



## **Response to EPA's Amended Proposed Interim Decision for Oxyfluorfen**

Prepared by Alfred Fournier & Wayne Dixon,  
Arizona Pest Management Center, University of Arizona

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To Whom It May Concern:

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. In coordination with the Western Integrated Pest Management Center, we contribute to federal comments on issues of pest management importance to stakeholders throughout the desert southwest including Arizona, New Mexico, Nevada, Colorado and the southeast desert regions of California.

At this time, we wish to respond to the Agency's Amended Proposed Interim Decision for the herbicide oxyfluorfen, EPA Docket number EPA-HQ-OPP-2014-0778, on behalf of Arizona and southeastern California agricultural stakeholders. Our comments combine stakeholder input received from University of Arizona Extension Specialists, licensed pest management professionals from Arizona, and reported pesticide use data from the Arizona Pest Management Center Pesticide Use Database.

We wish to incorporate by reference comments we've previously submitted in response to EPA's Proposed Interim Decision for Oxyfluorfen:

Fournier, A.J., W.A. Dixon II. 2021. Response to EPA Proposed Interim Decision for Oxyfluorfen. Document ID: EPA-HQ-OPP-2014-0778-0074. 10/04/21.

<https://www.regulations.gov/comment/EPA-HQ-OPP-2014-0778-0074>

We also support past and current comments submitted by Arizona Farm Bureau Federation.

Below we have included information newly gathered from stakeholders familiar with the use of oxyfluorfen across a range of crops, including their responses to newly proposed mitigations in the Amended Proposed Interim Decision. Any elements we have not commented on were not found to be in conflict with grower practices.

## Oxyfluorfen use in Arizona and Southeastern California Crops

Oxyfluorfen is a contact herbicide that provides pre and early postemergence protection against broadleaf weeds in a number of crops. Based on data from the Arizona Pest Management Center (APMC) Pesticide Use database, oxyfluorfen is primarily used on cole crops (cauliflower, broccoli, cabbage, including seed), cotton, onions (including seed), garlic and beans. A small number of uses are also reported on artichoke. Oxyfluorfen is also known to be an important herbicide for weed control in pecan and pistachio orchards.

## Response to Amended Proposed Interim Decision Mitigations

### Exemption to the Vegetative Filter Strip Requirement

We are very thankful for EPA's acknowledgement of our prior comments and those of Arizona Farm Bureau Federation and the USDA indicating that our agricultural practices, rainfall patterns and other conditions would not necessitate the use of vegetative filter strips to prevent runoff. It is good to see that the conditions and practices of Western irrigated agriculture are being fully considered in EPA's decision processes as the Agency moves forward with registration reviews and endangered species protections.

### Restricting Broadcast Applications in Vineyards and Orchards & Proposed Reduced Rate in Pistachios

As noted in our previous comments, banding is the prevalent practice for oxyfluorfen applications vineyards and orchards, although further probing identified some use of broadcast applications in both pecans and pistachios. For pecans, broadcast applications are used where narrower 20-foot row spacings occur. In pecans, most growers now use 30-ft or 40ft spacings. For fields with 20ft row spacings (representing <10% of pecan acres), broadcast applications work better, however, 20-ft. rows are uncommon and are not preferred for a number of reasons. On 30ft or 40ft centers, pecan growers apply Goaltender in 8-to-10ft strips at the maximum post-emergent banded rate. **While some minor adjustments would be needed to comply with EPA's proposed banding practices as described, this was not seen as problematic by the pest control advisors interviewed. Proposed boom height also is not an issue.**

Pistachio production has expanded in Arizona in recent years. In a major production region in Southeastern Arizona, growers make a single broadcast application of Goaltender at full label rate (1.5lb. ai/A) for post-emergent weed control. Limiting to a single application is not seen as problematic, though one PCA commented that making the application during the dormant season in both pistachios and pecans can be a valuable option at times.

**Retaining access to the current full use rate for oxyfluorfen in pistachios of 1.5lb. ai/A is viewed as important.** This rate provides effective weed control, and PCAs expressed concern about EPA's proposed reduction to 0.5lb. ai/A, one-third of the current use rate. In the past "shaving rates" on herbicides has led to disastrous consequences in terms of resistance management. One stakeholder asked whether EPA has scientific evidence that this lower rate will provide effective weed control in pistachios? If oxyfluorfen proves ineffective at this rate in Arizona, it would effectively eliminate another useful herbicide for growers, and could lead to an

increase in acres where growers are not rotating chemistries. If this happens, it is feared that resistance issues could follow.

#### Reduction in Maximum Application Rate and Annual Applications for Certain Crops

Of the crops listed table 3 of the Amended PID, only cotton and garbanzo beans are known to make any use of oxyfluorfen in Arizona. Few non-organic garbanzos are currently grown in Arizona, due to virus concerns, and no current uses of oxyfluorfen were identified. The majority of cotton growers relying on genetically modified herbicide tolerant crops no longer use oxyfluorfen, though some do, in part as a resistance management strategy. The small percentage of growers who use it make a single application at layby at the maximum use rate. **The proposed maximum annual rate reductions are not seen as problematic for our growers.**

#### Spray Drift Buffers for Conservation Areas

EPA is proposing downwind spray drift buffers for ground and aerial applications of oxyfluorfen. While aerial applications are generally not used, some ground applications could occur on fields adjacent to what EPA describes as conservation areas, and so we expect this proposed mitigation would impact some growers. Arizona does have a high percent of non-private lands, and it is likely that some production acres are adjacent to conservation areas. The regions likely to be impacted include parts of Yuma County, AZ and Imperial County, CA along opposite sides of the Colorado River. Further north up the Colorado River, there is production in Parker Valley, AZ (notably on the Colorado River Indian Tribe reservation) and across the river in the Blythe region of California. The Gila River in Arizona is dry in some regions and extends from Yuma County in the West through parts of metro Phoenix and East into Greenlee County. Areas along these rivers do include wildlife habitat. Along the Colorado River in Riverside County, CA, there are areas that were once farmed, but have been planted back into riparian habitats, adjacent to agriculture.

Pest Control Advisors may not always know which areas along riverbeds fall under the conservation definition. However, some PCAs mentioned already using buffers in river areas or near drainage ditches (for pyrethroids or diamides for example) and mentioned their role explaining buffers to growers. Because there are few aerial applications of oxyfluorfen, the smaller 50 ft. buffer would generally apply. We are glad EPA is including provisions to reduce buffer size with the use of hooded sprayers or manmade barriers. Though these are not practical in all situations, they should help some growers. **While most production acres in Arizona in Southeastern California would not be impacted by this proposed mitigation, it will impact some growers and could result in financial losses.**

#### Chemigation on Onions

As noted in our previous comments, chemigation of oxyfluorfen does not appear to be common in most crops where it is used. However, new queries among PCAs in Arizona and California identified chemigation with oxyfluorfen as an important weed control practice in onions. Though not universally done, it was noted by some PCAs that application via chemigation using sprinklers provides more effective weed control at lower use rates than applications by ground. The typical practice for growers in the Blythe, California region is to apply either Goal 2XL or Goaltender via sprinkler irrigation at the one-and-a-half or two leaf stage of growth at a product rate of 2 to 4 fl.oz. Goal 2XL is somewhat stronger against major weeds but also can be harsher

on the crop, so they tend to alternate between the two products. This is often followed up with a late season chemigation of Goal 2XL+Miastro (bromoxynil), at a 6 fl.oz product rate for Goal 2XL. The combination of the two products helps control a broader range of late-season weeds. The 2 to 6 fl.oz. rate is in comparison to the full 8 fl.oz. rate which would be used for ground applications. Chemigation is also used by some onion producers in Arizona, where a single, early-season application is used. **As there are relatively few effective herbicide options in onions, retention of this chemigation use is deemed important by growers.**

PCAs emphasized the importance of chemigation on the basis that a smaller amount of product, highly diluted, provides more effective weed control. They also commented that there can be situations, such as periods of rain, when it can be very difficult to get a ground rig into the field for timely application of an herbicide. Onion chemigations are done following label directions for sprinklers, including use of equipment that prevents any backflow of material. According to a Blythe-area PCA, their standard practice is to insert a stinger into the herbicide container directly through the cap seal on the mouth of the jug, after which a special cap is screwed in placed over the mouth. There is no mixing, loading, etc. The herbicide is immediately diluted into solution. There is a valve that prevents backflow into the water source. The workers do not enter the field while the sprinklers are running. Effectively, this is a closed-system application and should serve to eliminate or greatly minimize any potential for worker exposure. Workers do not enter the field during the chemigation process. Exposure risks to workers in this scenario should be extremely low. It is estimated that this method is used for about 50% of Blythe-area onion production. The balance of growers in the Blythe region Arizona growers known to use oxyfluorfen in onions do not use the stinger method. Rather, they dilute product in a tank to the desired concentration following label instructions prior to chemigation.

**Given these factors, we hope EPA will consider retaining a chemigation option for onions on oxyfluorfen labels.**

We appreciate this opportunity to comment on oxyfluorfen use and the proposed mitigations in EPA's amended PID on behalf of Southwest agricultural stakeholders. Please contact me if you have any questions.



Dr. Alfred Fournier, Associate Director,  
Arizona Pest Management Center  
Maricopa Agricultural Center  
University of Arizona  
37865 Smith-Enke Rd., Maricopa, AZ 85138  
[fournier@cals.arizona.edu](mailto:fournier@cals.arizona.edu)