

# Seeking Pure Fields: The Case Against Federal Preemption of State Bans on Genetically Engineered Crops

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## Introduction

ON NOVEMBER 16, 2013, the Council of the County of Kaua'i, Hawai'i ("County") voted to override the Kaua'i mayor's veto of an ordinance placing local restrictions on pesticides and genetically modified organism (GMO) crops.<sup>1</sup> Not two months later, Syngenta Seeds, Inc. and several other producers of GMO crops sued the County in federal district court.<sup>2</sup> These corporations, which produce genetically engineered (GE) crops, alleged thirteen claims ranging from preemption and equal protection, to violations of state and county law, and "unconstitutional interference with the conduct of foreign affairs."<sup>3</sup> Also in 2013, Hawai'i County enacted an ordinance prohibiting the cultivation of GE crops within the county.<sup>4</sup>

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1. Complaint for Declaratory and Injunctive Relief at 33, *Syngenta Seeds, Inc. v. Cnty. of Kaua'i*, No. 14-00014BMK (D. Haw. Jan. 10, 2014) [hereinafter Complaint]; *see also* Council of the Cnty. of Kaua'i, Bill No. 2491 (Haw. 2013) [hereinafter Bill No. 2491].

2. *See generally* Complaint, *supra* note 1; Jacob Bunge, *Ag Firms Sue to Block Anti-GMO Law*, WALL ST. J. (Jan. 13, 2014), <http://www.wsj.com/articles/SB10001424052702303819704579316993737808588>.

3. Complaint, *supra* note 1, at 34, 67. On August 25, 2014, the United States District Court for the District of Hawai'i ruled that Kaua'i County's law was preempted by state law but not by federal law. *Syngenta Seeds, Inc. v. Cnty. of Kauai*, No. 14-00014 BMK, 2014 WL 4216022, at \*15 (D. Haw. Aug. 25, 2014).

4. HAWAII CNTY., HAW., CODE § 14-130 (2005).

Hawai'i County was sued as well.<sup>5</sup>

The counties of Kaua'i and Hawai'i joined many other jurisdictions that have for many years had restrictions on the cultivation of genetically engineered crops within their borders.<sup>6</sup> Many of these are outright bans.<sup>7</sup> Though Kaua'i's ordinance is different in some respects—for example, requiring disclosure of pesticides and GE crops and establishing buffer zones—it shares purposes similar to many of these bans, including Hawai'i County's. Common themes include concerns about cross-contamination, human health, and the environment.<sup>8</sup>

In fact, research and history show that these types of concerns are valid. In particular, transgenic contamination threatens the preservation and longevity of local conventional crops, organic crops, and wild populations. In a 2011 study, for example, researchers identified genetically modified cotton genes in wild populations in Mexico.<sup>9</sup> In another study, researchers concluded that feral populations of canola were “large and widespread” based on a roadside survey of canola plants that found two transgenic varieties growing in the wild, as well as “novel combinations of transgenic forms.”<sup>10</sup> An earlier report by the Union of Concerned Scientists similarly

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5. Complaint for Declaratory and Injunctive Relief at 2, Hawaii Floriculture & Nursery Ass'n v. Cnty. of Hawaii, No. 14-00267 BMK (D. Haw. June 9, 2014). The list of plaintiffs in this suit includes the Biotechnology Industry Organization, also known as “BIO.” *About BIO*, BIOTECHNOLOGY INDUS. ORG., <http://www.bio.org/articles/about-bio> (last visited May 4, 2015).

6. CTR. FOR FOOD SAFETY, A NEW VIEW OF U.S. AGRICULTURE: STATE-BY-STATE FACTSHEETS ON TOP AGRICULTURAL COMMODITIES, ORGANIC SALES, AND REGULATIONS ON GENETICALLY ENGINEERED FOODS 4–35 (May 2006) [hereinafter A NEW VIEW], available at [http://www.centerforfoodsafety.org/files/us\\_ag\\_report.pdf](http://www.centerforfoodsafety.org/files/us_ag_report.pdf). See also ARIZ. ADMIN. CODE § R3-4-901 (2013); HAWAII CNTY., HAW., CODE §§ 14-92–93 (2008) (applying to coffee and taro); SANTA CRUZ CNTY., CAL., CODE §§ 7.31.010, 7.31.030 (2006); SAN JUAN CNTY., WASH., CODE § 8.26.030 (2012).

7. SANTA CRUZ CNTY., CAL., CODE §§ 7.31.010, 7.31.030; SAN JUAN CNTY., WASH., CODE § 8.26.030; A NEW VIEW, *supra* note 6, at 4–35 (explaining that jurisdictions in California, Colorado, and Maine have some form of all out bans on GE crops and/or fish).

8. See, e.g., Bill No. 2491, *supra* note 1, §§ 22–22.1 (citing concerns about pesticides and dispersion of GMO plants into the environment); HAWAII CNTY., HAW., CODE § 14-128 (2005) (citing the desire to protect non-GMO crops and plants and preserve Hawai'i Island's ecosystem); SANTA CRUZ CNTY., CAL., CODE § 7.31.010 (citing concerns about public health, environmental safety, and cross-contamination); MENDOCINO CNTY., CAL., CODE § 10A.15.010 (2004) (citing concerns about “genetic pollution”); MARIN CNTY., CAL., CODE § 6.92.010 (2004) (citing concerns about long term health and environmental effects and the irreversible danger of contaminating nearby crops).

9. A. Wegier et al., *Recent Long-Distance Transgene Flow Into Wild Populations Conforms to Historical Patterns of Gene Flow in Cotton (*Gossypium Hirsutum*) at Its Centre of Origin*, 20 MOLECULAR ECOLOGY 4182, 4188–92 (2011).

10. Meredith G. Schafer et al., *The Establishment of Genetically Engineered Canola Populations in the*

found that “[s]eeds of traditional varieties of corn, soybeans, and canola are pervasively contaminated with low levels of DNA sequences derived from transgenic varieties.”<sup>11</sup>

Additionally, many GE crops are designed to tolerate herbicides, which contributes to the development of “superweeds”<sup>12</sup> as well as increased levels of toxins in the environment that threaten human health and wildlife.<sup>13</sup> A paper from 1992 explained how then-new herbicides intended for herbicide-resistant plants “could lead to increased incidence of weeds,” potentially toxic effects on fish fry, and glyphosate (an herbicide used on GE crops) accumulation in plant foods.<sup>14</sup> A more recent retrospective explained that “[c]ontrary to often-repeated claims that today’s [GE] crops have, and are reducing pesticide use, the spread of glyphosate-resistant weeds in herbicide-resistant weed management systems has brought about substantial increases in the number and volume of herbicides applied.”<sup>15</sup> GE herbicides have also been linked to the decline in monarch butterfly populations and, recently, to the growth of human breast cancer cells.<sup>16</sup>

As states and localities seek to impose or enforce restrictions on GE crops arising from concerns such as these, they may be subject to lawsuits from GE corporations as in Kaua’i and Hawai’i Counties. This Article addresses one potential aspect of those suits—federal preemption. Specifically, this Article addresses whether federal law preempts state bans

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U.S., PLOS ONE (Oct. 5, 2011), <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0025736>.

11. MARGARET MELLON & JANE RISSLER, UNION OF CONCERNED SCIENTISTS, GONE TO SEED: TRANSGENIC CONTAMINANTS IN THE TRADITIONAL SEED SUPPLY 1 (2004), available at [http://www.ucsus.org/assets/documents/food\\_and\\_agriculture/seedreport\\_fullreport.pdf](http://www.ucsus.org/assets/documents/food_and_agriculture/seedreport_fullreport.pdf).

12. “Superweeds” are essentially weeds that have developed resistance to herbicides. See, e.g., Marion Nestle, *Superweeds: A Long-Predicted Problem for GM Crops Has Arrived*, THE ATLANTIC (May 15, 2012), <http://www.theatlantic.com/health/archive/2012/05/superweeds-a-long-predicted-problem-for-gm-crops-has-arrived/257187/>.

13. Most commercial GE crops are designed to either be resistant to herbicides applied to the plants, or resistant to pesticides through the use of pesticides incorporated into the plants themselves. See, e.g., *GMO Facts: Frequently Asked Questions*, NON-GMO PROJECT, <http://www.nongmoproject.org/learn-more/> (last visited Apr. 5, 2015).

14. Rebecca J. Goldberg, *Environmental Concerns with the Development of Herbicide-Tolerant Plants*, 6 WEED TECH. 647, 650 (1992).

15. Charles M. Benbrook, *Impacts of Genetically Engineered Crops on Pesticide Use in the U.S.—The First Sixteen Years*, ENVTL. SCI. EUR. 1 (2012).

16. See John M. Pleasants & Karen S. Oberhauser, *Milkweed Loss in Agricultural Fields Because of Herbicide Use: Effect on the Monarch Butterfly Population*, 6 INSECT CONSERVATION & DIVERSITY 135, 135–36 (2012); Michael Wines, *Monarch Migration Plunges to Lowest Level in Decades*, N.Y. TIMES (Mar. 13, 2013), <http://www.nytimes.com/2013/03/14/science/earth/monarch-migration-plunges-to-lowest-level-in-decades.html>; Siriporn Thongprakaisang et al., *Glyphosate Induces Human Breast Cancer Cells Growth via Estrogen Receptors*, 59 FOOD & CHEM. TOXICOLOGY 129, 129–30 (2013).

on planting and growing GE crops.<sup>17</sup>

In 1986, the Reagan Administration issued a policy (the “Coordinated Framework”) providing that genetically engineered food and crops should be regulated under existing laws.<sup>18</sup> These laws included what is now the Plant Protection Act (PPA) administered by the United States Department of Agriculture, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) administered by the Environmental Protection Agency, and the Federal Food, Drug, and Cosmetic Act administered by the Food and Drug Administration. This Article discusses the two Acts that address crops as opposed to food—the PPA and FIFRA.<sup>19</sup> As explained below, the PPA is relevant to the GE crop ban preemption analysis because some PPA regulations apply to GE organisms. FIFRA is relevant to the GE crop ban preemption analysis because pesticides genetically engineered to be part of living plants are subject to FIFRA.

For background, Part I provides a general overview of the preemption doctrine. Part II provides a description of the regulatory scheme under the PPA and an analysis of preemption under the PPA. Part III provides a description of the regulatory scheme under FIFRA and an analysis of preemption under FIFRA. The Article closes with a brief summary of our conclusion that the PPA and FIFRA do not preempt well-drafted state laws banning field-testing or commercial growth of GE crops.

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17. The same analysis would apply to federal preemption of local (e.g., municipal) bans. Unlike state bans, however, local bans might be subject to preemption by state law.

18. *See generally* Coordinated Framework for Regulation of Biotechnology, 51 Fed. Reg. 23302-01 (June 26, 1986) (Announcing of Policy).

19. We do not discuss preemption under the Coordinated Framework because the Coordinated Framework has no preemptive effect. As a policy document that was never subject to notice and comment, it cannot carry the force of law and therefore cannot preempt. *See, e.g.*, *Fellner v. Tri-Union Seafoods, LLC*, 539 F.3d 237, 243–47 (3d Cir. 2008) (“Although federal administrative law as well as Congressional enactments are the supreme law of the land, we must reiterate, lest the analysis become unmoored, that it is federal *law* which preempts contrary state law; nothing short of federal law can have that effect. . . . We decline to afford preemptive effect to less formal measures lacking the ‘fairness and deliberation’ which would suggest that Congress intended the agency’s action to be a binding and exclusive application of federal law. Courts with good reason are wary of affording preemptive force to actions taken under more informal circumstances.”). This is especially true for the Coordinated Framework because it was not issued pursuant to any sort of Congressional delegation of authority that would make it eligible for deference in the first instance. *See United States v. Mead Corp.*, 533 U.S. 218, 226–27 (2001) (“[A]dministrative implementation of a particular statutory provision qualifies for *Chevron* deference when it appears that Congress delegated authority to the agency generally to make rules carrying the force of law, and that the agency interpretation claiming deference was promulgated in the exercise of that authority.”).

## I. Summary of Preemption Law

The Supremacy Clause of the Constitution gives Congress the power to preempt state law.<sup>20</sup> It provides that the laws of the United States “shall be the supreme Law of the Land.”<sup>21</sup> Consistent with the Supremacy Clause, courts recognize that state laws that conflict with federal law are “without effect.”<sup>22</sup> In this regard, congressional intent may be expressed “through a statute’s express language or through its structure and purpose.”<sup>23</sup> Explicit statutory language signaling an intent to preempt is known as express preemption.<sup>24</sup> Then, “[i]n the absence of explicit statutory language signaling intent to preempt, intent can be inferred where Congress has legislated comprehensively to occupy an entire field of regulation, leaving no room for the States to supplement federal law.”<sup>25</sup> This is recognized as field preemption. Further, state law that conflicts with federal law will be preempted if it is impossible to comply with both statutes, or if the state law acts as a barrier to the attainment and execution of congressional goals.<sup>26</sup>

In analyzing preemption issues, the U.S. Supreme Court “start[s] with the assumption that the historic police powers of the States [are] not to be superseded by . . . [a] Federal Act unless that [is] the clear and manifest purpose of Congress.”<sup>27</sup> This assumption is particularly strong when Congress acts in a field that the States traditionally occupy.<sup>28</sup> The judicial analysis of preemption issues is often guided by the maxim that “[t]he purpose of Congress is the ultimate touchstone” in every preemption case.<sup>29</sup> Accordingly, a case for preemption will be seen as “particularly weak” where “Congress has indicated its awareness of the operation of state law in a field of federal interest, and has nonetheless decided to stand by both concepts and to tolerate whatever tension there [is] between them.”<sup>30</sup>

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20. *Nw. Cent. Pipeline Corp. v. State Corp. Comm’n of Kansas*, 489 U.S. 493, 509 (1989).

21. U.S. CONST. art. VI, § 2.

22. *Altria Grp., Inc. v. Good*, 555 U.S. 70, 76 (2008) (quoting *Maryland v. Louisiana*, 451 U.S. 725, 746 (1981)); *see also* *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1, 129 (1824) (“In case of collision . . . the State laws must yield to the superior authority of the United States.”) (citation omitted).

23. *Altria*, 555 U.S. at 76.

24. *See* *Cipollone v. Liggett Grp., Inc.*, 505 U.S. 504, 516–17 (1992).

25. *See Nw. Cent. Pipeline*, 489 U.S. at 509 (citing *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947)).

26. *See id.*

27. *Cipollone*, 505 U.S. at 516 (quoting *Rice*, 331 U.S. at 230).

28. *Altria*, 555 U.S. at 77.

29. *Medtronic, Inc. v. Lohr*, 518 U.S. 470, 485 (1996) (internal quotation marks omitted).

30. *Wyeth v. Levine*, 555 U.S. 555, 575 (2009) (internal quotation marks omitted).

Federal regulations may also have preemptive effect, and courts follow a similar analysis as for federal statutes.<sup>31</sup> The key consideration is whether the regulating agency intended to preempt state law, and whether that intention is consistent with congressional intent.<sup>32</sup> For field preemption, the U.S. Supreme Court is “even more reluctant to infer pre-emption from the comprehensiveness of regulations than from the comprehensiveness of statutes.”<sup>33</sup> Where there is an accusation that state law and federal regulation conflict, the Court will rely primarily on the substance of state and federal law and not particularly on agency proclamations of preemption.<sup>34</sup>

## II. The Plant Protection Act and Preemption

### A. Overview of PPA Regulatory Scheme

Congress’s primary purpose in enacting the PPA was to protect the agriculture of the United States from plant pests and noxious weeds.<sup>35</sup> The PPA was passed in 2000, and it incorporated several prior laws including the Federal Plant Pest Act and the Plant Quarantine Act.<sup>36</sup> The PPA grants the United States Department of Agriculture (USDA) the authority to regulate plant pests and noxious weeds.<sup>37</sup> The USDA developed the Animal and Plant

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31. See, e.g., *Hillsborough Cnty. v. Automated Med. Labs., Inc.*, 471 U.S. 707, 713 (1985); *Capital Cities Cable, Inc. v. Crisp*, 467 U.S. 691, 699 (1984) (citations omitted).

32. See, e.g., *Fid. Fed. Sav. & Loan Ass’n v. De La Cuesta*, 458 U.S. 141, 153–54 (1982) (explaining that judicial review is limited to determining whether there was an intent to preempt state law, and whether such action was within the agency’s delegated authority). See also *Hillsborough*, 471 U.S. at 714–15 (noting that, for implied preemption, the agency’s statement that it intends to preempt is “dispositive” unless the agency’s position is “inconsistent with clearly expressed congressional intent” or it is subsequently revealed that there is a change in the agency’s position); *Capital Cities Cable*, 467 U.S. at 699 (“Federal regulations have no less pre-emptive effect than federal statutes. . . . When [an agency] administrator promulgates regulations intended to pre-empt state law, [the court looks to whether the choice] ‘represents a reasonable accommodation of conflicting policies that were committed to the agency’s care by the statute, [it should not be disturbed] unless it appears from the statute or its legislative history that the accommodation is not one that Congress would have sanctioned.’”) (citations omitted).

33. *Hillsborough*, 471 U.S. at 717 (“To infer pre-emption whenever an agency deals with a problem comprehensively is virtually tantamount to saying that whenever a federal agency decides to step into a field, its regulations will be exclusive. Such a rule, of course, would be inconsistent with the federal-state balance embodied in our Supremacy Clause jurisprudence.”).

34. *Wyeth*, 555 U.S. at 576.

35. See Plant Protection Act, 7 U.S.C. § 7701 (2012).

36. See Plant Pest Regulations; Update of Current Provisions, 66 Fed. Reg. 51340-41 (proposed Oct. 9, 2001) (to be codified at 7 C.F.R. pt. 330).

37. Plant Protection Act § 7754.

Health Inspection Service (APHIS) to aid the implementation of the PPA.<sup>38</sup> As explained below, the basic function of the PPA and its regulations is to place restrictions on the introduction of plant pests, noxious weeds, and regulated articles (which include GE crops).

### 1. Plant Pests

The PPA regulates the movement of plant pests in interstate commerce by requiring authorization, either by general or specific permit, for any importation, entry, exportation, or movement of a plant pest within the United States or its territories.<sup>39</sup> “Movement” of plant pests includes carrying, entry, importation, transportation, release into the environment, or any activity that aids in these undertakings.<sup>40</sup> “Interstate commerce” is trade, traffic, or other commerce between states or within United States territories.<sup>41</sup> The Secretary of Agriculture has authority to issue regulations to prevent the introduction or dissemination of plant pests in the United States.<sup>42</sup>

The Secretary may make an exception to the permit requirement under certain conditions.<sup>43</sup> Further, a person may petition the Secretary to exempt a plant pest from regulation so a permit is no longer required for its movement and introduction.<sup>44</sup> For the purposes of the statute, the term “person” includes any individual or corporation.<sup>45</sup>

The PPA defines a “plant pest” as the following:

[A]ny living stage of any of the following that can directly or indirectly injure, cause damage to, or cause disease in any plant or plant product: (A) A protozoan. (B) A nonhuman animal. (C) A parasitic plant. (D) A bacterium. (E) A fungus. (F) A virus or viroid. (G) An infectious agent or other pathogen. (H) Any article similar to or allied with any of the articles specified in the preceding subparagraphs.<sup>46</sup>

The regulations largely mirror this definition and include “any processed, manufactured, or other products of plants” as things that may be

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38. See 7 C.F.R. §§ 2.22(a)(2), 2.80 (2014).

39. Plant Protection Act § 7711(a).

40. See *id.* § 7702(9).

41. *Id.* § 7702(7).

42. *Id.* § 7711(a).

43. *Id.* § 7711(c)(1).

44. *Id.* § 7711(c)(2)–(3) (noting that the Secretary’s determination on the petition shall be based on “sound science”).

45. *Id.* § 7702(12) (“The term ‘person’ means any individual, partnership, corporation, association, joint venture, or other legal entity.”).

46. *Id.* § 7702(14).

injured by plant pests.<sup>47</sup> Organisms that “are or contain” plant pests—if they otherwise meet the definition—are listed in 7 C.F.R. § 340.2, and they include genus *Agrobacterium*.<sup>48</sup> Examples of plant pests include the Asian Longhorned Beetle, Emerald Ash Borer, and Golden Nematode.<sup>49</sup>

Pursuant to 7 U.S.C. § 7711(a), the USDA has enacted regulations providing that a “regulated article” may not be “introduced” without APHIS approval.<sup>50</sup> This means that a person must have approval to move a regulated article interstate or “into or through the United States.”<sup>51</sup> Also, a person may not release into the environment a regulated article without approval; environment in this case includes “all the land, air, and water,” as well as “all living organisms in association with land, air and water.”<sup>52</sup> Regulated articles are most commonly introduced through either “field tests” or “field trials” for experimental purposes.<sup>53</sup> The procedure for introduction is outlined under 7 C.F.R. § 340.0:

No person shall introduce any regulated article unless the Administrator is: (1) Notified of the introduction in accordance with § 340.3, or such introduction is authorized by permit in accordance with § 340.4, or such introduction is conditionally exempt from permit requirements under § 340.2(b); and (2) Such introduction is in conformity with all other applicable restrictions in this part.<sup>54</sup>

Thus, regulated articles not exempt under 7 C.F.R. § 340.2(b) are subject to either the permitting requirements of 7 C.F.R. § 340.4 or the notification procedures under 7 C.F.R. § 340.3.

### a. Defining Regulated Articles

Genetically modified organisms, including some genetically engineered crops, are specifically addressed in APHIS regulations through the definition

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47. 7 C.F.R. § 340.1 (2014).

48. *Id.* § 340.2. *See also id.* n.4 (noting that the organisms contained in § 340.2 are only considered to be a plant pest if they can damage plants, their parts, or any plant products). *Agrobacterium tumefaciens* is “[a] genus of bacteria that researchers can use to transfer DNA to plants.” *Glossary*, MONSANTO, <http://www.monsanto.com/newsviews/pages/glossary.aspx> (last visited May 4, 2015).

49. *Plant Pests and Diseases Programs*, U.S. DEP’T. OF AGRIC., [http://www.aphis.usda.gov/wps/portal/aphis/ourfocus/planthealth/sa\\_domestic\\_pests\\_and\\_diseases/sa\\_pests\\_and\\_diseases!/ut/p/a0/04\\_Sj9C.Pykssy0xPLMnMz0vMAfGjzOK9\\_D2MDJ0MjDzd3V2dDDz93HwCzL29jAx8TfUsh0VAY\\_1WkE!/](http://www.aphis.usda.gov/wps/portal/aphis/ourfocus/planthealth/sa_domestic_pests_and_diseases/sa_pests_and_diseases!/ut/p/a0/04_Sj9C.Pykssy0xPLMnMz0vMAfGjzOK9_D2MDJ0MjDzd3V2dDDz93HwCzL29jAx8TfUsh0VAY_1WkE!/) (last visited May 4, 2015).

50. 7 C.F.R. § 340.0 (2014).

51. *Id.* § 340.1 (defining interstate).

52. *Id.* (defining environment).

53. *See id.* §§ 340.3(c)(5)–(6), 340.4(f)(9), 340.6(c)(5).

54. *Id.* § 340.0.

of a “regulated article.”<sup>55</sup>

A regulated article is an organism that has been altered or produced through genetic engineering from an organism that (1) is listed in § 340.2 and meets the definition of a plant pest; (2) is an unclassified organism or the classification is unknown; (3) is a product that contains such an organism (described in (1)); or (4) is a product or organism produced or altered through genetic engineering that the agency determines is a plant pest or has reason to believe is a plant pest.<sup>56</sup>

In practice, APHIS presumes that organisms that are genetically modified through the use of plant pests are themselves plant pests.<sup>57</sup> These organisms are recognized as “presumptive plant pests” and retain this designation until APHIS concludes that the organism is not, in fact, a plant pest.<sup>58</sup> The definition of “presumptive plant pest,” however, does not appear in the regulations. And, there is no further regulatory guidance for how the Secretary comes to have “reason to believe” that a genetically modified organism is a plant pest. APHIS has stated that “[u]nder the current regulations, there is no explicit statement of the relative responsibilities of the Administrator and regulated parties in determining whether an organism met the definition for a regulated article and, therefore, would be subject to the regulations.”<sup>59</sup>

Additionally, APHIS may treat a GE crop as a regulated article even if a plant pest is not used in the engineering process. In the case of DAS-40278-9 corn, APHIS treated the crop as a regulated article even though it was not engineered with biological materials from any designated plant pests.<sup>60</sup>

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55. *Id.* § 340.1 (“Any organism which has been altered or produced through genetic engineering, if the donor organism, recipient organism, or vector or vector agent belongs to any genera or taxa designated in 340.2 and meets the definition of plant pest, or is an unclassified organism and/or an organism whose classification is unknown, or any product which contains such an organism, or any other organism or product altered or produced through genetic engineering which the Administrator determines is a plant pest or has reason to believe is a plant pest. Excluded are recipient microorganisms which are not plant pests and which have resulted from the addition of genetic material from a donor organism where the material is well characterized and contains only non-coding regulatory regions.”).

56. *Id.*

57. *See* *Ctr. for Food Safety v. Vilsack*, 718 F.3d 829, 835 (9th Cir. 2013); *see also* 7 C.F.R. § 340.1 (2014) (defining regulated article to include genetically engineered plants that are engineered with plant pests).

58. *See Vilsack*, 718 F.3d at 835; *see also* 7 C.F.R. § 340.6 (2014).

59. Importation, Interstate Movement, and Release Into the Environment of Certain Genetically Engineered Organisms, 73 Fed. Reg. 60008, 60011 (proposed Oct. 9, 2008) (to be codified at 40 C.F.R. pt. 340).

60. *See* ANIMAL & PLANT HEALTH INSPECTION SERV., PLANT PEST RISK ASSESSMENT FOR DAS-40278-9 CORN 7 (2010), *available at*

Despite DAS-40278-9 corn not containing genetic material from a plant pest, APHIS likely chose to designate it as a regulated article because it did not have the information necessary to determine if the corn posed a plant pest risk.<sup>61</sup> In the course of the deregulation procedure, the agency examined a number of factors to determine if the presumed plant pest corn was in fact a plant pest or was alternatively safe for deregulation.<sup>62</sup> Thus, despite the ill-defined nature of what APHIS “has reason to believe is a plant pest,” genetic modification is the common denominator.

### **b. Notification and Permitting Requirements for the Introduction of a Regulated Article**

As noted above, a regulated article must go through a permitting or notification procedure prior to introduction (unless exempt). APHIS’s notification procedure requires an entity to submit information thirty days prior to the proposed environmental release of a regulated article.<sup>63</sup> Upon receipt of a notification, APHIS evaluates a proposed release based on six requirements regarding the risks a given regulated article may pose.<sup>64</sup> Among other things, these requirements specify that the regulated article may not be a noxious weed, the new genetic material must be “stably integrated” in the genome, and the genetic material must not be known to cause plant disease or produce an infectious entity or toxicity in nontarget plants.<sup>65</sup> If APHIS determines a regulated article is safe for introduction, the article must continue to meet certain performance standards subsequent to its introduction during field-testing. These standards include that the regulated articles “be planted in such a way that they are not inadvertently mixed with non-regulated plant materials of any species which are not part of the environmental release” and that “[n]o offspring can be produced that could persist in the environment” during the course of field-testing.<sup>66</sup>

Any person who cannot meet the notification standards must apply for a permit in order to introduce a regulated article.<sup>67</sup> The permit application requires the applicant to disclose characteristics of the regulated article and

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[http://www.aphis.usda.gov/brs/aphisdocs/09\\_23301p\\_dpra.pdf](http://www.aphis.usda.gov/brs/aphisdocs/09_23301p_dpra.pdf) (“No plant pest or plant pest-derived material was used to generate the DAS-40278-9 corn plants”).

61. *See id.* at 6–7.

62. *Id.*

63. 7 C.F.R. § 340.3(d)(3)(iii) (2014).

64. *See id.* § 340.3(b).

65. *See* 7 C.F.R. § 340.3(b)(1)–(3) (2015).

66. *Id.* §§ 340.3(c)(2), 340.3(c)(3)(ii).

67. *See id.* § 340.4 (detailing the permit application requirements and procedures).

a plan for containment, among other things.<sup>68</sup> Alternatively, a person may request what is known as a “courtesy permit.” A courtesy permit helps “facilitate movement” of non-regulated GMOs if their movement “might otherwise be impeded” based on similarity to regulated GMOs.<sup>69</sup> A courtesy permit only requires a sixty-day review period as compared to the 120-day review period that follows the traditional permit.<sup>70</sup>

The introduction of regulated articles most often follows the notification procedure set out in 7 C.F.R. § 340.3 as opposed to the lengthier and more rigorous permitting procedure of § 340.4.<sup>71</sup> Under notification, APHIS decides within thirty days if environmental release of a regulated article is appropriate, whereas a permit requires a 120-day review period that can be extended if APHIS determines an environmental impact statement is necessary.<sup>72</sup> Further, notification requires less detail about the molecular and genetic makeup of the regulated article to receive approval for environmental release.<sup>73</sup>

### c. Petition for Determination of Nonregulated Status

A person may petition APHIS to grant “nonregulated status” to a regulated article so the article no longer falls within APHIS’s regulatory authority (absent a reassertion of authority by APHIS).<sup>74</sup> For example, APHIS has deregulated certain strains of genetically engineered cotton, corn, soybeans, and alfalfa, allowing these crops to be planted without further oversight.<sup>75</sup> The petition for deregulation must present a “full statement explaining the factual grounds” as to why the organism should not be regulated, including why the organism does not pose a greater plant pest risk than its non-GMO counterpart.<sup>76</sup> These include descriptions of the non-modified plants, regulated articles, and experimental data.<sup>77</sup> Additionally, field test reports for all trials conducted under permit or notification

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68. *See id.* § 340.4(b)(1)–(14).

69. *Id.* § 340.4(h)(1).

70. *Id.* § 340.4(b)(h)(2); *id.* § 340.4(b).

71. *See* DOUG GURIAN-SHERMAN, CONTAMINATING THE WILD? GENE FLOW FROM EXPERIMENTAL FIELD TRIALS OF GENETICALLY ENGINEERED CROPS TO RELATED WILD PLANTS 10 (2006) (noting that in the period between 2000–2005, 97% of all field test approvals were by notification).

72. 7 C.F.R. §§ 340.3(e)(4) (2014); *id.* § 340.4(b).

73. *Compare* § 340.3(d), *with* § 340.4(b).

74. *See* 7 C.F.R. § 340.6(a).

75. *See* *Ctr. for Food Safety v. Vilsack*, 718 F.3d 829, 832, 840 (9th Cir. 2013).

76. 7 C.F.R. §§ 340.6(b)–(c) (2014).

77. *Id.* § 340.6(c)(1)–(4).

procedures involving regulated articles must be submitted.<sup>78</sup> Based on this information, APHIS decides to approve or deny the petition, in whole or in part.<sup>79</sup>

## 2. Noxious Weeds

The PPA defines “noxious weed” as the following:

[A]ny plant or plant product that can directly or indirectly injure or cause damage to crops (including nursery stock or plant products), livestock, poultry, or other interests of agriculture, irrigation, navigation, the natural resources of the United States, the public health, or the environment.<sup>80</sup>

Examples of noxious weeds include killer algae and lightning weed.<sup>81</sup>

In a similar fashion to plant pests, the PPA empowers the Secretary to “prohibit or restrict” the movement of noxious weeds, if necessary, to prevent their introduction or dissemination within the United States.<sup>82</sup> The Secretary may issue regulations to achieve this goal by requiring permits or certificates of inspection, or by requiring “remedial measures” designed to prevent the proliferation of noxious weeds.<sup>83</sup> Further, the Secretary of Agriculture may “publish, by regulation, a list of noxious weeds that are prohibited or restricted from entering the United States or that are subject to restrictions on interstate movement within the United States.”<sup>84</sup> Pursuant to this provision, the list of prohibited and restricted noxious weeds is located under 7 C.F.R. § 360.200. Also, a person may petition the Secretary to add or remove identified noxious weeds from a regulation promulgated by the Secretary.<sup>85</sup>

As with plant pests, federal regulations restrict the movement of noxious weeds.<sup>86</sup> A person may not move a noxious weed in interstate commerce

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78. *Id.* § 349.6(c)(5).

79. *Id.* § 340.6(d)(3)(i)–(ii).

80. Plant Protection Act, 7 U.S.C. § 7702(10) (2012).

81. 7 C.F.R. § 360.200(a) (2014); *id.* § 360.200(c).

82. Plant Protection Act § 7712(a).

83. *Id.* § 7712(c)(3).

84. *Id.* § 7712(f)(1).

85. *Id.* § 7712(f)(2); *see also* 7 C.F.R. § 360.500 (2014) (explaining the petition process to add a taxon to the noxious weed list); *id.* § 360.501 (explaining the petition process to remove a taxon from the noxious weed list).

86. 7 C.F.R. § 360.300 (2014). Though the current regulations in 7 C.F.R. pt. 340 (governing GE organisms which are or may be plant pests) are specific to plant pests, APHIS has proposed regulations that would explicitly include noxious weed considerations in the permitting and introduction process for GE organisms. *See* Importation, Interstate Movement, and Release Into the Environment of Certain Genetically Engineered Organisms, 73 Fed. Reg. 60,008, 60,011

unless (s)he has first obtained a permit.<sup>87</sup> Applications for a permit must be submitted to the Deputy Administrator and must include information about the origin, quantity, and intended use of the noxious weed, as well as the proposed method of shipment.<sup>88</sup> Permits are granted if the movement of the noxious weed is determined to not involve danger of dissemination or will be issued subject to conditions mitigating any such danger.<sup>89</sup>

## **B. PPA Express Preemption Analysis**

Congressional intent to withhold state authority is most clearly evidenced by the inclusion of express preemption clauses in statutory text. Congress may withdraw specified powers from the states by enacting statutes containing express preemption provisions.<sup>90</sup> Addressing the issue of express preemption, the U.S. Supreme Court noted, “[W]hen Congress has made its intent known through explicit statutory language, the court’s task is an easy one.”<sup>91</sup> However, there may still be interpretive difficulties, as noted later by the Court: “If a federal law contains an express preemption clause, it does not immediately end the inquiry because the question of the substance and scope of Congress’ displacement of state law still remains.”<sup>92</sup> Therefore, express preemption clauses do not automatically foreclose state authority, but rather act as catalysts for determining what and how much state authority is displaced.

Courts generally disfavor the displacement of large swaths of state authority in express preemption clauses. When an express preemption clause is subject to more than one reasonable interpretation, courts ordinarily “accept the reading that disfavors preemption.”<sup>93</sup> When interpreting the scope and meaning of an express preemption clause, a court “begin[s] with the language employed by Congress and the assumption that the ordinary

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(proposed Oct. 9, 2008) (to be codified at 40 C.F.R. pt. 340) (“Although the current program has been effective in ensuring the safe environmental release, interstate movement, and importation of genetically engineered organisms, technological advances have led to the possibility of developing GE organisms that do not fit within the plant pest definition, but may cause environmental or other types of physical harm or damage covered by the definition of noxious weed in the PPA. Therefore, we consider that it is appropriate to align the regulations with both the plant pest and noxious weed authorities of the PPA.”).

87. 7 C.F.R. § 360.300(a)–(b)(2014).

88. *Id.* § 360.301(b)(4), (6), (9), (11).

89. *See id.* §§ 360.302(a), 360.303.

90. *See, e.g.,* Arizona v. United States, 132 S. Ct. 2492, 2500–01 (2012).

91. English v. Gen. Elec. Co., 496 U.S. 72, 79 (1990).

92. Altria Grp., Inc. v. Good, 555 U.S. 70, 76 (2008).

93. *Id.* at 77 (quoting Bates v. Dow Agrosiences LLC, 544 U.S. 431, 449 (2005)).

meaning of that language accurately expresses the legislative purpose.”<sup>94</sup> Under this interpretive scheme, little latitude is given for the dislocation of state law outside of what is articulated in the preemption clause itself.

The PPA defines state authority to regulate plant pests and noxious weeds in both foreign and interstate commerce through an express preemption section.<sup>95</sup> The first part of the express preemption section provides that a state or political subdivision of a state is expressly prohibited from regulating a plant pest or noxious weed in foreign commerce “in order—(1) to control a plant pest or noxious weed; (2) to eradicate a plant pest or noxious weed; or (3) prevent the introduction or dissemination of a biological control organism, plant pest, or noxious weed.”<sup>96</sup> For the purposes of this analysis, this Article assumes that a local ban on the planting of genetically engineered crops would lie outside the reach of foreign trade and traffic because it would not regulate the import or export of GE goods.<sup>97</sup>

The second part of the PPA’s preemption section applies to interstate commerce:

[N]o State or political subdivision of a State may regulate the movement in interstate commerce of any article, means of conveyance, plant, biological control organism, plant pest, noxious weed, or plant product in order to control a plant pest or noxious weed, eradicate a plant pest or noxious weed, or prevent the introduction or dissemination of a biological control organism, plant pest, or noxious weed, if the Secretary has issued a regulation or order to prevent the dissemination of the biological control organism, plant pest, or noxious weed within the United States.<sup>98</sup>

Therefore, in order for a state regulation to be preempted, it must (1) regulate a plant or other listed item in interstate commerce; (2) regulate said item in order to somehow control a plant pest or noxious weed; and (3) the Secretary must have issued a regulation or order to prevent the dissemination of the plant pest or noxious weed.

There are two exceptions to the PPA’s preemption provision. First, the PPA exempts state regulations from preemption if they are consistent with

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94. *Cipollone v. Liggett Grp., Inc.*, 505 U.S. 504, 532 (1992) (internal quotation marks omitted).

95. *See* Plant Protection Act, 7 U.S.C. 7756(a)–(b) (2012).

96. *Id.* § 7756(a).

97. If a state ban on the planting of GE crops were found to regulate in foreign commerce, the preemption issue would follow the same analysis of plant pests and noxious weeds as provided for in the following discussion of interstate commerce under clauses 1 and 2.

98. Plant Protection Act § 7756(b). The PPA defines “state” to include the states of the United States, the Commonwealth of Puerto Rico, and any other territories or possessions of the United States. *Id.* § 7702(17).

and do not go beyond APHIS regulations or orders.<sup>99</sup> Second, state regulation is exempt from preemption if a state successfully demonstrates that there is a “special need” for additional requirements based on a risk analysis or scientific information.<sup>100</sup> According to a recent article, “the USDA has never approved a state request due to the language of the Act and a restrictive agency interpretation.”<sup>101</sup> Therefore, a special need request would likely need to be well-supported and account for the USDA’s history with these requests.

All three requirements of the PPA’s preemption section must be satisfied in order for a state law to be expressly preempted. This Article will discuss each of them in turn.

### **1. Clause 1: Whether the Law Regulates the Movement of a “Plant” or Other Listed Item in “Interstate Commerce”**

If a state regulation does not regulate a “plant” or other listed item in “interstate commerce,” then it is not preempted.<sup>102</sup> Because the PPA’s definition of “plant” includes any plant parts capable of propagation, including seeds,<sup>103</sup> this Article assumes that a state ban on planting genetically engineered crops would implicate “plants” as contemplated by the PPA.

The PPA’s definition of interstate commerce is “trade, traffic, or other commerce” between the following:

- (A) a place in a State and a point in another State, or between points within the same State but through any place outside the State; or
- (B) within the District of Columbia, Guam, the Virgin Islands of the United States, or any other territory or possession of the United States.<sup>104</sup>

Based on the plain language of the statute, a ban on the cultivation of GE crops does not fall under the rubric of interstate commerce as defined in the PPA for two reasons.

First, though they may *affect* interstate commerce, the acts of planting and growing crops are not themselves *in* commerce because they are not

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99. Plant Protection Act § 7756(b)(2)(A).

100. *Id.* § 7756(b)(2)(B).

101. Read D. Porter & Nina C. Robertson, *Tracking Implementation of the Special Need Request Process Under the Plant Protection Act*, 41 ENVTL. L. REP. NEWS & ANALYSIS 11000, 11000 (2011).

102. As noted above, the statute’s definition of “movement” includes “release into the environment,” which means the release of a regulated article outside some sort of contained structure. Plant Protection Act § 7702(9).

103. *Id.* § 7702(13).

104. *Id.* § 7702(7).

“trade, traffic, or other commerce.”<sup>105</sup> They are not an “interchange,” “exchange,” or “transportation” of goods (the ordinary meanings of “commerce,” “trade,” and “traffic”).<sup>106</sup> The PPA recognizes this distinction between being in interstate commerce and affecting interstate commerce in its “Findings” section, which states that all items regulated under the PPA “are in *or* affect interstate commerce” (not necessarily both).<sup>107</sup> Therefore, a state ban on the growth of genetically engineered crops does not fall under the very first requirement for preemption. Though this Article discusses the other sections of the PPA’s preemption provision in the pages that follow, a court need not look further than the definition of “commerce.”

Second, though a state ban on growing GE crops may affect interstate commerce, it would not actually regulate activities that *are* “interstate” as defined by the PPA. A ban would apply to the planting and growth of GE crops *intrastate* and would be bounded by the state’s borders. Thus, it would not regulate activities that occur between “a place in a State and a point in another State” or through “any place outside the State.”<sup>108</sup>

## **2. Clause 2: Whether a State Has Passed a Regulation “In Order To” Control, Eradicate, or Prevent the Introduction or Dissemination of a Plant Pest or Noxious Weed**

### **a. If an Item Is Not a Plant Pest or Noxious Weed, Regulation of That Item Is Not Preempted**

If a state regulates an item that is not a plant pest or noxious weed, regulation of that item is not preempted. This is a necessary, but not sufficient, prerequisite to a finding of express preemption under the PPA. Put another way, a state regulation must be aimed at “a plant pest or noxious weed” in order to satisfy this clause. If the state regulation is aimed at something other than an actual plant pest or noxious weed, then this clause is not satisfied.<sup>109</sup> A 2011 tort action against the GE rice company Bayer for

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105. *Id.*

106. *See Commerce Definition*, DICTIONARY.COM, <http://dictionary.reference.com/browse/commerce?s=t> (last visited Aug. 12, 2015) (“an interchange of goods or commodities . . . .”); *Trade Definition*, DICTIONARY.COM, <http://dictionary.reference.com/browse/trade?s=t> (last visited Aug. 12, 2015) (“the act or process of buying, selling, or exchanging commodities . . . .”); *Traffic Definition*, DICTIONARY.COM, <http://dictionary.reference.com/browse/traffic?s=t> (last visited Aug. 12, 2015) (“the transportation of goods for the purpose of trade . . . .”).

107. Plant Protection Act § 7701(9) (emphasis added).

108. *Id.* § 7702(7)(A).

109. *See In re Genetically Modified Rice Litig.*, 2011 WL 339168, at \*2 (E.D. Mo. Feb. 1, 2011).

contaminating rice supplies with experimental genetically engineered rice illustrates this point. In that case, a federal court in Missouri held that “[t]he Plant Protection Act does not preempt plaintiffs’ claims in this case because plaintiffs’ claims do not attempt to regulate material ‘in foreign commerce’ and because Bayer has not shown that its genetically modified rice constitutes a ‘plant pest’ under the statute.”<sup>110</sup> This means that, even though the experimental rice would have been a regulated article, the court found that preemption was not possible unless the rice were an actual plant pest.

Under this reading, state regulation of several categories of GE plants (including seeds and crops) are not preempted: regulated articles that are not plant pests; former regulated articles that have been deregulated because they are not plant pests; and any other items that are not actually plant pests.

Similarly, if a GE plant is not specifically listed as a noxious weed in the regulations, then regulation of that item is not preempted pursuant to the noxious weed portion of this clause. APHIS only regulates the organisms it has listed as noxious weeds under 7 C.F.R. § 360.200.<sup>111</sup> Thus, if a state ban applies to GE crops not listed as noxious weeds in § 360.200, this clause of the PPA preemption provision cannot be satisfied, and there will be no preemption with regard to noxious weeds.

The federal regulations regarding the special needs exception to the preemption provision support this interpretation. The regulations specifically refer to “plant pests,” “noxious weeds,” and “biological control organisms” as the subjects of any request, which suggests that the express preemption provision could only apply to actual, previously identified “plant pests,” “noxious weeds,” and “biological control organisms” in the first instance.<sup>112</sup> Thus, if a state ban on the cultivation of GE crops does not apply to organisms that are recognized as plant pests or noxious weeds, the state ban cannot be preempted.<sup>113</sup>

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110. *Id.*

111. *See* 7 C.F.R. § 360.200 (2014) (listing plants APHIS has determined to be noxious weeds). A case from the U.S. District Court for the District of Columbia noted that if APHIS had granted a petition to list Kentucky bluegrass as a noxious weed, APHIS would have been able to “prohibit or restrict movement of these plants to prevent their introduction into the United States and their use in interstate commerce”—implying that, if the plant is not so listed, APHIS has no authority over it. *Int’l Ctr. for Tech. Assessment v. Johanns*, 473 F. Supp. 2d 9, 14 (D.D.C. 2007).

112. *See* 7 C.F.R. § 301.1-2(a)(1)–(5) (2014).

113. Unlike the plant pest regulations, the noxious weeds regulations have a preemption provision. *See id.* § 360.600(a). This preemption provision does not include “in order to” language. Instead it simply explains that states may not “impose prohibitions or restrictions upon the movement in interstate commerce of . . . noxious weeds . . .” *Id.* However, as discussed in Part I, any preemption by regulation must be consistent with congressional intent. Therefore, to the extent this provision is inconsistent with the PPA, it cannot preempt. The same would hold true for other

**b. If a State Law Was Not Passed “In Order To” Control, Eradicate, or Prevent the Introduction or Dissemination of Plant Pests or Noxious Weeds, That Law Is Not Preempted**

Even if a state law regulated actual plant pests or noxious weeds, it would only satisfy this prong of the PPA’s preemption test if the law was passed to control, eradicate, or prevent the dissemination of the plants because they are plant pests or noxious weeds. When interpreting the meaning of a statute, “[t]he plain meaning of legislation should be conclusive, except in the ‘rare cases [in which] the literal application of a statute will produce a result demonstrably at odds with the intentions of its drafters.’”<sup>114</sup> In this instance, the plain meaning of the phrase, “in order to,” should be read to mean that a state law must be enacted for the purpose of regulating plants or other articles because they are plant pests or noxious weeds. If, on the other hand, a state law were passed to regulate plants or other articles (which happen to be plant pests or noxious weeds) because they are genetically engineered, this clause would not be satisfied. Rather than passing a law in order to control, eradicate, and prevent a plant pest or noxious weed, the state would be passing a law to control, eradicate, and prevent GE crops, regardless of those crops’ plant pest or noxious weed status. A 2004 Pew Report also made this point, stating, “Express preemption under the Supremacy Clause does not operate here because the PPA’s preemption provision only preempts state regulation for plant pest and noxious weed control purposes; it does not address the preemption status of state actions to address broader environmental, economic, or social concerns.”<sup>115</sup>

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agency statements regarding preemption, e.g., the Federal Register provision noting that state and local law that is “inconsistent” with the regulations will be preempted. *See* Genetically Engineered Organisms and Products; Simplification of Requirements and Procedures for Genetically Engineered Organisms, 62 Fed. Reg. 23,945, 23,956 (May 2, 1997) (to be codified 40 C.F.R. pt. 340).

114. *United States v. Ron Pair Enters., Inc.*, 489 U.S. 235, 242 (1989) (quoting *Griffin v. Oceanic Contractors, Inc.*, 458 U.S. 564, 571 (1982)).

115. MICHAEL R. TAYLOR ET AL., TENDING THE FIELDS: STATE & FEDERAL ROLES IN THE OVERSIGHT OF GENETICALLY MODIFIED CROPS 122 (2004), available at <http://www.rff.org/rff/Documents/RFF-RPT-TendingtheFields.pdf>. We also note that APHIS and the GE industry would be hard-pressed to argue that a genetically engineered crop ban was passed “in order to” control a plant pest or noxious weed. This is because, in the recent *Vilsack* case decided in the Ninth Circuit, both APHIS and Monsanto argued that harms such as increased herbicide use and cross-contamination were not plant pest harms, and the Court agreed. *Ctr. for Food Safety v. Vilsack*, 718 F.3d 829, 839–41 (9th Cir. 2013); Brief of Federal Appellees at 28–30, *Ctr. for Food Safety v. Vilsack*, 718 F.3d 829 (9th Cir. 2013) (No. 12-15052) [hereinafter USDA Brief]; Intervenor-Appellees’ Answering Brief at 30–36, *Ctr. for Food Safety v. Vilsack*, 718 F.3d 829 (9th Cir. 2013) (No. 12-15052). APHIS has made similar statements in the noxious weed context. *See, e.g.*, Importation, Interstate Movement, and Release Into the Environment of Certain

The fact that states and other localities have already regulated GE crops more stringently than APHIS also supports the conclusion that laws passed for a purpose other than eradicating or otherwise controlling plants because they are plant pests or noxious weeds, are not preempted.

In Minnesota, for example, the Genetically Engineered Organisms Act gives Minnesota's Commissioner of Agriculture the power to require, impose conditions on, and deny permits for the planting of GE crops.<sup>116</sup> This law established a permitting system for proposed releases of GE organisms "to protect humans and the environment from the potential for significant adverse effects of those releases."<sup>117</sup>

In Arizona, a regulation authorizes the Arizona Department of Agriculture to place restrictions on—or deny—the granting of a permit for GE crop cultivation, "in addition to USDA's requirements."<sup>118</sup> Specifically, permit applicants must demonstrate various safeguards to the state, and the state may require additional conditions or deny a permit if necessary.<sup>119</sup> In this way, Arizona's requirements might be in addition to, and more stringent than, any restrictions APHIS provides.<sup>120</sup>

Additionally, several localities in California have more stringent requirements than the federal law when it comes to GE crops. In Mendocino County, it is unlawful to "propagate, cultivate, raise, or grow genetically modified organisms" in the county.<sup>121</sup> This ordinance was passed to "protect the County's agriculture, environment, economy, and private property from genetic pollution by genetically modified organisms."<sup>122</sup> Similarly, Marin County makes it unlawful to "propagate, cultivate, raise, or grow genetically

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Genetically Engineered Organisms, 73 Fed. Reg. 60,008, 60,014 (proposed Oct. 9, 2008) (to be codified at 40 C.F.R. pt. 340) (discussing whether noxious weed pose a physical threat); U.S. DEP'T OF AGRIC. & ANIMAL & PLANT HEALTH INSPECTION SERV., REVIEW OF PETITION TO ADD GENETICALLY ENGINEERED GLYPHOSATE-TOLERANT KENTUCKY BLUEGRASS TO THE FEDERAL NOXIOUS WEED REGULATION 12 (2011), *available at* [http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/weeds/downloads/Kentucky-BG/KY-BG-FNW-PetitionReview.pdf](http://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/Kentucky-BG/KY-BG-FNW-PetitionReview.pdf). While we do not endorse the court's opinion or APHIS' position, it would provide an additional—but not necessary—means to avoid preemption. The argument would be that, if a state law is not passed in order to address plant pest or noxious weed harms, then it is not passed in order to control a plant pest or noxious weed.

116. MINN. STAT. ANN. §§ 18F.02, 18F.04, 18F.07 (West 2015).

117. MINN. STAT. ANN. § 18F.01 (West 2015).

118. ARIZ. ADMIN. CODE § R3-4-901 (2013).

119. *Id.*

120. *Id.* (noting that on top of the USDA's requirements, permit applicants must demonstrate various other safeguards to State, and State may require additional conditions or deny permit).

121. MENDOCINO CNTY., CAL., CODE § 10A.15.020 (2004).

122. *Id.*

modified organisms” in the county.<sup>123</sup> The ordinance has a fairly substantial findings and purpose section, beginning with “[t]he people of the county of Marin, desiring to protect our agricultural industry, our natural environment, the private property rights of our citizens, and the health, safety and welfare of our people, deem it advisable and appropriate to restrict the cultivation of genetically modified crops, livestock, and other organisms in our county.”<sup>124</sup> Trinity and Santa Cruz, California, as well as San Juan, Washington, also prohibit the cultivation of GE crops for similar reasons.<sup>125</sup>

### **3. Clause 3: Whether the Secretary Has “Issued a Regulation or Order” to Prevent the Dissemination of the Plant Pest or Noxious Weed**

The final clause of the preemption provision requires that, in order for a state law to be preempted, the Secretary must have issued a regulation or order to prevent the dissemination of the plant pest or noxious weed.<sup>126</sup> Like the earlier clauses, this is a necessary, but not a sufficient, prerequisite to a finding of preemption.

Two key considerations under this clause are (1) whether APHIS has issued a regulation or order regarding “the” plant pest or noxious weed in the first instance; and (2) whether any order or regulation issued by APHIS was for the purpose of “preventing” the dissemination of the subject article.

First, because Congress used the word “the” before “plant pest or noxious weed,” and used “plant pest” and “noxious weed” in the singular, a federal regulation or order cannot have preemptive effect unless it applies to *the particular* plant pest or noxious weed at issue in a state law. In other words, a general regulation or order that applies to all plant pests or noxious weeds would not have preemptive effect.<sup>127</sup> Therefore, it is only plant-specific

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123. MARIN CNTY., CAL., CODE § 6.92.020 (2004).

124. *Id.* § 6.92.010.

125. *See* TRINITY CNTY., CAL., CODE §§ 8.25.020, 8.25.030 (2004); SANTA CRUZ CNTY., CAL., CODE §§ 7.31.010, 7.31.030 (2006); SAN JUAN CNTY., WASH., CODE § 8.26.030 (2012).

126. Plant Protection Act, 7 U.S.C. § 7756(b)(1) (2012).

127. The Preamble to APHIS’ 1993 rule on notification procedures for regulated articles states that “[i]t is APHIS’ position that where the Secretary of Agriculture has established an interstate quarantine or regulation under either Act, neither the States nor Territories can establish additional requirements concerning the particular subject matter regulated thereby.” Genetically Engineered Organisms and Products; Notification Procedures for the Introduction of Certain Regulated Article and Petition for Nonregulated Status, 58 Fed. Reg. 17,044, 17,053 (Mar. 31, 1993) (to be codified at 40 C.F.R. pt. 340). The reference to “particular subject matter” supports the view that it is only plant-specific regulations or orders that could potentially have preemptive effect.

orders or regulations such as quarantines that could satisfy this element.<sup>128</sup> Further, in order to have preemptive effect, any regulation or order issued by the Secretary would need to apply to an *actual* plant pest or noxious weed by the statute's plain terms ("if the Secretary has issued a regulation or order to prevent the dissemination of . . . the *plant pest* or *noxious weed*").<sup>129</sup>

Second, even if APHIS issues a plant-specific regulation or order regarding an actual plant pest or noxious weed, the purpose of the regulation or order must be to "prevent" the dissemination of the subject article in order for preemption to apply. Though APHIS has sometimes stated that a given set of regulations was issued for this purpose,<sup>130</sup> in actuality, the plant pest regulations applicable to GE crops are generally aimed at controlling the *introduction* of plant pests, rather than *preventing* their *dissemination*.<sup>131</sup> In fact, the function of the plant pest regulations is to *allow* GE regulated articles to be "release[d] into the environment" through field tests.<sup>132</sup>

A recent article advanced this view of what it means for an order or regulation to "prevent" the dissemination of a plant pest or noxious weed,

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128. See generally 7 C.F.R. §§ 301.1–301.92-12 (2014) (discussing quarantine procedures applicable to black stem rust, the Japanese beetle, and the South American cactus moth among others).

129. Plant Protection Act § 7756(b)(1) (emphasis added).

130. See, e.g., Plant Pest Regulations; Update of Current Provisions, 66 Fed. Reg. 51,340 (proposed Oct. 9, 2001) (to be codified at 7 C.F.R. pt. 330) ("The purpose of the regulations in 'Subpart—Movement of Plant Pests' (7 CFR 330.200 through 330.212) is to prevent the dissemination of plant pests into the United States, or interstate, by regulating the importation and interstate movement of plant pests."); Introduction of Organisms and Products Altered or Produced Through Genetic Engineering Which Are Plant Pests or Which There is Reason to Believe Are Plant Pests Regulated Articles, 52 Fed. Reg. 22,892, 22,892 (June 16, 1987) (to be codified at 40 C.F.R. pts. 330, 340) ("These regulations are necessary to prevent the entry into and dissemination and establishment of plant pests in the United States."); 7 C.F.R. § 360.200 (2014) ("[I]t is necessary to designate the following plants as noxious weeds to prevent their introduction into the United States or their dissemination within the United States."). The permitting regulations for noxious weeds and plant pests reflect similar ideas. See 7 C.F.R. § 360.303 (2014) (allowing noxious weed permits to be issued with conditions necessary to prevent the proliferation of that noxious weed); *id.* § 340.4(f) ("A person who is issued a permit . . . shall comply with the following conditions . . . as deemed by the Administrator to be necessary to prevent the dissemination and establishment of plant pests.").

131. See, e.g., 7 C.F.R. §§ 340.0, 340.3, 340.4 (2014) (governing the "introduction" of regulated articles through permitting and notification); see also APHIS Policy on Responding to Low-Level Presence of Genetically Engineered Plant Materials, 72 Fed. Reg. 14,649, 14,649 (Mar. 29, 2007) (to be codified at 40 C.F.R. pt. 340) ("This permitting and notification system is designed to *restrict introductions* of GE plants and plant materials as long as they are regulated by the Agency.") (emphasis added).

132. See 7 C.F.R. § 340.1 (2014) (defining "introduction" to include "release into the environment"); *id.* § 340.3 (establishing notification procedure for introduction of regulated articles); *id.* § 340.4 (establishing permitting program for introduction of regulated articles).

pointing out the difference between the language in the first and second parts of the preemption provision.<sup>133</sup> Basically, the provision states that in order to be preemptive, the Secretary's regulation or order must be issued for the sole purpose of *preventing the dissemination* of a plant pest or noxious weed. In contrast, the first part of the preemption provision provides that states cannot *control, eradicate, or prevent the introduction* or dissemination of a plant pest or noxious weed under certain circumstances. Therefore, Congress contemplated a distinction between "preventing" the dissemination and "controlling," "eradicating," or preventing the "introduction" of plant pests and noxious weeds. Thus, the list of state actions that could potentially be preempted (e.g., control, eradicate, prevent the introduction) is more extensive than the list of APHIS actions that could have preemptive effect (prevent the dissemination). Any action by the federal government merely to control, eradicate, or prevent the introduction of a plant pest would not have preemptive effect:

The PPA appears to limit the types of APHIS actions that result in preemption. Preemption applies only when APHIS has acted to prevent the dissemination of the . . . plant pest . . . within the United States. APHIS action to prevent dissemination of a pest preempts four types of state actions, including action to: control; eradicate; prevent the introduction of; or prevent the dissemination of [a plant pest].

Thus, the list of state actions preempted is more extensive than the list of actions that have preemptive effect. While there is little legal precedent interpreting this provision, the distinction between the types of actions appears to be intentional, such that federal action to control, eradicate, or prevent the introduction of a pest would not preempt state action.<sup>134</sup>

Further, special need requests<sup>135</sup> have only ever been sought where there was a federal quarantine in place.<sup>136</sup> This suggests that a state's potential need to obtain permission to regulate in excess of APHIS could only arise where APHIS has actually instituted a plant pest or noxious weed-specific quarantine. The preemption provision of the domestic quarantine regulations also supports this view and actually describes APHIS actions that would have preemptive effect as "the prohibitions or restrictions imposed by this part or by a Federal Order."<sup>137</sup> "[T]his part" refers to "Part 301—

133. See Porter & Robertson, *supra* note 101, at 11014.

134. *Id.* at 11014 (citations and quotation marks omitted). See also Update of Noxious Weed Regulations, 74 Fed. Reg. 27,456, 27,457 (proposed June 10, 2009) (to be codified at 7 C.F.R. pts. 319, 352, 360, 361) ("[T]he PPA grants the Administration the authority to take action to prevent the introduction of a noxious weed into the United States *as well as to* prevent the dissemination of a noxious weed within the United States.") (emphasis added).

135. See *supra* note 100 and accompanying text.

136. See Porter & Robertson, *supra* note 101, at 11000.

137. 7 C.F.R. § 301.1(b) (2014).

Domestic Quarantine Notices”—meaning that any other quarantines, much less non-quarantine prohibitions or restrictions, would not have preemptive effect. Additionally, APHIS has referred to its authority to “prevent the dissemination of a plant pest” as the authority to “take or order remedial measures which include the authority to hold, seize, quarantine, treat, apply other remedial measures to, destroy, or otherwise dispose of regulated materials.”<sup>138</sup> Absent from this list is anything relating to permitting or notification of regulated articles or noxious weeds, indicating that permitting and notification are not tools to “prevent the dissemination” of plant pests or noxious weeds.

Therefore, given the language of the preemption provision, the generalized permitting and notification procedures for plant pests and noxious weeds in the regulations, and APHIS’s case-by-case, plant-specific measures that could rise to the level of “preventing dissemination,” it is only stringent, plant-specific measures (such as serious quarantines) that could satisfy this third clause of the preemption provision.

In sum, none of the three required prerequisites for express preemption under the PPA are met in the GE crop ban context. Because all three must be met, as discussed above, there is no express preemption.

### C. PPA Implied Preemption Analysis

Congressional intent, though manifest in express preemption clauses, may also exist implicitly in the body of the statutory language. As noted above, there are two primary ways in which federal laws may implicitly preempt state laws: (1) field preemption and (2) conflict preemption. In the case of the PPA, however, the doctrine of implied preemption has little, if any, applicability. In *Cipollone v. Liggett Group, Inc.*, the U.S. Supreme Court stated that when “Congress has considered the issue of pre-emption and has included in the enacted legislation a provision explicitly addressing that issue,” and that provision provides a “reliable indicium of congressional intent” with respect to state authority, there is “no need to infer congressional intent to preempt state laws from the substantive provisions of the legislation.”<sup>139</sup> Later, the Court explained that *Cipollone* did not “obviate the need for analysis of an individual statute’s preemptive effects,” and an express preemption clause does not “entirely foreclose[] any possibility of implied

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138. APHIS Policy on Responding to Low-Level Presence of Genetically Engineered Plant Materials, 72 Fed. Reg. 14,649, 14,651 (Mar. 29, 2007) (to be codified at 40 C.F.R. pt. 340) (stating that remedial measures would be assessed on a case-by-case basis).

139. *Cipollone v. Liggett Grp., Inc.*, 505 U.S. 504, 517 (1992) (citations and internal quotation marks omitted).

preemption.”<sup>140</sup> However, the Court accepted that *Cipollone* “supports an inference that an express pre-emption clause forecloses implied pre-emption.”<sup>141</sup> Thus, though there is an inference that an express preemption clause forecloses implied preemption, a court *might* conduct a field or conflict preemption analysis in a statute containing an express preemption clause.

### 1. Field Preemption

The hallmark of field preemption is the federal occupation of an entire field of regulation.<sup>142</sup> Congressional intent to preempt state law in a field may be inferred when “the scheme of federal regulation is sufficiently comprehensive to make reasonable the inference that Congress ‘left no room’ for supplementary state regulation.”<sup>143</sup> The existence of federal law in a field, however, does not mean that every federal statute overrides all state law in a related area of law.<sup>144</sup>

Preemption of a whole field can also be inferred where the field is one in which “the federal interest is so dominant that the federal system will be assumed to preclude enforcement of state laws on the same subject.”<sup>145</sup> However, a field is not preempted merely because the state and federal laws in questions may have different objectives.<sup>146</sup>

The PPA provides for the federal regulation of plant pests and noxious weeds in a field designed to restrict and control the interstate movement and dissemination of those items.<sup>147</sup> Regulations enacted pursuant to the PPA provide guidance for those seeking to introduce regulated articles, which may include some GE crops.<sup>148</sup> Taken together, the statutory text and regulations

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140. *Freightliner Corp. v. Myrick*, 514 U.S. 280, 288–89 (1995).

141. *See id.* at 289.

142. *See Gade v. Nat’l Solid Wastes Mgmt. Ass’n*, 505 U.S. 88, 115 (1992).

143. *Hillsborough Cnty. v. Automated Med. Labs., Inc.*, 471 U.S. 707, 713 (1985) (quoting *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947)).

144. *Id.* at 717–22 (holding that despite comprehensive federal regulations, county ordinances requiring hepatitis screening and breath-analysis for presence of alcohol in donor’s blood were not preempted as there was lack of Congressional intent to preempt).

145. *Id.* at 713 (citation omitted); *see also Hines v. Davidowitz*, 312 U.S. 52, 63, 74 (1941) (noting the importance of the federal government in the field of foreign affairs and holding that federal law requiring registration of aliens precluded enforcement of state law mandating registration in state).

146. *Florida Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 142 (1963) (“The test of whether both federal and state regulations may operate, or the state regulation must give way, is whether both regulations can be enforced without impairing the federal superintendence of the field, not whether they are aimed at similar or different objectives.”).

147. *See Plant Protection Act*, 7 U.S.C. § 7701 (2012).

148. *See 7 C.F.R. §§ 340.1, 340.3, 340.4* (2014).

allow APHIS to operate in a field concerning plant pests, noxious weeds, and regulated articles (which, as described above, include GE organisms that are “presumptive” plant pests because they were engineered with the use of organisms that are themselves plant pests). A state ban on GE crop cultivation, however, would operate in the field of GE crop regulation. Therefore, the question becomes whether Congress intended the PPA to exclusively occupy the entire field of GE crop regulation.

Numerous factors support the conclusion that it did not. The absence of any language regarding genetically engineered crops in the PPA itself, the inherently local nature of a GE crop ban, the existence of the PPA’s express preemption clause and its exceptions, the nature of APHIS’s PPA regulations, and the existence of state and county law in this field show that the PPA left room for supplementary state regulation. This lack of pervasiveness in the field allows states to maintain authority to regulate plant pests, noxious weeds, and regulated articles. Further, if a state ban on genetically engineered crops did not apply to actual plant pests or noxious weeds, it would not even fall within the same “field” as the PPA.

#### **a. Historic Police Powers of the States**

Preemption analyses begin with the assumption that “the historic police powers of the States [are] not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress.”<sup>149</sup> This assumption is especially forceful “when Congress has legislated in a field traditionally occupied by the states.”<sup>150</sup>

The protection of public health, safety, and welfare is a traditional police power of the states, including protection of the local environment.<sup>151</sup>

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149. *Altria Grp., Inc. v. Good*, 555 U.S. 70, 77 (2008) (quoting *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947)). Note that the presumption against preemption also applies in the express preemption context. *See, e.g., Bates v. Dow Agrosiences LLC*, 544 U.S. 431, 449 (2005) (applying presumption against preemption in reading FIFRA’s express preemption section).

150. *Id.* (citing *Medtronic, Inc. v. Lohr*, 518 U.S. 470, 485 (1996)); *see also Bates*, 544 U.S. at 449 (“[I]n areas of traditional state regulation, [courts] assume that a federal statute has not supplanted state law unless Congress has made such an intentional clear and manifest.”).

151. *See Lohr*, 518 U.S. at 485; *Wisconsin Pub. Intervenor v. Mortier*, 501 U.S. 597, 605–06 (1990); *Huron Portland Cement Co. v. South Coast Air Quality Mgmt. Dist.*, 362 U.S. 440, 442–43 (1960) (listing cases supporting that states may legislate using their police powers in many areas concurrently with the federal government, and explaining that legislation designed to rid the air of pollution clearly lies within those powers). There are many state and local laws passed pursuant to such powers, including ones to “to protect humans and the environment from the potential for significant adverse effects of [GE] releases.” MINN. STAT. ANN. § 18F.01 (West 2015). *See also* MARIN CNTY., CAL., CODE § 6.92.010 (2004) (“The people of the county of Marin, desiring to protect our agricultural industry, our natural environment, the private property rights of our

GE crop bans—which are aimed at protecting citizens from genetic contamination and exposure to pesticides, among others—fit neatly into this category. Even the more specific subject of plant quarantine and disease control has traditionally existed within the realm of state police power. States have customarily been free to adopt measures to control the spread of plant disease that conform to local conditions, so long as state law does not conflict with federal authority.<sup>152</sup> This power traces back to sentiments of Chief Justice Marshall. He noted in *Gibbons v. Ogden* that inspection laws were part of the following:

[The] immense mass of legislation, which embraces everything within the territory of a State, not surrendered to the general government: all which can be most advantageously exercised by the states themselves. Inspection laws, quarantine laws, health laws of every description . . . are component parts of this mass. . . . No direct general power over these objects is granted to Congress; and, consequently, they remain subject to state legislation. If the legislative power of the Union can reach them, it must be for national purposes; it must be where the power is expressly given for a special purpose, or is clearly incidental to some power which is expressly given.<sup>153</sup>

The deference given to state regulation in accordance with traditional police powers supports the point that federal law in this field cannot preempt state law unless Congress explicitly made clear that this was the purpose of the PPA. As explained below, this is not the case.

#### **b. Relation Between Express Preemption Clause and Its Exceptions, and Field Preemption**

The PPA's text shows that Congress did not intend to occupy the entire field of plant pest and noxious weed regulation, much less GE crop regulation. The scope of congressional intent to regulate is best evidenced by the PPA's preemption clause. As discussed above, express preemption clauses can generally be considered a “reliable indicium of congressional intent with

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citizens, and the health, safety and welfare of our people, deem it advisable and appropriate to restrict the cultivation of genetically modified crops, livestock, and other organisms in our county.”).

152. *See Simpson v. Shepard*, 230 U.S. 352, 406 (1913) (“[T]he power of the State to take steps to prevent the introduction or spread of disease, although interstate and foreign commerce are involved (subject to the paramount authority of Congress if it decides to assume control), is beyond question.”) (citation omitted).

153. 22 U.S. (9 Wheat.) 1, 203–04 (1824). *See also* *Guam Fresh, Inc. v. Ada*, 849 F.2d 436, 437–40 (9th Cir. 1988) (noting that Congress had amended the Plant Quarantine Act to clarify that states are not preempted from establishing quarantines unless the subject of state quarantine is “specifically interdicted by a federal quarantine,” and upholding Guam’s quarantine on imported produce, which called for inspecting produce and seizing infested produce).

respect to state authority.”<sup>154</sup> Thus, in addition to the reasonable inference that the existence of an express preemption clause means that Congress did not intend to impliedly preempt state action in a field, the language of the PPA’s express preemption provision itself leaves room for states to regulate.

First, the PPA’s express preemption section makes no mention whatsoever of GE crops. Second, as explained in the express preemption section above, states are only restricted from regulating actual plant pests and actual noxious weeds in “interstate commerce” if they have passed laws for the purpose of controlling plants or other articles because they are plant pests or noxious weeds, and if the Secretary has issued an order or regulation to prevent the dissemination of the particular plant pest or noxious weed. This means that states may pass laws that are not aimed at controlling plant pests or noxious weeds in interstate commerce; and states may also pass laws regarding articles that the Secretary has not addressed in a particular way. This supplementary room, left for state regulation, illustrates that Congress did not intend to occupy the field. In fact, governmental entities have been progressively enacting GE crop bans or regulation without protest from either APHIS or Congress.<sup>155</sup>

Third, the two exceptions to the PPA’s preemption clause provide evidence that Congress intended states to retain some authority even over actual plant pests and noxious weeds. As noted above, the “special needs” exception allows a state or political subdivision to impose restrictions on plant pests and noxious weeds in interstate commerce in addition to federal regulation if it can exhibit a “special need for additional prohibitions or restrictions based on sound scientific data or a thorough risk assessment.”<sup>156</sup> The second exception allows for states to issue regulations paralleling the operation of federal law.<sup>157</sup> Under this exception, states have latitude to operate within the field of plant pest and noxious weed regulation, despite federal regulation in the same field. For example, Washington, Florida, and Idaho each have state statutes prohibiting the movement and introduction of plant pests and noxious weeds without a permit issued by a state director.<sup>158</sup>

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154. *Cipollone v. Liggett Grp., Inc.*, 505 U.S. 504, 517 (quoting *Malone v. White Motor Corp.*, 435 U.S. 497, 505 (1978)) (internal quotation marks omitted).

155. *See, e.g.*, MINN. STAT. ANN. §§ 18F.02, 18F.04, 18F.07 (West 2015); MENDOCINO CNTY., CAL., CODE § 10A.15.020 (2004); MARIN CNTY., CAL., CODE § 6.92.020; TRINITY CNTY., CAL., CODE §§ 8.25.020, 8.25.030 (2004); SANTA CRUZ CNTY., CAL., CODE §§ 7.31.010, 7.31.030 (2006); SAN JUAN CNTY., WASH., CODE § 8.26.030 (2012).

156. Plant Protection Act, 7 U.S.C. § 7756(b)(2)(B) (2012).

157. *See id.* § 7756(b)(2)(A).

158. WASH. REV. CODE ANN. § 17.24.051 (West 2015); FLA. STAT. ANN. § 581.083 (West 2015); IDAHO CODE ANN. § 22-2016 (West 2015).

Where Congress recognizes and allows the operation of state law in a field, there should be no field preemption.<sup>159</sup>

### c. PPA Regulations and Field Preemption

APHIS regulations include procedures and requirements for the introduction of regulated articles, which include some GE crops.<sup>160</sup> Courts have held that federal regulations “have no less preemptive effect than federal statutes.”<sup>161</sup> However, congressional intent not to occupy the field of plant pest and noxious weed regulation is evidenced by the PPA’s own preemption clause, coupled with Congress’s silence on genetically engineered crops entirely. This combination instructs that regulations promulgated pursuant to the PPA should likewise not occupy the field.<sup>162</sup> Moreover, as discussed below, the regulations themselves do not occupy the field of GE crop regulation.

First, APHIS’s regulations in the field of plant pests, noxious weeds, and regulated articles are geared toward addressing plant pests and noxious weeds, not GE crops generally.<sup>163</sup> Consistent with this, and as noted above, GE organisms, including crops, have been regulated by several states and localities without federal contention. Second, APHIS’s plant pest regulations have no express preemption clause, indicating that APHIS does not intend its oversight of regulated articles to be exclusive.<sup>164</sup> Where noxious weeds are concerned, there is an express preemption clause in the regulations, but it leaves regulatory room to the states.<sup>165</sup> Finally, the federal government has taken the position in litigation papers that it does not occupy the field of GE

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159. *See* *Wyeth v. Levine*, 555 U.S. 555, 575 (2009) (“The case for federal pre-emption is particularly weak where Congress has indicated its awareness of the operation of state law in a field of federal interest, and has nonetheless decided to stand by both concepts and to tolerate whatever tension there [is] between them.”) (quoting *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 166–67 (1989)).

160. *See* 7 C.F.R. §§ 340.1, 340.3, 340.4 (2014).

161. *E.g.*, *Fid. Fed. Sav. & Loan Ass’n v. De La Cuesta*, 458 U.S. 141, 153 (1983).

162. *See* *Capital Cities Cable, Inc. v. Crisp*, 467 U.S. 691, 699 (1984) (explaining that preemption by regulations must be “reasonable” and in line with what Congress would have sanctioned); *see* *Hillsborough Cnty. v. Automated Med. Labs., Inc.*, 471 U.S. 707, 717 (1985) (“[Courts are] even more reluctant to infer pre-emption from the comprehensiveness of regulations than from the comprehensiveness of statutes.”).

163. *See* 7 C.F.R. §§ 330.100, 340.0, 360.200 (2014).

164. *See* *Wyeth*, 555 U.S. at 574–75 (referring to Congressional silence as evidence of lack of intent to preempt).

165. *See* 7 C.F.R. § 360.600 (2014) (adopting language, including exceptions, similar to the PPA’s express preemption provision, which as explained above has limited scope). *See also supra* note 114 (explaining that regulations must be consistent with statute in order to preempt).

crop regulation.<sup>166</sup>

## 2. Conflict Preemption

State law may also be preempted implicitly if it conflicts with federal law either “physically” or through the obstruction of a federal purpose. A state ban on the planting of GE crops would not violate either of these standards.

### a. “Physical Impossibility” Preemption

Under physical impossibility preemption, a conflict arises when “compliance with both federal and state regulations is a physical impossibility.”<sup>167</sup> In *Florida Lime & Avocado Growers v. Paul*, the U.S. Supreme Court ruled that California’s 8% standard for oil content in avocados did not conflict with federal marketing orders, which attributed no importance to oil content.<sup>168</sup> The Court provided an example of the “physical impossibility” test: “That would be the situation here if, for example, the federal orders forbade the picking and marketing of any avocado testing more than 7% oil, whi[le] the California test excluded from the State any avocado measuring less than 8% oil content.”<sup>169</sup> The essence of the physical impossibility test appears to be that where it is impossible to comply with federal and state law, the state law is invalidated. Insofar as it remains physically possible for a person to comply with federal and state law requiring or prohibiting some action, the state law will remain.

The PPA’s regulatory scheme would not conflict with a state GE crop ban under the “physical impossibility” standard. Under the PPA, a person is prohibited from moving plant pests or noxious weeds in interstate commerce unless the person has a permit.<sup>170</sup> Under a GE crop ban, the person would be prohibited from planting or growing those crops. Therefore, a person could physically comply with APHIS regulations and state law by abstaining from cultivating the crop, and no federal permit would be required. A state ban would not create a “physical impossibility” of complying with either the PPA or APHIS regulations.

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166. See USDA Brief, *supra* note 115, at 29 (“[Cross-pollination risks] can be addressed by state and local regulations on planting.”).

167. *Hillsborough*, 471 U.S. at 713 (quoting *Florida Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 142–43 (1963)).

168. 373 U.S. at 143, 146, 152.

169. *Id.* at 143.

170. Plant Protection Act, 7 U.S.C. §§ 7711, 7712 (2012); 7 C.F.R. §§ 340.3, 340.4, 360.300 (2014).

## b. “Obstacle” Preemption

Under obstacle preemption, a state law is preempted when it “stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.”<sup>171</sup> This “obstacle” may go by the name of “‘conflicting; contrary to; . . . repugnance; difference; irreconcilability; inconsistency; violation; curtailment; . . . interference,’ or the like.”<sup>172</sup> Under obstacle preemption, a state law may conflict with federal law even if it is physically possible for a person to comply with both.<sup>173</sup>

Though a federal agency may weigh in on the extent to which a state law impedes the achievement of a federal purpose in the regulatory statute in question, it “ha[s] no special authority to pronounce on pre-emption absent delegation by Congress.”<sup>174</sup> Thus, a court will not defer to an agency’s “conclusion” that state law is preempted, but it will “attend[] to [an] agency’s explanation of how state law affects the regulatory scheme.”<sup>175</sup> The court looks to the “thoroughness, consistency, and persuasiveness” of the agency’s explanation of the state law’s impact on the federal scheme to determine how much weight to accord to the agency.<sup>176</sup>

Congressional intent, as with any preemption analysis, is the starting point for determining whether a state ban on GE crops interferes with the “full purposes and objectives” of the PPA.<sup>177</sup> The PPA itself posits a congressional desire to prevent the harms caused by plant pests and noxious weeds within the United States.<sup>178</sup> It first calls for “the detection, control,

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171. *Hillsborough*, 471 U.S. at 713 (quoting *Hines v. Davidowitz*, 312 U.S. 52, 67 (1941)).

172. *Geier v. Am. Honda Motor Co., Inc.*, 529 U.S. 861, 873 (2000) (quoting *Hines*, 312 U.S. at 67).

173. *See, e.g., Michigan Canners & Freezers Ass’n, Inc. v. Agric. Mktg. & Bargaining Bd.*, 467 U.S. 461, 470–78 (1984) (conducting an in-depth analysis of a federal statute and finding a main purpose to be the protection of producers from coercive associations, and, therefore holding that because the Michigan Act permitted producers’ associations to act in ways inapposite to the federal statute, the Michigan Act constituted an obstacle to Congress’s intent).

174. *Wyeth v. Levine*, 555 U.S. 555, 576–78, 581 (2009) (rejecting the FDA’s claim in preamble that its regulations had preemptive effect and noting that claim was at odds with evidence of Congressional intent; the Court ultimately found respondent’s failure-to-warn tort claims were not preempted, as they did not pose an obstacle to Congress’s purposes in the Federal Drug, Food, and Cosmetic Act).

175. *Id.* at 576.

176. *Id.* at 577. *See also Geier*, 529 U.S. at 880–83 (holding petitioner’s defective design claim was preempted, as it posed obstacle to the Department of Transportation’s avowed purpose of encouraging variety of protective systems in fleets, and not necessarily passive restraint system such as airbags, while also noting the thorough understanding and consistency of the Department of Transportation’s position).

177. *See Wyeth*, 555 U.S. at 565–66.

178. *See Plant Protection Act*, 7 U.S.C. § 7701 (2012).

eradication, suppression, prevention, or retardation of the spread of plant pests or noxious weeds” using methods of regulating interstate commerce that will reduce the risk of dissemination of these organisms.<sup>179</sup> It notes that the United States export markets could be “severely impacted” by plant pests or noxious weeds.<sup>180</sup> Further, the unregulated movement of plant pests and noxious weeds “could present an unacceptable risk of introducing or spreading plant pests or noxious weeds” and their existence could “constitute a threat to crops and other plants or plant products of the United States.”<sup>181</sup> Thus, though the PPA also calls for the “smooth movement of . . . plants . . . to the extent possible,”<sup>182</sup> the overriding goal is to prevent harm.

The Secretary has authority to enact regulations pursuant to §§ 7711 and 7712 and, in turn, the regulations include procedures to restrict the introduction of plant pests and noxious weeds.<sup>183</sup> Taken together, the PPA and APHIS regulations embody a predominant intent to protect the “agriculture, environment, and economy of the United States” from the ill effects of plant pests and noxious weeds.<sup>184</sup> Nowhere does the statute or its regulations promote GE crop development over other goals, nor call for the unrestricted commercialization of GE crops. Instead, both the statute and its regulations are comprised of restrictions on development and commercialization in order to prevent plant pest harms.

Therefore, a state ban on GE crops would not present an obstacle to the fulfillment of the “full purposes and objectives of Congress” but would instead promote the underlying goals of the PPA.<sup>185</sup> In other words, if a genetically engineered crop were a plant pest or noxious weed, a ban of any such crop would effectively prevent its dissemination and, thereby, any harms associated with it. In this way, the state ban would work in tandem with the structure and regulations of the PPA in approximating the same goal.<sup>186</sup>

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179. *Id.* § 7701(1).

180. *Id.* § 7701(6).

181. *Id.* § 7701(7)–(8).

182. *Id.* § 7701(5).

183. 7 C.F.R. §§ 330.200, 340.0, 360.300 (2014).

184. *See* Plant Protection Act § 7701(1). *Accord* Florida Lime & Avocado Growers, Inc. v. Paul, 373 U.S. 132, 14, 152 (1963) (holding no preemption of state avocado regulation, based in part on a finding of “but one provision” of the federal statute, which suggested any purpose to impose federal uniformity on retail distribution).

185. *Hillsborough Cnty. v. Automated Med. Labs., Inc.*, 471 U.S. 707, 713 (1985) (quoting *Hines v. Davidowitz*, 312 U.S. 52, 67 (1941)).

186. *See* *Guam Fresh, Inc. v. Ada*, 849 F.2d 436, 438–39 (9th Cir. 1988). In *Guam Fresh*, the Ninth Circuit upheld territorial law under the Plant Quarantine Act, stating,

## IV. The Federal Insecticide, Fungicide, and Rodenticide Act and Preemption

### A. Overview of FIFRA Regulatory Scheme

FIFRA regulates the distribution, sale, and use of pesticides within the United States.<sup>187</sup> The Act defines pesticide to include any substance intended “for preventing, destroying, repelling, or mitigating any pest.”<sup>188</sup> Within the context of FIFRA, the term pest is defined as the following:

(1) [A]ny insect, rodent, nematode, fungus, weed, or (2) any other form of terrestrial or aquatic plant or animal life or virus, bacteria, or other micro-organism (except viruses, bacteria, or other micro-organisms on or in living man or other living animals) which the Administrator declares to be a pest under section 136w(c)(1) of this title.<sup>189</sup>

The Administrator of the United States Environmental Protection Agency (EPA) is empowered to prescribe regulations to carry out FIFRA.<sup>190</sup>

### 1. Experimental Use Permits and Registration of Pesticides

The distribution, sale, or use of a pesticide is prohibited unless it is

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This construction serves the central purpose of the statute, which is to prevent the spread of plant pests and diseases. If states are not free to prevent infestations from being turned away at their borders, many pests and diseases will spread to areas where they were not formerly known. In this context, it cannot be said that the provisions of the Guam Agricultural Law, which are designed to serve the same purpose, are in conflict with the federal scheme.

*Id.*

Note that the Coordinated Framework, which was developed in part “to achieve a balance between regulation adequate to ensure health and environmental safety while maintaining sufficient regulatory flexibility to avoid impeding the growth of an infant [biotechnology] industry,” does not have the force of law. *See* Coordinated Framework for Regulation of Biotechnology, 51 Fed. Reg. at 23,302, 23,302–03 (June 26, 1986); *see also supra* note 19. It was not a Congressional enactment with the power to preempt, and its purposes cannot override those of the PPA itself. Additionally, the sentiment that a state ban may impede the “growth of an infant industry” should be received as largely without merit nearly three decades since the Framework’s inception and the growth of the biotechnology industry. Further, the Framework itself suggests that industry was not intended to develop in isolation of concerns for public health and welfare. 51 Fed. Reg. at 23,303. Any obstacle that would arguably stand in the way of industrial growth is intended to be weighed against its health and environmental impacts, with “safety” identified as the Framework’s primary goal. *See id.* at 23,302 (“This notice describes the comprehensive federal regulatory policy for ensuring the safety of biotechnology research and products.”). A state ban on GE crops would therefore help to achieve the Coordinated Framework’s purported primary goal of ensuring health and environmental safety.

187. Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. § 136a(a) (2012).

188. *Id.* § 136(u).

189. *Id.* § 136(t).

190. *Id.* § 136w(a)(1).

permitted for experimental use following the requirements laid out in 7 U.S.C. § 136c, or the pesticide has been federally registered following the requirements found in § 136a. Generally, an experimental use permit (EUP) is required to conduct experiments, including field testing, using any unregistered pesticide, including for the purpose of gathering data prior to the pesticide's registration under § 136a.<sup>191</sup> Further, EPA may require an EUP for the testing of a registered pesticide being tested for an unregistered use.<sup>192</sup> To be granted an EUP, an applicant must supply the EPA with information regarding the designation of the pest organism(s) involved, the amount of pesticide product proposed for use, the results of any prior toxicity testing, and other general information about the applicant and the risks involved.<sup>193</sup> The EPA then determines whether the conditions under FIFRA have been met and may grant a permit subject to whatever limitations EPA deems necessary.<sup>194</sup> Small-scale tests, such as some limited to less than ten acres or conducted on a “cumulative total of no more than 1 surface acre of water per pest” do not require an EUP.<sup>195</sup>

After completing any required field tests conducted under an EUP, a person must submit an application to the Administrator in order to register a previously unregistered pesticide.<sup>196</sup> The application must include a statement noting the name of the pesticide, a copy of the label for the pesticide, directions for its use, the complete formula of the pesticide, as well as various details concerning the pesticide's use.<sup>197</sup> Based on the application, EPA will register a pesticide if, among other things, the pesticide meets the appropriate labeling requirements and “will not generally cause unreasonable adverse effects on the environment.”<sup>198</sup> EPA may classify the pesticide as being for either general or restricted use, or both, depending on the pesticide's contents and proposed uses.<sup>199</sup>

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191. *Id.* §136c(a); *see also* 40 C.F.R. § 172.3(a) (2014).

192. 40 C.F.R. § 172.3(a).

193. *See id.* § 172.4 (explaining the required application contents).

194. *Id.* § 172.5(a).

195. *Id.* § 172.3(c)(1)–(2).

196. *See id.* §§ 152.15, 152.42, 172.3(a).

197. *See* Federal Insecticide, Fungicide, and Rodenticide Act §§ 136a(c)(1)–(2) (detailing the procedural requirements for registering a pesticide); *see also* 40 C.F.R. § 152.50 (explaining required contents of application for registration of pesticide).

198. 40 C.F.R. § 152.112(c); Federal Insecticide, Fungicide, and Rodenticide Act §§ 136a(c)(5)(B)–(C), (c)(9)(b). FIFRA defines the term environment to include “water, air, land, and all plants and man and other animals living therein, and the interrelationships which exist among these.” Federal Insecticide, Fungicide, and Rodenticide Act § 136a(j).

199. Federal Insecticide, Fungicide, and Rodenticide Act § 136a(d)(1)(A)–(C).

In addition to the general registration process, EPA may conditionally register a pesticide under certain circumstances—for instance, if the proposed pesticide and its use are substantially similar to a currently registered pesticide and use, or if any differences would not materially increase risks to the environment.<sup>200</sup> EPA may also conditionally register a pesticide that contains “an active ingredient not contained in any currently registered pesticide” for an amount of time sufficient to obtain the data required for the full registration procedure.<sup>201</sup> However, any conditional or amended registration must not “[significantly] increase the risk of any unreasonable adverse effect on the environment.”<sup>202</sup>

## 2. Plant-Incorporated Protectants

EPA utilizes its authority under FIFRA to regulate genetically engineered organisms modified to produce “plant-incorporated protectants” (PIPs).<sup>203</sup> A plant-incorporated protectant is basically a pesticidal substance that has been produced to be incorporated into (within) a plant.<sup>204</sup> Bt (*Bacillus thuringiensis*) is one of the most prominent examples of a PIP regulated by EPA under FIFRA.<sup>205</sup> PIPs derived through the conventional breeding of sexually compatible plants are exempt from FIFRA requirements (except those for adverse effects reporting).<sup>206</sup>

## B. FIFRA Preemption Analysis

### 1. Express State Authority under FIFRA

FIFRA would not expressly preempt a state ban on GE crops because the statute explicitly provides that states may regulate pesticides. In an “Authority of States” provision, FIFRA leaves with states the ability to

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200. *Id.* § 136a(c)(7)(A).

201. *Id.* § 136a(c)(7)(C).

202. *Id.* § 136a(c)(7)(A).

203. *See generally* Regulations under FIFRA for Plant-Incorporated Protectants, 66 Fed. Reg. 37,772 (July 19, 2001) (to be codified at 40 C.F.R. pts. 152, 174) (describing EPA regulation of PIPs).

204. 40 C.F.R. § 174.3 (2014). The regulations define a plant-incorporated protectant as “a pesticidal substance that is intended to be produced and used in a living plant, or in the produce thereof, and the genetic material necessary for production of such a pesticidal substance,” including “any inert ingredient contained in the plant, or produce thereof.” *Id.*

205. *See* Regulations under FIFRA for Plant Incorporated Protectants, 66 Fed. Reg. at 37,793 (describing genetically engineered potato, cotton, and corn Bt plants).

206. *Id.* at 37,777–78 (describing exemptions for conventionally bred PIPs).

regulate the use or sale of pesticides.<sup>207</sup> Specifically the provision explains, “A State may regulate the sale or use of any federally registered pesticide or device in the State, but only if and to the extent the regulation does not permit any sale or use prohibited by this subchapter.”<sup>208</sup> State authority to regulate pesticide labeling is limited, however, as a state cannot “impose or continue in effect any requirements for labeling or packaging in addition or different from those required under this subchapter.”<sup>209</sup> Thus, a state regulation would be preempted only if it permits a use or sale prohibited by FIFRA, or creates additional or different labeling or packaging requirements.

A state ban on the planting of GE crops containing PIPs would prevent, not permit, the use or sale of a pesticide, and would not create a labeling or packaging requirement; therefore such a ban would not be preempted by the federal government. *Wisconsin Public Intervenor v. Mortier* addresses this issue. In that case, the U.S. States Supreme Court held that FIFRA did not preempt a local pesticide ordinance that required “a permit for the application of any pesticide to public lands, to private lands subject to public use, or for the aerial application of any pesticide to private lands.”<sup>210</sup> The ordinance gave the town board the power to grant, grant with conditions, or deny a permit for pesticide use; the plaintiff had been granted a permit, but the permit prohibited aerial spraying and restricted the geographic scope of ground spraying—which was more restrictive than the uses allowed pursuant to the pesticide’s EPA registration or label.<sup>211</sup>

The Supreme Court reaffirmed this reasoning in *Bates v. Dow Agrosciences*, a case in which peanut farmers, who used an EPA-registered pesticide in accordance with its label and suffered harms to their crops, brought common law claims against the pesticide company.<sup>212</sup> In fact, the Court explicitly stated more than once that states have the authority to enact bans on pesticide use.<sup>213</sup> Among other things, the Court also found that “inducing” a

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207. Federal Insecticide, Fungicide, and Rodenticide Act § 136v.

208. *Id.* § 136v(a).

209. *Id.* § 136v(b).

210. *Wisconsin Public Intervenor v. Mortier*, 501 U.S. 597, 602–03, 605–06 (1991). *See also* *Syngenta Seeds, Inc. v. Cnty. of Kauai*, No. 14-00014 *BMK*, 2014 WL 4216022, at \*11 (Aug. 25, 2014) (citing *Mortier*, and noting that FIFRA generally lacked preemptive force).

211. *See Mortier*, 501 U.S. at 602–03; *Bates v. Dow Agrosciences LLC*, 544 U.S. 431, 441 (2005) (noting that the ordinance at issue in *Mortier* imposed restrictions beyond the requirements of FIFRA or any other EPA regulation).

212. *Bates*, 544 U.S. at 443.

213. *Id.* at 446 (“Under § 136v(a), a state agency may ban the sale of a pesticide if it finds, for instance, that one of the pesticide’s label-approved uses is unsafe.”); *id.* at 450 (“In fact, the statute authorizes a relatively decentralized scheme that preserves a broad role for state regulation. . . . Most significantly, States may ban or restrict the uses of pesticides that EPA has approved, § 136v(a);

company to change its label through a lawsuit did not amount to a preempted labeling requirement.<sup>214</sup>

Based on the straightforward text of FIFRA's preemption provision, coupled with Supreme Court precedent upholding state laws and specifically stating that states may ban the use of pesticides, state bans on the planting of GE crops would not be expressly preempted under FIFRA.<sup>215</sup>

## 2. FIFRA and Implied Preemption

The implied preemption analysis under FIFRA is as clear-cut as the express preemption analysis: preemption simply does not apply. The Supreme Court held in *Mortier* that FIFRA also does not impliedly preempt state action regarding pesticides.<sup>216</sup> It noted that field preemption could not be inferred, relying on the language of § 136v itself and on the fact that "FIFRA . . . leaves substantial portions of the field vacant."<sup>217</sup> In particular, the Court found the following:

[FIFRA] certainly does not equate registration and labeling requirements with a general approval to apply pesticides throughout the Nation without regard to regional and local factors like climate, population,

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they may also register, subject to certain restrictions, pesticides for uses beyond those approved by EPA, § 136v(c).") (citation omitted).

214. *Id.* at 445–46. The Court held that claims such as strict liability and negligence were not preempted, and that actual fraud and failure-to-warn claims would not be preempted if they were based on state requirements that were equivalent to FIFRA's misbranding standards, even if not identical. *Id.* at 442–54. A 2002 case from the Northern District of Illinois, *In re Starlink Corn Litig.*, held that a plaintiff's design defect case alleging cross-contamination from GE corn was actually a failure to warn case because the action would have, in effect, required additional labeling of the GE corn. *In re Starlink Corn Litig.*, 212 F. Supp. 2d 828, 837–38 (N.D. Ill. 2002). The court reasoned that requiring a larger buffer zone to combat cross-pollination, or not allowing the planting of any corn not safe for human consumption, would create a labeling requirement in addition to the 660-foot buffer zone approved by the EPA. *Id.* at 838. However, the *Starlink* case was poorly reasoned because if a court were to apply the logic of *Starlink* to a state ban on the planting of GE crops, it would create a serious contradiction between the plain language of § 136v(a) (explicitly allowing more stringent regulation of pesticide use) and the seemingly endless list of uses that could plausibly be linked to a labeling restriction. Such a link would also nullify the *Mortier* court's holding that restrictions on use are not preempted because, like the ordinance examined in that case, a state ban would regulate whether farmers can plant GE crops, not require changes to any pesticide labels. *See Mortier*, 501 U.S. at 603–06. Furthermore, the *Starlink* holding runs counter to the more recent Supreme Court opinion in *Bates* and its even more explicit statements about state authority. *See Bates*, 544 U.S. at 442–46, 450.

215. As with the bans on GE crops mentioned above, some states already regulate pesticide use more stringently than FIFRA. *See, e.g.*, CONN. GEN. STAT. ANN. § 10-231b (West 2015) (banning certain applications of pesticides on school grounds); WIS. STAT. ANN. § 94.707 (West 2015) (banning sale or use of pesticides with certain active ingredients).

216. *Mortier*, 501 U.S. at 616.

217. *Id.* at 613.

geography, and water supply. Whatever else FIFRA may supplant, it does not occupy the field of pesticide regulation in general or the area of local use permitting in particular.<sup>218</sup>

The Supreme Court in *Mortier* also held that there was no conflict preemption between FIFRA and the local ordinance requiring Mortier to obtain a local pesticide permit.<sup>219</sup> Mortier had relied upon the theory of obstacle preemption, claiming that the local ordinance frustrated FIFRA's goal of coordinated state and federal regulation. The Court rejected this argument, finding that "FIFRA does not suggest a goal of regulatory coordination that sweeps either as exclusively or as broadly as Mortier contends."<sup>220</sup> Finally, the Court rejected Mortier's claim that FIFRA would preempt a local law based on concerns about technical expertise and interstate commerce.<sup>221</sup>

Thus, the Supreme Court has squarely rejected both field and conflict preemption under FIFRA. A state law banning the growth of GE plants (including those with PIPs) would not be impliedly preempted.<sup>222</sup>

## Conclusion

State bans on GE crops should not be preempted by the PPA. The requirements of the PPA's express preemption provision are not met. First, state GE crop bans will not regulate "interstate" or "in commerce." Second, state GE crop bans will not be passed in order to control a "plant pest or noxious weed," but to prevent the detrimental impacts associated with GE crops generally, such as increased herbicide use and cross-contamination. Third, it is unlikely that the United States Department of Agriculture will have issued an order or regulation that applies to crops covered by a state ban and is aimed at actually "preventing" the dissemination of a particular plant pest or noxious weed, such as a rigorous plant-specific quarantine.

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218. *Id.* at 613–14; *see also* *Worm v. Am. Cyanamid Co.*, 970 F.2d 1301, 1306 (4th Cir. 1992) ("By force of the same analysis conducted by the Supreme Court in *Mortier* to reach the conclusion that FIFRA does not preempt the field of regulating pesticides, expressly or by implication, we hold that Congress also did not reveal an intent to preempt any less broadly defined field.").

219. *Mortier*, 501 U.S. at 614.

220. *Id.* at 615.

221. *Id.* at 615–16 ("FIFRA provides even less indication that local ordinances must yield to statutory purposes of promoting technical expertise or maintaining unfettered interstate commerce.").

222. This logic would apply to all pesticides, whether registered or not. Though section 136v refers only to "registered pesticides," it does not preempt state power to regulate non-registered pesticides, either. First, there is no provision expressly preempting state regulation of non-registered pesticides. Second, as described above, there is no implied preemption of more stringent state regulation of pesticide use under FIFRA.

Unless all three of these provisions are met, a state GE crop ban will not be expressly preempted by the PPA.

There is also no implied preemption under the PPA. First, the presumption against preemption is particularly strong when a state's historic police powers are implicated, as with GE crop bans. Second, the PPA and its regulations leave room for states to regulate. Third, it is not impossible to comply with both the PPA and a state ban. Finally, a state ban would be consistent with—not an obstacle to—the overriding purposes of the PPA.

Similarly, under FIFRA, state bans on GE crops are permissible. The statute's specific provision regarding state authority expressly leaves states the power to regulate pesticide use at least as stringently as FIFRA does. The U.S. Supreme Court has recognized as much, and has also held that FIFRA does not impliedly preempt state laws regarding pesticide use.

In sum, states have the right to ban genetically engineered crops within their borders.