

# Incorrect & Pernicious: The Chlorpyrifos Litigation, *Sugarbeet Growers*, and the Proper Role of Courts in Arbitrary and Capricious Review

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*Farmworkers, public health advocates, and environmentalists have been fighting to ban the neurotoxic pesticide chlorpyrifos for long over a decade. After much delay, the Ninth Circuit determined that the Federal Food, Drug, and Cosmetic Act (FFDCA) required the Environmental Protection Agency (EPA) to ban the use of chlorpyrifos on food crops if it could not make a determination that use on those crops was safe. Unable to make the required safety determination, EPA banned the use of chlorpyrifos on food crops in 2021. However, two years later, the Eighth Circuit set aside EPA's ban of chlorpyrifos as arbitrary and capricious under the Administrative Procedure Act (APA).*

*This Note explains how the Eighth Circuit found that EPA's decision, which was based on the Ninth Circuit's interpretation of its statutory mandate, was arbitrary and capricious. The Note then argues the reasoning employed by the Eighth Circuit to reach this conclusion was incorrect and pernicious. Finally, by contrasting the approaches of the Eighth and Ninth Circuits to arbitrary and capricious review, the Note aims to differentiate between appropriate judicial scrutiny of agency decision making and inappropriate use of the arbitrary and capricious standard to impose a particular policy choice on an agency.*

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## INTRODUCTION

Chlorpyrifos (klawr-pir-uh-fos)<sup>1</sup> is a pesticide that disrupts nervous system regulation.<sup>2</sup> Chlorpyrifos has been used since 1965 in the United States on a large variety of crops, including various grains, nuts, legumes, fruits, and vegetables.<sup>3</sup> It was the most widely-used conventional insecticide in the United States in 2017, although it has since been banned in California, Hawai'i, New York, Maryland, and Oregon.<sup>4</sup> As this Note will discuss in detail, the use of chlorpyrifos on food crops was briefly banned nationally between 2021 and

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1. Recording of how to pronounce chlorpyrifos: [https://howjsay.com/how-to-pronounce-chlorpyrifos#google\\_vignette](https://howjsay.com/how-to-pronounce-chlorpyrifos#google_vignette)

2. KAMBIZ SOLTANINEJAD AND SHANIN SHADNIA, *History of the Use and Epidemiology of Organophosphorus Poisoning*, in BASIC AND CLINICAL TOXICOLOGY OF ORGANOPHOSPHORUS COMPOUNDS 25, 25-26, 35 (M. Balali-Mood & M. Abdollahi eds., 2014).

3. Chlorpyrifos; Tolerance Revocation, 89 Fed. Reg. 99184, 99186 (Dec. 10, 2024); Chlorpyrifos; Tolerances for Residues, 40 C.F.R. § 180.342 (2024).

4. Chlorpyrifos; Order Denying PANNA and NRDC's Petition to Revoke Tolerances, 82 Fed. Reg. 16581, 16584 (Apr. 5, 2017).

2023, but is now allowed for eleven food crops as a result of the Eighth Circuit's decision in *Red River Valley Sugarbeet Growers Ass'n v. Regan*.<sup>5</sup>

Chlorpyrifos is an organophosphate, a class of chemicals designed to disrupt acetylcholine, a neurotransmitter critical to nervous system function in both insects and humans.<sup>6</sup> It therefore may be unsurprising that researchers have found neurodevelopmental harms associated with prenatal and early childhood exposure to chlorpyrifos.<sup>7</sup> In 2006, researchers at the Columbia Center for Children's Environmental Health found that children exposed to chlorpyrifos in residential environments had significantly above-average motor and mental development delays, attention disorders, and other developmental issues by the time they reached three years old.<sup>8</sup> In 2011, a study of seven-year-old children in Latine farmworker families in California found that prenatal exposure to organophosphates resulted in neurodevelopmental harm, including an average deficit of seven IQ points for the children who experienced the greatest amount of prenatal exposure.<sup>9</sup> These studies were not outliers. A 2013 literature review of the neurological effects of organophosphates on children found *twenty-six out of twenty-seven* studies demonstrated negative effects of organophosphate exposure on neurodevelopment such as harm to cognition, behavior, and motor skills.<sup>10</sup>

Because of these well-documented harms to infants and children, farmworker organizations, environmentalists, and public health advocates have been fighting to end the use of chlorpyrifos for well over a decade.<sup>11</sup> After years of study and delay, the Environmental Protection Agency (EPA) banned the use

5. Chlorpyrifos; Tolerance Revocation, 89 Fed. Reg. at 99184; *Red River Valley Sugarbeet Growers Ass'n v. Regan*, 85 F.4th 881, 886-87 (8th Cir. 2023).

6. Yi-Hua Tsai and Pamela J. Lein, *Mechanisms of Organophosphate Neurotoxicity*, 26 CURRENT OP. IN TOXICOLOGY 49, 50 (2021) (“[Organophosphates (OP)] were first synthesized in the early 20th century as insecticides. The discovery in the 1930s that their insecticidal activity was primarily mediated by inhibition of acetylcholinesterase (AChE), an enzyme conserved across species, including humans, led to the development during World War II of potent OP nerve agents, such as sarin, cyclosarin, soman, tabun, VR and VX, that have been weaponized for use against military and civilian targets. Since World War II, hundreds of OP compounds have been developed for commercial applications, predominantly as insecticides . . .”).

7. See, e.g., Rauh et al., *Impact of Prenatal Chlorpyrifos Exposure on Neurodevelopment in the First 3 Years of Life Among Inner-City Children*, PEDIATRICS 1, 1 (2006) (accessed through the National Library of Medicine); Bouchard et al., *Prenatal Exposure to Organophosphate Pesticides and IQ in 7-Year-Old Children*, 119 ENV'T HEALTH PERSPS. 1189, 1192 (Aug. 2011); Muñoz-Quezada et al., *Neurodevelopmental Effects in Children Associated with Exposure to Organophosphate Pesticides: A Systematic Review*, 39 NEUROTOXICOLOGY 158, 158, 164 (Dec. 2013).

8. Rauh et al., *supra* note 7, at 1. EPA eliminated most residential uses of chlorpyrifos in 2000. Chlorpyrifos; Tolerance Revocation, 89 Fed. Reg. at 99184, 99186.

9. Bouchard et al., *supra* note 7, at 1189.

10. Muñoz-Quezada et al., *supra* note 7, at 159, 164.

11. See *What You Need To Know About Chlorpyrifos*, EARTHJUSTICE (Apr. 9, 2024), <https://earthjustice.org/feature/chlorpyrifos-what-you-need-to-know>; *Long Path to Nationwide Ban: Chlorpyrifos and Farmworker Health*, MIGRANT CLINICIANS NETWORK (May 5, 2021), <https://www.migrantclinician.org/blog/2021/may/long-path-nationwide-ban-chlorpyrifos-and-farmworker-health.html>.

of chlorpyrifos on food crops in 2021 because it could not conclude that these uses were safe.<sup>12</sup> EPA implemented this ban following a holding from the Ninth Circuit that the Federal Food, Drug, and Cosmetic Act mandated EPA to end the use of chlorpyrifos on food crops so long as it could not determine that such use was safe.<sup>13</sup> And yet, the Eighth Circuit held in 2023 in *Red River Valley Sugarbeet Growers Ass'n v. Regan* that EPA's ban of chlorpyrifos on food crops was arbitrary and capricious in violation of the Administrative Procedure Act (APA).<sup>14</sup>

This Note will explain how the Eighth Circuit found that an agency's decision based on scientific studies and a sister circuit's interpretation of its statutory mandate was arbitrary and capricious, and why that holding was incorrect and pernicious. Part I looks to the current science defining the risks that chlorpyrifos poses and the text of the statutes that authorize and mandate its regulation. Next, Part II reviews the actions EPA has taken, and not taken, under these statutes to regulate chlorpyrifos. This Part also analyzes the reasoning of two cases evaluating EPA's regulation of chlorpyrifos: a holding by the Ninth Circuit requiring EPA to act on chlorpyrifos, and the Eighth Circuit's opinion finding that EPA's responsive ban of chlorpyrifos was arbitrary and capricious. Part III uses the seminal case *Motor Vehicles Manufacturers Ass'n v. State Farm Mutual Automobile Insurance Co.* to tease out how the Eighth Circuit's holding deviated from a faithful application of the arbitrary and capricious standard. Then, contrasting the approaches used by the Eighth and Ninth Circuits, Part IV more concretely distinguishes appropriate scrutiny of agency decision making from inappropriate use of the arbitrary and capricious standard to impose a particular policy choice on an agency.

While this Note covers a lot of ground, it ultimately aims to provide a case-specific analysis of how one court used the arbitrary and capricious standard to substitute its own policy choice for that of EPA, even as the court's policy preference ran counter to the mandate of a substantive statute. Scholars have identified the need for greater clarity in arbitrary and capricious review of agency decisions.<sup>15</sup> And there has been some movement in the scholarship toward better defining the appropriate role and approach of a court in applying arbitrary and capricious review.<sup>16</sup> However, the outcome in *Sugarbeet Growers* demonstrates that this project is not complete.

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12. Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. 48315, 48315 (Aug. 30, 2021) ("EPA is unable to conclude that the risk from aggregate exposure from the use of chlorpyrifos meets the safety standard of the [FFDCA]. Accordingly, EPA is revoking all tolerances for chlorpyrifos.")

13. *League of United Latin American Citizens v. Regan*, 996 F.3d 673, 692 (9th Cir. 2021).

14. *Red River Valley Sugarbeet Growers Ass'n v. Regan*, 85 F.4th 881, 883 (8th Cir. 2023).

15. See, e.g., Daniel T. Deacon, *Responding to Alternatives*, 122 MICH. L. REV. 671, 673 (2024) ("Although agencies' obligation to respond to alternatives has been a core requirement of administrative law for decades, it has attracted little sustained scholarly attention. The case law, while voluminous, has also done little to meaningfully define the contours of the doctrine.")

16. See, e.g., *id.*; Louis J. Virelli III, *Deconstructing Arbitrary and Capricious Review*, 92 N.C. L. REV. 721, 721-22 (2014).

The fallout of *Sugarbeet Growers* also demonstrates that the proper application of arbitrary and capricious review is not simply a matter of doctrinal concern.<sup>17</sup> When agencies are subjected to inappropriate arbitrary and capricious review, farmworkers, children, and the general public are unjustly exposed to chemicals known to be unsafe.<sup>18</sup> While this Note will not stop the unjust exposure of farmworkers, children, and the general public to chlorpyrifos or other underregulated toxins, it aims to contribute to the ongoing fight to stop these harms by presenting a framework for understanding the issue, calling out the improper application of the law by the Eighth Circuit, and providing a roadmap for better judicial intervention in future cases applying the arbitrary and capricious standard.

## I. BACKGROUND

### A. *Chlorpyrifos: Harms and Injustices*

Chlorpyrifos was first registered for use as an insecticide in the United States in 1965.<sup>19</sup> In 2017, it was the most widely used insecticide in the United States and was applied to a wide range of crops including soy, wheat, and many fruits and vegetables.<sup>20</sup> The insecticide works by interfering with the neurotransmitter acetylcholine, which is a component of both insect and mammal nervous systems.<sup>21</sup> Chlorpyrifos is one of a group of chemicals, termed organophosphates, that have this effect on the brain.<sup>22</sup>

Chlorpyrifos presents several health risks to humans. At high levels of exposure chlorpyrifos causes acute toxicity.<sup>23</sup> Farmworkers can be exposed to high levels of pesticides like chlorpyrifos through their jobs, such as when pesticides sprayed on adjacent fields drift to fields where farmworkers are working at acutely toxic levels.<sup>24</sup> Lower levels of exposure are harmful to

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17. See Alianza Nacional de Campesinas et al., Farmworker and Conservation Groups' Comments on the Proposed Partial Revocation of Chlorpyrifos Tolerances, 26 (Feb. 21, 2025) ("Chlorpyrifos not only put children at risk of needless neurodevelopmental harm, but also caused acute poisonings of countless farmworkers who grow our food every year it was used. In the years since the final revocation's finalization, growers found other means to control pests without putting children and farmworkers in harm's way. To prevent a return to rampant use of this neurotoxic pesticide, EPA must act quickly to reinstate the chlorpyrifos tolerance revocations.").

18. See *infra* Part I.A; Part III.B.

19. Chlorpyrifos; Tolerance Revocation, 89 Fed. Reg. 99184, 99186 (Dec. 10, 2024).

20. Chlorpyrifos; Order Denying PANNA and NRDC's Petition to Revoke Tolerances, 82 Fed. Reg. 16581, 16584 (Apr. 5, 2017); Chlorpyrifos; Tolerance Revocation 89 Fed. Reg. at 99184.

21. Muñoz-Quezada et al., *supra* note 7, at 159; K. Christensen, B. Harper, B. Luukkonen, K. Buhl & D. Stone, *Chlorpyrifos Technical Fact Sheet*, NATIONAL PESTICIDE INFORMATION CENTER, OREGON STATE UNIVERSITY EXTENSION SERVICES (2009), <https://npic.orst.edu/factsheets/archive/chlorptech.html>.

22. Muñoz-Quezada et al., *supra* note 7, at 159.

23. *Id.*

24. See, e.g., California Dept. of Health Servs., Farm Worker Illness Following Exposure to Pesticide Drift in Kings County, California, 1999 (Dec. 4, 2001).

neurodevelopment.<sup>25</sup> Children can be exposed prenatally if their parent is exposed or after birth through direct contact, transfer of pesticide residue into the home from an occupationally exposed person, food residue, or drinking water contamination.<sup>26</sup> Children are at heightened risk of chlorpyrifos toxicity because they are still undergoing brain development susceptible to disruption from neurotoxins and are likely to consume a greater amount of pesticide relative to their body weight.<sup>27</sup>

EPA has known the risks chlorpyrifos poses to human health for years. In 2015, EPA acknowledged that, available toxicological studies, current understanding of how chlorpyrifos interacts with the nervous system, and epidemiologic studies supported the conclusion that “exposure to chlorpyrifos results in adverse neurodevelopmental outcomes in humans, at least under some conditions.”<sup>28</sup> Also in 2015, EPA found that multiple uses of chlorpyrifos lead to unsafe drinking water exposures for infants and children “with considerable frequency.”<sup>29</sup> These findings led EPA to conclude that it “cannot make a safety finding based on drinking water exposure.”<sup>30</sup>

EPA has also known that chlorpyrifos presents a disproportionate risk to farmworkers and their families. EPA found that chlorpyrifos exposures causing human health risks were “highly localized,” and the watersheds “with [a] high percent [of] cropped areas” (i.e., rural farmland where farmworker families reside) were most at risk.<sup>31</sup> This aligns with studies demonstrating that farmworkers are (1) exposed disproportionately to pesticides,<sup>32</sup> (2) suffer disproportionate health harms from pesticide exposure,<sup>33</sup> and (3) are disproportionately people of color, with 83 percent of farmworkers identifying as Hispanic or Latine in 2022.<sup>34</sup> Advocates and scholars have articulated many

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25. Muñoz-Quezada et al., *supra* note 7, at 164.

26. Bouchard et al., *supra* note 7, at 1189; EPA, CHLORPYRIFOS: THIRD REVISED HUMAN HEALTH RISK ASSESSMENT FOR REGISTRATION REVIEW, 44-46 (Sept. 21, 2020); Muñoz-Quezada et al., *supra* note 7, at 159.

27. Bouchard et al., *supra* note 7, at 1189.

28. Chlorpyrifos; Tolerance Revocations, 80 Fed. Reg. 69080, 69095 (Nov. 6, 2015).

29. *Id.* at 69103-04 (including Table 8 summarizing uses of chlorpyrifos found to exceed EPA’s risk threshold for whether pesticide uses lead to unsafe drinking water exposure).

30. *Id.* at 69106. Part I.B.1. provides an overview of the FFDCA’s safety requirement and the conditions that must be met for EPA to determine a pesticide is safe under the statute.

31. *Id.* at 69104.

32. See Donley et al., *Pesticides and Environmental Injustice in the USA*, 22 BMC PUB. HEALTH 1, 8 (2022); Alicia L. Salvatore et al., *Occupational Behaviors and Farmworkers’ Pesticide Exposure*, 51 AM. J. IND. MED. 782, 783, 788 (Sept. 4, 2008) (author manuscript accessed at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2605684/>) (finding that workers on strawberry farms in Monterey County, California had pesticide levels 61 to 395 times higher than the national average).

33. Donley et al., *supra* note 32, at 9 (“Disproportionate pesticide exposures are often associated with human health harms in low-income and [Black, Indigenous, and People-of-Color (BIPOC)] communities in the [United States], however the true scope of harm is often unknowable due to the inherent difficulties in documenting these harms in underserved and overburdened communities.”).

34. *Id.* at 2.

facets of environmental injustices that farmworkers experience.<sup>35</sup> Farmworkers are often exempted from basic environmental and worker safety protections and therefore face risks deemed unacceptable for workers in other fields.<sup>36</sup> Notably, in the case of chlorpyrifos, residential use of the chemical has been banned since 2000.<sup>37</sup> However, it continues to be used in the field despite science showing its risks to farmworkers and their children.<sup>38</sup> EPA's unequal regulation of chlorpyrifos across residential and occupational uses has contributed to the injustice that low-income Latine farmworker families continue to bear outsized exposures to chlorpyrifos despite decades of research demonstrating its severe health risks.<sup>39</sup>

### B. *The Statutory Scheme*

EPA has authority to regulate pesticides under two separate statutes: the Federal Food, Drug, and Cosmetic Act (FFDCA) and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). While the FFDCA and FIFRA both authorize regulation of pesticides, they have distinct purposes and provide EPA with distinct authorities and mandates to achieve those purposes.<sup>40</sup> This Subpart focuses on the portions of each statute relevant to the chlorpyrifos litigation.

#### 1. *Federal Food, Drug, and Cosmetic Act*

In 1938, Congress passed the FFDCA to protect the public from adulterated or misbranded food, drugs, and cosmetics.<sup>41</sup> Congress then amended the FFDCA in 1996 through the Food Quality Protection Act (FQPA), which requires EPA to make safety determinations when deciding how much pesticide residue to

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35. See generally Alexis Guild & Iris Figueroa, *The Neighbors Who Feed Us: Farmworkers and Government Policy—Challenges and Solutions*, 13 HARV. L. & POL'Y REV 157.

36. See, e.g., *id.*; Cooke, *Congress Likely to Preserve OSHA Loophole That Endangers Animal Ag Workers*, CIVIL EATS (July 2023), <https://civileats.com/2023/07/12/congress-is-likely-to-preserve-osha-loophole-that-endangers-animal-ag-workers> (explaining that since 1976, Congress has passed an appropriations rider that exempts “small farms” with less than ten employees from occupational health inspection or enforcement actions). Because some agricultural operations, like dairies, are highly consolidated and mechanized, the exemption for “small farms” applies to facilities with thousands of animals that present serious occupational hazards. *Id.*

37. Chlorpyrifos; Tolerance Revocation, 89 Fed. Reg. 99184, 99186 (Dec. 10, 2024).

38. *Id.*; see Virginia A. Rauh, Sc.D., *Polluting Developing Brains—EPA Failure on Chlorpyrifos*, 378 N. ENGL. J. MED. 1171, 1173 (2018).

39. See Rauh, Sc.D., *supra* note 38, at 1171, 1173.

40. See *League of United Latin American Citizens v. Regan*, 996 F.3d 673, 691 (9th Cir. 2021) (“EPA’s duty to engage in a periodic FIFRA registration review is separate from its continuous obligation to ensure safety under the FFDCA . . .”).

41. *Part II: 1938, Food, Drug, Cosmetic Act*, U.S. FOOD & DRUG ADMIN., <https://www.fda.gov/about-fda/changes-science-law-and-regulatory-authorities/part-ii-1938-food-drug-cosmetic-act#:~:text=The%20new%20law%20brought%20cosmetics,tools%20at%20the%20agency's%20disposal> (last updated Nov. 27, 2018).

allow on foods and to take extra precaution in ensuring that children are not exposed to dangerous levels of pesticides.<sup>42</sup>

The FFDCFA deems “any pesticide chemical residue in or on a food” unsafe, and therefore prohibited from interstate commerce, unless the amount of residue present is below a “tolerance” level established under the FFDCFA or falls within one of the Act’s limited exceptions.<sup>43</sup> A tolerance is “the maximum level for residues of pesticide chemical legally allowed in or on raw agricultural commodities and processed foods.”<sup>44</sup> The FFDCFA requires that EPA “establish or leave in effect a tolerance . . . only if the Administrator determines that the tolerance is safe.”<sup>45</sup>

A pesticide residue tolerance is “safe” if EPA has determined to a degree of “reasonable certainty” that “no harm” will result from the aggregate of all anticipated exposures “for which there is reliable information.”<sup>46</sup> In determining the anticipated aggregate exposure, EPA considers dietary, drinking water, and non-occupational exposures.<sup>47</sup> Furthermore, under the FQPA’s strengthened protections for infants and children, EPA must publish a determination that the allowed levels of pesticide residue are safe specifically for infants and children to establish, modify, leave in effect, or revoke a tolerance.<sup>48</sup> EPA must also utilize either a tenfold margin of safety or a margin of safety substantiated by “reliable data” in determining risks for infants and children.<sup>49</sup> The upshot is that since food can only be sold if any pesticide residue it contains is below a tolerance level set by EPA, a pesticide cannot be used on food if EPA has not made a safety determination and set a tolerance level for use of a given pesticide on a given crop.<sup>50</sup>

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42. *Summary of the Food Quality Protection Act*, EPA, <https://www.epa.gov/laws-regulations/summary-food-quality-protection-act#:~:text=Tolerances%3A%20Regulation%20of%20Pesticide%20Residues,reasonable%20certainty%20of%20no%20harm%3B%E2%80%9D> (last updated July 31, 2024). The FQPA is sometimes referred to rather than the FFDCFA. This Note will use FFDCFA to reference the FFDCFA as amended by the FQPA.

43. 21 U.S.C. §§ 331, 342(a), 346a(a)(1). For example, processed foods containing pesticide residues are exempt so long as the pesticide residue has been removed to the extent possible and the pesticide residue is not greater than the tolerance for the raw agricultural commodity the processed food was made from. *Id.* § 346a(a)(2).

44. *Id.* § 346a; Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. 48315, 48317-18 (Aug. 30, 2021).

45. 21 U.S.C. § 346(b)(2)(A)(i).

46. *Id.* § 346(b)(2)(A)(ii).

47. *Id.* § 346a(b)(2); Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. at 48318 (indicating this conception of safety does not include occupational (farmwork) exposures).

48. 21 U.S.C. § 346(b)(2)(c)(ii).

49. *Id.* §§ 346(b)(2)(B)(vi), 346(b)(2)(c)(ii); *see also Summary of the Food Quality Protection Act*, *supra* note 42.

50. 21 U.S.C. §§ 331, 342(a), 346(b), 346a.

Additionally, any person may petition EPA to establish, modify, or revoke a tolerance or tolerance exception.<sup>51</sup> The FFDCA authorizes EPA to establish, modify, or revoke a tolerance in response to such a petition.<sup>52</sup>

## 2. *Federal Insecticide, Fungicide, and Rodenticide Act*

FIFRA was initially conceived of as a consumer protection statute designed to protect pesticide purchasers from faulty pesticide products, then referred to as “economic poisons.”<sup>53</sup> FIFRA establishes a scheme requiring all pesticides sold or distributed in the United States to be registered with EPA.<sup>54</sup>

To register a pesticide, EPA must determine that it will not cause “unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the [pesticide’s] use.”<sup>55</sup> FIFRA’s cost-benefit scheme, which considers the effects of pesticide use that most directly impact farmworkers and ecosystems, is weaker than the “reasonable certainty” of “no harm” scheme under the FFDCA since any harm a pesticide produces is weighed against the pesticide’s benefits.<sup>56</sup> Therefore, while the FFDCA’s stronger “reasonable certainty” of “no harm” standard is applied to risks faced by the general public, risks faced by workers are only considered through FIFRA’s weaker cost-benefit analysis.<sup>57</sup> This double-standard under protects farmworkers and farmworkers’ children in a systematically unjust way.<sup>58</sup>

Still, when registering pesticides or reviewing existing registrations, EPA must also conclude that pesticides used on food crops will not violate the FFDCA’s “reasonable certainty” of “no harm” standard for dietary, drinking water, and non-occupational exposures.<sup>59</sup> The FFDCA’s stronger standard may therefore potentially also benefit farmworkers and ecosystems in instances where it precludes the registration of a harmful pesticide that might nonetheless be legal to register under FIFRA’s cost-benefit scheme.<sup>60</sup> EPA is required to

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51. *Id.* § 346(d)(1).

52. *Id.* § 346(d)(4).

53. SHANE A. ANDERSON & LAURA M. PLUNKETT, *DEFENDING PESTICIDES IN LITIGATION* § 1:3 (2025).

54. 7 U.S.C. § 136a(a); Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. 48315, 48318 (Aug. 30, 2021).

55. 7 U.S.C. § 136a(c)(5); Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. at 48318.

56. *See Pesticide Cancellation Under EPA’s Own Initiative*, EPA, <https://www.epa.gov/pesticide-tolerances/pesticide-cancellation-under-epas-own-initiative> (last updated Oct. 24, 2024); Nathan Donley, *The USA Lags Behind Other Agricultural Nations in Banning Harmful Pesticides*, ENV’T HEALTH 1, 3-6 (2019).

57. Donley, *supra* note 56, at 10.

58. *Id.*

59. *See* 7 U.S.C. § 136(bb).

60. *See id.*

review pesticide registrations every fifteen years,<sup>61</sup> but this process has been chronically delayed.<sup>62</sup>

When a pesticide is registered with EPA, the agency can impose use restrictions, also known as mitigation measures,<sup>63</sup> to ensure that the pesticide does not “cause unreasonable adverse effects on the environment.”<sup>64</sup> EPA implements mitigation measures by including conditions for the pesticide’s use on its label.<sup>65</sup> Such restrictions can place limits on, for example, the geographic locations where the pesticide is used, application rate, and application method.<sup>66</sup> When EPA amends a pesticide’s label to include additional mitigation measures, this affects how much pesticide enters the environment and thus what the anticipated aggregate exposure is for purposes of evaluating the safety of tolerances under the FFDCA.<sup>67</sup> This is one example of how it often makes sense for EPA to coordinate its analyses and actions under FIFRA and the FFDCA,<sup>68</sup> but that does not diminish the fact that each statute imposes its own obligations on the agency.

FIFRA allows a registrant, the person or entity that holds the registration for use of a pesticide, to request that a pesticide registration be canceled or amended at any time.<sup>69</sup> Upon receiving such a request, EPA must simply provide a 180-day notice in the Federal Register if the cancellation would reduce the availability of the pesticide on the market.<sup>70</sup> After complying with the notice

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61. 7 U.S.C. § 136a(g); Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. 48315, 48318 (Aug. 30, 2021).

62. *Pesticide Registration Review Deadline: Status Update and Plans for Remaining Work*, EPA, <https://www.epa.gov/pesticides/pesticide-registration-review-deadline-status-update-and-plans-remaining-work> (last updated Apr. 4, 2024).

63. See, e.g., *Mitigation Menu Measure Descriptions*, EPA, <https://www.epa.gov/pesticides/mitigation-menu-measure-descriptions> (last updated Oct. 16, 2024) (describing mitigation measures pertaining to pesticide runoff); *EPA’s Workplan and Progress Toward Better Protections for Endangered Species*, EPA, <https://www.epa.gov/endangered-species/epas-workplan-and-progress-toward-better-protections-endangered-species> (last updated Nov. 6, 2024) (describing EPA’s efforts to further develop mitigation efforts pertaining to endangered species).

64. 7 U.S.C. § 136a.

65. *Id.* § 136a.

66. See, e.g., EPA, CHLORPYRIFOS PROPOSED INTERIM REGISTRATION REVIEW DECISION CASE NUMBER 01004 55 (2020) [hereinafter 2020 PROPOSAL]. Note that EPA generally refers to this document as the “PID.”

67. See Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. 48315, 48330 (Aug. 30, 2021).

68. See also CONG. RSCH. SERV., RL31921, PESTICIDE LAW: A SUMMARY OF THE STATUTES 7 (Nov. 14, 2012) (“EPA has long coordinated pesticide registrations for food uses under FIFRA with tolerance setting under the FFDCA. The [FQPA] . . . codified this policy. Thus, if EPA revokes a residue tolerance under the FFDCA, it cancels the FIFRA pesticide registration for that food use. Similarly, if a pesticide registration for use on a food crop is canceled, EPA also cancels the residue tolerance for the food. However, just as FIFRA allows continued use of remaining pesticide stocks after a registration is canceled, the FFDCA allows continued commerce in commodities legally treated with a pesticide. Thus, EPA does not immediately revoke the tolerance for the pesticide residue, when it cancels the corresponding registration.”).

69. 7 U.S.C. § 136d(f).

70. *Id.*

requirements, EPA can approve or deny the cancellation or amendment request at its discretion.<sup>71</sup>

On the other hand, FIFRA lays out extensive procedures that EPA must follow in order to cancel an existing registration without voluntary action by the registrant (also known as involuntary cancellation).<sup>72</sup> EPA must provide the Secretary of Agriculture with a 60-day notice and opportunity to comment on the cancellation.<sup>73</sup> EPA must also issue a notice of intent and hold a hearing if requested by any person adversely affected by the notice.<sup>74</sup> The hearing may involve subpoenas to compel testimony or produce documents, as well as determination of scientific facts by a committee from the National Academy of Sciences.<sup>75</sup> After the hearing, EPA must submit a final order including “detailed findings of fact upon which the order is based,” which is subject to judicial review.<sup>76</sup>

FIFRA establishes a burdensome scheme for EPA to involuntarily cancel a registration, and EPA has rarely done so.<sup>77</sup> Between 2000 and 2018, EPA involuntarily cancelled only five pesticide registrations, despite the fact that a significant portion of the pesticides applied in the United States are considered too dangerous to use by other nations.<sup>78</sup> However, sometimes EPA will take other administrative actions short of involuntary cancellation to prompt a registrant to pursue voluntary cancellation.<sup>79</sup> Illustratively, after the registrant of an herbicide, dimethyl tetrachloroterephthalate (DCPA or Dacthal), dragged its feet on providing EPA with safety data for its product for almost ten years, EPA determined the chemical posed serious prenatal exposure risks and issued an emergency suspension in 2024.<sup>80</sup> Although an emergency suspension is less severe and administratively burdensome than an involuntary cancellation,<sup>81</sup> the DCPA suspension was the first time EPA had utilized this procedure in almost forty years.<sup>82</sup> Following the emergency suspension, the registrant voluntarily canceled its registrations for DCPA.<sup>83</sup> The prolonged delay in EPA’s action on DCPA and the ultimate use of measures short of involuntary cancellation demonstrate how the burdensome nature of involuntary cancellation under

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71. *Id.*

72. *See Id.* § 136d(b).

73. *Id.*

74. *Id.*

75. *Id.*

76. *Id.* §§ 136d(d), 136d(h).

77. *See Donley, supra* note 56, at 3-6.

78. *Id.* at 4, 9 (“In 2016 the [United States] used more than 320 million pounds of pesticides that were banned in the [European Union], accounting for more than a quarter of all agricultural pesticide use.”).

79. *See id.* at 7-8.

80. *EPA Finalizes Cancellation of the Pesticide Dacthal*, EPA (Oct. 22, 2024), <https://www.epa.gov/newsreleases/epa-finalizes-cancellation-pesticide-dacthal>.

81. *See* 7 U.S.C. § 136d(c)(3).

82. *See EPA Finalizes Cancellation of the Pesticide Dacthal, supra* note 80.

83. *Id.*

FIFRA means that, in practice, registration cancellation can hinge on pressuring registrants to pursue voluntary cancellation.<sup>84</sup>

Since neither FIFRA nor the FFDCFA provides a standard of review, courts review actions EPA takes under these statutes according to the APA's arbitrary and capricious standard.<sup>85</sup> Relevant aspects of this standard and its application will be discussed as they arise in the following parts.<sup>86</sup>

## II. THE CHLORPYRIFOS LITIGATION

### A. *Petition, Administrative Action, and Delay*

In 2007, the Pesticide Action Network North America and the Natural Resources Defense Council filed a petition under the FFDCFA requesting that EPA revoke all tolerances for chlorpyrifos.<sup>87</sup> The petition pointed to studies reporting the risks of fetal exposure to chlorpyrifos, including studies showing that lower doses than previously thought caused neurodevelopmental harm in mice and rats and epidemiological studies showing negative effects on children prenatally exposed to chlorpyrifos.<sup>88</sup>

EPA took steps following the 2007 petition to evaluate the risks of chlorpyrifos to children—releasing a Science Issue Paper in August 2008,<sup>89</sup> convening the Scientific Advisory Panel (SAP) in September 2008,<sup>90</sup> and publishing a Preliminary Human Health Risk Assessment in 2011.<sup>91</sup> These evaluations largely recognized that there were studies supporting the conclusion that chlorpyrifos played a role in causing neurodevelopmental harm to children, but EPA waffled on whether there was enough scientific certainty on which to base further administrative action.<sup>92</sup> EPA convened the SAP again in April 2012,

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84. See Donley, *supra* note 56, at 8.

85. See, e.g., *League of United Latin American Citizens v. Regan*, 996 F.3d 673, 691 (9th Cir. 2021) (applying the arbitrary and capricious standard under the APA to EPA's decision to deny a petition filed pursuant to the FFDCFA).

86. See *infra* Part III.

87. Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. 48315, 48316 (Aug. 30, 2021).

88. *League of United Latin American Citizens*, 996 F.3d at 682.

89. EPA, SCIENCE ISSUE PAPER: CHLORPYRIFOS HAZARD AND DOSE RESPONSE CHARACTERIZATION (2008).

90. *League of United Latin American Citizens*, 996 F.3d at 683 (citing EPA, SAP Minutes No. 2008-04, A Set of Scientific Issues Being Considered by the Environmental Protection Agency Regarding: The Agency's Evaluation of the Toxicity Profile of Chlorpyrifos 13 (Sept. 16-18, 2008)).

91. *Id.* at 682-84.; EPA, CHLORPYRIFOS: PRELIMINARY HUMAN HEALTH RISK ASSESSMENT FOR REGISTRATION REVIEW (2011).

92. See *League of United Latin American Citizens*, 996 F.3d at 682-83. See, e.g., EPA, CHLORPYRIFOS: PRELIMINARY HUMAN HEALTH RISK ASSESSMENT FOR REGISTRATION REVIEW, 33 (2011) ("The SAP concluded that the results of the three cohort studies (Columbia University, Mt. Sinai Hospital, and the University of California at Berkeley) in concert with the animal studies indicate that maternal chlorpyrifos exposure would likely be associated with adverse neurodevelopmental outcomes in humans. However, they indicated that exposure to multiple cholinesterase inhibiting pesticides or other neurotoxicants might result in additive or interactive effects.").

which concluded with greater certainty that chlorpyrifos was likely driving the observed neurodevelopmental harms in epidemiological studies.<sup>93</sup>

Despite the mounting evidence, EPA had still not made a final determination on the 2007 petition in April 2012, and the petitioners sued in the Ninth Circuit for a writ of mandamus to compel a response.<sup>94</sup> However, the Ninth Circuit denied this writ of mandamus since EPA committed to taking final agency action on the petition by February 2014.<sup>95</sup>

EPA published a Revised Human Health Risk Assessment in December 2014, expressing that chlorpyrifos likely causes neurodevelopmental harms,<sup>96</sup> but still failed to take action on the 2007 petition by the February 2014 deadline.<sup>97</sup> The petitioners sued for writ of mandamus in the Ninth Circuit once again.<sup>98</sup> This time, the court found EPA's delay "egregious" and mandated that EPA respond to the 2007 petition by October 2015.<sup>99</sup> EPA missed this deadline as well, but issued a Notice of Proposed Rulemaking in the Federal Register in November 2015 to revoke all tolerances for chlorpyrifos.<sup>100</sup> EPA stated that, at the time, it was "unable to conclude that the risk from aggregate exposure from the use of chlorpyrifos meets the safety standard of section 408(b)(2) of the [FFDCA]."<sup>101</sup> Here, EPA stated that the epidemiology cohort studies were "strong studies which support a conclusion that [organophosphates] likely played a role in these outcomes."<sup>102</sup>

However, this was simply a *proposed* rulemaking, and the Ninth Circuit ordered EPA to take *final* action by an extended deadline of December 2016.<sup>103</sup>

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93. See *League of United Latin American Citizens*, 996 F.3d at 684 (citing EPA, A SET OF SCIENTIFIC ISSUES BEING CONSIDERED BY THE ENVIRONMENTAL PROTECTION AGENCY REGARDING CHLORPYRIFOS HEALTH EFFECTS 53 (2012)); EPA, SAP Minutes No. 2012-04, A Set of Scientific Issues Being Considered by the EPA Regarding Chlorpyrifos Health Effects 49-55 (2012) (concluding that studies raised in the 2007 petition "suggest[ed] that chlorpyrifos can effect neurodevelopment at levels lower than those associated with AChE inhibition," and thus EPA's current assumption for safe levels of chlorpyrifos might be under-protective, but that "limitations" and "additional questions and concerns" persisted in the data).

94. *League of United Latin American Citizens*, 996 F.3d at 684-85.

95. *Id.* at 685.

96. EPA, CHLORPYRIFOS: REVISED HUMAN HEALTH RISK ASSESSMENT FOR REGISTRATION REVIEW 6 (2014) ("When taken together, the evidence from 1) the experimental toxicology studies evaluating outcomes such as behavior and cognitive function; 2) mechanistic data on possible/modes of action/adverse outcome pathways (MOA/AOP); and 3) epidemiologic and biomonitoring studies, indicate that chlorpyrifos likely played a role in the neurodevelopmental outcomes reported by the epidemiologic study (Columbia University) investigators. However, uncertainties such as the lack of an established MOA/AOP for neurodevelopmental effects and the potential exposure to multiple AChE inhibiting pesticides preclude definitive causal inference.").

97. *League of United Latin American Citizens*, 996 F.3d at 685.

98. *Id.*

99. *PANNA v. EPA (In re PANNA)*, 798 F.3d 809, 811 (9th Cir. 2015).

100. Chlorpyrifos; Tolerance Revocations, 80 Fed. Reg. 69080, 69080 (Nov. 6, 2015).

101. *Id.*

102. *Id.* at 69091.

103. *PANNA v. EPA (In re PANNA)*, 808 F.3d at 402.

The Ninth Circuit then extended that deadline by another three months, giving EPA until March 2017 to respond to the almost decade-old 2007 petition.<sup>104</sup>

As the end of President Obama's administration neared, EPA continued to review the science, convening the SAP once again<sup>105</sup> and publishing another Revised Human Health Risk Assessment in November 2016.<sup>106</sup> The 2016 Human Health Risk Assessment made the strongest conclusions yet with regard to the prenatal neurodevelopmental effects of chlorpyrifos, stating that cohort epidemiological studies from Columbia, UC Berkeley, and Mount Sinai in addition to seven epidemiological studies included in a 2015 literature review "provide[] sufficient evidence" that neurodevelopmental harm was occurring at levels below that previously assumed to be safe.<sup>107</sup>

However, President Obama's administration did not take final agency action on chlorpyrifos before President Trump took office.<sup>108</sup> Three days before President Trump's inauguration, Dow Chemical requested that EPA reject the petition to ban chlorpyrifos.<sup>109</sup> In March 2017, then-EPA Administrator Scott Pruitt met with industry executives interested in continuing the use of chlorpyrifos and stated that it was "a new day, a new future, for a common-sense approach to environmental protection."<sup>110</sup> One of Administrator Pruitt's first acts as head of EPA in April 2017 was to deny the 2007 petition.<sup>111</sup>

The takeaway here is that EPA spent a decade reviewing the data on chlorpyrifos, released multiple statements that it was unsafe, *and never determined that it was safe in light of the epidemiology and toxicology studies raised by the 2007 petition and the agency's own review*. In one of its opinions granting a writ of mandamus, the Ninth Circuit characterized these years as a "cycle of incomplete responses, missed deadlines, and unreasonable delay."<sup>112</sup>

104. Nat. Res. Def. Council v. EPA (*In re PANNA*), 840 F.3d 1014, 1015 (9th Cir. 2016).

105. EPA, SAP Minutes No. 2016-01, A Set of Scientific Issues Being Considered by the EPA Regarding: Chlorpyrifos: Analysis of Biomonitoring Data 10-11 (2016).

106. League of United Latin American Citizens v. Regan, 996 F.3d 673, 686-87 (9th Cir. 2021); EPA, CHLORPYRIFOS: REVISED HUMAN HEALTH RISK ASSESSMENT FOR REGISTRATION REVIEW (Nov. 3, 2016) [hereinafter 2016 REVISED HUMAN HEALTH RISK ASSESSMENT].

107. 2016 REVISED HUMAN HEALTH RISK ASSESSMENT, *supra* note 106, at 13.

108. See *Chlorpyrifos*, EPA, <https://www.epa.gov/ingredients-used-pesticide-products/chlorpyrifos> (last updated Feb. 10, 2025) (describing 2015 proposal to revoke chlorpyrifos tolerances and subsequent revisions to the supporting risk assessments in 2016).

109. Eric Lipton & Roni Caryn Rabin, *E.P.A. Promised 'a New Day' for the Agriculture Industry, Documents Reveal*, N.Y. TIMES (Aug. 18, 2017), <https://www.nytimes.com/2017/08/18/us/politics/epa-agriculture-industry.html>.

110. *Id.*

111. *Id.* There is evidence suggesting that Administrator Pruitt's political staff worked to improperly influence agency scientists to reach this decision. In correspondence obtained by the New York Times, Ryan Jackson, Administrator Pruitt's chief of staff, wrote regarding conversations with EPA career staff, "I think I did scare them or surprise them." Administrator Pruitt also wrote that "[t]hey are getting us information for Friday but they know where this is headed and they are documenting it well." *Id.*

112. *In re Pesticide Action Network N. Am., Nat. Res. Def. Council, Inc.*, 798 F.3d 809, 813 (9th Cir. 2015).

EPA finally denied the petition in 2017, but the denial was not accompanied by a finding that chlorpyrifos was safe.<sup>113</sup> Rather, EPA said the science was “not resolved and would likely benefit from additional inquiry,” which it would undertake as part of chlorpyrifos’ reregistration under FIFRA, due by 2022.<sup>114</sup> This denial order was challenged in the Ninth Circuit as arbitrary and capricious.<sup>115</sup>

*B. Ninth Circuit Review: League of United Latin American Citizens*

In *League of United Latin American Citizens v. Regan*,<sup>116</sup> the Ninth Circuit concluded that EPA’s denial of the 2007 petition was (1) in derogation of the FDCA’s statutory mandate to leave tolerances in effect only if they are determined to be safe, and (2) arbitrary and capricious because EPA failed to “articulate a satisfactory explanation for its action.”<sup>117</sup>

First, the Ninth Circuit addressed whether EPA’s denial of the petition was in derogation of its duty under the FFDCA.<sup>118</sup> The analysis rested heavily on its interpretation of section 346a(b)(2)(A)(i) of the FFDCA,<sup>119</sup> which states: “The Administrator may establish or leave in effect a tolerance for a pesticide chemical residue in or on a food *only if the Administrator determines that the tolerance is safe*. The Administrator shall modify or revoke a tolerance if the Administrator determines it is not safe.”<sup>120</sup>

Sections 346a(b)(2)(C)(ii)(I)–(II) further provide that EPA “shall (I) ensure that there is a reasonable certainty that *no harm* will result to infants and children from aggregate exposure to the pesticide chemical residue, and (II) publish a specific determination regarding the safety of the pesticide chemical residue for infants and children.”<sup>121</sup>

Based on a textual analysis of the above provisions, the Ninth Circuit concluded that “[t]he FFDCA imposes a continuous duty upon the EPA by permitting it to ‘leave in effect’ a tolerance ‘only’ if it finds it is safe.”<sup>122</sup> This continuing duty applies to tolerances previously determined to be safe when EPA

113. Chlorpyrifos; Order Denying PANNA and NRDC’s Petition to Revoke Tolerances, 82 Fed. Reg. 16581, 16590 (Apr. 5, 2017).

114. *Id.*

115. *League of United Latin American Citizens v. Regan*, 996 F.3d 673, 690-91 (9th Cir. 2021).

116. This challenge was brought by League of United Latin American Citizens, Pesticide Action Network North America, Natural Resources Defense Council, California Rural Legal Assistance Foundation, Farmworkers Association of Florida, Farmworker Justice, Labor Council for Latin American Advancement, Learning Disabilities Association of America, National Hispanic Medical Association, Pinos y Campesinos Unidos del Noroeste, United Farm Workers, and Green Latinos. *Id.* at 673.

117. *Id.* at 696 (quoting *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)).

118. *Id.* at 691.

119. *See id.* at 691-92.

120. 21 U.S.C. § 346a(b)(2)(A)(i) (emphasis added).

121. *Id.* §§ 346a(b)(2)(C)(ii)(I)–(II) (emphasis added).

122. *League of United Latin American Citizens*, 996 F.3d at 692.

is presented with “genuine questions about the safety of an existing tolerance.”<sup>123</sup> EPA’s denial of the 2007 petition failed to meet this requirement because EPA left the chlorpyrifos tolerances in effect without finding they were safe.<sup>124</sup> The Ninth Circuit pointed out that “EPA’s own pronouncements show that it has already concluded that it can no longer be reasonably certain that chlorpyrifos is safe at current tolerances.”<sup>125</sup> Indeed, the Ninth Circuit found that EPA acted “in derogation of the statutory mandate to ban pesticides that have not been proven safe.”<sup>126</sup>

Second, the Ninth Circuit found that EPA’s denial of the petition was arbitrary and capricious.<sup>127</sup> In evaluating whether EPA’s denial order was arbitrary and capricious, the Ninth Circuit relied on the APA’s mandate that courts “compel agency action unlawfully withheld or unreasonably delayed” and *State Farm*’s requirement that the agency “articulate a satisfactory explanation for its action including a ‘rational connection between the facts found and the choice made.’”<sup>128</sup>

The Ninth Circuit then examined the reasons EPA provided for denying the 2007 petition.<sup>129</sup> It noted that the denial was not based on new data or analysis, but rather on “purely discretionary grounds,” claiming the authority to delay the determination on the petition further in pursuit of more study.<sup>130</sup> The Ninth Circuit was not persuaded by EPA’s desire to control when a safety determination for chlorpyrifos would be made, reasoning that “[a]fter [thirteen] years of delay, a desire for yet more delay does not rationally support denial of a petition that the EPA’s own prior studies indicate raises a genuine issue of ongoing harm to infants and children.”<sup>131</sup> The Ninth Circuit also rejected EPA’s argument that it had authority to synchronize its review of chlorpyrifos under the FFDCA with its reregistration under FIFRA, finding that “EPA’s position would largely strip FFDCA petitions of meaning, converting them into comments for the EPA to consider whenever it gets around to the next FIFRA registration review.”<sup>132</sup> Finally, the Ninth Circuit found that EPA’s argument that the petition did not present sufficient data to support revocation was ineffective because EPA had already “consistently concluded” that available data supported a finding that infants and children were facing higher risks of neurotoxic effects than

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123. *Id.* at 691.

124. *Id.* at 692.

125. *Id.* at 692.

126. *Id.* at 677.

127. *Id.* at 696.

128. *Id.* at 696 (quoting *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (citing *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962))).

129. *Id.*

130. *Id.*

131. *Id.*

132. *Id.* at 696-97.

previously thought.”<sup>133</sup> Therefore, none of EPA’s reasons for denying the 2007 petition provided a rational explanation for why it failed to comply with the FFDCA by denying the petition absent a safety determination.<sup>134</sup>

In sum, since EPA *admitted* that it was leaving chlorpyrifos tolerances in effect without finding they were safe, its decision to leave those tolerances in effect was both *ultra vires* and arbitrary and capricious.<sup>135</sup> The court found EPA’s admission that it did not make a safety determination “effectively dispositive” of the case since the FFDCA required EPA to revoke tolerances where it could not determine to a degree of reasonable certainty that the anticipated uses of chlorpyrifos would not result in a harmful level of aggregate exposure to infants and children.<sup>136</sup> Therefore, the Ninth Circuit ordered EPA to act within sixty days to either (1) modify chlorpyrifos tolerances and publish a finding that the modified tolerances were safe, *or* (2) to revoke all tolerances.<sup>137</sup>

Following the Ninth Circuit’s order, EPA issued a final rule revoking all chlorpyrifos tolerances in August 2021.<sup>138</sup> EPA concluded that it was “unable to conclude that the risk from aggregate exposure from the use of chlorpyrifos [met] the safety standard of the [FFDCA].”<sup>139</sup>

### C. Eighth Circuit Review: Sugarbeet Growers

The Eighth Circuit found EPA’s decision to revoke all chlorpyrifos tolerances arbitrary and capricious in *Sugarbeet Growers*.<sup>140</sup> Unbothered by the fourteen-year delay between the filing of the petition to revoke chlorpyrifos tolerances and EPA’s revocation, the Eighth Circuit characterized the

133. *Id.* at 697 (quoting Chlorpyrifos; Final Order Denying Objections to March 2017 Petition Denial Order, 84 Fed. Reg. 35,555, 35,563 (2019)).

134. *Id.* at 697 n.138 (“It is the Order’s utter failure to make a required safety determination that this Court finds was arbitrary and capricious. This has nothing to do with deference or non-deference to expertise and everything to do with simple compliance with the law.”).

135. *Id.* at 691.

136. *Id.* at 691-92; *see also id.* at 678 (“In short, the EPA has spent more than a decade assembling a record of chlorpyrifos’s ill effects and has repeatedly determined, based on that record, that it cannot conclude, to the statutorily required standard of reasonable certainty, that the present tolerances are causing no harm. Yet, rather than ban the pesticide or reduce the tolerances to levels that the EPA can find are reasonably certain to cause no harm, the EPA has sought to evade, through one delaying tactic after another, its plain statutory duties. The FFDCA permits no further delay.”).

137. *Id.* at 703.

138. Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. 48315, 48315 (Aug. 30, 2021).

139. *Id.*

140. *Red River Valley Sugarbeet Growers Ass’n v. Regan*, 85 F.4th 881, 883 (8th Cir. 2023). The challenge to EPA’s revocation of chlorpyrifos tolerances was brought by several trade groups: Red River Valley Sugarbeet Growers Association, United States Beet Sugar Association, American Sugarbeet Growers Association, Southern Minnesota Beet Sugar Cooperative, American Crystal Sugar Company, Minn-Dak Farmers Cooperative, American Farm Bureau Federation, American Soybean Association, Iowa Soybean Association, Minnesota Soybean Growers Association, Missouri Soybean Association, Nebraska Soybean Association, South Dakota Soybean Association, North Dakota Soybean Growers Association, National Association of Wheat Growers, Cherry Marketing Institute, Florida Fruit and Vegetable Association, Georgia Fruit and Vegetable Growers Association, National Cotton Council of America, and Gharda Chemicals International, Inc.

environmental groups involved in the Ninth Circuit case as “impatient” and the eventual revocation order as “rushed.”<sup>141</sup> The Eighth Circuit reasoned that “[p]ressed for time, the EPA concluded it had only one real option: revoke all tolerances and ban chlorpyrifos.”<sup>142</sup>

EPA’s revocation was problematic to the Eighth Circuit because the court believed EPA should have considered “modification along the lines it had proposed, which involved revoking most chlorpyrifos tolerances but retaining a few ‘high-benefit agricultural uses.’”<sup>143</sup> The Eighth Circuit’s opinion focused on a Proposed Interim Registration Review Decision (2020 Proposal) that EPA issued as part of its ongoing analysis of chlorpyrifos registration review under FIFRA.<sup>144</sup> The 2020 Proposal had proposed that it might be safe to use chlorpyrifos on eleven specific crops if use on those crops was limited geographically and if other mitigation measures were implemented.<sup>145</sup> The “eleven-use option” would have continued to allow chlorpyrifos use on alfalfa, apples, tart cherries, asparagus, citrus, cotton, peaches, soybeans, strawberries, sugar beets, and wheat.<sup>146</sup> For continued use on these eleven crops to be safe, EPA predicted that it would need to implement restrictions on what regions chlorpyrifos was used in, as well as imposing other label changes under FIFRA.<sup>147</sup> EPA indicated that it intended to reconsider the proposal after public comment, but it was never finalized.<sup>148</sup>

Nonetheless, the Eighth Circuit concluded that EPA had acted “arbitrarily and capriciously by ‘fail[ing] to consider [an] important aspect of [a] problem’ because it misunderstands ‘the full scope of [its] discretion.’”<sup>149</sup> The Eighth Circuit concluded that “EPA must consider arguments that less than a full ban would do” and that EPA had instead conducted a “predetermined” analysis whereby “it had only one real option: revoke all tolerances and ban chlorpyrifos.”<sup>150</sup>

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141. *Id.* at 885-86.

142. *Id.* at 888.

143. *Id.* at 887.

144. *Id.* at 888; 2020 PROPOSAL, *supra* note 66.

145. 2020 PROPOSAL, *supra* note 66, at 64-80; *see also* Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. 48315, 48333 (Aug. 30, 2021) (“It is worth noting that the Agency’s Proposed Interim Registration Review Decision (PID) recognized that there *might* be limited combinations of uses in certain geographic areas that could be considered safe, if the assessment only includes those specific uses in those areas.”) (emphasis added).

146. 2020 PROPOSAL, *supra* note 66, at 64.

147. *Id.* at 64-80.

148. *Id.* at 64 (“The agency will reexamine the proposed and considered mitigation after considering public input during the comment period and conclusions from the 2020 SAP.”).

149. *Sugarbeet Growers*, 85 F.4th at 886-87 (quoting *Dep’t of Homeland Sec. v. Regents of the Univ. of Cal.*, 140 S. Ct. 1891, 1911-13 (2020) (quoting *Motor Vehicle Mfrs. Ass’n of the U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983))).

150. *Id.* at 881, 888 (“Without ‘a reasonable basis to believe that [other uses] w[ould] cease,’ it included them in the aggregate-exposure calculation and determined that no tolerance was safe.”) (brackets in original).

The Eighth Circuit’s opinion rested heavily on the plain meaning of the word “anticipated” in FFDCA section 346a(b)(2)(A)<sup>151</sup> to determine whether pursuing the eleven-use option was within the scope of EPA’s discretion.<sup>152</sup> After briefly acknowledging EPA’s mandate under the FFDCA to leave a tolerance in effect only if it is determined to be safe, the Eighth Circuit looked to the FFDCA’s text to specify that, in order to conclude a tolerance is safe, EPA must determine that the “anticipated” aggregate exposure to a pesticide will cause no harm to a degree of “reasonable certainty.”<sup>153</sup> The Eighth Circuit then turned its focus to the “anticipated” part of “anticipated . . . exposure[ ].”<sup>154</sup> The court provided two dictionary definitions of anticipated<sup>155</sup> and chastised EPA for failing to anticipate that “[i]t could have cancelled some registrations<sup>156</sup> and retained others that satisfied the statutory safety margin.”<sup>157</sup>

Specifically, the Eighth Circuit reasoned that “expected exposures will drop if the agency anticipates revoking existing tolerances.”<sup>158</sup> Since EPA knew it had to revoke at least some tolerances to comply with the Ninth Circuit’s holding in *League of Latin American Citizens*, “EPA had every reason to ‘anticipate[]’ that it could revoke the other tolerances quickly.”<sup>159</sup> Therefore, the Eighth Circuit concluded that EPA should have considered working to “confirm the safety findings” of the 2020 Proposal and cancel and adjust registrations as necessary

151. 21 U.S.C. § 346a(b)(2)(A), stating in part, for reference (emphasis added):

(A) General rule

(i) Standard

The Administrator may establish or leave in effect a tolerance for a pesticide chemical residue in or on a food only if the Administrator determines that the tolerance is safe. The Administrator shall modify or revoke a tolerance if the Administrator determines it is not safe.

(ii) Determination of safety

As used in this section, the term “safe”, with respect to a tolerance for a pesticide chemical residue, means that the Administrator has determined that there is a reasonable certainty that no harm will result from aggregate exposure to the pesticide chemical residue, including all *anticipated* dietary exposures and all other exposures for which there is reliable information.

152. *Sugarbeet Growers*, 85 F.4th at 887.

153. *Id.* at 887 (quoting 21 U.S.C. § 346a(b)(2)(A)(ii)).

154. *Id.*

155. *Id.* (citing the American Heritage Dictionary for the definition of “anticipated” as “refer[ring] to the amounts ‘expect[ed]’ or ‘see[n] as a probable occurrence’” and citing Webster’s Third New International Dictionary as defining “anticipate” as to “look forward to as certain”) (internal quotation marks omitted).

156. The Eighth Circuit’s opinion occasionally flips between discussing EPA’s authority over registrations under FIFRA and tolerances under the FFDCA without explanation. As discussed earlier in this Note, these authorities are separate, but what mitigation measures are imposed under FIFRA is relevant to determining if the aggregate exposures are safe under the FFDCA. For clarity, if EPA were to carry out the course of conduct recommended by the Eighth Circuit, it would revoke some *tolerances* while retaining others. The revocation of tolerances for chlorpyrifos on those crops would then effectively lead to the cancellation of registrations for those crops. EPA would also need to *amend* registrations for the eleven proposed uses to bring resulting exposures under the safety margins.

157. *Id.* at 888.

158. *Id.*

159. *Id.* (brackets in original).

to align with the 2020 Proposal, even if doing so would require EPA to “move more quickly than usual.”<sup>160</sup>

The Eighth Circuit then addressed EPA’s counterarguments. Most importantly, EPA argued that “*all* registrations were still in effect,”<sup>161</sup> and that the effective registrations for the eleven proposed uses were not presently subject to the geographic restrictions or mitigation measures necessary for them to be safe.<sup>162</sup> Therefore, EPA could not simply retain the eleven tolerances in the 2020 Proposal because, until the registrations for those tolerances were amended, the anticipated exposure to chlorpyrifos would not be safe.<sup>163</sup> EPA also pointed out that manufacturers could have voluntarily cancelled registrations for other uses and amended the registrations for the eleven uses to comply with the proposed restrictions in the 2020 Proposal.<sup>164</sup>

The Eighth Circuit responded that EPA “had an obligation to ‘anticipate[]’ the effects of its own actions, regardless of what manufacturers did.”<sup>165</sup> Although it acknowledged that retaining the eleven tolerances would require EPA to pursue “time-consuming” involuntary registration cancellation and amendment procedures under FIFRA, the court rejoined that “[c]ertainly [EPA] could anticipate what would happen under its own proposal to keep a set of high-benefit uses in place.”<sup>166</sup>

The Eighth Circuit summarized its holding as follows:

The revocation order abruptly ended [consideration of implementing the 2020 Proposal]. And the reason was not new findings, a reevaluation of the evidence, or even a lack of time, but a misunderstanding of its duty to “anticipate” the “aggregate exposure” from its own proposal . . . Under these circumstances, the EPA’s decision to ignore

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160. *Id.*

161. *Id.* at 889 (emphasis in original).

162. *Id.*

163. *Id.*

164. *Id.*

165. *Id.*

166. *Id.*

modification<sup>167</sup> as a possibility was “arbitrary [and] capricious.”<sup>168</sup>

The Eighth Circuit thus vacated EPA’s 2021 rule, effectively reinstating all chlorpyrifos tolerances.<sup>169</sup>

#### D. EPA’s Response

Following the court’s decision in *Sugarbeet Growers*, EPA reinstated all chlorpyrifos tolerances.<sup>170</sup> EPA then amended cancellation orders issued prior to when *Sugarbeet Growers* was decided to allow for the sale, distribution, and use of chlorpyrifos.<sup>171</sup> The Eighth Circuit holding therefore had the effect of pushing the regulatory scheme back to a position that assumed using chlorpyrifos was legally “safe.”<sup>172</sup>

In December 2024, EPA once again issued a proposed rule to revoke tolerances for chlorpyrifos, but this time exempted the eleven crops in the 2020 Proposal.<sup>173</sup> After *Sugarbeet Growers*, registrants requested voluntarily cancellation for all but the eleven retained uses and submitted label amendments for those remaining uses to conform with the mitigation measures in the 2020 Proposal.<sup>174</sup> Since EPA “anticipat[ed] that exposure to chlorpyrifos in food and drinking water will align with the calculations in the . . . [2020 Proposal],”<sup>175</sup> EPA concluded that “there is a reasonable certainty that no harm will result from

167. The use of “modification” here is confusing. The Eighth Circuit’s opinion considered whether EPA acted arbitrarily and capriciously by failing to consider the alternative of “revoking most chlorpyrifos tolerances but retaining a few ‘high benefit agricultural uses.’” *Id.* at 887. This has nothing to do with *modifying* tolerances but rather cancelling some tolerances and retaining others (modifying the tolerances refers to changing the maximum amount of pesticide residue allowed on a crop, which is not at issue here). However, for EPA to do this, it would need to amend the registrations for the uses for which tolerances were retained in order to impose geographic and other use restrictions that would ensure the tolerances allowed for those crops posed no risk of harm and were legal under the FFDCA. See Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. 48315, 48333 (Aug. 30, 2021); *supra* Part I.B. The Eighth Circuit also used the word “modification” in its framing of the issue in a confusing, although not explicitly inaccurate way. See *Sugarbeet Growers*, 85 F.4th at 887 (“The question for the EPA was whether it could consider modifications along the lines it had proposed, which involved revoking most chlorpyrifos tolerance but retaining a few . . .”). While the use of the words modification and amendment interchangeably is not strictly wrong, the conflation of EPA’s duties and authorities under FIFRA and the FFDCA contributed to the Eighth Circuit’s inability to properly characterize the mandate of the FFDCA in its application of the arbitrary and capricious standard, discussed *infra* Part III.B.2.

168. *Sugarbeet Growers*, 85 F.4th at 890 (internal citations omitted).

169. *Id.* at 891.

170. Chlorpyrifos; Reinstatement of Tolerances, 89 Fed. Reg. 7625, 7625 (2024) (“Because the Eighth Circuit vacated EPA’s rule revoking chlorpyrifos tolerances, those tolerances are legally currently in effect.”); see also Chlorpyrifos; Amendment to Existing Stocks Provisions in Winfield and Liberty Product Cancellation Orders, 89 Fed. Reg. 51521, 51521 (2024).

171. 89 Fed. Reg. at 51521-22.

172. *Id.* at 51522 (“[R]einstatement of the chlorpyrifos tolerances means that chlorpyrifos products can be used in accordance with their labeling without concern for adulterated food.”).

173. Chlorpyrifos; Tolerance Revocation, 89 Fed. Reg. 99184, 99184 (Dec. 10, 2024).

174. *Id.* at 99188, 99189 (allowing continued use of chlorpyrifos on alfalfa, apple, asparagus, tart cherry, citrus, cotton, peach, soybean, strawberry, sugar beet, and spring and winter wheat with restrictions on geographic location, application rate, and application frequency).

175. *Id.* at 99189.

the aggregate exposure to chlorpyrifos” and “that the tolerances not being revoked are safe.”<sup>176</sup> However, EPA conceded that it had not completed addressing comments it received in response to the 2020 Proposal and would continue evaluating the risks of chlorpyrifos during its ongoing registration review proceedings under FIFRA.<sup>177</sup>

### III. CRITIQUE OF THE EIGHTH CIRCUIT’S ARBITRARY AND CAPRICIOUS ANALYSIS

The Eighth Circuit concluded that, under the arbitrary and capricious standard, EPA’s revocation of chlorpyrifos tolerances was unlawful because EPA failed to consider that retaining eleven specific uses it previously proposed *might* be safe if the registrations for those uses were amended.<sup>178</sup> On the other hand, the Ninth Circuit had previously found that the text of the FFDCA required EPA to revoke chlorpyrifos tolerances absent a safety determination, and EPA expressly stated that it had not made this safety determination.<sup>179</sup> The result is that EPA’s compliance with the Ninth Circuit’s holding in *League of United Latin American Citizens* was found to be arbitrary and capricious in *Sugarbeet Growers*.

Part of the problem is that the Eighth Circuit did not properly apply the arbitrary and capricious standard. In addition, the Eighth Circuit divorced the arbitrary and capricious standard from the mandate of the FFDCA. This Part will attempt to untangle these errors.

#### A. *The Arbitrary and Capricious Standard*

The APA sets out rules and procedures for agency decision making.<sup>180</sup> The plaintiffs in both *League* and *Sugarbeet Growers* sought judicial review under the APA because the FFDCA does not provide an independent right to judicial review.<sup>181</sup> Under the APA, courts are authorized to set aside agency actions for a number of specified reasons, including because the agency action was “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.”<sup>182</sup>

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176. *Id.*

177. *Id.* at 99186 (“At this time, EPA is working on responding to comments received on the [2020 Proposal] and supporting risk assessments and on preparing an updated human health risk assessment and amended proposed interim registration review decision. EPA anticipates issuing an amended [proposal] in 2026 followed by the Chlorpyrifos Interim Decision.”).

178. *See* Red River Valley Sugarbeet Growers Association v. Regan, 85 F.4th 881, 888-89 (8th Cir. 2023).

179. *See* League of United Latin American Citizens v. Regan, 996 F.3d 673, 697 n.138 (9th Cir. 2021).

180. *See, e.g.*, 5 U.S.C. §§ 551-559.

181. *See* League of United Latin American Citizens, 996 F.3d at 690; *Sugarbeet Growers*, 85 F.4th at 886.

182. 5 U.S.C. § 706(2)(A).

While the meaning of “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law” has long been debated,<sup>183</sup> there are some settled principles courts should follow when undertaking arbitrary and capricious review. In *Citizens to Preserve Overton Park v. Volpe*, the Supreme Court described arbitrary and capricious review as a test of “whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment.”<sup>184</sup> This inquiry must be “searching and careful,” but narrowly applied.<sup>185</sup> Ultimately, “[t]he court is not empowered to substitute its judgment for that of the agency.”<sup>186</sup>

In other cases, the Court has further defined the scope of arbitrary and capricious review by identifying specific ways in which an agency might act arbitrarily and capriciously. Most relevant here is the seminal case *Motor Vehicle Manufacturers Ass’n v. State Farm*, which found that an agency acted arbitrarily and capriciously for failing to consider an alternative rule.<sup>187</sup> In *State Farm*, the Supreme Court found that the National Highway Traffic Safety Administration (NHTSA) had acted arbitrarily and capriciously in revoking a previously-issued standard requiring new vehicles to be equipped with passive restraints.<sup>188</sup> The passive restraint rule required manufactures to install automatic seatbelts *or* airbags, but as it turned out, manufacturers planned to comply with the rule by installing automatic seatbelts (and not airbags) in almost all new cars.<sup>189</sup> NHTSA reasoned that, since automatic seatbelts were detachable and unlikely to be used, the benefits of the passive restraint rule were therefore no longer worth the costs.<sup>190</sup>

However, the Court found the rescission of the passive restraint rule arbitrary and capricious because the agency “apparently gave no consideration whatever to modifying the Standard to require that airbag technology be utilized.”<sup>191</sup> In fact, “[n]ot one sentence of its rulemaking statement discuss[ed] the airbags-only option.”<sup>192</sup> The Court reasoned that while agency decisions “cannot be found wanting simply because the agency failed to include every alternative device and thought conceivable by the mind of man . . . regardless of how uncommon or unknown that alternative may have been . . . ,”<sup>193</sup> the airbag-

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183. See generally *Ethyl Corp. v. EPA*, 541 F.2d 1 (D.C. Cir. 1976) (including five perspectives on how the court should have applied the arbitrary and capricious standard).

184. *Citizens to Pres. Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971).

185. *Id.*

186. *Id.*

187. *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 46 (1983).

188. *Id.* at 46.

189. *Id.* at 38-39.

190. *Id.*

191. *Id.* at 46.

192. *Id.* at 48.

193. *Id.* at 50 (quoting *Vermont Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519, 551).

only option was “more than a policy alternative to the passive restraint standard; it [was] a technological alternative within the ambit of the existing standard” that the agency must consider.<sup>194</sup>

Cases like *Overton Park* and *State Farm* provide useful guidance, but there is still tension between the ideas that arbitrary and capricious review is supposed to be both “searching and careful” and “narrow.”<sup>195</sup> This Subpart concludes by providing some insight from scholars on harmonizing this analysis.

In *Deconstructing Arbitrary and Capricious Review*, Professor Louis J. Virelli III worked to systematize this “multidimensional expression of judicial deference” and present a set of “more particularized inquiries into specific components of agency decision making.”<sup>196</sup> His “deconstruction” more clearly defines the bounds of an agency’s various duties under the APA and identifies the appropriate approach to judicial review for each.<sup>197</sup> Professor Virelli specifies two main categories of judicial review: (1) “first-order” grounds for review, focusing on the quality of the agency’s information gathering, and (2) “second-order” grounds, focusing on the agency’s application of value judgments to the information gathered in order to reach policy conclusions.<sup>198</sup> First-order grounds for review include record building, reason giving, input quality, and research scope.<sup>199</sup> Second-order grounds include consideration of relevant factors and drawing a rational connection between the information before the agency and the agency’s conclusion.<sup>200</sup>

Virelli argues that, beyond providing a breakdown of the different components of arbitrary and capricious review, distinguishing between first- and second-order grounds for review can aid courts in determining the appropriate level of scrutiny to apply to agency decisions and result in “a more transparent, consistent approach to arbitrariness review.”<sup>201</sup> Under his model, first-order considerations involve less agency expertise and are therefore more likely to be within the scope of judicial institutional competence to scrutinize.<sup>202</sup> By contrast, second-order considerations involve a greater degree of policy judgement, and therefore the judiciary should defer to the agency to a greater extent.<sup>203</sup>

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194. *Id.*

195. *Citizens to Pres. Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971).

196. Virelli III, *supra* note 16, at 721.

197. *See id.* at 737-59.

198. *Id.* at 738-39.

199. *Id.* at 738. For instance, in the case of chlorpyrifos, first-order grounds for review would include EPA’s collection and evaluation of available data, risk assessments, and models. *See Chlorpyrifos*, EPA, <https://www.epa.gov/ingredients-used-pesticide-products/chlorpyrifos> (last updated Feb. 10, 2025).

200. Virelli III, *supra* note 16, at 738.

201. *Id.* at 739, 765-66, 776.

202. *Id.* at 765-66 (“The creation of an administrative record and the provision of reasons are not choices that depend on any experience or knowledge unique to, or even present in greater amounts in, the Agency.”).

203. *Id.* at 765-66 (providing the example of an agency regulating children’s access to high-fructose corn syrup and reasoning that “the FDA’s choice as to which factors it should consider in

Additionally, Professor Daniel T. Deacon published an article addressing how a court should approach review of an agency's consideration of alternatives.<sup>204</sup> As part of this project, Deacon dug into what an agency must do to adequately respond to an alternative.<sup>205</sup> While he found some conflicting precedent on this point, under current practice for judicial review, he generalized that “[t]he basic obligation is simply to provide a reason why the alternative [was] rejected in favor of the agency’s preferred option.”<sup>206</sup> However, he recommended a somewhat more rigorous requirement where the agency must (1) “announce the criteria that it used to evaluate the alternative” and (2) “explain why, according to the supplied criteria and based on the administrative record, it concluded that the alternative should be rejected.”<sup>207</sup> These requirements would aid courts in determining whether the criteria the agency considered were among those the agency was allowed to consider under the relevant statute and whether the agency relied on facts supported by evidence to make a rational choice.<sup>208</sup>

To apply these frameworks to *Sugarbeet Growers*, the issue of whether EPA adequately considered the eleven-use option is a second-order consideration under Virelli’s deconstruction of arbitrary and capricious review since it involves using the information already in the record to come to a policy choice.<sup>209</sup> Virelli argues that these decisions should be afforded greater agency discretion than first-order considerations of information gathering.<sup>210</sup> In addition, under Deacon’s scheme, since EPA raised the issue of considering the eleven-use option, identified the criteria it used to evaluate it, and explained why under that criteria it chose not to adopt it, EPA went *beyond* what is generally required by courts in arbitrary and capricious review.<sup>211</sup> Despite these helpful formulations, arbitrary and capricious review remains vulnerable to judicial policy-pushing, as demonstrated in the next Subpart.

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making its decision is a product of its substantive experience and expertise” and that “[t]hose choices are based on expertise that is not only present at the FDA, but that is lacking (at least as an institutional matter) in the courts, and as such offers a valid basis for greater judicial deference on epistemic grounds”).

204. See generally Deacon, *supra* note 15.

205. *Id.* at 673.

206. *Id.* at 673-74, 722.

207. *Id.* at 722. Professor Deacon also provided thoughts and guidance on the standard that should apply to the responses that agencies provide to alternatives where the alternative is not explicitly mentioned by the agency or is one of multiple alternatives addressed by “global reasons.” *Id.* at 723-29. These nuances are not relevant for this Note since EPA explicitly provided reasons for not adopting the eleven-use option at issue in *Sugarbeet Growers*.

208. *Id.* at 723.

209. See Virelli III, *supra* note 16, at 738, 765-66.

210. *Id.* at 765-66.

211. Deacon, *supra* note 15, at 722.

*B. The Eighth Circuit's Incorrect Application of the Arbitrary and Capricious Standard*

The current state of arbitrary and capricious jurisprudence and scholarship may have its weak points, but the Eighth Circuit's opinion in *Sugarbeet Growers* throws even the settled principles of arbitrary and capricious review aside. This Subpart disentangles the Eighth Circuit's muddled application of the arbitrary and capricious standard in the interest of (1) calling out the carelessness of its holding and (2) avoiding the entrenchment of its reasoning.

*1. EPA's Consideration of the Eleven-Use Option*

First, *Sugarbeet Growers* did not apply the standard for whether an agency evaluated an alternative established by the Supreme Court in *State Farm*. In *State Farm*, the Court found that NHTSA had completely failed to consider the effects of a passive restraint rule that required manufacturers to install airbags in new cars.<sup>212</sup> NHTSA's reasoning did not evaluate whether requiring airbags only was feasible or desirable; *it failed to include even one sentence considering this option.*<sup>213</sup>

However, EPA *did* consider the alternative that the Eighth Circuit claimed it arbitrarily and capriciously ignored. In fact, the Eighth Circuit's opinion cites to the location in the administrative record where EPA considered the alternative of retaining some tolerances and summarizes EPA's reasons for rejecting it:

Pressed for time, the EPA concluded it had only one real option: revoke all tolerances and ban chlorpyrifos. *See* 2021 Revocation, 86 Fed. Reg. at 48333 (refusing to consider something less *because the statute "requires EPA to aggregate all dietary and non-occupational exposures"*); 2022 Denial Order, 87 Fed. Reg. at 11245–47 (concluding that *"limit[ing] EPA's safety assessment to a subset of actual exposures based on a proposal would reflect an incorrect application of the statutory standard"*). Its theory predetermined the outcome: *"[e]xposures from [the eleven proposed] uses alone could not reasonably be considered as 'anticipated' since they did not yet (nor did EPA have reason to believe that they would) reflect the exposures people would be exposed to in the real world."* 2022 Denial Order, 87 Fed. Reg. at 11246. *Without "a reasonable basis to believe that [other uses] w[ould] cease," it included them in the aggregate-exposure calculation and determined that no tolerance was safe.*<sup>214</sup>

As conveniently summarized by the Eighth Circuit above, EPA's orders revoking chlorpyrifos tolerances and denying objections to that decision

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212. *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 46–48.

213. *Id.* at 48.

214. *Red River Valley Sugarbeet Growers Association v. Regan*, 85 F.4th 881, 888 (8th Cir. 2023) (emphasis added).

explicitly considered the option of retaining the eleven uses in the 2020 Proposal. Furthermore, EPA's Revocation and Denial Orders explained that so long as uses remained registered under FIFRA, EPA believed it must anticipate that they would contribute to the anticipated exposures for purposes of making a safety determination.<sup>215</sup> In its 2021 Revocation Order, EPA explained that this was because registrants had refused to voluntarily cancel uses beyond the eleven being considered for retention and make the necessary label amendments to the eleven uses.<sup>216</sup> Therefore, unlike the passive restraints rule in *State Farm* where the agency failed to mention the airbags-only alternative, in *Sugarbeet Growers*, EPA directly confronted the prospect of retaining some tolerances and explained why it decided not to.<sup>217</sup> By insisting otherwise,<sup>218</sup> the Eighth Circuit improperly substituted its preferred alternative of retaining the eleven tolerances for EPA's judgment that doing so would be contrary to its statutory duty to anticipate aggregate exposure to chlorpyrifos based on currently registered uses.

## 2. Interpretation and Application of the FFDCA

By finding that EPA "failed" to consider the eleven-use option despite citing to EPA's consideration of that option, the Eighth Circuit essentially argues that EPA's reasons were not good enough. The structure and substance of the Eighth Circuit's opinion suggest that the court did not undertake a *State Farm*-like analysis of whether the agency considered the appropriate alternatives, but rather a more complex analysis of whether the reasoning EPA gave for rejecting the eleven-use option was within its discretion.<sup>219</sup> This required interpreting the scope of EPA's discretion under the FFDCA.<sup>220</sup> The Eighth Circuit acknowledged that this was in fact the analysis it was undertaking to some extent, reasoning that EPA failed to consider the eleven-use option because it failed to understand "the full scope of [its] discretion."<sup>221</sup>

However, perhaps because it nested its statutory interpretation within its analysis of alternatives, the Eighth Circuit did not thoroughly evaluate or apply the requirements of the FFDCA and continuously conflated EPA's duties and obligations under the FFDCA and FIFRA.<sup>222</sup> This Subpart will explain how by fixating on the statutory term "anticipated" to the exclusion of a fuller evaluation

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215. Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. 48315, 48333 (Aug. 30, 2021); Chlorpyrifos; Final Order Denying Objections, Requests for Hearings, and Requests for a Stay of the August 2021 Tolerance Final Rule, 87 Fed. Reg. 11222, 11247 (2022).

216. Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. at 48333.

217. See *State Farm*, 463 U.S. at 46, 48; *Sugarbeet Growers*, 85 F.4th at 888.

218. See *Sugarbeet Growers*, 85 F.4th at 888.

219. See *id.* at 886-88.

220. *Id.* at 887.

221. *Id.* at 886-87 (citing *Dep't of Homeland Sec. v. Regents of Univ. of Cal.*, 140 S.Ct. 1891, 1911-13 (2020) (citing *State Farm*, 463 U.S. 29 at 43)).

222. See *supra* notes 156, 167 (noting how the Eighth Circuit's opinion fails to accurately distinguish between EPA's authority over pesticide registration under FIFRA and tolerances under the FFDCA and mischaracterizes EPA's authority to modify pesticide tolerances).

of the FFDCA's safety mandate, not taking adequate care to understand EPA's obligations and authorities under the statutory scheme, and refusing to acknowledge the proposed nature of the 2020 Proposal, the Eighth Circuit used the arbitrary and capricious standard to skirt the mandate of the FFDCA and improperly "substitute[d] its judgment for that of the agency."<sup>223</sup>

a. Fixating on the Definition of a Non-Dispositive Term in the Statute

Both the Eighth and Ninth Circuit opinions center on the safety mandate of the FFDCA, section 346a(b)(2)(A), which directs EPA to leave a tolerance in effect "only if the Administrator determines the tolerance is safe."<sup>224</sup> The statute then specifies that EPA can determine a tolerance is safe if there is "reasonable certainty that no harm will result from aggregate exposure to the pesticide" based on all "anticipated" exposures "for which there is reliable information."<sup>225</sup>

Determining what exposures are anticipated is essential, but not dispositive, to determining what tolerances EPA can leave in effect. After determining what exposures are anticipated, to leave a tolerance in place, EPA must determine that the aggregate effect of those exposures is safe to a degree of reasonable certainty.<sup>226</sup> Yet, the Eighth Circuit's opinion focuses primarily on chiding EPA for not anticipating that revoking some tolerances would reduce the anticipated exposure to chlorpyrifos.<sup>227</sup> EPA knew this, but it also knew that those reductions would not be enough to allow it to determine the remaining tolerances were safe, and thus the FFDCA required all of the tolerances to be revoked.<sup>228</sup>

By resting its holding on the claim that EPA failed to properly anticipate aggregate exposures,<sup>229</sup> the Eighth Circuit largely avoided the issue of whether

223. See *Citizens to Pres. Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971).

224. The full statutory text reads as follows:

(i) Standard: The Administrator may establish or leave in effect a tolerance for a pesticide chemical residue in or on a food only if the Administrator determines that the tolerance is safe. The Administrator shall modify or revoke a tolerance if the Administrator determines it is not safe.

(ii) Determination of safety: As used in this section, the term "safe," with respect to a tolerance for a pesticide chemical residue, means that the Administrator has determined that there is a reasonable certainty that no harm will result from aggregate exposure to the pesticide chemical residue, including all anticipated dietary exposures and all other exposures for which there is reliable information. 21 U.S.C. § 346a(b)(2)(A).

225. *Id.*

226. *Id.*; see also *League of United Latin American Citizens v. Regan*, 996 F.3d 673, 692-93 (9th Cir. 2021).

227. See generally *Red River Valley Sugarbeet Growers Association v. Regan*, 85 F.4th 881 (8th Cir. 2023). See also *id.* at 887 ("For our purposes, the most important part of the calculation is the 'anticipated . . . exposure[]'"); *id.* (providing two dictionary definitions of the word "anticipated").

228. See *Chlorpyrifos; Tolerance Revocations*, 86 Fed. Reg. 48315, 48333 (Aug. 30, 2021).

229. See *Sugarbeet Growers*, 85 F.4th at 890 ("The revocation order abruptly ended [the process of considering the 2020 Proposal]. And the reason was *not* new findings, a reevaluation of the evidence, or even a lack of time, but a misunderstanding of its duty to 'anticipate' the 'aggregate exposure' from its own proposal. Under these circumstances, the EPA's decision to ignore modification as a possibility was 'arbitrary [and] capricious.'") (internal citations omitted) (emphasis in original).

the eleven-use option is safe, and thus a legally viable option, under the FFDCA.<sup>230</sup> The next two Subparts examine how the Eighth Circuit appears to have made two faulty assumptions contributing to this error: (1) that the 2020 Proposal was a final safety determination for the eleven-use option and (2) that EPA was required to act under FIFRA to amend registrations before revoking tolerances under the FFDCA.

b. Refusing to Acknowledge the Proposed Nature of the 2020 Proposal<sup>231</sup>

While not entirely explicit, the Eighth Circuit appears to assume that the 2020 Proposal was a final safety determination for the eleven-use option.<sup>232</sup> However, the Eighth Circuit seemingly rested this assumption on several incomplete citations to the administrative record and ignored EPA's explanations to the contrary.

For instance, the Eighth Circuit quoted EPA's 2022 Denial Order stating, "EPA does not dispute its own scientific conclusions and findings in the [2020 Proposal] that the Agency could support a safety determination for the very limited and specific subset of uses identified in that document."<sup>233</sup> Admittedly, the administrative record in this case is not always consistent, and this quote can be read in isolation to indicate that EPA concluded that the eleven-use option would be safe. However, despite this vague characterization buried in EPA's Denial Order, the 2020 Proposal is still a *proposal*<sup>234</sup> and not a final finding.<sup>235</sup> This is important because without a final safety determination for the eleven-use option, it would be illegal for EPA to leave those tolerances in effect under the FFDCA.<sup>236</sup>

EPA explicitly addressed this issue in the same order.<sup>237</sup> Immediately following the quote the Eighth Circuit cited, EPA explained that:

[A]t the time of the final [revocation of tolerance], the Agency did not have a basis for assuming that uses would be limited in accordance with the 2020 PID mitigation proposal. Thus, as a legal matter, EPA could

230. See generally *id.*

231. It may seem circular or unfair to term the 2020 PID a "proposal" and then argue it was only a proposal. However, the Eighth Circuit also used this abbreviation to refer to the 2020 Proposed Interim Registration Review Decision in *Sugarbeet Growers. Id.* at 885. Furthermore, the word "proposed" is in the full name of the document. Note that EPA generally uses the abbreviation "PID" in its documents.

232. See, e.g., *id.* at 890 ("As the EPA itself acknowledged, it could safely retain some chlorpyrifos tolerances.").

233. *Id.* at 888 n. 1 (citing 87 Fed. Reg. at 11241).

234. See *Proposal*, WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY (15th ed. 1969) (defining "proposal" as "an act of putting forward or stating (a scheme, an offer, an intention) for consideration").

235. 2020 PROPOSAL, *supra* note 66, at 63-64 ("The agency will reexamine the proposed and considered mitigation after considering public input during the comment period and conclusions from the 2020 SAP.").

236. See *League of United Latin American Citizens v. Regan*, 996 F.3d 673, 697 (9th Cir. 2021).

237. Chlorpyrifos; Final Order Denying Objections, Requests for Hearings, and Requests for a Stay of the August 2021 Tolerance Final Rule, 87 Fed. Reg. 11222, 11241 (Feb. 28, 2022).

not rely on those scientific findings to support leaving the tolerances in place. . . .<sup>238</sup>

Furthermore, in the same Denial Order, EPA wrote, “In sum, the 2020 PID proposal, without more, is just a proposal.”<sup>239</sup> The Eighth Circuit also quoted EPA’s 2021 Revocation Order for the proposition that EPA “had found ‘limited combinations of uses in certain geographic areas that *could be* considered safe.’”<sup>240</sup> However, the full quote in the Revocation Order reads that “[i]t is worth noting that the Agency’s [2020 Proposal] recognized that there *might be* limited combinations of uses in certain geographic areas that could be considered safe, *if* the assessment only includes those specific uses in those areas.”<sup>241</sup>

To add to the confusion, at the same time it implied that the 2020 Proposal constituted a final safety determination for the eleven-use option, the Eighth Circuit essentially admitted that the 2020 Proposal was not a final safety determination when it acknowledged that EPA “might have needed to move more quickly than usual to confirm the safety findings.”<sup>242</sup>

In fairness, courts should not allow agencies to characterize any finding or decision as a proposal to avoid being held accountable for its consequences. However, even looking past the title of the 2020 Proposed Interim Registration Decision, it is fairly clear from the above and EPA’s commitment to respond to notice and comment before issuing a final interim reregistration decision for chlorpyrifos<sup>243</sup> that the 2020 Proposal was in fact a proposal and not a final safety determination for the eleven-use option.

### c. Ignoring EPA’s Obligations and Authorities under the Statutory Scheme

Even if EPA had made a final determination that the eleven-use option described in the 2020 Proposal was safe, implementing the 2020 Proposal would require EPA to take additional measures under FIFRA that would bring

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238. *Id.*

239. *Id.* at 11246 (stating in full: “In sum, the 2020 PID proposal, without more, is just a proposal; it does not support an EPA assumption that aggregate exposures would be limited to that subset of uses instead of an assessment based on the actual registered uses and ongoing real-world applications of chlorpyrifos.”).

240. *Red River Valley Sugarbeet Growers Ass’n v. Regan*, 85 F.4th 881, 886 (8th Cir. 2023) (citing Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. 48315, 48333 (Aug. 30, 2021)) (emphasis in original).

241. Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. at 48333 (emphasis added).

242. *See Sugarbeet Growers*, 85 F.4th at 888.

243. *See* 2020 PROPOSAL, *supra* note 66, at 55 (“At this time, the EPA is presenting use prohibitions and application restrictions for risk estimates that were below the [level of concern (LOC)]. Once the EPA considers the SAP’s conclusions, the EPA may further revise the human health risk assessment and proposed/considered mitigation. This includes consideration of additional refinements to the occupational risk estimates where possible. The EPA will also consider the benefits of the crops that are ultimately retained, as well as public comments, prior to finalizing any use prohibitions and/or application restrictions.”).

chlorpyrifos uses in line with those proposed to possibly be safe in the 2020 Proposal.<sup>244</sup>

As EPA explained in its 2021 Revocation Order, its “ability to make the safety finding for any remaining uses would be contingent upon significant changes to the existing [FIFRA] registrations, including use cancellations, geographical limitations, and other label changes.”<sup>245</sup> As discussed earlier, cancelling or amending a pesticide registration involuntarily under FIFRA is an onerous and time-consuming process.<sup>246</sup> Time was particularly relevant for EPA here since the Ninth Circuit had already determined that EPA’s failure to revoke chlorpyrifos tolerances, despite undertaking over a decade of analysis without making a safety determination, was arbitrary and capricious and in violation of the FFDCA.<sup>247</sup> Therefore, “[b]ased on the data available at this time and the aggregate exposures expected from currently registered uses,” EPA concluded that it could not determine that anticipated aggregate exposures were safe and reasoned that it must revoke all tolerances under the FFDCA.<sup>248</sup>

To this, the Eighth Circuit responded only that “that is precisely why the [FFDCA] allows [EPA] to anticipate the outcome of its own proceedings, including the possibility of retaining some tolerances and revoking others. Certainly, it could anticipate what would happen under its own proposal to keep a set of high-benefit uses in place.”<sup>249</sup> This is a non sequitur. It is true that if the eleven-use option only required EPA to eliminate all other uses, revoking those other tolerances might have been a sufficient basis for EPA to anticipate that remaining uses would be safe. However, without voluntary label amendments under FIFRA for the eleven uses proposed to be retained, EPA had no reasonable basis to anticipate that their use would be limited to the appropriate geography, application rates, and other label restrictions proposed to be safe under the FFDCA in the 2020 Proposal.<sup>250</sup> In short, the Eighth Circuit’s gesturing at the ability of EPA to undertake lengthy proceedings under FIFRA and “anticipate” their outcome does not respond to the separate and time-sensitive issue of safety under the FFDCA.

The Eighth Circuit’s claim that EPA acted as if it “lacked discretion” is therefore true, but it does not support the holding that EPA’s revocation of chlorpyrifos tolerances was arbitrary and capricious.<sup>251</sup> Indeed, EPA did lack discretion under the FFDCA; it was mandated to act to protect children from exposures for which it could not make a final safety determination,<sup>252</sup> including

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244. Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. at 48333.

245. *Id.*

246. *See supra* Part I.B.2.

247. *League of United Latin American Citizens v. Regan*, 996 F.3d 673, 696 (9th Cir. 2021).

248. Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. at 48333.

249. *Red River Valley Sugarbeet Growers Ass’n v. Regan*, 85 F.4th 881, 889 (8th Cir. 2023).

250. *See* Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. at 48333.

251. *Sugarbeet Growers*, 85 F.4th at 887.

252. *See League of United Latin American Citizens*, 996 F.3d at 697.

the exposures anticipated under the eleven-use option.<sup>253</sup> And EPA explained in the administrative record that (1) the 2020 Proposal was a proposal and not a final safety determination for the eleven-use option<sup>254</sup> and (2) EPA's separate authority to regulate pesticide use under FIFRA did not provide a reasonable basis for EPA to predict that it could reduce pesticide exposure to levels considered safe under the FFDCA within the relevant time period.<sup>255</sup>

However, by putting the requirements of the FFDCA to one side and instead focusing on the definition of "anticipated" and *State Farm's* requirement to consider alternatives, the Eighth Circuit found an opportunity to advance its preferred policy choice through the arbitrary and capricious standard.<sup>256</sup> This reasoning pays short shrift to the congressional mandate expressed in the FFDCA and commits precisely the type of error the Court cautioned against in *Overton Park*.<sup>257</sup> Ultimately, the Eighth Circuit conflated the idea that an agency may act arbitrarily and capriciously by misinterpreting the scope of its discretion to consider an alternative with the idea that an agency *may in fact lack discretion* to adopt an option under a substantive statute, such as the FFDCA.<sup>258</sup> The opinion essentially dressed up an issue of statutory interpretation as an issue of arbitrary and capricious decision making.

#### IV. FUTURE APPLICATION OF THE ARBITRARY AND CAPRICIOUS STANDARD

In all fairness, courts faced with review of agency actions like EPA's regulatory choices regarding chlorpyrifos are not facing an easy task. They must contend with reams of (sometimes conflicting) administrative records, technical epidemiology and toxicology studies, and the fallout of shifts in political winds. It does not help that the jurisprudence and scholarship around arbitrary and capricious review is still developing.<sup>259</sup> However, the outcome in *Sugarbeet Growers* demonstrates the need for a more systematic and transparent approach to arbitrary and capricious review if it is to further the APA's goal of cultivating accountability in administrative decision making rather than serving as cover for courts imposing policy preferences on agencies.

There are several distinctions between the Ninth Circuit's opinion in *United Latin American Citizens* and the Eighth Circuit's opinion in *Sugarbeet Growers* that provide guidance on how the arbitrary and capricious standard should be

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253. See Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. at 48333.

254. Chlorpyrifos; Final Order Denying Objections, Requests for Hearings, and Requests for a Stay of the August 2021 Tolerance Final Rule, 87 Fed. Reg. 11222, 11241 (2022).

255. See Chlorpyrifos; Tolerance Revocations, 86 Fed. Reg. at 48333.

256. See *Sugarbeet Growers*, 85 F.4th at 889.

257. See *Citizens to Pres. Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416.

258. See *Sugarbeet Growers*, 85 F.4th at 890.

259. See Deacon, *supra* note 15, at 673 (describing the doctrinal uncertainty of responding to alternatives under arbitrary and capricious review: "The case law, while voluminous, has also done little to meaningfully define the contours of the doctrine").

applied. Both opinions rely on the APA’s arbitrary and capricious standard.<sup>260</sup> Both evaluate EPA’s decision to act or not to act under the FFDCA to revoke chlorpyrifos tolerances.<sup>261</sup> But the ways the opinions apply the arbitrary and capricious standard to EPA’s decisions are very different. While there are likely numerous lessons to be gleaned from these distinctions,<sup>262</sup> this Note will focus on how each court’s interpretation of the FFDCA’s mandate can demonstrate best practices for statutory interpretation in the context of arbitrary and capricious review—namely thoroughly evaluating the substantive statute to define the scope of the agency’s discretion and taking the agency’s understanding of its duties and authorities seriously.

First, the opinions demonstrate that the proper application of the arbitrary and capricious standard depends on thoroughly interpreting the substantive statute defining the scope of the agency’s discretion. A primary driver of the outcome of *Sugarbeet Growers* was the Eighth Circuit’s fixation on the meaning of the word “anticipated.”<sup>263</sup> By focusing on EPA’s determination of what exposures were anticipated, the court failed to ground its reasoning in the requirement to make a safety determination, which is the point of anticipating exposures to begin with.<sup>264</sup> The Eighth Circuit’s failure to engage with the idea of safety may have contributed to its disinterest in the reality that the proposal finding the eleven-use option might be safe was not a safety determination.<sup>265</sup> It also might explain the Eighth Circuit’s disinterest in the separation between EPA’s authority under FIFRA to cancel and amend pesticide registrations and the FFDCA’s urgent safety mandate.<sup>266</sup>

On the other hand, the Ninth Circuit worked to spell out what the FFDCA demands of EPA and then asked whether EPA failed to “articulate[] a satisfactory explanation for its action including a ‘rational connection between the facts found and the choice made.’”<sup>267</sup> What was “rational” depended on what was mandated by section 346(a)(b)(2)(A) as a whole, not just what was “anticipated.”<sup>268</sup> Ultimately, the Ninth Circuit relied heavily on EPA’s own statement that it had not determined chlorpyrifos was safe, in combination with its detailed interpretation of the FFDCA, to find that EPA had acted arbitrarily

260. See *League of United Latin American Citizens v. Regan*, 996 F.3d 673, 690 (9th Cir. 2021); *Sugarbeet Growers*, 85 F.4th at 886.

261. See *League of United Latin American Citizens*, 996 F.3d at 677; *Sugarbeet Growers*, 85 F.4th at 886-87.

262. Some other distinctions include the courts’ treatment of science, concern regarding timing and delay, and the implications of each court’s remedy.

263. See *Sugarbeet Growers*, 85 F.4th at 890.

264. See *supra* Part III.B.2.a.

265. See *Sugarbeet Growers*, 85 F.4th at 888 n.1; *supra* Part III.B.2.b.

266. See *Sugarbeet Growers*, 85 F.4th at 889; *supra* Part III.B.2.c.

267. See *League of United Latin American Citizens v. Regan*, 996 F.3d 673, 696 (9th Cir. 2021) (quoting *Motor Vehicle Mfrs. Ass’n*, 463 U.S. 29, 43 (1983) (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962)).

268. See *id.* at 696-99.

and capriciously.<sup>269</sup> Future courts should follow the Ninth Circuit's lead in this case and be careful to clearly articulate what an agency's duties are under *the substantive statute* as a basis for what is required to meet that burden under the arbitrary and capricious standard. In contrast to the Ninth Circuit's painstaking deconstruction of the FFDCA's safety standard, the Eighth Circuit pulled out a single component of that standard and ignored the whole.

Second, *League of Latin American Citizens* and *Sugarbeet Growers* demonstrate that determining whether an agency acted within the discretion afforded to it by statute, while a question of law, can involve issues more within the scope of agency expertise than judicial expertise. In *Sugarbeet Growers*, the proposed nature of the 2020 Proposal and the scope of EPA's authorities under the FFDCA and FIFRA were technically legal questions that a court should be able to competently handle. However, as discussed above, the Eighth Circuit's opinion would have benefited from taking the agency's understanding of these issues more seriously.<sup>270</sup> The Eighth Circuit's ambivalence to EPA's explanation of its inability to make a final safety finding for the eleven-use option and constraints to amend registrations under FIFRA contributed significantly to the holding that the agency acted arbitrarily and capriciously in complying with its statutory mandate.<sup>271</sup>

Even so, a court should not uncritically defer to an agency's interpretation of its authority. *League of Latin American Citizens* demonstrates that there are instances where an agency may abuse its discretion in interpreting its statutory mandate to justify delay and inaction.<sup>272</sup> In these cases, it becomes essential for a court to step in to give meaning to the law. The Ninth Circuit demonstrated how a court can do this while remaining grounded in the text of the substantive statute at issue, rather than imposing the court's preferred policy choice.<sup>273</sup> For example, in rejecting EPA's argument that it was entitled to prioritize its registration review schedule and therefore not required to immediately make a decision regarding chlorpyrifos tolerances, the Ninth Circuit reiterated that "FIFRA registration review . . . is a different animal, in that it permits a balancing of multiple factors, whereas FFDCA review is limited to the sole issue of safety."<sup>274</sup> The Ninth Circuit also reasoned that EPA's position "would largely strip FFDCA petitions of meaning, converting them into comments for the EPA

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269. See *id.* at 691 (reasoning that EPA's admission was "effectively dispositive" of the case since the FFDCA required EPA to revoke tolerances where it could not determine to a degree of reasonable certainty that the pesticide would not result in a harmful level of aggregate exposure to infants and children).

270. See *supra* Part III.

271. See, e.g., *Sugarbeet Growers*, 85 F.4th at 888 n.1 (dismissing the agency's argument that the 2020 proposal was not a final safety determination).

272. See *League of United Latin American Citizens*, 996 F.3d at 678, 696-97.

273. See *Citizens to Pres. Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (explaining that a court should not use arbitrary and capricious review to substitute its policy choice for that of the agency).

274. *League of United Latin American Citizens*, 996 F.3d at 696.

to consider whenever it gets around to the next FIFRA registration review.”<sup>275</sup> The Ninth Circuit’s finding that there was “no statutory support” for EPA’s decision to re-prioritize consideration of the issues raised in the 2007 petition is an example of how a court could appropriately apply a thorough interpretation of a substantive statute to dismiss an agency’s argument that it has discretion to pursue a certain course of action under that statute.<sup>276</sup> This approach allows the court to ensure the substantive statute is properly executed without imposing its own policy choice on the agency under the guise of arbitrary and capricious review.<sup>277</sup>

#### CONCLUSION

The arbitrary and capricious standard under the APA does not stand apart from the substantive statute; it is meant to ensure compliance with the substantive statute. The Eighth Circuit’s holding is pernicious because it uses the idea of alternatives under the arbitrary and capricious standard to escape the statutory mandate of the FFDCA without reinterpreting the underlying statutory text. Especially when a statute provides as clear a mandate as the FFDCA, courts should be careful to center those mandates in considering whether an agency acted arbitrarily or capriciously.

While at the time of publication of this Note EPA still has not finalized the rule implementing the eleven-use option, in practice EPA has effectuated the Eighth Circuit’s policy preference for retaining eleven uses of chlorpyrifos on crops.<sup>278</sup> These uses will continue to expose people to this neurotoxin with disproportionate negative effects on farmworkers, infants, and children.<sup>279</sup> These exposures will continue despite EPA’s admission that further consideration of the risks is warranted, which it intends to continue during registration review proceedings under FIFRA.<sup>280</sup>

The coalition of farmworkers, Latine advocates, environmental organizations, and public health groups that brought the challenge in *League of Latin American Citizens* continues to fight against this illegal and unjust result. In February 2025, the coalition submitted comments to EPA arguing once again that EPA must revoke chlorpyrifos tolerances since it cannot make a final safety determination for any uses.<sup>281</sup> As the coalition remarked, the use of chlorpyrifos

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275. *Id.* at 697.

276. *See id.*

277. *See Citizens to Pres. Overton Park, Inc. v. Volpe*, 401 U.S. at 416.

278. *See supra* Part II.D.

279. *See* Donley et al., *supra* note 32, at 8-9; Bouchard et al., *supra* note 7, at 1189.

280. Chlorpyrifos; Tolerance Revocation, 89 Fed. Reg. 99184, 99186 (Dec. 10, 2024).

281. Alianza Nacional de Campesinas et al., Farmworker and Conservation Groups’ Comments on the Proposed Partial Revocation of Chlorpyrifos Tolerances, 1 (Feb. 21, 2025). The coalition’s comments center on three claims: (1) that EPA cannot rely on the 2020 Proposal as a final safety determination since it has not responded to public comments undermining its proposed safety finding, (2) that EPA’s risk analyses do not support a finding of reasonable certainty of no harm to children from

on food prior to EPA's revocation of all tolerances in 2022 "not only put children at risk of needless neurodevelopmental harm, but also caused acute poisonings of countless farmworkers who grow our food every year it was used."<sup>282</sup> The Eighth Circuit's use of the arbitrary and capricious standard to advance its policy preference for retaining eleven chlorpyrifos tolerances will renew these risks for children and farmworkers for each growing season chlorpyrifos tolerances remain in effect.<sup>283</sup>

And yet, *League of Latin American Citizens* demonstrates that arbitrary and capricious review can be essential for ensuring that an agency complies with its statutory mandates. These opinions demonstrate the need to establish a clearer line between appropriate scrutiny of agency authority and substitution of a court's policy preference for that of an agency.<sup>284</sup> This Note aimed to provide a case-specific example of how a thorough reading of the substantive statute and an accurate understanding of an agency's capacities, duties, and obligations under that statute are essential ingredients to getting arbitrary and capricious review right.

The legal community must insist on principled application of the arbitrary and capricious standard if it wants to avoid the devolution of this doctrine into judicial policy-pushing. It is not a secret that the current Supreme Court is eager to diminish administrative authority and expand that of the judiciary.<sup>285</sup> But those who value the benefits of an administrative state that, among other things, has the ability to protect people from neurotoxic pesticides, need to provide an alternative to a system where courts serve as "the country's administrative czar."<sup>286</sup> This vision should include arbitrary and capricious review grounded in the requirements of the substantive statute Congress directed the agency to execute.

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acute poisoning, and (3) that EPA's 2020 Drinking Water Assessment does not support a safety determination with regard to neurodevelopmental harm to children. *Id.* at 2.

282. *Id.* at 26.

283. The eleven uses in the 2020 Proposal comprised approximately 55 percent of total chlorpyrifos usage on agricultural commodities between 2014 and 2018. *EPA Update on the Use of the Pesticide Chlorpyrifos on Food*, EPA, <https://www.epa.gov/pesticide-worker-safety/epa-update-use-pesticide-chlorpyrifos-food#:~:text=Those%201%20uses%20are:%20alfalfa,view%20the%20Federal%20Register%20Notice%20> (last updated Jan. 16, 2025).

284. See Deacon, *supra* note 15, at 677, 686 ("Now is an important time to refine the contours of the obligation to respond to alternatives. Although the basic obligation serves the values associated with reason-giving requirements more generally, there are signs that courts may increasingly be keen to use the obligation as justification for substituting the courts' own views about the nature of the problem at issue and the range of responses that might be justified as a policy matter.").

285. See *Loper Bright Enters. v. Raimondo*, 603 U.S. 369, 478-79 (2024) (Kagan, J., dissenting).

286. *Id.* at 450-52.

**We welcome responses to this Note. If you are interested in submitting a response for our online journal, *Ecology Law Currents*, please contact [cse.elq@law.berkeley.edu](mailto:cse.elq@law.berkeley.edu). Responses to articles may be viewed at our website, <http://www.ecologylawquarterly.org>.**