Where do we go from here?
A University Perspective.

...along with some help from some famous Missourians
Never before has there been so much divisiveness in this industry.

“When angry, count to four; when very angry, swear.”
Weedkiller dicamba unlocks record harvests — and a web of conflict among divided farmers

By Bruce Gray St. Louis Post-Dispatch Oct 17, 2017

“*This is the enemy right here*” said farmer Jason Brewer as he stands next to a pigweed plant at the edge of his soybean field on Wednesday, Oct. 15, 2017, at his farm near Peach Orchard, Missouri. Brewer is busy harvesting his soybeans, rice, and cotton this month. Photo by JB. Forbes/Forbes@post-dispatch.com

A Pesticide, A Pigweed And A Farmer’s Murder

June 14, 2017 - 5:11 AM ET

Host of Morning Edition

MARIANNE MCCUNE

One farmer’s improper use of an herbicide damaged another’s field and led to a shooting. The dispute reveals divisions among neighbors and economic tradeoffs over the right way to farm.

STEVE INSKEEP, HOST:

*There’s a weed in Arkansas that can put a farmer out of business. It’s called pigweed. You get one plant in your field, and that one plant can produce more than a million seeds. Many of the seeds become new plants that can choke your fields. Arkansas farmers are in a constant battle with pigweed. And last year, that battle pitted farmer against farmer. Marianne McCune from our Planet Money podcast has the story of how a war with a weed led to murder.*

MARIANNE MCCUNE, BYLINE: Mike Wallace was shot dead last October on a quiet county road at the edge of his field. His widow, Karen, and their son are still growing cotton and soybeans, keeping their heads up — even without Mike.

Monsanto’s Weed Killer, Dicamba, Divides Farmers

Twenty-five million acres have been planted with genetically modified seeds to encourage the spraying of the herbicide. Farmers worry about damage to crops.
Farmers sue Monsanto, other producers over drifting herbicide

Tom Charlier, USA TODAY NETWORK – Tennessee

Photo: Saul Verdo/The Commercial Appeal

After wading into waist-high soybeans that on the surface appear healthy, Mark Bozini reaches deep into the plants to show their true condition.

“Here’s the cupping,” he said, holding some leaves that look puckered and withered.

Bozini, 60, who farms 2,500 acres near Marion, Arkansas, is among a group of East Arkansas farmers suing the makers of a herbicide that they say has drifted from the fields where it was sprayed and settled onto their crops, causing major damage.

In the class-action suit, the farmers say Monsanto Co., along with BASF Corp. and DuPont, placed greed ahead of responsibility in persuading growers to spray their fields with dicamba, a product known to be highly volatile and prone to drift.

Filed in U.S. District Court in St. Louis, the suit represents a new phase of a controversy that has roiled the rural Mid-South, spawning hundreds of farmer complaints, prompting emergency state restrictions and even precipitating a fatal shooting.

Dicamba, a weed-killer sold under a number of brand names, has been around since the 1940s, but this is the first year it's been fully legal to spray on cotton and soybeans that already have sprouted. The product is sold in conjunction with seeds that have been genetically modified to tolerate it, which allows farmers to spray the herbicide directly on their rows without damaging crops.

Missouri's largest peach farmer sues Monsanto over alleged damage from illegal herbicide use

By Bryna Gray St. Louis Post-Dispatch
Dec 6, 2016

Maria Hammers packs peaches from a conveyer belt and packs them for shipment. Hammers is the state's largest producer of peaches, which it distributes across a vast swath of the Midwest and the South. photo by Bryna Gray, japrend@post-dispatch.com

2) farmers and companies
3) farmers and university weed scientists

*Photo courtesy of Dr. Amit Jhala, University of Nebraska.
4) non-ag public and farmers, companies, etc.
5) companies and university weed scientists

Bloomberg BNA
August 30, 2017

As Dicamba Dust Settles, Scientists and Industry Spar

Successful Farming at Agriculture.com

Monsanto Levels Criticism at Arkansas Weed Scientists
"Sad Day in Weed Science," Says One Extension Weed Scientist

By Gil Gullickson
9/11/2017

Monsanto has taken off the gloves in its effort to advance its dicamba-tolerant technology. Last week, the St. Louis-headquartered firm filed a petition with the Arkansas State Plant Board to halt what it calls an "unwarranted and misinformed ban" on dicamba in Arkansas.

Within that petition, they criticized the efforts of two well-known Arkansas weed scientists—Ford Baldwin and Jason Norrisworthy. Baldwin is a retired University of Arkansas (U of A) Extension weed scientist who now does consulting work. Norrisworthy is a U of A weed scientist.

The petition is related to an August directive that Governor Asa Hutchinson (R-AR) gave to the Arkansas agriculture secretary and plant board director to convene and cochair a dicamba task force to develop recommendations for future use of dicamba. The task force recommended that the Arkansas State Plant Board impose a flat ban on over-the-top use of all dicamba formulations after April 15 in 2018. (In 2017, only BASF’s Engenia formulation of dicamba marketed as lower in volatility than other dicamba forms was labeled for use in Arkansas.)

U.S. Scientists to Skip Monsanto Summit on Controversial Weed Killer

By Reuters September 27, 2017
6) and apparently even between companies and regulatory agencies.
“If you don’t know where you’re going, you might wind up someplace else.”

Yogi Berra
What does **success** for dicamba look like in 2018?

1. A decrease in the number of off-target deposition events and complaints (the extent of the decrease required is highly debated).

2. Acknowledgement by all registrants that volatility plays a role and concerted efforts are made to do something about it.

3. Applicators have been trained and know how to use the technology appropriately.

4. Applicators actually observe the label requirements with regard to buffers, etc.

5. Bad actors are held accountable.

*Responses from numerous university weed scientists across the U.S.*
6. Those suffering damage are compensated appropriately for their losses.
“The buck stops here.”

HARRY S. TRUMAN (1884 — 1973)
33rd President of the United States (1945 — 1953)
But where is “here”?

Portion of letter from insurance company to farmer that sprayed Engenia and neighbor had damaged fields:

“We have a policy to defend our insured for his negligence against a third party, but if once our investigation is done and we show he did everything correctly, then the problem lies with the product and the liability with the manufacturer,” Steve Simmons, Nationwide Associate Vice President of Risk Management

What does success for dicamba look like in 2018?

6. Those suffering damage are compensated appropriately for their losses.

7. No discovery of dicamba-resistant weeds.

8. Dicamba used as a component of an integrated program with effective soil-residual herbicides and with only early POST applications of dicamba followed by other herbicide or non-herbicide tactics.

9. Realization that this issue is an indication of a failure to address the need for an integrated approach to weed management.

*Responses from numerous university weed scientists across the U.S.*
What does **success** for dicamba look like in 2018?

10. A higher degree of transparency/impartiality/integrity by all company representatives when diagnosing off-target movement of dicamba.


*Responses from numerous university weed scientists across the U.S.*
What does failure for dicamba look like in 2018?

1. A significant increase or the same level of agricultural off-target deposition events and complaints as observed in 2017 (the extent of the increase required is highly debated).

2. An increase in the number of non-agricultural off-target deposition events.

3. Class-action lawsuits.

4. A continuation of audacious marketing claims that leads growers away from integrated weed management and towards a belief that this is the next “solution.”

*Responses from numerous university weed scientists across the U.S.*
“Man is the only animal that blushes. Or needs to.”

Mark Twain
What does failure for dicamba look like in 2018?

5. Failure to recognize this as a valuable preplant tool for Conyza, Ambrosia, etc. in place of POST use on Amaranthus (long-term vs. short-term).

6. Failure to renew the auxin labels for 2019.

*Responses from numerous university weed scientists across the U.S.*