



Integrated Plant Protection Center
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Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington DC 20460-0001
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Re: EPA-HQ-OPP-2010-0212, Copper Cases Registration Review

The following comments are submitted in response to EPA's request for information on potential impacts of the proposed rate reductions for copper products based on the registration review of copper compounds. These comments are being submitted on behalf of the Western IPM Center, and provide input from Pacific Northwest commodities.

Copper-based products are used in a number of Pacific Northwest commodities, including hazelnut, tree fruit, onion, and berry crops, for managing both fungal and bacterial problems. Specific information is offered below from these industries.

Hazelnut: Copper-based products are used to control both fungal and bacterial problems in hazelnut. Effective control of eastern filbert blight, a fungal canker, does require high rates, but there are alternative fungicides registered that are more effective, so the impact to management of a rate reduction for copper products would not be high. Bacterial issues are controlled in the fall with 1-2 applications, which would easily fall below the proposed maximums.

Apple/pear: Most applications of copper products are for fire blight, and usually applied during the delayed dormant stage, with some post-harvest treatments in pear, and some in-season treatments for apple. There are some canker issues also treated with copper products. Most applications, even for organic growers, generally involve much less pounds of active ingredient than EPA's current or proposed rate for both single applications and annual maximums, so little impact would be expected from this change. Most applications are 1/4 to 1/3 pound active ingredient per application. Even with extreme cases of fire blight in apple, where the average number of applications (at 1/4 to 1/3 pound ai per application) could be as high as 8, rates would still be below both the proposed single application maximum and the proposed 16 pound season maximum.

Strawberry and Caneberry: Copper is used to control fungal diseases in strawberries and caneberries, but efficacious alternatives exist, so the proposed reduction would likely have little impact.



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Onion: Copper products are used in onion mainly for bacterial suppression, and would be applied during vegetative growth (May through August). Most growers are making only 1-2 applications of copper products per season, so the proposed reduction from 6 annual applications to 5 would have little to no impact on onion production.

Please feel free to contact me with any further questions about usage of copper products in PNW commodities.

Respectfully,

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Katie Murray is the Western IPM Center's EPA Comment Coordinator for the Pacific Northwest. Katie has expertise in agricultural stakeholder engagement and assessment methods related to understanding pesticide usage and pesticide compatibility with IPM.

The IPPC is the hub for Oregon's statewide IPM program, and the main IPM resource in Oregon for farmers, researchers, and extension agents. The expertise represented in the IPPC is highly interdisciplinary and includes toxicology, entomology, horticulture, adult education, public health, and anthropology, all with an IPM focus. Within the IPPC, we have a collective expertise in understanding the use of pesticides within IPM programs with a goal of protecting the economic, environmental and human health interests of our stakeholders.

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 agricultural stakeholder feedback and do not imply endorsement by Oregon State University or the Western IPM Center.