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US Court of Appeals for the Ninth Circuit Vacates Dicamba Registration

by [tiffany.dowell](#)

On Wednesday, June 3, the United States Court of Appeals for the Ninth Circuit issued a ruling vacating the federal registration for three dicamba herbicide products, Xtendimax, FeXapan, and Engenia. [Read full opinion [here](#).] This ruling could have major implications for farmers around the country who purchased and planted seed intending to apply these products.



TAMU AgriLife Communications photo

Factual Background

In response to glyphosate resistant weeds, Monsanto developed and patented new seed varieties for cotton and soybeans that were designed to tolerate the herbicide dicamba.

These dicamba-tolerant seeds were first sold in advance of the 2016 growing season.

Additionally, Monsanto, Corteva, and BASF each developed new formulations of dicamba for over-the-top application on soybeans and cotton and sought federal registration for these products under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Specifically, the products are: Monsanto's XtendiMax with Vapor Grip Technology (XtendiMax), Corteva's DuPont FeXapan Herbicide (FeXapan), and BASF's Engenia Herbicide (Engenia).

In 2016, the Environmental Protection Agency (EPA) granted conditional, two-year registrations to these three products. This conditional registration was set to expire in late 2018.

On October 31, 2018, the EPA approved another conditional, two-year registration for the products. The amended registration included additional restrictions on use, including limiting the time of day when application can be made, limiting the number of applications and the length of time after planting the application can be made, and allowing only certified applicators to make applications. In doing so, the EPA considered both the benefits and risks of the products.

The EPA found two benefits resulting from the over-the-top application of these dicamba products. First, the products "provide growers with an additional postemergence active ingredient to manage difficult to control broadleaf weeds during the crop growing season, particularly for those situations where herbicide-resistant biotypes, such as Palmer amaranth, may occur (and few alternatives are available)." Second, the EPA found that dicamba "provides a long-term benefit as a tool to delay resistance [to] other herbicides when used as part of a season-long weed management program that includes preemergence (residual) and postemergence (foliar) herbicides (along with rotations between different MOA [modes of action])." The EPA rejected two other benefits claimed by the applicants, refusing to find the over-the-top application of these products provided a comparative advantage in increasing crop yields and refusing to find that the products were "a crucial part of maintaining a conservation tillage program."

Conversely, the EPA also found risks related to the products, which it termed "impacts." One of these risks was the potential for damage to non-dicamba tolerant soybean growers through off-target dicamba. The EPA stated, "In general, exposure during the reproductive growth stages could result in reductions in yield..., but the Agency does not have enough information to quantify this claim." Next, the EPA stated there were potential impacts to growers of other dicamba-sensitive crops, but indicated the EPA did not know the extent of the damage to sensitive crops. Lastly, the EPA noted there were potential impacts to the landscape, noting reports from growers about incidences involving damage to trees and other non-crop plants.

Litigation Background

The Plaintiffs in this case, the National Family Farm Coalition, Center for Food Safety, Center for Biological Diversity, and Pesticide Action Network North America, filed suit against the EPA challenging the 2018

registration, alleging that the EPA's approval violated FIFRA and the Endangered Species Act. The Court granted Monsanto's request to intervene in the case. Oral argument was held on April 21, 2020.

Opinion

The Ninth Circuit sided with the Plaintiffs, holding that the 2018 registration violated FIFRA. Specifically, the Court held the "EPA substantially understated risks that it acknowledged and failed to entirely acknowledge other risks." Because the Court found the FIFRA violation and vacated the registration on those grounds, it did not reach the question of whether the registration violated the Endangered Species Act. [Read full opinion [here](#).]

Initially, the Court addressed an issue regarding to the scope of the litigation, ruling that its consideration applied to three products—Xtendimax, FeXapan, and Engenia. The EPA and Monsanto argued it was only the registration of Xtendimax at issue, but the Court rejected that argument, noting the Plaintiffs' challenge was to the October 31, 2018, registration, which included all three products.

FIFRA governs pesticide use, sales, and labeling in the United States. Under FIFRA, in order to grant a conditional amendment to a product's registration (which is what the October 31, 2018, Order did), the EPA must determine (1) the applicant has submitted "satisfactory data" and (2) the amendment will not "significantly increase the risk of any unreasonable adverse effect on the environment." The "unreasonable adverse effect on the environment" includes "any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide."

Satisfactory Data

The Court outlined the data submitted by Monsanto, which included a number of field studies, and telephone reports of off-target movement where Monsanto concluded XtendiMax caused "few if any incidents of off-target movement." The Opinion notes deficiencies with these studies and their results, but the Court decided that it "need not decide whether substantial evidence supports the EPA's conclusion that 'satisfactory data' had been submitted" because the Court found the EPA failed to adequately consider the "unreasonably adverse effects" as required. Because this is a conjunctive test, requiring both prongs to be satisfied, the Court's decision on whether data was satisfactory was unnecessary and would not affect the ruling.

Unreasonably Adverse Effect

As discussed earlier, the EPA found two benefits and three risks which they termed "impacts" of the products. The Court held that "the record shows that the EPA substantially understated the risks that it acknowledged...[and] the EPA entirely failed to acknowledge other risks."

Understatement of Acknowledged Risks

First, the Court found that the EPA understated the amount of dicamba-tolerant seed acreage planted in 2018, and, therefore, under reported the amount of diamba herbicide applied to post-emergence crops. The

EPA relied upon a Monsanto prediction of 40 million acres of dicamba-tolerant soybeans would be planted in 2018, but by the October 31 registration, EPA should have known the actual acreage planted. The record indicated there may have been as many as 50 million acres planted. This understated acreage resulted in the EPA also underestimating the amount of dicamba applied in 2018.

Second, the Court held the EPA's conclusion that complaints of dicamba damage made to state departments of agriculture could have either under-reported or over-reported the actual amount of damage is not supported by substantial evidence. Instead, the Court says, "The record clearly shows that complaints understated the amount of dicamba damage." Specifically, the Court noted the EPA has no explanation other than these products for the spike in the number of complaints in 2017 and 2018 (over 3,000 and 2,250, respectively) as compared to prior years (around 1,000/year). The Court stated, "The EPA's purported agnosticism as to whether dicamba damage was under- or over-reported is contradicted by overwhelming record evidence that dicamba damage was substantially under-reported." The Court pointed to studies noting farmers are often reluctant to involve regulatory agencies when damage occurs and articles estimating that only 1 in 10 farmers actually filed complaints in Indiana.

Third, the Court found the EPA refused to quantify or estimate the amount of damage caused by the over-the-top application of these products, writing in its decision that soybeans "may potentially be damaged." The EPA also stated the "exposure during reproductive growth stages could result in reductions in yield...but the Agency does not have information to quantify this claim." In looking at other sensitive crops, it did not note any damage by dicamba and only wrote of "incidents alleging damages" and "potential impacts that could result in damage" when discussing impacts to the landscape. The Court stated the EPA had information from which it could have quantified the dicamba damage, pointing to a number of studies, presentations, articles, and other documentation which included acreage totals and significant numbers of complaints.

Failure to Acknowledge Other Risks

The Court stated the EPA "failed to acknowledge other risks, including those it was statutorily required to consider."

First, the Court noted "extensive evidence in the record" indicating a risk of "substantial non-compliance" with the EPA mandated label restrictions. The Court stated that the 2018 label (for use in the 2019 and 2020 growing seasons) is "hardly a 'label' as that term is usually understood" given its 40-page length and "myriad instructions and restrictions." The Court again pointed to articles and statements discussing the difficulty of complying with the label.

Second, the Court found that the EPA failed to consider the economic cost of the products. The Court noted that Monsanto's glyphosate-resistance trait and accompanying herbicide "had achieved a near-monopoly" and predicted the dicamba-tolerant seeds "appear to be well on their way to the same degree of market dominance." The Court cited seed sellers and academics who claim many farmers feel compelled to plant the dicamba-tolerant seeds as a defensive measure to guard against potential drift. Thus, the Court held "the

likely anti-competitive effect of the registrations would impose a clear economic cost, but the EPA at no point identified or took into account this cost.”

Third, the Court turned to the social costs, which it says the EPA “entirely failed to acknowledge.” The Court stated the record “contains extensive evidence that over-the-top application of dicamba herbicides has torn apart the social fabric of many farming communities.” The Court then looked to emails and articles discussing how the herbicides had pitted neighbor against neighbor and concluded “the severe strain on social relations in farming communities where the new dicamba herbicides are being applied is a clear social cost, but the EPA did not identify and take into account this cost.”

Considering this evidence, the Court found there was not substantial evidence to support the EPA’s 2018 registrations for XtendiMax, Engenia, and FeXapan.

Remedy

The Court vacated the federal registrations for these products. It expressly rejected the EPA and Monsanto request to remand without vacatur, leaving the registrations in effect. “We conclude the fundamental flaws in the EPA’s analysis are so substantial that it is exceedingly unlikely the same rule would be adopted on remand.” Further, the Court stated it was “aware of the practical effects of our decision” including the adverse impact on growers who already purchased the dicamba-tolerant seeds and corresponding herbicides for this growing season. “We acknowledge the difficulties these growers may have in finding effective and legal herbicides to protect their dicamba-tolerant crops if we grant vacatur. They have been placed in this situation through no fault of their own. However, the absence of substantial evidence to support the EPA’s decision compels us to vacate the registrations.”

Where Do We Go from Here?

This case has left farmers with more questions than answers.

As of noon on, June 4, 2020 the EPA has not issued an official statement about this ruling or what it means for the application of these three pesticides going forward. An EPA spokesman has stated, “EPA is currently reviewing the court decision and will move promptly to address the Court’s directive.”

The parties are also considering their options, including seeking a stay of the Court’s opinion and/or appealing the ruling.

The Court’s vacating the registration is not limited to those states within the Ninth Circuit’s jurisdiction.

In general, it is illegal to sell or apply pesticide that does not have a current federal registration under FIFRA. I would highly recommend that before doing so, farmers and herbicide retailers consult their attorneys as to the legality of their actions.

Finally, do note one dicamba product, Syngenta's Tavium Plus Vapor Grip, which was registered separately in 2019, was not included in this litigation. Its registration, which allows application to Roundup Ready 2 Xtend Soybeans and Bollgard II XtendFlex Cotton, remains in place.

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