

Chlorpyrifos: Critical Uses and Criteria for Determination



Chlorpyrifos Work Group
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Part of our mission is to support effective IPM systems that also reduce risks to people and the environment.

Various entities are further evaluating public health and environmental concerns that could result in more restrictions.

- **International:** Concerns about genotoxicity and developmental neurotoxicity. EU may remove chlorpyrifos from market. Vote February 2020. MRL impact.
- **Federal:** Under EPA registration review. Due Oct. 2022.
- **State:** At least three states are phasing out the use because of concerns about risk: Hawaii, California and NY.
- Oregon has joined a motion to intervene in a multistate lawsuit to compel EPA to revoke the tolerances for chlorpyrifos.

Direction in Oregon?

Two examples of possible options to help lead to reducing risk are provided below:

Identify **Critical Uses** (for major use crops?), and possibly retain most or all critical uses.

or

Focus - reduce possible exposure.

Identify potentially **Higher Risk Use Patterns** (application methods and/or crops) that may result in a higher level of bystander exposure.

Evaluate mitigation measures, including increasing buffers size.

Risk = Toxicity x Exposure



Critical Uses - Direction in Oregon?

If the **Identify Critical Uses** path is selected:

Should Oregon consider classification of pests?

- Key pests for which there are no or few alternatives to chlorpyrifos (Critical uses),
- Important pests for which there are alternatives
- Occasional pests for which it may important to retain access to chlorpyrifos as a part of the IPM toolbox.

Alternative – but still Critical Use Focused

Rather than focusing on classification of pests, **focus instead on whether there are available alternatives** to chlorpyrifos to control major pest(s) on crops that utilize chlorpyrifos the most?

Critical Uses - Direction in Oregon?

Focus on whether there are available alternatives to chlorpyrifos to control major pest(s).

Alternatives to chlorpyrifos, evaluated in terms of:

- Efficacy
- Availability of non-chemical tactics
- Tolerances or MRLs
- Cost
- Resistance management issues
- Other considerations

Difficult to control borer
on hazelnuts →



PFB Larvae. Photo Credit: C. Hedstrom, ODA.

Critical Uses - Direction in Oregon?

Focus on whether there are available alternatives to chlorpyrifos to control major pest(s).

Convene industry leaders to create commodity specific guidelines regarding chlorpyrifos use in their cropping systems.

Create Crop Teams to:

- Identify critical uses (no efficacious alternatives etc. exist)
- Identify strengths and weaknesses of alternatives, including considering risks to environment, human health, and productivity.
- Develop Pest Profiles for each species
- Promoting judicious use of chlorpyrifos use in IPM programs.
- Identify gaps in research and education (including how to avoid drift and run-off).

Direction in Oregon?

**Instead of identifying critical uses -
instead focus on potentially higher risk use patterns**

If the potentially **higher risk use patterns*** option is selected:

Recall: Some concerns have been expressed that regulators have not properly accounted for effects from inhalation of chlorpyrifos from spray drift and volatilization.

Process:

- Review available data from reliable sources.
- Evaluate possible mitigation measures.
- Take into account high benefit uses

***application methods and/or crops**

Direction in Oregon?

Topics for Ongoing Discussions:

What are the best possible ways that bystander exposure can be reduced or eliminated?

- Focus on critical uses?
- Focus on possibly higher risk application methods?
- Focus on increasing mitigation measures?
 - Next meeting there will be more discussion on examples of mitigation (ways to reduce risk) measures.

Remember: Risk = Toxicity x Exposure

Thank you

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