

INDIANA STATE CHEMIST AND SEED COMMISSIONER

Protecting Indiana's Agriculture and Environment - Feed, Fertilizer, Pesticide and Seed

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August 29, 2018

Richard P. Keigwin
Director, Office of Pesticide Programs
US Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, DC 20460

Sent electronically August 29, 2018

RE: Re-registration of Dicamba Herbicides for Use in Soybeans

Dear Mr. Keigwin,

The following comments are being provided by the Office of Indiana State Chemist (OISC). OISC is the pesticide state lead agency (SLA) for the state of Indiana. OISC strongly supports the comments and recommendations regarding dicamba re-registration, as presented in the August 29, 2018 letter to Agency by the Association of American Pesticide Control Officials (AAPCO). In addition, the following Indiana-specific information is being shared to provide context and detail to our position of support of AAPCO.

These comments represent input from OISC staff that have been involved in pesticide regulation, and in particular drift and off-target pesticide movement management, applicator education, and compliance response for over forty years. OISC staff experience includes participation in and leadership of AAPCO Off-Target Movement Committee for over fifteen years, the National Coalition for Drift Management, and the Pesticide Program Dialogue Committee Drift Labeling Improvement Work Group. OISC also commented extensively on draft revisions to the 2017 *Engenia*, *FeXapan*, and *Xtendimax* herbicide labels.

Indiana relies heavily on agriculture as one of our principal and historic industries. Indiana ranks second nationally in the production of processing tomatoes, and in the top five for peppermint, spearmint, fresh market cantaloupe and watermelon, however, Indiana agriculture is overwhelmingly comprised of row crops (corn, soybeans, wheat). Indiana is also home to one of the top four soybean seed producing companies in the United States. Correspondingly, Indiana agricultural producers rely heavily on pesticide applications, more specifically herbicide applications in soybeans and corn.

Annually, off-target pesticide movement (hereinafter drift) response is the number one compliance priority identified by OISC. Over the last ten years, OISC has received and investigated an average of 89 drift complaints each year. Dicamba has been a target of those investigations, on average, only 5% of the time. With the introduction of dicamba use on soybeans in 2017, OISC investigated 287 total drift complaints. 132 (46%) of

those complaints involved application of dicamba to soybeans. In 2018, OISC has investigated 257 total drift complaints to date, with 133 (52%) of those involving dicamba. Those 2017 and 2018 figures represent a 300% increase in total average annual drift complaints and a 2660% increase in average annual dicamba complaints. The contribution of dicamba complaints to these increases is obviously grossly disproportionate and indicative of a problem that cannot be explained by unusual climatic conditions or use and handling by a subset of inexperienced applicators.

The 2017-2018 compliance response effort for dicamba drift has been all-consuming of OISC resources for almost two full years. This has included targeted dicamba education and training of over 10,000 applicators, dicamba-specific outreach, dicamba media response, development of dicamba-specific investigation and laboratory analysis procedures and methods, and dicamba complaint investigation, case processing, enforcement, and state regulatory policy evaluation and development to assess and responsibly address the multitude of dicamba related impacts. The efforts required for dicamba response have precluded OISC from engaging in other necessary routine compliance monitoring and educational activities during this period.

2018 complaint investigation and response is currently on-going, so evaluation and assessment data are not yet available. However, Indiana data for the 132 dicamba investigations conducted during 2017 reflect the following: 1) 62% involved private applicators, 23% involved commercial applicators, and 15% involved non-licensed applicators; 2) 92% of the complaints involved applications to soybeans; 3) 92% involved exposure to non-DT soybeans; 4) OISC could document off-target drift and the source of the drift in only 23% of the investigations (**or stated more strikingly in another way, in over 75% of the investigations we were unsuccessful in identifying the source or cause of the off-target movement, in spite of extensive investigation and environmental residue testing**); 5) complaints caused by tank contamination or inadequate sprayer system hygiene was documented in only 3% of the investigations; 6) documented technical or significant label violations were documented in 93% of the investigations, even if the source of exposure could not be clearly identified.

Although not represented in the above 2017 data, it is important to note that almost 100% of the 2017 and 2018 dicamba complaints were the result of post-emergent and later season applications to soybeans.

Since the formal introduction of dicamba use in soybeans in 2017, OISC has been actively engaged with a variety Purdue University and other Weed Science Society of America weed scientist educators and researchers in an on-going basis. Most of our shared efforts have focused on the safe and effective use of this new dicamba technology. One of the more prominent observations by regulators and educators alike has been that both the 2017 and 2018 dicamba label directions have been extremely challenging for a trained applicator to comply with completely. Perhaps this is best illustrated by our 2017 dicamba investigation compliance data which reflects a 93% violation rate. To further illustrate legal application challenges, we have consulted research conducted by Purdue

University weed scientists

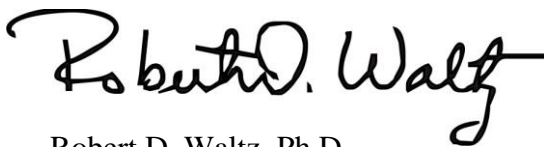
<https://extension.entm.purdue.edu/newsletters/pestandcrop/article/update-on-wind-speeds-and-the-new-dicamba-labels/>. This weather data for Indiana suggests that legal by-the-label application of these products could occur during only about 47 hours during the entire month of June, 2018. June represents a month during which post-emergent applications to soybeans would normally occur in Indiana. Taken collectively, this data supports that there is a low expectation that legal post-emergent use of dicamba on soybeans may occur, whether a complaint is filed with the SLA or not. However, it must be noted that these are the same trained applicators that have been applying similar herbicides to soybeans for many years with far fewer negative impacts.

Mandatory dicamba applicator training was required prior to use in 2018. It was not required in 2017. The numbers of formal complaints filed with OISC in 2017 and 2018 have remained virtually unchanged. OISC and Purdue Cooperative Extension Service conducted all of the mandatory dicamba training in 2018 to an estimated 10,000 applicators, so the message to potential dicamba users was very tightly controlled. The purpose of the training was to insure label compliance and to drastically reduce the extraordinary number of dicamba drift complaints. Needless to say, the mandatory training was not successful in reducing drift complaints.

In summary, OISC is very supportive of the careful consideration that AAPCO has demonstrated in developing their stated position regarding the registration of these products in 2019. We would like to thank you in advance for your consideration of our concerns and comments. We look forward to the opportunity to work with the Agency to ensure that safe and effective crop protection options remain available for use.

Questions regarding any of the data provided in this letter may be directed to our agency at Dave Scott, (765) 494-1593, or scottde@purdue.edu.

Sincerely,



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cc: Mike Goodis, EPA/OPP/RD
Dan Kenny, EPA/OPP/RD
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