



## **Response to EPA Proposed Interim Decision for Iprodione**

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

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Re: Iprodione, Comments on EPA Proposed Interim Decision  
EPA Docket ID: EPA-HQ-OPP-2012-0392

To Whom It May Concern:

The Arizona Pest Management Center (APMC) 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. Through cooperative agreements with Arizona Department of Agriculture (ADA), the APMC obtains use of, improves upon, and conducts studies with ADA's Form1080 data. Growers, pest control advisors and applicators complete and submit these forms to the state when required by statute as a record of pesticide use. These data contain information on 100% of custom-applied (i.e., for hire) agricultural pesticides used in the state of Arizona. Grower self-applied pesticide applications may be under-represented in these data. 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 Proposed Interim Decision for the fungicide iprodione, EPA Docket number EPA-HQ-OPP-2012-0392, on behalf of stakeholders in Arizona and adjacent regions of Imperial County, California. Our comments combine stakeholder input received from University experts, licensed pest management professionals from Arizona and California, and reported pesticide use data submitted to the Arizona state regulatory agency and captured in the Arizona Pest Management Center Pesticide Use Database.

Also, we wish to incorporate by reference comments submitted to EPA by the Arizona Pest Management Center on November 2, 2020, in response to draft risk assessments for cycloate, Docket ID# EPA-HQ-OPP-2012-0392-0054.

## Background

### Iprodione Use and Economic Importance in Arizona Agriculture

According to pesticide use records submitted to the Arizona Department of Agriculture and captured in the Arizona Pest Management Center Pesticide Use Database, iprodione has significant reported annual use on lettuces and onions (including onions grown for seed), and is used to a lesser extent on broccoli, particularly broccoli grown for seed (Fournier 2017).

These are important and valuable markets. Arizona produces 90% of the winter supply of fresh lettuce in the U.S. (Anonymous 2014). In 2021, Arizona growers produced 63,900 combined acres of head lettuce, leaf lettuce and romaine value at over \$651 million (USDA-NASS 2022). Arizona grows high quality seed onions and seed broccoli which are shipped and grown both nationally and internationally. Though these seed crops represent a small number of acres, the economic value of these crops is significant. For example, broccoli seed production can be valued at up to \$100,000 per acre, according to industry sources.

Iprodione is used to control pathogens that cause Sclerotinia drop in lettuces, purple blotch on onions, and Alternaria leafspot on broccoli. These diseases can cause significant crop damage and economic losses.

According to licensed Arizona Pest Control Advisors (PCAs) who work with the lettuce industry, iprodione is among the most widely used materials for control of Sclerotinia. For many growers, iprodione is applied as a standard fungicide treatment on lettuce following thinning, on any fields with a history of Sclerotinia. The amount of use can vary year to year, depending on moisture conditions, with use being more extensive in wetter years. Iprodione provides effective control of Sclerotinia, and is less costly than the alternatives. A single application is used in rotation with Endura (boscalid) and Fontelis (penthiopyrad).

In onions, including onions grown for seed, a single application is used early in the season to control purple blotch. If additional fungicide applications are needed, growers rotate to other chemistries.

In broccoli seed, iprodione is applied immediately after “trimming,” the practice of cutting some branches from the growing broccoli plant during the season to improve seed quality. Wounds that result from trimming make plants especially vulnerable to Sclerotinia and a variety of secondary infections. Application of iprodione or other fungicides following trimming provides protection against infection. If the seed broccoli is trimmed more than once, growers rotate to boscalid or penthiopyrad. In most cases, a single application of iprodione is used. However, according to PCA sources, a few growers may apply iprodione twice in a season, for stands where several trimmings are done, as happens for some varieties. A second iprodione use may be favored over the other fungicides, as it is less expensive.

As far as we could determine based on outreach, iprodione is not known to be used in Arizona wine grape production or on beans.

## Iprodione Use on Arizona Golf Courses and Recreational Turf

According to a source familiar with the industry, iprodione has light to moderate use on Arizona golf courses. Iprodione has an ideal fit in the bermudagrass leaf spot management programs of desert areas, the dollar spot and brown patch protocols of the mid-elevations, as well as a role in the tank-mixes used to control snow mold diseases at the higher elevations. It has also been used occasionally to control Cream Leaf Blight (*Limonomyces roseipellis*) on golf course greens. Where it is used, one application per year is typical. Iprodione is applied as a stand-alone product to golf course greens in desert locations and at mid-elevations. However, at higher elevations pre-mix fungicide products containing iprodione (e.g., Enclave and Interface Stressgard) are commonly used to control snow mold on fairways.

Iprodione is also used for disease management on sports fields.

Iprodione is the sole remaining, commonly utilized turf fungicide in FRAC Group 2: dicarboximides. This makes it an important option for maintaining effective rotational strategies to manage resistance.

## **Response to Proposed Interim Decision**

### **1. Proposed Turf Risk Mitigation**

#### 1a. Prohibit use on turf in residential sites

We support this proposed mitigation.

#### 1b. Limit use on turf to golf course tees and greens

For our desert and mid-elevation golf courses, use is already limited for the most part to greens. As noted above, iprodione applications to fairways occur only at high elevation courses in Arizona, to control snow mold. The premix products typically used for this purpose (Enclave and Interface Stressgard) contain iprodione. These products are effective, and their use is a standard practice. However, according to industry sources, there are effective available alternatives for snow mold control. Shifting to these other options may increase costs. We can support this proposed mitigation, should it prove necessary to sufficiently lower risk.

According to an informed industry source, there are alternatives available to replace iprodione use for disease control on sports and recreational turf. We support this proposed mitigation.

#### 1c. Limit turf applications to a maximum of 2.6 lbs ai/acre once per year

Industry sources and our own data suggest that a slightly higher rate than the proposed rate would be more in line with effective control practices here. Although there are relatively few reported applications in the APMC pesticide use database, all were made at the rate of 2.72 lbs ai/acre, or 4 fl oz/1,000 sq ft., the maximum recommended application rate for control of Dollar Spot on the Irpo 2SE label (EPA reg. no. 66222-214). We ask that EPA consider this slight increase over their proposed maximum use rate, presuming the overall risk profile for iprodione is sufficiently reduced through other mitigations.

Based on input from golf turf experts and industry sources, limiting use to a single application is not problematic for Arizona golf courses.

## **2. Proposed Risk Mitigation for Agricultural Crops & Production Ornamentals**

### 2a. Proposed Cancellation of Uses

Of the listed crops, only dry beans are significantly grown in the Desert Southwest. These crops are not especially prone to diseases, and according to industry sources, iprodione is not used. We support this proposed mitigation.

### 2b. Proposed Restriction of Number of Applications

After quite extensive inquiries with pest control advisors working in the potentially affected crops, the only instance we identified where a second application is sometimes used is in the production of seed broccoli, and not all growers do this. This practice seems to be limited to particular varieties that require three or more “trimmings” prior to harvest. As noted above, viable alternative fungicides are available, though more expensive. We support this proposed mitigation, should it prove necessary to sufficiently lower risk.

### 2c. Proposed Application Prohibitions for Ornamentals

We support this proposed mitigation.

### 2d. Proposed Grape Application Rate Reduction

According to pest control advisors who work directly with Arizona wine grape producers, iprodione does not appear to be used for disease control in grapes here. Based on this input, we support this proposed mitigation.

We do not contest the balance of EPA’s proposed risk mitigations as outlined in the Proposed Interim Decision.

Thank you for the opportunity to comment. 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)

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