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## **9<sup>th</sup> Annual Mid-South Conference Materials**

### **Future of Dicamba, Enlist Duo, & Other Crop Protection Products**

*Alexandra Dunn*

# CROP PROTECTION SOLUTIONS IN CHANGING TIMES

SUBMITTED BY ALEXANDRA DUNN, PARTNER AND RICARDO PAGULAYAN, SUMMER ASSOCIATE,  
BAKER BOTTS LPP FOR  
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This outline provides a high-level summary of developments in the pesticide regulatory and policy arena from November 2021 onwards. The outline complements a slide deck which discusses how the U.S. Environmental Protection Agency (“EPA”), states and tribes, and other stakeholders, including registrants, agricultural worker groups, species protection organizations, and academia, are responding to these developments and some of the creative and proactive solutions being deployed.

## I. SCIENCE AND POLICY STRESSORS ON PESTICIDE REGISTRATIONS

### Plant Resistance

- Weed populations are continuing to develop, over time, resistance to a variety of pesticides. Some of the more resistant weeds are Palmer’s pigweed and waterhemp (identified resistance to dicamba); various pigweeds, waterhemp, lambsquarters, ragweed, kochia, and ryegrass (resistance to glyphosate); and waterhemp, wild carrot, and spreading dayflower (resistance to 2,4-D, a component of Enlist Duo).
- EPA has released and sought comment on two Pesticide Registration Notices (PRN 2017-1 and 2017-2) that establish user guides for slowing the spread of resistant weed populations.

### Crop Damage Lawsuits

- Many recent crop damage suits are focused on dicamba. 2020 and 2021 saw several damages awards in dicamba drift cases. Many farmers alleging injury to their crops from dicamba drift are still awaiting settlement or trial in 2022.
- To be sure, there have been earlier crop damage suits concerning other pesticides. In 2008, an organic farm was awarded \$1 million in a pesticide drift suit tied to chlorpyrifos, diazinon, and dimethoate. In 2020, farmers claiming that the pesticide Sendero damaged their crops through drift revived their case in a Texas state court of appeals.

### Farm Worker Justice Movement

- Various factors render farm workers vulnerable to pesticide-related exposures. Approximately 70% are foreign born and have limited English proficiency, and more than 50% are not authorized to work in the U.S., which often stops them from speaking up about their safety.<sup>1</sup>
- Between October 2020 to September 2025, EPA expects to provide up to \$500,000 annually to develop national pesticides safety training and education/outreach programs and promote environmental justice for low-income and low-literacy farm workers.
- In June 2022, a federal district court in New York issued a stay until at least August 2022 on EPA’s final rule<sup>2</sup> that revises pesticide application exclusion zone standards. The rule addresses which, and how, people are to leave certain areas during pesticide applications.

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<sup>1</sup> Letter from Richard Moore, Chair, National Environmental Justice Advisory Council to Andrew Wheeler, Administrator, U.S. EPA (Dec. 18, 2018), [https://www.epa.gov/sites/default/files/2019-03/documents/nejac\\_letter\\_on\\_worker\\_protection\\_standards.pdf](https://www.epa.gov/sites/default/files/2019-03/documents/nejac_letter_on_worker_protection_standards.pdf).

<sup>2</sup> 87 Fed. Reg. 29,673 (codified at 40 C.F.R. pt. 170).

## **Pollinators and Threatened/Endangered Species**

- Since 2015, EPA has been developing risk assessment procedures to determine and document the effects of pesticides on pollinator species, especially bees. In 2020, EPA and USDA conducted a workshop to address factors that affect pollinator health. USDA published the results of the workshop in 2021, iterating the agency’s priorities and goals for pollinator health.<sup>3</sup>
- Beginning 2021, EPA began developing a comprehensive, long-term term approach to fulfilling its obligations under the ESA and FIFRA. EPA has engaged in quarterly ESA-FIFRA meetings with stakeholders to develop a workplan for a balanced approach to wildlife protection and pesticide use. The workplan was released in 2022.<sup>4</sup>
- In January 2022, EPA announced that it would be taking a more consistent approach to ESA considerations as to applications for new active pesticide ingredients (*see infra*, Major Policy & Regulatory Developments).

## **Technology Development**

- New approaches are being developed for more precise application of pesticides. Some of the more fruitful ones include using drones/unmanned aerial systems for spraying crops, using GPS technologies for spot treating and site-specific spraying, and deploying laser sensors to control spray rates and reduce airborne spray drift.

## **II. SELECTED RECENT PESTICIDE LITIGATION**

### **Aldicarb**

- In 2021, the D.C. Circuit struck down EPA’s 2021 approval of aldicarb in Florida. The court stated that EPA seriously erred in its approval decision in light of studies pointing to the acute toxicity of aldicarb.<sup>5</sup>

### **Chlorpyrifos**

- Following EPA’s 2021 final rule revoking all tolerances of chlorpyrifos in food products, a farm group coalition sued EPA requesting a stay of EPA’s action and ultimate dismissal.<sup>6</sup> Group members allege that EPA’s decision to revoke chlorpyrifos food tolerances inflicts major harm on their industries, which depend on chlorpyrifos to control populations of insect pests. The de facto chlorpyrifos ban stands while litigation is ongoing.

### **Dicamba**

- EPA is facing several lawsuits from environmental groups challenging its 2020 registration of three over-the-top dicamba herbicides: XtendiMax, Engenia, and Tavium. A coalition led by the Center for Biological Diversity is urging the District of Arizona to vacate EPA’s 2020 registrations.<sup>7</sup> Generally, challengers claim that the new registrations share the same unreasonable adverse environmental risks as past dicamba registrations.

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<sup>3</sup> U.S. DEP’T OF AGRIC., 2021 USDA ANNUAL STRATEGIC POLLINATOR PRIORITIES AND GOALS REPORT (2021).

<sup>4</sup> U.S. ENV’T PROT. AGENCY, BALANCING WILDLIFE PROTECTION & PESTICIDE USE: HOW EPA’S PESTICIDE PROGRAM WILL MEET ENDANGERED SPECIES ACT OBLIGATIONS (2022).

<sup>5</sup> *Farmworker Ass’n of Fla. v. EPA*, No. 21-1079 (D.C. Cir., closed June 6, 2021).

<sup>6</sup> *RRVSG Ass’n v. Regan*, No. 22-1422 (8th Cir., filed Feb. 28, 2022).

<sup>7</sup> *Ctr. for Biological Diversity v. EPA*, No. 20-cv-555 (D. Ariz., filed Dec. 23, 2020); *Nat’l Family Farm Coal. v. EPA*, No. 20-73750 (9th Cir., filed Dec. 22, 2020).

- Other groups are suing EPA for approving use restrictions in March 2022 that would further limit the use of the 2020 dicamba registrations in Minnesota and Iowa.<sup>8</sup> Challengers take issue with EPA’s buffer requirements.
- BASF Corp. and Monsanto Co. continue their appeal of the \$75 million verdict in favor of Bader Farms in 2020, claiming that the verdict misplaced blame because there was no way to tell which manufacturer produced the dicamba that caused the harm.<sup>9</sup>

### **Glyphosate**

- The main concern surrounding glyphosate is its potential effect on human health. In January 2020, EPA found that glyphosate is “not likely to be a human carcinogen” after decades of study. Thousands of claims brought by users of the glyphosate-based pesticide Roundup who have been diagnosed with non-Hodgkin’s lymphomas have been consolidated into an MDL in the Northern District of California.<sup>10</sup> There are still approximately 4,000 unresolved claims in the MDL. The first case to go before a jury was *Hardeman v. Monsanto Co.* in 2019. In 2021, the Ninth Circuit held that the California plaintiff’s failure to warn claim in *Hardeman* was not preempted by FIFRA’s statutory warning requirements.<sup>11</sup> Monsanto petitioned for certiorari to the U.S. Supreme Court to contest the Ninth Circuit’s decision in *Hardeman*. The Supreme Court will consider Monsanto’s petition on June 9, 2022.

### **Paraquat**

- Thousands of claims brought by those who have used or been exposed to Paraquat and diagnosed with Parkinson’s disease have been consolidated in an MDL in the Southern District of Illinois.<sup>12</sup> 57 new cases were added in May 2022, and there are now 1,153 total claims pending in the MDL.

### **Sulfoxaflor**

- Litigation challenging EPA’s 2019 sulfoxaflor registration is ongoing.<sup>13</sup> During oral arguments held before the Ninth Circuit in January 2022, food and environmental groups urged the court to vacate EPA’s sulfoxaflor registration due to concerns over bee populations. The groups claimed that EPA’s approval of the pesticide was based on inconclusive studies as to the effects of sulfoxaflor on bee colonies.
- Citing harms on bee populations, a California state court in December 2021 issued a statewide order banning the use of sulfoxaflor in California.<sup>14</sup>

## **III. MAJOR POLICY & REGULATORY DEVELOPMENTS**

### **New Active Ingredients**

- As of January 2022, prior to approving any new active pesticide ingredients, EPA will evaluate potential adverse effects on listed species and critical habitat and will initiate ESA consultations with federal environmental agencies.
- Reapprovals of existing active ingredients are not included in this policy.

<sup>8</sup> *Am. Soybean Ass’n v. EPA*, No. 20-cv-3190 (D.D.C., filed Nov. 4, 2020); *Am. Soybean Ass’n v. Regan*, No. 20-1441(D.C. Cir., filed Nov. 5, 2020).

<sup>9</sup> *Bader Farms, Inc. v. BASF Corp.*, No. 20-3663 (8th Cir., filed Dec. 22, 2020); *Bader Farms, Inc. v. Monsanto Co.*, No. 20-3665 (8th Cir., filed Dec. 22, 2020).

<sup>10</sup> *In re Roundup Prods. Liability Litig.*, No. 16-md-2741 (N.D. Cal., filed Oct. 4, 2016).

<sup>11</sup> *Hardeman v. Monsanto Co.*, No. 19-16636 (9th Cir. 2021).

<sup>12</sup> *In re Paraquat Prods. Liability Litig. v. Syntega Crop Prot.*, No. 21-md-3004 (S.D. Ill., filed June 8, 2021).

<sup>13</sup> *Ctr. for Food Safety v. Wheeler*, No. 19-72109 (9th Cir., filed Aug. 20, 2019); *Pollinator Stewardship Council v. Wheeler*, No. 19-72280 (9th Cir., filed Sept. 6, 2019).

<sup>14</sup> *Pollinator Stewardship Council v Cal. Dep’t of Pesticide Regul.*, No. 20-66156 (Cal. Sup. Ct. Alameda Cnty.).

## **Chlorpyrifos**

- In 2021 EPA revoked all food product tolerances of chlorpyrifos residues.<sup>15</sup>

## **Dicamba**

- On May 15, 2022, EPA issued a status report<sup>16</sup> to the District of Arizona detailing the agency's plans for regulating dicamba in 2022 onwards. Unless directed otherwise by a court, EPA stated that the only changes in dicamba use for 2022 will be additional use restrictions in Minnesota and Iowa and state-specific cutoff dates.
- In the report, EPA shared its plans to monitor the use of its over-the-top 2020 dicamba registrations and deliver a draft risk assessment for dicamba herbicides by July 2022.

## **Enlist**

- In January 2022, EPA issued seven-year reapprovals of Enlist One and Duo. EPA requires certain spray and drift measures to protected listed species and critical habitat. Enlist One and Duo are prohibited in certain areas where EPA has identified risks to on-field listed species that use corn, cotton, or soybean fields for diet or habitat.
- As of March 29, 2022, Enlist One and Duo can now be used in all counties of Arkansas, Kansas, Minnesota, Missouri, Nebraska, Ohio, Oklahoma, and South Dakota.

## **Neonicotinoids/State Bans**

- EPA is expected to extend the use of neonicotinoids such as imidacloprid, thiamethoxam, clothianidin, and dinotefuran for at least 15 more years. Many states fear that neonicotinoids pose risks to pollinators. In 2022, California, Maine, and New Jersey are considering banning residential outdoors uses of neonicotinoids, particularly imidacloprid.

## **IV. EPA'S AUTONOMY**

### **Inspector General Investigations**

- Office of the Inspector General (OIG) examines fraud, waste, and abuse in EPA programs.
- In February 2021, OIG determined that EPA's Special Local Needs Program, which is managed by the Office of Pesticide Programs, needed objective performance measures to determine programmatic success as well as a data collection system to document risk and pollution reduction concerning pesticides.
- In May 2021, OIG found that EPA deviated from typical procedures in its 2018 dicamba registration decision and stated that the agency needs to improve documenting and following established procedures to ensure scientifically sound determinations.

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<sup>15</sup> 86 Fed. Reg. 48,315 (Aug. 30, 2021) (codified at 49 C.F.R. § 180.342).

<sup>16</sup> Report filed in *Ctr. for Biological Diversity v. EPA*, No. 20-cv-555 (D. Ariz., filed Dec. 23, 2020).