

Before the Arkansas State Plant Board

Request for Rule Making

IN THE MATTER OF

Huntington Tyler Hydrick

Petitioner

and

The Arkansas State Plant Board

Respondent

PETITION FOR RULEMAKING AND AMENDMENT TO CURRENT RULES

Come Now the undersigned Petitioners that do hereby submit, pursuant to Arkansas Code Annotated 25-15-204 (d), this Petition for Rulemaking and state as follows:

I Introduction

- a. As a licensed Arkansas crop consultant (AR License #480), certified crop advisor (CCA #499886), President of the Arkansas Agricultural Consultant's Association, consultant at Hydrick's Crop Consulting Inc., owner of Ag Assistants, LLC, and weed science Master's Degree holder from Mississippi State University, I respectfully request that the Arkansas State Plant Board initiate the administrative rule-making process to allow Arkansas growers to apply reduced-volatility dicamba products with no further restriction than those approved by the United States Environmental Protection Agency (EPA).
- b. Hydrick's Crop Consulting Inc. and Ag Assistants, LLC operate in five northeastern Arkansas counties, one southeastern Missouri county, and one western TN county on the west side of the Mississippi River. Across my Arkansas territory, these two businesses are responsible for tens of thousands of soybean and cotton acres. Of those acres, roughly 90% of soybeans are Xtend or XtendFlex, 5% are Libertylink or Enlist, and 5% conventional soybeans. Of the cotton acres, approximately 90% are XtendFlex, 5% Enlist, and 5% GT/LL. Our growers understand the best path for financial and stewardship success is through the Xtend system. I recommend that most of my growers plant Xtend/XtendFlex cotton and soybean due to its higher yield and excellent weed control.
- c. Based on my professional experience, questioning colleagues, peer-reviewed scientific journal articles, and the documentation of the University of Arkansas, Palmer amaranth is one of the most troublesome weeds in Arkansas. Palmer amaranth is widely recognized in Arkansas as having multiple resistance to acetolactate synthase inhibitors (Group 2), ESPS synthase inhibitors (Group 9), protoporphyrinogen oxidase inhibitors (Group 14), very long chain fatty acid inhibitors (Group 15), and microtubule inhibitors (Group 23). Due to its prolific seed production, a plant that germinates between March and June may produce in greater than 200,000 seeds per plant. One that emerges in June may grow between 0.18 and 0.2 cm per

growing degree day. Under favorable conditions around 86 degrees, Palmer amaranth can germinate within a single day, compared to other *Amaranthus* species that may take days to germinate. When populations reach approximately 2- to 3 plants per meter of row, 64 and 68% yield reductions have been reported in scientific literature. One of the pillars of herbicide resistance management is the use of multiple modes of action.

d. As the literature and concerned growers of Arkansas have long reported, Palmer amaranth has resulted in significant financial losses because of limited weed control options in Arkansas crops; leading to overall yield reductions.

e. In an effort to help growers control Palmer amaranth and other problematic weeds nationwide, Monsanto (merged to Bayer Crop Science) developed the dicamba-tolerant herbicide systems Xtend and XtendFlex, which have been widely adopted by all states.

f. All states, other than Arkansas, have adhered to the federal label with no need for additional restrictions to the federally accepted labels.

g. Enhanced restrictions on dicamba herbicides have forced farmers to grow their dicamba-tolerant crops with little chance to make a dicamba application that would improve weed control and herbicide resistance management programs.

h. Volatility is described as the transition of a liquid to a gas. The main goal of the new dicamba formulations was to reduce this change of state. Although they do not eliminate volatility, reduction in volatility has been shown across other states, as the products claim they will. It should be noted that dicamba is not the only herbicide to volatilize.

i. Physical drift is the movement of a liquid from a target to a non-target area, usually caused by wind. Physical drift is a concern of not just dicamba, but every pesticide used.

j. The movement of pesticides in a temperature inversion is one that is known, but not perfectly understood and should not be confused with volatility. These two phenomena are similar in their appearance when an inversion disperses over a wide area. Inversions, like volatility and physical drift, are not only linked to the herbicide dicamba.

k. The EPA has restricted the use of dicamba after June 30 and July 30 in soybean and cotton, respectively. This is vastly different than the May 25 cutoff imposed by the Arkansas State Plant Board. It should be noted that soybeans are typically planted from late March to mid-June in Arkansas and cotton is typically planted from late March to early June. Many farmers rely on the use of residual herbicides to keep hard-to-control weeds at bay, reducing the need for POST herbicides, as recommended by the University of Arkansas weed scientists and most weed scientists across the nation. In several cases, farmers do not have the ability to spray dicamba before the May 25 cutoff in Arkansas. In the previous three growing seasons, wet weather has prevented planting and spraying resulting in disastrous situations ranging from seemingly insurmountable weed pressure and even replanting large acreage. These situations, in combination with a May 25 cutoff, force growers to rely on old technology that Palmer amaranth is either becoming overly subjected or resistant to.

l. It should be understood that farmers never intend to harm their own, neighbors', or homeowners' property EVER. Some herbicides, like dicamba, have very distinct damage that may show up on unintended vegetation; however, this damage in most cases is nothing more than superficial due to the significantly less than lethal rate that has dispersed over the distance traveled. These rates are typically so small that it is impossible to replicate the amount in small-plot research. In almost all cases, the injured plants will return to normal growth habits that never hinder their ability to reproductively produce at a level that is not different than if the injury had never occurred. Lastly, in a few cases, these herbicide injury symptoms can be mimicked by other plant stress enhancers (see holcus leaf spot in corn compared to paraquat injury).

m. Buffer zones have been placed on dicamba products labeled for over-the-top use in dicamba crops by the EPA. These buffer zones are in place to protect non-target areas from damage that would be considered lethal or excessively damaging. Currently, the EPA-approved restrictions require a 240 ft downwind buffer as well as the use of pH buffer. Documentation has shown these dicamba products can reduce the pH of the final solution to a less than acceptable level that can result in increased off target movement. The use of pH buffers raises the pH to acceptable levels that keep products where they are intended. The Arkansas State Plant Board has further restricted buffer zones to within half of a mile of non-DT crops and homes, as well as, a one-mile restriction from any university or USDA research facility. These restrictions are 11 and 22 times more restrictive than the federal label, respectively.

n. In 2021, my growers are expected to plant a majority of XtendFlex soybeans and cotton. With the addition of glufosinate to the XtendFlex soybean system, we have the ability to rotate between two effective modes of action within one cropping season. With a May 25 cutoff, this puts an insurmountable pressure on glufosinate. It is possible that cotton and soybean acres are sprayed with glufosinate in consecutive years since they are a common rotational crop, and even more so within corn systems. This strategy puts pressure on the Libertylink system to maintain an unattainable level of control year after year. Once widespread glufosinate resistance is confirmed, there will be no other POST control methods available outside of dicamba and 2,4-D in soybeans and cotton.

o. It is paramount the Arkansas State Plant Board understand the need for dicamba in Arkansas agriculture and why farmers should be allowed to abide by federal label restrictions without additional restrictions. These restrictions have placed heavy financial burdens on farmers and possibly even more so on other herbicide technologies.

II. Argument


- a. Xtend/XtendFlex technologies should lead the state in planted acres. Assuming this, we can project that dicamba is intended to be applied zero to two times per field. With the 2020 restrictions, several farmers who need time to even make one application could possibly not have that. It is only fair that Arkansas growers paying a premium for the seed technology receive a premium herbicide to control the State's most troublesome pest.
- b. I, Huntington Tyler Hydrick, am opposed to any further restrictions on over-the-top applications of dicamba. Anything short of a June 30 cutoff in soybeans and a July 30 cutoff in cotton is detrimental to a grower's weed control system and profits.

- c. Since release in 2017, we have been able to observe reduced complaints where applications were made within the rules and observe surrounding states each year. Arkansas growers have attended necessary trainings to make quality applications that limit off-target movement. As a consultant, I recommend the labeled use rates and insert specific label restrictions in the comments of the report. This has lowered our risk of off-target movement.
- d. It comes without argument that dicamba has been placed on its own pedestal within the Arkansas State Plant Board. Inspectors are pulling weeds from fields to be tested for damage, unlike any other pesticide on the market. Dicamba is one of the few pesticides in Arkansas with mountains of enhanced restrictions. Dicamba is the only herbicide to have its own task force created to regulate it within the Arkansas State Plant Board. Dicamba is the only pesticide within the Arkansas State Plant Board that comes with a \$25,000 fine for chemical trespass per incidence. Farmers and consultants alike see the damage caused by glyphosate in rice. Literature has shown that paraquat injury on rice can affect yield, and possibly even seed germination where seed rice is grown for the following year. I feel, as do many others, that dicamba has received an unfair and biased ruling within the Arkansas State Plant Board.
- e. One such argument for the ban on dicamba has come from members outside of the Agricultural community. Let me be frank in saying, I have never seen a tree, bird, or bee colony killed by dicamba. Behind the Mississippi River levee in Tennessee, we have successfully applied dicamba since 2017 with zero tree fatalities. This argument lacks teeth and should not be considered by the Arkansas State Plant Board. These peoples are only here to see the destruction of Arkansas agriculture and those who take pride in their work in the field.

III. Action Requested of the Arkansas State Plant Board

- a. I request the following as part of the rule-making process:
 - i. The implementation of a full, federally-approved label for all reduced volatility dicamba formulation in the state of Arkansas without additional restrictions.
- b. I request the rule making process be initiated on the point outlined in Section III a. I also request the process be expedited and that I am provided the opportunity to participate in the discussion related to the rule-making process.

Submitted on this 31 day of January, 2021.


 Huntington Tyler Hydrick