disruption to crop protection strategies, particularly for sectors with limited alternative options, such as onions and avocados. These sectors rely on chlorpyrifos for key pest management functions, and an abrupt phase-out could result in significant production challenges, increased pest pressures, and potential economic losses.

7. Recommendations

- **Support for Innovation:** HortNZ urges the EPA to continue fostering an environment where new, safer, and effective crop protection tools are approved promptly and are assessable to our growers (i.e., with workable conditions). The horticulture sector must be equipped with the necessary tools to manage pests effectively while meeting global market and environmental standards.
- **Systematic Approach and Strategic Perspective:** HortNZ strongly encourages the EPA to establish effective communication between the assessment and reassessment

teams to better coordinate the introduction of new chemicals with the phase-out of older ones. This will ensure growers continue to have access to effective tools for crop protection. Furthermore, a more comprehensive and strategic approach should be adopted when setting conditions on new approvals. This is essential to avoid conflicts between conditions that could unintentionally restrict growers' access to these tools, even when they are registered for use in New Zealand.

- **Stakeholder Collaboration:** HortNZ supports collaborative efforts between the EPA, MPI, and industry stakeholders to align regulatory through access to innovative solutions.
- **Clear Transitional Guidance:** Provide clear guidance for affected growers, particularly those in the onion and avocado sectors, to support a smooth transition to alternative pest management approaches.