



## *Arizona Farm Bureau Federation*

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April 3, 2020

U.S. Environmental Protection Agency  
EPA Docket Center (EPA/DC), 28221T  
1300 Pennsylvania Avenue, NW  
Washington, DC 20460-0001

RE: Docket No. EPA-HQ-OPP-2015-0094; Registration Reviews Draft Human Health and/or Ecological Risk Assessments for Several Pesticides – Famoxadone

To Whom It May Concern:

The Arizona Farm Bureau Federation represents farmers and ranchers from across Arizona. Our members produce an array of crops and livestock that contribute over \$23.3 billion of economic impact to the state. Our comments below address the Environmental Protection Agency's (EPA) draft human health and ecological risk assessments of famoxadone (EPA-HQ-OPP-2015-0094) and the important role this chemistry provides to the success of Arizona's agricultural crops, including lettuce, spinach, onion and onion seed.

The most significant use of famoxadone in Arizona is on lettuce and spinach, and it is used to a lesser extent in onion and onions for seed. Famoxadone is one of two active ingredients in the product Tanos which is registered for use in Arizona crops including those noted above. The other active ingredient in Tanos is cymoxanil. Together these chemistries are used to combat downy mildew and other fungal diseases.

Downy mildew is a fungal disease which injures plant tissues and reduces yields. The disease mars and damages the surface leaves. Although it may not kill plants, in the case of lettuce, significant cosmetic damage makes the product unmarketable. Given that 95% of the leafy vegetables consumed in the U.S. from November to March are produced in Arizona, controlling fungal diseases such as downy mildew is significantly important. Fungicides, like famoxadone in combination with cymoxanil, are an effective management tool for controlling downy mildew and in turn protecting yields.

Because fungi are adaptable organisms and can become resistant to fungicides, ensuring famoxadone continues to be available is important for maintaining a robust fungicide resistance management program. According to Mike Matheron, University of Arizona Extension Plant pathologist, such a program should rotate among products with different modes of action to delay development of resistance to active ingredients within a pathogen population.<sup>1</sup>

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<sup>1</sup> Matheron, Michael. "Biology and Management of Downy Mildew of Lettuce." College of Agriculture and Life Sciences Cooperative Extension, az1682, September 2015. Available online at

While the use of famoxadone is limited to only a percentage of the total lettuce and spinach acres on an annual basis, they are important components of a fungicide resistance program and should remain as an option for growers. According to USDA National Agricultural Statistics Service, in 2018, Arizona produced 75,600 acres of lettuce valued at \$891 million and 11,100 acres of spinach valued at over \$83.7 million.<sup>2</sup>

As in lettuce and spinach production, famoxadone is only used on a minority percentage of Arizona's onion and onion seed acreage. According to USDA National Agricultural Statistic Service, in 2017 there were 2,154 acres of onion produced and 1,312 acres of vegetable seed produced under open air production.<sup>3</sup> The USDA seed data is not broken down for the various seeds produced in the state. However, the onion seed grown in Arizona is high-quality seed for export and contributed to the \$3.8 million in vegetable seed sales in 2017. The use of famoxadone in onions helps to address various bacterial and/or fungal diseases including bacterial soft rot, xanthomonas blight, purple blotch, and downy mildew. According to data collected by the Arizona Pest Management Center, usage has been consistent over the past several years in onion production. In onion seed production, its use is less consistent, which may be due to years when there are more disease pressures.

Famoxadone is a crop protection tool for many growers in our state and has been used for many years without evidence of an unreasonable risk to human or environmental health. All crops grown in Arizona on which famoxadone is used would be negatively impacted if it were no longer available or if major restrictions were put on its use as a crop protection tool. For those reasons, we urge the EPA to continue to allow its use.

Sincerely,



Stefanie Smallhouse, President  
Arizona Farm Bureau Federation

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[https://desertagsolutions.org/sites/desertagsolutions.org/files/az1682-2015%20downy%20mildew%20of%20lettuce%20Cooperative%20Extension%20Publication\\_MM.pdf](https://desertagsolutions.org/sites/desertagsolutions.org/files/az1682-2015%20downy%20mildew%20of%20lettuce%20Cooperative%20Extension%20Publication_MM.pdf)

<sup>2</sup> USDA-NASS. 2019. 2018 State Agriculture Overview. United States Department of Agriculture, National Agricultural Statistics Service.

[https://www.nass.usda.gov/Statistics\\_by\\_State/Arizona/Publications/Annual\\_Statistical\\_Bulletin/2018/AZAnnualBulletin2018.pdf](https://www.nass.usda.gov/Statistics_by_State/Arizona/Publications/Annual_Statistical_Bulletin/2018/AZAnnualBulletin2018.pdf)

<sup>3</sup> USDA-NASS. 2019. 2017 Census of Agriculture Arizona State and County Data. Volume1. Geographic Area Series, Part 3.

[https://www.nass.usda.gov/Publications/AgCensus/2017/Full\\_Report/Volume\\_1\\_Chapter\\_1\\_State\\_Level/Arizona/azv1.pdf](https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1_Chapter_1_State_Level/Arizona/azv1.pdf)