



## *Arizona Farm Bureau Federation*

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Submitted electronically via the Federal eRulemaking Portal at <https://www.regulations.gov>

RE: EPA-HQ-OPP-2015-0077; Registration Reviews: Proposed Interim Decision for Several Pesticides – Diuron (Case No. 0046)

To Whom It May Concern:

The Arizona Farm Bureau represents farmers and ranchers from across Arizona. Our members produce an array of crops and livestock that contribute over \$23.3 billion in economic impact to the state. Many of our members rely on diuron as a crop protection tool to produce high quality crops and sustain their operations. Our comments below address the Environmental Protection Agency's (EPA) proposed interim decision (PID) for Diuron.

In previous comments submitted by the Arizona Farm Bureau regarding the draft human health and/or ecological risk assessment for diuron (Docket ID # EPA-HQ-OPP-2015-0061), we noted the importance of this product as a crop protection tool for Arizona farmers. We request incorporation of these previous comments for consideration in EPA's current comment period.

In EPA's PID for diuron we are pleased to see the continued use of the product as a defoliant in cotton production. However, we are especially concerned with EPA's proposal to terminate all diuron herbicide uses on food and feed crops and non-food agricultural sites. The proposal to terminate nearly all uses of diuron on food and feed crops and non-food agricultural sites, as well as revoking all food and feed tolerances (except for that pertaining to use as cotton harvest aid) will have a significant negative impact on Arizona agriculture and particular alfalfa and cotton producers.

### Alfalfa

Arizona is extremely productive and unique when it comes to alfalfa production. According to USDA data from 2021, there were 305,000 acres of alfalfa harvested that produced 2.42 million tons valued at \$494.3 million. Diuron is an important herbicide used in Arizona for winter weed control in alfalfa. The Arizona Pest Management Center (APMC) reports that the usage of diuron from 2014 to 2020 ranged from 5,300 to just over 10,000 acres, representing application to 2.1% to 2.5% percent of alfalfa acres in Arizona. Although this is a small percentage of overall applications the use of diuron has been consistent, and according to reports from Pest Control Advisors (PCAs) from different parts of the state, is increasing as a result of resistance issues to other herbicide products.

According to information from the APMC, there is very little use of straight 4L Diuron product on Arizona alfalfa. Instead, 98% of diuron applications in alfalfa are from the use of the premix Velpar Alfamax Gold,

containing 55.4% by weight diuron and 23.1% hexazinone. The rate of application of this product ranges from 0.80 lbs. a.i./A to 1.25 lb. a.i./A. Generally, a single application provides long residual for winter weed control, including difficult weeds like Palmer amaranth, sow thistle, knotweed and composite weed. The typical use pattern of diuron in alfalfa is unique in that it involves a single application in the fall or winter to second-year hay, as first year hay is too fragile. Additionally, diuron often is not used in last-year hay due to plant back restrictions.

There are alternative herbicide options for Arizona alfalfa growers for winter weed control including Pursuit + Raptor (imazethapyr + imazamox), Velpar DF (hexazinone only product), Chateau (flumioxazin), and acetochlor (e.g., Warrant). However, each alternative has drawbacks when compared to the effectiveness of Velpar Alfamax Gold. According to PCAs, either the alternative product(s) costs more or create additional costs due to the need for additional applications resulting from less effective weed control owing to shorter residuals and a narrower spectrum of weed control. It should also be noted that the alternative herbicide products noted above, as well as diuron, can lead to crop damage, hence the low use rate of diuron.

A common concern among PCAs and alfalfa growers is weed resistance, in particular with Palmer amaranth, which is becoming more difficult to control. In some alfalfa growing regions of Arizona PCAs indicate they plan to incorporate more diuron use into their weed management programs to help combat growing weed resistance issues. Additionally, at least one PCA noted that the mixture of diuron and hexazinone (as in Velpar Alfamax Gold) considerably increases weed control results. Consequently, EPA's proposal to terminate the use of Diuron would significantly hinder anticipated near-term weed management plans and budgets.

### Cotton

Arizona cotton yields are consistently twice the national average and contribute \$140 to \$180 million annually to the state's economy. One of the uses of diuron is as a layby herbicide to control broadleaf weeds until the cotton canopy is sufficiently developed to shade furrows and beds tops, thus suppressing the growth of small weeds. Diuron is particularly useful because it provides a broad range of weed control with a long residual, reducing the need for additional herbicide applications. Layby applications were standard practice in Arizona cotton production until the introduction of Roundup Ready cotton. However, in the past several years there has been a growing issue with glyphosate-resistant weeds, in particular Palmer amaranth. As a result, there is an increasing trend by growers to incorporate additional weed control practices, like layby herbicide applications that include diuron. University of Arizona Extensions weed specialist have also promoted increasing the variety of weed control methods in cotton production to include layby herbicide applications. It should also be noted that diuron is an important herbicide option for conventional (non-Roundup Ready) cotton growers.

Growers, PCAs, and University of Arizona Extension staff in field crop systems all agree that diuron is the preferred herbicide for layby applications, given its range of efficacy, length of control, and cost effectiveness. Alternative products like Aim or Caparol (prometryn) are not as effective, and in the case of Caparol its effectiveness is most notable when applied in combination with diuron.

As weed control becomes more challenging due to resistance, the need for additional weed control strategies that include layby applications will be critical. Diuron is noted as being the most effective layby herbicide product with few alternatives that match its effectiveness in both efficacy and cost. The absence of diuron as an herbicide option will strain cotton weed management programs in Arizona.

### Non-food Agricultural Sites

Diuron is also an effective herbicide for controlling weeds along ditch banks and fallow fields. If not controlled, these weeds can spread into adjacent crop areas, reducing yields and harvest efficiency. diuron has a long residual and requires little to no water to maintain its effectiveness. Again, given the increased presence of glyphosate-resistant weeds, diuron is an important product to help maintain effective weed resistance management. Alternative herbicide products are available but are reported to cost more and require additional applications to maintain effective weed control.

### Factors to Consider in EPA's Risk Modeling

EPA's risk modeling for diuron involved crops either not grown in Arizona or where there is no recorded use (e.g., citrus). Additionally, EPA assumes maximum use rates for crops like pineapple, which are well above use rates for cotton and alfalfa, and not reflective of diuron's use or agricultural practices in Arizona. We urge EPA to consider the following factors in its risk modeling for diuron.

- Arizona's desert environment and low rainfall means all agriculture in the state is irrigated. Additionally, laser leveling fields is a common practice used to conserve water and minimize runoff.
- In Arizona cotton production, once a layby application is made the soil under the canopy remains virtually undisturbed until harvest.
- Application rates are below the maximum use rates.

Furthermore, in its proposed interim decision, EPA cites potential dietary and aggregate risks concerns. However, this proposal does not include new data from the Diuron Task Force that would support the continued registration of diuron. Considering new data has been made available to EPA, it would be premature to move forward with the restrictions as outlined in this proposed interim decision. We strongly encourage EPA to review the new data as it moves forward in the registration review process.

Diuron is an important weed management tool for Arizona's farmers. It's absence as a weed control option will lead to significant agronomic and economic impacts to growers in Arizona and across the country. We encourage EPA to reconsider its proposal to terminate nearly all uses of diuron on food and feed crops and non-food agricultural sites, as well as revoking all food and feed tolerances (except for that pertaining to use as cotton harvest aid). Additionally, as a member of the American Farm Bureau Federation, we wholly support and endorse the comments they submitted to the docket and incorporate them by reference here.

Thank you for your consideration.

Sincerely,



Stefanie Smallhouse, President  
Arizona Farm Bureau Federation