THE DOSE MAKES THE POISON: ARE PESTICIDES DEFECTIVE PRODUCTS?

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I. INTRODUCTION

The focus of this article is on strict liability and breach of warranty products liability causes of action alleging that pesticides are defective products. Additionally, the article examines how the Federal Insecticide Fungicide and Rodenticide Act's ("FIFRA")[1] preemption language affects state common law failure-to-warn and breach of warranty claims. Public policy arguments are advanced by evidence that defective design claims should be based on the unreasonably adverse effects standard and not the reasonably safer alternative standard, and that use of some pesticides should be protected under the unavoidably unsafe products defense. Lastly, biopesticides are distinguished from synthetic conventional pesticides for purposes of common law liability and FIFRAs regulatory scheme.

Plaintiffs who allege they have been injured as a result of exposure to pesticides must proceed under state common law product liability theories.[2] Re-

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1. *See* Federal Insecticide Fungicide and Rodenticide Act, 7 U.S.C. § 136 (2000).

2. *See* Arnold v. Dow Chem. Co., 110 Cal. Rptr. 2d 722, 730-31 (Cal. Ct. App. 2001) (stating that

> under 7 U.S.C. § 136w-2(a), a complaint may be filed with the Administrator for significant violation of pesticide use provisions of FIFRA; the Administrator shall refer the matter to the appropriate state officials for investigation. If the state fails to act within 30 days, the Administrator may invoke various enforcement provisions within FIFRA. Other than the filing of such a complaint, however, a citizen has no recourse under FIFRA. Among other courts, the Ninth Circuit has held that there is no private right of action for recovery of damages under FIFRA. In *Fiedler v. Clark* (9th Cir. 1983) 714 F.2d 77, 79, the Ninth Circuit determined that Congress considered and rejected amendments that would have authorized citizen suits for failure to perform nondiscretionary duties or for failure to investigate and prosecute violations. It held that the legislative history of FIFRA confirms that Congress did not intend to create a private right of action. (See also *Almond Hill School v. U.S. Dept. of Agriculture*

covery invariably depends on whether the cause pleaded is preempted by FIFRA under failure-to-warn or breach of warranty theories of liability, or whether the plaintiff pleads the facts in ways that do not implicate the sufficiency of the label.[3] A majority of courts have held that FIFRA preempts state common law failure-to-warn and implied breach of warranty claims,[4] but not claims based on defective design or express breach of warranty.[5] The arguments for FIFRA preemption rely on *stare decisis*, [6] that FIFRA preemption language is nearer to the statutory language in *Cipollone*[7] than *Medtronic,*[8] that FIFRAs express preemption language in section 136v(b) is unambiguous,[9] and that state common law claims would conflict with FIFRAs purpose.[10] The core argument in support of FIFRA preemption of state common law failure-to-warn claims is centered on the proposition that, as a practical matter, state common law tort liability indirectly affects changes in the label in a similar manner as positive enactments by state legislatures, which are forbidden under FIFRA.[11] Furthermore, these courts advance the policy argument that congressional intent was to create uniformity with

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(9th Cir.1985) 768 F.2d 1030, 1039 [plaintiffs could not maintain an action pursuant to 42 U.S.C § 1983 seeking injunctive relief under FIFRA].) Accordingly, plaintiffs who believe they have been injured as a result of exposure to pesticides must proceed under state common law theories of recovery).

3. *Id.* at 728.

4. *See, e.g.*, Eyl v. Ciba-Geigy Corp., 650 N.W.2d 744, 748 (Neb. 2002).

5. *See generally* Netland v. Hess & Clark, Inc., 284 F.3d 895 (8th Cir. 2002); Ark.-Platte & Gulf P'ship v. Dow Chem. Co., 886 F. Supp. 762 (D. Colo. 1995); Etcheverry v. Tri-Ag Serv., Inc., 993 P.2d 366 (Cal. 2000).

6. *See* Sleath v. W. Mont. Home Health Servs., 16 P.3d 1042, 1053 (Mont. 2000) (Gray, J., dissenting).

7. Cipollone v. Liggett Group, Inc., 505 U.S. 504 (1992).

8. Medtronic v. Lohr, 518 U.S. 470 (1996). *See* Sandra L. Feeley, *Dancing Around the Issue of FIFRA Preemption: Does it Really Still Matter that the Supreme Court Has Not Made a Decision?*, 16 J. NAT. RESOURCES & ENVTL. L. 125, 150 (2001/2002).

9. *See* Fitzgerald v. Mallinckrodt, Inc., 681 F. Supp. 404, 407 (E.D. Mich. 1987).

10. *See* Ark.-Platte & Gulf P'ship v. Van Waters & Rogers, Inc., 981 F.2d 1177, 1179 (10th Cir. 1993).

11. Kevin McElroy et al., *The Federal Insecticide, Fungicide and Rodenticide Act: Preemption and Toxic Tort Law*, 2 FORDHAM ENVTL. L. REP. 29, 30-31 (1990) (stating the core disagreement within the courts over the language of FIFRAs preemption clause lies in the phrase "such state shall not impose additional *requirements* . . . for labeling . . . " and whether the term "requirements" encompasses state common law claims as well as positive enactments by states (emphasis added)). Clearly federal law may preempt any state law whether it is statutory or based on common law. The underlying rationale being that what a state "may not do directly through enforcement of its ordinance, it may not do indirectly by means of a common law claim." Consol. Rail Corp. v. City of Dover, 450 F. Supp. 966, 972 (D. Del. 1978); *see also* Int'l Paper Co. v. Ouellette, 479 U.S. 481, 495-97 (1987).

pesticide labels and thus avoid the ramifications of a dual remedial system absent preemption.[12] In many cases, however, these courts have allowed the claim to proceed beyond summary judgment on the basis of defective design or breach of warranty, in effect allowing an "end-run" around the FIFRA preemption shield.[13]

A minority of courts, however, has presented well-reasoned and persuasive arguments that FIFRA does not preempt state common law failure-to-warn claims.[14] These arguments are grounded in the plain meaning of statutory language, the presumption against federal preemption absent clear and manifest congressional intent to supplant state law, a greater reliance on the U.S. Supreme Court holding in *Medtronic* rather than *Cipollone*, deference to agency interpretation, and public policy rationales flowing from that fact that FIFRA does not allow private causes of action.[15] The most cogent argument exposing the logical inconsistencies in the majority view that FIFRA preempts state common law actions because of its indirect effect on the label was articulated by the dissent in *Etcheverry v. Tri-Ag Services, Inc.*, which stated:

> The majority's interpretation of FIFRA thus leads to this conundrum: A state may *directly* regulate pesticides pursuant to section 136v(a) – even to the point of banning their use – through statutes or administrative regulations (so long as the state does not require labeling inconsistent with what the EPA has approved), *even if such regulation has the indirect effect of encouraging manufacturers to alter their labels*,

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12. *See* Feeley, *supra* note 8, at 150.

13. *See* Etcheverry v. Tri-Ag Serv., Inc., 993 P.2d 366, 384 (Cal. 2000) (Werdegar, J., dissenting) (stating that:

> Moreover, as the majority admits (majority opn., *ante*, at p. 377), common law causes of action based on other than a failure-to-warn theory are not preempted by FIFRA. *See, e.g.*, Worm v. Am. Cyanamid Co., 5 F.3d 744, 747 (4th Cir. 1993) (in a FIFRA case, "[c]laims for negligent testing, manufacturing, and formulating, on the other hand, are not preempted"); Lyall v. Leslie's Poolmart, 984 F. Supp. 587 (E.D. Mich. 1997) (same for claims of negligent design and manufacturing); Higgins v. Monsanto Co., 862 F. Supp. 751 (N.D.N.Y. 1994) (claim of strict liability based on design defect and express warranty); Ackerman v. Am. Cyanamid Co., 586 N.W.2d 208 (Iowa 1998) (claims of negligent design and testing); *see also* Kawamata Farms v. United Agri Products, 948 P.2d 1055 (1997) (negligence, as well as strict liability and express warranty claims)).

14. *See generally* Couture v. Dow Chem. U.S.A., 804 F. Supp. 1298 (D. Mont. 1992); Burke v. Dow Chem. Co., 797 F. Supp. 1128 (E.D.N.Y. 1992); Diehl v. Polo Coop. Ass'n, 766 N.E.2d 317 (Ill. App. Ct. 2002); Sleath v. W. Mont. Home Health Servs., 16 P.3d 1042 (Mont. 2000).

15. *See* Stephen D. Otero, *The Case Against FIFRA Preemption: Reconciling Cippolone's Preemption Approach with Both the Supremacy Clause and Basic Notions of Federalism*, 36 WM. & MARY L. REV. 783, 815-17 (1995).

> but a state may not *indirectly* regulate pesticides by permitting tort suits at common law for damages, *for the very same reason that such regulation has the indirect effect of encouraging manufacturers to alter their labels*. This makes so little sense that the majority must be mistaken in concluding FIFRA preempts common law tort actions.[16]

An additional argument against FIFRA preemption, and one not expressly considered by the courts, is grounded in an economic theory of tort liability, public policy, and marketplace realities surrounding pesticide registration and use. This argument is based on the greater similarity and purpose of pesticide labels to the labeling of medical devices and prescription drugs as compared to labeling and advertisement of cigarette and tobacco products. Therefore, the more recent decisions by the Supreme Court in *Medtronic* and *Buckman v. Plaintiffs' Legal Committee* as they relate to preemption under the FDCA are more applicable to an analysis of the scope of preemption under FIFRA.[17]

We posit that FIFRA should not preempt failure-to-warn claims for pesticide-induced injuries. Concomitant with this recognition by the courts that FIFRA does not preempt failure-to-warn claims should be a strong presumption that pesticides registered by the EPA are not defectively designed, and that certain pesticides may be unavoidably unsafe products. Defective design claims predicated on a reasonably safer alternative are illusory and set a dangerous precedent imperiling the future availability of these important agricultural and public health products.

II. PESTICIDES AND MODERN AGRICULTURE

Pesticides have been used since ancient times to control or manage pests affecting man, his livestock, and crops.[18] However, the discovery and development of synthetic pesticides such as the organochlorines, organophosphates, carbamates, and others during the early and mid twentieth century was the watermark event leading to the widespread use of these products by nearly all segments of society.[19] Still, extensive and often contentious public policy debates continue to define the utility of pesticides for human benefit.[20]

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16. *Etcheverry*, 993 P.2d at 385 (Wedegar, J., dissenting).

17. *See* Medtronic v. Lhor, 518 U.S. 470, 482 (1996); Buckman v. Plaintiffs' Legal Comm., 531 U.S. 341, 353 (2001).

18. LOUIS FEINSTEIN, USDA, INSECTS: THE YEARBOOK OF AGRICULTURE 1952, INSECTICIDES FROM PLANTS 222 (Alfred Stefferud ed., 1954).

19. *See generally id.*

20. DAVID PIMENTEL & HUGH LEHMAN, THE PESTICIDE QUESTION: ENVIRONMENT,

Shortly after World War II, pesticides, most notably dichloro-diphenyl-trichloroethane ("DDT"), became an integral component of public health programs that largely conquered feared and devastating insect-transmitted human diseases, such as typhus and malaria, and contributed to the successes of our highly managed and intensively cultivated food and fiber production systems.[21] The importance of pesticides to our modern agricultural production systems cannot be overstated. The ability to provide adequate grain and animal protein for the world's burgeoning population would be impossible were it not for the discovery, manufacture, and use of pesticides as crop and animal protectants which greatly mitigate the deleterious effects of crop and animal pathogens, insects and weeds.[22]

Their use and misuse, however, comes with a social cost.[23] Beginning with the publication of Rachel Carson's *Silent Spring* in 1962[24] there has been increased scientific and public awareness of the prevalence and potential harmful effects of pesticides and their impact on human health, ecosystem integrity, and biodiversity.[25] Despite these public concerns, pesticide use has steadily increased to the extent that currently over 875 active ingredients are incorporated into some 40,000 EPA-registered products that are classified as pesticides.[26] Their uses are nearly ubiquitous throughout agricultural, urban, forestry, industrial, and food production industries.[27] "However, there are also other chemicals produced mostly for other purposes some of which are used as pesticides. Notable examples are chlorine, sulfur, and petroleum which are used as pesticides."[28] Also, there are industrial wood preservatives and biocides, which are not generally included in the term "conventional pesticides." All of these types of pesticides are regulated principally under FIFRA, which is administered by the EPA.[29]

ECONOMICS AND ETHICS, at xiii (Chapman & Hall 1993); *see also* DENNIS T. AVERY, SAVING THE PLANET WITH PESTICIDES AND PLASTICS: THE ENVIRONMENTAL TRIUMPH OF HIGH-YIELD FARMING (2d ed. Hudson Institute 2000).

21. *See, e.g.*, FEINSTEIN, *supra* note 18.

22. AVERY, *supra* note 20.

23. *See generally* PIMENTEL & LEHMAN, *supra* note 20; s*ee also*, STEVEN J. LARSON, ET AL., PESTICIDES IN SURFACE WATERS: DISTRIBUTION, TRENDS, AND GOVERNING FACTORS (Robert J. Gilliom ed., 1997).

24. Rachel Carson, Silent Spring (Paul Brooks ed., 1962).

25. PIMENTEL & LEHMAN, *supra* note 20; *see also* LARSON ET AL., *supra* note 23.

26. Arnold L. Aspelin, EPA, Pesticide Industry Sales and Usage: 1994 and 1995 Market Estimates 2 (1997).

27. *Id*.

28. *Id*.

29. *Id*.

Since 1970, approximately 1.2 and 5.0 billion pounds of conventional pesticides are applied annually for agricultural, forestry, and urban pest control in the United States and worldwide, respectively.[30] "About 4.5 billion pounds of chemicals are used as pesticides in the [United States] in a typical year (measured on the basis of active ingredient)."[31] Non-conventional pesticides such as "chlorine/hypochlorites are the leading type of pesticides in the [United States], with half of the U.S. total."[32] "Conventional pesticides and 'other pesticide chemicals' (e.g., sulfur, petroleum, etc.) account for about one-fourth of the total pesticide active ingredients used in the [United States] . . . ."[33] "Wood preservatives and specialty biocides make up the remainder of the U.S. total . . . ."[34] "A majority of these pesticides [are] used in agriculture to produce food and fiber, with the remainder used in industry/government applications and by homeowners."[35] Despite studies showing it is technologically feasible to reduce pesticide use by thirty-five to fifty percent without reducing crop yields, and despite promotion of pest mitigation programs such as integrated pest management,[36] pesticide use has remained constant and losses to pests remain at an estimated thirty-seven percent of the recoverable crop.[37]

The pesticide story does not end, however, with mere consideration of conventional pesticides and the balancing of the social utility with potential harm. The application of biotechnology in agriculture has created a new pesticide paradigm whereby recombinant DNA technology has permitted the creation of "biopesticide-containing" crop plants. The first genetically modified ("GM") crops were commercially released in 1992, with approximately forty million hectares of GM crops currently in production worldwide.[38] Biopesticide-containing

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30. PIMENTEL & LEHMAN, *supra* note 20, at 47.
31. ASPELIN, *supra* note 26, at 2.
32. *Id.* at 3.
33. *Id.* at 2.
34. *Id.* at 3.
35. *Id.* at 2.
36. *See* Robert L. Metcalf, *An Increasing Public Concern*, *in* THE PESTICIDE QUESTION: ENVIRONMENT, ECONOMICS AND ETHICS 426-430 (David Pimentel & Hugh Lehman eds., 1993) (stating a central premise of IPM is to generally relegate the use of pesticides to emergency use when all else fails and to spray only when necessary. Repeated successes with IPM programs in pest control all over the world have demonstrated that this ecological approach to pest control can reduce pesticide applications by fifty to ninety-five percent or more).
37. *See* LARSON ET AL., *supra* note 23; *see also*, AGRICULTURE PESTICIDES: MANAGEMENT IMPROVEMENTS NEEDED TO FURTHER PROMOTE INTEGRATED PEST MANAGEMENT, GAO-01-815 (GAO Report 2001).
38. *See* Leonard P. Gianessi et al., *Plant Biotechnology: Current and Potential Impact For Improving Pest Management In U.S. Agriculture* (June 2002), *at*

plants or plant pesticides were developed specifically to address environmental concerns associated with the use of pesticide chemicals. However, the use of biopesticides is controversial both from food safety and environmental perspectives.[39] Although concerns have been raised about allergenic proteins in GM crops, the principal issue remains the uncertainty of the environmental impact from the introduction of GM crop plants containing biopesticides.[40]

A. *Federal and State Regulation of Pesticides*

The widespread use and generally broad-spectrum toxicity of conventional pesticides and the discovery that their use caused unintended adverse environmental and health effects led Congress to enact comprehensive federal laws regulating the manufacture, registration, use and sale of pesticides in the 1970s.[41] The first federal law to regulate pesticides was the Insecticide Act of 1910,[42] which protected farmers from adulterated or misbranded products, but it was not until 1947 that Congress passed the first comprehensive law, FIFRA.[43] FIFRA required pesticide manufacturers to register pesticides, to display poison warnings on the labels of highly toxic pesticides, and to include other warning statements to prevent injury to people, animals and plants.[44] In 1972, 1978 and 1996 Congress enacted sweeping amendments to FIFRA, largely in response to public concerns over the health risks of pesticides and to ensure the safety of the U.S. food supply through enhanced risk assessments for establishing pesticide tolerances.

Three federal agencies have special responsibility for administering and enforcing the major federal pesticide laws,[45] whereas other federal statutes govern

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http://www.ncfap.org/40CaseStudies/MainReport.pdf.

39. *See* Richard A. Repp*, Biotech Pollution: Assessing Liability for Genetically Modified Crop Production and Genetic Drift,* 36 IDAHO L. REV. 585, 587 (2000).

40. *Id.*

41. FRED WHITFORD, THE COMPLETE BOOK OF PESTICIDE MANAGEMENT: SCIENCE, REGULATION, STEWARDSHIP, AND COMMUNICATION 3-4 (2002).

42. Pub. L. No. 6-152, 36 Stat. 331 (1910).

43. Act of June 25, 1947, ch. 125, 61 Stat. 163 (codified as amended at 7 U.S.C. § 136 (2000)).

44. *Id.*

45. *Id.* (stating the EPA has special responsibility under FIFRA for the registration of all pesticides); *see also* 21 U.S.C. §§ 342(a), 346a(a) (2000) (discussing that the FDA monitors domestic and imported foods for levels of pesticide residues under the Federal Food, Drug and Cosmetic Act); *id.* §§ 451-471, 601-691, 1031-1056 (2000) (discussing that the USDA monitors meat, poultry and egg products for pesticide residues under the Meat Inspection Act, the Poultry Products Inspection Act, and the Egg Products Inspection Act).

specific aspects involving use of pesticides.[46] Agricultural producers generally enjoy safe harbor from liability under these federal statutes for normal and routine applications of pesticides.[47] In addition to federal regulations, each of the fifty states has enacted statutes that regulate the sale, manufacture, registration and distribution of pesticides, and most states have legal authority and statutory responsibility to register pesticides and regulate use, storage, disposal, and certification of pesticides.[48] FIFRA limits the scope of a state's authority to regulate the sale or use of a pesticide.[49] While FIFRA plainly authorizes states to implement stricter pesticide laws,[50] federal preemption dictates which law applies when state and federal laws are in conflict.[51]

B. *What is a "Pesticide?"*

In general terms, a pesticide is any agent used to kill or control undesired pests (i.e. insects, weeds, rodents, fungi, bacteria or other organisms). Thus, the term "pesticide" includes insecticides, herbicides, rodenticides, fungicides, nematicides, and acaracides as well as disinfectants, fumigants, wood preservatives, and plant growth regulators.[52] It is apparent from the statutory language

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46. *See generally* Food, Agriculture, Conservation, and Trade Act of 1990, 7 U.S.C. § 136i-1 (2000) (regulating pesticide record keeping); Federal Seed Act Amendments of 1982, 7 U.S.C. § 1551 (2000) (regulating seeds treated with pesticides); Coastal Zone Management Act of 1996, 16 U.S.C. § 1451 (2000) (regulating application of pesticides in coastal zone areas); Occupational Safety and Health Act of 1998, 29 U.S.C. § 651 (2000) (regulating workplace safety); Federal Water Pollution Control Act, 33 U.S.C. § 1251 (2000) (concerning pesticides as pollutants); Safe Drinking Water Act Amendments of 1996, 42 U.S.C. § 300f (2000) (establishing maximum contaminant levels for pesticides in drinking water); Resource Conservation and Recovery Act of 1976, 42 U.S.C. § 6901 (2000) (regulating disposal, transport, and storage of pesticides); Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. § 9601 (2000) (imposing liability for disposal, transport, and storage of pesticides); Superfund Amendments and Reauthorization Act of 1999, 42 U.S.C. § 11001 (2000) (requiring states to develop plans for coping with pesticide emergencies); Endangered Species Act of 1973, 16 U.S.C. § 1531 (2000) (regulating the use of a pesticide to "take" an animal listed as endangered); Worker Protection Standards, 40 C.F.R. 170 (2002) (establishing standards for protective clothing and warnings for farmworkers and pesticide applicators).

47. *See, e.g.,* 7 U.S.C. § 136i(d) (2000); 7 U.S.C. § 1573 (2000); 16 U.S.C. § 1539 (2000); 42 U.S.C. § 11004(4) (2000); 40 C.F.R. § 170.104 (2002).

48. *See, e.g.,* Missouri Pesticide Use Act, MO. REV. STAT. §§ 281.010-281.115 (2000); Missouri Pesticide Registration Act, MO. REV. STAT. §§ 281.210-281.310 (2000).

49. 7 U.S.C. § 136v(a) (2000).

50. Wis. Pub. Intervenor v. Mortier, 501 U.S. 597, 607 (1991).

51. U.S. CONST. art. VI, cl. 2.

52. 40 C.F.R. § 152.5 (2003) (stating that

that defines pest that the definition refers to a group of organisms that cannot be defined by scientific taxonomy.[53]

"A pest is generally understood to be any organism that harms crop plants, domestic animals, or other interests of people."[54] In an agricultural setting, maize is a crop plant with valuable food, industrial, and aesthetic traits.[55] Yet when present in a soybean field, maize is a pest organism.[56] Similarly, deer, rabbits and many birds have high economic and aesthetic value.[57] Yet when they destroy crops, spread disease to livestock, or contribute to automobile or plane crashes, they are pests.[58] The term, therefore, is culturally defined and by logical extension, the term pesticide is a cultural definition.[59]

The Food Quality Protection Act of 1996[60] ("FQPA") amended the FIFRA and the Federal Food, Drug and Cosmetics Act ("FFDCA").[61] These amendments fundamentally changed the way the EPA regulates pesticides by requiring a new safety standard, reasonable certainty of no harm, which must be applied to all pesticides used on foods.[62]

Federal and state regulations[63] further classify pesticides into two classes: general use pesticides[64] and restricted use pesticides.[65] Commercial applicators

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> An organism is declared to be a pest under circumstances that make it deleterious to man or the environment, if it is:
> (a) Any vertebrate animal other than man; (b) Any invertebrate animal, including but not limited to, any insect, other arthropod, nematode, or mollusk such as a slug and snail, but excluding any internal parasite of living man or other living animals; (c) Any plant growing where not wanted, including any moss, alga, liverwort, or other plant of any higher order, and any plant part such as a root; or (d) Any fungus, bacterium, virus, or other microorganisms, except for those on or in living man or other living animals and those on or in processed food or processed animal feed, beverages, drugs (as defined in FFDCA sec. 201(g)(1)) and cosmetics (as defined in FFDCA sec. 201(i)).)

53. *The Proposed EPA Plant Pesticide Rule*, CAST Issue Paper No. 10 (Oct. 1998) (on file with Journal).
54. *Id.*
55. *Id.*
56. *Id.*
57. *Id.*
58. *Id.*
59. *Id.*
60. Pub. L. No. 104-170, 110 Stat. 1489 (1996) (codified at scattered sections throughout Title 7).
61. 21 U.S.C. § 321 (1994).
62. *See* 7 U.S.C. § 136(bb) (2000).
63. *See, e.g.,* 7 U.S.C. § 136a(d)(1)(C) (2000); MO. REV. STAT. § 281.210 (2000).
64. *See* MO. REV. STAT. § 281.220(17) (2000) (stating that a general use pesticide is

of pesticides are required by law in each state to obtain certification and licensing to apply general and restricted use pesticides, whereas private applicators (e.g. farmers, homeowners) are required by law to be licensed only to purchase and apply restricted use pesticides.[66]

The EPA regulations exempt two broad classes of products as not being pesticides: products that are not intended for use against pests, and products that are not deemed to be used for a pesticidal effect.[67] Products that are not pesticides because they are not deemed to be used for a pesticidal effect include:

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any pesticide, when applied in accordance with its directions for use, warnings and cautions and for the uses for which it is registered, or for one or more of such uses, or in accordance with a widespread and commonly recognized practice, will not generally cause unreasonable adverse effects on the environment).

65. *See id.* § 281.220(33) (stating a restricted use pesticide is

any pesticide, when applied in accordance with its directions for use, warnings and cautions and for the uses for which it is registered, or for one or more of such uses, or in accordance with a widespread and commonly recognized practice, the director subsequent to a hearing, or the federal government, determines may cause, without additional regulatory restrictions, unreasonable adverse effects on the environment, including injury to the applicator).

66. *See, e.g., id.* §§ 281.035, .040 (2000).

67. 40 C.F.R. § 152.8 (2000) (stating that

a substance or article is not a pesticide, because it is not intended for use against "pests" [if it is] . . .

(a) A product intended for use only for the control of fungi, bacteria, viruses, or other microorganisms in or on living man or animals, and labeled accordingly.

(b) A product intended for use only for control of internal invertebrate parasites or nematodes in living man or animals, and labeled accordingly.

(c) A product of any of the following types, intended only to aid the growth of desirable plants:

(1) A fertilizer product not containing a pesticide.

(2) A plant nutrient product, consisting of one or more macronutrients or micronutrient trace elements necessary to normal growth of plants and in a form readily usable by plants.

(3) A plant inoculant product consisting of microorganisms applied to the plant or soil for the purpose of enhancing the availability or uptake of plant nutrients through the root system.

(4) A soil amendment product containing a substance or substances added to the soil for the purpose of improving soil characteristics favorable for plant growth.

> (a) Deodorizers, bleaches, and cleaning agents; (b) Products not containing toxicants, intended only to attract pests for survey or detection purposes, and labeled accordingly; [and] (c) Products that are intended to exclude pests only by providing a physical barrier against pest access, and which contain no toxicants, such as certain pruning paints to trees.[68]

These types of products or articles are not considered to be pesticides unless a pesticidal claim is made on their labeling or in connection with their sale and distribution.[69]

III. PRODUCTS LIABILITY CLAIMS

Because FIFRA does not create a private cause of action against the manufacturer or registrant of a pesticide, injured parties must advance common law products liability theories to seek a judicial remedy.[70] Strict liability and breach of warranty claims alleging pesticide-induced injury arise most frequently in three scenarios. First, the agricultural setting whereby an insecticide, fungicide, herbicide or other pesticide causes injury to the target organism, the applicator, or a non-target organism.[71] Second, the urban setting whereby insecticides are applied for control of urban pests such as termites, ants, or roaches, and injury to occupants or homeowners results.[72] The third type of cases involve application of insecticides or other pesticides to animals (e.g horses, dogs, cats) with resulting injury to the animal or some person who comes into contact with the animal.[73] It is common for plaintiffs to plead multiple theories of liability. Trespass, nuisance, and negligence are additional common law remedies applicable to pesticide-related injuries.[74] In some states, nuisance and trespass actions have been codified under state law.[75]

> (d) A product intended to force bees from hives for the collection of honey crops.).

68. *Id.*

69. *Id.*

70. *See* 7 U.S.C. § 136j(b) (2000).

71. *See, e.g.,* Etcheverry v. Tri-Ag Serv., Inc., 993 P.2d 366, 366 (Cal. 2000).

72. *See, e.g.,* Arnold v. Dow Chem. Co., 110 Cal. Rptr. 2d 722, 722 (Cal. Ct. App. 2001).

73. *See, e.g.,* Netland v. Hess & Clark, Inc., 284 F.3d 895, 895 (8th Cir. 2002).

74. *See* W. PAGE KEETON ET AL., PROSSER AND KEETON ON THE LAW OF TORTS § 13 (5th ed. 1984).

75. *See e.g.,* OR. REV. STAT. § 30.932 (2001) (stating nuisance and trespass are defined jointly as including, but not limited to, "actions or claims based on noise, vibration, odors, smoke, dust, mist from irrigation, use of pesticides and use of crop production substances").

A. *Strict Liability*

Courts analyze claims brought under a legal theory of strict liability that pesticides are defective products by using either the consumer expectations test or the risk-utility test.[76] Restatement (Second) of Torts section 402(a) defines the consumer expectation test by stating, "one who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer."[77] Comments *g* and *i* to the Restatement state that a product is defective if it is unreasonably dangerous to the consumer at the time it leaves the seller's hands[78] and "dangerous to an extent beyond that which would be contemplated by the ordinary consumer who purchases it."[79] Comment *j* states "[t]he seller may be required to give directions or a warning, on the container, as to its use."[80] Manufacturers, distributors, or sellers have a duty to warn of dangerous ingredients whose dangers are not generally known, if they know or reasonably should know of their presence in the product and of their dangerous characteristics.[81] The consumer expectations test of section 402(a) is rooted in the warranty remedies of contract law, and requires that harm and liability flow from a product characteristic that frustrates consumer expectations.[82] The prevailing interpretation of "defective" is that the product does not meet the reasonable expectations of the ordinary consumer as to its safety.[83] The product must be dangerous to an extent not contemplated by the ordinary consumer who purchased it with the ordinary knowledge common to the community as to its characteristics.[84]

Under the risk-utility test, a product is defective and unreasonably dangerous when a reasonable seller would not sell the product if he knew of the risks involved or if the risks are greater than a reasonable buyer would expect.[85] The

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76. *See generally* Ark. Platte & Gulf P'ship v. Dow Chem. Co., 886 F. Supp. 762 (D. Colo. 1995); *Arnold*, 110 Cal. Rptr. 2d at 722; Ruiz-Guzman v. AMVAC Chem. Corp., 7 P.3d 795 (Wash. 2000).

77. RESTATEMENT (SECOND) OF TORTS § 402A (1965).

78. *See id.* § 402A cmt. g.

79. *Id.* § 402A cmt. i.

80. *Id.* § 402A cmt. j.

81. *Id.*

82. *See* Page Keeton, *Product Liability and the Meaning of Defect*, 5 ST. MARY'S L.J. 30, 37-38 (1973).

83. *See id.*

84. *See id.* at 37.

85. *See* Phillips v. Kimwood Mach. Co., 525 P.2d 1033, 1036 (Or. 1974) (citing Welch v. Outboard Marine Corp., 481 F.2d 252, 254 (5th Cir. 1973)).

central question posed under a risk-utility analysis is whether there is a safer alternative design. The courts have taken three approaches with the risk-utility analysis. In *Kallio v. Ford Motor Co.*, the court applied a soft approach to the risk-utility test by requiring that a safer alternative design *is* available.[86] The court held that evidence of a prototype that has not been sufficiently tested is a factor but not an element in risk-utility analysis, and thus can go to the jury.[87] A second approach to risk-utility analysis is *Smith v. Louisville Ladder Co.*, where the court held that evidence that a safer alternative design could have been available is not sufficient to get the case to the jury.[88] The court held that very specific evidence as to the cost and benefits is required before a plaintiff can show the existence of a safer alternative design.[89] This approach to the risk-utility analysis also presents an evidentiary issue because the court takes a hard approach as to the admissibility of expert testimony; the judge makes a determination of what is good science versus junk science.[90] California utilizes the third approach to risk-utility analysis whereby a manufacturer is held strictly liable for injuries caused by a design defect utilizing either the consumer expectations test or the risk-utility test.[91] Once the plaintiff establishes that the product caused harm, then the burden shifts to the defendant to show absence of a safer design.[92] The jury, as a trier of fact, determines whether the defendant has satisfied this burden.[93] California's products liability law is considered the most friendly to plaintiffs because it allows use of either test and because of its burden shifting provision. These approaches to the risk-utility analysis are based on the economic theory of strict liability where defect is determined in cost-benefit terms: a product is defective if it could have been made safer at a lower cost than the benefit in reducing expected accident costs. Is it more efficient for the user to exercise reasonable caution than it is for the manufacturer to create a safer alternative? If the manufacturer was liable for every injury, then there is no incentive for consumers to exercise caution or change their behavior.

With pesticide injury claims, the basis for strict liability for design defects is that reasonable care must be used to design a product that "is reasonably

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86. Kallio v. Ford Motor Co., 407 N.W.2d 92, 101 (Minn. 1987) (emphasis added).
87. *See id.* at 95.
88. Smith v. Louisville Ladder Co., 237 F.3d 515, 537 (5th Cir. 2001).
89. *Id.* at 520.
90. *Id.*
91. *See* Barker v. Lull Eng'g. Co., 573 P.2d 443, 453 (1978).
92. *See id.*
93. *See id.*

safe for its intended or foreseeable uses."[94] Defectively manufactured or designed pesticides properly labeled under FIFRA, however, may still be subject to state regulation because a claim of defective manufacture or design does not directly attack the EPA-approved label or packaging.[95]

IV. THE PREEMPTION DOCTRINE, FIFRA AND STATE COMMON LAW CLAIMS

The preemption doctrine is grounded upon the Supremacy Clause of the United States Constitution,[96] which "invalidates state laws that 'interfere with, or are contrary to,' federal law."[97] As the U.S. Supreme Court has explained

> [P]reemption occurs when Congress, in enacting a federal statute, expresses a clear intent to preempt state law,[98] when there is outright or actual conflict between federal and state law,[99] where compliance with both federal and state law is in effect physically impossible,[100] where there is implicit in federal law a barrier to state regulation,[101] where Congress has legislated comprehensively, thus occupying an entire field of regulation and leaving no room for the States to supplement federal law,[102] or where the state law stands as an obstacle to the accomplishment and execution of the full objectives of Congress.[103] "The critical question in any preemption analysis is always whether Congress intended that federal regulation supersede state law."[104]

Furthermore, "any understanding of the scope of a preemption statute must rest primarily on 'a fair understanding of *congressional purpose*,' . . . [as] discerned from the language of the preemption statute and the 'statutory framework' surrounding it."[105]

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94. Ark. Platte & Gulf P'ship v. Dow Chem. Co., 886 F. Supp. 762, 767 (D. Colo. 1995) (citing Camacho v. Honda Motor Co., 741 P.2d 1240, 1245 (Colo. 1987)).

95. *See* Nat'l Bank of Commerce of Eldorado, Ark. v. Dow Chem. Co., 165 F.3d 602, 609 (8th Cir. 1999).

96. U.S. CONST. art. VI, cl. 2.

97. Hillsborough County, Fla. v. Automated Med. Lab., Inc., 471 U.S. 707, 712 (1985) (citations omitted).

98. *See, e.g.,* Jones v. Rath Packing Co., 430 U.S. 519, 525 (1977).

99. *See, e.g.,* Free v. Bland, 369 U.S. 663, 666 (1962).

100. *See, e.g.,* Fla. Lime & Avocado Growers, Inc., v. Paul, 373 U.S. 132, 141 (1963).

101. *See, e.g.,* Shaw v. Delta Air Lines, Inc., 463 U.S. 85, 95-97 (1983).

102. *See, e.g.,* Rice v. Santa Fe Elevator Corp., 331 U.S. 218, 229 (1947).

103. *See, e.g.,* Hines v. Davidowitz, 312 U.S. 52, 53 (1941).

104. La. Pub. Serv. Comm'n v. FCC, 476 U.S. 355, 369 (1986).

105. Medtronic v. Lohr, 518 U.S. 470, 485-86 (1996) (emphasis in original) (quoting Cipollone v. Liggett Group, Inc., 505 U.S. 504, 530 n. 27 (1992)).

FIFRA, originally enacted in 1947, primarily as a licensing and labeling statute, was comprehensively revised in 1972, primarily due to mounting public concern about the safety of pesticides, and the effect on the environment and the growing perception that the existing legislation was not equal to the task of safeguarding the public interest.[106] The 1972 amendments transformed FIFRA from a labeling law into a comprehensive regulatory statute governing the use, sale and labeling of pesticides.[107] Under FIFRA, all pesticides sold in the United States must be registered with the EPA.[108] When applying for registration, manufacturers must submit draft label language addressing a number of topics including ingredients, directions for use, and any information of which they are "aware regarding unreasonable adverse effects of the pesticide on man or the environment."[109] Prior to registering a pesticide, the EPA must find that its labeling complies with FIFRAs requirements, such as a determination that the pesticide is not misbranded, and that when the pesticide is used in accordance with its labeling, it will perform its intended function without an unreasonable adverse effect on the environment,[110] which includes not only land, air and water, but also humans and animals.[111] FIFRA establishes a complex process of EPA review to attain the approval of the label under which the product is to be marketed.[112] The EPA is then charged with the duty of determining what supporting data the manufacturer must provide concerning the pesticide.[113] The pesticide receives a registration number once the EPA determines that its composition warrants the proposed claims for it, that its labeling complies with FIFRA requirements, and that it will perform its intended function without unreasonable adverse effects on the environment.[114] At the time of registration, the manufacturer is required to submit a proposed label to the EPA for approval, and the EPA must ensure that the proposed label is both "adequate to protect health and the environment" and "likely to be read and understood."[115] To that end, EPA regulations provide spe-

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106. *See* Ruckelshaus v. Monsanto Co., 467 U.S. 986, 991 (1984).
107. *See id.* at 991-92.
108. *See* 7 U.S.C. § 136a(a) (2000).
109. 40 C.F.R. § 152.50(f)(3) (2000).
110. *See* 7 U.S.C. § 136a(c)(5) (2000).
111. *See id.* § 136a.
112. *See id.* § 136a(c); *see also* 40 C.F.R. §§ 152.50, 153 (2000) (requiring a pesticide manufacturer to submit the pesticide's name, labeling information, directions for use, formula, information concerning studies of the product, and its adverse effects in order to register the pesticide).
113. *See* 40 C.F.R. § 158.190 (2000).
114. *See* 7 U.S.C. § 136a(c)(5) (2000).
115. *Id.* § 136(q)(1)(E) & (F).

cific labeling requirements governing the content and placement of labels.[116] In addition, the regulations provide specific requirements regarding content, placement, type, size and prominence of the warning and precautionary statements on labels.[117] After the product is registered, the manufacturer is generally not free to modify the label without EPA approval,[118] and must report new information on unreasonable adverse effects of the pesticide on the environment to the EPA.[119]

In the 1978 amendments to FIFRA, Congress inserted a savings clause and an express preemption clause.[120] Thus, section 136v lies at the core of the FIFRA preemption controversy. The Supreme Court specifically addressed and settled the issue of FIFRA preemption under the state "savings clause" in *Wisconsin Public Intervenor v. Mortier*, concluding that the legislative history surrounding FIFRA clearly demonstrates "an unwillingness by Congress to grant political subdivisions regulatory authority, [but] does not demonstrate an intent to prevent the States from delegating such authority to its subdivisions, and still less does it show a desire to prohibit local regulation altogether."[121] Thus, the section 136v(a) "savings clause" reserves to the states broad powers within the FIFRA regulatory scheme by plainly authorizing states to implement stricter pesticide laws regulating the sale and use of pesticides.[122] Section 136v(b), FIFRAs express preemption clause, is more properly viewed as an exception carved out of the broad powers granted to states to regulate the sale and use of pesticides.[123] Although the legislative history indicates that section 136v(b) was intended to completely preempt state authority in regard to labeling, the "legislative history does not demonstrate a Congressional intent to extinguish actions for damages."[124] Clearly, federal law may preempt any state law, whether it is statutory

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116. 40 C.F.R. § 156.10(a)(1) & (3) (2000).

117. *Id.* § 156.10(h) (stating that the warnings and precautionary statements concern the toxicological hazards of the registered pesticide, including hazards to children, environmental hazards, and physical or chemical hazards).

118. 7 U.S.C. § 136a(c)(2)(A) (2000).

119. 40 C.F.R. § 152.125 (2000).

120. 7 U.S.C. § 136v(a) (2000) (stating that "[a] State may regulate the sale or use of any federally registered pesticide . . . but only . . . to the extent the regulation does not permit any sale or use prohibited by this subchapter"); 7 U.S.C. § 136v(b) (2000) (stating that a state "shall not impose or continue in effect *any requirements* for labeling . . . in addition to or different from those required under this subchapter" (emphasis added)).

121. *Wis. Pub. Intervenor v. Mortier*, 501 U.S. 597, 609 (1991).

122. 7 U.S.C. § 136v(a) (2000); *Mortier*, 501 U.S. at 609-610.

123. *See* 7 U.S.C. § 136v(b) (2000); Sleath v. W. Mont. Home Health Servs., 16 P.3d 1042, 1051 (Mont. 2000).

124. *Sleath*, 16 P.3d at 1051.

or based on common law.[125] As such, the controversy surrounding section 136v(b) lies not with whether "Congress intended to preempt some state law", but rather what is "the scope of that preemption."[126] More specifically, the core disagreement within the courts over the language of FIFRAs preemption clause lies in the phrase "[such] State shall not impose . . . *requirements* for labeling . . ." and whether the term "requirements" encompasses state common law claims as well as positive enactments by states.[127]

Thus, plaintiffs who bring a products liability claim under strict liability or breach of warranty inevitably must contend with a motion for summary judgment by the defendant based on FIFRAs preemption clause.[128] Legal maneuvers to defeat summary judgment have taken two approaches: (1) a direct assault on the plain meaning of the statute based on legislative history and Congressional intent; and (2) an indirect approach that seeks to legitimize plaintiff's claims through artful pleadings, discovery, and expert testimony that avoids predicating the claim based on inadequate labeling.

A. *FIFRA Preemption of Claims Based on Breach of Warranties of Merchantability and Fitness*

The Supreme Court settled the issue of federal preemption of breach of express warranty in *Cipollone*.[129] The Court stated that "[a] manufacturer's liability for breach of an express warranty derives from, and is measured by, the terms of that warranty. Accordingly, the 'requirement[s]' imposed by an express warranty claim are not 'imposed under State law,' but rather imposed *by the warrantor*."[130] Therefore such claims would not be preempted under FIFRA because the

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125. *See, e.g.,* McElroy et al., *supra* note 11, at 48. The underlying reason for this principle is best illustrated by the maxim that what a state "may not do directly through enforcement of its ordinance, it may not do indirectly by means of a common law claim." Consol. Rail Corp. v. City of Dover, 450 F. Supp. 966, 972 (D. Del. 1978); *see also* Int'l Paper Co. v. Oullette, 479 U.S. 481, 495-97 (1987).

126. *See* Etcheverry v. Tri-Ag Serv., Inc., 993 P.2d 366, 381 (Cal. 2000) (Werdegar, J., dissenting).

127. *Id*. at 380 (Werdegar, J., dissenting) (emphasis added).

128. McAlpine v. Rhone-Poulenc Agric. Co., 947 P.2d. 474, 476 (Mont. 1997) (stating that "because all of Appellant's claims are based on deficiencies in Weedone LV6's label, they are banned by FIFRA").

129. Cipollone v. Liggett Group, Inc., 505 U.S. 504, 504 (1992).

130. *Id.* at 525.

relevant duty is one voluntarily assumed by the parties, whereas implied warranties are a "requirement" imposed under state law.[131]

Federal and state cases go both ways, however, in determining whether claims alleging breach of implied warranties of merchantability, fitness for particular purpose, or safety are preempted by FIFRA.[132] In *Arnold v. Dow Chemical Co.*, the court followed those cases that hold no FIFRA preemption for claims alleging breach of implied warranties of merchantability, fitness for particular purpose, or safety.[133] The court held that the doctrine of privity did not bar the appellant's cause of action for breach of implied warranty under the rationale that such implied warranties do not create a labeling requirement different from or in addition to those mandated by FIFRA.[134] The general rule is that "privity of contract is required in an action for breach of either express or implied warranty,"[135] but an exception to the general rule was extended to foodstuffs and drugs in *Gottsdanker v. Cutter Laboratories.*[136] The *Arnold* court extended this exception to pesticides by stating, "that rationale applies equally to pesticides, which are solely intended to rid human habitation of pests."[137] Conversely, the court in *Arkansas-Platte* held FIFRA impliedly preempts state tort actions based on labeling and alleged failure-to-warn.[138] The court reasoned jury awards of damages in these actions would result in direct conflict with federal law.[139] However, even if

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131. *Id.*

132. *See* Taylor AG Indus. v. Pure-Gro, 54 F.3d 555, 563 (9th Cir. 1995) (holding that implied warranty claim preempted because plaintiffs only presented evidence that the distributor should have supplied information in addition to or different from the manufacturer's labels); Jeffers v. Wal-Mart Stores, Inc., 84 F. Supp. 2d 775, 784 (S.D. W.Va. 2000) (holding that warranty claims based on packaging not preempted by FIFRA); Wright v. Dow Chem. U.S.A., 845 F. Supp. 503, 510-511 (M.D. Tenn. 1993); Malone v. Am. Cyanamid Co., 649 N.E.2d 493, 499 (Ill. App. Ct. 1995) (holding that Congress did not intend FIFRA to preempt state common law actions for breach of implied warranty based on advertising); Hue v. Farmboy Spray Co., 896 P.2d 682, 694 (Wash. 1995) (holding that implied warranty claim that pesticides should not be used in area prone to drift is problem cured by warning on label).

133. Arnold v. Dow Chem. Co., 110 Cal. Rptr. 2d 722, 740 (Cal. Ct. App. 2001).

134. *Id.* at 739.

135. Burr v. Sherwin Williams Co., 268 P.2d 1041, 1048 (Cal. 1954).

136. Gottsdanker v. Cutter Lab., 182 Cal. App. 2d 602, 607-609 (Cal. Ct. App. 1960) (holding that while a sale is essential to impose liability under the implied warranties, the initial sale to distributor or retailer of pharmaceuticals is sufficient to impose upon the manufacturer the responsibility of fulfilling the implied warranties, which run to the benefit of the persons whom the manufacturer intended and who in fact became the "consumers").

137. *Arnold*, 110 Cal. Rptr. 2d at 739.

138. Ark.-Platte & Gulf P'ship v. Van Waters & Rogers, Inc., 959 F.2d 158, 160 (10th Cir. 1992).

139. *Id.* at 161.

a state tort action accomplished the same goal as the federal statutory provisions, federal law would still preempt the state action because "it attempts to achieve that purpose by a method which interferes with the federal methods."[140] The *Arkansas-Platte* court concluded its analysis of implied preemption by stating,

> This is by virtue of the direct conflict posed with federal uniform regulation of pesticides, and because we believe Congress intended to occupy the field of pesticide labeling regulation. We base our holding on the language of § 136v, our rejection of the *Ferebee* court's "choice of reaction" analysis, and our understanding of the Supreme Court's construction of FIFRA in *Mortier*.[141]

B. *FIFRA Preemption of Failure-To-Warn Claims*

Even though the Supreme Court has ruled on the issue of federal preemption of pesticide use,[142] it has not directly addressed the issue of federal preemption of state common law claims for pesticide injuries based on failure-to-warn.[143] Because the Supreme Court has declined to decide preemption of FIFRA failure-to-warn claims, lower courts have focused on two Supreme Court cases as controlling authority for the FIFRA preemption issue, regardless of whether the court holds that FIFRA preemption applies to failure-to-warn claims.[144] How a particular court will decide this issue rests as much with the interpretations of the two Supreme Court decisions in *Cipollone* and *Medtronic* as it does the controlling authority within the federal circuit's or state court's jurisdiction.[145]

In *Cipollone v. Liggett Group, Inc.*, the plaintiff claimed that the defendant tobacco company caused his mother's death by failing to provide adequate warnings on its cigarettes and by misrepresenting the dangers of smoking to the public.[146] The Supreme Court interpreted a portion of the Public Health Cigarette Smoking Act of 1969 that provided "*[n]o requirement or prohibition* based on smoking and health shall be imposed under State law with respect to the advertising or promotion of any cigarettes the packages of which are labeled in

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140. *Id.* at 162 (*citing* Int'l Paper Co. v. Ouellette, 479 U.S. 481, 497 (1987)).
141. *Id.* at 164.
142. *See* Wis. Pub. Intervenor v. Mortier, 501 U.S. 597, 607 (1991).
143. *See* Chem. Specialties Mfrs. Ass'n v. Allenby, 958 F.2d 941, 948 (9th Cir. 1992).
144. *See* Medtronic v. Lhor, 518 U.S. 470, 470 (1996); Cipollone v. Liggett Group, Inc., 505 U.S. 504, 504 (1992).
145. *See* Sleath v. W. Mont. Home Health Servs., 16 P.3d 1042, 1048-51 (Mont. 2000); Etcheverry v. Tri-Ag Serv., Inc., 993 P.2d 366, 385 (Cal. 2000).
146. *Cipollone*, 505 U.S. at 508.

conformity with the provisions of this Act."[147] The Court read the phrase "[n]o requirement or prohibition" to sweep broadly and suggest no distinction between positive enactments and common law.[148] On this basis, the Court held that state law failure-to-warn claims are preempted insofar as they require a showing that a defendant's cigarette advertising "should have included additional, or more clearly stated [] warnings."[149] Nearly all state courts, and federal circuit and appellate courts have determined that for purposes of determining the scope of FIFRA preemption, *Cipollone* provides the appropriate framework for FIFRA preemption clause analysis.[150]

In *Medtronic, Inc. v. Lohr*, a patient's pacemaker failed, resulting in a "complete heart block" that required her to undergo emergency surgery, after which she brought an action against the pacemaker manufacturer asserting claims of negligence and strict liability.[151] A four-justice plurality held that distinct features of the Medical Devices Act ("MDA") mandated the conclusion that Congress intended only to preempt states from imposing positive law "requirements" on medical devices in the form of regulations or laws and did not intend to preempt common law damage actions.[152] The preemption statute at issue in the MDA provided:

> [N]o State or political subdivision of a State may establish or continue in effect with respect to a device intended for human use *any requirement*– (1) which is different from, or in addition to, *any requirement* applicable under this chapter to the device, and (2) which relates to the safety or effectiveness of the device or to any other matter included in a *requirement* applicable to the device under this chapter.[153]

The plurality in *Medtronic* distinguished the statutory phrase "requirements" from *Cipollone* because MDA preemption would have a greater impact on state sovereignty and plaintiff's ability to obtain redress.[154] The Court recognized the FDA's regulation that the state requirement must be "different from, or in addition to, the *specific* requirements" of the MDA.[155] Because the common law failure-to-warn claim did not specifically conflict with the MDA regulations,

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147. *Id.* at 515 (quoting 15 U.S.C. § 1334(b) (1988) (emphasis added)).
148. *Id.* at 521.
149. *Id.* at 524.
150. *See Sleath*, 16 P.3d at 1049 (citing *Cipollone,* 505 U.S. at 524).
151. Medtronic v. Lhor, 518 U.S. 470, 480-81 (1996).
152. *Id.* at 488-89.
153. 21 U.S.C. § 360k(a) (2000) (emphasis added).
154. *Compare Medtronic*, 518 U.S. at 486-87, *with Cipollone*, 505 U.S. at 504.
155. *Medtronic*, 518 U.S. at 506-07 (quoting 21 C.F.R. § 808.1(d) (1996)).

there was no preemption.[156] According to the *Medtronic* Court, one could conclude that the use of the word requirement in the MDA must mean the same thing as in the 1969 Cigarette Act, and thus the MDA must preempt state common law causes of action.[157] This was, in fact, the precise argument of the defendant in *Medtronic*:

> *Medtronic* suggests that any common-law cause of action is a "requirement" which alters incentives and imposes duties "different from, or in addition to," the generic federal standards that the [Federal Drug Administration] has promulgated in response to mandates under the MDA. In essence, the company argues that the plain language of the statute pre-empts any and all common-law claims brought by an injured plaintiff against a manufacturer of medical devices.[158]

The Supreme Court disagreed, finding the argument "not only unpersuasive," but "implausible," and its discussion of the issue is illuminating:[159]

> Under *Medtronic's* view of the statute, Congress effectively precluded state courts from affording state consumers any protection from injuries resulting from a defective medical device. Moreover, because there is no explicit private cause of action against manufacturers contained in the MDA, and no suggestion that the Act created an implied private right of action, Congress would have barred most, if not all, relief for persons injured by defective medical devices. *Medtronic's* construction of § 360k would therefore have the perverse effect of granting complete immunity from design defect liability to an entire industry that, in the judgment of Congress, needed more stringent regulation in order "to provide for the safety and effectiveness of medical devices intended for human use . . . ."[160] It is, to say the least, "difficult to believe that Congress would, without comment, remove all means of judicial recourse for those injured by illegal conduct,"[161] and it would take language much plainer than the text of § 360k to convince us that Congress intended that result.[162]

The Court extended its reasoning by stating,

> Furthermore, if Congress intended to preclude all common-law causes of action, it chose a singularly odd word with which to do it. The statute would have achieved an

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156. *Id.*
157. *Id.*
158. *Id.* at 486 (Stevens, J., plurality opinion).
159. *Id.* at 487 (Stevens, J., plurality opinion); *see also id.* at 505 (Breyer, J., concurring) (agreeing the MDA does not preempt state common law causes of action).
160 *Id.* (Stevens, J., plurality opinion) (quoting 90 Stat. 539, Pub. L. 94-295 (1976)).
161. *Id.* (Stevens, J., plurality opinion) (quoting Silkwood v. Kerr-McGee Corp., 464 U.S. 238, 251 (1984)).
162. *Id.* (Stevens, J., plurality opinion).

> identical result, for instance, if it had precluded any "remedy" under state law relating to medical devices. "Requirement" appears to presume that the State is imposing a specific duty upon the manufacturer, and although we have on prior occasions concluded that a statute pre-empting certain state "requirements" could also pre-empt common-law damages claims . . . that statute did not sweep nearly as broadly as *Medtronic* would have us believe that this statute does.[163]

The key issue for purposes of FIFRAs express preemption clause, therefore, becomes which case more closely parallels pesticide injury claims that implicate some aspect of the label and FIFRAs preemption clause. Because *Medtronic* was decided by only a plurality, and most federal courts have held that the statutory language in the 1969 Cigarette Smoking Act more closely follows language in the FIFRA preemption clause than does the MDA, *Cipollone* remains controlling authority for FIFRA preemption with the majority of courts.[164] These majorities of courts have held that:

> FIFRA preempts state tort claims to the extent that they arise from an omission or inclusion in a product's label, but . . . claims alleging a product, manufacturing, or design defect; claims alleging negligent design, testing, or manufacturing; or claims alleging breach of warranty that do not rely on such an omission or inclusion in the product's label, are not preempted.[165]

Therefore, defendants who invoke the FIFRA preemption shield have benefited from the *stare decisis* doctrine. Yet, at least one state supreme court has questioned these prior court interpretations of FIFRAs preemption clause by noting that:

> [n]o court considering preemption under FIFRA ever addressed the meaning of "requirements" in the entire context of FIFRA; courts only looked at it in terms of § 136v(b). However, in each instance other than § 136v(b), Congress intended the term "requirements" to mean enactments of positive law by legislative or administrative bodies.[166]

An additional consideration not mentioned in the analysis of whether *Cipollone* or *Medtronic* are more closely analogous to FIFRA concerns the issue

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163. *Id.* at 487-88 (Stevens, J., plurality opinion).
164. *See, e.g.,* Sleath v. W. Mont. Home Health Servs., 16 P.3d 1042, 1049 (Mont. 2000).
165. *See, e.g., id.* (citing McAlpine v. Rhone-Poulenc Ag. Co., 947 P.2d 474, 477 (Mont. 1997)).
166. *Id.* at 1051.

of the label itself; its purpose, technical specificity, and format.[167] It would seem overly presumptuous to maintain that congressional intent was predicated on adoption of statutory language covering "requirements" for labeling of tobacco products in 1969 and heart pacemakers in 1984 within the framework covering pesticide labeling under FIFRA in 1978.[168] Therefore, arguments that *Cipollone* should control decisions related to FIFRA preemption, because its statutory language more closely follows the language found in FIFRAs section 136v(b) compared to the statutory language in *Medtronic*,[169] fail to consider this most basic fact as to what types of labels each statute controls and what was the purpose of preemption as a practical comparison. For example, labels on tobacco products are concisely worded warnings that are understandable to the general public and therefore are more properly viewed as advertisements about the dangers of product use to the general public. Consistency in these rather "simple" warning labels was understandably a matter of federal concern, and therefore federal preemption was a matter of common sense and practicality. Pesticide labels, on the other hand, much like labels for prescription drugs and medical devices, are highly technical and lengthy documents. They encompass regional and state requirements for sale and use, toxicity warnings, rotational crop restrictions, compatible tank mixes, consideration of environmental factors affecting efficacy, target pests controlled, and other matters affecting their manner of use.[170] Furthermore, because section 136v(c) reserves to states the power to approve use of a pesticide on a particular commodity for which no label for that particular use exists,[171] the statutory language supports the argument that federal preemption of labeling was more directed at ensuring one national product label than preclusion of pesticide-induced injury claims.

C. *FIFRA Preempts Failure-To-Warn Claims: The Majority View*

The majorities of courts have held that failure-to-warn and breach of warranty claims involving injury from pesticide exposure were preempted by FIFRA.[172] In addition, many of these courts have held that plaintiff's claims were

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167. *Id.*
168. *Id.* at 1050.
169. *Id.* at 1051.
170. CROP PROTECTION REFERENCE (11th ed. 1995).
171. *See* 7 U.S.C. § 136v(c)(1) (2000) (stating that "a state may provide registration for additional uses of federally registered pesticides formulated for distribution and use within that State to meet special local needs") .
172. *See generally* Netland v. Hess & Clark, Inc., 284 F.3d 895 (8th Cir. 2002); Hawkins

merely failure-to-warn claims artfully pleaded as defective design or breach of warranty claims, or disguised labeling claims and therefore precluded by FIFRA preemption.[173] The use of FIFRAs preemption clause by defendants as a shield in failure-to-warn claims is grounded in a broad reading of the statutory language in FIFRA that once a label is approved, FIFRA expressly provides a defense, arising from preemption, against certain state law claims.[174]

Two cases decided on remand from the Supreme Court established the majority view that FIFRA has preempted state common law failure-to-warn claims.[175] In *Papas v. Upjohn Co.,* the court held that FIFRA expressly preempts state common law tort suits against manufacturers of EPA-registered pesticides to the extent that such actions are based on claims of inadequate labeling.[176] The court in *Arkansas-Platte & Gulf Partnership v. Van Waters & Rogers, Inc.,* agreed with the *Papas* court by concluding that while Congress had not occupied the broad field of pesticide regulation, it had occupied the narrower field of pesticide labeling and packaging.[177] The court explained that "[s]tate court damage awards based on failure-to-warn would constitute ad hoc determinations of the

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v. Leslie's Pool Mart, Inc., 184 F.3d 244 (3d Cir. 1999); Eyl v. Ciba-Ceigy Corp., 650 N.W.2d 744 (Neb. 2002); Etcheverry v. Tri-Ag Serv., Inc., 993 P.2d 366 (Cal. 2000).

173. *See* Andrus v. Agrevo USA Co., 178 F.3d 395, 400 (5th Cir. 1999) (stating that a cause of action based on the failure of a herbicide to perform as advertised on label was preempted); Kuiper v. Am. Cyanamid Co., 131 F.3d 656, 666 (7th Cir. 1997) (stating that a cause of action based on a statement made by herbicide dealer which reiterated the statement on the label was based on failure-to-warn and therefore preempted); Grenier v. Vt. Log Bldgs., Inc., 96 F.3d 559, 565-66 (1st Cir. 1996) (stating plaintiffs essentially alleged failure-to-warn against use of chemically treated logs in residences); Taylor AG Indus. v. Pure-Gro, 54 F.3d 555, 563 (9th Cir. 1995) (stating plaintiff's failure-to-warn claims were preempted to the extent they required additional or different information on the manufacturer's labels; negligent testing claim based on inadequate product labels also preempted); Welchert v. Am. Cyanamid Co., 59 F.3d 69, 73 (8th Cir. 1995) (stating that an express warranty claim was based entirely on the herbicide label's statement and was preempted); Worm v. Am. Cyanamid Co, 5 F.3d 744, 747-48 (4th Cir. 1993) (holding an express warranty claim was based entirely on the herbicide's label statement and was preempted and stating the line between mislabeling and defective design may not always be clear but may be resolved by asking whether manufacturer would alter the product or the label); Papas v. Upjohn Co., 985 F.2d 516, 520 (11th Cir. 1993) (holding claims which alleged that manufacturer failed to warn its product contained certain harmful chemicals and failed to inform users was preempted).

174. *See* Nat'l Bank of Commerce of Eldorado, Ark. v. Dow Chem. Co., 165 F.3d 602, 608 (8th Cir. 1999).

175. *See Papas*, 985 F.2d at 520; Ark.-Platte & Gulf P'ship v. Van Waters & Rogers, Inc., 959 F.2d 158, 164 (10th Cir. 1992).

176. *Papas*, 985 F.2d at 520.

177. *Ark.-Platte & Gulf P'ship v. Van Waters & Rogers, Inc*., 959 F.2d at 162 (adopting Wis. Pub. Intervenor v. Mortier, 501 U.S. 597, 614 (1991)); *see also Papas*, 985 F.2d at 520.

adequacy of statutory labeling standards [by individual state juries]. This would hinder the accomplishment of the full purpose of section 136v(b), which is to ensure uniform labeling standards."[178]

Support that FIFRA preempts state common law failure-to-warn claims has been based on two lines of reasoning.[179] First, courts have reasoned that as a practical matter, common law damage awards would impose certain additional labeling requirements on the label indistinguishable from those imposed by positive legislative or executive enactments.[180] Thus "any distinction between the two is illusory."[181] Second, based on dicta in *Wisconsin Public Intervenor v. Mortier*, the supposition that the Supreme Court might hold that FIFRA preempts labeling is based on the implication that FIFRAs preemption clause "would be pure surplusage if Congress had intended to occupy the entire field of pesticide regulation."[182] Because Congress reserved to the states the ability to regulate pesticide sales, it foreclosed state regulation of pesticide labeling.[183]

Three federal circuit courts have recently concluded that the established interpretation (based on *Cipollone*) of the FIFRA preemption clause is unchanged by the Supreme Court's decision in *Medtronic, Inc. v. Lohr*.[184] The First Circuit in *Grenier v. Vermont Log Buildings, Inc.* held "[i]t . . . is now settled by the Supreme Court in *Cipollone* and *Lohr*, that 'requirements' in this context presumptively includes state causes of action as well as laws and regulations."[185] The Third Circuit in *Hawkins v. Leslie's Pool Mart, Inc.* concluded, "even assuming that FIFRA is analogous to the [MDA] addressed by the Supreme Court in *Medtronic*, contrary to [plaintiff's] assertions, we do not read that case as standing for the overarching premise that tort claims fall outside 'preempted requirements.'"[186] Finally, the Eighth Circuit held in *Netland v. Hess & Clark* that the plaintiff's claims for damages for injury resulting from use of the insecticide

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178. *Ark.-Platte & Gulf P'ship v. Van Waters & Rogers, Inc*., 959 F.2d at 162.

179. *See* Etcheverry v. Tri-Ag Serv., Inc., 993 P.2d 366, 369 (Cal. 2000).

180. *See id.* at 372.

181. *Id.* (citing Worm v. Am. Cyanamid Co, 5 F.3d 744, 748 (4th Cir. 1993)).

182. Wis. Pub. Intervenor v. Mortier, 501 U.S. 597, 613 (1991).

183. *See id.*; *see also Ark.-Platte & Gulf P'ship v. Van Waters & Rogers, Inc.*, 959 F.2d at 164.

184. *See* Netland v. Hess & Clark, Inc., 284 F.3d 895, 899 (8th Cir. 2002); Hawkins v. Leslie's Pool Mart, Inc., 184 F.3d 244, 253-54 (3d Cir. 1999); Grenier v. Vermont Log Bldgs., Inc., 96 F.3d 559, 563 (1st Cir. 1996).

185. *Grenier,* 96 F.3d at 563.

186. *Hawkins*, 184 F.3d at 250.

DDVP on his horses was preempted by FIFRA because they amounted to an impermissible challenge to the product's label.[187] The *Netland* court stated,

> It is immaterial whether an inadequate labeling or failure to warn claim is brought under a negligence or products liability theory. If a state law claim is *premised* on inadequate labeling or a failure to warn, the impact of allowing the claim would be to impose an additional or different requirement for the label or packaging.[188]

Although the court agreed with Netland that defectively manufactured or designed products properly labeled under FIFRA remain subject to state regulation in the form of common law or other claims, the court, relying on *National Bank of Commerce of Eldorado, Arkansas v. Dow Chemical Co.,* stated that "if the state law claim is *premised* on inadequate labeling or a failure-to-warn," which results in the imposition of additional or different labeling requirements, the claim is nonetheless preempted, regardless of the guise under which the claim is presented.[189] The *Netland* Court's holding, however, contained the concealed implication that FIFRA preemption should not apply to failure-to-warn claims because Netland's inability to prevail failed on precedence rather than logic.[190] The Eighth Circuit in *Netland* stated,

> The law is well established, however, that this court may not overrule one of its prior decisions unless it does so *en banc* (citation omitted). Thus, until modified or overruled by the court *en banc*, *National Bank* is the law of this circuit. Accordingly, Netland's failure to warn and breach of warranty claims are preempted by FIFRA.[191]

Two recent state court decisions, relying on *stare decisis*, follow the federal courts in holding that the Supreme Court's decision in *Medtronic* does not alter their express preemption analysis, based on *Cippolone*, that FIFRA preempts state common law failure-to-warn claims.[192] In *Etcheverry*, the plaintiffs were walnut growers whose trees were damaged when sprayed with a mixture of

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187. *Netland*, 284 F.3d at 900-01.

188. *Id.* at 898 (citing Nat'l Bank of Commerce of Eldorado, Ark. v. Dow Chem. Co., 165 F.3d 602, 608 (8th Cir. 1999)).

189. *Id.*

190. *Id.* at 899; *see also* Sleath v. W. Mont. Home Health Servs., 16 P.3d 1042, 1053 (Mont. 2000) (Gray, J., dissenting); Brown v. Charles. H. Lilly Co., 985 P.2d 846, 853 (Or. Ct. App. 1999).

191. *Netland*, 284 F.3d at 899.

192. *See* Eyl v. Ciba-Ceigy Corp., 650 N.W.2d 744, 752-53 (Neb. 2002); Etcheverry v. Tri-Ag Serv., Inc., 993 P.2d 366, 373 (Cal. 2000).

the insecticides Guthion and Morestan.[193] The trial court granted summary judgment to the defendants on the ground that all of plaintiffs' causes of action "allege inadequate labeling in one form or another," with the "main issue being the failure of the labels to warn against mixing chemicals."[194] The Court of Appeal reversed.[195] The Supreme Court of California, reversing the Court of Appeal and adopting the majority opinion of the federal courts stated "the federal court decisions holding that FIFRA preempts state law failure-to-warn claims are numerous, consistent, pragmatic and powerfully reasoned."[196] In adopting the majority position regarding FIFRA preemption, the court engaged in traditional express preemption analysis based on *Cippolone* and dismissed *Ferebee v. Chevron Chemical Co.'s* "choice of reaction" theory as "sophistry" and "silly."[197] The court concluded that *Medtronic* did not undermine the conclusion that FIFRA preempts state law failure-to-warn claims.[198]

In *Etcheverry,* the EPA submitted an amicus brief on behalf of the plaintiffs, asserting that the courts that have reached the conclusion that FIFRA preempts state failure-to-warn claims have done so under the mistaken impression that FIFRA regulates all aspects of pesticide labeling.[199] The core argument advanced by the EPA against FIFRA preemption was that when Congress amended FIFRA in 1978, and allowed the EPA to waive review of pesticide efficacy claims,[200] this left the preemption of state damage actions challenging efficacy claims on the label largely or entirely unregulated.[201] The court ducked this argument by asserting that the plaintiffs' claims were based on phytotoxicity, not efficacy.[202] It concluded, however, that even if phytotoxicity is included within the concept of efficacy the argument that pesticide efficacy will go largely or entirely unregulated was flawed because the agency was required to review such data if efficacy-related problems developed later, and California can restrict or prohibit the sale or use of products that it determines are inefficacious or phyto-

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193. *Etcheverry*, 993 P.2d at 368.
194 *See id.* at 369.
195. *See id.*
196. *Id.* at 368.
197 *Id.* at 373.
198. *Id.*
199. *Id.* at 374 (noting courts and judges are split on the amount of deference to give the EPA amicus brief); *but see* Sleath v. W. Mont. Home Health Servs., 16 P.3d 1042, 1042 (Mont. 2000) (stating that in order to be consistently afforded judicial deference, the EPA should codify its position through informal rulemaking or issue an interpretive rule stating its position).
200. *See* 7 U.S.C. § 136a(c)(5) (2000).
201. 47 Fed. Reg. 53,192, 53,196 (Nov. 24, 1982).
202. *Etcheverry*, 993 P.2d at 375.

toxic.[203] The court concluded that, "given the comprehensive and stringent character of California's program of pesticide regulation, having lay juries assess questions of phytotoxicity in the context of failure-to-warn claims is neither necessary nor desirable, and holding that such actions are preempted by FIFRA promotes federalism, rather than undermines it."[204]

In *Eyl v. Ciba-Ceigy Corp.*, the plaintiff suffered a permanent disability to his feet as a result of exposure to the herbicide Pramitol, which had been applied to a work site where the plaintiff was employed.[205] Neither the registrant nor the applicator provided or displayed signs or flags that could be displayed to warn others that the product had been applied to the area.[206] The only claims submitted were based on a theory of failure-to-warn.[207] The Nebraska Supreme Court, in overturning the lower courts' judgment for the plaintiff, held that requiring a manufacturer to provide warning signs, flags, or other devices constitutes labeling under the plain language of section 136(p), and therefore the claim is preempted by FIFRA.[208] The court's reasoning, predicated on its earlier decision in *Ackles v. Luttrell* which had relied on *Lewis v. American Cyanamid*, states,

> [L]ike the preemption clause at issue in *Cipollone* and unlike that in *Medtronic,* the preemption provision of FIFRA is precise and explicit; *i.e.,* a State "shall not impose or continue in effect any requirements for labeling or packaging in addition to or different from those required under this subchapter." Furthermore, FIFRA, like the *Cipollone* statutes, leaves unconstrained all state common law causes of action for defective products except those based on inadequate labels. Finally, FIFRA has no escape clauses like the "grandfathering" and "substantially equivalent" provisions of MDA. The statute and regulations provide that substantially all pesticides are subject to extensive review by the EPA, and the EPA prescribes precise content for pesticide labels.[209]

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203. *Id.* (stating the concept of phytotoxicity would be inseparable from the concept of efficacy for any pesticide applied to actively growing plant tissue and, that in fact, many pesticide labels specify that the product must be applied only to dormant plant tissues or within narrowly specified environmental parameters to avoid crop injury).

204. *Id.* at 376.

205. *See* Eyl v. Ciba-Ceigy Corp., 650 N.W.2d 744, 746-47 (Neb. 2002).

206. *Id.* at 746.

207. *Id.*

208. *Id.* at 759.

209. *Id.* at 752-53 (citing Ackles v. Luttrell, 561 N.W.2d 573, 578 (Neb. 1997) (quoting Lewis v. Am. Cyanimid Co., 682 A.2d 724, 731 (N.J. Super. Ct. App. Div. 1996))).

The court rejected the position taken by the Montana Supreme Court in *Sleath v. Western Montana Home Health Services* by refusing to give deference to the amicus brief filed by the EPA in *Etcheverry*, and by adhering to its assessment in *Ackles* that *Medtronic* did not modify FIFRAs preemption of failure-to-warn claims.[210]

D. *FIFRA Does Not Preempt Failure-To-Warn Claims: The Minority View*

A minority of courts has directly and persuasively held that FIFRA does not preempt failure-to-warn claims.[211] Legislative history of FIFRA contains no indication that Congress intended to preclude all private causes of action for injury from pesticide exposure. Further, if preemption is the rule, and every action is considered a failure-to-warn claim, then plaintiffs could never recover for injuries they have suffered.[212] The law in the area of FIFRA preemption is by no means settled or straightforward. The arguments against FIFRA preemption of state common law claims are based on the presumption against federal preemption absent clear and manifest Congressional intent to supplant state law,[213] the plain meaning of statutory language, a greater reliance on the U.S. Supreme Court holding in *Medtronic* and not *Cipollone*, and deference to agency interpretation.[214]

Ferebee v. Chevron Chemical Co., the first case to address FIFRA preemption of state common law failure-to-warn claims, held against FIFRA preemption.[215] The court held that FIFRAs preemption clause did not encompass state common law failure-to-warn claims based on two rationales.[216] First, the court deduced a regulatory function under FIFRA, whereas common law torts function to compensate for injuries.[217] Second, the court determined that state common law tort claims did not preclude compliance with FIFRAs labeling re-

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210. *Id.* at 754.

211. *See e.g.,* Arnold v. Dow Chem. Co., 110 Cal. Rptr. 2d 722, 723 (Cal. Ct. App. 2001); Sleath v. W. Mont. Home Health Servs., 16 P.3d 1042, 1049 (Mont. 2000).

212. *See Arnold*, 110 Cal. Rptr. 2d at 731; *Sleath*, 16 P.3d at 1049.

213. *See* Nathan Kimmel, Inc. v. DowElanco, 255 F.3d 1196, 1202-03 (9th Cir. 2001) (suggesting that due to recent developments court may revisit meaning of "requirements"); Brown v. Charles H. Lilly Co., 985 P.2d 846, 853 (Or. Ct. App. 1999) (finding no congressional intent to preempt through FIFRA common law claims).

214. *See* Etcheverry v. Tri-Ag Serv., Inc., 993 P.2d 366, 373 (Cal. 2000); *see also Sleath*, 16 P.3d at 1053.

215. Ferebee v. Chevron Chem. Co., 736 F.2d 1529, 1543 (D.C. Cir. 1984).

216. *Id.* at 1540-41.

217. *Id.*

quirements nor did they prevent accomplishment of FIFRAs defenses.[218] The gist of the argument made in *Ferebee* was that a state's freedom under section 136v(a) to ban a pesticide outright presupposes the freedom to control the use of that pesticide by imposing tort liability on the manufacturer "for injuries that could have been prevented by a more adequate label."[219] This "choice of reaction" theory put forth in *Ferebee* was adopted by the majority of courts that addressed the issue of preemption under section 136v(b) prior to *Cipollone*.[220]

The Court held that FIFRA preemption does not apply to preclude a plaintiffs' action against a pesticide applicator for its failure to warn the plaintiffs by providing them with the FDA-approved label warning information.[221] The law is fairly settled that when a pesticide manufacturer "places EPA-approved warnings on the label and packaging of its products, its duty to warn is satisfied, and the adequate warning issue ends."[222] The *Ebling* court reasoned,

> Because of the absence of an affirmative FIFRA labeling requirement for applicators, however, we find that the alleged state tort law duty imposed upon applicators to convey the information in the EPA-approved warnings to persons placed at risk does not constitute a requirement additional to or different from those imposed by FIFRA. . . . Because these cases do not specifically consider the distinctions between pesticide manufacturers and applicators, we conclude that their findings of preemption are not persuasive . . . . [C]ommunicat[ing] the label information is entirely consistent with the objectives of FIFRA. [Therefore,] use of state tort law to further the dissemination of label information to persons at risk clearly facilitates rather than frustrates the objectives of FIFRA and does not burden . . . compliance with FIFRA.[223]

The Supreme Court of Montana has held that FIFRA does not preempt failure-to-warn cases.[224] The issue addressed by the court was whether failure-to-warn claims pleaded in strict liability and breach of express warranty were preempted by FIFRA because they were based upon or implicate the pesticide's label.[225] The court overturned its previous ruling in *McAlpine v. Rhône-Poulenc AG Co.,*[226] based on three arguments. First, the court rejected the argument that

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218. *Id.*
219. *Id.* at 1541.
220. Otero, *supra* note 15, at 792 (citation omitted).
221. Dow Chem. Co. v. Ebling, 753 N.E.2d 633, 640 (Ind. 2001).
222. *Id.* at 639.
223. *Id.* at 639-40.
224. Sleath v. W. Mont. Home Health Servs., 16 P.3d 1042, 1053 (Mont. 2000).
225. *Id.* at 1045.
226. McAlpine v. Rhone-Poulenc AG Co., 947 P.2d 474, 478-79 (Mont. 1997) (holding

the language of FIFRA should be given the same effect as the statute governing cigarette advertising that the United States Supreme Court construed in *Cipollone*.[227] Second, the court relied on the holding by the U.S. Supreme Court in *Medtronic*, wherein the Court stated that the preemption language of the MDA of 1976, which is similar to FIFRAs preemption section, does not preempt state law failure-to-warn claims regarding medical devices even though they are properly labeled pursuant to the MDA.[228] The *Sleath* court found persuasive the plaintiff's reasoning that "*Medtronic* demonstrates that when a federal regulatory statute consistently uses the term 'requirement' to mean positive legislative or administrative enactments, and there is no indication in the statute's legislative history that Congress intended to preempt state common law, the term 'requirements' does not include common law damage actions."[229] Third, the court, relying on *Chevron* deference regarding an amicus curiae brief submitted by the EPA in *Etcheverry v. Tri-Ag Service, Inc.*, adopted the view articulated by the EPA that FIFRA does not preempt any state law theories of liability, including failure-to-warn claims that implicate pesticide labels.[230] As the EPA noted in its *amicus* brief in *Etcheverry*:

> When [section] 136v(b) was enacted in 1972, state law actions against pesticide manufacturers for failure to warn were a commonplace and uncontroversial feature of the legal landscape. No evidence from the text or legislative history of FIFRA suggests that Congress had any intent to extinguish those actions or that Congress even considered doing so. Indeed, Congress amended FIFRA in 1972 out of increasing concern for the human health and the environmental effects of pesticides such as DDT. Given that FIFRA establishes no private damages remedy for those injured by pesticides, it would be astonishing that, without discussion, Congress could have intended to deprive injured persons of all means of relief.[231]

The court agreed "that the EPA's view of the scope of FIFRAs preemptive effect is entitled to substantial weight because the EPA is charged by Congress with overseeing the primary enforcement responsibility of the states under

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that state law claims based on a failure-to-warn are preempted by FIFRA to the extent that they expressly or implicitly challenge the adequacy of the warnings in a pesticide's label).

227. *See Sleath*, 16 P.3d at 1049.

228. *See id.* at 1050 (citing Medtronic v. Lhor, 518 U.S. 470, 501-02 (1996)).

229. *See id.* at 1047.

230. *See id.* at 1048-49 (stating "we have long recognized that considerable weight should be accorded to an executive department's construction of a statutory scheme it is entrusted to administer") (quoting Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 844 (1984)).

231. *Id.* at 1050.

FIFRA, and thus the EPA is uniquely qualified to determine whether a particular form of state law should be preempted."[232] The dissent in *Sleath*, however, discounted any entitlement of deference because the brief was prepared as a part of the government's litigation strategy.[233]

In another case against FIFRA preemption of state common law claims, *Arnold v. Dow Chemical* held that FIFRAs preemption clause did not operate to foreclose a state common law cause of action.[234] The plaintiff, who suffered paralysis, blindness and other injuries (allegedly as a result of insecticides sprayed around her home when she was *in utero*), brought a strict liability-design defect claim alleging the products were defective as designed because they failed to perform as safely as an ordinary consumer would expect when used in their intended or reasonably foreseeable manner.[235] She also brought a breach of warranty claim alleging that the manufacturer warranted the products to be reasonably fit for their intended use.[236] The court held that "[w]here it is not clear whether a claim is preempted, the determination of whether a claim is permissible or preempted depends upon whether one could reasonably foresee that the manufacturer, in seeking to avoid liability for the error, would choose to alter the product or the label."[237] Despite arguments by the defendant that plaintiffs were attempting to bypass the FIFRA preemption through artful pleading, the court reasoned that "the gravaman of the complaint is that a consumer would reasonably believe that pesticides are designed to eliminate pests within homes occupied by humans, without causing significant harm to the humans."[238] The plaintiffs did not allege that had they been aware of the warning labels they would have acted differently, nor did they allege that different warning labels should have been used.[239] Rather, they effectively argued for a change in design of the products and therefore the complaint concerned a matter "outside the label."[240] The court concluded by expressing its belief that the burden of the cost of serious

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232. *Id.* at 1048.
233. *Id.* at 1053-54 (Gray, J., dissenting).
234. Arnold v. Dow Chem. Co., 110 Cal. Rptr. 2d 722, 746 (Cal. Ct. App. 2001).
235. *Id.* at 727.
236. *Id.* at 722.
237. *Id.* at 736-37 (citing Worm v. Am. Cyanamid Co, 5 F.3d 744, 747-48 (4th Cir. 1993); Burt v. Fumigation Serv. & Supply, Co., 926 F. Supp. 624, 629 (W.D. Mich. 1996); Hue v. Farmboy Spray Co., 896 P.2d 682, 693 (Wash. 1995); Jenkins v. Amchem Prods., Inc., 886 P.2d 869, 883 (Kan. 1994)).
238. *Id.* at 737.
239. *See generally id.*
240. *Id.*

injury caused by pesticides should, as a matter of public policy, be borne by pesticide manufacturers and distributors rather than innocent consumers.[241]

The dissent in *Etcheverry*[242] presents one of the most compelling legal arguments against FIFRA preemption. Beginning with the basic express preemption analytical framework, the dissent noted that federal preemption of state law is governed by two basic presumptions designed to discern the intent of Congress to preempt some state law and the scope of that preemption.[243] First, the presumption against preemption acknowledges the role states historically have played, exercising their police powers to protect the health and safety of their residents.[244] The second presumption is that the question of preemption is "fundamentally . . . a question of congressional intent."[245]

Illustrative of this analytical mode, the dissent argued,

> To begin with, either meaning admittedly is possible. A "requirement []for labeling or packaging" most certainly includes all positive enactments of law, but it could also include common law claims for damages, the success of which could have the indirect effect of encouraging manufacturers to alter their labeling or packaging and thus allow the state to indirectly regulate labeling. The pertinent inquiry is whether the words of section 136v(b) *clearly* embrace the latter, broader interpretation. To that, one would have to answer in the negative. At best, FIFRAs preemption provision is ambiguous. Such ambiguity weighs in favor of interpreting section 136v(b) to have a narrow, rather than a broad, preemptive effect.[246]

Continuing its assault on the majority's reasoning that congressional silence or inaction on state common law claims in FIFRAs preemption clause infers Congress' intent to preempt such claims, the dissent continued,

> Such reasoning is flawed for two reasons. First, its premise—that Congress would have expressly left state tort law intact if that had been its intent—is not necessarily true. Rather, Congress expresses its intent in various ways. For example, Congress sometimes indicates its preemptive intent not by silence, as the majority would have it, but by expressly stating a federal law will override a state's common law. That

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241. *Id.* at 726.

242. Etcheverry v. Tri-Ag Serv., Inc., 993 P.2d 366, 380 (Cal. 2000) (Werdegar, J., dissenting).

243. *Id.* at 381 (Werdegar, J., dissenting).

244. *Id.* (Werdeger, J., dissenting) (stating that "[b]ecause the federal government is a relative latecomer in the area of protecting public safety, courts should be cautious in concluding federal law supplants state law, lest the public be left without protection in matters of health and safety").

245. *Id.* at 382 (Werdeger, J., dissenting) (citations omitted)).

246. *Id.* (Werdegar, J., dissenting) (citations omitted).

> we may draw much meaning from Congress's failure to mention state tort law in section 136v(b) is therefore doubtful. A second and more basic flaw in the majority's reasoning is that it ignores the fundamental rule governing preemption of state law. To reiterate, the presumption is *against* preemption, and Congress's intent to supplant state law must be "clear and manifest." Any attempt to infer Congress's intent from its statutory silence is thus improper.[247]

Continuing to undercut the logical underpinnings of the majority's opinion, the dissent adopted a contextual reading of FIFRAs section 136v and concluded,

> Reading FIFRAs preemption clause in conjunction with section 136v(a) reveals Congress's intent that the scope of FIFRAs preemption of state law should be limited in nature. The majority's failure to appreciate the significance of section 136v(a) as a critical indicator of Congress's intent thus undercuts its analysis . . . . Faced with an express statement by Congress retaining the states' regulatory power, and in the absence of a "clear and manifest" expression of congressional intent to supplant the common law of the states, to maintain, as does the majority, that state tort law must be preempted because a successful tort lawsuit will "indirectly" affect pesticide labeling and packaging is untenable. Such indirect pressure on manufacturers to alter their pesticide labels is not embraced within the scope of FIFRA. For example, a state may, pursuant to section 136v(a), ban outright the use of an insecticide for which the Environmental Protection Agency (EPA) has approved a label pursuant to FIFRA. Although such direct state regulation would, of course, have the indirect effect of encouraging the manufacturer to change its label (e.g., "[n]ot valid for use in California"), such indirect pressure on a manufacturer would nevertheless seem to be permissible. Indeed, what other meaning could section 136v(a) have? . . .[T]he majority's interpretation of FIFRA thus leads to this conundrum: A state may *directly* regulate pesticides pursuant to section 136v(a)—even to the point of banning their use—through statutes or administrative regulations (so long as the state does not require labeling inconsistent with what the EPA has approved), *even if such regulation has the indirect effect of encouraging manufacturers to alter their labels*, but a state may not *indirectly* regulate pesticides by permitting tort suits at common law for damages, *for the very same reason that such regulation has the indirect effect of encouraging manufacturers to alter their labels*. This makes so little sense that the majority must be mistaken in concluding FIFRA preempts common law tort actions.[248]

Finally, in its concluding remarks about the irrationality of FIFRA preemption from a public policy perspective, the dissent in *Etcheverry* noted,

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247. *Id.* at 383 (Werdegar, J., dissenting) (citations omitted).
248. *Id.* at 383-85 (Werdegar, J., dissenting).

> This same reluctance to ascribe to Congress an unstated intention to deprive consumers of their historic protection under this state's common law is applicable to the determination of the scope of FIFRAs [sic] preemptive effect. According to the majority, Congress intended to eliminate from all 50 states lawsuits that are based on a defendant's common law duty to warn of the dangers of a product it has placed into the stream of commerce. This historic ability of persons to gain redress for injuries caused by defective products is not replaced by creation of a federal cause of action. Instead, consumers are left with this meager "remedy": they may complain to the administrator of the EPA that the label on the pesticide is inadequate and the manufacturer should be made to change it. As the high court concluded in *Medtronic*, with regard to the preemptive effect of the MDA, so too here it is implausible that Congress, through the use of such ambiguous statutory language, intended FIFRA to effect this sweeping change in the manner in which injured persons can gain compensation for their injuries. That FIFRA concerns a category of commercial products that, by design, are intended to kill living organisms and thus, by their nature, are potentially harmful to the biological environment and our very lives supplies further evidence that Congress could not have intended the broad preemptive effect now endorsed by the majority.[249]

Arguing against FIFRA preemption from a different, yet related approach, and invoking the canon of statutory interpretation that words have a consistent meaning throughout the statute,[250] the State Supreme Court of Montana in *Sleath v. West Montana Home Health Services* stated,

> FIFRAs text demonstrates that Congress had no intent to extinguish damages remedies under state common law . . . . The term "requirements" appears in FIFRA 75 times . . . . However, in each instance other than § 136v(b), Congress intended the term "requirements" to mean enactments of positive law by legislative or administrative bodies. It is inconceivable that Congress intended that § 136v(b) would be the only section of FIFRA in which the term "requirements" includes the application of general rules of common law by judges and juries.[251]

Critical of federal circuit courts' interpretation that *Cippolone* (holding that the statutory term "requirements" encompassed common law actions for damage) should be given the same reading as § 136v(b), the *Sleath* court noted

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249. *Id.* at 386-87 (Werdegar, J., dissenting) (citing Medtronic v. Lhor, 518 U.S. 470, 482 (1996)).

250. *See* Brown v. Gardner, 513 U.S. 115, 118 (1994) (stating "there is a presumption that a given term is used to mean the same thing throughout a statute") (citing Atl. Cleaners & Dyers, Inc. v. United States., 286 U.S. 427, 433 (1932)); *see also* United States v. Hager, 288 F.3d 136, 140 (4th Cir. 2002).

251. Sleath v. W. Mont. Home Health Servs., 16 P.3d 1042, 1050-51 (Mont. 2000).

that "only mischief can result if [the same words appearing in different statutes] are given one meaning regardless of the statutory context."[252]

E. *Conflict Preemption Analysis: The Potential Impact of Recent Supreme Court Cases on FIFRA Preemption*

The overwhelming majority of federal and state courts that have addressed FIFRA preemption of state common law failure-to-warn claims have engaged in express preemption analysis based on the Supreme Court's analysis of preemption language in *Cipollone* or *Medtronic*.[253] Recently, the argument has been advanced that "until the Supreme Court decides preemption in the specific context of pesticides, courts should follow a *Cipollone* analysis in deciding FIFRA preemption cases" rather than a *Medtronic* analysis.[254] "By doing this, it will be obvious that FIFRA intended to preempt all common law failure-to-warn claims."[255] Such a conclusion is unwarranted, however, because unlike in *Cipollone*, the Court in *Medtronic* appeared to be in agreement on an underlying principle that should guide preemption analysis.[256] This underlying principle, relied on in a claim-by-claim analysis, assesses "whether the claim at issue conflicts with the federal regulatory scheme."[257] The Supreme Court endorsed implied conflict analysis as this guiding principle of preemption in *Geier v. American Honda Motor Co.*[258] In a clear departure from *Cipollone*, the Court held that the existence of an express preemption provision does not preclude preemption under ordinary principles of implied conflict preemption.[259] The Court's unanimous holding in *Buckman*[260] firmly established "a guiding principle of federal preemption that focused not on express preemption language or legislative history but on an analysis of the federal regulatory goals and the degree to which state common law claims would stand as an obstacle to those goals."[261] *Cipollone* held that implied preemption analysis is altogether unnecessary where Congress has enacted

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252. *Id.* at 1051.
253. *See* Feeley, *supra* note 8, at 137-140.
254. *Id.* at 127.
255. *Id.* at 150.
256. Eric G. Lasker, *The U.S. Supreme Court Expands the Scope of Federal Preemption of Products Liability Claims Involving FDA-Regulated Products*, 37 TORT & INS. L.J. 129, 140 (2001).
257. *Id.* at 134 (citing Medtronic v. Lhor, 518 U.S. 470, 513-14 (1996)).
258. *See* Geier v. Am. Honda Motor Co., 529 U.S. 861, 867-68 (2000).
259. *Id.* at 871; *see also* Lasker, *supra* note 253, at 134.
260. Buckman v. Plaintiffs' Legal Comm., 531 U.S. 341, 353 (2001).
261. Lasker, *supra* note 253, at 135.

an express preemption provision and that such express preemption provisions should be narrowly construed absent some clear and manifest evidence of congressional intent to preempt the historic police powers of the states.[262] The Supreme Court, however, held in *Geier* that neither an express preemption provision nor a savings clause "bar[s] the ordinary working of conflict preemption principles."[263] This implied conflict analytical framework for preemption endorsed by the Supreme Court in the *Geier* and *Buckman* decisions was articulated some ten years earlier[264] and hypothetically applied to FIFRA preemption of state common law failure-to-warn claims. [265]

Courts that have analyzed FIFRAs preemptive scope under implied conflict analysis are split.[266] Ascertaining the preemptive scope of section 136v(b), under an implied conflict preemption analysis, requires a determination as to whether a state common law claim would (1) make FIFRA compliance impossible; (2) frustrate federal legislative objectives; or (3) impair a federally-created right.[267] The most appropriate means for applying these implied conflict preemption factors involves an assessment of agency, legal, marketplace, and public policy forces affecting pesticides. The reason for applying these factors, of course, is to determine whether state common law failure-to-warn claims should be preempted by FIFRA. By necessity, this process involves some speculation as to how the legal landscape would change absent preemption because a majority of courts adhere to FIFRA preemption.

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262. Cipollone v. Liggett Group, Inc., 505 U.S. 504, 516 (1992).

263. *Geier*, 529 U.S. at 869.

264. *See generally Cipollone*, 505 U.S. 504.

265. *See* Otero, *supra* note 15, at 784.

266. *Compare* Ferebee v. Chevron Chem. Co., 736 F.2d 1529, 1543 (D.C. Cir. 1984) (holding FIFRA does not preempt based on "choice of reaction" theory), Couture v. Dow Chem., U.S.A., 804 F. Supp. 1298, 1300 (D. Mont. 1992) (adopting the "choice of reaction" theory in *Ferebee*) *and* Burke v. Dow Chem. Co., 797 F. Supp. 1128, 1141 (E.D.N.Y. 1992) (deciding implied preemption question on policy grounds: "[t]he federalism issues are too important to warrant foreclosing recovery to an injured party on a questionable theory of implied preemption.") *with* Worm v. American Cyanamid Co., 970 F.2d 1301, 1307 (4th Cir. 1992) (agreeing with the reasoning in *Papas v. Upjohn Co*., 926 F.2d 1019, 1025 (11th Cir. 1991) which had found implied preemption where jury awards of damages in failure-to-warn actions would directly conflict with federal law), Ark.-Platte & Gulf P'ship v. Van Waters & Rogers, Inc., 959 F.2d 158, 161 (10th Cir. 1992), Yowell v. Chevron Chem. Co., 836 S.W.2d 62, 66 (Mo. Ct. App. 1992) (stating FIFRA impliedly preempts state common law tort suits to the extent that such claims are based on inadequate labeling), *and* Davidson v. Velsicol Chem. Corp., 834 P.2d 931, 937 (Nev. 1992) (holding common law claims barred because of implied field preemption and implied conflict preemption).

267. *See* Mich. Canners & Freezers Ass'n v. Agric. Mktg. & Bargaining Bd., 467 U.S. 461, 478 (1984); Wissner v. Wissner, 338 U.S. 655, 659 (1950); McDermott v. Wisconsin, 228 U.S. 115, 137 (1913).

First, would allowing state common law failure-to-warn claims to be decided on the merits of the case make a registrant's compliance with FIFRA impossible? The answer is clearly no because any judgments against the registrant would at most lead the registrant to request a label change or allow the marketplace to absorb the costs of liability. This was precisely the result anticipated in *Ferebee*.[268] An additional concern would be whether the absence of preemption would lead to non-uniformity of labels, in direct conflict with FIFRA. The answer here is equally no. Although each EPA-registered product has a single "national" label, that label in many products incorporates state-specific requirements and prohibitions (i.e. warnings) for sale and use under a state's, region's or agroecosystem's unique conditions as they affect efficacy, phytotoxicity, persistence, or toxicity of the product.[269]

Second, would state common law claims impair a federally-created right? This prong of the analysis as applied to FIFRA is also negative because FIFRA was enacted to oversee an area traditionally delegated to the states and FIFRAs "savings clause" amply demonstrates that Congress did not intend to fully occupy the field of pesticide regulation.[270]

Third, would state common law claims frustrate federal legislative objectives? Academics in favor of FIFRA preemption argue that "preemption of state law, at least in the area of alleged warning defects, is consistent with FIFRAs stated purposes."[271] Academics opposing FIFRA preemption argue that "whether state common law claims impliedly conflict with the regulatory structure and objectives of the federal statute . . . in a FIFRA preemption case should be abundantly clear: not only do state common law claims not conflict with the regulatory structure and objectives of FIFRA, they are explicitly contemplated in the regulatory structure of the statute and would serve to effectuate its articulated objectives."[272] Therefore, due to the dynamic and complex interplay of federal and state authority over pesticide registration, sale and use, any judicial determination of whether a particular claim is preempted by FIFRA because it conflicts with FIFRAs purpose should be applied on a case-by-case basis.

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268. *Ferebee*, 736 F.2d at 1543.

269. CROP PROTECTION REFERENCE, *supra* note 169.

270. *See* 7 U.S.C. § 136v (2000).

271. Kevin McElroy et al., *supra* note 11, at 51 (stating "We believe Congress legislated comprehensively in the area of pesticide design, manufacturing and marketing and, therefore, state tort law claims which have the effect of further regulating these products should not be allowed.").

272. Otero, *supra* note 15, at 834.

V. FIFRA PREEMPTION AND DEFECTIVE DESIGN CLAIMS

While almost all federal district courts to consider the issue have been in agreement that FIFRA expressly preempts state common law causes of action that require a showing of inadequate labeling, a number of state courts have held that plaintiffs claims that were based on design defect were not preempted by FIFRA.[273] In *Burt v. Fumigation Service & Supply, Inc.*, defective design claims based on the failure to include feasible warnings, as well as defective design claims that the product was defectively unsafe even without a warning, were not preempted, because plaintiffs did not contend that any duty of care owed them by the manufacturer of the chemical could be satisfied with additional or different labeling material.[274] In *Reutzel v. Spartan Chemical Co.*, strict liability for defective design and manufacture was not preempted because of allegations that the defective product contained other toxic chemicals.[275] In *Arkansas-Platte & Gulf Partnership v. Dow Chemical Co.*, claims for negligence and strict liability for defective design and manufacture of pesticide that were not based on a theory of inadequate labeling were not preempted by FIFRA.[276] In *Higgins v. Monsanto Co.*, the court held that failure to fully disclose information to EPA (not predicated on a failure-to-warn), negligence claims based on the defendant's failure to conduct adequate testing, and strict liability theory of defective design were not predicated on failure-to-warn or inadequate labeling and were therefore not preempted.[277] *Jillson v. Vermont Log Buildings, Inc.* held that FIFRA only preempts state labeling and packaging regulations, not claims of negligent design and manufacture which do not permit any sale or use prohibited by FIFRA.[278] *National Bank of Commerce of Eldorado, Arkansas v. Dow Chemical Co.* held that FIFRA did not preempt a consumer's claim for defective manufacture or design based upon the alleged presence of impurities in the pesticide.[279] And finally in *Ackerman v. American Cyanamid Co.*, the plaintiff's negligent design and testing claim, charging that the chemical product caused carryover damage

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273. *See generally* Burt v. Fumigation Serv. & Supply, Inc., 926 F. Supp. 624 (W.D. Mich. 1996); Ark.-Platte & Gulf P'ship v. Dow Chem. Co., 886 F. Supp. 762 (D. Colo. 1995); Reutzel v. Spartan Chem. Co., 903 F. Supp. 1272 (N.D. Iowa 1995).

274. *Burt*, 926 F. Supp. at 629-31.

275. *Reutzel*, 903 F. Supp. at 1281-82.

276. *Ark.-Platte & Gulf P'ship v. Dow Chem. Co.*, 886 F. Supp. at 766.

277. Higgins v. Monsanto Co., 862 F. Supp. 751, 758-760 (N.D.N.Y. 1994).

278. Jillson v. Vt. Log Bldgs., Inc., 857 F. Supp. 985, 992 (D. Mass. 1994).

279. Nat'l Bank of Commerce of Eldorado, Ark. v. Dow Chem. Co., 165 F.3d 602, 609 (8th Cir. 1999).

and was not adequately degradable in certain weather conditions, was predicated on the product itself, not the labeling, and was not preempted by FIFRA.[280]

In large measure, defective design claims are more properly viewed as end-runs around FIFRAs preemption shield, and they set a dangerous precedent that endangers the continued registration of many important pesticides. Purported design defects cannot be rectified through the manufacturing process, and therefore a judicial determination of design defect predicated on negligent design, testing and manufacture would likely be fatal for that pesticide's continued marketability. Pesticides are discovered through an exhaustive and expensive research and discovery process whereby literally thousands of chemicals are tested, not only for biological activity against certain pests, but also for toxicity to mammals, plants and invertebrates, and for environmental persistence.[281] Estimates of the cost to a registrant to bring a pesticide to market range from twenty to twenty-five million dollars.[282] Therefore, allowing claims of negligent design and testing of a federally registered pesticide to survive summary judgment evinces near complete judicial misunderstanding of the pesticide registration process and the standard of care to which pesticide manufacturers are held.

Second, judicial assertions that defective design claims are not based on inadequate labeling, or are not predicated on the product itself, allow plaintiffs to artfully plead the facts in a manner that undercuts the vitality and comprehensiveness of the pesticide label. Pesticide labels are the cumulation of years of research and testing under an expansive array of environmental and biological environments in order that human and environmental risks are exceedingly minimized. Because all risks cannot be completely foreseen or contemplated until a product is placed in the stream of commerce, changes in the label to acknowledge these risks is the appropriate means for determining the market value of the product, not a judicial decree that the product is defectively designed.

A. *Defective Design Based on a Reasonably Safer Alternative Product*

A more ominous tactic for circumventing FIFRA preemption arises from claims of defective design that are predicated on a reasonably safer alternative (i.e., a lesser toxic or persistent pesticide).[283] In *Ruiz-Guzman v. Amvac Chemical*

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280. Ackerman v. Am. Cyanamid Co., 586 N.W.2d 208, 219 (Iowa 1998).

281. THOMAS J. MONACO, ET AL., WEED SCIENCE: PRINCIPLES AND PRACTICE 84-89 (4th ed. 2002).

282. *Id.* at 85.

283. *See* Netland v. Hess & Clark, Inc., 284 F.3d 895, 898 (8th Cir. 2002); Ruiz-Guzman v. AMVAC Chem. Corp., 7 P.3d 795, 797 (Wash. 2000).

Corp., the court held that under the Washington Product Liability Act ("WPLA"), a plaintiff may rely upon an alternative product to show that the challenged product's risks outweigh the adverse effects of using an "alternative design."[284] The plaintiffs were injured while performing their duties as apple workers which included mixing, loading and/or applying the restricted use pesticide Phosdrin to control aphid infestations in the orchards.[285] Phosdrin had been sought by Washington apple growers as a substitute to replace Phosphamidon, whose registration had not been renewed by the EPA.[286] Due to Phosdrin's toxicity and its anticipated use, the Washington State Department of Agriculture adopted emergency rules that included restrictions on application techniques and required that training be available for growers using Phosdrin on apples or pears.[287] The gravamen of the plaintiff's argument was whether the WPLA permitted reliance on the existence or feasibility of a product different from the challenged product to establish that the challenged product was not reasonably safe.[288] The court relied on comment *f* of the *Restatement (Third) of Torts* to hold that a plaintiff may satisfy the requirement of showing an adequate alternative design by showing that other products can more safely serve the same function as the challenged product.[289] The court concluded, however, that the standard for the alternative product is one that is "technologically achievable and economically viable" was in keeping with the statutory requirement that an alternative design be "practical and feasible."[290]

In contrast to the Washington state court holding, the Eighth Circuit Court of Appeals in *Netland v. Hess & Clark, Inc.* rejected the argument that plaintiff's claim was not preempted based on expert testimony "that Bovinol was defectively designed and unreasonably dangerous because it contained DDVP as one of the active ingredients in its formula," and that "a safer and more effective alternative exists to DDVP, that being pyrethrum."[291] The court stated, "[i]t is illogical to conclude that Bovinol is defectively designed or unreasonably dan-

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284. *Ruiz-Guzman,* 7 P.3d at 797.
285. *Id.* at 796.
286. *Id.* at 797.
287. *Id.*
288. *Id.* at 798.
289. *Id.* at 800 (quoting the RESTATEMENT (THIRD) OF TORTS § 2 cmt. *f* (1998) as supporting the position "which allows a plaintiff to establish an alternative safer design through 'other products already available on the market [that] may serve the same or very similar function at lower risk and at comparable cost. Such products may serve as reasonable alternatives to the product in question.'").
290. *Id.* at 801 (citing WASH. REV. CODE § 7.72.030(1)(a)).
291. Netland v. Hess & Clark, Inc., 284 F.3d 895, 900 (8th Cir. 2002).

gerous because a substitute product might be the preferred pesticide for horses."[292]

The *Ruiz-Guzman* court's application of *Restatement (Third) of Torts*, comment *f* to pesticides sets a dangerous precedent that should not be adopted by other courts.[293] The *Netland* court's conclusion that it is illogical to conclude that a pesticide may be defectively designed based on the availability of a substitute product comports with the marketplace realities of pesticide registration, sale, and application for three key reasons.[294] First and foremost, basing a reasonably safer alternative to a pesticide application solely on mammalian, non-target or environmental toxicity not only invites layperson findings of fact in a highly technical area, it also demonstrates a naive misunderstanding of risk assessment methodologies that underlay the pesticide registration process.[295] For example, the pesticide azinphosmethyl, an organophosphate insecticide with high mammalian toxicity, has been used for over 30 years in commercial apple pest management programs.[296] Today, some beneficial predators have developed resistance to this insecticide and therefore azinphosmethyl is a highly desired pesticide of choice among fruit growers because of its continued efficacy against the codling moth.[297] An argument could be advanced that the insecticide *Bacillus thuringiensis* (Bt) represents a safer alternative design for control of the codling moth because this insecticide has no demonstrated mammalian toxicity. However, Bt kills beneficial, as well as pest moth and butterfly larvae, and two or three applications are required to achieve the efficacy of one application of azinphosmethyl.[298] Second, most pesticides are labeled for multiple uses, and a vast number of crops and animals can be treated with many different products, often for the same pest.[299] In a commercial setting, the choice of which product to use is based on several factors.[300] These factors include weather, pest density, pest stage, environmental persistency, crop and animal safety, crop development, rainfall, drought, heat, potential for drift, non-target crops in vicinity, price,

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292. *Id.*
293. *Ruiz-Guzman*, 7 P.3d at 807 (Talmadge, J., dissenting).
294. *Netland*, 284 F.3d at 900.
295. *See* COOP. EXTENSION SERV., WASH. STATE UNIV., 2003 CROP PROTECTION GUIDE FOR TREE FRUITS IN WASHINGTON, EB0419 (2003).
296. EPA, AZINPHOS-METHYL IRED FACTS, (Oct. 31, 2001) *available at* www.epa.gov/REDs/factsheets/azm_fs.htm.
297. *See* COOP. EXTENSION SERV., WASH. STATE UNIV., *supra* note 292, at EB0419.
298. *See id.*
299. *See id.*
300. *See* WASHINGTON STATE UNIVERSITY RECERTIFICATION AND PRE-LICENSE TRAINING, *at* http://pep.wsu.edu/Education/educ.html (last visited Oct. 2, 2003).

availability, potential for runoff, and photodegradation, among others.[301] The same factors may not always be present from year to year, or within a single growing season. For example, a pesticide used to control pest A early in the season often will not be used to control a later resurgence of pest A due to concerns regarding development of resistance in pest A to the pesticide or concerns over non-target effects (e.g., beneficial predator species, presence of adjacent susceptible crops). Next, commercial and private applicators of pesticides are required to pass certification and licensing in order to apply pesticides.[302] Because recommendations of "off-label" applications are a violation of FIFRA, courts have held that a label's safety warnings do not remain operative when a retailer makes an off-label recommendation.[303] Furthermore, often several crop/animal/pesticide specialists are consulted by licensed applicators as to which product to use under the circumstances present at the time of application as a safeguard against illegal recommendations, and to ensure that the most appropriate and efficacious product is used for the situation.

B. *The Unavoidably Unsafe Products Defense Under Comment k*

In *Ruiz-Guzman*, the Ninth Circuit Court of Appeals asked the Supreme Court of Washington to certify whether under the WPLA a pesticide can be an unavoidably unsafe product under *Restatement (Second) of Torts*. [304] The court held that "a pesticide *can* be an 'unavoidably unsafe product'. . . but only if its utility greatly outweighs the risks posed by its use."[305] *Restatement (Second) of Torts* **§** 402a establishes strict liability for "[o]ne who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property. . . ." However, comment *k* provides an exemption from strict liability for "unavoidably unsafe products."[306] Comment *k* provides that unavoidably unsafe products are products that (1) are "properly prepared and accompanied by proper directions and warnings," (2) have a very high social utility, and (3) it is impossible to eliminate the risk associated with use of the product.[307] This exemption from strict liability, however, has been nearly exclusively confined to medical

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301. *See id.*
302. *See* COOP. EXTENSION SERV., WASH. STATE UNIV., *supra* note 292, at EB0419.
303. Diehl v. Polo Co-op. Ass'n, 766 N.E.2d 317, 322 (Ill. App. Ct. 2002).
304. Ruiz-Guzman v. AMVAC Chem. Corp., 7 P.3d 795, 796 (Wash. 2000).
305. *Id.* at 804.
306. RESTATEMENT (SECOND) OF TORTS § 402A(1) cmt. k (1965).
307. *See id.*

products available only through a physician.[308] The court recognized that analogizing certified pesticide dealers and applicators to medical professionals is probably unwarranted, and that "including pesticides as a class in comment *k* would free a pesticide manufacturer from any incentive to make its pesticides safer to humans because they could never be made 'safe.'"[309] This "disregard for human health in the application of comment *k* would extend that comment's reach very far from our initial holding that '[t]he principles stated in comment *k* . . . have their basis in the character of the medical profession and the relationship which exists between manufacturer, the physician, and the patient.'"[310] The court concluded that despite the fact that a pesticide could not "be made safer for its intended use, a pesticide manufacturer could demonstrate the product serves an important enough function . . . so as to justify its unavoidable risks."[311] Therefore, "the question of whether a pesticide is governed by comment *k* is to be determined on a product-by-product basis, as opposed to a blanket exemption like that for medical products."[312] The determination of "a pesticide's value to society relative to the harm it causes" is a question for the jury to resolve.[313]

C. *Are Pesticide Applications an Abnormally Dangerous or Ultrahazardous Activity?*

Aerial application of pesticides has been determined to be an ultrahazardous or "abnormally dangerous" activity.[314] In *Langan v. Valicopters, Inc.*, the court held that strict liability applied when the defendant's helicopters were spraying the insecticides Thiodan and Guthion and these pesticides drifted onto a neighboring organic farm.[315] The court stated that "[g]iven the nature of organic farming, the use of pesticides adjacent to such an area must be considered an activity conducted in an inappropriate place."[316] Because the farmer, landowner, or pesticide applicator may be held strictly liable when they are the party that made the decision to have the pesticide applied, these parties should carry liability insurance for any potential damages caused by the pesticide application.

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308. *See Ruiz-Guzman*, 7 P.3d at 801-02.
309. *Id.* at 803.
310. *Id.* (citing Terhune v. A.H. Robins Co., 577 P.2d 975, 975 (Wash. 1978)).
311. *Id.*
312. *Id.* at 804.
313. *Id.*
314. *See* Langan v. Valicopters, Inc., 567 P.2d 218, 223 (Wash. 1977).
315. *Id.*
316. *Id.*

Arguments could also be made that the use of biopesticides is an abnormally dangerous or ultrahazardous activity and should be subject to strict liability. In the case of plant pesticides and GM crops containing biopesticide agents, however, there is little likelihood that strict liability would apply.[317] These products are highly regulated under FIFRA, and biopesticides, specifically, are considered by the EPA to pose low risk to humans and not to cause unreasonable adverse effects on the environment.[318]

VI. PESTICIDES AND THE ECONOMIC THEORY OF PRODUCTS LIABILITY: A CASE HISTORY OF IMAZAQUIN CARRYOVER AND MAIZE INJURY

Imazaquin (Scepter) herbicide was registered in 1986 by American Cyanamid for use on soybean for control of broadleaf and grass weeds.[319] Because of its excellent efficacy, low mammalian toxicity, cost effectiveness, and excellent crop safety, this herbicide quickly became the market leader and was applied on over seventy percent of the estimated seventy-million acres of soybean grown in the United States.[320] Because soybean is commonly rotated with maize in the Midwestern Maize belt, the rotation restriction to maize, listed at eleven months, is a common soybean herbicide label component.[321] This is highly significant because a longer rotation restriction would effectively preclude use of this product on soybean.

In 1988, the Midwest experienced a severe drought. Imazaquin's primary mode of degradation in soil is biological[322] as opposed to the more common chemical or photo-degradation processes of most herbicides. The severe drought from fall 1987 to fall 1988 inhibited biological degradation of imazaquin resulting in carryover injury to maize.[323] Reports of maize injury from carryover of

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317. *See* Mary Jane Angelo, *Genetically Engineered Plant Pesticides: Recent Developments in the EPA's Regulation of Biotechnology*, 7 U. FLA. J.L. & PUB. POL'Y 257, 258-261 (1996).

318. *See id.* at 293.

319. CORNELL UNIV. IMAZAQUIN (SCEPTER) HERBICIDE PROFILE 3/86, CHEM. FACT SHEET FOR: IMAZAQUIN (Mar. 20, 1986) *available at* http://pmep.cce.cornell.edu/profiles/herb-growthreg/fatty-alcohol-monuron/imazaquin/herb-prof-imazaquin.html.

320. *Id.*

321. Because maize or soybean are commonly grown in a particular field the year after the other crop is grown in an annually repeating rotation sequence, the soybean herbicide label will warn that maize cannot be planted earlier than 11 months after the last application of the herbicide to that field in order to allow sufficient time for degradation of the herbicide below levels that will cause crop injury to the maize crop.

322. CORNELL UNIV. IMAZAQUIN (SCEPTER) HERBICIDE PROFILE 3/86, *supra* note 316.

323. *See* IOWA STATE UNIV., FATE OF THE IMIDAZOLINONES IN THE ENV'T, *at*

imazaquin were widespread in 1988 (from 1987 applications to soybean) and 1989 (from 1988 applications to soybean).[324] The extent of the carryover problem affected millions of maize acres for which American Cyanamid paid millions of dollars in claims for crop injury.[325] These massive "payouts" by American Cyanamid were effectuated without the benefit of or need for reliance on FIFRAs preemption clause in the courts.[326]

One maize grower, however, was dissatisfied enough with American Cyanamid's settlement offer to pursue a legal remedy.[327] In *Ackerman v. American Cyanamid Co.*, the court held that the plaintiff's claim against American Cyanamid for breach of implied warranty, based upon carryover damage to his maize crop after he applied the herbicide in accordance with label directions, was preempted by FIFRA, but that the farmer's claim for negligent design and testing was not preempted.[328] In *Ackerman*, the court stated,

> We think Ackerman's claim does challenge the label. In essence the claim comes down to this. If the Scepter label had been different, and the waiting period between the application of Scepter and planting of maize had been lengthened, the label would have been merchantable. In other words, American Cyanamid could have avoided liability for breach of implied warranty of merchantability by altering its label in the language regarding safe rotation of crops. We think Ackerman's claim stands on the use of the product in accordance with label instructions and follow crop guidelines. It should be dismissed as preempted.[329]

The *Ackerman* court's reasoning, however, was flawed and void of marketplace realities regarding pesticides for the following reasons. First, placing a greater rotation restriction on the label, even with knowledge of its potential for carryover, would have killed the product in the marketplace before it ever had a chance to prove itself. Because any soil-applied herbicide registered for use on maize or soybean with a rotation restriction greater than eleven months would never be registered, in this situation, biological factors, not legal doctrines, determine the adequacy of the label. Herbicides undergo extensive biological fate research by the registrants, even though this data is not required for labeling.

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http://www.agron.iastate.edu/~Weeds/ag317/manage/herbicide/imi.html (last visited Apr. 16, 2004).

324. *See id.*

325. *See* William J. Baer & David A. Balto, *New Myths and Old Realities: Recent Developments in Antitrust Enforcement*, 1999 COLUM. BUS. L. REV. 207, 267-68 (1999).

326. *See id.*

327. *See, e.g.,* Ackerman v. Am. Cyanamid Co., 586 N.W.2d 208, 208 (Iowa 1998).

328. *Id.* at 209.

329. *Id.* at 213-14.

Thus, American Cyanamid was aware of the degradation processes affecting imazaquin and the impact of prolonged low soil moisture on degradation.[330] In fact, in 1989 the registrant added to the label the warning "field maize may be planted in spring of the year following Scepter application unless less than [fifteen] inches of rainfall or irrigation is received within six months following date of last application."[331] In addition, the company invested heavily in breeding programs to develop maize hybrids that were more tolerant of imazaquin herbicide.[332] Therefore, American Cyanamid knew of the degradation processes for imazaquin and was willing to assume the risk that the Midwestern maize belt rarely experienced less than the required soil moisture for adequate biological degradation of imazaquin.

Second, FIFRAs preemption clause provides no incentive for registrants to include on the label adequate warnings of foreseeable yet low probability events because the company can avoid liability for any injuries resulting from these events by invoking the FIFRA preemption shield.[333]

Third, the court concluded "plaintiffs are free to seek recovery in our courts on their claim of negligent design and testing."[334] Other courts, adopting the majority view of FIFRA preemption for failure-to-warn claims, have allowed claims of defective design to survive defendants' motion for summary judgment.[335] "The line between a claim for mislabeling and a claim for a defective product is razor thin, and can turn on 'whether one could reasonably foresee that the manufacturer in seeking to avoid liability of the error, would choose to alter the product or the label.'" [336] Because pesticides are not designed like many manufactured products, but are discovered through a lengthy and costly process of chemical and biological testing,[337] claims of defective design or negligent design and testing function as an "end-run" around FIFRA preemption.

There may be a tendency by the legal community to infer that FIFRAs preemption clause operated as a sufficient shield for American Cyanamid, such that it precluded a flood of complaints from growers seeking compensation for injury to their maize.[338] The reality, however, is that astute and proactive busi-

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330. *Id.* at 215.
331. CROP PROTECTION REFERENCE, *supra* note 169, at 187.
332. QB9460 Herbicide Tolerance/Resistance in Plants (1994) *at* http://www.nal.usda.gov/bic/Biblios/qb9460.html.
333. *Ackerman*, 586 N.W.2d at 214-215.
334. *Id.* at 210.
335. *Id.*
336. *Id.* at 214 (citing Worm v. Am. Cyanamid Co, 5 F.3d 744, 747 (4th Cir. 1993)).
337. WHITFORD, *supra* note 41, at 236-27.
338. *See Ackerman*, 586 N.W.2d at 214.

ness decisions by American Cyanamid, not FIFRAs preemption clause, were dispositive in greatly mitigating the number of legal claims filed against the company. These business decisions served to maintain and increase imazaquin's market share, establish its position as a leader in the soybean herbicide market for nearly a decade, and earned the company a reputation of standing behind its products. Had American Cyanamid chosen not to compensate growers for alleged injury to maize and instead forced growers to seek compensation in the courts, the more likely result would have been a dramatic loss in market share. By invoking the shield of FIFRA preemption, American Cyanamid would have opted for short-term gain at the expense of long-term profits.

VII. CONCLUSION

There is no logically defensible economic or public policy reason why pesticides should enjoy preemption from failure-to-warn when the vast numbers of commercial products that serve equally vital social functions do not enjoy such protection. As a commercial product, pesticides are most closely analogous to medicines. In fact, agricultural and public health pesticides should be viewed equivalently to modern drugs as the miracle drugs of agriculture. Drug manufacturers, who enjoy no such federal protection from inadequate labeling, include warnings of even remote side-effects as a part of their labels. Because pesticides are subjected to rigorous and extensive testing and scrutiny before they are registered by the EPA, companies can foresee potential injury scenarios and provide adequate warnings on the label. Therefore, economic theories of products liability should govern claims of injury from pesticide applications, not ambiguous statutory language.

Allowing actionable claims of defective design, however, portends ill for the pesticide industry. Actionable defective design claims for pesticides should be predicated on the unreasonably dangerous standard, not reasonably safer alternative. Therefore, such claims should be impliedly preempted absent a showing of fraudulent manufacture of a product that caused unreasonable adverse effects on the environment. This would be in violation of FIFRA because a manufacturer would have had to provide fraudulent information to the EPA in order to register the product. Such a scenario is highly unlikely, however, because under FIFRA these claims would be preempted. In addition, some pesticides offer such important public benefits that they should be regarded by the courts as unreasonably unsafe products, much like certain prescription drugs and vaccines. Allowing pesticide manufacturers and registrants to plead this defense on a claim-

by-claim basis would likely serve as a sufficient counterweight to state common law liability claims.