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Fluopicolide Use in New Mexico Chile Peppers
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Summary

- EPA is seeking public comments in response to draft human health and ecological risk assessments for fluopicolide, a fungicide used to control several plant diseases including downy mildew, late blight, and some *Pythium* species.
- EPA's draft environmental risk assessment for fluopicolide indicates potential acute exposure concerns for aquatic invertebrates and fish, and chronic exposure concerns for mammals, birds and terrestrial plants. The draft human health risk assessment indicated liver, kidney and thyroid effects in some tested species.
- At this time, our goal is to inform EPA about the use of fluopicolide in production of Chile peppers.
- In New Mexico chile pepper production, fluopicolide is "absolutely vital" to the suppression of *Phytophthora capsici*, the pathogen that causes phytophthora blight, a disease that can result in severe economic yield losses if not controlled.

Fluopicolide use in New Mexico Chile Pepper

In 2016, New Mexico produced 8,700 acres of Chile peppers valued at over $50.5 million (USDA-NASS 2017). According to a pest management advisor who works with the New Mexico Chile industry, "fluopicolide is absolutely vital to the suppression of *Phytophthora capsici*," a pathogen that causes phytophthora blight in peppers and other cucurbits. The pathogen can infect leaves, stems, vines or fruit. Plants often die within a few days of showing symptoms, including wilting or a change in color of the leaves. Phytophthora infection can cause partial to total loss of the crop (Babadoost 2005). Chile peppers are especially susceptible to this disease. "We can typically suppress the pathogen effectively with our standard preventative rotation of azoxystrobin (Quadris) and mefenoxam (Ridomil Gold SL). This also helps to suppress the pathogen that causes powdery mildew. But in furrow irrigated peppers, growers like to say 'you are one irrigation away from a phytophthora outbreak.' If the pathogen is present in abundance, it can take off very quickly when conditions are right." High soil moisture conditions are favorable to the development of phytophthora blight. "We use this chemistry sparingly, only when needed in these outbreak conditions. Our goal is to avoid development of resistance. This is our only effective option if phytophthora gets out of control."

Who We Are

The Arizona Pest Management Center is host to the University of Arizona's expert IPM scientists including Ph.D. entomologists, weed scientists and plant pathologists with expertise in the strategic tactical use of pesticides within IPM programs that protect economic, environmental and human health interests of stakeholders and the society at large.

Dr. Peter Ellsworth is Director of the APMC, State IPM and Pesticide Coordinator for Arizona and Professor of Entomology / Extension IPM Specialist with expertise in developing IPM systems in cotton and other crops and measuring implementation and impact of IPM and pest management practices. Dr. Al Fournier is Associate Director of the APMC / Adjunct Associate Specialist in Entomology, holds a Ph.D. in Entomology, and has expertise in evaluating adoption and impact of integrated pest management and associated technologies. He serves as a Comment Coordinator for the Western IPM Center, representing stakeholders in the desert Southwest states.

These comments are the independent assessment of the authors and the Arizona Pest Management Center as part of our role to contribute federal comments on issues of pest management importance and do not imply endorsement by the University of Arizona or USDA of any products, services, or organizations mentioned, shown, or indirectly implied in this document.

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