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U.S. Environmental Protection Agency
1200 Pennsylvania Ave. NW
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RE: Pesticide Registration Review: Proposed Interim Decisions for Several Pesticides,
Spiromesifen
EPA Docket ID: EPA-HQ-OPP-2014-0263-0030

The following comments are submitted regarding the Proposed Interim Decision of the active ingredient spiromesifen. These comments are being submitted on behalf of the Western IPM Center to provide input on the use of spiromesifen on mint grown for oil in Oregon and Washington to control two spotted spider mite. Our goal is to summarize usage of spiromesifen on mint in the Pacific Northwest, and provide stakeholder feedback on how the changes in the Proposed Interim Decision may affect the mint industry.

Spiromesifen use in mint grown for oil targets spider mites, which decrease mint oil quantity and are also suspected to negatively impact oil quality (Kaur and Slambrook, 2021). The most recent Integrated Pest Management Strategic Plan (PMSP) for Oregon, Washington and Idaho Mint Crops (Murray et al., 2020) identifies spider mites as a pest of concern. Use of spiromesifen on mint is allowed under Special Local Needs (SLN) labels, which were granted to Washington producers in 2017, and to Oregon and Idaho producers in December 2020 and June 2021, respectively, highlighting the current critical need for effective mite pest management tools.

The PMSP prioritizes research into mite resistance to miticides used in mint production because of the decreased efficacy observed to other registered miticides (Murray et al., 2020). SLN labels were requested because there are concerns with mite resistance to other miticides registered in mint, including hexythiazox, bifenazate and propargite. Spiromesifen, as the only group 23 miticide registered in mint, has an important resistance management role.

Additionally, spiromesifen has reduced impact on beneficial mites, leaving predatory mites in the mint production system to continue to control pest populations.

Spiromesifen also fills an important niche in mint production because it has a shorter, 7 day PHI. Other labeled miticides have much longer PHIs, including abamectin (28 days), hexythiazox (30 day), and propargite (30 day). Availability of spiromesifen close to harvest allows growers to continue to rotate materials with others that also have shorter PHIs (bifenazate – has resistance concerns, fenpyroximate, etoxazole).

Mite outbreaks tend to occur during dry, dusty summer conditions. These times are also when irrigation is essential for successful mint production. It's estimated that approximately 20 to 25% of the mint industry would be affected by an 11 day PHI restriction for moving handline/wheel line. If the crop could not be irrigated for 11 days, growers would be unable to use this material, and may need to rely on less effective miticides while potentially exacerbating resistance development problems, or rely on miticides with greater negative effects on predator mites.

Summary

- The OSU Center for Pesticide Registration Research is responding on behalf of the Western IPM Center to provide input received from Oregon and Washington mint grown for oil producers.
- Spiromesifen is an important rotational miticide for the mint industry, is less impactful to the predator mite populations than other miticides, and has a short PHI.
- Resistance to currently registered miticides is problematic in mint production. The current and critical need for spiromesifen is emphasized by the fact that two SLNs were granted within the last calendar year.
- The restriction on movement of hand line for 11 days after application will prevent usage on 20-25% of mint acreage.

Please feel free to contact us with additional questions about spiromesifen usage in Pacific Northwest agricultural production.

Respectfully,



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References:

Kaur, N. and L. Slambroock, 2021. Mint Pests. Pacific Northwest Insect Management Handbook. Pacific Northwest Extension Publication. Available at:
<https://pnwhandbooks.org/sites/pnwhandbooks/files/insect/chapterpdf/agronomic.pdf>

Murray, K., Walenta, D., Jepson, P., and I. Sandlin, 2020. Integrated Pest Management Strategic Plan for Oregon, Washington and Idaho Mint Crops. Oregon State University Extension Service, publication EM 9299. Available at:
<https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/em9299.pdf>

To compile comments, input is actively solicited from stakeholders throughout the Pacific Northwest in an effort to convey use patterns, benefits, potential impacts, and the availability and efficacy of alternatives. These comments largely reflect expert testimony from stakeholders, including research and extension experts as well as farmers and commodity groups. The comments do not imply endorsement by Oregon State University or the Western IPM Center.