



Integrated Pest & Crop Management

Ag Industry, Do we have a problem yet? Kevin Bradley

It's funny how we can be living through a situation or watch something unfold in front of our very eyes and one person can view it one way and another can see it totally different. If you think about it, this happens all the time at sporting events. Not too long ago I was watching a Cardinals game with some Cubs fans and all of a sudden they all started yelling that our player was out when I could clearly see that he was in fact, safe. How can that be? We were all watching the same thing at the same time...

I've been trying to wrap my head around this whole issue of perspective lately. I think a person's perspective is an important thing to consider when it comes to the issues we are seeing with off-target movement of dicamba in this country, and especially when it comes to the reasons that are offered for off-target movement. Never has a difference in perspective been more apparent to me than what I have seen happen for the past year, and especially for the past two months, within the agricultural industry.

I get calls daily from those who say we have a major problem with off-target movement of dicamba and something has to be done about it. Most of these calls are from soybean farmers who have had their crops drifted onto. Some are from homeowners or vegetable producers. Others are from representatives with other competing companies that don't have a stake in any dicamba product or the Xtend technology. There's that perspective thing again. More recently, most of these calls are from independent agronomists, agricultural retailers, and custom applicators who have been making applications of these approved dicamba formulations and have now decided to stop spraying these products for the rest of the season because of the off-target movement that has occurred despite their best efforts to keep these products in place.

I also get calls daily (and read articles and company "position" blogs, posts, tweets, etc.) from those who say we don't have a major problem at all, and that people like me are drawing more attention to an issue that isn't really a problem, and that this is just a normal part of the "learning curve" with any new technology. Most of these calls (or articles, blogs, posts, tweets, etc.) are from company representatives that either make one of the approved dicamba products, or sell the Xtend trait. Some of these calls are also from farmers and/or farmer seed dealers who say they have sprayed one of the approved products on their Xtend soybean and have had zero problems. More perspectives I guess.

I shouldn't be surprised by all this but I must confess it is baffling to me; here we have people within the agricultural industry that are all *presumably* watching the same thing unfold in front of their eyes at the same time, yet these people have a completely different perspective as to how significant this issue really is. So I thought maybe I would try to expand all of our perspectives (mine included) outside of just what is happening in Missouri or anywhere else. I thought I would try to put a 'U.S. perspective' on this issue.

The purpose of this article is NOT to debate whether the off-target dicamba problems are due to drift, sprayer error, volatility, contaminated glufosinate, calcium deficiency, temperature inversions, inadequate training by universities, generic dicamba, the coming solar eclipse, or any of the dozens of other explanations I've seen put forward. I've already spent plenty of my summer arguing about these reasons and based on current responses from industry, it looks as if I'll be spending most of the rest of the year doing more of the same. Regardless, several of my colleagues have written brilliantly on these topics so I've decided there is no need for me to try to

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re-invent the wheel and tell you something that I literally could not say any better than what has already been said. If you have not read these articles already, I would highly recommend that you do so. They are well worth the read (from my perspective): The Dicamba Dilemma in Illinois: Facts and Speculations, by Aaron Hager, Associate Professor, University of Illinois; (<http://bulletin.ipm.illinois.edu/?p=3942>) I Can't Keep Dicamba in the Field by Larry Steckel, Extension Weed Specialist, University of Tennessee; (<http://news.utcrops.com/2017/07/cant-keep-dicamba-field/>) and Thoughts on the Dicamba Dilemma by Bob Hartzler, Professor of Agronomy, Iowa State University (<https://crops.extension.iastate.edu/blog/bob-hartzler/thoughts-dicamba-dilemma>).

The purpose of this article is simply to broaden our view and provide a national perspective of the problem as it stands right now, in hopes that at least some in the industry can agree that this is a substantial problem that needs to be addressed. Oops, I kind of let my own perspective slip there a bit.

In order to do this, I requested information from many state Departments of Ag about the number of official dicamba-related investigations that are currently under way in 2017. This information is shown in Figure 1. If a state isn't colored in on this map, it simply means that either I did not get a response from that state, or that I never requested any info because they produce little to no cotton or soybean. However, as Dr. Hager pointed out in his recent article, to estimate the extent of the dicamba injury problem using the number of complaints filed with the state Departments of Ag as the sole metric would be to "grossly underestimate the current reality".

Because I agree with Dr. Hager's statement, I also polled a number of university extension weed scientists from around the country and asked them to provide me with their best estimate as to the number of soybean acres injured by dicamba in their respective states. These estimates are shown in Figure 2. I'm sure many will have problems with these numbers, but I can assure

you that none of these individuals took these estimates lightly. These estimates weren't just generated out of thin air, they were generated by polling Extension agents around the state; by personal field visits of affected areas; through emails, calls and texts from injured parties; and through various consultations with trusted ag retailers, applicators, and farmers around each state. As with Figure 1, if a state isn't colored in on the map, it is either because there was no weed science contact in that state, or because that state produces little to no soybean.

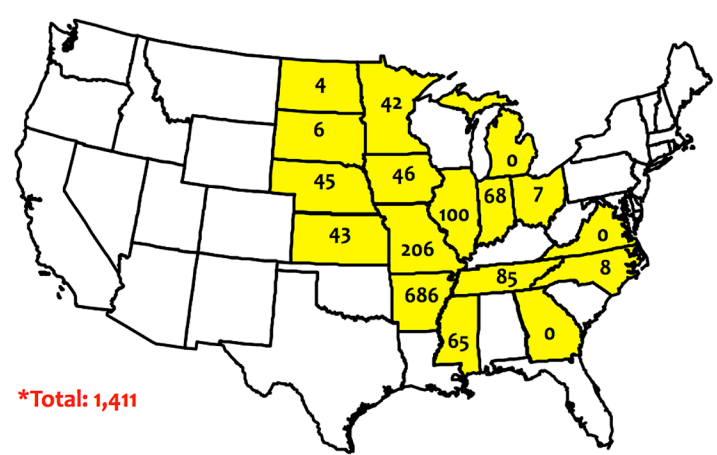
I didn't know what kind of responses I would get when I set out to make these maps. After looking through the official responses and estimates I would say that this exercise has broadened my perspective but hasn't really changed it. For everyone who reads this article and sees these maps I leave you with the two questions:

First, does 1,411 official dicamba-related injury investigations and/or approximately 2.5 million acres of dicamba-injured soybean constitute a problem for U.S. agriculture? I guess it depends on your perspective but my answer is an emphatic yes. If you think so as well, let others know how you feel and let's stop the standard denial routine that I have heard so often this season. Instead, let's put our time and effort into figuring out where we go from here as an industry and what's going to be different about next season.

Second, I said previously that the purpose of this article is NOT to debate about the reasons for off target movement. And it isn't. And I'm not. But the reasons for off-target movement of dicamba are the number one thing we are going to have to discuss if you agree that there is a problem. So my last question is this; can you look at the scale and the magnitude of the problem on these maps and really believe that all of this can collectively be explained by some combination of physical drift, sprayer error, failure to follow guidelines, temperature inversions, generic dicamba usage, contaminated glufosinate products, and improper sprayer clean out, but that volatility is not also a factor?

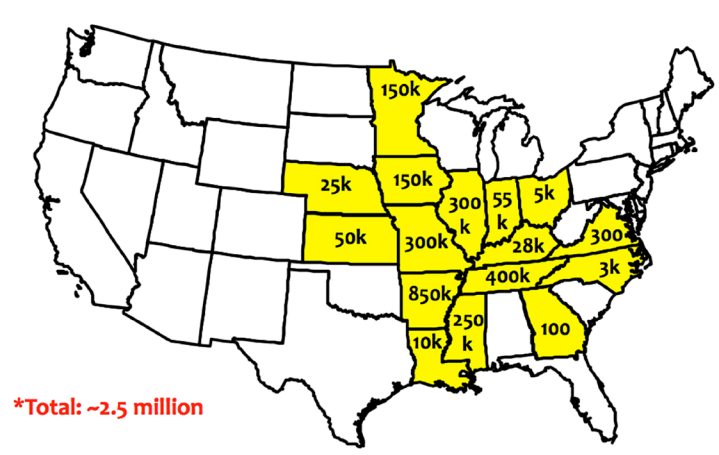
I know what my perspective is, what's yours?

Figure 1. Official dicamba-related injury investigations as reported by state departments of agriculture (as of July 19, 2017).



*Total: 1,411

Figure 2. Estimates of dicamba-injured soybean acreage as reported by state extension weed scientists (as of July 19, 2017).



*Total: ~2.5 million

Missouri State Approved Soil Testing Labs Manjula Nathan

The Missouri Soil Testing Association (MSTA) Approval Program is designed to assure that results provided by participating public and private labs serving the citizens of Missouri agree with allowable statistical limits. This is accomplished by evaluating the soil testing laboratories in their performance through inter-laboratory sample exchanges and a statistical evaluation of the analytical data. Based on this premise, soil test results from MSTA approved labs will be accepted by the U.S. Department of Agriculture, Farm Service Agency (FSA) and Department of Natural Resources and Conservation Services (NRCS) in federally assisted cost share programs and nutrient management plans in the state of Missouri.

In order to be approved by the Missouri State program, the participating labs should participate in all four quarter exchanges of the NAPT program and submit the MO State data release form each year to the NAPT coordinator. The NAPT coordinator in return sends soil test data from quarterly sample exchanges of the labs participating in MSTA program to the Missouri state coordinator. The MU Soil Testing Lab director serves as the state program coordinator and performs statistical analysis of the data as specified in the MSTA program. If a lab's results fall within the allowable limits, the lab will be placed on the Farm Service Agency's (FSA) list of approved labs. A lab that is not approved may re-apply after a year. An updated listing of Missouri State Approved Soil Testing lab list can be found at: <http://soilplantlab.missouri.edu/soil/msta.aspx>

List of Missouri State Approved Soil Testing Labs, July 2017 to June 2018:

MU Soil and Plant Testing Lab

University of Missouri
23 Mumford Hall
Columbia, MO 65211
Telephone: 573-882-3250
Fax: 573-884-4288

MU Delta Soil Testing Lab

Univ. of Missouri, PO Box 160
Portageville, MO 63873
Telephone: 573-379-5431
Fax: 573-379-3383

Custom Laboratory

204 C St.
Golden City, MO 64748
Telephone: 417-537-8337
Fax: 417-537-8337

Perry Agricultural Lab

PO Box 418
State Highway 54 East
Bowling Green, MO 63334
Telephone: 573-324-2931
Fax: 573-324-5558

Ag Source Laboratories

300 Speedway Circle #2
Lincoln NE 68502
Tel: 402-476-0300
Fax: 402-476-0302

American Agricultural Lab

210 East First St, PO Box 370
McCook, NE 69001
Telephone: 308.345.3670
Fax: 308-345-7880

Midwest Laboratories, Inc.

13611 B St.
Omaha, NE 68144-3693
Telephone: 402-334-7770
Fax: 402-334-9121

Ward Laboratories

4007 Cherry Ave.
PO Box 788, Kearney, NE 68848
Telephone: 308-234-2418
Fax: 308-234-1940

Waypoint Analytical Iowa, Inc.

111 Linn St., PO Box 455
Atlantic, IA 50022
Telephone: 901-213-2400
Fax: 901-213-2440

Ingram's Soil Testing Center

13343 Fitschen Road
Athens, IL 62613
Tel: 217-636-7500
Fax: 217-636-7500

SGS-Toulon Labs

117 East Main St.
Toulon, IL 61483-0518
Telephone: 309-286-2761
Fax: 309-286-6251

SGS-Belleville

1511 East Main St.
Belleville, IL 62221
Telephone: 618-233-0445
Fax: 618-233-2792

Waypoint Analytical Inc.

2906 Clark Road
Champaign, IL 61822
Telephone: 217-359-7680
Fax: 901-213-2440

A&L Great Lakes Laboratory

3505 Conestoga Drive
Fort Wayne, IN 46808
Telephone: 260-483-4759
Fax: 260-483-5274

MVTL Laboratories-New Ulm

1126 North Front St.
New Ulm, MN 56073-0249
Telephone: 507-354-8517
Fax: 507-359-2890

Brookside Lab Inc.

200 White Mountain Drive,
New Bremen OH 45869
Telephone: 419-977-2766
Fax: 419-977-2767

Spectrum Analytical

1087 Jamison Road, PO Box 639
Washington Court House, OH 43160
Telephone: 740-335-1562
Fax: 740-335-1104

Waters Agricultural Laboratories

257 Newton Highway
PO Box 382, Camilla, GA 31730
Telephone: 229-336-7216
Fax: 229-336-0977

Waters Agricultural Laboratories

2101 Old Calhoun Road
Owensboro, KY 42301
Telephone: 270-685-4039
Fax: 270-685-3989

Waypoint Analytical Inc.

2790 Whitten Road
Memphis, TN 38133
Telephone: 901-213-2400
Fax: 901-213-2440

Ag Source Cooperative Services

106 N. Cecil St. PO Box 7
Bonduel, WI 54107
Telephone: 715-758-2178
Fax: 715-758-2620

Note: Approval of soil analysis does not imply approval of fertilizer and limestone recommendations by the individual labs. The approval allows the clients to use the University of Missouri soil fertility recommendations as required by the federal and state agencies for cost share and nutrient management planning programs. In order to use the University of Missouri soil fertility recommendations and get meaningful results, it is recommended that the labs use the soil test procedures required by the MSTA program.