

Superfund, Pesticide Regulation, and Spray Drift: Rethinking the Federal Pesticide Regulatory Framework to Provide Alternative Remedies for Pesticide Damage

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ABSTRACT: The use of pesticides in agriculture is increasing and creating environmental, health, and economic problems. Simultaneously, the nature of the American farm is changing from small, family-owned and operated entities to large industrial-like operations with a separation of ownership and labor. The current legal framework is not equipped to deal with the changing structure of the farm and the damage caused when their pesticide use harms neighbors' health and property. The system of using state law tort remedies for pesticide abuses must be expanded to include more federal remedies. The government should be allowed to seek damages and require pesticide cleanup using two federal statutes, Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") and Federal Insecticide, Fungicide, and Rodenticide ("FIFRA"). To better utilize the statutes already in place, the definition of farming should expand to reflect the realities of modern farms, and the statutes should be interpreted to include both pesticides and farms within their definitions for liability. The change in the legal framework and thinking will provide additional and complete remedies against pesticide drift abusers and will relieve some of the burden on farmers and those affected by drift. The political and legal timing is ripe to incorporate these modest changes that will benefit the livelihood and viability of rural agricultural communities.

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I. INTRODUCTION

In most ways, the communities along the northeastern Arkansas border are like any other agricultural community in rural America. The small towns are inhabited by hardworking, neighborly people who tend to the green crops that border isolated gravel roads, and nothing out of the ordinary ever seems to occur. However, in 2016, a small community in Arkansas was shocked after one local farmer met a neighboring farmer on a back road and shot him dead.¹ As shocking as the killing was to the town, few were surprised to learn that a dispute over drifting pesticides, which had caused severe crop damage to nearby farms, had led to the murder.² For years, pesticide use on farms in the surrounding community had increased substantially and damage to neighboring crops from wrongful pesticide use had become common as well.³ The disputes over farming practices, pesticide use, and property damage in the town had reached an irreconcilable point and the only available remedy seemed to be the confrontation that occurred on the gravel road.⁴ The tragic

1. Marianne McCune, *Planet Money: The Pigweed Killer*, NAT'L PUB. RADIO (June 2, 2017, 9:32 PM), <https://www.npr.org/sections/money/2017/06/02/531272125/episode-775-the-pigweed-killer>.

2. *Id.*

3. *Id.*

4. The situation seemed irreconcilable because this was an issue that had arisen before and the only punishment was to go before an administrative board and pay a small fine. Based on experience, this was not an adequate solution and resulted in repeat offenders. *Id.*

result was one murdered farmer, another farmer who will spend his life in jail, and a community left to reckon with a problem they hope will not manifest itself in the same way again.⁵ Although the issue does not usually result in back-road murders, many other rural agricultural communities are facing the same issues regarding changes in pesticide use and responsible farming practices. In recent decades, the agricultural industry has changed significantly, and in the past decade, these changes have drastically accelerated.⁶ The classic image of a small American family farm etched into our minds by advertisements and nostalgia has been replaced by the reality of bigger farms filled with massive machinery, technologically advanced equipment, and higher crop yields.⁷ These changes have produced many benefits for farmers by removing some of the risks and uncertainties associated with farming, and those benefits are passed on to consumers through more plentiful and less expensive food.⁸ However, the changes have created new issues and pressures for farmers as well.⁹

One of the most drastic agricultural shifts has been the increased use of pesticides on plants and fields to kill weeds and pests in order to increase crop yields.¹⁰ Over the last decade, pesticide use has increased significantly.¹¹ Farmers choose to use pesticides because they help increase crop production, but also because they have little choice.¹² A farmer's livelihood depends on the amount of output he or she produces to pay for basic necessities, future seeds, and farming equipment, so to stay competitive, the farmer must produce large yields of crops that can usually only be attained through pesticide use.¹³ Unfortunately, the pressure to use pesticides is what often creates problems in rural communities.

5. *Id.*

6. See generally Ezra Klein & Susannah Locke, *40 Maps that Explain Food in America*, VOX (June 9, 2014), <https://www.vox.com/a/explain-food-america> (providing an overview of how agricultural production and consumption has changed in America).

7. See Garance Franke-Ruta, *Paul Harvey's 1978 'So God Made a Farmer' Speech*, ATLANTIC (Feb. 3, 2013), <https://www.theatlantic.com/politics/archive/2013/02/paul-harveys-1978-so-god-made-a-farmer-speech/272816>; Sarah Searle, *Stop Romanticizing Farms*, MOD. FARMER (June 30, 2014), <https://modernfarmer.com/2014/06/stop-romanticizing-farms>.

8. See *infra* Section II.A.

9. See *infra* Section II.A.

10. JORGE FERNANDEZ-CORNEJO ET AL., U.S. DEP'T OF AGRIC., PESTICIDE USE IN U.S. AGRICULTURE: 21 SELECTED CROPS, 1960–2008, at 11–22 (2014), https://www.ers.usda.gov/web-docs/publications/43854/46734_eib124.pdf.

11. E.g., Jennifer Hsaio, *GMOs and Pesticides: Helpful or Harmful?*, HARV. U.: SCI. IN THE NEWS (Aug. 10, 2015), <http://sitn.hms.harvard.edu/flash/2015/gmos-and-pesticides> (discussing the increased use of certain types of pesticides).

12. FERNANDEZ-CORNEJO ET AL., *supra* note 10, at 6–9.

13. Using pesticides is not the only way a farmer can make money through the profession. Some farmers choose not to apply pesticides or any chemicals at all, but instead to grow organic crops. See generally *USDA Organic*, U.S. DEP'T OF AGRIC., <https://www.usda.gov/topics/organic> (last visited Oct. 7, 2018) (providing information on requirements to become organic certified).

In competitive agricultural markets, pesticides are sometimes purposefully¹⁴ or inadvertently applied incorrectly because there are short timeframes for planting and caring for crops, and conditions are not always ideal for applying pesticides.¹⁵ When pesticides are applied incorrectly they can “drift,” or be blown by the wind, to different areas that are not suited for pesticide application.¹⁶ Pesticides that land in other areas can cause serious property damage and create harmful health hazards for those nearby.¹⁷ When pesticide drift causes damage, there are limited opportunities for redress and remedial cleanup. The primary means of redress is through state trespass and negligence tort claims against the offender.¹⁸ However, these remedies are insufficient because they are limited and difficult for individuals to pursue. As farms increase in size, and ownership transfers to wealthy individuals and corporations, it is even more difficult for a harmed individual to oppose a powerful offender.¹⁹ Despite the immediate lack of remedy, there are other potential options available to provide remedies and ensure pesticides are cleaned up properly.²⁰

and the economic considerations of organic agriculture). Even though the number of organic farms is increasing, most farms are still not certified organic. Michelle Person, *2016 Count of Certified Organic Operations Shows Continued Growth in U.S. Market*, U.S. DEP’T OF AGRIC.: AGRIC. MARKETING SERV. (Apr. 19, 2017, 12:30 PM), <https://www.ams.usda.gov/press-release/2016-count-certified-organic-operations-shows-continued-growth-us-market>. For a more detailed examination of how spray drift can impact organic farms, see generally Kristofor Husted, *Pesticide Drift Threatens Organic Farms*, NAT’L PUB. RADIO (July 31, 2015, 3:45 PM), <http://www.npr.org/sections/thesalt/2015/07/31/427857297/pesticide-drift-threatens-organic-farms> (detailing the story of an organic farm that was impacted by pesticide drift); Steve Karnowski, *Pesticide Drift a Persistent Problem for Organic Farmers*, DES MOINES REG. (Sept. 6, 2014, 11:30 PM), <http://www.desmoinesregister.com/story/money/agriculture/2014/09/07/pesticide-drift-organic-farms/15230705> (explaining the particular problems spray drift poses to organic farms).

14. I do not mean to argue that farmers maliciously misapply pesticides. Most farmers have a great appreciation for the land and their neighbors. However, due to the pressures of farming, sometimes pesticides must be applied quickly in less than ideal situations. This is not a malicious application of pesticides, but rather a side effect of a rushed attempt to care for their crops and livelihoods.

15. There is not a single term for cases where pesticides are wrongfully applied. For the purposes of this Note, “wrongful pesticide application,” “harmful pesticide application,” and similar terminology will be used interchangeably.

16. *Introduction to Pesticide Drift*, EPA, <https://www.epa.gov/reducing-pesticide-drift/introduction-pesticide-drift> (last visited Oct. 7, 2018).

17. *Id.*

18. Alexandra B. Klass, *Bees, Trees, Preemption, and Nuisance: A New Path to Resolving Pesticide Land Use Disputes*, 32 *ECOLOGY L.Q.* 763, 765–66 (2005).

19. Nancy Matsumoto, *The USDA Rolled Back Protections for Small Farmers. Now the Farmers Are Suing*, NAT’L PUB. RADIO (Dec. 14, 2017, 4:28 PM), <https://www.npr.org/sections/thesalt/2017/12/14/570889309/the-usda-rolled-back-protections-for-small-farmers-now-theyre-suing>. As Matsumoto’s piece explains, the Department of Agriculture has rolled back protections for small farmers trying to sue larger corporations in the meat industry. *Id.* Challenging these new rules has been difficult because most farmers “are too afraid of retaliation to speak up.” *Id.*

20. See *infra* Part IV.

This Note proposes new ways to think about pesticide use that can provide better remedies. To accurately develop those theories, though, this Note will first explain in Part II the development of pesticide use, how wrongful pesticide use claims have historically been addressed, the benefits and drawbacks of pesticide use, the changing nature of agriculture, and the existing common law and statutory regulations that were established to deal with unlawful pesticide use.²¹

Part III examines the problems associated with the current framework of addressing pesticide abuse and damage claims.²² Part III further discusses the definitions of farming and how these definitions do not reflect the realities of agriculture today. This Part concludes with a discussion of the potential to use federal statutes to combat wrongful pesticide use and the challenges associated with using federal statutes.

Part IV proposes changes to the legal framework that could allow claims to be brought more easily under common law theories, but more importantly, would allow claims to be brought under federal statutes.²³ As discussed in Section IV.A, this will require an update to the definition of “farm” and a change in the way of thinking about farming practices. Then, Section IV.B focuses on using the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”) as a means of addressing pesticide claims at the federal level, particularly when it involves large-scale environmental and health concerns.

II. BACKGROUND

This Part first examines the history of pesticide use and how it has created substantial benefits, but also has significant drawbacks. Next, this Part examines the historical definition of “farming” and why that definition no longer represents the modern agricultural system. The Part concludes with a discussion on applicable pesticide regulations, which analyzes federal and state regulations separately.

A. PESTICIDE USE

Societies throughout history have struggled against the natural world’s limitations in an effort to try and figure out ways to produce food more effectively. The application of chemical pesticides to fields and plants is just one relatively recent development that has occurred over the course of the last century in an attempt to accomplish this goal.²⁴ Pesticides have been so successful in producing food more effectively that in 2014, research

21. See *infra* Part II.

22. See *infra* Part III.

23. See *infra* Part IV.

24. See generally Hsaio, *supra* note 11 (“According to the US Environmental Protection Agency (EPA), pesticides are often the only effective way to control disease organisms.”).

concluded that some form of pesticide was used on 97% of planted corn in the United States.²⁵ Pesticide use includes different substances and “[f]ederal law defines a ‘pesticide’ as any substance intended for ‘preventing, destroying, repelling, or mitigating [a] pest.’”²⁶ This broad definition includes “herbicides (targeting weeds), insecticides (targeting insects), fungicides (targeting fungal disease), or other chemicals.”²⁷ Although pesticides are widely used and accepted, they are a controversial subject with supporters who praise their contributions to agriculture and society, and opponents who cite their negative health and environmental effects.²⁸

Pesticides provide substantial benefits to farmers and consumers. First, pesticides enable significant increases in crop yields.²⁹ Since 1950, food production per hectare—approximately 100 acres—has at least doubled, which correlates directly to increased pesticide use.³⁰ The increased production leads to lower food prices for consumers at the markets and allows for a growing global population to be fed.³¹ Pesticide use is also credited with increasing yields and feeding populations in developing countries, such as India, where populations have soared.³² Farmers benefit from the increase in production as well, as they are paid based on the amount of the commodity they produce.

Second, pesticide use leads to healthier diets because it enables a greater variety of fruits and vegetables to be grown in conditions that would normally

25. NAT'L AGRIC. STATISTICS SERV., U.S. DEP'T OF AGRIC., IOWA AG. NEWS—CHEMICAL USE (2017), https://www.nass.usda.gov/Statistics_by_State/Iowa/Publications/Other_Surveys/2017/IA_Ag_Chem_Corn_05_17.pdf. There are some indications that pesticide use will eventually decline. For example, supporters of genetically modified organisms (“GMO”) contend that pesticides will not be necessary as the plants are modified to fight off pests and disease on their own. See Dan Charles, *How GMOs Cut the Use of Pesticides—and Perhaps Boosted it Again*, NAT'L PUB. RADIO, (Sept. 1, 2016, 11:43 AM), <http://www.npr.org/sections/thesalt/2016/09/01/492091546/how-gmos-cut-the-use-of-pesticides-and-perhaps-boosted-them-again> (discussing whether or not GMOs actually cut down pesticide use). There has also been a rise in organic farming and more consumer demand for products that have not been treated or produced with chemicals. See Person, *supra* note 13.

26. Klass, *supra* note 18, at 767.

27. NAT'L AGRIC. STATISTICS SERV., U.S. DEP'T OF AGRIC., 2014 AGRICULTURAL CHEMICAL USE SURVEY: CORN 2 (2015), https://www.nass.usda.gov/Surveys/Guide_to_NASS_Surveys/Chemical_Use/2014_Corn_Highlights/ChemUseHighlights_Corn_2014.pdf.

28. *Compare The Problem with Pesticides*, MIDWEST PESTICIDE ACTION CTR. (last visited Oct. 7, 2018), <http://midwestpesticideaction.org/the-problem> (“Pesticides are toxic chemicals designed to harm living things.”), with Alex A. Avery, *The High Costs of 50 Years of Pesticide Paranoia*, HUDSON INST. (Dec. 29, 2010), <https://www.hudson.org/research/7620-the-high-costs-of-50-years-of-pesticide-paranoia> (arguing that farming innovations are what makes American agriculture so prosperous and the government should not concern itself with regulating farming practices).

29. See Jozsef Popp et al., *Pesticide Productivity and Food Security. A Review*, 33 AGRONOMY FOR SUSTAINABLE DEV. 243, 246–48 (2013).

30. Int'l Atomic Energy Agency, *Benefits and Costs of Pesticide Use*, 24 IAEA BULL. 39, 39 (1982), <https://www.iaea.org/sites/default/files/publications/magazines/bulletin/bull24-3/24305183841.pdf>.

31. See Popp, *supra* note 29, at 244–47.

32. *Id.* at 243–44.

be inhospitable to their production.³³ For example, a type of cabbage could not previously be grown in India because a caterpillar species devoured the vegetables.³⁴ However, pesticides were able to fend off the insect, which allowed for the vegetables to grow.³⁵ Finally, in addition to providing healthy diets for a growing global population, pesticide use creates other health benefits.³⁶ For example, pesticides are used to control mosquito populations that spread West Nile Virus, ticks that carry Lyme disease, and rodents that carry rabies.³⁷

Although pesticides have significant benefits, they create hazards that can be detrimental to the environment and to the health of humans, particularly when the pesticides are not stored and applied properly. Because of their chemical compounds and danger to human health, pesticides are often labeled as “highly poisonous”³⁸ and as “hazardous materials.”³⁹ In Brazil, where pesticide use is increasing, over 200 people die annually from pesticide poisoning.⁴⁰ Pesticides do not usually cause death, however, and the level of harm varies based on the pesticide type, as well as the level and duration of exposure to the chemicals.⁴¹ Typical symptoms of pesticide exposure include coughing, skin irritation, reddening of the eyes, difficulty breathing, convulsions, and sometimes death.⁴² Others who have been exposed to pesticides report flulike symptoms, rashes, and changes in menstrual cycles.⁴³

Pesticides can be equally devastating to the environment. Pesticide use can contaminate ground and surface water, cause soil contamination, and kill

33. See Wasim Aktar et al., *Impact of Pesticides Use in Agriculture: Their Benefits and Hazards*, 2 INTERDISCIPLINARY TOXICOLOGY 1, 1–2 (2009).

34. See *id.* at 1.

35. *Id.*

36. See *Why We Use Pesticides*, EPA, <https://www.epa.gov/safepestcontrol/why-we-use-pesticides> (last updated June 27, 2017) (describing the health risks from pests that are lessened by pesticides).

37. *Id.*

38. See Paulo Prada, *Why Brazil Has a Big Appetite for Risky Pesticides*, REUTERS (Apr. 2, 2015, 2:50 PM), <http://www.reuters.com/investigates/special-report/brazil-pesticides> (examining the use of a pesticide in Brazil that the U.S. Centers for Disease Control and Prevention has classified as “highly poisonous” because of its potential to cause significant organ damage).

39. Jan Hygnstrom et al., *Federal Hazardous Material (HazMat) Requirements*, PESTICIDE ENVTL. STEWARDSHIP, <https://pesticidestewardship.org/transportation/federal-requirements> (last visited Oct. 7, 2018) (stating that, generally, pesticides are not considered hazardous material when they are transported between neighboring farms, but if traveling more than 150 miles the substances must be registered and transported in compliance with hazardous material regulations).

40. Prada, *supra* note 38.

41. ERIC S. LORENZ, PENN STATE EXTENSION, POTENTIAL HEALTH EFFECTS OF PESTICIDES 3 (2009).

42. *Id.* at 3–4; see also Anne C. Mulkern, *Pesticide Industry Ramps Up Lobbying in Bid to Pare EPA Rules*, N.Y. TIMES (Feb. 24, 2011), <http://www.nytimes.com/gwire/2011/02/24/24greenwire-pesticide-industry-ramps-up-lobbying-in-bid-to-42970.html> (“Drifting sprays affect people, particularly children . . .”).

43. Lee van der Voo, *Rise of the Pitchforkers*, SLATE (Feb. 27, 2012, 10:59 AM), http://www.slate.com/articles/health_and_science/green_room/2012/02/atrazine_2_4_d_and_the_pitchfork_rebellion_against_pesticides_.html.

animals and beneficial species.⁴⁴ For example, pesticides and pesticide-related farming practices are partially responsible for the Gulf of Mexico's Dead Zone, an area in the Gulf the size of New Jersey that cannot support life because agricultural runoff has traveled down the Mississippi River and poisoned the water.⁴⁵ Another recent concern is the negative impact pesticides have on bees, which are necessary in ecosystems for pollination and plant growth.⁴⁶

It is possible for pesticide's adverse effects to be a result of direct application, but pesticide drift is responsible for a substantial amount of the problems associated with pesticide use.⁴⁷ According to the Environmental Protection Agency ("EPA"), "[p]esticide spray drift is the movement of pesticide dust or droplets through the air at the time of application or soon after, to any site other than the area intended."⁴⁸ Typically, pesticides are applied to crops, a homeowner's yard, or forests by spraying droplets of the solution through spray nozzles.⁴⁹

44. See generally Aktar et al., *supra* note 33 (explaining the adverse environmental impact of pesticide use).

45. Jenna Gallegos, *The Gulf of Mexico Dead Zone Is Larger Than Ever. Here's What to Do About It*, WASH. POST (Aug. 4, 2017), <https://www.washingtonpost.com/news/energy-environment/wp/2017/08/04/gulf-of-mexico-dead-zone-is-larger-than-ever-heres-what-to-do-about-it>. Changing farming practices that would reduce pesticide use and reduce the amount of runoff entering the Mississippi River is one proven and tangible thing that could reduce the Dead Zone's size. *Id.*

46. See generally Helen M. Thompson, *Behavioural Effects of Pesticides in Bees – Their Potential for Use in Risk Assessment*, 12 ECOTOXICOLOGY 317 (2003) (reviewing the effects of pesticides on bee behavior); BEYOND PESTICIDES, POLLINATORS AND PESTICIDES: PROTECTING HONEYBEES AND WILD POLLINATORS, <https://beyondpesticides.org/assets/media/documents/pollinators/pollinators.pdf> (last visited Oct. 8, 2018) (suggesting that pesticides are contributing to the declining bee population).

47. It is unclear exactly how many cases of spray drift occur annually because neither the EPA or state agencies keep and provide good records of the cases. Sara Novak, *The Perils of Pesticide Drift*, MOD. FARMER (Aug. 18, 2017), <https://modernfarmer.com/2017/08/perils-pesticide-drift>. In Iowa, it is estimated there are about 200 complaints of pesticide drift each year. *Id.* However, most experts believe spray drift incidents are underreported and "that reported cases represent the mere tip of the iceberg." *Id.*

48. *Introduction to Pesticide Drift*, *supra* note 16.

49. *Id.* Spraying chemicals from a tractor or other piece of ground machinery is one common way of applying pesticides. See *How Farmers Apply Pesticides in Four Steps*, HUNGRY FOR TRUTH (Aug. 8, 2017), <https://hungryfortruthsd.com/how-farmers-apply-pesticides-in-four-steps>. However, there are other ways as well. For example, many farmers hire crop dusters to spray their fields from an airplane flying overhead. Novak, *supra* note 47. It is more effective to use a crop duster when spraying large areas, which makes the risk greater that more pesticides will drift during the application. *Id.* New technology, such as drones, are starting to replace airplanes to apply pesticides. *Id.* This is good news because drones can get closer to the application site, are more precise with their target spray area, and can be activated to operate only in correct conditions, reducing the amount of drift during aerial application. *Id.*

If the droplets are not applied in the right conditions—for example on a windy day—the chemicals can spread, or “drift” to nearby properties.⁵⁰ “According to scientists, 95–98 percent of applied pesticides miss their intended mark.”⁵¹ This does not mean every time pesticides are applied they cause serious damage, but instead shows that application techniques are unreliable and “some chemicals drift no matter how they are applied.”⁵² The amount of drift that occurs depends on the weather conditions the pesticide is applied during and the size of the droplets of the applied pesticide.⁵³

The problems associated with agricultural spray drift tend to mirror the adverse environmental and health effects discussed above.⁵⁴ Additionally, spray drift causes severe economic consequences to farmers and rural communities.⁵⁵ Damage from spray drift can “mean the loss of an entire season’s harvest.”⁵⁶ Typically, conventional crops—such as corn and soybeans that have been treated with pesticides—average \$25,000 or more in value per acre, which makes even a small amount of damage to a localized area severe.⁵⁷

The amount of reported spray drift damage is increasing because there are more pesticides being used, but also because there has been an increase

50. David Nicolai et al., *When Is it Too Windy to Spray?*, UNIV. OF MINN. EXTENSION (June 6, 2015), <http://blog-crop-news.extension.umn.edu/2015/06/when-is-it-too-windy-to-spray.html> (explaining how pesticides drift and how windy conditions can make drift more probable and problematic).

51. PESTICIDE ACTION NETWORK N. AM., IN CASE OF DRIFT: A TOOLKIT FOR RESPONDING TO PESTICIDE DRIFT 1 (2017) (citing David Pimentel & Lois Levitan, *Pesticides: Amounts Applied and Amounts Reaching Pests*, 36 BIOSCIENCE 86, 90 (1986)). Just as there is constant research to create new types of pesticide technology, there is also research to figure out better ways to apply pesticides to fields. For example, scientists are working to design pesticides that will stick to plants better so they are not easily washed off into the groundwater or blown with the wind. Maher Damak et al., *Enhancing the Efficiency of Pesticide Application*, MIT TATA CTR., <https://tatacenter.mit.edu/portfolio/enhancing-the-efficiency-of-pesticide-application> (last visited Oct. 8, 2018). There are also advances in nozzle technology that reduces the amount of drift. See John W. Bartok, Jr., *Sprayers and Spray Application Techniques*, CTR. FOR AGRIC., FOOD & ENV’T, <https://ag.umass.edu/greenhouse-floriculture/fact-sheets/sprayers-spray-application-techniques> (last visited Oct. 8, 2018).

52. PESTICIDE ACTION NETWORK N. AM., *supra* note 51, at 1.

53. Nicolai et al., *supra* note 50.

54. Problems associated with spray drift do not come exclusively from agricultural pesticide use. The same problems that occur from agricultural spray drift can also occur from residential or commercial spray drift as well. However, this Note focuses on agricultural spray drift. For an example of a conflict involving commercial drift, see *Protest of Luther Spraying Draws a Crowd of 60*, DECORAHNEWS.COM (June 5, 2012, 9:17 PM), <http://www.decorahnews.com/archived-stories/2012/06/2860.html> (explaining that protests and public debate over whether the local college in Decorah, a small town in Northeast Iowa, should spray pesticides on the lawn, ultimately leading the college to change its spraying practices).

55. PESTICIDE ACTION NETWORK N. AM., IOWA PESTICIDE DRIFT LIABILITY INSURANCE: FACT SHEET 1 (2015), <http://www.panna.org/sites/default/files/IowaDrift-Liability-FactSheet-1.pdf>.

56. *Id.*

57. *Pesticide Drift Resource Page*, IOWA FARMERS UNION, <https://iowafarmersunion.org/policy/pesticide-drift> (last visited Oct. 8, 2018).

in non-conventional farms in agricultural areas.⁵⁸ For example, vineyards, which are more susceptible to pesticide damage than other forms of agriculture, are opening on land traditionally used for corn and soybeans because there is an increased demand for wine and the social space vineyards provide.⁵⁹ For organic farmers, the consequences can be even worse because it can lead to the farm losing its organic certification, which requires that land be chemical free for at least three years.⁶⁰ Whether or not one believes the benefits of pesticide use outweigh its adverse effects, it is clear that when they are applied incorrectly the result can be harmful to the environment, an individual's health, and neighboring property.⁶¹

B. THE TRADITIONAL DEFINITION OF 'FARM'

Just as pesticide use has changed over the last century, there have also been substantial changes to farming and the agricultural industry. Nevertheless, the government's definition of farming has not changed significantly since 1974, and under that definition, "[a] farm is 'any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the year.'"⁶² This is significant because defining a farm in a different way can change the scope of liability in certain situations. Since 1974, agriculture has gone through significant changes as small family farms are replaced by largescale, sometimes industrially run, operations. For example, from 2015 to 2016, the overall number of farms decreased by eight thousand, but the number of farms

58. See, e.g., Stephanie Mercier, *The Rise of Organic Agriculture in the United States*, AG WEB (Apr. 28, 2017), <https://www.agweb.com/blog/straight-from-dc-agricultural-perspectives/the-rise-of-organic-agriculture-in-the-united-states> (detailing the growth of organic farming throughout the United States).

59. See D.A. BALL ET AL., OR. ST. UNIV., PREVENTING HERBICIDE DRIFT AND INJURY TO GRAPES 1 (2014), <https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/em886o.pdf>.

60. *Becoming a Certified Operator*, U.S. DEP'T OF AGRIC., <https://www.ams.usda.gov/services/organic-certification/becoming-certified> (last visited Oct. 8, 2018).

61. For examples of the detrimental impact spray drift can have on farmers and communities, see Schvilla Mann, *Pesticide Drift Killing Crops and Making Hoosiers Sick*, IND. PUB. MEDIA (July 30, 2013), <http://indianapublicmedia.org/news/drifting-pesticides-blow-53262> (explaining that Indiana farmers reported unusually high damage rates from pesticide drift that led to crop destruction and health problems); Novak, *supra* note 47 (discussing how organic farmers in Grinnell, Iowa, lost their organic certification after they could literally see a cloud of spray drift descend upon their field); *SD Farmers Say Chemical Spray Drift Hurting Their Soybean Fields*, CAP. J. (Aug. 6, 2017), http://www.capjournal.com/news/sd-farmers-say-chemical-spray-drift-hurting-their-soybean-fields/article_3e3549d2-7b25-11e7-840e-bbf55a8ae183.html (reporting that farmers in South Dakota have reported higher levels of dicamba spray drift).

62. NAT'L AGRIC. STATISTICS SERV., U.S. DEP'T OF AGRIC., FARMS AND LAND IN FARMS: 2016 SUMMARY 17 (2017), <http://usda.mannlib.cornell.edu/usda/nass/FarmLandIn//2010s/2017/FarmLandIn-02-17-2017.pdf> (referring to the 1974 Census in defining "farm" and presenting the findings of a survey to show the increase in farm size and the decrease in number of farmers within the last year).

producing between \$250,000 and \$499,999 worth of commodities increased.⁶³ These numbers indicate that small farms are being consolidated into largescale operations. This is consistent with the national trend of increasing sizes of farms and the decreasing number of farmers since at least the 1980s.⁶⁴

The ownership structure of farms has changed significantly as well. Nearly 40 percent of farmland in production is rented or leased by the farmer from a landowner,⁶⁵ while 80 percent of rented land is owned by an individual or corporation not involved in farming.⁶⁶ Furthermore, over the next five years, an additional 10 percent of farmland is expected to be transferred to ownership by a non-farming landlord.⁶⁷ The change in ownership structure can change the scope of liability and make it more difficult to sue for agricultural abuses unless changes are made to the current framework. As discussed in Section IV.A, the definition of “farm” should be updated to reflect the changes in size, yield, and ownership structure of the modern farm.

C. REGULATIONS AND RECOVERY

Over the last century, courts and legislatures at the state and federal level have recognized the increased use of pesticides and the increased need to regulate and provide remedies for pesticide damages.⁶⁸ Both federal and state legislatures have passed statutes and regulations to address the issues surrounding pesticide use and courts have been cognizant of the practical effects of upholding or dismissing the claims.⁶⁹ This Section first examines the

63. *Id.* at 4.

64. See JAMES M. MACDONALD ET AL., U.S. DEP’T AGRIC., FARM SIZE AND THE ORGANIZATION OF U.S. CROP FARMING 1 (ECON. RESEARCH SERV. REPORT NO. 152, 2013).

65. *Who Owns U.S. Farmland, and How Will it Change?*, NAT’L SUSTAINABLE AGRIC. COAL.: NSAC’S BLOG (Sept. 18, 2015), <http://sustainableagriculture.net/blog/total-2014-results>.

66. *Id.*

67. *Id.* A significant portion of the change in ownership is no longer between family members. *Id.* That indicates that as children inherit land from their deceased parents, rather than keeping it and farming the land themselves, they are selling it. Inexpensive land is becoming increasingly rare, which makes it difficult for small farmers to purchase land to start a farm or expand their existing farms. Instead, land is being purchased by a smaller number of wealthy landowners who exercise little oversight of how the land is used after they rent it out for others to farm. For a discussion on why landowners should be included for liability purposes, see *infra* Part IV.

68. *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 990–91 (1984); Mark S. Dennison, *Recovery of Damages for Injury to Landowner’s Property from Environmental Condition on Neighboring Land*, in 37 AMERICAN JURISPRUDENCE PROOF OF FACTS 439, § 1 (3d ed. 2018); see also F.M. FISHEL & J.A. FERRELL, UNIV. FLA. IFAS EXTENSION, MANAGING PESTICIDE DRIFT 8–10 (2016) (describing the process, resources, and solutions Florida uses for pesticide drift cases); EPA, *Environmental Protection and Toxic Substances EPA 735F99024*, CAL. DEP’T OF PESTICIDE REG. (1999), <http://www.cdpr.ca.gov/docs/dept/factshts/epadoc.htm> (last visited Oct. 8, 2018) (describing the process, resources, and solutions California uses for pesticide drift cases). See generally Theodore A. Feitshans, *An Analysis of State Pesticide Drift Laws*, 9 SAN JOAQUIN AGRIC. L. REV. 37 (1999) (discussing the lack of uniformity in pesticide drift regulations in all 50 states and Puerto Rico).

69. See *supra* note 68 and accompanying text.

traditional approach of seeking remedies through state statutes and common law systems. The Section then focuses on federal statutes that have been used, or that could be used in the future, to further address the issue of agricultural spray drift.

1. Regulation at the State Level

Before federal pesticide legislation was enacted in 1910, states provided “the exclusive source of regulatory control over the distribution of poisonous substances.”⁷⁰ Because of the lack of federal action, most regulatory statutes and theories of recovery for poisons and agricultural substances developed at the state level.⁷¹ For example, in one case involving a child who died after he accidentally drank mislabeled poison at a dairy processing plant, the only available remedies were through state-level negligence claims against the processing plant.⁷²

Even after Congress adopted and amended federal statutes to address the growing issues attributed to pesticide use, “the statute[s] le[ft] ample room for States and localities to supplement federal efforts even absent the express regulatory authorization.”⁷³ State laws regulating pesticides vary widely, but most litigation involving pesticide use can be categorized in one of two ways.⁷⁴ First, a pesticide user may bring claims for damages against a pesticide manufacturer under state law theories of “failure to warn, negligent design, breach of warranty, and misrepresentation.”⁷⁵ For example, a Connecticut woman purchased pesticides to use around her home and was injured when the pesticides came into contact with her skin.⁷⁶ She brought a diversity action in federal court, which applied state breach of warranty laws.⁷⁷ In deciding the woman had a cause of action the court reasoned, “[a] person, who after the purchase of a thing, has been damaged because of its unfitness . . . may bring an action . . . against the manufacturer based on a breach of implied warranty.”⁷⁸

Second, and more commonly associated with spray drift, claims may be brought “by non-pesticide users against pesticide users . . . for property

70. *Bates v. Dow Agrosciences LLC*, 544 U.S. 431, 437 (2005).

71. *Id.*

72. *Burk v. Creamery Package Mfg. Co.*, 102 N.W. 793, 794–95 (Iowa 1905). This case is a good example because it relied on state common law theories of negligence, but also served as a precursor for failure to warn and failure to properly label dangerous chemicals. Failure to correctly label is now one requirement of federal pesticide law under FIFRA and can establish negligence *per se* if violated. *See* 7 U.S.C. § 136j(a)(1)(A) (2012).

73. *Bates*, 544 U.S. at 442 (quoting *Wisconsin Pub. Intervenor v. Mortier*, 501 U.S. 597, 613 (1991)).

74. *Klass*, *supra* note 18, at 765.

75. *Id.*

76. *McQuaide v. Bridgeport Brass Co.*, 190 F. Supp. 252, 252–54 (D. Conn. 1960).

77. *Id.*

78. *Id.* at 254 (quoting *Jarnot v. Ford Motor Co.*, 156 A.2d 568, 572 (1959)).

damage, crop damage, and/or personal injury.”⁷⁹ These claims are typically brought under state common law theories of liability including “trespass, nuisance, negligence, and strict liability for ultrahazardous conditions.”⁸⁰ In *Martin v. Jaekel*, a 1971 Iowa case, two farmers sued to recover damages after the defendants aerially sprayed improperly mixed pesticides and caused damage to their property.⁸¹ The court awarded damages on a negligence theory that the “defendants negligently mixed and applied a chemical substance.”⁸² If a property owner can prove their property was harmed under one of these theories, they may be able to recover damages.

The amount awarded in damages depends on whether the damage to the property is permanent or temporary.⁸³ If the spray drift has caused permanent damage, the award is typically the value of the land.⁸⁴ If, however, the damage is only temporary, the award is usually the cost to restore or repair the land to its former value.⁸⁵ In addition to state common law options, some states also have a statutory cause of action available through state environmental laws.⁸⁶ For example, the Illinois Pesticide Act creates an avenue for people who have been damaged by spray drift to bring claims before an agency, and the Act provides minimum damages for violation.⁸⁷ Since farmers suffer a disproportionate amount of harm from spray drift, it is unsurprising that many farmers support stronger legislation with more severe consequences for

79. Klass, *supra* note 18, at 765.

80. Dennison, *supra* note 68, § 1. There is not a state by state analysis, but there are detailed examples and cases where each of these theories were used to bring a cause of action. *See generally id.* (explaining, in detail, the various common law theories of liabilities and related cases involving damage done by pesticide use). For example, in Minnesota, pesticides drifting onto organic crops may be considered a trespass. Roger McEowen & Erin Herbold-Swalwell, *Pesticide Drift May Constitute a Trespass—Minnesota*, IOWA ST. UNIV. CTR. AGRIC. LAW & TAX’N (June 28, 2011), <https://www.calt.iastate.edu/article/pesticide-drift-may-constitute-trespass-minnesota>.

81. *Martin v. Jaekel*, 188 N.W.2d 331, 332 (Iowa 1971).

82. *Id.*

83. *See generally* Dennison, *supra* note 68 (explaining the factors that lead to different causes of actions and recovery involving spray drift).

84. *Id.* § 10.

85. *Id.*

86. *Id.* § 9.

87. *See* D.L. Uchtmann, *Legal Aspects of Herbicide Drift*, UNIV. OF ILL., http://www.farmdoc.illinois.edu/legal/pdfs/Legal_Drift.pdf (last visited Oct. 8, 2018) (explaining liability under the Illinois Pesticide Act (Act § 14)). For another example of state statutory law, see MINN. STAT. § 18B.07 (2)(b) (2017) (“A person may not direct a pesticide onto property beyond the boundaries of the target site. A person may not apply a pesticide resulting in damage to adjacent property.”); FISHEL & FERRELL, *supra* note 68 (“Chapter 487 of the Florida Statutes: ‘It is unlawful for any person to apply a pesticide directly to, or in any manner cause any pesticide to drift onto, any person or area not intended to receive the pesticide.’” (quoting FLA. STAT. § 487.031 (13) (e) (2004))); Kagan Owens & Jay Feldman, *Getting the Drift on Chemical Trespass: Pesticide Drift Hits Homes, Schools and Other Sensitive Sites Throughout Communities*, 24 PESTICIDES & YOU 16, 18 (2004) (examining the regulations for spray buffer zones in different states).

spray drift violations.⁸⁸ Section III.A of this Note will explain why, even where available, these causes of action may not provide an adequate remedy.⁸⁹

2. Regulation at the Federal Level

Although federal claims do not have the same historical basis as state common law tort claims, the federal government has recognized a need to regulate pesticides. While interpreting a pesticide statute in *Ruckelshaus v. Monsanto Co.*, the Supreme Court acknowledged that “the use of pesticides . . . has become increasingly more important for American agriculture” and that “[w]hile pesticide use has led to improvements in productivity, it has also led to increased risk of harm to humans and the environment.”⁹⁰ There are two federal statutes that are used to bring claims against pesticide abusers, both of which should be utilized more in pesticide actions and both of which require further explanation.⁹¹

First, Congress regulates pesticide use through the Federal Insecticide, Fungicide, and Rodenticide Act (“FIFRA”).⁹² FIFRA has its roots in a 1910 statute, the Insecticide Act, that first recognized a need to regulate dangerous chemicals at the federal level.⁹³ The law did not significantly change for over three decades until FIFRA was passed in 1947.⁹⁴ This initial version of the statute was primarily used for regulating the labeling of poisonous chemicals to ensure they were correctly applied to protect human health.⁹⁵ Throughout the 1960s and 70s, the environmental movement rapidly advanced and there were increased calls for Congress to protect the environment. Congress

88. IOWA FARMERS UNION, *supra* note 57.

89. See *infra* Section III.A.

90. *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 990 (1984).

91. There are more than just two federal statutes that can be used to bring pesticide drift suits, but this Note will focus on the Federal Insecticide, Fungicide, and Rodenticide Act (“FIFRA”) and CERCLA because these statutes have been underutilized and have the greatest potential for dealing with pesticides. At least two other statutes have been used for claims involving pesticide drift. First, pesticides can influence endangered species. Oliver Milman, *Two Widely Used Pesticides Likely to Harm 97 % of Endangered Species in US*, GUARDIAN (Apr. 7, 2016, 3:48 PM), <https://www.theguardian.com/world/2016/apr/07/endangered-species-protection-animals-plants-pesticides-epa-insecticides>. Since pesticides can have such a big impact on endangered species, the Endangered Species Act can sometimes be used for pesticide claims. For a brief discussion of Endangered Species Act Claims, see *Assessing Pesticides Under the Endangered Species Act*, EPA, <https://www.epa.gov/endangered-species/assessing-pesticides-under-endangered-species-act> (last updated Oct. 18, 2016). See also Endangered Species Act, 16 U.S.C. §§ 1531–1544 (2012) (allowing pesticides claims). The other federal statute that sometimes allows pesticide claims is the Clean Water Act. *Court Cancels EPA Clean Water Act Exemption for Pesticides*, ORGANIC CONSUMERS ASS’N (Jan. 7, 2009), <https://www.organicconsumers.org/news/court-cancels-epa-clean-water-act-exemption-pesticides>; see also Clean Water Act, 33 U.S.C. §§ 1251–1387 (2012) (allowing pesticides claims).

92. Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. § 136–136y (2012).

93. *Bates v. Dow Agrosciences LLC*, 544 U.S. 431, 437 (2005).

94. *Klass*, *supra* note 18, at 771.

95. See *Bates*, 544 U.S. at 437.

responded by passing amendments to FIFRA which “transformed FIFRA from a labeling law into a comprehensive regulatory statute.”⁹⁶ Since then, there have been numerous updates and amendments to FIFRA.⁹⁷

Throughout its various iterations, FIFRA has “authorize[d] a relatively decentralized scheme that preserves a broad role for state regulation.”⁹⁸ FIFRA has several key features. First, it gives power of oversight and enforcement to the EPA.⁹⁹ Second, FIFRA serves as a way for the EPA to approve, register, and track pesticides that are manufactured or used within the United States.¹⁰⁰ The EPA balances the concerns of agriculture, public health and safety, and the environment to decide whether to register and allow certain pesticide use.¹⁰¹ Finally, FIFRA provides directions on labeling standards for pesticides. The label for pesticides is “the written, printed, or graphic matter on, or attached to, the pesticide or device or any of its containers or wrappers.”¹⁰² The labels must include warnings, hazardous signal words, ingredient statements, use classifications, and statements of practical treatment.¹⁰³ The label’s intent is “to maximize the beneficial use of the pesticide and minimize harm to human health and the environment.”¹⁰⁴

FIFRA has been used to bring federal claims for pesticide violations. Like state common law claims of negligence, FIFRA claims have also been based on theories of negligence. These theories are based on non-compliance with the labeling imposed by the EPA for how to store and apply the pesticides.¹⁰⁵ It is important to note, however, that to the extent FIFRA has been used for cases related to spray drift, the claims are still being raised under state common law tort theories.¹⁰⁶ In these cases, violations of FIFRA are used to establish a standard of care to abide by the label requirements. For example, in *Bennett v. Larsen Co.*, beekeepers in Wisconsin set up beehives near corn fields that were being sprayed with pesticides.¹⁰⁷

After many of their hives were destroyed by the pesticide use, the beekeepers sued the defendants for negligently applying the pesticides, which contained a warning that the pesticides should not be applied near beehives.¹⁰⁸ The court allowed the pesticide label that had specific warnings

96. *Id.* (quoting *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 991 (1984)).

97. *See generally* Klass, *supra* note 18 (giving an historical analysis of the development of FIFRA from the first iterations through the amendments).

98. *Bates*, 544 U.S. at 450.

99. Klass, *supra* note 18, at 772.

100. *See* 7 U.S.C. § 136a(a) (2012).

101. *See* Defs. of Wildlife v. EPA, 882 F.2d 1294, 1299 (8th Cir. 1989).

102. 7 U.S.C. § 136(p)(1).

103. *See* 40 C.F.R. § 156.10 (2009).

104. Klass, *supra* note 18, at 776.

105. *Id.*

106. *See id.* at 777.

107. *Bennett v. Larsen Co.*, 348 N.W.2d 540, 545 (Wis. 1984).

108. *Id.* at 545–46.

about the harm the pesticide caused to bees to be considered in determining the defendant's negligence.¹⁰⁹ When labeling standards are violated, either negligence per se is established or it at least provides strong evidence of wrongful pesticide use, which then provides clearer evidence of wrongdoing.¹¹⁰

In addition to FIFRA, another federal statute has also occasionally been related to pesticide use. The Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") (more commonly known as "Superfund")¹¹¹ was passed in 1980 to help "clean[] up sites contaminated with hazardous waste . . . [and to] prevent[] contamination of future sites by assigning liability to parties involved."¹¹² Similar to the 1970s FIFRA Amendments, CERCLA was passed largely as a result of the environmental movement and some high-profile incidents involving environmental damage caused by hazardous waste.¹¹³ CERCLA was established to enable the federal government to respond directly to hazardous substances that may endanger the environment or public health.¹¹⁴ The cost of cleaning is provided by either tax dollars, or the EPA can recover the cost of cleanup and enforcement from an individual or company that is financially viable once the cleanup is complete.¹¹⁵ The EPA is authorized to pursue Superfund cases in every state and U.S. territory, and there are currently more than 1,700 open Superfund cases.¹¹⁶

109. *Id.* at 549–50.

110. Klass, *supra* note 18, at 777–78, 799–801.

111. Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601–9675 (2012). Although "CERCLA" is the official title of the Act, it is commonly referred to as "Superfund" by legislators, administrators, professionals, and in common terminology. For purposes of the Note, CERCLA will be used interchangeably with the more commonly known "Superfund."

112. *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)*, LEGAL INFO. INST., <https://web.archive.org/web/20171201044122/https://www.law.cornell.edu/wex/comprehensive-environmental-response-compensation-and-liability-act-cercla> (last visited Oct. 18, 2018).

113. Jessica Hope, *What is CERCLA—and Why is it Important?*, HAZARDOUS WASTE EXPERTS (Dec. 23, 2013), <http://www.hazardouswasteexperts.com/what-is-cercla-and-why-is-it-important-2>.

114. *Superfund: CERCLA Overview*, EPA, <https://www.epa.gov/superfund/superfund-cercla-overview> (last updated June 4, 2018).

115. *Summary of the Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)*, EPA, <https://www.epa.gov/laws-regulations/summary-comprehensive-environmental-response-compensation-and-liability-act> (last updated Aug. 15, 2018).

116. See *How Close are You to a Superfund Site?*, NAT'L. GEOGRAPHIC, <https://www.nationalgeographic.com/superfund> (last visited Oct. 18, 2018) (providing a map of the Superfund sites around the United States). For a small sampling of some Superfund projects, see *Silver Mountain Mine: Loomis*, WA, EPA, <https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=1000948> (last visited Oct. 18, 2018) (describing attempts to cleanup cyanide after a mining company created a cyanide pile and leach pond); Bryan Nelson, *10 Examples of Why the Superfund Program Matters*, MOTHER NATURE NETWORK (Oct. 12, 2017, 11:20 AM), <https://www.mnn.com/health/healthy-spaces/photos/10-superfund-sites-where-are-they-now/industri-plex-massachusetts#top-desktop> (describing an industrial facility outside of Boston that manufactured pesticides and leaked chemicals for 130 years before being closed).

CERCLA is often thought to have three primary program elements, and many secondary elements that support the primary purposes.¹¹⁷ First, the program creates incentives for the safe disposal of hazardous substances to assure the health of the environment and the health of humans.¹¹⁸

Second, the statute is intended to give the general public confidence that hazardous waste is being properly disposed of and will not harm their health and well-being.¹¹⁹ Finally, CERCLA provides hazardous waste disposers the stability to operate their facilities in a way that protects health and the environment throughout the disposal process.¹²⁰ To accomplish these goals, the statute defines the persons it covers, defenses, determinations of damages, and exemptions.¹²¹ CERCLA does not contain a private right of action and, as such, the federal government must bring the claims.¹²²

Courts have struggled to apply CERCLA to pesticide use cases for two main reasons. First, the Act provides an exemption for pesticide use.¹²³ Second, farmers are usually considered exempt under the standards for a “covered person.”¹²⁴ Although these two possible exemptions immediately appear to exempt farmers from liability for misusing pesticides that cause drift, courts have interpreted these exemptions differently. For example, the Eleventh Circuit has held “[t]he pesticide exemption does not, standing alone, absolve the Landowners of liability under CERCLA.”¹²⁵ Similarly, courts have struggled with the term “covered person” when applying the statute.¹²⁶

Because there are disagreements about how the courts apply the terms, and because the nature of farms and pesticide use has evolved from small-scale use on family farms to large-scale application on large farms, the statute could be interpreted to include spray drift. The remainder of this Note will focus on the potential benefits and difficulties of reclassifying spray drift to make it and its offenders enforceable under CERCLA and FIFRA. The Note further argues that the changing nature of agriculture and the farm requires these claims to be accessible under the two federal statutes.

117. *What is Superfund?*, EPA, <https://www.epa.gov/superfund/what-superfund> (last visited Nov. 3, 2018).

118. *See* 42 U.S.C. § 9607 (2012).

119. *Id.*

120. *Id.*

121. *See id.*

122. *Id.* § 9607(a)(4)(A) (providing the government the right of action).

123. *Id.* § 9607(i).

124. *United States v. Tropical Fruit, S.E.*, 96 F. Supp. 2d 71, 83–84 (D.P.R. 2000) (delivering as dicta the challenges of applying the term “covered person” regarding CERCLA).

125. *S. Fla. Water Mgmt. Dist. v. Montalvo*, 84 F.3d 402, 409 n.11 (11th Cir. 1996) (discussing whether the use of pesticide alone prevents a claim from being brought under CERCLA).

126. *See Tropical Fruit*, 96 F. Supp. 2d at 83.

III. PROBLEMS AND ANALYSIS

The primary means of recovery for an individual harmed by spray drift is through state common law tort actions. Local courts can provide adequate remedies in certain situations, but they are inadequate in others.¹²⁷

Section III.A discusses the shortcomings of state remedies in more detail. There are also insufficient federal remedies available that can provide fair cases and an additional source of relief for those who have been harmed. Both FIFRA and CERCLA have been used ineffectively to provide relief from pesticide damage. Section III.B examines why these statutes have largely been ineffective at providing a remedy for pesticide damage.

A. STATE TORT LAW AND STATUTES DO NOT PROVIDE ADEQUATE REMEDIES

Even though individuals may have means of recovery through state common law tort claims, this remedy is usually not adequate. First, local suits can become particularly burdensome when the defendant is a large farm with significant resources, or is backed by the agricultural industry, which has an interest in having their products used.¹²⁸ Second, local suits also may not be a viable option when the defendant is a significant participant in the local community and others are reluctant to attack them. Finally, in some cases, plaintiffs are more concerned with underlying environmental and long-term health issues than with immediate damages. State tort law generally does not work as effectively in forcing cleanup efforts as federal remedies.

Although state laws vary significantly in their treatment of pesticide damage, most do not provide adequate remedies for violations. For example, in Arkansas, an accused offender must go before a hearing board.¹²⁹ If the accused is found liable, the fine for misuse of pesticides costs approximately the same as a speeding ticket, despite the risk of damage and severe consequences.¹³⁰ In other states where judgments against offenders cost more than a speeding ticket, farmers are required to have insurance that covers spray drift offenses and those judgments are typically paid out of insurance

127. See *supra* notes 75–82 and accompanying text.

128. See McCune, *supra* note 1. Even when agricultural corporations, such as Monsanto and Cargill, are not named parties or are not supporting a suit, they have an interest in the outcome of the case. Monsanto “wanted to get [the new seed] into farmers’ hands as fast as possible.” *Id.* at 19:53. The more the pesticides are used, the greater profit the corporations have.

129. See *id.* at 12:43. After dealing with enough cases of abuse, “Arkansas is now raising the fines for illegal spraying.” *Id.* at 19:40.

130. *Id.*

claims.¹³¹ Other than a potential increase in insurance premiums, violating farmers do not face a significant consequence.¹³²

Tort suits are incredibly burdensome for property owners, especially when plaintiffs are not legally sophisticated. Potential plaintiffs are often preoccupied trying to care for their own farms, which depend on precise timing and management.¹³³ State tort claims become even more burdensome than usual for plaintiffs when they are facing large farms worth substantial amounts of money and who have significant influence. In small communities, it is difficult for an individual to sue some farmers because farmers also hold a unique, sympathetic role in rural areas.¹³⁴ Not only are individual plaintiffs adverse parties to the offending farmer, they also have to contend with pesticide manufacturers.¹³⁵ Even when pesticide manufacturers are not named parties in a suit, they retain an interest in the litigation's outcome because it could have an impact on the perception and use of their product. In some instances, the possibility of agricultural corporations having an

131. For a brief discussion on agriculture liability insurance involving spray drift, see Douglas Mcleod, *Herbicide Risks Force Conventional Farmers to Seek Higher Coverage Limits*, BUS. INSIDER (Feb. 2, 2014, 12:00 AM), <http://www.businessinsurance.com/article/00010101/NEWS06/302029995/Herbicide-risks-force-conventional-farmers-to-seek-higher-coverage-limits>.

132. See *infra* Part III.

133. There are endless anecdotes about farmers who have been so overly burdened by the prospect of a state tort suit that they failed to report the claim, failed to initiate a lawsuit, or were compensated with a less than satisfactory judgment. A conversation with farmers at any local coffee shop or diner counter would bring up stories where this was the case. One example is a couple in Grinnell, Iowa, who operate an organic farm. Novak, *supra* note 47. The couple describes in detail seeing pesticides being sprayed, a cloud of pesticides blowing towards them in the wind, and the metallic smell of the pesticides as the pesticides settled on their fields and home. *Id.* The damage cost them their organic certification and “tens of thousands of dollars.” *Id.* The couple were only able to recoup some of their losses and that was “after producing years’ worth of records and receipts.” *Id.* They describe the process as an “all-consuming task” that took them away from their fields where they should have been focusing on growing food and developing their business. *Id.*

134. See *supra* note 7.

135. There are some state law claims that can be brought directly against pesticide manufacturers, typically on strict product liability claims or on negligent labeling claims. See *supra* note 68 and accompanying text. However, this section is referring to the influence pesticide manufacturers can have over suits and regulations. For example, pesticide corporations spend millions of dollars to try to change laws and regulations that adversely impact pesticide users. See Anne C. Mulkern, *Pesticide Industry Ramps Up Lobbying in Bid to Pare EPA Rules*, N.Y. TIMES (Feb. 24, 2011), <http://www.nytimes.com/gwire/2011/02/24/24greenwire-pesticide-industry-ramps-up-lobbying-in-bid-to-42970.html>. According to the CEO of the largest pesticide lobbying group, “[t]hese regulations, oftentimes compounded by activist court decisions, unnecessarily cost farmers time, money and liability.” *Id.* (quoting Jay Vroom, CEO of CropLife America). Activists opposed to cutting regulations say the lobbyists “seem to have quite a bit of influence.” *Id.* (quoting Jeff Miller, a conservation advocate for the Center of Biological Diversity). This is by no means implying that corporations are acting nefariously or participating in illegal activities; it is merely to demonstrate that when a plaintiff brings a suit against a pesticide user, there are other actors with significant amounts of money and sophisticated attorneys who are also interested parties.

interest in a suit is enough to prevent an individual from bringing suit against an offender.¹³⁶ Therefore, it is essential that there is a federal remedy to either supplement or replace ineffective state tort remedies.

B. APPLICATION OF FEDERAL STATUTES DOES NOT PROVIDE COMPLETE REMEDY

This Section primarily focuses on the reasons CERCLA has not been used effectively to provide remedies for individuals harmed by pesticide drift. First, the statute's language exempts CERCLA enforcement for both farmers and pesticide use. As a result, courts have struggled to define and apply both the farmer and pesticide exemptions in pesticide drift cases.¹³⁷ Second, the statute does not provide a private right of action, which may prevent individual suits from being brought.¹³⁸ Finally, there are political and practical problems of using the statute to cover pesticide misuse.

1. Pesticide Exemption

It is problematic to use CERCLA to bring a wrongful pesticide use claim because CERCLA's language contains a pesticide use exemption.¹³⁹ The statute's plain language appears clear that if a pesticide is registered through FIFRA, then it is exempt from CERCLA claims.¹⁴⁰ In addition to CERCLA's plain language, legislative history suggests the pesticide exemption was included in the statute to ensure farmers who used pesticides were not the targets of CERCLA actions. For example, CERCLA draft bills included additional exemptions that showed clear intent that the statute should not apply to pesticide application by farmers.¹⁴¹ In the House of Representatives there were also reports that, in response to American Farm Bureau concerns,

136. See Dave Gutknecht, *Farmers Continue to Fight Monsanto's Threats, Intimidation*, COOP. GROCER 8, 8 (2012) (discussing how local farmers are standing up to Monsanto's threats of bringing suit for unauthorized use of GMO seeds that had drifted into neighboring fields); Donald L. Barlett & James B. Steele, *Monsanto's Harvest of Fear*, VANITY FAIR, <https://www.vanityfair.com/news/2008/05/monsanto200805> (last visited Oct. 19, 2018) ("Just as frightening as the corporation's tactics—ruthless legal battles against small farmers—is its decades-long history of toxic contamination."); *Monsanto Assault on U.S. Farmers Detailed in New Report*, WESTIN A. PRICE FOUND. (Jan. 16, 2005), <https://www.westonaprice.org/monsanto-assault-on-u-s-farmers-detailed-in-new-report>.

137. *United States v. Tropical Fruit, S.E.*, 96 F. Supp. 2d 71, 83 (D.P.R. 2000) (discussing the uncertainties of how to interpret and apply certain language of CERCLA to different scenarios).

138. See 42 U.S.C. § 9604(a) (2012) (granting the President the authority to designate a Superfund site and a remedial plan of action).

139. *Id.* § 9607(i). "No person (including the United States or any State or Indian tribe) may recover under the authority of this section for any response costs or damages resulting from the application of a pesticide product registered under the Federal Insecticide, Fungicide, and Rodenticide Act." *Id.* (citation omitted).

140. *Id.*

141. 126 CONG. REC. 30,984 (1980) (statement of Sen. Cannon).

“the pesticide exclusion was designed to apply to ‘farmers who apply chemicals on their own property.’”¹⁴²

The plain language and legislative history indicate that pesticide application by farmers on their own fields is exempt from CERCLA enforcement, but this analysis is incomplete. First, legislative history is helpful to understand what certain lawmakers were considering when the bill passed. However, the legislative history is inconclusive because these specifications were not included in the final draft of the bill, which could indicate they were considered and rejected. Second, CERCLA also contains a provision stating that pesticides containing certain chemicals are considered hazardous substances and are therefore subject to CERCLA’s hazardous substance enforcement provision.¹⁴³ The additional provisions subjecting some pesticides to CERCLA enforcement indicate that the pesticide exemption is not absolute and there is room for different interpretations of the term pesticide. Additionally, courts have interpreted the pesticide exemption in different ways. The Eleventh Circuit addressed the issue in *South Florida Water Management District v. Montalvo*.¹⁴⁴ *Montalvo* involved an aerial spray company that contracted with Florida farmers to spray their fields from airplanes.¹⁴⁵

The aerial spray operators often wrongfully dumped leftover pesticides near the airfield after they had completed a job, which contaminated the surrounding areas.¹⁴⁶ After a CERCLA claim was raised, the court determined the defendants had acted improperly and that even though CERCLA contains a pesticide exemption, the pesticide issue alone “does not . . . absolve the [l]andowners of liability.”¹⁴⁷ However, in *Redwing Carriers*, a second Eleventh Circuit case, the court determined CERCLA “exempted defendant from liability for proper application of FIFRA registered pesticides.”¹⁴⁸ In that case, the court found the defendants were not liable because they had properly stored and applied the chemicals at issue.¹⁴⁹ Significantly, the *Redwing Carriers* court emphasized the CERCLA pesticide exception applied in cases where the chemicals were stored “properly,” leaving open the possibility that improper applications may not be covered by the exemption.¹⁵⁰ The focus of these

142. *Tropical Fruit*, 96 F. Supp.2d at 89 (D.P.R. 2000) (quoting 126 CONG. REC. 26,389 (1980)) (statement of Rep. Breaux).

143. 42 U.S.C. § 9601(14); see also *Tropical Fruit*, 96 F. Supp. 2d at 84–85 (explaining defendants’ concession that their use of pesticides on fruit trees was not exempt under CERCLA as a pesticide because the pesticides contained certain chemicals that classified them as a hazardous waste).

144. *S. Fla. Water Mgmt. Dist. v. Montalvo*, 84 F.3d 402 (11th Cir. 1996).

145. *Id.* at 404.

146. *Id.*

147. *Id.* at 409 n.11.

148. *United States v. Tropical Fruit, S.E.*, 96 F. Supp. 2d 71, 87 (D.P.R. 2000) (citing *Redwing Carriers, Inc. v. Saraland Apartments*, 94 F.3d 1489, 1511 (11th Cir. 1996)).

149. *Redwing Carriers*, 94 F.3d at 1511 n.31.

150. *Id.* at 1511.

contrasting decisions was not whether there was a pesticide exemption, but whether the method of pesticide application was covered by the statute.

Many courts agree that the pesticide exemption is correctly applied for farmers applying pesticides to their fields, but there have been other debates over what constitutes “application to fields.”¹⁵¹ CERCLA does not provide a definition for application.¹⁵² One reading is that application means the pesticide must be applied in its customary manner or in accordance with accepted application standards.¹⁵³ Based on this reading, if the pesticides are not applied in the customary manner, the CERCLA exemption does not apply. Drift occurs when pesticides are not applied in their customary manner, which indicates the exemption might not be applicable in these situations. For example, it is customary to refrain from spraying pesticides on windy days because there is an increased risk of pesticide drift.¹⁵⁴ If a farmer causes damage by applying pesticides on a windy day, the application was not done in a customary manner and therefore is not exempt from CERCLA liability. The inconsistent and uncertain correct interpretation of “application” creates opportunities to apply CERCLA to pesticide use, particularly when pesticides are applied improperly.

2. Farmer Exemption

CERCLA also provides an exemption for farmers, which the court discussed in *United States v. Tropical Fruit*.¹⁵⁵ In that case, Tropical Fruit was a partnership that was formed to grow and sell mangos, bananas, and plantains.¹⁵⁶ The Government brought a CERCLA suit against Tropical Fruit after the pesticides they had sprayed drifted into the nearby community.¹⁵⁷ The court decided CERCLA only applies to certain “covered persons” and farmers are usually exempt from the “covered person” requirement.¹⁵⁸ However, the *Tropical Fruit* court struggled to interpret the meaning of

151. *Tropical Fruit*, 96 F. Supp. 2d at 90 (“More importantly for this case, not every ‘application’ is exempted for CERCLA liability.”).

152. *Id.* For other examples of how courts have interpreted the “application” aspect, see *Cameron v. Navarre Farmers Union Coop. Ass’n*, 76 F. Supp. 2d 1178, 1182 (D. Kan. 1999) (noting that “not everything done with a pesticide is an application” and “CERCLA ‘retains liability for a ‘release’ of . . . a pesticide” (quoting *State v. Almy Bros., Inc.*, No. 90-CV-818, 1998 WL 438523 at *5 (N.D.N.Y. July 31, 1998))); *Almy Bros.*, 1998 WL 438523, at *5 (noting that CERCLA “exempts the ‘application’ of a covered pesticide from . . . liability, [but] it retains liability for a ‘release’ of such a pesticide” if that pesticide is “spilled or released . . . on the site”); *In re Sundance Corp.*, 149 B.R. 641, 663 (Bankr. E.D. Wash. 1993) (noting that “application” is exempt, but that CERCLA “retains liability for a ‘release’ of such a pesticide”).

153. *United States v. Hardage*, 1989 U.S. Dist. LEXIS 17877, at *13-14 (W.D. Okla. Nov. 9, 1989).

154. *Introduction to Pesticide Drift*, *supra* note 16.

155. *Tropical Fruit*, 96 F. Supp. 2d at 90.

156. *Id.* at 73.

157. *Id.*

158. *Id.* at 83-84.

“covered person.”¹⁵⁹ Even though Tropical Fruit was involved in farming activities, the court determined they were primarily owners, were not farmers, were not exempt, and therefore were a “covered person” according to the statute.¹⁶⁰ Based on this example and analysis, it is possible that farmers in certain situations are not exempt from CERCLA. For example, a corporation that owns and manages large tracts of farmland in Iowa but does not participate in the actual farming activities may not be exempt from CERCLA enforcement. This is particularly important because the nature of farming is changing, and various roles of farm ownership and labor may no longer conform to the traditional notion of what constitutes a farmer.

3. No Private Right of Action

Because CERCLA does not contain a private right of action, the federal government must bring claims. Courts will not read a private right of action into a statute unless it is explicitly granted in the statute or meets a test set forth by the courts.¹⁶¹ In this case, the statute contemplated the private right of action and explicitly excluded it.¹⁶² The governmental right of action provides an alternative means of addressing pesticide issues. This can be especially necessary in cases where a harmed individual either cannot or is pressured not to bring a suit.¹⁶³ However, it can also be difficult for the government to receive notice of pesticide violations, resulting in another hurdle that must be overcome to successfully bring a CERCLA claim.

4. Practical Problems

Finally, there are practical and political problems that prevent CERCLA from being an effective remedy for pesticide cleanup. CERCLA is commonly

159. *Id.*

160. *Id.* at 83.

161. *See, e.g.,* Alexander v. Sandoval, 532 U.S. 275, 287 (2001) (“Raising up causes of action where a statute has not created them may be a proper function for common-law courts, but not for federal tribunals.” (quoting Lampf, Pleva, Lipkind, Prupis & Petigrow v. Gilbertson, 501 U.S. 350, 365 (1991) (Scalia, J., concurring))).

162. *See* 42 U.S.C. § 9604(a) (2012). The statute requires claims be brought by the government. *Id.* As discussed in this Note, having a right of action brought by the government serves many benefits, but it can also cause problems. For example, the process for reporting these claims to the government can be confusing. There are resources located at USDA offices in rural communities across the country that accept reporting, but not everybody will know to go to those offices. It is beyond the scope of this Note, but a valuable resource would be to have a mapping system that shows all the actors involved in reporting claims and how pesticide damage on a farm translates to a suit brought by the federal government.

163. *See* Mcleod, *supra* note 131 (discussing cases where large corporations, such as Monsanto, have pressured farmers not to sue or have applied other forms of outside legal and social pressure).

known as the “Superfund” statute and it appears that way in the media, environmental circles, and in common nomenclature.¹⁶⁴

The common use of the term “Superfund” alone creates an image of massive cleanup projects that require large amounts of efforts and resources.¹⁶⁵ After a survey was completed of over 1,700 Superfund sites, the greatest polluters were found to be “companies dealing with dumping, mining, dry-cleaning and wood treatment” and they were often polluting with “[l]ead, arsenic and mercury.”¹⁶⁶ Sites like these are usually visible, easy to target, and evoke the image of a major cleanup within the common understanding of the term “Superfund.” Pesticide damage is sometimes invisible, and any visible damage usually only lasts for a harvest season or until a new round of crops are planted. Additionally, the offenders are not large plants or closed mines, but farmers, who are sympathetic defendants.¹⁶⁷ Without the same visibility, government officials and Superfund decision makers are more likely to use limited Superfund funding to pursue larger, visible projects with greater political payoff and more in line with the common notion of a “Superfund” site.

Superfunds also lack financial support. Initially, funding was provided through taxes on oil and gas companies, but those taxes expired in 1995 and since then funding has been dependent on regular taxes.¹⁶⁸ Since it is dependent on the general budget and appropriations, it is difficult to maintain and depend on consistent funding.¹⁶⁹ Given the state of politics in the country, the general aversion to taxes, and the power of the energy sector to lobby Congress, it is unlikely there will be a reinstatement of the previous funding taxes and Superfund will continue to depend on general appropriations.¹⁷⁰

164. See Martha L. Judy & Katherine N. Probst, *Superfund at 30*, 11 VT. J. ENVTL. L. 191, 192 (2009). The term Superfund conjures an image of massive cleanup sites. Judy and Probst describe some of the events that led to the passage of Superfund. These events were covered in the media a lot at the time they occurred. *Id.*

165. *Id.* at 192–93. In fact, two events are often pointed to as reasons Superfund legislation passed. *Id.* One involved images of smoking barrels of corroding waste and the other was an incredibly contaminated waterway. *Id.* Both examples were highly visible and produced now familiar images that made it a desirable issue.

166. Bryan Anderson, *Taxpayer Dollars Fund Most Oversight and Cleanup Costs at Superfund Sites*, WASH. POST (Sept. 20, 2017), https://www.washingtonpost.com/national/taxpayer-dollars-fund-most-oversight-and-cleanup-costs-at-superfund-sites/2017/09/20/aedcd426-8209-11e7-902a-2a9f2d808496_story.html.

167. See *supra* Part I (discussing the idyllic image of a traditional farmer etched into the minds of Americans).

168. SUPERFUND: INFORMATION ON THE PROGRAM’S FUNDING AND STATUS, U.S. GEN. ACCOUNTING OFFICE 4 (1999), <https://www.gao.gov/archive/2000/rc00025.pdf>.

169. See *infra* note 180 and accompanying text (discussing the disadvantages of relying on political will to utilize Superfund funding).

170. The Obama Administration pushed for a reinstatement of the gas and oil tax but failed. Juliet Eilperin, *Obama, EPA to Push for Restoration of Superfund Tax on Oil, Chemical Companies*,

IV. RECOMMENDATIONS

If farms are redefined in a way that reflects the changing ownership structure of modern farms, CERCLA's farmer exemption is no longer a barrier to its application. According to the current reading of the statute, farmers are exempt from CERCLA enforcement. However, by redefining farms based on ownership type, liability can be attached to large, oftentimes corporate landowners rather than the traditional farmers CERCLA exemptions were intended to protect. If the definition is changed, there is a greater chance CERCLA can be used to enforce pesticide use violations.

This Part discusses in more detail how changes in the definition of farms and the understanding of CERCLA can be applied to provide additional and more complete remedies for pesticide drift. Section IV.A will discuss how the definition of farming should be amended to include the changes in agriculture, which may change the availability of causes of action. The section explores different options for defining farms including definitions based on size, income, and ownership type. Section IV.B will discuss how federal statutes can be applied in different ways to encompass pesticide drift issues. It will conclude with a brief discussion on issues of timing and politics that create opportunities for these changes to be implemented.

A. THE NEED FOR AN UPDATED DEFINITION OF 'FARM'

The definition of farm should be changed from an outdated definition to one that more accurately reflects the state of agriculture in America today. The last time there were significant modifications to the definition of farms was in 1974,¹⁷¹ but farms have changed significantly since then.¹⁷² There are various options for updating the definition of "farms" so that different statutes and penalties could apply to different types of farms. First, "farms" could be defined and designated based on their output of crops and agricultural yield. This definition would provide insight into the size of the farm and the type of farming operation being run. However, yields vary from year to year based on countless factors and classifying the same farm in a different way each year creates inconsistencies. Second, "farms" could be defined based on how much income they generated over a period of time. Making a farmer liable simply for being successful and generating income would, rightfully so, be met with backlash. However, it can provide some insight into the type of farm and the farming practices being used. Third, the size of acreage used for crop or livestock production could determine the definition and status of a farm.

WASH. POST (June 21, 2010), <http://www.washingtonpost.com/wp-dyn/content/article/2010/06/20/AR2010062001789.html>. The Trump Administration and Republican Congress is even less likely to have any desire to reinstate the taxes.

171. MACDONALD ET AL., *supra* note 64, at 6.

172. See *supra* notes 62–64 and accompanying text (explaining how the definition of farming has not been updated to account for significant changes in agriculture and farming practices).

Finally, the ownership structure of a farm could determine the classification type of the farm. For example, if farmland is owned by large landowners or a corporation not involved in the actual farming, they would not fit into the idea of the farmer CERCLA was intending to exempt. The best option is to change the definition of farming so ownership structure is a primary consideration. As discussed in Section IV.B, assigning liability to the landowner rather than the farmer would circumvent CERCLA's farmer exemption and would incentivize landowners to carefully monitor the use of their property. These new classifications and definitions would help courts understand how to apply CERCLA and FIFRA. For instance, courts have struggled to determine what a "covered facility" is for CERCLA purposes.¹⁷³ These different definitions would allow courts to apply the exemption to small operations that were perhaps intended to be exempt from CERCLA, but still apply the statute to large operations owned by corporations or conglomerates that can afford the liability and clean-up costs associated with spray drift.

B. CERCLA APPLICATION

It is reasonable that if the definition of farming changed, CERCLA could apply more easily. Many farms are no longer owned by the person actually engaged in farming activities.¹⁷⁴ According to CERCLA, there is expansive liability for the owner of an entity that is responsible for pollution.¹⁷⁵ One solution is to define farming based on ownership type. In this case, an individual who owns farms and permits dangerous activities to happen on his or her land could be held liable for damages. This would fulfill two purposes. First, it would keep individuals involved in farming activities exempt, as the statute allegedly intended. Second, it would incentivize landowners to carefully monitor the use of their property. They are in a position where they can apply low cost techniques to ensure their tenants follow regulations.¹⁷⁶ Land is being consolidated into a few landowners at an increasing rate,¹⁷⁷ and the statute could be applied to make those landowners liable.

The different interpretations in the courts' readings of "pesticide" and "application" should also be resolved so CERCLA can be applied to these cases. As at least one court has considered, the application exemption in

173. *United States v. Tropical Fruit, S.E.*, 96 F. Supp. 2d 71, 84 (D.P.R. 2000).

174. *See supra* notes 65–67 and accompanying text (discussing the shift in land ownership that is in crop production).

175. 42 U.S.C. § 9607(a) (2012).

176. Including owners in the definition of farming would not change the other available remedies for spray drift liability. It would merely provide an alternative avenue for the government to pursue to get offenders to be responsible for damages caused on their property. In some cases, such as when a farmer owns the land he or she is farming, it is difficult to distinguish between the role of farmer and owner, and it will be easier to pursue the claims under traditional state law methods.

177. *See supra* notes 62–67 and accompanying text.

CERCLA could be read to apply only when pesticides are applied correctly.¹⁷⁸ Spray drift occurs when pesticides are applied incorrectly. Therefore, the application exemption would not apply in almost all cases involving spray drift. The government would then have a cause of action to pursue claims against individuals who did not properly apply pesticides. Another option is for courts to apply the pesticide exemption narrowly. As the court discussed in *Tropical Fruit*, certain pesticides are included as hazardous materials and are therefore not exempt by the statute.¹⁷⁹

Even though there have been challenges with using the CERCLA Superfund statute to enforce pesticide issues, the change in the political climate has created a situation where use of funds for pesticide cleanup and enforcement is more likely.¹⁸⁰ Scott Pruitt, the most recent EPA Administrator, made it his priority “to speed the cleanup of toxic Superfund sites” in an effort to get back to the “basics’ of clean air and water.”¹⁸¹ Part of that effort was to determine a short list of the top sites that will be cleaned up.¹⁸² Although Pruitt is no longer the head of the EPA, there has been nothing to suggest a shift in priorities away from Superfund cleanup. This is encouraging news and certainly increases the possibility that Superfund could be extended and applied to pesticide drift cases, but it is no guarantee. Although the effects of pesticide drift are real, unlike many Superfund sites that include literal piles and pools of waste or old mining and industrial structures, the effects of pesticide drift are largely invisible.¹⁸³ Without visibility, the level of political gain for cleaning up a site decreases and so does the likelihood of it being selected as one of the sites. However, pesticide cleanup could be a good contender for funding because it requires less money than other projects. Many projects require tens of millions of dollars and often times more than that.¹⁸⁴ If the goal of cleanup can be accomplished at a more reasonable price, the possibility of these sites being chosen might increase. The political process will help determine whether the current EPA structure will indeed pursue more Superfund sites, but the exposure alone increases the likelihood and willingness to use CERCLA for pesticide purposes.

178. *United States v. Tropical Fruit, S.E.*, 96 F. Supp. 2d 71, 89–91 (D.P.R. 2000).

179. *Id.* at 84–85.

180. One downside of using CERCLA to enforce pesticide regulations is its reliance on political will and funding. For example, under President Obama’s administration understaffing led to a slowing of Superfund cleanups. Joe Wertz, *EPA Vows to Speed Cleanup of Toxic Superfund Sites Despite Funding Drop*, NAT’L PUB. RADIO (Oct. 11, 2017, 5:00 AM), <http://www.npr.org/2017/10/11/554564288/epa-vows-to-speed-cleanup-of-toxic-superfund-sites-despite-funding-drop>. This volatility makes it difficult to rely on Superfund funding and enforcement if the staffing levels, budgets, and priorities may shift every time an election takes place.

181. *Id.*

182. *Id.*

183. *Id.*

184. *Id.*

V. CONCLUSION

The use of pesticides in agriculture continues to increase and create environmental, health, and economic problems. As a result, the issue of spray drift is not subsiding. Simultaneously, the nature of the American farm is changing from small, family-owned and operated entities to large industrial-like operations with a separation of ownership and labor. The current legal framework is not equipped to deal with the changing structure of the farm and the damage farms cause when their pesticide use damages neighbors' health and property. The system of using state law tort remedies for pesticide abuses must be expanded to include more federal remedies. The government should be able to seek damages and require cleanup using CERCLA and FIFRA. To better utilize the statutes already in place, the definition of farming should expand to reflect the realities of modern farms and the statutes should be interpreted to include both pesticides and farms within the definitions for liability. The change in the legal framework and thinking will provide additional and more complete remedies for pesticide drift abusers and will relieve some of the burden on farmers and those affected by drift. The political and legal timing is right to incorporate these modest changes that will greatly benefit the livelihood and viability of rural agricultural communities.