

---

---

## NOTE

# *Silent Spring Still Runs Deep: The D.C. Circuit Halts Efforts to End Global Carbofuran Contamination in National Corn Growers Association v. EPA*

Nikki Moore\*

### TABLE OF CONTENTS

INTRODUCTION .....	1533
I. BACKGROUND .....	1534
A. <i>Silent Spring Spurs the Government to Establish the EPA         and Regulate Pesticides</i> .....	1535
B. <i>Rulemaking and Judicial Review of Administrative         Actions</i> .....	1537
C. <i>The Global Agriculture System and the Role of Pesticides</i> .....	1541
II. NATIONAL CORN GROWERS ASSOCIATION V. EPA .....	1545
III. ANALYSIS .....	1546
A. <i>Corn Growers Incorrectly Found that the EPA's         Carbofuran Ban Was Arbitrary and Capricious</i> .....	1547
B. <i>The Court Ignored Statutory Language and         Congressional Intent</i> .....	1550
C. <i>The National Policies for Global Health and a Safe         Global Food Supply Support Ending Carbofuran Use</i> .....	1552
CONCLUSION .....	1554

---

\* Copyright © 2012 Nikki Moore. Articles Editor, UC Davis Law Review; J.D. Candidate, UC Davis School of Law, 2012; B.A. Classics, UC Santa Barbara, 2008. Special thanks to William McKenna and Connor Boyd for their comments and editorial assistance. This Note is dedicated to all of the teachers who inspired me.



## INTRODUCTION

On September 27, 1962, Rachel Carson told a fable that started a movement.<sup>1</sup> In her groundbreaking book *Silent Spring*, she recounts the fate of a once idyllic farm town that falls victim to the chemical war against insects and plants.<sup>2</sup> The dull, dry town is riddled with poisoned water and puzzling illnesses, providing a stark contrast to the animus of its agrarian past.<sup>3</sup>

Carson's tone is alarming, almost apocalyptic in admonishing the danger of DDT and the largely unscrutinized use of toxins in food production.<sup>4</sup> She believes that it is a basic human right for a citizen to protect himself from others' indiscriminate use of pesticides and insecticides.<sup>5</sup> Her ideas sparked the environmental movement, and prompted the creation of the Environmental Protection Agency ("EPA").<sup>6</sup> Today, the EPA regulates the use of toxic chemicals to protect the public welfare, but their regulations do not always withstand judicial review.<sup>7</sup>

In *National Corn Growers Association v. EPA*, the U.S. Court of Appeals for the D.C. Circuit invalidated an EPA regulation that had completely banned use of carbofuran, a commonly used pesticide.<sup>8</sup> Leading to the suit, the EPA had found that carbofuran levels in the domestic food and drinking supply were at an unsafe level, and acted to prevent any further public exposure to the contaminate.<sup>9</sup> In banning any tolerance of carbofuran, the EPA prohibited the importation of crops that contained the substance, namely, commodities like bananas and coffee from Africa and South America.<sup>10</sup>

---

<sup>1</sup> RACHEL CARSON, *SILENT SPRING* (2002) (Chapter 1: "A Fable for Tomorrow"); see Linda Lear, *Introduction* to CARSON, *supra* at x-xix (introducing the 40th anniversary edition of *Silent Spring*); Jack Lewis, *The Birth of EPA*, U.S. ENVTL. PROTECTION AGENCY J. 6, 6-11 (1985), available at <http://www.epa.gov/aboutepa/history/topics/epa/15c.html> (outlining the history of the EPA).

<sup>2</sup> See CARSON, *supra* note 1, at 1-4.

<sup>3</sup> *Id.*

<sup>4</sup> See Lear, *supra* note 1, at xviii.

<sup>5</sup> See *id.* at xv.

<sup>6</sup> See *infra* Part I.

<sup>7</sup> See *infra* Parts I-II.

<sup>8</sup> See *Nat'l Corn Growers Ass'n v. EPA*, 613 F.3d 266, 275 (9th Cir. 2010), *cert. denied*, 131 S. Ct. 2931 (2011).

<sup>9</sup> See generally Carbofuran; Product Cancellation Order, 74 Fed. Reg. 11551-01, 11551-53 (Mar. 18, 2009) [hereinafter Cancellation Order] (cancelling carbofuran registration as a legal pesticide).

<sup>10</sup> See Corrected Reply Brief of Petitioners at 11, *Nat'l Corn Growers Ass'n v. EPA*, 613 F.3d 266 (D.C. Cir. 2010) (No. 09-1284) [hereinafter Reply Brief of Petitioners].

This Note argues that the D.C. Circuit improperly invalidated the EPA's import ban on carbofuran-containing foods.<sup>11</sup> Part I describes the administrative law system, the statutes that grant the EPA authority to monitor pesticide use, and the health risks carbofuran poses.<sup>12</sup> Part II discusses the facts, analysis, and result in *Corn Growers*.<sup>13</sup> Part III sets forth three arguments supporting the EPA's total ban on carbofuran and rebuts two counterarguments in opposition to the ban: First, the court failed to review the whole administrative record, which supports enacting the total ban.<sup>14</sup> Second, the court ignored the plain meaning of the Federal Food, Drug, and Cosmetic Act ("FD&C"), which authorizes the EPA to promulgate the ban.<sup>15</sup> Third, the national policies for maintaining global health and a safe global food supply support the elimination of carbofuran use.<sup>16</sup> Although the Supreme Court denied certiorari in May 2011, the EPA can and should pursue all legal means to reinstate the full regulation.

## I. BACKGROUND

Some scholars argue that administrative agencies form the fourth branch of the U.S. government.<sup>17</sup> Agencies first arose in the late nineteenth century to carry out common law judicial review.<sup>18</sup> Over time, Congress and the President have established administrative agencies to effectively regulate a myriad of aspects of American life, from railroads to air traffic control.<sup>19</sup> In the 1960s and 1970s, modern administrative law developed to regulate public interest issues such as the environment, health, and civil rights.<sup>20</sup>

---

<sup>11</sup> See *infra* Part III.

<sup>12</sup> See *infra* Part I.

<sup>13</sup> See *infra* Part II.

<sup>14</sup> See *infra* Part III.A.

<sup>15</sup> See *infra* Part III.B.

<sup>16</sup> See *infra* Part III.C.

<sup>17</sup> See Richard A. Epstein, *Why the Modern Administrative State Is Inconsistent with the Rule of Law*, 3 N.Y.U. J. L. & LIBERTY 491, 492 (2008).

<sup>18</sup> See John F. Duffy, *Administrative Common Law in Judicial Review*, 77 TEX. L. REV. 113, 121 (1998); Richard B. Stewart, *Administrative Law in the Twenty-First Century*, 78 N.Y.U. L. REV. 437, 439 (2003).

<sup>19</sup> See WILLIAM D. SLOAN & LISA M. PARCELL, *AMERICAN JOURNALISM: HISTORY, PRINCIPLES, PRACTICES* 141 (2002); James O. Freedman, *Crisis and Legitimacy: The Administrative Process and American Government*, in *THE LEGAL FOUNDATION OF PUBLIC ADMINISTRATION* 21, 23 (Donald D. Barry et al. eds., 2005); Stewart, *supra* note 18, at 439-40.

<sup>20</sup> See ROGER E. MEINER ET AL., *THE LEGAL ENVIRONMENT OF BUSINESS* 369 (10th ed.

The Administrative Procedure Act of 1946 (“APA”) provides the rules of procedure an agency must follow to enact valid regulations.<sup>21</sup> Additionally, Congress enacts enabling statutes granting an agency authority to take action on certain issues and specifying any other rules or procedures the agency is subject to in its pursuit. Two such statutes authorize the EPA to regulate pesticides like carbofuran: FD&C and the Federal Insecticide, Fungicide, and Rodenticide Act (“FIFRA”).<sup>22</sup> Carbofuran, a chemical banned in both Canada and Europe and classified by the World Health Organization as “highly toxic,” is just one of thousands of pesticides the EPA regulates.<sup>23</sup>

A. *Silent Spring Spurs the Government to Establish the EPA and Regulate Pesticides*

With its incendiary language, *Silent Spring* incited the public to demand the regulation of pesticides.<sup>24</sup> The book had a ripple effect, resulting in presidential investigations into the validity of Carson’s claims, which led to the conclusion that public oversight was necessary in this area.<sup>25</sup> In 1970, President Richard Nixon urged Congress to create the EPA to monitor and regulate environmental issues, with the goal of protecting the health and safety of Americans.<sup>26</sup>

---

2009); Lewis, *supra* note 1, at 6-8.

<sup>21</sup> See Administrative Procedure Act, 5 U.S.C. §§ 552-556, 706 (2006); see also *infra* Part I.A (discussing general procedures agencies must follow to enact regulations and standard of review that courts apply to those decisions). See generally *Chevron, U.S.A., Inc. v. NRDC*, 467 U.S. 837 (1984) (discussing judicial review of administrative agency decisions); *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29 (1983) (same).

<sup>22</sup> See Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. § 136(a) (2006); Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 346a (2006). See generally *infra* Part I.B (discussing the EPA’s regulation of pesticides).

<sup>23</sup> See 1 WORLD HEALTH ORG., GUIDELINES FOR DRINKING-WATER QUALITY 319-20 (3rd ed. 2008), available at [http://www.who.int/water\\_sanitation\\_health/dwq/fulltext.pdf](http://www.who.int/water_sanitation_health/dwq/fulltext.pdf) (last visited Jan. 26, 2012).

<sup>24</sup> See Lear, *supra* note 1, at xvii-xviii; Lewis, *supra* note 1, at 6; see also *Citizens to Pres. Overton Park, Inc. v. Volpe*, 401 U.S. 402, 404 (1971) (stating that the growing public concern about the quality of our natural environment has prompted Congress in recent years to enact legislation).

<sup>25</sup> See Lewis, *supra* note 1, at 6-7 (discussing President Richard Nixon’s actions with regards to environmental protection); *The Story of Silent Spring*, NATURAL RES. DEF. COUNCIL, <http://www.nrdc.org/health/pesticides/hcarson.asp> (last visited Mar. 2, 2012) (discussing investigation President John F. Kennedy launched in reaction to *Silent Spring*).

<sup>26</sup> See Lewis, *supra* note 1, at 6-7.

One of the EPA's main responsibilities is to regulate three categories of artificial pollutants: pesticides, solid wastes, and radiation.<sup>27</sup> Over the years, Congress has passed enabling statutes instructing the EPA on how and what to regulate and which procedures to follow in issuing the regulation.<sup>28</sup> Two such statutes — FIFRA and FD&C — authorize the EPA to exercise control over the use of pesticides in the food supply.<sup>29</sup>

FIFRA establishes a registration system for pesticides manufactured, distributed, or used in the United States.<sup>30</sup> The purpose of the Act is to protect the public while allowing farmers to benefit from safe pesticide use.<sup>31</sup> The Act also makes it unlawful to produce or use an unregistered pesticide; anyone in violation may face civil and criminal penalties.<sup>32</sup> FIFRA authorizes the EPA to consider agricultural need, public health, and economic factors in regulating pesticide use.<sup>33</sup>

The FD&C, in conjunction with the FIFRA-mandated registration process, directs the EPA to limit unsafe levels of toxins in the U.S. food supply.<sup>34</sup> The EPA will consider a pesticide safe at a specific "tolerance," the level of exposure that has no adverse effect on humans.<sup>35</sup> When a food product contains an unregistered pesticide, or a registered pesticide that exceeds its prescribed tolerance, it may be unsafe and deemed "adulterated."<sup>36</sup>

The EPA may prohibit the movement of adulterated food products in interstate commerce and forbid the sale of these foods from both domestic and imported sources.<sup>37</sup> Section 346a of the Act defines a safe level as one that causes no harm to human health considering the

---

<sup>27</sup> See also 7 U.S.C. § 136(a); 21 U.S.C. § 346a.

<sup>28</sup> See SUSAN J. BUCK, UNDERSTANDING ENVIRONMENTAL ADMINISTRATION AND LAW 4-5 (2006). See generally 7 U.S.C. § 136(a) (passing FIFRA in 1947); 21 U.S.C. § 346a (passing FD&C in 1938).

<sup>29</sup> See 7 U.S.C. § 136(a); 21 U.S.C. § 346a.

<sup>30</sup> 7 U.S.C. § 136(a).

<sup>31</sup> See Press Release, Environmental Protection Agency, EPA to Ask for Comments on New Pesticides Law (Nov. 8, 1972), available at <http://www.epa.gov/aboutepa/history/topics/fifra/03.html>.

<sup>32</sup> See 7 U.S.C. § 136(l).

<sup>33</sup> See *id.* § 136(a)(c)(2)(A).

<sup>34</sup> See 21 U.S.C. §§ 301-395, 331(a); *Les v. Reilly*, 968 F.2d 985, 986 (9th Cir. 1992) (setting aside EPA order permitting use of carcinogens that posed a de minimis cancer risk).

<sup>35</sup> See 21 U.S.C. § 346a; Adam Babich, *Too Much Science in Environmental Law*, 28 COLUM. J. ENVTL. L. 119, 124 (2003).

<sup>36</sup> See 21 U.S.C. § 346a; *Les*, 968 F.2d at 986; *Am. Farm Bureau v. EPA*, 121 F. Supp. 2d 84, 88 (D.D.C. 2000).

<sup>37</sup> See 21 U.S.C. § 346a; *Les*, 968 F.2d at 986-87.

“aggregate” exposure to a pesticide residue.<sup>38</sup> In determining the acceptable tolerance level of a pesticide, the EPA weighs various factors, including child safety, subpopulations’ susceptibility, and the effects of collective exposure.<sup>39</sup> The EPA may revoke a tolerance completely in an effort to ensure exposure to a chemical does not pose a serious risk.<sup>40</sup> This action effectively makes all food products containing the revoked pesticide adulterated.<sup>41</sup>

In 1996, the Food Quality Protection Act (“FQPA”) amended FD&C and FIFRA to require the EPA to review the 9,000 existing pesticide tolerances.<sup>42</sup> In reviewing pesticide tolerances, the EPA’s function is to determine whether the current tolerance is safe, and if not, whether it should be modified or revoked.<sup>43</sup> The FQPA emphasizes the importance of establishing levels that are more protective of children, recognizing that they are especially vulnerable to chemicals in the food supply.<sup>44</sup> After review, the EPA may maintain, modify, or revoke the tolerance of that pesticide by enacting a rule pursuant to proper administrative procedures.<sup>45</sup>

#### B. Rulemaking and Judicial Review of Administrative Actions

When the EPA establishes, modifies, or revokes a pesticide tolerance, the Agency must comply with certain procedural requirements.<sup>46</sup> These requirements exist to make the process democratic, by inviting public comments, and fair, by allowing judicial review of the final decision.<sup>47</sup> Both FD&C and the APA require the

---

<sup>38</sup> See 21 U.S.C. § 346a(b)(2)(A)(ii); *NRDC v. Johnson*, 461 F.3d 164, 167 (2d Cir. 2006); Carbofuran; Order Denying FMC’s Objections and Requests for Hearing, 74 Fed. Reg. 59,608, 59,675 (Nov. 18, 2009) [hereinafter *Hearing Denial*].

<sup>39</sup> See 21 U.S.C. § 346a.

<sup>40</sup> See *id.*; *United States v. Ewig Bros. Co.*, 502 F.2d 715, 717 (7th Cir. 1974); see, e.g., *Env’tl. Def. Fund, Inc. v. Ruckelshaus*, 439 F.2d 584 (D.C. Cir. 1971) (discussing total ban on DDT); *Env’tl. Def. Fund, Inc. v. U.S. Dep’t of Health, Educ. & Welfare*, 428 F.2d 1083 (D.C. Cir. 1970) (same); *United States v. Goodman*, 353 F. Supp. 250 (E.D. Wis. 1972) (same); see also *Agreement to Terminate All Uses of Aldicarb*, U.S. ENVTL. PROTECTION AGENCY, [http://www.epa.gov/oppsrrd1/REDs/factsheets/aldicarb\\_fs.html](http://www.epa.gov/oppsrrd1/REDs/factsheets/aldicarb_fs.html) (last visited Feb. 6, 2012).

<sup>41</sup> See sources cited *supra* note 40.

<sup>42</sup> See *Johnson*, 461 F.3d at 168; *Am. Farm Bureau v. EPA*, 121 F. Supp. 2d 84, 89 (D.D.C. 2000).

<sup>43</sup> See *Am. Farm Bureau*, 121 F. Supp. 2d at 89.

<sup>44</sup> See *id.*

<sup>45</sup> See *id.*

<sup>46</sup> See Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 346a(f)(1) (2006).

<sup>47</sup> See Administrative Procedure Act, 5 U.S.C. § 553 (2006) (establishing

EPA to follow a two-step process when it reviews and modifies a pesticide's tolerance.<sup>48</sup> First, the Agency must conduct investigations and accept public comments under informal rulemaking procedures.<sup>49</sup> Second, the Agency must comply with formal rulemaking procedures to adopt a regulation.<sup>50</sup> After this process, the public may dispute the EPA's action in court.<sup>51</sup>

Informal rulemaking under the APA is the most common process agencies employ to issue binding regulations.<sup>52</sup> Informal rulemaking requires that agencies publish notice in the Federal Register, hear public comments, and consider relevant supporting or contravening evidence, such as scientific data.<sup>53</sup> An enabling statute may necessitate additional procedures; FD&C requires the EPA to conduct an evidentiary hearing if a party raises a genuine issue of material fact, and if not, reject that hearing request.<sup>54</sup> This stage concludes when the agency issues a final order.<sup>55</sup>

Once an agency issues a final regulation, it is subject to judicial review under the APA by default.<sup>56</sup> Courts must balance two constitutional concerns in reviewing an agency decision: separation of powers and due process.<sup>57</sup> The principle of separation of powers prevents a court from substituting its own judgment with the agency's judgment.<sup>58</sup> The court must defer to the agency's discretion when it

---

procedures for informal rulemaking); *id.* §§ 556-557 (establishing formal rulemaking procedures).

<sup>48</sup> See 5 U.S.C. §§ 553, 556, 557; 21 U.S.C. § 346a.

<sup>49</sup> See 5 U.S.C. § 553.

<sup>50</sup> See *id.* §§ 556-557.

<sup>51</sup> See *id.* § 706.

<sup>52</sup> See David L. Franklin, *Legislative Rules, Nonlegislative Rules, and the Perils of the Short Cut*, 120 YALE L.J. 276, 282 (2010); William S. Jordan, III, *Ossification Revisited: Does Arbitrary and Capricious Review Significantly Interfere with Agency Ability to Achieve Regulatory Goals Through Informal Rulemaking?*, 94 NW. U. L. REV. 393, 394 n.3 (2000) (stating that formal rulemaking is rarely required by statutes).

<sup>53</sup> See 5 U.S.C. § 553(b)-(c). See generally *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402 (1971) (stating that agency must support action with evidence of all relevant factors).

<sup>54</sup> See 5 U.S.C. § 556; Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 346a (2006).

<sup>55</sup> See 21 U.S.C. § 346a.

<sup>56</sup> See 5 U.S.C. § 706; *NRDC v. SEC*, 606 F.2d 1031, 1048 (D.C. Cir. 1979); *Wildearth Guardians v. U.S. Forest Serv.*, 713 F. Supp. 2d 1243, 1251 (D. Colo. 2010).

<sup>57</sup> See generally DAVID H. ROSENBLOOM & ROSEMARY O'LEARY, *PUBLIC ADMINISTRATION AND LAW* 13-14 (1997) (discussing separation of powers concerns); *id.* at 137-41 (discussing due process issues).

<sup>58</sup> See *Chevron, U.S.A., Inc. v. NRDC*, 467 U.S. 837, 842-43 (establishing two-part

acts properly within its authority because the agency, not the court, is authorized to establish policies.<sup>59</sup> Due process concerns are protected by the court's ability to invalidate regulations if the agency acts in an arbitrary and capricious manner or exceeds its statutory power.<sup>60</sup> This happens most often when an agency fails to observe required procedures, depriving the public of a meaningful opportunity to protect their interests.<sup>61</sup>

In *Chevron, U.S.A., Inc. v. NRDC, Inc.*, the Supreme Court analyzed whether Congress's language supported the EPA's interpretation of "source" under the Clean Air Act.<sup>62</sup> The EPA defined stationary sources as a grouping of greenhouse gas emitters, which results in considering a plant as a whole.<sup>63</sup> Oil companies challenged that definition, arguing that "source" referred to an individual emitter.<sup>64</sup> While the Court found the oil companies definition to be a reasonable alternative, it upheld the EPA interpretation because it was consistent with the statute's purpose.<sup>65</sup>

The now distinguished *Chevron* doctrine provides the framework to determine whether a court should defer to an agency and uphold its action.<sup>66</sup> The two-step test asks whether Congress clearly grants the agency power, via the enabling statute, to take the action at issue.<sup>67</sup> If the statute clearly authorizes the action, both the court and the agency must follow the statute's clear terms.<sup>68</sup> If the statute is ambiguous or silent on how to interpret a provision, the court determines whether the agency's interpretation is permissible.<sup>69</sup>

---

test courts apply when reviewing agency action).

<sup>59</sup> See *id.*

<sup>60</sup> See 5 U.S.C. § 706(2)(A); *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 30 (1983); *Cnty. Nutrition Inst. v. Young*, 773 F.2d 1356, 1363 (D.C. Cir. 1985).

<sup>61</sup> See generally ROSENBLOOM, *supra* note 57, at 139-42 (providing background principles on administrative law that equates procedural rights to property rights).

<sup>62</sup> See *Chevron*, 467 U.S. at 842-43.

<sup>63</sup> See *id.* at 840-43.

<sup>64</sup> See *id.*

<sup>65</sup> See *id.* at 842-43, 866.

<sup>66</sup> See *Chevron*, 467 U.S. at 842-43 (1984); see also *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 968-69 (2005); *United States v. Mead*, 533 U.S. 218, 229 (2001).

<sup>67</sup> See *Chevron*, 467 U.S. at 842-43; *Nat'l Mining Ass'n v. Kempthorne*, 512 F.3d 702, 708 (D.C. Cir. 2008); *Ctr. for Biological Diversity v. Veneman*, 335 F.3d 849, 853 (9th Cir. 2003); *Kansas City v. Dep't of Hous. & Urban Dev.*, 923 F.2d 188, 191-92 (D.C. Cir. 1991).

<sup>68</sup> See sources cited *supra* note 67.

<sup>69</sup> See sources cited *supra* note 67.

An interpretation is permissible unless the agency acted arbitrarily or capriciously in promulgating a regulation under that interpretation.<sup>70</sup> Factors for determining permissibility include legislative history and legislative purpose.<sup>71</sup> If the agency's interpretation is permissible, the court must defer to it.<sup>72</sup> Under *Chevron*, a court generally cannot invalidate an interpretation simply because it prefers another.<sup>73</sup> Scholars note that this limitation respects the doctrine of separation of powers because Congress entrusts agencies to interpret the statutes they implement.<sup>74</sup>

Due process concerns are also at play in this process; thus, the court has a tool to invalidate an agency action that overreaches its authority.<sup>75</sup> In *Motor Vehicle Manufacturers Ass'n v. State Farm Mutual Automobile Insurance Co.*, the Supreme Court provided a narrow level of review in such cases.<sup>76</sup> The reviewing court examines the agency's regulation to determine whether the agency provided a satisfactory explanation for its decision.<sup>77</sup> To do this, the agency must have considered all appropriate concerns regarding the regulation, such as available data, economic impacts, and technological achievability.<sup>78</sup> The agency's explanation must show a rational connection between the decision and the record — the evidence upon which an agency bases its decision.<sup>79</sup> If an agency fails to address an issue or explain a

---

<sup>70</sup> See Administrative Procedure Act, 5 U.S.C. § 706 (2006); *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 34 (1983).

<sup>71</sup> See *Arnold v. United Parcel Serv., Inc.*, 136 F.3d 854, 857-58 (1st Cir. 1998) (discussing legislative history as tool for determining permissibility of decision); *Jewish Hosp., Inc. v. Sec'y of Health and Human Servs.*, 19 F.3d 270, 274 (6th Cir. 1994) (same); see also *Summit Inv. & Dev. Corp. v. Leroux*, 69 F.3d 608, 610 (1st Cir. 1995) (stating that plain meaning of statute controls).

<sup>72</sup> See *Chevron*, 467 U.S. at 842-43.

<sup>73</sup> See *id.*

<sup>74</sup> See Douglas W. Kmiec, *Judicial Deference to Executive Agencies and the Decline of the Nondelegation Doctrine*, 2 ADMIN. L.J. 269, 277-78 (1988); Cass R. Sunstein, *Chevron Step Zero*, 92 VA. L. REV. 187, 197-98 (2006).

<sup>75</sup> See ROSENBLUM, *supra* note 57, at 137-41; see also *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42 (1983).

<sup>76</sup> See *State Farm*, 463 U.S. at 43. See generally *W. Harlem Envtl. Action v. EPA*, 380 F. Supp. 2d 289 (S.D.N.Y. 2005) (applying *State Farm* review in FD&C dispute).

<sup>77</sup> See *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 129 S. Ct. 1800, 1810 (2009); *State Farm*, 463 U.S. at 33; *Simms v. Nat'l Highway Traffic Safety Admin.*, 45 F.3d 999, 1003-04 (6th Cir. 1995) (citing *State Farm*, 463 U.S. at 33).

<sup>78</sup> See *Fox Television Stations*, 556 U.S. 502, 129 S. Ct. at 1810-11; *State Farm*, 463 U.S. at 33; *Simms*, 45 F.3d at 1004.

<sup>79</sup> See *Fox Television Stations*, 129 S. Ct. at 1810-11; *State Farm*, 463 U.S. at 42; *Simms*, 45 F.3d at 1004.

decision that runs counter to the evidence on record, the court will invalidate the action.<sup>80</sup>

When an agency passes a regulation, it often considers technical issues and may commission scientific studies or hold evidentiary hearings to aid in decision-making.<sup>81</sup> In this process, the agency may choose to rely on different data to draw its conclusions than a party who submits comments on the regulation.<sup>82</sup> In *Baltimore Gas and Electric Co. v. NRDC, Inc.*, the NRDC refuted the Nuclear Regulatory Commission's safety determination regarding stored nuclear waste, which the commission admittedly based on assumptions and uncertain science.<sup>83</sup> Despite the inherent uncertainty, the Court upheld the Commission's action, recognizing that agencies must often make policy based on emerging science.<sup>84</sup> In making scientific determinations an agency acts with a high level of expertise, thus courts accordingly maintain a strong presumption in favor of the agency's conclusions.<sup>85</sup>

### C. *The Global Agriculture System and the Role of Pesticides*

While the EPA is limited to regulating within the United States, FD&C requires the Agency to consider international standards in determining pesticide tolerances.<sup>86</sup> The EPA must look at the Codex Alimentarius, which lists the pesticide tolerances set by the World Health Organization and the United Nations, to help determine whether it will permit or revoke a tolerance.<sup>87</sup> The EPA may either

---

<sup>80</sup> See *State Farm*, 463 U.S. at 44; cf. *Prometheus Radio Project v. FCC*, 373 F.3d 372, 389 (3d Cir. 2004) (finding action arbitrary and capricious because agency considered factors Congress did not intend); *Air Line Pilots Ass'n, Int'l v. Dep't of Transp.*, 791 F.2d 172, 175 (D.C. Cir. 1986) (finding that agency action was not permissible because it represented drastic policy changes).

<sup>81</sup> See *Balt. Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 103 (1983) ("When examining this kind of scientific determination, as opposed to simple findings of fact, a reviewing court must generally be at its most deferential.").

<sup>82</sup> See *Cnty. Nutrition Inst. v. Young*, 773 F.2d 1356, 1363 (D.C. Cir. 1985) ("Mere differences in the weight or credence given to particular scientific studies, or in the numerical estimates of the average daily intake levels of aspartame, are insufficient.").

<sup>83</sup> See *Balt. Gas & Elec. Co.*, 462 U.S. at 104.

<sup>84</sup> See *id.* at 103.

<sup>85</sup> See *id.*; see also *Cnty. Nutrition Inst.*, 773 F.2d at 1363; *Consol. Delta Smelt Cases*, 717 F. Supp. 2d 1021, 1060 (E.D. Cal. 2010).

<sup>86</sup> See Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 346a(b)(4) (2006). See generally CODEX ALIMENTARIUS, [http://www.codexalimentarius.net/web/index\\_en.jsp](http://www.codexalimentarius.net/web/index_en.jsp) (last visited Jan. 26, 2011) (providing international standards of food safety).

<sup>87</sup> See Alan Randell, *Codex Alimentarius: How It All Began*, FOOD & AGRIC. ORG.

adopt the Codex's tolerance or publish notice that it intends to establish a different tolerance.<sup>88</sup> The FD&C requirement and other international agreements signify the U.S. government's commitment to cooperating with other countries to ensure food safety.<sup>89</sup>

Despite the ongoing efforts to ensure a safe global food supply, observers note that the current food production system has many flaws.<sup>90</sup> Claire Hope Cummings, an environmental activist and former general counsel for the U.S. Department of Agriculture, contends that toxic chemical use is just one example of the systemic problems that characterize global food production.<sup>91</sup> She argues that the food production process is inefficient, unsustainable, and increasingly reliant on chemicals.<sup>92</sup>

---

UNITED NATIONS, <http://www.fao.org/docrep/v7700t/v7700t09.htm> (last visited Feb. 7, 2012).

<sup>88</sup> See 21 U.S.C. § 346a.

<sup>89</sup> See, e.g., *id.* (establishing regulations to ensure a safe food supply); Memorandum of Understanding Between the Department of Health and Human Services of the U.S. and the Ministry of Health of the Socialist Republic of Vietnam Concerning Food, Animal, Feed, and Medical Products, U.S.-Viet., June 28, 2008, *available at* <http://www.fda.gov/InternationalPrograms/Agreements/MemorandaofUnderstanding/ucm107648.htm> (recognizing benefits of international cooperation in protecting food safety); Agreement Between the Department of Health and Human Services of the United States of America and the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China on the Safety of Food and Feed, U.S.-China, Dec. 11, 2007, *available at* <http://www.fda.gov/InternationalPrograms/Agreements/MemorandaofUnderstanding/ucm107557.htm> (establishing regulatory framework of information sharing and cooperation regarding food safety); Statement of Cooperation Between the Department of Health and Human Services of the U.S. and the Ministry of Health of Ukraine, U.S.-Ukr., Apr. 4, 2005, *available at* <http://www.globalhealth.gov/global-health-topics/health-diplomacy/agreements-and-regulations/20060530-sta.html#section-1> (emphasizing international cooperation to ensure global health security and human wellness).

<sup>90</sup> See CLAIRE HOPE CUMMINGS, *UNCERTAIN PERIL: GENETIC ENGINEERING AND THE FUTURE OF SEEDS* 119 (2008); see also *U.S. Could Strengthen Oversight of Imported Food by Improving Enforcement and Seeking Additional Authorities: Hearing Before the Subcomm. on Oversight and Investigations, Comm. on Energy and Commerce*, 111th Cong. 1-4 (2010) (statement of Lisa Shames, Dir., Natural Res. & Env't.), *available at* <http://www.gao.gov/new.items/d10699t.pdf>; FOOD, INC. (River Road Entertainment and Participant Media 2008). But see ALAN RANDALL, *RISK AND PRECAUTION* 234 (2011) (implying that EPA could increase human safety protection by deregistering commonly used, but dangerous pesticides); David Warner, *The Food Industry Takes the Offensive — Food Growers and Processors Respond to Unsafe Food Supply Charges*, *NATION'S BUS.* (July 1991), [http://findarticles.com/p/articles/mi\\_m1154/is\\_n7\\_v79/ai\\_10903487/](http://findarticles.com/p/articles/mi_m1154/is_n7_v79/ai_10903487/) (reporting that some groups find food supply unsafe, while others, including some doctors, do not).

<sup>91</sup> See CUMMINGS, *supra* note 90, at 117-19.

<sup>92</sup> See *id.* at 119.

Cummings cites pesticide-dependent agriculture as one of the largest sources of pollution worldwide.<sup>93</sup> Industrial agriculture, she observes, employs at least 600 pesticides and results in the release of five to six billion pounds of pesticides annually.<sup>94</sup> Pesticides then flow from streams and rivers to the ocean, where they inundate coastal habitats and kill marine wildlife.<sup>95</sup> One EPA report credited carbofuran with causing anywhere from seventeen million to ninety-one million domestic bird deaths annually before the EPA limited its use in 1995.<sup>96</sup>

Michael Pollan, a leading critic of current agricultural practices, is one of many people who are concerned by biotechnology companies' impact on food production.<sup>97</sup> These companies have created an addiction to pesticides by encouraging farmers to use patented seeds that must be treated with specific pesticides.<sup>98</sup> Over time, the plants grow resistant to the chemical treatments, and require new, stronger pesticides, which Pollan says biotechnology companies are happy to provide.<sup>99</sup> Pollan adds that pesticides encourage farmers to grow large fields of single crops, which reduces biodiversity and increases crop

---

<sup>93</sup> See *id.* at 119, 153. See generally CARSON, *supra* note 1, at 42-46, 50, 51, 188 (warning public of pollution problems pesticide use entails); Lear, *supra* note 1, at viii (observing that global pollution from pesticides remains despite attempts to mitigate harm).

<sup>94</sup> See CUMMINGS, *supra* note 90, at 119.

<sup>95</sup> See *id.*; *Pesticides Contribute to Ocean's "Dead Zones,"* PESTICIDE ACTION NETWORK (Sept. 4, 2008), <http://www.panna.org/node/524>.

<sup>96</sup> See Piere Mineau, *Direct Losses of Birds to Pesticides — Beginnings of a Quantification*, in USDA FOREST SERVICES GEN. TECH. REP. 1065, 1065 (2005), available at [http://www.fs.fed.us/psw/publications/documents/psw\\_gtr191/psw\\_gtr191\\_1065-1070\\_mineau.pdf](http://www.fs.fed.us/psw/publications/documents/psw_gtr191/psw_gtr191_1065-1070_mineau.pdf).

<sup>97</sup> See, e.g., MICHAEL POLLAN, *BOTANY OF DESIRE: A PLANTS-EYE VIEW OF THE WORLD* 219 (2002) (observing that some farmers prefer to grow genetically modified products that are treated with chemicals specifically produced to treat those crops).

<sup>98</sup> See *id.* at 190-91 (discussing Monsanto company's power to affect crop diversity in agriculture market); see also CARSON, *supra* note 1, at 10 (forewarning this cycle of chemical addiction).

<sup>99</sup> See POLLAN, *supra* note 97, at 185, 190 (including companies such as Monsanto and FMC Corporation, which make billions of dollars by patenting seeds); see also Stephen Sherwood, *From Pesticides to People: Improving Ecosystem Health in the Northern Andes*, in *THE PESTICIDE DETOX: TOWARDS A MORE SUSTAINABLE AGRICULTURE* 147, 149 (Jules Pretty ed., 2005); Robert F. Bellinger, *Pest Resistance to Pesticides*, *INTEGRATED PEST MGMT.* N.C. 1-3 (Mar. 1996), <http://ipm.ncsu.edu/safety/factsheets/resistan.pdf>; FOOD, INC., *supra* note 90.

vulnerability to pests and diseases.<sup>100</sup> He cites the Irish Potato Famine as an example of single-crop farming's possible consequences.<sup>101</sup>

As a result of the overuse of pesticides, entire food chains may be contaminated and the chemical may be dispersed on a global scale.<sup>102</sup> After they are applied to crops, pesticides disperse by water, air, and wildlife. In one example, a camel in Kenya died from ingesting carbofuran, and so did all the animals that ate its carcass — including vultures and lions.<sup>103</sup> The Center for Biological Diversity notes that scientists have even detected pesticide residues in polar bears in the Arctic, proving their ubiquitous presence.<sup>104</sup> Unfortunately, not all of the side effects of pesticide use are unintentional; African herders reportedly use carbofuran to kill the endangered lions that prey on their animals.<sup>105</sup>

While the EPA does not label carbofuran a carcinogen, the World Health Organization lists it as a highly toxic chemical,<sup>106</sup> and the European Union has banned its use.<sup>107</sup> Some scientists and doctors believe that pesticides like carbofuran may contribute to rising levels of obesity, diabetes, and neurological disorders.<sup>108</sup> However, the United States still permits distributors to import food with carbofuran residues, largely from developing countries.<sup>109</sup> Additionally, despite

---

<sup>100</sup> See generally POLLAN, *supra* note 97, at 222-23 (citing theory that biodiversity of crops is best defense against unpredictability of nature).

<sup>101</sup> See *id.* at 205.

<sup>102</sup> See *id.* at 217; see also SUZANNE H. REUBEN, REDUCING ENVIRONMENTAL CANCER RISK: WHAT WE CAN DO NOW 56 (2010) (explaining pervasive nature of pesticides in groundwater and drinking supplies); Press Release, Ctr. for Biological Diversity, Polar Bears Poisoned by Pesticide Pollution: Lawsuit Filed Against EPA to Protect Arctic from Pesticide Contamination (Dec. 3, 2009), available at [http://www.biologicaldiversity.org/news/press\\_releases/2009/polar-bear-12-03-2009.html](http://www.biologicaldiversity.org/news/press_releases/2009/polar-bear-12-03-2009.html).

<sup>103</sup> See Adam Mynott, *Insecticide "Killing Kenya Lions"*, BBC NEWS (June 18, 2008), <http://news.bbc.co.uk/2/hi/7460008.stm>.

<sup>104</sup> See sources cited *supra* note 102.

<sup>105</sup> See *Poison Takes Toll on Africa's Lions: Kenyan Cattle Herders Are Using the American Pesticide Furadan to Kill the Predators*, 60 MINUTES (July 26, 2009), <http://www.cbsnews.com/stories/2009/03/26/60minutes/main4894945.shtml>.

<sup>106</sup> WORLD HEALTH ORG., *supra* note 23, at 319-20.

<sup>107</sup> See Mynott, *supra* note 103.

<sup>108</sup> See MONONA ROSSOL, PICK YOUR POISON: HOW OUR MAD DASH TO CHEMICAL UTOPIA IS MAKING LAB RATS OF US ALL 10-11 (2011); Kate Dailey, *Pesticides, ADHD, and Personal Health: Why We Can't Always Control What Happens to Our Brains and Bodies*, DAILY BEAST (May 18, 2010), <http://www.thedailybeast.com/newsweek/blogs/the-human-condition/2010/05/18/pesticides-adhd-and-personal-health-why-we-can-t-always-control-what-happens-to-our-brains-and-bodies.html>.

<sup>109</sup> See JOHN ROBBINS & DEAN ORNISH, THE FOOD REVOLUTION: HOW YOUR DIET CAN HELP SAVE YOUR LIFE AND OUR WORLD 353 (2010).

1995 restrictions on carbofuran use, the annual release of carbofuran residues still totaled nearly one million pounds in 2006.<sup>110</sup>

## II. NATIONAL CORN GROWERS ASSOCIATION V. EPA

As mandated by the FQPA, in 2006 the EPA conducted a review on the safety of carbofuran.<sup>111</sup> The EPA's review involved a two-step rule making process: informal notice and comment procedure to develop the regulation, and formal action to adopt it.<sup>112</sup> First, the EPA investigated all sources of carbofuran exposure, measuring concentrations in surface and ground water and analyzing the exposure's effects.<sup>113</sup> After the review, the EPA released a Cancellation Order, which stated that based on the current public exposure to carbofuran and the danger it posed to human health at that level, any tolerance of the chemical was unsafe.<sup>114</sup> The Agency accepted and reviewed public comments on the regulation and ultimately issued a Final Order revoking the tolerance of carbofuran.<sup>115</sup>

In the formal objection stage, the EPA received requests for hearings from carbofuran manufacturer FMC Corporation and several lobbyist groups, who disputed the agency's findings.<sup>116</sup> The EPA rejected this request, finding that an evidentiary investigation into the commenter's claims was superfluous to the rulemaking process.<sup>117</sup> The EPA adopted the final regulation without any alterations based on public comments.<sup>118</sup>

Petitioners appealed the order, in accordance with FD&C, with the D.C. Circuit. The court ultimately found for the EPA on three of four counts because those disputes equated to a battle of the experts.<sup>119</sup> The

---

<sup>110</sup> See U.S. ENVTL. PROT. AGENCY, INTERIM REREGISTRATION ELIGIBILITY DECISION (IRED) DOCUMENT FOR CARBOFURAN 5 (2007), available at [http://www.epa.gov/pesticides/reregistration/REDs/carbofuran\\_red.pdf](http://www.epa.gov/pesticides/reregistration/REDs/carbofuran_red.pdf).

<sup>111</sup> See Nat'l Corn Growers Ass'n v. EPA, 613 F.3d 266, 270 (D.C. Cir. 2010); Cancellation Order, *supra* note 9, at 11,553.

<sup>112</sup> See *Corn Growers*, 613 F.3d at 270.

<sup>113</sup> See *id.* at 271.

<sup>114</sup> See *id.* at 275; Cancellation Order, *supra* note 9, at 11,551.

<sup>115</sup> See *Corn Growers*, 613 F.3d at 275.

<sup>116</sup> See *id.* at 269-70. FMC Corporation, the National Corn Growers Association, the National Sunflower Association, and the National Potato Council requested an evidentiary hearing from the EPA.

<sup>117</sup> See Hearing Denial, *supra* note 38, at 59,675.

<sup>118</sup> See generally Carbofuran; Final Tolerance Revocations, 74 Fed. Reg. 23,046 (May 15, 2009) [hereinafter Final Revocations] (revoking all tolerances of carbofuran).

<sup>119</sup> See *Corn Growers*, 613 F.3d at 269-70.

court cited the longstanding principle that it would not overturn the EPA's scientific conclusions based on the petitioners' preference for a different study.<sup>120</sup> However, the D.C. Circuit did agree with the petitioners that the EPA acted arbitrarily and capriciously in revoking the carbofuran tolerance on imported goods.<sup>121</sup> The court vacated the revocation with respect to imports because it found that the Agency did not sufficiently address the petitioners' request for an exemption for imported goods in the Final Order.<sup>122</sup>

In February 2011, the petitioners filed a writ of certiorari to challenge further the EPA's refusal to grant an evidentiary hearing.<sup>123</sup> They argued that the summary judgment denial power results in a "Catch-22," where the EPA can refuse any hearing based on the reasoning in *Corn Growers* and other similar cases.<sup>124</sup> The U.S. Supreme Court denied certiorari on May 31, 2011, without comment.<sup>125</sup>

### III. ANALYSIS

The D.C. Circuit's decision to invalidate the EPA's strict regulation was incorrect for three reasons: First, the EPA's ban on carbofuran was not arbitrary and capricious because the EPA supported this regulation with clear evidence.<sup>126</sup> Second, the court's decision defies Congress's clear intent that the EPA should consider the effects a pesticide has on human health cumulatively.<sup>127</sup> Third, the national policies in favor of global health and a safe global food supply support the revocation of all carbofuran tolerances and, eventually, an end to the manufacturing of this chemical.<sup>128</sup>

---

<sup>120</sup> See *id.* at 274; see also *Cnty. Nutrition Inst. v. Young*, 773 F.2d 1356, 1363 (D.C. Cir. 1985).

<sup>121</sup> See *Corn Growers*, 613 F.3d at 275.

<sup>122</sup> See *id.*

<sup>123</sup> See Petition for Writ of Certiorari at 1, *Corn Growers*, 613 F.2d 266 (Feb. 16, 2011) (No. 10-1031).

<sup>124</sup> See *id.* at 26.

<sup>125</sup> See *Corn Growers*, 613 F.3d at 275, *cert. denied*, 131 S. Ct. 2931 (2011).

<sup>126</sup> See *infra* Part III.A.

<sup>127</sup> See *infra* Part III.B.

<sup>128</sup> See *infra* Part III.C.

A. Corn Growers *Incorrectly Found that the EPA's Carbofuran Ban Was Arbitrary and Capricious*

The D.C. Circuit incorrectly concluded that the EPA's ban on carbofuran was arbitrary and capricious because the agency had fully explained its position.<sup>129</sup> In its Revocation Order eliminating all tolerances, the EPA cited scientific studies highlighting carbofuran's dangers in finding aggregate exposure to the pesticide to be unsafe.<sup>130</sup> The EPA had considered all relevant factors; relied on sufficient support, including scientific tests; and explained its reasoning in issuing the regulation, thus the court should have upheld the revocation.<sup>131</sup>

Under *State Farm*, a court applying § 706 must review an agency action — such as setting pesticide tolerances — narrowly.<sup>132</sup> If the court determines that the agency considered all relevant factors before taking action and based its regulation on sufficient evidentiary support, the court will affirm the agency's decision.<sup>133</sup> It must refrain from substituting its own judgment for the agency's expert judgment.<sup>134</sup> This limited review is particularly important when the decision involves technical or scientific determinations, where agencies — not courts — are the experts.<sup>135</sup>

In *Corn Growers*, the EPA did both: it considered all relevant factors before issuing the regulation and based its regulation on sufficient evidentiary support. The FD&C requires the EPA to set pesticide tolerances at levels where cumulative chemical exposure causes no

---

<sup>129</sup> See Final Revocations, *supra* note 118, at 23,056 (stating that it is impossible to predict potential combinations of pesticide exposures to assess effect on human health).

<sup>130</sup> See *id.*

<sup>131</sup> See *id.*

<sup>132</sup> See *supra* Part I.B; see also *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); *Ctr. for Auto Safety v. Peck*, 751 F.2d 1336, 1342 (D.C. Cir. 1985); see also *Nw. Coal. for Alts. to Pesticides v. EPA*, 544 F.3d 1043, 1047 (9th Cir. 2008).

<sup>133</sup> See *State Farm*, 463 U.S. at 52 (“The agency must explain the evidence which is available, and must offer a ‘rational connection between the facts found and the choice made.’” (citing *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962))); *Peck*, 751 F.2d at 1342 (considering relevant factors).

<sup>134</sup> See *State Farm*, 463 U.S. at 43; *Peck*, 751 F.2d at 1342.

<sup>135</sup> See *State Farm*, 463 U.S. at 43; *Balt. Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 103 (1983) (“[A] reviewing court must remember that the Commission is making predictions, within its area of special expertise, at the frontiers of science. When examining this kind of scientific determination, as opposed to simple findings of fact, a reviewing court must generally be at its most deferential.”).

harm.<sup>136</sup> In evaluating harm, the EPA must consider all dietary and other exposures for which it has reliable information.<sup>137</sup> In the instant case, the EPA accounted for vulnerable subpopulations, including infants and children, who live in areas where carbofuran already contaminates groundwater, making additional exposures more dangerous.<sup>138</sup> The EPA cited scientific data supporting the conclusion that carbofuran posed a risk to children.<sup>139</sup> Additionally, the EPA noted that it could not account for all combinations of exposure a person might encounter if any carbofuran remained in the food supply.<sup>140</sup> This evidence was sufficient to justify reducing carbofuran's tolerance to zero.<sup>141</sup>

In *Corn Growers*, the court improperly relied on the EPA's statement that exposure to carbofuran from imported goods *alone* did not pose a health problem.<sup>142</sup> The court misinterpreted the EPA's comment that *in vacuo* exposure to carbofuran from imported products was not significant enough to pose a safety issue.<sup>143</sup> The EPA's final order clearly explained that exposure to carbofuran in imported products was harmful because in certain populations any further consumption of the substance would cause unsafe exposure in the aggregate.<sup>144</sup>

The petitioners argued that the EPA issued the regulation arbitrarily and capriciously by relying on biased science.<sup>145</sup> They disputed

---

<sup>136</sup> See Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 346a(b)(2)(A) (2006); Nat'l Corn Growers Ass'n v. EPA, 613 F.3d 266, 270 (D.C. Cir. 2010); Geertson Farms, Inc. v. Johanns, 439 F. Supp. 2d 1012, 1014 (N.D. Cal. 2006).

<sup>137</sup> See 21 U.S.C. § 346a(b)(2)(A); *Corn Growers*, 613 F.3d at 269; NRDC v. Johnson, 461 F.3d 164, 167 (2d Cir. 2006); Am. Farm Bureau v. EPA, 121 F. Supp. 2d 84, 88-89 (D.D.C. 2000).

<sup>138</sup> See 21 U.S.C. § 346a(b)(2)(C); see also *Johnson*, 461 F.3d at 167 (stating that the FD&C requires the EPA to establish tolerances with a high margin of safety to protect children).

<sup>139</sup> See Brief of Respondents at 42, Nat'l Corn Growers Ass'n v. EPA, 613 F.3d 266 (D.C. Cir. 2010) (No. 09-1284) [hereinafter Brief of Respondents].

<sup>140</sup> See Final Revocations, *supra* note 118, at 23,067.

<sup>141</sup> See Cancellation Order, *supra* note 9, at 11,553. *But see* Walter Ferguson & Jet Yee, *Phasing Out Registered Pesticide Uses as an Alternative to Total Bans: A Case Study of Methyl Bromide*, 15 J. AGRIBUSINESS 69, 69-70 (1997) (arguing that total ban imposes significant economic costs and supporting method of phasing out certain pesticide use to protect economic interests).

<sup>142</sup> See *Corn Growers*, 613 F.3d at 275.

<sup>143</sup> See *id.*

<sup>144</sup> See Final Revocations, *supra* note 118, at 23,046-01 ("Based on the contribution from food alone, EPA calculated that dietary exposures to carbofuran exceeded EPA's level of concern for all of the more sensitive subpopulations of infants and children.").

<sup>145</sup> See Reply Brief of Petitioners, *supra* note 10, at 12-22 (citing material dispute of facts over the EPA's measurements regarding carbofuran levels in surface water and

scientific assumptions on which the EPA chose to rely in conducting their tests.<sup>146</sup> For example, they argued that the EPA overestimated the percentage of domestic crops containing carbofuran in measuring carbofuran's safety.<sup>147</sup> This makes uncertain whether carbofuran poses risks at low concentrations.<sup>148</sup>

However, this argument fails because a determination of this fact should not have been judicially reviewable — agencies, not courts, decide scientific policy.<sup>149</sup> It is the EPA's responsibility to investigate food safety, an area in which the court has no experience.<sup>150</sup> In conducting this review, the court must defer to the EPA's judgment on the persuasive nature of scientific evidence so long as it is adequately supported.<sup>151</sup>

Additionally, legislative intent supports the ban of carbofuran because Congress specifically intended to protect child safety.<sup>152</sup> In the FPQA, Congress instructed the EPA to increase the safety standards to protect subgroups such as children.<sup>153</sup> In the *Corn Growers* decision, the EPA clearly stated that the carbofuran exposure to children was unsafe and supported its conclusion with scientific studies.<sup>154</sup> The EPA cited analysis that the tolerance exceeded its level of concern for people whose drinking water already contains carbofuran.<sup>155</sup> Thus, it

---

groundwater, carbofuran's half-life and the level of exposure that is safe).

<sup>146</sup> See *id.* at 13-21.

<sup>147</sup> See *id.*

<sup>148</sup> See *id.*

<sup>149</sup> See *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); *Balt. Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 103 (1983); *Riverkeeper, Inc. v. EPA*, 358 F.3d 174, 184 (2d. Cir. 2004) (applying *Chevron* and acknowledging "we lack the EPA's expertise when it comes to scientific or technical matters"); *W. Harlem Env'tl. Action v. EPA*, 380 F. Supp. 2d 289, 293 (S.D.N.Y. 2005).

<sup>150</sup> See *Riverkeeper*, 358 F.3d at 184.

<sup>151</sup> See *Balt. Gas & Elec. Co.*, 462 U.S. at 103; *Cnty. Nutrition Inst. v. Young*, 773 F.2d 1356, 1363 (D.C. Cir. 1985); *Consol. Delta Smelt Cases*, 717 F. Supp. 2d 1021, 1060 (E.D. Cal. 2010) ("When specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive.").

<sup>152</sup> See Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 346a(b)(2)(C) (2006); *Nw. Coal. for Alts. to Pesticides v. EPA*, 544 F.3d 1043, 1045-46 (9th Cir. 2008); *NRDC v. Johnson*, 461 F.3d 164, 168 (2d. Cir. 2006).

<sup>153</sup> See *Johnson*, 461 F.3d at 168.

<sup>154</sup> See generally *Final Revocations*, *supra* note 118, at 23,067 (providing the data from scientific tests the EPA relied on in making its decision).

<sup>155</sup> See *id.*

found that any additional exposure would be in excess of a safe tolerance.<sup>156</sup>

*B. The Court Ignored Statutory Language and Congressional Intent*

In *Corn Growers*, the D.C. Circuit ignored clear congressional intent by invalidating the EPA's regulation, which the FD&C compelled.<sup>157</sup> Striking the regulation down based on a notice requirement allowed the court to sidestep its duty of deference.<sup>158</sup> The court should have reviewed the action under *Chevron* and concluded that the statute clearly directed the EPA to revoke the tolerance level in imported goods.<sup>159</sup> If the court had properly analyzed the statute's definition of "safety," it would have upheld the EPA's zero-tolerance determination.<sup>160</sup>

When a court reviews an agency action under *Chevron*, it first determines if the enabling statute is clear on the agency's authority to take an action.<sup>161</sup> If Congress's intent in the statute is unambiguous, both courts and agencies must follow it.<sup>162</sup> Section 346a of the FD&C defines a safe level of pesticide exposure as one where it is reasonably certainty that no harm to the public will occur based on "aggregate" exposure.<sup>163</sup> The FD&C itself defines this provision to include all possible contact people may have with a chemical.<sup>164</sup> This provision specifically directs the EPA to consider cumulatively the exposures to a pesticide residue.<sup>165</sup> Therefore, *Chevron* compels both the court and

---

<sup>156</sup> See *id.*

<sup>157</sup> See 21 U.S.C. § 346a; *Chevron, U.S.A., Inc. v. NRDC*, 467 U.S. 837, 842-43 (1984).

<sup>158</sup> See *Nat'l Corn Growers Ass'n v. EPA*, 613 F.3d 266, 276 (D.C. Cir. 2010). See generally *Chevron*, 467 U.S. at 837 (establishing policy of deference to agency expertise).

<sup>159</sup> See Brief of Respondents, *supra* note 139, at 46.

<sup>160</sup> See 21 U.S.C. § 346a(b)(2)(i) (defining safety).

<sup>161</sup> See *Chevron*, 467 U.S. at 842; *Kentuckians for Commonwealth Inc. v. Rivenburgh*, 317 F.3d 425, 450 (7th Cir. 2003); *Legal Envtl. Assistance Found., Inc. v. EPA*, 118 F.3d 1467, 1474 (11th Cir. 1997).

<sup>162</sup> See *Chevron*, 467 U.S. at 842; *Kentuckians for Commonwealth, Inc.*, 317 F.3d at 450; *Legal Envtl. Assistance Found., Inc.*, 118 F.3d at 1474.

<sup>163</sup> See Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. § 136(a) (2006); 21 U.S.C. § 346a; *Corn Growers*, 613 F.3d at 269.

<sup>164</sup> See 21 U.S.C. § 346a; see also 7 U.S.C. § 136(a); *Am. Farm Bureau v. EPA*, 121 F. Supp. 2d 84, 89 (D.D.C. 2000).

<sup>165</sup> See 21 U.S.C. § 346a; see also *Corn Growers*, 613 F.3d at 274.

the EPA to follow the unambiguous requirement that the EPA regulate each source of exposure.<sup>166</sup>

The petitioners and the court argued that the EPA said that exposure to carbofuran from imported goods alone was safe.<sup>167</sup> The court found that statement made the EPA's decision to revoke all tolerances arbitrary and capricious.<sup>168</sup> This argument fails because there is no record that the EPA admitted exposure from imported goods was safe.<sup>169</sup> The agency only repeated the petitioner's claim that import tolerances were safe and then immediately refuted that contention.<sup>170</sup>

Even if the EPA had found that pesticide exposure in imported goods is safe, it still could have concluded that the cumulative exposure was not.<sup>171</sup> The EPA issued its regulation using evidence that current exposures to carbofuran from food alone were unsafe and that other exposures from groundwater further exceeded a safe level in thousands of children.<sup>172</sup> Therefore, any additional exposure from import tolerances constituted a cumulatively unsafe level within the FD&C's definition.<sup>173</sup>

Critics may argue that the FD&C's requirement that the EPA consider economic factors in revoking a tolerance obligates the agency to allow import tolerances.<sup>174</sup> The petitioners argued that the EPA's revocation was "remarkably insensitive to concerns of international comity."<sup>175</sup> They noted that the action would require farmers to segregate crops treated with carbofuran to prevent sending them to the United States, causing a significant disruption in foreign agricultural markets.<sup>176</sup>

---

<sup>166</sup> See *Chevron*, 467 U.S. at 843; see also 7 U.S.C. § 136(a); 21 U.S.C. § 346a; *Corn Growers*, 613 F.3d at 274.

<sup>167</sup> See *Corn Growers*, 613 F.3d at 272.

<sup>168</sup> See *id.*

<sup>169</sup> See *id.* (failing to cite a statement by the EPA to support the conclusion). See generally Cancellation Order, *supra* note 9 (concluding that carbofuran is not safe in the aggregate); Hearing Denial, *supra* note 38 (same); Final Revocations, *supra* note 118 (same).

<sup>170</sup> See Hearing Denial, *supra* note 38, at 59,622.

<sup>171</sup> See 21 U.S.C. § 346a; Hearing Denial, *supra* note 38, at 59,616 ("Based on the contribution from food alone, EPA calculated dietary exposures to carbofuran exceed EPA's level of concern for all of the more sensitive subpopulations of infants and children."); Final Revocations, *supra* note 118, at 23,056.

<sup>172</sup> See Final Revocations, *supra* note 118, at 23,056.

<sup>173</sup> See *id.* at 23,068-69.

<sup>174</sup> See Reply Brief of Petitioners, *supra* note 10, at 28-30.

<sup>175</sup> See *id.* at 29-30.

<sup>176</sup> See *id.*

However, the petitioners argument is unpersuasive; the EPA's interpretation of the term safety was permissible within the meaning of the statute; thus, *Chevron* requires the court to uphold that interpretation.<sup>177</sup> Both the definition of safety in the FD&C and the congressional purpose of the statute compel the EPA to revoke the tolerance of all products, including imported goods if the exposure is at an unsafe level.<sup>178</sup> Economic factors alone are not sufficient to disregard the definition of safety or the purpose of this statute. If it finds that a pesticide causes harm, the EPA must revoke its tolerance.<sup>179</sup> The FD&C's purpose is to protect the public from consuming unsafe food; eliminating toxic chemicals such as carbofuran satisfies that purpose.<sup>180</sup> Because the statute's text and purpose support it, the EPA's interpretation of § 346a safety and its decision to weigh safety concerns over economic concerns is permissible under *Chevron*.<sup>181</sup>

*C. The National Policies for Global Health and a Safe Global Food Supply Support Ending Carbofuran Use*

By invalidating the EPA's regulation, the D.C. Circuit ignored national policies that promote global health and help create a safer food supply.<sup>182</sup> The FD&C itself references the Codex, which provides international guidelines and standards for food safety.<sup>183</sup> Numerous agreements and conferences between the United States and other nations further illustrate a national policy of international cooperation in maintaining global health and a safe global food supply.<sup>184</sup>

Environmental critics such as Pollan and Cummings note the harm in employing dangerous chemicals like carbofuran during the food production process.<sup>185</sup> Carbofuran use increases farmers' reliance on

---

<sup>177</sup> See *Chevron, U.S.A., Inc. v. NRDC*, 467 U.S. 837, 842-43 (1984); *Schering Corp. v. FDA*, 51 F.3d 390, 399 (3d Cir. 1995); *Dr. Reddy's Labs., Inc. v. Thompson*, 302 F. Supp. 2d 340, 342 (D.N.J. 2003).

<sup>178</sup> See Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 346a (2006).

<sup>179</sup> See *id.*

<sup>180</sup> See *id.*; *NRDC v. Johnson*, 461 F.3d 164, 166 (2006).

<sup>181</sup> See 21 U.S.C. § 346a; *Chevron*, 467 U.S. at 837 (discussing judicial review of administrative agency decisions).

<sup>182</sup> See FDA, PATHWAY TO GLOBAL PRODUCT SAFETY AND QUALITY 1-25 (2011), available at <http://www.fda.gov/downloads/AboutFDA/CentersOffices/OfficeofGlobalRegulatoryOperationsandPolicy/GlobalProductPathway/UCM262528.pdf>.

<sup>183</sup> See 21 U.S.C. § 346a(b)(4). See generally CODEX ALIMENTARIUS, *supra* note 86 (providing international standards of food safety).

<sup>184</sup> See sources cited *supra* notes 89, 183.

<sup>185</sup> See CARSON, *supra* note 1, at 122; CUMMINGS, *supra* note 90, at 120-21; Matthew

chemicals to produce crops and causes the death of countless species, reducing biodiversity in both wildlife and agriculture.<sup>186</sup> Scientists have noted that carbofuran exposure causes human deaths and possibly contributes to increasing obesity, diabetes, and neurological disorders.<sup>187</sup> Carbofuran travels easily in groundwater and may flow to the ocean, contributing to dead zones, polluted areas of the ocean where very little marine life can survive.<sup>188</sup> In fact, the World Health Organization recognizes the danger of carbofuran, listing it as a highly toxic chemical.<sup>189</sup>

In *Corn Growers*, the court agreed that the EPA was correct to protect the public from domestic exposures to carbofuran.<sup>190</sup> However, the court's allowance of import tolerances both discounts the safety of children in the United States and fails to ensure responsible practices on the international market.<sup>191</sup> This ruling benefits FMC's corporate interest at the expense of developing countries' natural resources and human health, and it runs contrary to the pronouncements of cooperation on the international market to promote food and environmental safety.<sup>192</sup> Both Canada and the European Union have

---

R. Bonner et al., *Occupational Exposure to Carbofuran and the Incidence of Cancer in the Agricultural Health Study*, 113 ENVTL. HEALTH PERSPS. 285, 285 (2005) available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1253753/pdf/ehp0113-000285.pdf>; see also Lear, *supra* note 1, at xvi; Wang Fangqing, *Pesticide Kills Kenyan Boy*, DIGITAL J. (Nov. 20, 2009), <http://www.digitaljournal.com/article/282424>.

<sup>186</sup> See POLLAN, *supra* note 97, at 52; Bonner et al., *supra* note 185, at 285; Sherwood, *supra* note 99, at 149; Bellinger, *supra* note 99, at 1-3; FOOD, INC., *supra* note 90.

<sup>187</sup> See Wang, *supra* note 185; Press Release, Media Advisory: Nat'l Toxicology Program Workshop: Role of Envtl. Chems. in the Dev. of Diabetes & Obesity (Jan. 7, 2011), available at <http://www.niehs.nih.gov/news/releases/2011/ntpworkshop/> (discussing National Toxicology Program's workshop that will show that chemicals contribute to obesity and diabetes on global scale). See generally DONALD J. ECOBICHON & ROBERT M. JOY, PESTICIDES AND NEUROLOGICAL DISEASES 12 (1993) (discussing long term health effects of carbofuran, especially neurological effects); Marion Moses, *Chronic Neurological Effects of Pesticides*, PESTICIDE EDUC. CTR. (Sept. 2002), <http://www.pesticides.org/docs/1chronic-neuro-tab.pdf> (attributing Parkinson's Disease and other neurological disorders to pesticides in food).

<sup>188</sup> See CUMMINGS, *supra* note 90, at 120; PATRICIA FRANK & M. ALICE OTTOBONI, THE DOSE MAKES THE POISON: A PLAIN-LANGUAGE GUIDE TO TOXICOLOGY 15 (2010); GEORGE KARLESKINT ET AL., INTRODUCTION TO MARINE BIOLOGY 4 (3d ed. 2010) (explaining ocean dead zones).

<sup>189</sup> See WORLD HEALTH ORG., *supra* note 23, at 319-20.

<sup>190</sup> See Cancellation Order, *supra* note 9, at 11,553.

<sup>191</sup> See generally *Nat'l Corn Growers Ass'n v. EPA*, 613 F.3d 266, 275 (9th Cir. 2010) (failing to discuss any negative consequences of allowing carbofuran use in developing countries, but noting that use occurs).

<sup>192</sup> See Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 346a(b)(4) (2006);

banned carbofuran because of its dangers, but the court ignored these international concerns by inserting its own safety determination.<sup>193</sup>

The EPA is responsible for acting as the expert in protecting American's health and fostering a healthier environment.<sup>194</sup> The D.C. Circuit broke precedent by requiring additional procedures in this case, extending the time this dangerous chemical exists on the market.<sup>195</sup> The *Corn Growers* decision was incorrect and creates uncertainty about the EPA's ability to enact tough rules in the future.<sup>196</sup>

#### CONCLUSION

In *Corn Growers*, the D.C. Circuit incorrectly invalidated the EPA's regulation banning carbofuran for three reasons.<sup>197</sup> First, the EPA did not act arbitrarily and capriciously, but based its decision to ban carbofuran on sufficient supporting evidence.<sup>198</sup> Second, the FD&C clearly directs the EPA to consider cumulative exposures to unsafe chemicals and revoke all tolerances if necessary to protect human safety.<sup>199</sup> Third, the court prevented the EPA from eliminating all tolerances of carbofuran and in doing so, failed to respect U.S. policies that encourage global health and a safe food supply.<sup>200</sup> The EPA may follow appropriate procedures on remand to end carbofuran production, but the harms carbofuran wreaks on the environment will continue until then.<sup>201</sup>

---

*Carbofuran Manufacturer to Be Banned in the USA?*, WILDLIFE EXTRA (Mar. 2010), <http://www.wildlifeextra.com/go/news/carbofuran-ban.html> (finding that banning international imports containing illegal domestic pesticides is necessary to protect migrating animals and farmers ability to compete in global food market).

<sup>193</sup> See Mynott, *supra* note 103.

<sup>194</sup> See *Corn Growers*, 613 F.3d at 275.

<sup>195</sup> See *EPA Cancels Carbofuran Uses, Process Allows for Years of Continued Use*, BEYOND PESTICIDES, <http://www.beyondpesticides.org/watchdog/media/carbofuran%208-06.htm> (last visited Jan. 26, 2011) (discussing fact that appeals process allows FMC Corporation to delay end of carbofuran use). See generally Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. § 136(a) (2006) (barring manufacturers, distributors, and farmers from using unregistered pesticides to ensure food safety); 21 U.S.C. § 341 (establishing standards and regulations to promote food safety).

<sup>196</sup> See REUBEN, *supra* note 102, at 56.

<sup>197</sup> See generally *Corn Growers*, 613 F.3d at 266 (holding that EPA acted arbitrarily and capriciously in banning imports of carbofuran); *supra* Part III (providing three arguments that show the *Corn Growers* decision was incorrect).

<sup>198</sup> See *supra* Part III.A.

<sup>199</sup> See *supra* Part III.B.

<sup>200</sup> See *supra* Part III.C.

<sup>201</sup> See sources cited *supra* note 1.

In the final chapter of her book, Carson sees two roads diverge into a stark future of either destruction or preservation.<sup>202</sup> Fifty years later, it is clear that reality took a middle road — one that Robert Frost never mentioned, but that Carson helped build.<sup>203</sup> From the ban on DDT to the *Corn Growers* decision, the path to an environmentally responsible agriculture system is paved with both progress and potholes.<sup>204</sup> Still, the legacy of *Silent Spring* remains, proving that one person may make all the difference.

---

<sup>202</sup> See CARSON, *supra* note 1, at 277 (Chapter 17: “The Other Road”).

<sup>203</sup> See *supra* Part I.A.

<sup>204</sup> See *supra* Part III.