



Arizona Farm Bureau Federation

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July 6, 2020

OPP Docket
Environmental Protection Agency Docket Center (EPA/DC)
(28221T)
1200 Pennsylvania Ave. NW.
Washington, DC 20460-0001

RE: EPA-HQ-OPP-2014-0263; Registration Reviews: Draft Human Health and/or Ecological Risk Assessments for Several Pesticides - Spiromesifen

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 assessment of spiromesifen, as we believe this chemistry plays an important role in the success of a number of Arizona's agricultural crops.

Spiromesifen is a pesticide with a Lipid Biosynthesis Inhibitor (LBI) mode of action that has been an important component of integrated pest management programs in Arizona for the last 15 years. It is especially useful for farmers growing corn, cotton and melons. Notably, the use of spiromesifen has declined in corn and cotton and fluctuated in melon production over the last 10 years and its overall use is limited to only a small percentage of the total acreage of these crops on an annual basis.

Nevertheless, given the economic value of these crops, it is critical that spiromesifen remain a pest control option for Arizona's farmers. According to USDA National Agricultural Statistics Service, in 2019, Arizona produced 165,400 acres of cotton valued at \$190 million (underreported value, as the value of Pima cotton is not available) and 87,000 acres of grain and silage corn with the grain corn valued at \$45 million.¹ In 2019 Arizona produced 19,000 acres of melons valued at nearly \$115 million (all types).²

Corn

A pest that can cause damage to Arizona's corn crop is the Two-spotted spider mite. These insects flourish in Arizona's hot dry weather, where females can produce approximately 300 offspring during their 30-day lifetime. Because of their ability to reproduce quickly, natural enemies can be easily outnumbered.

¹ USDA-NASS. 2020. 2019 State Agriculture Overview. United States Department of Agriculture, National Agricultural Statistics Service.

https://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=ARIZONA

² Ibid

Mites damage corn crops by feeding and eventually killing plant leaves resulting in yield losses. One of the benefits of spiromesifin, according to at least one Pest Control Advisor, is its short preharvest interval of 5 days. If mites are a problem in the latter part of the crop cycle and a pesticide is required to protect the crop, spiromesifin is a good option, as most other miticides have a 20 day preharvest interval.

Controlling mites is important to producing high quality corn crops, as silage corn is the primary type of corn grown in Arizona and is a feed input for the state's dairy producers. Although other products are available for controlling mites, maintaining a robust selection of products that includes spiromesifin helps ensure quality crops, in addition to providing another crop protection tool in a resistance management regime.

Cotton

While mites can also adversely affect cotton, their impacts are minimal compared to the damage caused by whitefly infestations. Whiteflies reduce yields by damaging leaf tissue and stunting plant growth. However, more problematic for a crop like cotton is the honeydew whiteflies secrete, which often leads to black moldy fungus growth on cotton bolls. Although insect growth regulator (IGR) products are often the first line of defense against whitefly infestations, it is crucial that farmers have access to other selective chemistries to control whitefly during specific stages of its lifecycle.³ Spiromesifin specifically targets whitefly at the nymph stage and provides secondary control of mites, a combination that is not offered in alternative chemistries. Additionally, at recommended rates up to 75% of full label rate (for Oberon 2SC), spiromesifin offers effective and highly selective control of whiteflies in cotton, preserving a suite of natural enemies which help to suppress other insect pests.⁴ This preservation of natural enemies is a cornerstone of effective cotton IPM programs in Arizona.

Another concern for Arizona cotton growers is whitefly resistance. Spiromesifin has been an important product to use in rotation with other products to help address and prevent resistance. Removing or limiting access to spiromesifin would lead to increased resistance pressure.

Cotton farmers today face a number of challenges including low commodity prices, rising input costs, and increasing global competition. Added to this are the day-to-day challenges of dealing with weeds, insect and disease pests, and weather. It is important that growers retain crop protection tools, such as spiromesifin, to preserve their ability to manage insects and diseases efficiently and effectively.

Melons

Spiromesifin has also been an important product for addressing whitefly damage in melon production. Whitefly is a vector for cucurbit yellow stunting disorder virus (CYSDV) which causes a yellowing of leaves, reduced plant growth, and smaller, less desirable fruit. While whitefly is generally the more prevalent pest in melons, mites can also damage melon crops. One of the advantages of spiromesifin is it can address both whitefly and mite incursions simultaneously.

³ Ellsworth, Peter C. 2004. Whitefly Control in Cotton: Getting the Fundamentals!, University of Arizona, College of Agriculture and Life Sciences, Cooperative Extension, Tucson, Arizona. URL: <https://cals.arizona.edu/crop/cotton/insects/wf/wffund0804.pdf>.

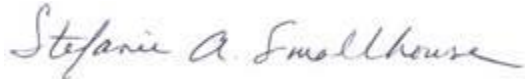
⁴ Ellsworth, Peter C., Lydia Brown, and Steven Naranjo. 2014. Being Selective! University of Arizona, College of Agriculture and Life Sciences, Cooperative Extension, Tucson, Arizona. URL: https://acis.cals.arizona.edu/docs/default-source/ipm-shorts/keychemistryshortvf.pdf?sfvrsn=eac7284a_2

Melons grown in Arizona make up a significant portion of the melons produced in the United States. According to 2018 United States Department of Agriculture National Agricultural Statistics Service, Arizona ranks second only to California in the production of cantaloupes.⁵ Therefore, ensuring growers have access to products such as spiromesfin to combat pests and diseases that reduce production quality and yield levels is vitally important.

Additionally, as noted earlier, spiromesfin is a selective chemistry that controls the target insect while leaving non-target insects unharmed. This is especially important in melon production where pollination by bees is required for the production of high quality melons. Growers are advised that when pesticide applications are necessary while plants are in bloom to select those that are least toxic to bees and still effectively target the pest.⁶ Spiromesfin allows growers to control crop damaging whitefly and mites, while leaving non-target beneficial insects like bees unharmed.

We believe spiromesfin should remain a viable pest management option for Arizona's agricultural producers. It is an effective crop protection tool that in addition being an excellent fit in IPM programs, is safer to both the user and the environment.⁷ We strongly encourage the EPA to consider the extremely safe track record and the economic importance of spiromesfin to Arizona's farmers as it conducts its human health and ecological risk assessment.

Sincerely,



Stefanie Smallhouse, President
Arizona Farm Bureau Federation

⁵ USDA-NASS. 2018 Arizona Agricultural Statistics 2018. United States Department of Agriculture, National Agricultural Statistics Service. URL: https://www.nass.usda.gov/Statistics_by_State/Arizona/Publications/Annual_Statistical_Bulletin/2018/AZAnnualBulletin2018.pdf

⁶ Palumbo, John C. 2019. Insect Management on Desert Melons: Whiteflies. University of Arizona, College of Agriculture and Life Sciences, Cooperative Extension, Tucson, Arizona. URL: https://acis.cals.arizona.edu/docs/default-source/agricultural-ipm-documents/vegetable-ipm-updates/2019/190417_ipm_on_desert-melons_whiteflies_2019.pdf?sfvrsn=43370fcf_4

⁷ Ibid