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Comments on BASF Application for New Use: Dicamba Product

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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.

Currently, we wish to comment on behalf of Arizona stakeholders in support of a new product registration request from BASF. Engenia is an over-the-top (OTT) herbicide intended for use on Dicamba-tolerant cotton and soybean varieties. As we do not produce soybeans in Arizona to any significant extent, our comments are limited to the value and importance of OTT dicamba uses in our cotton production systems.

In 2022, Arizona produced 87,000 acres of upland cotton and 96,000 tons of cotton seed with a combined value exceeding $165 million (USDA- NASS 2023[1]). Upland cotton in Arizona produces per acre yields larger than that of any other state or region of the world, while contributing over $700M annually to our state's economy (Ellsworth et al. 2016). Since the introduction of key technologies and Integrated Pest Management programs to support their use in 1996, we estimate that cotton growers in our state have cumulatively saved over $600 million (Ellsworth & Fournier 2022).

Herbicide-tolerant varieties have been broadly adopted by Arizona cotton growers. According to data from the Cotton Pest Losses and Impact Assessment surveys, between 2018 and 2023, an average of 76.2% of cotton acres reported by respondents were planted with varieties that included the dicamba-tolerant trait. As such, this is one of the most popular genetic technologies for weed control in Arizona. According to feedback from licensed Pest Control Advisors

[1] Values for 2023 cotton have not been published by USDA.

(PCAs), dicamba provides effective control of a wide range of broad-spectrum weeds, including glyphosate-resistant Palmer amaranth (pigweed), and other difficult to control weeds, such as careless weed and purslane. Dicamba OTT products and the accompanying genetically modified tolerant cotton varieties provide an effective alternative system of weed management. Dicamba also reportedly has good residual activity, which can reduce the need for follow-up sprays compared to other herbicides (Fournier et al. 2022). Furthermore, newer formulations of Dicamba have been developed with significantly lower volatility, though problems still can occur. Fortunately, widespread and serious problems have not been encountered in Arizona and industry stewardship of this important technology has been exemplary. Arizona's environmental conditions, farming practices and careful stewardship have greatly limited the potential for off-site damage from dicamba (Pena 2020). Also, according to the Arizona Department of Agriculture, there have been no reported dicamba damage incidents since 2021 (Smallhouse 2024). For these reasons we support the new product application from BASF.

Given the broad adoption of Dicamba-tolerant cotton varieties in Arizona, a great wave of concern went through grower communities here following the Feb 2024 Arizona federal district court decision to vacate the labels for XtendiMax, Engenia and Tavium. Arizona growers and distributors were relieved and grateful for the existing stocks order which was quickly issued by EPA, ensuring that growers could still buy and use those products for the 2024 cotton growing season. However, these new product labels from Bayer Crop Science and BASF are critically important to growers, as a potential lack of access to these products for the 2025 growing season causes serious concerns about effective weed management in cotton, particularly for glyphosate resistant weeds.

Arizona Farm Bureau comments on a similar dicamba new product application from Bayer Crop Science product (Smallhouse 2024) noted that a potential restriction on applications when temperatures exceed 75°F would make this product virtually unusable in Arizona cotton, based environmental conditions and normal application times throughout the state. Applications have been routinely made without issue here at temperatures exceeding 80°F. Though we did not identify a similar temperature restriction on the proposed BASF Engenia draft product label, we reiterate here the importance of a label for this product that will permit use in Arizona, given desert temperatures, planting times and typical application practices. Similarly, the requirement to record the temperature at application time is reasonable and prudent.

The proposed label restriction on use after July 30 is viewed as problematic in some areas of the state where glyphosate resistant pigweed (Palmer amaranth) proliferates, according to informed pest control advisors. Like other pigweeds, Palmer amaranth is a summer annual. An application of OTT dicamba is used to manage escapes, the timing of which can extend into mid or late August in the most productive cotton producing regions of central Arizona. Were it possible to extend the last spray date by as little as two to three weeks, this would be beneficial to cotton growers in these areas. In Yuma County, where cotton is grown as a short-season rotation crop between vegetables and harvest is much earlier, and the July 30 limitation should not be a problem.

We fully support the proposed language for Bulletins Live! Two. We also note the 17-month review requirement following approval of this new product application. We agree that this type

of review is important to evaluate product safety and to ensure that proper product stewardship is in practice. The Arizona Pest Management Center respectfully requests that EPA carefully consider and quickly approve BASF's new product registration of Engenia herbicide.

Our Data and Expert Information

Through the Crop Pest Losses and Impact Assessment program, a Signature Program of the Western IPM Center, the Arizona Pest Management Center conducts annual surveys with state-licensed pest control advisors (PCAs), who are the primary pest management decision makers, in consultation with growers. The surveys, conducted at face-to-face and virtual meetings, provide detailed information on crop yield losses to specific insect pests, weeds and diseases, control costs, and pesticide use for the key crops, cotton and lettuce. Cotton data have been collected since 1991 and lettuce data since 2005. Data are collected for all of Arizona and neighboring production regions of southern California, with typical responses representing up to 65% of acres planted in Arizona. These data provide detailed information on shifting pest trends, chemical uses and costs, and often compliment and augment pesticide use information from the APMC Pesticide Use Database, particularly for pesticide uses for which the state does not mandate reporting (APMC 2020).

Sincerely,

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