No. 24-1068

In the
Supreme Court of the United States

MONSANTO COMPANY,

Petitioner,

v.

JOHN L. DURNELL,

Respondent.

On Writ of Certiorari to the Missouri Court of Appeals

JOINT APPENDIX

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February 23, 2026

Petition for Writ of Certiorari Filed April 4, 2025
Petition for Writ of Certiorari Granted January 16, 2026

TABLE OF CONTENTS

The following opinions, decisions, judgments, and orders have been omitted in printing this joint appendix because they appear on the following page in the appendix to the Petition for Certiorari:

Relevant Docket Entries, Missouri Circuit Court, Twenty-Second Judicial Circuit, *Durnell v. Monsanto Co.*, No. 1922-CC00221

Filing Date	Description
01/31/2019	Pet Filed in Circuit Ct Filed by: James G. Onder Complaint.
* * *	
03/22/2019	Answer Filed Filed by: Gregory James Minana
* * *	
* * *	
05/26/2023	Motion for Leave Filed by: William Blair Motion for Leave to File First Amended Petition; Exhibit A - First Amended Petition ...
* * *	
06/29/2023	Memorandum Filed Filed by: Erik Lansdowne Hansell Memorandum in Opposition to Plaintiffs Motion for Leave to File First Amended Petition ...
* * *	
06/30/2023	Order Plaintiffs Motion to Amend Called Heard and Submitted Status Conference set for Jult 31, 2023 at 8:00 AM in This Division 8

	So Ordered: Judge Timothy J. Boyer
* * *	
07/05/2023	Order - Denied The Court, after oral argument by counsel, and after reviewing the applicable statutes and case law, hereby DENIES Plaintiffs Motion for Leave to File First Amended Petition. Cause remains set for Status on July 31, 2023 @ 8 AM. So Ordered: Judge Timothy J. Boyer
* * *	
07/31/2023	Stmnt Uncon/Mater Facts Filed Filed by: Erik Lansdowne Hansell Statement of Undisputed Material Facts in Support of Monsanto Company's Motion for Summary Judgement …
07/31/2023	Memo of Law in Suppt of Filed Filed by: Erik Lansdowne Hansell Memorandum of Law in Support of Monsanto Companys Motion for Summary Judgment …
07/31/2023	Motion Filed Filed by: Erik Lansdowne Hansell Monsanto Company's Motion for Summary Judgment …
* * *	

08/31/2023	Response Filed Filed by: William Blair Plaintiff's Response to Defendant Monsanto Company's Statement of Undisputed Material Facts in Support of Motion for Summary Judgment and Plaintiff's Statement of Additional Undisputed Material Facts …
08/31/2023	Response Filed Filed by: William Blair Plaintiff's Response in Opposition to Defendant's Motion for Summary of Judgment and Memorandum of Law in Support …
08/31/2023	Response Filed Filed by: William Blair Defendant's Response to Plaintiff's Statement of Material Facts in Support of Motion for Summary Judgment …
* * *	
09/08/2023	Stmnt Uncon/Mater Facts Filed Filed by: Erik Lansdowne Hansell Monsantos Statement of Additional Material Facts in Support of its Motion for Summary Judgment …
09/08/2023	Reply Filed by: Erik Lansdowne Hansell

	Monsantos Reply to Plaintiffs Statement of Additional Material Facts …
09/08/2023	Reply Filed by: Erik Lansdowne Hansell Monsantos Reply in Support of its Motion for Summary Judgment …
* * *	
09/15/2023	Motion to Dismiss Filed by: Erik Lansdowne Hansell Defendant Monsanto Companys Motion to Dismiss the Claims of Plaintiff Dana White …
* * *	
09/25/2023	Reply Filed by: William Blair Plaintiffs Surreply in Opposition to Defendants Motion for Summary Judgment …
* * *	
09/28/2023	Order Order: Accordingly the Court must deny Defendant Motion for Summary Judgment. This ruling is without prejudice to defendant to bring the same arquments in a motion for directed verdict at the cloae of plaintiffs case. Wherefore it is ordered and decreed that Defendant Monsanto Companys

	Motion for Summary Judgment is Hereby Denied. So ordered Judge Timothy Boyer
* * *	
10/02/2023	Trial Minutes Filed Jury Day 1
* * *	
10/03/2023	Filing: Jury Selected
10/03/2023	Trial Minutes Filed Trial Day 2
10/04/2023	Trial Minutes Filed Jury Trial Day 3
* * *	
10/05/2023	Trial Minutes Filed Jury Trial Day 4
* * *	
10/10/2023	Trial Minutes Filed Jury Trial Day 5
* * *	
10/11/2023	Trial Minutes Filed Jury Trial Day 6
* * *	
10/12/2023	Trial Minutes Filed Jury Trial Day 7
10/13/2023	Trial Minutes Filed

	Jury Trial Day 8
	* * *
10/16/2023	Trial Minutes Filed Jury Trial Day 9
10/16/2023	Motion for Directed Verdict Filed by: Timothy Joseph Hasken Monsanto Companys Motion for Direct Verdict at the Close of Plaintiffs Evidence …
10/17/2023	Motion Filed Comes now the Court after reviewing the brief and hearing the arquments of counsel and denies Monsanto Companys Motion for Directed Verdict at the Close of Plaintiff Evidence. So ordered Judge Timothy Boyer
10/17/2023	Trial Minutes Filed Jury Trial Day 10
10/18/2023	Trial Minutes Filed Jury Trial Day 11
10/18/2023	Motion for Directed Verdict Filed by: Timothy Joseph Hasken Monsanto Companys Motion for Directed Verdict at the Close of All Evidence …
	* * *
10/19/2023	Trial Minutes Filed

	Jury Trial Day 12
	* * *
10/20/2023	Jury Instructions Filed
10/20/2023	Jury Verdict Reached
10/20/2023	Trial Minutes Filed
10/26/2023	Judgment Entered Judgment Against: Judgment Entered Judgment: Now therefore it is ordered adjudged ad decreed as follows: In accordance with the verdict of the jury set forth above Plaintiff Johhn Durnell shall have and recover from Defendandt Monsanto Company the sum of $1,250.000 (one million two hundred fifty thousand dollars) as and for compensatory damages together with post judgment interest as provided by law. Costs assessed against Defendsnt Monsanto Company. All matters and things and controversy as between Plaintiff John Durnell and Defendant Monsanto Company having been resolved by the aforementioned jury verdict purusuant to S. Ct. Rule 74.01 (b) of the Missouri Rules of Civil Procedure this Court finds that this judgment and each part thereof be and hereby is certified as final for purposes of appeal and that there is

	no just reason for delay. So ordered Judge Timothy Boyer.
* * *	
11/24/2023	Motion Filed Filed by: Timothy Joseph Hasken Defendant Monsanto Companys Motion for Judgment Notwithstanding the Verdict and in Alternative New Trial …
* * *	
01/08/2024	Response Filed Filed by: William Blair Plaintiffs Response in Opposition to Monsantos Motion for JNOV and New Trial …
* * *	
01/16/2024	Motion Filed Hearing heard or Monsanto Motion for JNOV and Alternativelty New Trial taken under advisement. So ordered Judge Timothy Boyer
01/19/2024	Order Order and Judgment: Comes now the Court and after reviewing the evidence presented and arguments of counsel denies Defendant's Motionfor Judgment notwithstanding the Verdict and in the Alternative for New Trial. So ordered Judge Timothy Boyer

* * *	
1/26/2024	Notice of Appeal Filed Filed by: Timothy Joseph Hasken Notice of Appeal; Attachment A - PartyCounsel List; Attachment B - Brief Description of the Case; Attachment C - Orders …

Relevant Docket Entries, Missouri Court of Appeals, *Durnell v. Monsanto Co.*, No. ED112410

Filing Date	Description
01/26/2024	Filing Fee Paid NOA Filed in Circuit Court
	* * *
08/09/2024	Motion to Take Judicial Notice … Filed By: Timothy Joseph Hasken On Behalf Of: Monsanto Company Appendix Filed … Filed By: Timothy Joseph Hasken On Behalf Of: Monsanto Company Appellant's Brief … Filed By: Timothy Joseph Hasken On Behalf Of: Monsanto Company
	* * *
08/23/2024	Court Order Issued Appellant filed a motion for this Court to take judicial notice of "certain public records and other materials that document or relate to the regulatory history of glyphosate in general and Monsanto's pesticide Roundup in particular." Appellant has proffered

	the specific documents of which it asks this Court to take judicial notice, and the motion indicates that such documents were not introduced as exhibits in the trial court. Respondent has not filed suggestions in opposition to Appellant's motion. In addition, Appellant filed its brief on August 9, 2024. A few days later, Appellant filed a motion to file a corrected brief. Then, on August 15, 2024, Appellant filed a motion for leave to file a supplemental brief of 1,000 pages to discuss a newly decided opinion. No objection has been filed. "Missouri courts have held that rules and regulations promulgated by government agencies, pursuant to delegation of authority by Congress, may have the force and effect of law and that such rules and regulations shall be judicially noticed." Kawin v. Chrysler Corp., 636 S.W.2d 40, 44 (Mo. 1982) (citing Macalco, Inc. v. Gulf Insurance Company. 550 S.W.2d 883, 887 {Mo.App.1977). However, it appears that the documents proffered by Appellant might go beyond "rules and regulations" implemented by the EPA, as they include registration documentation for Roundup and guidance on the law

	in the form of manuals or other publications from the EPA. Therefore, Appellant's motion to take judicial notice of certain documents is hereby ordered taken with the case. Appellant's motion to file a supplemental brief is denied. However, Appellant is granted leave to file an amended brief incorporating its additional argument on or before September 23, 2024. Appellant's motion to file a corrected brief is denied as moot. Respondent's brief will be due on or before October 23, 2024.
	* * *
09/10/2024	Amended Appellant's Brief … Filed By: Timothy Joseph Hasken On Behalf Of: Monsanto Company
	* * *
11/7/2024	… Respondent's Brief … Filed By: William Wylie Blair
	* * *
11/22/2024	Appellant's Reply Brief … Filed By: Timothy Joseph Hasken On Behalf of: Monsanto Company

12/05/2024	… Case Submitted Scheduled For: 12/05/2024; Division 4; Eastern District Ct of Appeals
* * *	
02/11/2025	Clerk Remark Vote Opinion- Affirmed Signed Majority Opinion
02/12/2025	Appl for Tran SC Filed in SC …
* * *	
04/01/2025	Denied Associated Entries: 02/12/2025 - Appl for Tran SC Filed in SC

Relevant Docket Entries, Supreme Court of Missouri, *Durnell v. Monsanto Co.*, No. SC100975

Date Filed	Description
02/12/2025	… Appl for Tran SC Filed in SC Appellant's Application for Transfer from the Missouri Court of Appeals, Eastern District; Opinion of Court of Appeals; Proof of Notice Filed in Court of Appeals Filed By: Timothy Joseph Hasken On Behalf Of: Monsanto Company …
04/01/2025	Dis-App Tran to SC Denied …

Complaint, *Durnell v. Monsanto Co.*, No. 1922-CC00221 (Mo. Cir. Ct. Jan. 31, 2019)

COME NOW Plaintiffs, by and through their counsel, Onder Law, LLC and for their cause of action against Defendants Monsanto Company, Osborn & Barr Communications, Inc., and Osborn & Barr Holdings, Inc., state to the Court:

I. INTRODUCTION

1. Plaintiffs bring this cause of action against Defendants pursuant to Rule 52.05(a) of the Missouri Rules of Civil Procedure, as their claims arise out of the same series of transactions and occurrences, and their claims involve common questions of law and/or fact. All claims in this action are a direct and proximate result of Defendants' negligent, willful, and wrongful conduct in connection with the design, development, manufacture, testing, packaging, promoting, marketing, distribution, and/or sale of the products as Roundup® ("Roundup"). Plaintiffs in this action seek recovery for damages as a result of developing Non-Hodgkin Lymphoma ("NHL") and other cancers, which were directly and proximately caused by such wrongful conduct by Defendant, the unreasonably dangerous and defective nature of Roundup, and its active ingredient, glyphosate, and the attendant effects of developing NHL. No Plaintiff knew of an association between exposure to Roundup and the increased risk of developing NHL until sometime after viewing legal advertisements advising of such association. All of the claims involve common questions of law and fact and share legal and medical issues that arise out of all of the Plaintiffs' and/or

Plaintiffs' Decedents (herein identified as "Plaintiffs") exposures to Roundup.

II. PARTIES

Plaintiffs

2. Plaintiff John L. Durnell is and was at all relevant times a resident of Missouri. Plaintiff Durnell was exposed to, purchased and used Roundup and/or other Monsanto glyphosate-containing products ("Roundup"). Plaintiff Durnell was first exposed to Roundup in approximately 1999 in the City of St. Louis and was diagnosed with Non-Hodgkin lymphoma as a result of Roundup exposure.

3. Plaintiff Ronald Abernathy was at all relevant times a resident of Florida and Illinois and currently resides in Florida. Plaintiff Abernathy was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1995 to 2018 and was diagnosed with Non-Hodgkin lymphoma.

4. Plaintiff Jon F. Ackerman was at all relevant times a resident of California, Virginia and Idaho and currently resides in Idaho. Plaintiff Ackerman was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1990 to 2015 and was diagnosed with Non-Hodgkin lymphoma.

5. Plaintiff Delores Adams is and was at all relevant time a resident of Oregon, and the surviving spouse and Personal Representative of the Estate of Decedent Gary Adams, who was at all relevant times a resident of Oregon. Decedent Adams was exposed to Roundup and/or other Monsanto glyphosate-

containing products from approximately 1975 to 2007 and was diagnosed with Non-Hodgkin lymphoma and subsequently died as a direct and proximate result of these injuries. Plaintiff Adams and all other statutory beneficiaries have sustained the following damages: pecuniary losses suffered by reason of Decedent Adams' death, medical expenses, funeral expenses, damages suffered by Decedent Adams between the time of his injury and death for which he might have maintained an action but for his death, the physical, mental and emotional pain and suffering endured by Decedent Adams between the time of his injury and death; and the benefit of Decedent Adams' services, companionship, comfort, instruction, guidance, counsel training and support. Therefore, pursuant to Oregon's wrongful death statute, Plaintiff Adams seeks all recovery allowed under the statute and for all claims surviving death.

6. Plaintiff Harlan D. Alderman is and was at all relevant times a resident of Oregon. Plaintiff Alderman was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1985 to 2015 and was diagnosed with Non-Hodgkin lymphoma.

7. Plaintiff Thomas L. Alf is and was at all relevant times a resident of Wisconsin. Plaintiff Alf was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1978 to 1988 and was diagnosed with Non-Hodgkin lymphoma.

8. Plaintiff Michael L. Alford is and was at all relevant times a resident of Louisiana. Plaintiff Alford was exposed to Roundup and/or other Monsanto

glyphosate-containing products from approximately 1990 through 2011 and was diagnosed with Non-Hodgkin lymphoma.

9. Plaintiff Russell Baker is and was at all relevant times a resident of South Carolina and Pennsylvania and currently resides in South Carolina. Plaintiff Baker was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2010 through 2017 and was diagnosed with Non-Hodgkin lymphoma.

10. Plaintiff Henry Banks is and was at all relevant times a resident of Texas. Plaintiff Banks was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1980 through 2017 and was diagnosed with Non-Hodgkin lymphoma.

11. Plaintiff Earle D. Bone was at all relevant times a resident of Michigan and Kentucky and currently resides in Kentucky. Plaintiff Bone was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2003 to 2018 and was diagnosed with Non-Hodgkin lymphoma.

12. Plaintiff Otis Byrd is and was at all relevant times a resident of Virginia. Plaintiff Byrd was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1994 through 2016 and was diagnosed with Non-Hodgkin lymphoma.

13. Plaintiff Freda J. Christy is and was at all relevant times a resident of Washington. Plaintiff Christy was exposed to Roundup and/or other Monsanto glyphosate-containing products from

approximately 1974 to 2014 and was diagnosed with Non-Hodgkin lymphoma.

14. Plaintiff Timothy J. Connelly was at all relevant times a resident of Virginia and Michigan and currently resides in Michigan. Plaintiff Connelly was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1980 to 2001 and was diagnosed with Non-Hodgkin lymphoma.

15. Plaintiff Troy A. Cook is and was at all relevant times a resident of Idaho. Plaintiff Cook was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2005 to 2018 and was diagnosed with Non-Hodgkin lymphoma.

16. Plaintiff Thomas DeFilippo is and was at all relevant times a resident of Connecticut and the surviving spouse and Executor of the Estate of Rosemary DeFilippo, deceased. Decedent DeFilippo was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2002 to 2008 and was diagnosed with Non-Hodgkin lymphoma and subsequently died. As a direct and proximate result of these injuries, under Connecticut's survival and wrongful death statutes, Plaintiff DeFilippo and the Estate of Decedent DeFilippo have sustained damages including medical, funeral, hospital, and burial expenses, compensation for pain and suffering, damages for loss of financial support, loss of society and companionship of the deceased, and all recovery allowed pursuant to Connecticut's Wrongful Death Act and for any and all claims surviving death.

17. Plaintiff Joseph Dicks is and was at all relevant times a resident of California and New York and currently resides in California. Plaintiff Dicks was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1975 through 2014 and was diagnosed with Non-Hodgkin lymphoma.

18. Plaintiff Joseph M. Dziuban is and was at all relevant times a resident of Michigan. Plaintiff Dziuban was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1990 to 2017 and was diagnosed with Non-Hodgkin lymphoma.

19. Plaintiff Jodi L. Easey is and was at all relevant times a resident of Michigan. Plaintiff Easey was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2000 to 2009 and was diagnosed with Non-Hodgkin lymphoma.

20. Plaintiff Robert Evans is and was at all relevant times a resident of Washington. Plaintiff Evans was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1990 through 2011 and was diagnosed with Non-Hodgkin lymphoma.

21. Plaintiff Sundae W. Faraci is and was at all relevant times a resident of Pennsylvania. Plaintiff Faraci was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1985 to 2010 and was diagnosed with Non-Hodgkin lymphoma.

22. Plaintiff Paul Ferreira is and was at all relevant times a resident of Maine and Massachusetts

and currently resides in Maine. Plaintiff Ferreira was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1980 through 2011 and was diagnosed with Non-Hodgkin lymphoma.

23. Plaintiff Timm J. Gildernick is and was at all relevant times a resident of Wisconsin. Plaintiff Gildernick was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1982 to 2018 and was diagnosed with Non-Hodgkin lymphoma.

24. Plaintiff Sandra L. Hancock is and was at all relevant times a resident of Texas. Plaintiff Hancock was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1980 to 2016 and was diagnosed with Non-Hodgkin lymphoma.

25. Plaintiff Stanley B. Harper is and was at all relevant times a resident of North Carolina. Plaintiff Harper was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1974 to 2016 and was diagnosed with Non-Hodgkin lymphoma.

26. Plaintiff Tina I. Hoffman is and was at all relevant times a resident of Idaho. Plaintiff Hoffman was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1977 through 2008 and was diagnosed with Non-Hodgkin lymphoma.

27. Plaintiff Clifford R. Holloman is and was at all relevant times a resident of Missouri. Plaintiff Holloman was exposed to Roundup and/or other Monsanto glyphosate-containing products from

approximately 2003 to 2006 and was diagnosed with Non-Hodgkin lymphoma.

28. Plaintiff Ronald Holmes is and was at all relevant times a resident of Maryland. Plaintiff Holmes was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2006 through 2016 and was diagnosed with Non-Hodgkin lymphoma.

29. Plaintiff Jackie Hosey is and was at all relevant times a resident of Mississippi, and the surviving child of Decedent Annie R. Hosey, who was at all relevant times a resident of Mississippi. Plaintiff Hosey is a qualified beneficiary to bring this claim under applicable Mississippi statutes. Decedent Hosey was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1975 to 1999 and was diagnosed with Non-Hodgkin lymphoma and subsequently died. As a direct and proximate result of these injuries, Plaintiff Hosey has sustained the following damages: pecuniary losses suffered by reason of Decedent Hosey's death, medical expenses, funeral expense, damages suffered by Decedent Hosey between the time of her injury and death for which she might have maintained an action but for this death; the physical, mental and emotional pain and suffering endured by Decedent Hosey between the time of her injury and death as a result of exposure to Roundup; and the benefit of Decedent Hosey's services, companionship, comfort, instruction, guidance, counsel and support. Therefore, pursuant to Mississippi's wrongful death and survival action statutes, Plaintiff Hosey seeks all recovery allowed under the statutes and for all claims surviving death.

30. Plaintiff Riccharde A. Jackson is and was at all relevant times a resident of South Carolina. Plaintiff Jackson was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1995 to 2011 and was diagnosed with Non-Hodgkin lymphoma.

31. Plaintiff Edward L. Johnston is and was at all relevant times a resident of Illinois. Plaintiff Johnston was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2004 to 2014 and was diagnosed with Non-Hodgkin lymphoma.

32. Plaintiff Steven P. Kruse is and was at all relevant times a resident of Alaska. Plaintiff Kruse was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1987 to 2018 and was diagnosed with Non-Hodgkin lymphoma.

33. Plaintiff Brenda A. Lambert was at all relevant times a resident of Virginia and Florida and currently resides in Florida. Plaintiff Lambert was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1994 to 2017 and was diagnosed with Non-Hodgkin lymphoma.

34. Plaintiff Eloise C. Lewis is and was at all relevant times a resident of Tennessee, and the surviving spouse of Decedent Nathaniel Lewis, Jr., who was at all relevant times a resident of Tennessee. Plaintiff Lewis is a beneficiary under Tennessee law to bring this wrongful death and survival action claim on behalf of Decedent Lewis. Decedent Lewis was exposed to Roundup and/or other Monsanto

glyphosate-containing products from approximately 1992 through 2006 and was diagnosed with Non-Hodgkin lymphoma and subsequently died. As a direct and proximate result of these injuries, Plaintiff Lewis has sustained the following damages: pecuniary losses suffered by reason of Decedent Lewis' death, medical expenses, funeral expense, damages suffered by Decedent Lewis between the time of his injury and death for which he might have maintained an action but for this death; the physical, mental and emotional pain and suffering endured by Decedent Lewis between the time of his injury and death as a result of his Roundup exposure; and the benefit of Decedent Lewis' services, companionship, comfort, instruction, guidance, counsel and support. Therefore, pursuant to Tennessee's wrongful death and survival action statutes, Plaintiff Lewis seeks all recovery allowed by law.

35. Plaintiff Dale Loos is and was at all relevant times a resident of Illinois and Missouri and currently resides in Illinois. Plaintiff Loos was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1974 through 2018 and was diagnosed with Non-Hodgkin lymphoma.

36. Plaintiff Dennis J. Lorenzen, III is and was at all relevant times a resident of Minnesota. Plaintiff Lorenzen was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1980 through 2017 and was diagnosed with Non-Hodgkin lymphoma.

37. Plaintiff Luane M. Lumbert is and was at all relevant times a resident of Michigan. Plaintiff

Lumbert was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1982 to 2018 was diagnosed with Non-Hodgkin lymphoma.

38. Plaintiff Carlos D. Luna is and was at all relevant times a resident of California. Plaintiff Luna was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1990 to 2013 and was diagnosed with Non-Hodgkin lymphoma.

39. Plaintiff Thomas Mack is and was at all relevant times a resident of Indiana. Plaintiff Mack was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2000 through 2017 and was diagnosed with Non-Hodgkin lymphoma.

40. Plaintiff Danny L. Markum is and was at all relevant times a resident of Arkansas. Plaintiff Markum was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1980 through 2006 and was diagnosed with Non-Hodgkin lymphoma.

41. Plaintiff Paul Martinez is and was at all relevant times a resident of Minnesota. Plaintiff Martinez was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2008 through 2015 and was diagnosed with Non-Hodgkin lymphoma.

42. Plaintiff Robert A. Mayo is and was at all relevant times a resident of Florida. Plaintiff Mayo was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately

1995 to 2015 and was diagnosed with Non-Hodgkin lymphoma.

43. Plaintiff Hiram McBurrows, Jr. is and was at all relevant times a resident of Michigan. Plaintiff McBurrows was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1994 to 2017 and was diagnosed with Non-Hodgkin lymphoma.

44. Plaintiff Debra A. Miller is and was at all relevant times a resident of Missouri. Plaintiff Miller was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2004 to 2012 and was diagnosed with Non-Hodgkin lymphoma.

45. Plaintiff Judy Montgomery is and was at all relevant times a resident of Texas, and the surviving spouse of Decedent Billy G. Montgomery, who was at all relevant times a resident of Texas. Plaintiff Craig Montgomery is and was at all relevant times a resident of Texas, and the surviving child of Decedent Montgomery. Plaintiffs Judy Montgomery and Craig Montgomery are beneficiaries under Texas law to bring this wrongful death and survival action claim. Decedent Montgomery was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1974 to 2016 and was diagnosed with Non-Hodgkin lymphoma and subsequently died. As a direct and proximate result of these injuries, Plaintiffs Judy Montgomery and Craig Montgomery have sustained the following damages: pecuniary losses suffered by reason of Decedent Montgomery's death, medical expenses, funeral expense, damages suffered by Decedent Montgomery

between the time of his injury and death for which he might have maintained an action but for this death; the physical, mental and emotional pain and suffering endured by Decedent Montgomery between the time of his injury and death as a result of his Roundup exposure; and the benefit of Decedent Montgomery's services, companionship, comfort, instruction, guidance, counsel and support. Therefore, pursuant to Texas's wrongful death and survival action statutes, Plaintiffs Judy Montgomery and Craig Montgomery seek all recovery allowed by law.

46. Plaintiff Annette Moore is and was at all relevant times a resident of New York. Plaintiff Moore was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2008 through 2018 and was diagnosed with Non-Hodgkin lymphoma.

47. Plaintiff Richard J. Murray was at all relevant times a resident of Minnesota, Arizona and Wisconsin and currently resides in Wisconsin. Plaintiff Murray was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1980 to 2018 and was diagnosed with Non-Hodgkin lymphoma.

48. Plaintiff Karen A. Nellis is and was at all relevant times a resident of New York. Plaintiff Nellis was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1974 to 2018 and was diagnosed with Non-Hodgkin lymphoma.

49. Plaintiff Michael Ney is and was at all relevant times a resident of Connecticut. Plaintiff Ney was exposed to Roundup and/or other Monsanto

glyphosate-containing products from approximately 2015 through 2015 and was diagnosed with Non-Hodgkin lymphoma.

50. Plaintiff Jacqueline Nicholson is and was at all relevant time a resident of New Jersey, and the surviving spouse and Executor of the Estate of Decedent William Nicholson, who was at all relevant times a resident of New Jersey. Decedent Nicholson was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1989 to 2014 and was diagnosed with non-Hodgkin lymphoma and subsequently died. As a direct and proximate result of these injuries Plaintiff Nicholson has sustained the following damages: pecuniary losses suffered by reason of Decedent Nicholson's death, medical expenses, funeral expenses, damages suffered by Decedent Nicholson between the time of his injury and death for which he might have maintained an action but for his death, the physical, mental and emotional pain and suffering endured by Decedent Nicholson between the time of his injury and death.

51. Plaintiff Dorothy Winston is and was at all relevant times a resident of Mississippi, and the surviving child of Decedent Emma Owens, who was at all relevant times a resident of Mississippi. Plaintiff Winston is a statutory beneficiary under applicable Mississippi statutes to bring this wrongful death and survival action claim on behalf of her deceased parent. Decedent Owens was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1980 to 2001 and was diagnosed with multiple myeloma and subsequently died. As a direct and proximate result of these injuries, Plaintiff

Winston has sustained the following damages: pecuniary losses suffered by reason of Decedent Owens' death, medical expenses, funeral expense, damages suffered by Decedent Owens between the time of her injury and death for which she might have maintained an action but for this death; the physical, mental and emotional pain and suffering endured by Decedent Owens between the time of her injury and death as a result of Roundup exposure; and the benefit of Decedent Owens' services, companionship, comfort, instruction, guidance, counsel and support. Therefore, pursuant to Mississippi's wrongful death and survival action statutes, Plaintiff Winston seeks all recovery allowed by law.

52. Plaintiff Ronald M. Palma is and was at all relevant times a resident of Washington. Plaintiff Palma was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1994 to 2016 and was diagnosed with Non-Hodgkin lymphoma.

53. Plaintiff Valeathia Kinney is and was at all relevant time a resident of Virginia, and the surviving child and Executor of the Estate of Decedent Margaret Parks, who was at all relevant times a resident of Virginia and North Carolina. Decedent Parks was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1985 to 2000 and was diagnosed with Non-Hodgkin lymphoma and subsequently died. As a direct and proximate result of these injuries Plaintiff Kinney has sustained the following damages: pecuniary losses suffered by reason of Decedent Parks' death, medical expenses, funeral expenses, damages suffered by

Decedent Parks between the time of her injury and death for which ahe might have maintained an action but for her death, the physical, mental and emotional pain and suffering endured by Decedent Parks between the time of her injury and death.

54. Plaintiff Paul P. Platis is and was at all relevant times a resident of Alabama. Plaintiff Platis was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1986 through 2013 and was diagnosed with Non-Hodgkin lymphoma.

55. Plaintiff Lewis C. Pritchett is and was at all relevant times a resident of Texas. Plaintiff Pritchett was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1994 to 2006 and was diagnosed with Non-Hodgkin lymphoma.

56. Plaintiff Charles S. Ray is and was at all relevant times a resident of Texas. Plaintiff Charles Ray was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2013 to 2017 and was diagnosed with Non-Hodgkin lymphoma.

57. Plaintiff Robert Ray is and was at all relevant times a resident of Florida. Plaintiff Robert Ray was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1999 through 2012 and was diagnosed with Non-Hodgkin lymphoma.

58. Plaintiff Geraldine S. Rorie is and was at all relevant times a resident of North Carolina. Plaintiff Rorie was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately

1980 to 2018 and was diagnosed with Non-Hodgkin lymphoma.

59. Plaintiff Gerry L. Sanders is and was at all relevant times a resident of Tennessee. Plaintiff Sanders was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1992 to 2018 and was diagnosed with Non-Hodgkin lymphoma.

60. Plaintiff John O. Schecklman is and was at all relevant times a resident of Wisconsin. Plaintiff Schecklman was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1998 to 2001 and was diagnosed with Non-Hodgkin lymphoma.

61. Plaintiff Lawrence Scott is and was at all relevant times a resident of Missouri. Plaintiff Scott was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2000 through 2003 and was diagnosed with Non-Hodgkin lymphoma.

62. Plaintiff Melvin D. Shepherd is and was at all relevant times a resident of Illinois. Plaintiff Shepherd was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1974 to 2010 and was diagnosed with Non-Hodgkin lymphoma.

63. Plaintiffs Donald L. Slone is and was at all relevant times a resident of Missouri, and the surviving spouse of Decedent Alexis M. Slone, who was at all relevant times a resident of Pennsylvania, Indiana and Missouri. Plaintiff Sheila Karges is and was at all relevant times a resident of Missouri, and the surviving child of Decedent Slone, who died in

Missouri. Plaintiffs Slone and Karges are qualified to bring wrongful death and survival action claims. Decedent Slone was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1974 to 1995 and was diagnosed with Non-Hodgkin lymphoma and subsequently died. As a direct and proximate result of these injuries and Decedent Slone's death, Plaintiffs Slone and Karges have sustained the following damages: pecuniary losses suffered by reason of Decedent Slone's death, medical expenses, funeral expense, damages suffered by Decedent Slone between the time of her injury and death for which she might have maintained an action but for this death; the physical, mental and emotional pain and suffering endured by Decedent Slone between the time of her injury and death as a result of exposure to Roundup; and the benefit of Decedent Slone's services, companionship, comfort, instruction, guidance, counsel and support. Therefore, pursuant to Missouri's wrongful death and survival action statutes, Plaintiffs Slone and Karges seeks all recovery allowed under the statutes and for all claims surviving death.

64. Plaintiff Gordon A. Smith is and was at all relevant times a resident of Texas. Plaintiff Gordon A. Smith was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1974 to 2008 and was diagnosed with Non-Hodgkin lymphoma.

65. Plaintiff William M. Smith is and was at all relevant times a resident of South Carolina. Plaintiff William M. Smith was exposed to Roundup and/or other Monsanto glyphosate-containing products from

approximately 2001 to 2016 and was diagnosed with Non-Hodgkin lymphoma.

66. Plaintiff Keith Snyder is and was at all relevant times a resident of Michigan. Plaintiff Snyder was exposed to Roundup and/or other Monsanto glyphosate-containing products through approximately 2016 and was diagnosed with Non-Hodgkin lymphoma.

67. Plaintiff Victor Standiford is and was at all relevant times a resident of California. Plaintiff Standiford was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1978 through 2016 and was diagnosed with Non-Hodgkin lymphoma.

68. Plaintiff Robert A. Sutton is and was at all relevant times a resident of Louisiana. Plaintiff Sutton was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1980 through 2011 and was diagnosed with Non-Hodgkin lymphoma.

69. Plaintiff Richard A. Szeles is and was at all relevant times a resident of New Jersey. Plaintiff Szeles was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1990 to 2018 and was diagnosed with Non-Hodgkin lymphoma.

70. Plaintiff Theresa L. Szudy is and was at all relevant times a resident of Illinois. Plaintiff Szudy was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1986 to 1997 and was diagnosed with Non-Hodgkin lymphoma.

71. Plaintiff Merline S. Tauzier is and was at all relevant times a resident of Louisiana. Plaintiff Tauzier was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1983 to 1997 and was diagnosed with Non-Hodgkin lymphoma.

72. Plaintiff Paul Thomas is and was at all relevant times a resident of Georgia. Plaintiff Thomas was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2004 through 2013 and was diagnosed with Non-Hodgkin lymphoma.

73. Plaintiff Cindy B. Treadway is and was at all relevant times a resident of South Carolina. Plaintiff Treadway was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1990 to 2010 and was diagnosed with Non-Hodgkin lymphoma.

74. Plaintiff Sandy Triplett is and was at all relevant times a resident of Utah and Florida and currently resides in Utah. Plaintiff Triplett was exposed to Roundup and/or other Monsanto glyphosate-containing products through approximately 2015 and was diagnosed with Non-Hodgkin lymphoma.

75. Plaintiff Dennis Turk is and was at all relevant times a resident of Delaware and New Jersey and currently resides in Delaware. Plaintiff Turk was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2000 to 2004 and was diagnosed with Non-Hodgkin lymphoma.

76. Plaintiff Stephen D. Uman is and was at all relevant times a resident of Florida. Plaintiff Uman was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1983 to 2013 and was diagnosed with Non-Hodgkin lymphoma.

77. Plaintiff Heather Vidrine is and was at all relevant times a resident of Texas. Plaintiff Vidrine was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2000 to 2013 and was diagnosed with Non-Hodgkin lymphoma.

78. Plaintiff Curtiss R. Waggoner is and was at all relevant times a resident of Texas. Plaintiff Waggoner was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1974 to 2017 and was diagnosed with Non-Hodgkin lymphoma.

79. Plaintiff Shawna M. Walton is and was at all relevant times a resident of Missouri. Plaintiff Walton was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2010 to 2013 was diagnosed with Non-Hodgkin lymphoma.

80. Plaintiff Richard Weiner is and was at all relevant times a resident of Ohio. Plaintiff Weiner was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1995 to 2007 was diagnosed with Non-Hodgkin lymphoma.

81. Plaintiff Dana K. White is and was at all relevant times a resident of Oklahoma. Plaintiff White was exposed to Roundup and/or other Monsanto

glyphosate-containing products from approximately 2007 to 2018 and was diagnosed with Non-Hodgkin lymphoma.

82. Plaintiff Christopher R. Williams is and was at all relevant times a resident of Texas. Plaintiff Williams was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1994 to 2010 and was diagnosed with Non-Hodgkin lymphoma.

83. Plaintiff Joy Jenkins is and was at all relevant times a resident of Mississippi, and the surviving child of Decedent A.J. Wilson, who was at all relevant times a resident of Mississippi. Plaintiff Jimmy Wilson is and was at all relevant times a resident of Louisiana, and the surviving child of Decedent Wilson, who died in Mississippi. Plaintiffs Jenkins and Wilson are beneficiaries under applicable Mississippi statutes to pursue wrongful death and survival actions. Decedent Wilson was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1974 to 2009 and was diagnosed with Non-Hodgkin lymphoma and subsequently died. As a direct and proximate result of these injuries and death, Plaintiffs Jenkins and Wilson have sustained the following damages: pecuniary losses suffered by reason of Decedent Wilson's death, medical expenses, funeral expense, damages suffered by Decedent Wilson between the time of his injury and death for which he might have maintained an action but for this death; the physical, mental and emotional pain and suffering endured by Decedent Wilson between the time of his injury and death as a result of his exposure to Roundup; and the

benefit of Decedent Wilson's services, companionship, comfort, instruction, guidance, counsel and support. Therefore, pursuant to Mississippi's wrongful death and survival action statutes, Plaintiffs Jenkins and Wilson seek all recovery allowed under the statutes and for all claims surviving death.

84. Plaintiff Timothy R. Wolf is and was at all relevant times a resident of North Dakota. Plaintiff Wolf was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1974 to 1985 and was diagnosed with Non-Hodgkin lymphoma.

85. Plaintiff Ruben H. Yanes is and was at all relevant times a resident of Florida. Plaintiff Yanes was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 2002 to 2016 and was diagnosed with Non-Hodgkin lymphoma.

86. Plaintiff Rickey G. Zimmerman is and was at all relevant times a resident of Oklahoma. Plaintiff Zimmerman was exposed to Roundup and/or other Monsanto glyphosate-containing products from approximately 1998 to 2015 and was diagnosed with Non-Hodgkin lymphoma.

Defendants

87. Defendant Monsanto Company ("Monsanto") is a Delaware corporation with its headquarters and principal place of business in St. Louis, Missouri and is a "local defendant" for purposes of Removal and Diversity Jurisdiction. At all relevant times, Monsanto also regularly conducted, transacted, and solicited business in St. Louis, Missouri, as well as in all States of the United States.

88. At all times relevant to this complaint, Monsanto was the entity that discovered the herbicidal properties of glyphosate and the manufacturer of Roundup.

89. Defendant Osborn & Barr Communications, Inc. is a Missouri corporation with its headquarters and principal place of business in St. Louis, Missouri with its registered agent located in the City of St. Louis, at 7700 Forsythe Blvd., Suite 1800, St. Louis, Missouri 63105 and is a "local defendant" for purposes of Removal and Diversity Jurisdiction.

90. Defendant Osborn & Barr Holdings, Inc. is a Missouri corporation with its headquarters and principal place of business in St. Louis, Missouri with its registered agent located in the City of St. Louis, at 7700 Forsythe Blvd., Suite 1800, St. Louis, Missouri 63105 and is a "local defendant" for purposes of Removal and Diversity Jurisdiction.

91. Osborn & Barr Communications, Inc. and Osborn & Barr Holdings, Inc. (hereinafter collectively "Osborn & Barr") were responsible for marketing Roundup and related Monsanto products until approximately 2012. Upon information and belief, important advertising, marketing, sales and other business decisions regarding Roundup were made from and in the State of Missouri.

92. Plaintiffs have suffered an illness that has a latency period and does not arise until years after exposure. Plaintiffs had no way of knowing about the risk of serious illness associated with the use of and/or exposure to Roundup and glyphosate until they were made aware that their illness, including non-Hodgkin lymphoma could be caused by their use and/or

exposure to Roundup. The discovery rule applies to these cases, and the statute of limitations has been tolled until the day the plaintiffs knew or had reason to know that their illnesses, including non-Hodgkin lymphoma, were linked to their use and/or exposure to Roundup.

93. Within the time period of any applicable statute of limitations, plaintiffs could not have discovered through the exercise of reasonable diligence that exposure to Roundup and glyphosate is injurious to human health.

94. Plaintiffs did not discover and did not know of facts that would cause a reasonable person to suspect the risk associated with the use of and/or exposure to Roundup and glyphosate nor would a reasonable and diligent investigation by them have disclosed that Roundup and glyphosate would cause their illnesses.

95. The expiration of any applicable statute of limitations has been equitably tolled by reason of Monsanto's fraudulent misrepresentations and fraudulent concealment and fraudulent conduct. Through affirmative misrepresentations and omissions, defendants actively concealed from plaintiffs the true risks associated with use of and/or exposure to Roundup.

96. As a result of defendants' actions, plaintiffs could not reasonably have known or learned through reasonable diligence that they had been exposed to the risks alleged herein and that those risks were the direct and proximate result of defendants' acts and omissions.

97. Defendants are estopped from relying on any statute of limitations because of their concealment of

the truth regarding the safety of Roundup. Defendant Monsanto had a duty to disclose the true character, quality and nature of Roundup because this was non-public information over which it continues to have exclusive control. Defendant knew that this information was not available to plaintiffs, their medical providers and/or their health facilities yet it failed to disclose the information to the public.

98. Defendant had the ability to and did spend enormous amounts of money in furtherance of the purposes of marketing and promoting a profitable product, notwithstanding the known or reasonably knowable risks. Plaintiffs and medical professional could not have afforded to and could not have possibly conducted studies to determine the nature, extent, and identity of related health risks, and they were forced to rely on defendants' representations.

III. BACKGROUND

99. In 1970, Defendant Monsanto Company, Inc. discovered the herbicidal properties of glyphosate and began marketing it in products in 1974 under the brand name Roundup. Roundup is a non-selective herbicide used to kill weeds that commonly compete with the growing of crops. By 2001, glyphosate had become the most-used active ingredient in American agriculture with 85-90 millions of pounds used annually. That number grew to 185 million pounds by 2007. As of 2013, glyphosate was the world's most widely used herbicide.

100. Monsanto is a multinational agricultural biotechnology corporation based in St. Louis, Missouri. It is the world's leading producer of glyphosate. As of 2009, Monsanto was the world's

leading producer of seeds, accounting for 27% of the world seed market. The majority of these seeds are of the Roundup Ready® brand. The stated advantage of Roundup Ready® crops is that they substantially improve a farmer's ability to control weeds, since glyphosate can be sprayed in the fields during the growing season without harming their crops. In 2010, an estimated 70% of corn and cotton, and 90% of soybean fields in the United States were Roundup Ready®.

101. Monsanto's glyphosate products are registered in 130 countries and approved for use on over 100 different crops. They are ubiquitous in the environment. Numerous studies confirm that glyphosate is found in rivers, streams, and groundwater in agricultural areas where Roundup is used. It has been found in food, in the urine of agricultural workers, and even in the urine of urban dwellers who are not in direct contact with glyphosate.

102. On March 20, 2015, the International Agency for Research on Cancer ("IARC"), an agency of the World Health Organization ("WHO"), issued an evaluation of several herbicides, including glyphosate. That evaluation was based, in part, on studies of exposures to glyphosate in several countries around the world, and it traces the health implications from exposure to glyphosate since 2001.

103. On July 29, 2015, IARC issued the formal monograph relating to glyphosate. In that monograph, the IARC Working Group provides a thorough review of the numerous studies and data relating to glyphosate exposure in humans.

104. The IARC Working Group classified glyphosate as a Group 2A herbicide, which means that it is probably carcinogenic to humans. The IARC Working Group concluded that the cancers most associated with glyphosate exposure are non-Hodgkin lymphoma and other hematopoietic cancers, including lymphocytic lymphoma/chronic lymphocytic leukemia, B-cell lymphoma, and multiple myeloma.

105. The IARC evaluation is significant. It confirms what has been believed for years: that glyphosate is toxic to humans.

106. Nevertheless, Monsanto, since it began selling Roundup, has represented it as safe to humans and the environment. Indeed, Monsanto has repeatedly proclaimed and continues to proclaim to the world, and particularly to United States consumers, that glyphosate-based herbicides, including Roundup, create no unreasonable risks to human health or to the environment.

107. Osborn & Barr marketed Roundup for two decades, representing it as safe to humans and the environment, disseminating advertising and other marketing efforts that proclaim to Roundup users and potential Roundup users that the products create no unreasonable risks to human health or to the environment.

IV. JURISDICTION AND VENUE

108. At all times relevant hereto, Monsanto was in the business of researching, designing, formulating, compounding, testing, manufacturing, producing, processing, assembling, inspecting, distributing, labeling and packaging and Monsanto and Osborn & Barr were in the business of marketing, promoting,

and/or advertising Roundup products in the State of Missouri and the City of St. Louis.

109. At all times relevant hereto, Monsanto was a Delaware corporation with its headquarters and principal place of business in St. Louis, Missouri, and therefore is a local defendant for purposes of Removal and diversity jurisdiction.

110. At all times relevant hereto, Osborn & Barr was a Missouri corporation with its headquarters and principal place of business in St. Louis, Missouri, and therefore is a local defendant for purposes of Removal and diversity jurisdiction.

111. Plaintiffs have timely filed this lawsuit from the time the Plaintiffs knew or reasonably knew of the injury and that it may have been wrongfully caused.

112. Pursuant to R.S.Mo. §508.010 venue is proper in the City of St. Louis.

113. Plaintiff John L. Durnell was first injured in the City of St. Louis, and therefore was first injured by the wrongful acts or negligent conduct alleged in this action in the City of St. Louis, Missouri. Therefore, venue is proper pursuant to Mo. Rev. Stat. § 508.010.

V. FACTS

114. Glyphosate is a broad-spectrum, non-selective herbicide used in a wide variety of herbicidal products around the world.

115. Plants treated with glyphosate translocate the systemic herbicide to their roots, shoot regions and fruit, where it interferes with the plant's ability to form aromatic amino acids necessary for protein synthesis. Treated plants generally die within two to

three days. Because plants absorb glyphosate, it cannot be completely removed by washing or peeling produce or by milling, baking, or brewing grains.

116. For nearly 40 years, farms across the world have used Roundup without knowing of the dangers its use poses. That is because when Monsanto first introduced Roundup, it touted glyphosate as a technological breakthrough: it could kill almost every weed without causing harm either to people or to the environment. Of course, history has shown that not to be true. According to the WHO, the main chemical ingredient of Roundup—glyphosate—is a probable cause of cancer. Those most at risk are farm workers and other individuals with workplace exposure to Roundup, such as workers in garden centers, nurseries, and landscapers. Agricultural workers are, once again, victims of corporate greed. Monsanto assured the public that Roundup was harmless. In order to prove this, Monsanto championed falsified data and attacked legitimate studies that revealed its dangers. Monsanto led a prolonged campaign of misinformation to convince government agencies, farmers and the general population that Roundup was safe.

The Discovery of Glyphosate and Development of Roundup®

117. The herbicidal properties of glyphosate were discovered in 1970 by Monsanto chemist John Franz. The first glyphosate-based herbicide was introduced to the market in the mid-1970s under the brand name Roundup. From the outset, Monsanto marketed Roundup as a "safe" general-purpose herbicide for widespread commercial and consumer use; Osborn &

Barr joined or took over these misleading marketing efforts in the early 1990s and continued through 2012. Monsanto still markets Roundup as safe today.

Registration of Herbicides under Federal Law

118. The manufacture, formulation and distribution of herbicides, such as Roundup, are regulated under the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA" or "Act"), 7 U.S.C. § 136 *et seq*. FIFRA requires that all pesticides be registered with the Environmental Protection Agency ("EPA" or "Agency") prior to their distribution, sale, or use, except as described by the Act. 7 U.S.C. § 136a (a).

119. Because pesticides are toxic to plants, animals, and humans, at least to some degree, the EPA requires as part of the registration process, among other things, a variety of tests to evaluate the potential for exposure to pesticides, toxicity to people and other potential non-target organisms, and other adverse effects on the environment. Registration by the EPA, however, is not an assurance or finding of safety. The determination the Agency must make in registering or reregistering a product is not that the product is "safe," but rather that use of the product in accordance with its label directions "will not generally cause unreasonable adverse effects on the environment." 7 U.S.C. § 136a(c) (5) (D).

120. FIFRA defines "unreasonable adverse effects on the environment" to mean "any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide." 7 U.S.C. § 136(bb). FIFRA thus requires EPA to make a risk/benefit analysis in

determining whether a registration should be granted or allowed to continue to be sold in commerce.

121. The EPA registered Roundup for distribution, sale, and manufacture in the United States and the State of Missouri.

122. FIFRA generally requires that the registrant, Monsanto in the case of Roundup, conducts the health and safety testing of pesticide products. The EPA has protocols governing the conduct of tests required for registration and the laboratory practices that must be followed in conducting these tests. The data produced by the registrant must be submitted to the EPA for review and evaluation. The government is not required, nor is it able, however, to perform the product tests that are required of the manufacturer.

123. The evaluation of each pesticide product distributed, sold, or manufactured is completed at the time the product is initially registered. The data necessary for registration of a pesticide has changed over time. The EPA is now in the process of re-evaluating all pesticide products through a Congressionally-mandated process called "re-registration." 7 U.S.C. § 136a-1 In order to reevaluate these pesticides, the EPA is demanding the completion of additional tests and the submission of data for the EPA's review and evaluation.

124. In the case of glyphosate, and therefore Roundup, the EPA had planned on releasing its preliminary risk assessment—in relation to the re-registration process—no later than July 2015. The EPA completed its review of glyphosate in early 2015, but it delayed releasing the risk assessment pending

further review in light of the WHO's health-related findings.

Scientific Fraud Underlying the Marketing and Sale of Glyphosate/Roundup

125. Based on early studies that glyphosate could cause cancer in laboratory animals, the EPA originally classified glyphosate as *possibly carcinogenic to humans* (Group C) in 1985. After pressure from Monsanto, including contrary studies it provided to the EPA, the EPA changed its classification to *evidence of non-carcinogenicity in humans* (Group E) in 1991. In so classifying glyphosate, however, the EPA made clear that the designation did not mean the chemical does not cause cancer: "It should be emphasized, however, that designation of an agent in Group E is based on the available evidence at the time of evaluation and should not be interpreted as a definitive conclusion that the agent will not be a carcinogen under any circumstances."

126. On two occasions, the EPA found that the laboratories hired by Monsanto to test the toxicity of its Roundup products for registration purposes committed fraud.

127. In the first instance, Monsanto, in seeking initial registration of Roundup by EPA, hired Industrial Bio-Test Laboratories ("IBT") to perform and evaluate pesticide toxicology studies relating to Roundup. IBT performed about 30 tests on glyphosate and glyphosate-containing products, including nine of the 15 residue studies needed to register Roundup.

128. In 1976, the United States Food and Drug Administration ("FDA") performed an inspection of Industrial Bio-Test Industries ("IBT") that revealed

discrepancies between the raw data and the final report relating to the toxicological impacts of glyphosate. The EPA subsequently audited IBT; it too found the toxicology studies conducted for the Roundup herbicide to be invalid. An EPA reviewer stated, after finding "routine falsification of data" at IBT, that it was "hard to believe the scientific integrity of the studies when they said they took specimens of the uterus from male rabbits."

129. Three top executives of IBT were convicted of fraud in 1983.

130. In the second incident of data falsification, Monsanto hired Craven Laboratories in 1991 to perform pesticide and herbicide studies, including for Roundup. In that same year, the owner of Craven Laboratories and three of its employees were indicted, and later convicted, of fraudulent laboratory practices in the testing of pesticides and herbicides.

131. Despite the falsity of the tests that underlie its registration, within a few years of its launch, Monsanto was marketing Roundup in 115 countries.

132. Osborn & Barr was responsible for much of the marketing of Roundup between 1990 and 2012, including targeted marketing to farmers; these efforts touted Roundup's efficacy and safety, never once disclosing the EPA classification mentioned above or the fraud involved in safety testing. Osborn & Barr also helped to design the packaging for Roundup products, which never warned of the cancer risk.

133. Osborn & Barr intensively marketed Roundup to the general public as made by a company that "puts the farmer first." The marketing efforts were so successful that the agricultural community

embraced Monsanto ever more warmly, with the U.S. Secretary of Agriculture going so far as to thank Monsanto for what it does for farmers.

134. Ironically, Osborn & Barr spearheaded efforts to portray Monsanto as an anticancer crusader in its farmer-friendly marketing, remaining absolutely silent as to the fact that Monsanto's biggest seller triples users' risk of non-Hodgkin lymphoma.

135. Monsanto has acknowledged that Monsanto and its sales of agricultural products including Roundup "wouldn't be the same" without Osborn & Barr.

136. Osborn & Barr even developed and maintains a public marketing website to advance Monsanto's sales called "Growing Safely: Focused on Safety in Agriculture" with numerous different subsections, failing to mention to consumers and potential consumers that Roundup is closely associated with cancer, nor recommending any safety precautions for the application of Roundup. Instead, viewers are distracted by such sections as "ATV safety." Osborn & Barr also marketed and disseminated information on behalf of American Farmers for the Advancement and Conservation of Technology, a Monsanto-backed group created to convince the public that genetically-modified crops, created by Monsanto and sold as "Roundup Ready," were safe and that anti-GMO activists were cranks.

137. Multiple studies have been ghostwritten in part and/or published by Monsanto through companies such as Intertek and Exponent, Inc. from 2000-present which minimize any safety concerns about the use of glyphosate; are used to convince

regulators to allow the sale of Roundup and are used to convince customers to use Roundup. Such studies include but are not limited to Williams (2000); Williams (2012); Kier & Kirkland (2013); Kier (2015); Bus (2016); Chang (2016); and the Intertek Expert Panel Manuscripts. All of these studies have been submitted to and relied upon by the public and the EPA in assessing the safety of glyphosate. Through these means Monsanto has fraudulently represented that independent scientists have concluded that Glyphosate is safe. In fact, these independent experts have been paid by Monsanto and have failed to disclose the significant role Monsanto had in creating the manuscripts. Monsanto has further ghostwritten editorials for scientists such as Robert Tarone and Henry Miller to advocate for the safety of glyphosate in Newspapers and Magazines. Monsanto has also ghostwritten letters by supposed independent scientists submitted to regulatory agencies who are reviewing the safety of glyphosate.

138. Monsanto has also violated federal regulations in holding secret ex parte meetings and conversations with certain EPA employees to collude in a strategy to re-register glyphosate and to quash investigations into the carcinogenicity of glyphosate by other federal agencies such as the Agency for Toxic Substances and Disease Registry. Monsanto's close connection with the EPA arises in part from its offering of lucrative consulting gigs to retiring EPA officials.

139. In March 2015, The Joint Glyphosate Task Force at Monsanto's behest issued a press release sharply criticizing IARC, stating that IARC's

conclusion was "baffling" and falsely claiming that "IARC did not consider any new or unique research findings when making its decision. It appears that only by deciding to exclude certain available scientific information and by adopting a different approach to interpreting the studies was this possible."

140. Beginning in 2011, the Federal Institute for Risk Assessment (BfR) in Germany began preparing a study on the safety of glyphosate. Through the Glyphosate Task Force, Defendants were able to co-opt this study becoming the sole providers of data and ultimately wrote the report which was rubber-stamped by the BfR. The Glyphosate Task Force was solely responsible for preparing and submitting summary of studies relied upon by the by the BfR. Defendants have used this report, which they wrote, to falsely proclaim the safety of glyphosate.

141. In October 2015, the Defendants as members of the Joint Glyphosate Task Force wrote to the state of California to try to stop California from warning the public about the carcinogenicity of glyphosate arguing that the IARC classification is mistaken. In January of 2016 Monsanto filed a lawsuit to stop California from warning the public about the carcinogenicity of glyphosate.

The Importance of Roundup® to Monsanto's Market Dominance Profits

142. The success of Roundup was key to Monsanto's continued reputation and dominance in the marketplace. Largely due to the success of Roundup sales, Monsanto's agriculture division was out-performing its chemicals division's operating income, and that gap increased yearly. But with its

patent for glyphosate expiring in the United States in the year 2000, Monsanto needed a strategy to maintain its Roundup market dominance and to ward off impending competition.

143. In response, Monsanto began the development and sale of genetically engineered Roundup Ready seeds in 1996. Since Roundup Ready crops are resistant to glyphosate, farmers can spray Roundup onto their fields during the growing season without harming the crop. This allowed Monsanto to expand its market for Roundup even further; by 2000, Monsanto's biotechnology seeds were planted on more than 80 million acres worldwide and nearly 70% of American soybeans were planted from Roundup Ready® seeds. It also secured Monsanto's dominant share of the glyphosate/Roundup market through a marketing strategy that coupled proprietary Roundup Ready seeds with continued sales of its Roundup herbicide.

144. Through a three-pronged strategy of increased production, decreased prices and by coupling with Roundup Ready seeds, Roundup became Monsanto's most profitable product. In 2000, Roundup accounted for almost $2.8 billion in sales, outselling other herbicides by a margin of five to one, and accounting for close to half of Monsanto's revenue. Today, glyphosate remains one of the world's largest herbicides by sales volume.

Monsanto has known for decades that it falsely advertises the safety of Roundup. Osborn & Barr, founded by a former Monsanto executive and intimately familiar with Monsanto's safety

and PR challenges, has also known for decades that it falsely advertises the safety of Roundup.

145. In 1996, the New York Attorney General ("NYAG") filed a lawsuit against Monsanto based on its false and misleading advertising of Roundup products. Specifically, the lawsuit challenged Monsanto's general representations that its spray-on glyphosate-based herbicides, including Roundup, were "**safer than table salt**" and "**practically non-toxic**" to mammals, birds, and fish. Among the representations the NYAG found deceptive and misleading about the human and environmental safety of Roundup are the following:

> (a) Remember that environmentally friendly Roundup herbicide is biodegradable. It won't build up in the soil so you can use Roundup with confidence along customers' driveways, sidewalks and fences...
>
> (b) And remember that Roundup is biodegradable and won't build up in the soil. That will give you the environmental confidence you need to use Roundup everywhere you've got a weed, brush, edging or trimming problem.
>
> (c) Roundup biodegrades into naturally occurring elements.
>
> (d) Remember that versatile Roundup herbicide stays where you put it. That means there's no washing or leaching to harm customers' shrubs or other desirable vegetation.
>
> (e) This non-residual herbicide will not wash or leach in the soil. It ... stays where you apply it.

(f) You can apply Accord with "confidence because it will stay where you put it;" it bonds tightly to soil particles, preventing leaching. Then, soon after application, soil microorganisms biodegrade Accord into natural products.

(g) Glyphosate is less toxic to rats than table salt following acute oral ingestion.

(h) Glyphosate's safety margin is much greater than required. It has over a 1,000-fold safety margin in food and over a 700-fold safety margin for workers who manufacture or use it.

(i) You can feel good about using herbicides by Monsanto. They carry a toxicity category rating of 'practically non-toxic' as it pertains to mammals, birds and fish.

(j) "Roundup can be used where kids and pets will play and breaks down into natural material." This ad depicts a person with his head in the ground and a pet dog standing in an area which has been treated with Roundup.

146. November 19, 1996, Monsanto entered into an Assurance of Discontinuance with NYAG, in which Monsanto agreed, among other things, "to cease and desist from publishing or broadcasting any advertisements [in New York] that represent, directly or by implication" that:

(a) its glyphosate-containing pesticide products or any component thereof are safe, non-toxic, harmless or free from risk. * * *

(b) its glyphosate-containing pesticide products or any component thereof manufactured,

formulated, distributed or sold by Monsanto are biodegradable * * *

(c) its glyphosate-containing pesticide products or any component thereof stay where they are applied under all circumstances and will not move through the environment by any means. * * *

(d) its glyphosate-containing pesticide products or any component thereof are "good" for the environment or are "known for their environmental characteristics." * * *

(e) glyphosate-containing pesticide products or any component thereof are safer or less toxic than common consumer products other than herbicides;

(f) its glyphosate-containing products or any component thereof might be classified as "practically non-toxic."

147. Monsanto did not alter its advertising in the same manner in any state other than New York, and on information and belief still has not done so today.

148. In 2009, France's highest court ruled that Monsanto had not told the truth about the safety of Roundup. The French court affirmed an earlier judgment that Monsanto had falsely advertised its herbicide Roundup as "biodegradable" and that it "left the soil clean."

Classifications and Assessments of Glyphosate

149. The IARC process for the classification of glyphosate followed the stringent procedures for the evaluation of a chemical agent. Over time, the IARC Monograph program has reviewed 980 agents. Of

those reviewed, it has determined 116 agents to be Group 1 (Known Human Carcinogens); 73 agents to be Group 2A (Probable Human Carcinogens); 287 agents to be Group 2B (Possible Human Carcinogens); 503 agents to be Group 3 (Not Classified); and one agent to be Probably Not Carcinogenic.

150. The established procedure for IARC Monograph evaluations is described in the IARC Programme's Preamble. Evaluations are performed by panels of international experts, selected on the basis of their expertise and the absence of actual or apparent conflicts of interest.

151. One year before the Monograph meeting, the meeting is announced and there is a call both for data and for experts. Eight months before the Monograph meeting, the Working Group membership is selected and the sections of the Monograph are developed by the Working Group members. One month prior to the Monograph meeting, the call for data is closed and the various draft sections are distributed among Working Group members for review and comment. Finally, at the Monograph meeting, the Working Group finalizes review of all literature, evaluates the evidence in each category, and completes the overall evaluation. Within two weeks after the Monograph meeting, the summary of the Working Group findings is published in Lancet Oncology, and within a year after the meeting, the final Monograph is finalized and published.

152. In assessing an agent, the IARC Working Group reviews the following information:

(a) human, experimental, and mechanistic data;

(b) all pertinent epidemiological studies and cancer bioassays; and

(c) representative mechanistic data.

The studies must be publicly available and have sufficient detail for meaningful review, and reviewers cannot be associated with the underlying study.

153. In March 2015, IARC reassessed glyphosate. The summary published in *The Lancet Oncology* reported that glyphosate is a Group 2A agent and probably carcinogenic in humans.

154. On July 29, 2015, IARC issued its Monograph for glyphosate, Monograph 112. For Volume 112, the volume that assessed glyphosate, a Working Group of 17 experts from 11 countries met at IARC from March 3-10, 2015, to assess the carcinogenicity of certain herbicides, including glyphosate. The March meeting culminated nearly a one-year review and preparation by the IARC Secretariat and the Working Group, including a comprehensive review of the latest available scientific evidence. According to published procedures, the Working Group considered "reports that have been published or accepted for publication in the openly available scientific literature" as well as "data from governmental reports that are publicly available."

155. The studies considered the following exposure groups: occupational exposure of farmers and tree nursery workers in the United States, forestry workers in Canada and Finland and municipal weed-control workers in the United Kingdom; and para-occupational exposure in farming families.

156. Glyphosate was identified as the second-most used household herbicide in the United States for weed control between 2001 and 2007 and the most heavily used herbicide in the world in 2012[1].

157. Exposure pathways are identified as air (especially during spraying), water, and food. Community exposure to glyphosate is widespread and found in soil, air, surface water, and groundwater, as well as in food.

158. The assessment of the IARC Working Group identified several case control studies of occupational exposure in the United States, Canada, and Sweden. These studies show a human health concern from agricultural and other work-related exposure to glyphosate.

159. The IARC Working Group found an increased risk between exposure to glyphosate and non-Hodgkin lymphoma ("NHL") and several subtypes of NHL, and the increased risk persisted after adjustment for other pesticides.

160. The IARC Working Group also found that glyphosate caused DNA and chromosomal damage in human cells. One study in community residents reported increases in blood markers of chromosomal damage (micronuclei) after glyphosate formulations were sprayed.

161. In male CD-1 mice, glyphosate induced a positive trend in the incidence of a rare tumor, renal tubule carcinoma. A second study reported a positive trend for haemangiosarcoma in male mice. Glyphosate

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[1] Roundup rose to the most-used herbicide in the world thanks in no small part to Osborn & Barr's marketing.

increased pancreatic islet-cell adenoma in male rats in two studies. A glyphosate formulation promoted skin tumors in an initiation-promotion study in mice.

162. The IARC Working Group also noted that glyphosate has been detected in the urine of agricultural workers, indicating absorption. Soil microbes degrade glyphosate to aminomethylphosphoric acid (AMPA). Blood AMPA detection after exposure suggests intestinal microbial metabolism in humans.

163. The IARC Working Group further found that glyphosate and glyphosate formulations induced DNA, oxidative and chromosomal damage in mammals, and in human and animal cells in utero.

164. In addition to DNA damage and oxidative stress, scientists have suggested that Roundup's association with various serious health conditions is linked to the effect Roundup has on the digestive system. Specifically, scientists believe the same mechanism that makes Roundup toxic to weeds also makes it toxic to the microbes within the human gut and mucous membranes. When humans are exposed to Roundup, it leads to a chronic inflammatory state in the gut, as well an impaired gut barrier, which can lead to many long-term health effects, including an increased risk of cancer. Monsanto has deliberately refused to conduct tests on this aspect of Roundup's mechanism of action.

165. Many Roundup products bear a label which either reads: "glyphosate targets an enzyme found in plants but not in people or pets" or "this Roundup formula targets an enzyme in plants but not in people or pets." These statements are false as it has been

established that the human body is host to microorganisms which have the enzyme Monsanto asserts is not found in humans. Thus, glyphosate targets microbes within the human body which have the enzyme, leading to a variety of adverse health effects.

166. The IARC Working Group also noted genotoxic, hormonal, and enzymatic effects in mammals exposed to glyphosate. Essentially, glyphosate inhibits the biosynthesis of aromatic amino acids, which leads to several metabolic disturbances, including the inhibition of protein and secondary product biosynthesis and general metabolic disruption.

167. The IARC Working Group also reviewed an Agricultural Health Study, consisting of a prospective cohort of 57,311 licensed pesticide applicators in Iowa and North Carolina. While this study differed from others in that it was based on a self-administered questionnaire, the results support an association between glyphosate exposure and Multiple Myeloma, Hairy Cell Leukemia (HCL), and Chronic Lymphocytic Leukemia (CLL), in addition to several other cancers.

Other Earlier Findings about Glyphosate's Dangers to Human Health

168. The EPA has a technical fact sheet, as part of its Drinking Water and Health, National Primary Drinking Water Regulations publication, relating to glyphosate. This technical fact sheet predates the IARC March 20, 2015, evaluation. The fact sheet describes the release patterns for glyphosate as follows:

Release Patterns

169. Glyphosate is released to the environment in its use as an herbicide for controlling woody and herbaceous weeds on forestry, right-of-way, cropped and non-cropped sites. These sites may be around water and in wetlands. It may also be released to the environment during its manufacture, formulation, transport, storage, disposal and cleanup, and from spills. Since glyphosate is not a listed chemical in the Toxics Release Inventory, data on releases during its manufacture and handling are not available. Occupational workers and home gardeners may be exposed to glyphosate by inhalation and dermal contact during spraying, mixing, and cleanup. They may also be exposed by touching soil and plants to which glyphosate was applied. Occupational exposure may also occur during glyphosate's manufacture, transport storage, and disposal.

170. In 1995, the Northwest Coalition for Alternatives to Pesticides reported that in California, the state with the most comprehensive program for reporting of pesticide-caused illness, glyphosate was the third most commonly-reported cause of pesticide illness among agricultural workers.

Recent Worldwide Bans on Roundup®/Glyphosate

171. Several countries around the world have instituted bans on the sale of Roundup and other glyphosate-containing herbicides, both before and since IARC first announced its assessment for glyphosate in March 2015, and more countries undoubtedly will follow suit in light of the as the dangers of the use of Roundup are more widely known.

The Netherlands issued a ban on all glyphosate-based herbicides in April 2014, including Roundup, which takes effect by the end of 2015. In issuing the ban, the Dutch Parliament member who introduced the successful legislation stated: "Agricultural pesticides in user-friendly packaging are sold in abundance to private persons. In garden centers, Roundup is promoted as harmless, but unsuspecting customers have no idea what the risks of this product are. Especially children are sensitive to toxic substances and should therefore not be exposed to it."

172. The Brazilian Public Prosecutor in the Federal District requested that the Brazilian Justice Department suspend the use of glyphosate.

173. France banned the private sale of Roundup and glyphosate following the IARC assessment for glyphosate.

174. Bermuda banned both the private and commercial sale of glyphosates, including Roundup. The Bermuda government explained its ban as follows: "Following a recent scientific study carried out by a leading cancer agency, the importation of weed spray 'Roundup' has been suspended."

175. The Sri Lankan government banned the Aprivate and commercial use of glyphosates, particularly out of concern that glyphosate has been linked to fatal kidney disease in agricultural workers.

176. The government of Columbia announced its ban on using Roundup and glyphosate to destroy illegal plantations of coca, the raw ingredient for cocaine, because of the WHO's finding that glyphosate is probably carcinogenic.

VI. CLAIMS

COUNT I STRICT LIABILITY (DESIGN DEFECT)

(AGAINST MONSANTO)

177. Plaintiffs incorporate by reference each and every allegation set forth in the preceding paragraphs as if fully stated herein.

178. Plaintiffs bring this strict liability claim against Monsanto for defective design.

179. At all times relevant to this litigation, Monsanto engaged in the business of testing, developing, manufacturing, selling, distributing, and Monsanto a engaged in the marketing, packaging design, and promotion of Roundup products, which are defective and unreasonably dangerous to consumers, including Plaintiffs, thereby placing Roundup products into the stream of commerce. These actions were under the ultimate control and supervision of Monsanto. At all times relevant to this litigation, Monsanto designed, researched, developed, manufactured, produced, tested, assembled, labeled, advertised, promoted, marketed, sold, and distributed the Roundup products used by the Plaintiffs, as described above.

180. At all times relevant to this litigation, Roundup products were manufactured, designed, and labeled in an unsafe, defective, and inherently dangerous manner that was dangerous for use by or exposure to the public, and, in particular, the Plaintiffs.

181. At all times relevant to this litigation, Roundup products reached the intended consumers,

handlers, and users or other persons coming into contact with these products in Missouri and throughout the United States, including Plaintiffs, without substantial change in their condition as designed, manufactured, sold, distributed, labeled, and marketed by Monsanto.

182. Roundup products, as researched, tested, developed, designed, licensed, manufactured, packaged, labeled, distributed, sold, and marketed by Monsanto were defective in design and formulation in that when they left the hands of the manufacturers and/or suppliers, they were unreasonably dangerous and dangerous to an extent beyond that which an ordinary consumer would contemplate.

183. Roundup products, as researched, tested, developed, designed, licensed, manufactured, packaged, labeled, distributed, sold, and marketed by Monsanto were defective in design and formulation in that when they left the hands of the manufacturers and/or suppliers, the foreseeable risks exceeded the alleged benefits associated with their design and formulation.

184. At all times relevant to this action, Monsanto knew or had reason to know that Roundup products were defective and were inherently dangerous and unsafe when used in the manner instructed and provided by Monsanto.

185. Therefore, at all times relevant to this litigation, Roundup products, as researched, tested, developed, designed, licensed, manufactured, packaged, labeled, distributed, sold and marketed by Monsanto were defective in design and formulation, in one or more of the following ways:

(a) When placed in the stream of commerce, Roundup products were defective in design and formulation, and, consequently, dangerous to an extent beyond that which an ordinary consumer would contemplate.

(b) When placed in the stream of commerce, Roundup products were unreasonably dangerous in that they were hazardous and posed a grave risk of cancer and other serious illnesses when used in a reasonably anticipated manner.

(c) When placed in the stream of commerce, Roundup products contained unreasonably dangerous design defects and were not reasonably safe when used in a reasonably anticipated or intended manner.

(d) Monsanto did not sufficiently test, investigate, or study Roundup products and, specifically, the active ingredient glyphosate.

(e) Exposure to Roundup and glyphosate-containing products presents a risk of harmful side effects that outweigh any potential utility stemming from the use of the herbicide.

(f) At the time of marketing its Roundup products, Roundup was defective in that exposure to Roundup and specifically, its active ingredient glyphosate, could result in cancer and other severe illnesses and injuries.

(g) Monsanto did not conduct adequate post-marketing surveillance of its Roundup products.

(h) Monsanto could have employed safer alternative designs and formulations.

186. Plaintiffs were exposed to Roundup products in the course of their work, as described above, without knowledge of their dangerous characteristics.

187. At all times relevant to this litigation, Plaintiffs used and/or were exposed to the use of Roundup products in an intended or reasonably foreseeable manner without knowledge of their dangerous characteristics.

188. Plaintiffs could not have reasonably discovered the defects and risks associated with Roundup or glyphosate-containing products before or at the time of exposure.

189. The harm caused by Roundup products far outweighed their benefit, rendering these products dangerous to an extent beyond that which an ordinary consumer would contemplate. Roundup products were and are more dangerous than alternative products and Monsanto could have designed Roundup products (including their packaging and sales aids) to make them less dangerous. Indeed, at the time that Monsanto designed Roundup products, the state of the industry's scientific knowledge was such that a less risky design or formulation was attainable.

190. At the time Roundup products left Monsanto's control, there was a practical, technically feasible and safer alternative design that would have prevented the harm without substantially impairing the reasonably anticipated or intended function of those herbicides.

191. Monsanto's defective design of Roundup products was willful, wanton, fraudulent, malicious, and conducted with reckless disregard for the health

and safety of users of the Roundup products, including the Plaintiffs herein.

192. Therefore, as a result of the unreasonably dangerous condition of its Roundup products, Monsanto is strictly liable to Plaintiffs.

193. The defects in Roundup products caused or contributed to cause Plaintiffs' grave injuries, and, but for Monsanto's misconduct and omissions, Plaintiffs would not have sustained their injuries.

194. Monsanto's conduct, as described above, was reckless. Monsanto risked the lives of consumers and users of its products, including Plaintiffs, with knowledge of the safety problems associated with Roundup and glyphosate-containing products, and suppressed this knowledge from the general public. Monsanto made conscious decisions not to redesign, warn or inform the unsuspecting public. Monsanto's reckless conduct warrants an award of aggravated damages.

195. As a direct and proximate result of Monsanto placing defective Roundup products into the stream of commerce, Plaintiffs have suffered and continue to suffer grave injuries, and have endured physical pain and discomfort, as well as economic hardship, including considerable financial expenses for medical care, and treatment.

WHEREFORE, Plaintiffs respectfully request that this Court enter judgment in Plaintiffs' favor for compensatory and punitive damages in an amount in excess of Twenty-Five Thousand Dollars ($25,000.00), together with interest, costs herein incurred, and all such other and further relief as this Court deems just

and proper. Plaintiffs also demand a jury trial on the issues contained herein.

COUNT II

STRICT LIABILITY (FAILURE TO WARN)
(AGAINST MONSANTO)

196. Plaintiffs incorporate by reference each and every allegation set forth in the preceding paragraphs as if fully stated herein.

197. Plaintiffs bring this strict liability claim against Monsanto for failure to warn.

198. At all times relevant to this litigation, Monsanto engaged in the business of testing, developing, designing, manufacturing, marketing, selling, distributing, and promoting Roundup products, which are defective and unreasonably dangerous to consumers, including Plaintiffs, because they do not contain adequate warnings or instructions concerning the dangerous characteristics of Roundup and specifically, the active ingredient glyphosate. These actions were under the ultimate control and supervision of Monsanto.

199. Monsanto researched, developed, designed, tested, manufactured, inspected, labeled, distributed, marketed, promoted, sold, and otherwise released into the stream of commerce Roundup products, and in the course of same, directly advertised or marketed the products to consumers and end users, including the Plaintiffs, and therefore had a duty to warn of the risks associated with the use of Roundup and glyphosate-containing products.

200. At all times relevant to this litigation, Monsanto had a duty to properly test, develop, design,

manufacture, inspect, package, label, market, promote, sell, distribute, maintain supply, provide proper warnings, and take such steps as necessary to ensure that Roundup products did not cause users and consumers to suffer from unreasonable and dangerous risks. Monsanto had a continuing duty to warn the Plaintiffs of the dangers associated with Roundup use and exposure. Monsanto, as manufacturer, seller, promoter, marketer, or distributor of chemical herbicides are held to the knowledge of an expert in the field.

201. At the time of manufacture, Monsanto could have provided the warnings or instructions regarding the full and complete risks of Roundup and glyphosate-containing products because they knew or should have known of the unreasonable risks of harm associated with the use of and/or exposure to such products.

202. At all times relevant to this litigation, Monsanto failed to investigate, study, test, or promote the safety or to minimize the dangers to users and consumers of its product and to those who would foreseeably use or be harmed by these herbicides, including Plaintiffs.

203. Despite the fact that Monsanto knew or should have known that Roundup posed a grave risk of harm, it failed to exercise reasonable care to warn of the dangerous risks associated with use and exposure. The dangerous propensities of these products and the carcinogenic characteristics of glyphosate, as described above, were known to Monsanto, or scientifically knowable to Monsanto through appropriate research and testing by known

methods, at the time they distributed, marketed, promoted, supplied or sold the product, and not known to end users and consumers, such as Plaintiffs.

204. These products created significant risks of serious bodily harm to consumers, as alleged herein, and Monsanto failed to adequately warn consumers and reasonably foreseeable users of the risks of exposure to its products. Monsanto has wrongfully concealed information concerning the dangerous nature of Roundup and its active ingredient glyphosate, and further made false and/or misleading statements concerning the safety of Roundup and glyphosate.

205. At all times relevant to this litigation, Roundup products reached the intended consumers, handlers, and users or other persons coming into contact with these products in Missouri and throughout the United States, including Plaintiffs, without substantial change in their condition as designed, manufactured, sold, distributed, labeled, promoted and marketed by Monsanto.

206. Plaintiffs were exposed to Roundup products in the course of their personal use on their garden and lawn, without knowledge of their dangerous characteristics.

207. At all times relevant to this litigation, Plaintiffs used and/or were exposed to the use of Roundup products in their intended or reasonably foreseeable manner without knowledge of their dangerous characteristics.

208. Plaintiffs could not have reasonably discovered the defects and risks associated with Roundup or glyphosate-containing products prior to or

at the time of Plaintiffs' exposure. Plaintiffs relied upon the skill, superior knowledge, and judgment of Monsanto.

209. These products were defective because the minimal warnings disseminated with Roundup products were inadequate, and they failed to communicate adequate information on the dangers and safe use/exposure and failed to communicate warnings and instructions that were appropriate and adequate to render the products safe for their ordinary, intended and reasonably foreseeable uses, including agricultural and landscaping applications.

210. The information that Monsanto did provide or communicate failed to contain relevant warnings, hazards, and precautions that would have enabled consumers such as Plaintiffs to utilize the products safely and with adequate protection. Instead, Monsanto disseminated information that was inaccurate, false, and misleading and which failed to communicate accurately or adequately the comparative severity, duration, and extent of the risk of injuries with use of and/or exposure to Roundup and glyphosate; continued to aggressively promote the efficacy of its products, even after it knew or should have known of the unreasonable risks from use or exposure; and concealed, downplayed, or otherwise suppressed, through aggressive marketing and promotion, any information or research about the risks and dangers of exposure to Roundup and glyphosate.

211. To this day, Monsanto has failed to adequately and accurately warn of the true risks of Plaintiffs' injuries associated with the use of and

exposure to Roundup and its active ingredient glyphosate, a probable carcinogen.

212. As a result of their inadequate warnings, Roundup products were defective and unreasonably dangerous when they left the possession and/or control of Monsanto, were distributed, marketed, and promoted by Monsanto, and used by Plaintiffs.

213. Monsanto is liable to Plaintiffs for injuries caused by their negligent or willful failure, as described above, to provide adequate warnings or other clinically relevant information and data regarding the appropriate use of these products and the risks associated with the use of or exposure to Roundup and glyphosate.

214. The defects in Roundup products caused or contributed to cause Plaintiffs' injuries, and, but for this misconduct and omissions, Plaintiffs would not have sustained their injuries.

215. Had Monsanto provided adequate warnings and instructions and properly disclosed and disseminated the risks associated with Roundup products, Plaintiffs could have avoided the risk of developing injuries as alleged herein.

216. As a direct and proximate result of Monsanto placing defective Roundup products into the stream of commerce, Plaintiffs have suffered severe injuries and have endured physical pain and discomfort, as well as economic hardship, including considerable financial expenses for medical care and treatment.

WHEREFORE, Plaintiffs respectfully request this Court to enter judgment in Plaintiffs' favor for compensatory and punitive damages in an amount in

excess of Twenty-Five Thousand Dollars ($25,000.00) together with interest, costs herein incurred, and all such other and further relief as this Court deems just and proper. Plaintiffs also demand a jury trial on the issues contained herein.

COUNT III NEGLIGENCE

(AGAINST MONSANTO)

217. Plaintiffs incorporate by reference each and every allegation set forth in the preceding paragraphs as if fully stated herein.

218. Monsanto, directly or indirectly, caused Roundup products to be sold, distributed, packaged, labeled, marketed, promoted, and/or used by Plaintiffs.

219. At all times relevant to this litigation, Monsanto had a duty to exercise reasonable care in the design, research, manufacture, marketing, advertisement, supply, promotion, packaging, sale, and distribution of Roundup products, including the duty to take all reasonable steps necessary to manufacture, promote, and/or sell a product that was not unreasonably dangerous to consumers and users of the product.

220. At all times relevant to this litigation, Monsanto had a duty to exercise reasonable care in the marketing, advertisement, and sale of the Roundup products. Monsanto's duty of care owed to consumers and the general public included providing accurate, true, and correct information concerning the risks of using Roundup and appropriate, complete, and accurate warnings concerning the potential adverse

effects of exposure to Roundup, and, in particular, its active ingredient glyphosate.

221. At all times relevant to this litigation, Monsanto knew or, in the exercise of reasonable care, should have known of the hazards and dangers of Roundup and specifically, the carcinogenic properties of the chemical glyphosate.

222. Accordingly, at all times relevant to this litigation, Monsanto knew or, in the exercise of reasonable care, should have known that use of or exposure to its Roundup products could cause or be associated with Plaintiffs' injuries and thus created a dangerous and unreasonable risk of injury to the users of these products, including Plaintiffs.

223. Monsanto also knew or, in the exercise of reasonable care, should have known that users and consumers of Roundup were unaware of the risks and the magnitude of the risks associated with use of and/or exposure to Roundup and glyphosate-containing products.

224. As such, Monsanto breached the duty of reasonable care and failed to exercise ordinary care in the design, research, development, manufacture, testing, marketing, supply, promotion, advertisement, packaging, sale, and distribution of its Roundup products, in that Monsanto manufactured, marketed, promoted, and sold defective herbicides containing the chemical glyphosate, knew or had reason to know of the defects inherent in these products, knew or had reason to know that a user's or consumer's exposure to the products created a significant risk of harm and unreasonably dangerous side effects, and failed to prevent or adequately warn of these risks and injuries.

225. Despite an ability and means to investigate, study, and test these products and to provide adequate warnings, Monsanto has failed to do so. Indeed, Monsanto has wrongfully concealed information and has further made false and/or misleading statements concerning the safety and/or exposure to Roundup and glyphosate.

226. Monsanto was negligent in the following respects:

(a) Manufacturing, producing, promoting, formulating, creating, developing, designing, selling, and/or distributing its Roundup products without thorough and adequate pre- and post-market testing;

(b) Manufacturing, producing, promoting, formulating, creating, developing, designing, selling, and/or distributing Roundup while negligently and/or intentionally concealing and failing to disclose the results of trials, tests, and studies of exposure to glyphosate, and, consequently, the risk of serious harm associated with human use of and exposure to Roundup;

(c) Failing to undertake sufficient studies and conduct necessary tests to determine whether or not Roundup products and glyphosate-containing products were safe for their intended use in agriculture and horticulture;

(d) Failing to use reasonable and prudent care in the design, research, manufacture, and development of Roundup products so as to avoid the risk of serious harm associated with the prevalent use of Roundup/glyphosate as an herbicide;

(e) Failing to design and manufacture Roundup products so as to ensure they were at least as safe and effective as other herbicides on the market;

(f) Failing to provide adequate instructions, guidelines, and safety precautions to those persons who Monsanto could reasonably foresee would use and be exposed to its Roundup products;

(g) Failing to disclose to Plaintiffs, users/consumers, and the general public that use of and exposure to Roundup presented severe risks of cancer and other grave illnesses;

(h) Failing to warn Plaintiffs, consumers, and the general public that the product's risk of harm was unreasonable and that there were safer and effective alternative herbicides available to Plaintiffs, Plaintiff's Decedents, and other consumers;

(i) Systematically suppressing or downplaying contrary evidence about the risks, incidence, and prevalence of the side effects of Roundup and glyphosate-containing products;

(j) Representing that its Roundup products were safe for their intended use when, in fact, Monsanto knew or should have known that the products were not safe for their intended purpose;

(k) Declining to make or propose any changes to Roundup products' labeling or other promotional materials that would alert the consumers and the general public of the risks of Roundup and glyphosate;

(l) Advertising, marketing, and recommending the use of the Roundup products, while concealing and failing to disclose or warn of the dangers known by Monsanto to be associated with or caused by the use of or exposure to Roundup and glyphosate;

(m) Continuing to disseminate information to its consumers, which indicate or imply that Monsanto's Roundup products are not unsafe for use in the agricultural and horticultural industries; and

(n) Continuing the manufacture and sale of its products with the knowledge that the products were unreasonably unsafe and dangerous.

227. Monsanto knew and/or should have known that it was foreseeable that consumers such as Plaintiffs would suffer injuries as a result of Monsanto's failure to exercise ordinary care in the manufacturing, marketing, promotion, labeling, distribution, and sale of Roundup.

228. Plaintiffs did not know the nature and extent of the injuries that could result from the intended use of and/or exposure to Roundup or its active ingredient glyphosate.

229. Monsanto's negligence was the proximate cause of the injuries, harm, and economic losses that Plaintiffs suffered, as described herein.

230. Monsanto's conduct, as described above, was reckless. Monsanto regularly risked the lives of consumers and users of their products, including Plaintiffs, with full knowledge of the dangers of these products. Monsanto has made conscious decisions not

to redesign, re-label, warn, or inform the unsuspecting public, including Plaintiffs. Monsanto's reckless conduct therefore warrants an award of aggravated or punitive damages.

231. As a proximate result of Monsanto's wrongful acts and omissions in placing defective Roundup products into the stream of commerce without adequate warnings of the hazardous and carcinogenic nature of glyphosate, Plaintiffs have suffered severe and permanent physical and emotional injuries. Plaintiffs have endured pain and suffering and have suffered economic losses (including significant expenses for medical care and treatment) in an amount to be determined.

WHEREFORE, Plaintiffs respectfully request this Court to enter judgment in Plaintiffs' favor for compensatory and punitive damages in an amount in excess of Twenty-Five Thousand Dollars ($25,000.00) together with interest, costs herein incurred, and all such other and further relief as this Court deems just and proper. Plaintiffs also demand a jury trial on the issues contained herein.

COUNT IV

FRAUD, MISREPRESENTATION, AND SUPPRESSION

(AGAINST ALL DEFENDANTS)

232. Plaintiffs incorporate by reference all of the above paragraphs as if set forth in full herein, particularly those paragraphs which detail fraud with specificity.

233. Defendants fraudulently, intentionally, and/or negligently misrepresented to the public, and

to the Plaintiffs, both directly and by and through the media, the scientific literature and purported "community outreach" programs, the safety of Roundup products, and/or fraudulently, intentionally, and/or negligently concealed, suppressed, or omitted material, adverse information regarding the safety of Roundup.

234. The intentional and/or negligent misrepresentations and omissions of Defendants regarding the safety of Roundup products were communicated to Plaintiffs directly through ghostwritten articles, editorials, national and regional advertising, marketing and promotion efforts, as well as the packaging and sales aids. The safety of Roundup products was also intentionally and/or negligently misrepresented to Plaintiffs and the public with the intent that such misrepresentations would cause Plaintiffs and other potential consumers to purchase and use or continue to purchase and use Roundup products.

235. Defendants either knew or should have known of the material representations they were making regarding the safety and relative utility of Roundup products.

236. Defendants fraudulently, intentionally, and/or negligently made the misrepresentations and/or actively concealed, suppressed, or omitted this material information with the specific desire to induce Plaintiffs, and the consuming public to purchase and use Roundup products. Defendants fraudulently, intentionally, and/or negligently, knew or should have known that Plaintiffs and the consuming public would rely on such material misrepresentations and/or

omissions in selecting and applying Roundup products. Defendants knew or should have known that Plaintiffs would rely on their false representations and omissions.

237. Defendants made these misrepresentations and actively concealed adverse information of severe health risks, including non-Hodgkin lymphoma, at a time when, their agents and/or employees knew or should have known, the product had defects, dangers, and characteristics that were other than what was represented to the consuming public. Specifically, Osborn & Barr misrepresented and actively concealed, suppressed, and omitted that there had been inadequate testing of the safety and efficacy of Roundup, and that prior studies, research, reports, and/or testing had been conducted linking the use of the drug with serious health events, including non-Hodgkin lymphoma.

238. Despite the fact that Defendants knew or should have known of reports of severe risks including non-Hodgkin lymphoma, with Roundup use and exposure, this information was strategically minimized, understated, or omitted in order to create the impression that the human dangers of Roundup were nonexistent, particularly in light of its purported utility.

239. The fraudulent, intentional and/or negligent material misrepresentations and/or active concealment, suppression, and omissions by Defendants were perpetuated directly and/or indirectly through the advertisements, packaging, sales aids, furtive public relations efforts, and other marketing and promotional pieces authored,

analyzed, created, compiled, designed, drafted, disseminated, distributed, edited, evaluated, marketed, published, and supplied by Osborn & Barr.

240. If Plaintiffs had known the true facts concerning the risks associated with Roundup exposure, Plaintiffs would have used a safer alternative.

241. Plaintiffs' reliance upon the material misrepresentations and omissions was justified, among other reasons, because said misrepresentations and omissions were made by individuals and entities who were in a position to know the true facts concerning Roundup while Plaintiffs were not in a position to know the true facts because Defendants overstated the benefits and safety of Roundup and downplayed the risk of lymphoma, thereby inducing Plaintiffs to use the herbicide rather than safer alternatives.

242. As a direct and proximate result of Defendants' actions and inactions, Plaintiffs were exposed to Roundup and suffered and will continue to suffer injuries and damages, as set forth herein.

WHEREFORE, Plaintiffs demand judgment for compensatory, treble, and punitive damages, together with interest, costs of suit, attorneys' fees, in an amount greater than Twenty- Five Thousand Dollars ($25,000.00), and all such other relief as the Court deems proper.

COUNT V
VIOLATION OF THE CONSUMER FRAUD ACTS

243. Plaintiffs incorporate by reference all of the above paragraphs as if set forth in full herein, particularly those paragraphs which allege fraud with specificity.

244. Defendants fraudulently, intentionally, negligently, and/or innocently misrepresented to the public, and to the Plaintiffs, both directly and by and through the media and purported "community outreach" programs, the safety of Roundup products, and/or fraudulently, intentionally, negligently and/or innocently concealed, suppressed, or omitted material, adverse information regarding the safety of Roundup. This deception caused injury to Plaintiffs in violation of the Consumer Fraud Act of the Plaintiffs' home states which create private rights of action by the Plaintiffs.

245. The intentional, negligent, and/or innocent misrepresentations and omissions of Defendants regarding the safety of Roundup products were communicated to Plaintiffs directly through national and regional advertising, marketing and promotion efforts, as well as the packaging and sales aids. The safety of Roundup products was also intentionally, negligently, and/or innocently misrepresented to Plaintiffs and the public with the intent that such misrepresentations would cause Plaintiffs and other potential consumers to purchase and use or continue to purchase and use Roundup products.

246. Defendants either knew or should have known of the material representations they were

making regarding the safety and relative utility of Roundup products.

247. Defendants fraudulently, intentionally, negligently, and/or innocently made the misrepresentations and/or actively concealed, suppressed, or omitted this material information with the specific desire to induce Plaintiffs and the consuming public to purchase and use Roundup products. Defendants fraudulently, intentionally, negligently, and/or innocently, knew or should have known that Plaintiffs and the consuming public would rely on such material misrepresentations and/or omissions in selecting and applying Roundup products. Defendants knew or should have known that Plaintiffs would rely on their false representations and omissions.

248. Defendants made these misrepresentations and actively concealed adverse information of severe health events, including the risk of non-Hodgkin lymphoma and other cancers, at a time when, their agents and/or employees knew or should have known, the product had defects, dangers, and characteristics that were other than what was represented to the consuming public. Specifically, Defendants misrepresented and actively concealed, suppressed, and omitted that there had been inadequate testing of the safety and efficacy of Roundup, and that prior studies, research, reports, and/or testing had been conducted linking the use of the drug with serious health events, including non-Hodgkin lymphoma.

249. Despite the fact that Defendants knew or should have known of reports of severe health risks, including non-Hodgkin lymphoma, with Roundup use

and exposure, this information was strategically minimized, understated, or omitted in order to create the impression that the human dangers of Roundup were nonexistent, particularly in light of its purported utility.

250. The fraudulent, intentional, negligent and/or innocent material misrepresentations and/or active concealment, suppression, and omissions by Defendants were perpetuated directly and/or indirectly through the advertisements, packaging, sales aids, furtive public relations efforts, and other marketing and promotional pieces authored, analyzed, created, compiled, designed, drafted, disseminated, distributed, edited, evaluated, marketed, published, and supplied by Defendants.

251. If Plaintiffs had known the true facts concerning the risks associated with Roundup exposure, Plaintiffs would have used a safer alternative.

252. Plaintiffs' reliance upon the material misrepresentations and omissions was justified, among other reasons, because said misrepresentations and omissions were made by individuals and entities who were in a position to know the true facts concerning Roundup while Plaintiffs were not in a position to know the true facts because Defendants overstated the benefits and safety of Roundup and downplayed the health risks, including lymphoma, thereby inducing Plaintiffs to use the herbicide rather than safer alternatives.

253. Federal law and the EPA do not authorize and specifically prohibit the deceptions,

misrepresentations and omissions made by Defendants.

254. As a direct and proximate result of Defendants' actions and inactions, Plaintiffs were exposed to Roundup and suffered and will continue to suffer injuries and damages, as set forth herein.

WHEREFORE, Plaintiffs demand judgment for compensatory, treble, and punitive damages, together with interest, costs of suit, attorneys' fees, in an amount greater than Twenty- Five Thousand Dollars ($25,000.00), and all such other relief as the Court deems proper.

COUNT VI

SURVIVAL AND WRONGFUL DEATH

255. Plaintiffs repeat and reiterate the allegations previously set forth herein.

256. Survival and Wrongful Death Plaintiffs are the surviving heirs, statutory beneficiaries and/or Legal/Personal Representatives of their Decedents and are authorized to bring an action for survival/wrongful death of their respective Decedent, who used Defendants' Roundup product and was injured and/or died as a result.

257. The injuries and damages of Plaintiffs and Decedents were caused by the wrongful acts, omissions, and fraudulent misrepresentations of Defendants.

258. As a result of the conduct of Defendants and exposure to Defendants' product, the Decedents suffered fatal injuries.

259. As a result of the death of their Decedent, the respective Plaintiffs are entitled to recovery for loss of love, companionship, comfort, support, affection, society, solace, and moral support of their Decedent, full value of the Decedent's life, and as further provided under applicable state law.

260. Plaintiffs are entitled to survival damages including lost earnings, loss of earning capacity, medical and funeral expenses, punitive damages, Decedent's physical, mental and emotional pain and suffering, and as further provided under applicable state law. Plaintiffs are entitled to recover economic and non-economic damages against all Defendants for wrongful death directly and legally caused by the defects in Defendants' product and the negligent conduct, acts, errors, omissions and intentional and negligent misrepresentations of Defendants, and each of them.

WHEREFORE, Plaintiffs pray for judgment against Defendants as hereinafter set forth.

LIMITATION ON ALLEGATIONS

261. The allegations in this pleading are made pursuant to the laws of the Plaintiffs' home states. To the extent state law imposes a duty or obligation on the Defendants that exceeds those required by federal law, Plaintiffs do not assert such claims. All claims asserted herein run parallel to federal law, i.e., the Defendants' violations of state law were also violations of federal law. Had Defendants honestly complied with state law, they would also have complied with federal law.

262. Additionally, Plaintiffs' claims do not seek to enforce federal law. These claims are brought under

Missouri law, notwithstanding the fact that such claims run parallel to federal law.

263. As alleged in this pleading, Monsanto violated U.S.C. § 136j and 40 C.F.R. § 10(a) (5) by distributing Roundup, which was misbranded pursuant to 7 U.S.C. § 136(g). Federal law specifically prohibits the distribution of a misbranded herbicide.

WHEREFORE, Plaintiffs pray for judgment against Defendants for compensatory damages as set forth above and for exemplary damages in an amount in excess of Twenty-Five Thousand Dollars ($25,000.00) to punish Defendants, and to deter Defendants and other businesses from like conduct, and such other and further relief as this Court deems just, proper, and equitable.

ONDER LAW, LLC

/s/ James G. Onder

* * *

Motion for Directed Verdict at the Close of Plaintiff's Evidence, *Durnell v. Monsanto Co.*, No. 1922-CC00221 (Mo. Cir. Ct. Oct. 16, 2023)

Defendant Monsanto Company ("Monsanto") moves for directed verdict on all of Plaintiff John Durnell's claims at the close of Plaintiff's evidence, pursuant to Mo. Sup. Ct. Rule 72.01(a). Directed verdict should be granted on all of Plaintiff's claims for six reasons.[1]

First, Plaintiff failed to establish that his exposure to Roundup caused his mantle cell lymphoma ("MCL"), a type of non-Hodgkin's lymphoma ("NHL"). Plaintiff called three experts from various fields to testify about causation: Drs. Kristan Aronson, Richard DeGrandchamp, and Kenneth Spaeth. Two of those experts—Drs. Aronson and DeGrandchamp—did not opine that Plaintiff's exposure to Roundup caused his MCL. Rather, their testimony focused on Roundup exposure among entire human populations, or in animals, or in laboratory studies. Dr. Spaeth was the only witness who testified that Roundup exposure caused Plaintiff's MCL. But his testimony included legally improper undisclosed opinions and failed to meet the reliability

[1] Plaintiff brings claims for strict liability - design defect (Count I), strict liability - failure to warn (Count II), negligence (Count III), common law fraud, misrepresentation, and suppression (Count IV), violation of consumer fraud acts (Count V), and survival and wrongful death (Count VI). Monsanto moves for directed verdict on Plaintiff's claims in Counts I, II, and III. Plaintiff has not proposed instructions to submit Counts IV and V to the jury. Directed verdict is always appropriate where a party does not submit a claim to the jury. Moreover, Count VI is not applicable to Plaintiff, who is living.

requirements of R.S. Mo. § 490.065 and the submissibility requirements of Rule 72.01. Dr. Spaeth's causation opinion hinged almost entirely on an "exposure assessment" calculation with values that were considerably different and lower than those previously disclosed in his report and deposition testimony in this case. Dr. Spaeth's last-minute change in calculations runs afoul of the law and should be stricken. Moreover, Dr. Spaeth admitted that he cannot opine that Roundup is a "but for" cause of Plaintiff's MCL. This admission results in a failure of proof of causation as a matter of law in Missouri, requiring entry of judgment in favor of Monsanto.

Second, Plaintiff has not presented substantial evidence to support punitive damages. To obtain punitive damages, Plaintiff was required to show that Monsanto's conduct was "tantamount to intentional wrongdoing." Although Plaintiff attempted to paint a picture that Monsanto's conduct exceeded this threshold by pointing to IARC's 2015 monograph listing glyphosate as a probable carcinogen, the evidence at trial showed that—at most—there is a reasonable disagreement within the scientific community over whether glyphosate or Roundup causes cancer. That is because regulatory agencies in the United States and around the world did not agree with IARC *even after* IARC published its monograph. Plaintiff's other evidence concerning Monsanto's conduct similarly does not meet the standard for entitlement to punitive damages.

Third, Plaintiff's strict liability design defect claim fails because Plaintiff's theory of the case at trial was that glyphosate and Roundup are—in the words

of Restatement (Second) of Torts, § 402A—"unavoidably unsafe" no matter how Monsanto designed the herbicide. When a manufacturer cannot "design out" the risk of harm the plaintiff alleges, the manufacturer as a matter of law cannot be held liable under a theory design defect. Rather, the plaintiff's claim must proceed solely on warnings theories. Thus, based on Plaintiff's own theory of the case, his design defect claim fails and a verdict should be directed on the claim.[2]

Fourth, Plaintiff has not presented substantial evidence on his claim for strict liability failure to warn. Plaintiff failed to present substantial evidence that any credible scientific or regulatory body in the world had drawn a causal link between Roundup and NHL during his relevant claimed exposure to Roundup from 1996 to 2018.[3] Plaintiff also failed to establish the lack of a cancer warning caused his injury.

Fifth, Plaintiff has not presented substantial evidence on his claim for negligent design defect,

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[2] To be clear, Monsanto does not agree that glyphosate or Roundup are "unavoidably unsafe." To the contrary, they are perfectly safe when used for their intended purpose. The point is that because Plaintiff chose to try his case by arguing, in effect, that Roundup cannot be designed in a way to eliminate or reduce the risk he asserts, he has effectively abandoned his design defect claim.

[3] Plaintiff testified at trial—for the first time—that he used Roundup from the end of 1996 until 2018, admitting that he has been "all over the place" in his claimed dates of Roundup use. Trial Tr. at 2118:10-22; 2126:6-13; 2128:6-23. Plaintiff admitted that he previously testified under oath that he started using Roundup in 1981 and used it through approximately 2017, 2019, or 2020. Trial Tr. at 2126:6-13; 2128:16-19.

negligent manufacturing defect, or negligent failure to warn. Plaintiff's negligent design defect and negligent failure to warn claims suffer from the same fatal defects as Plaintiff's strict liability claims. Plaintiff's negligent manufacturing defect claim fails because he adduced no evidence that something went wrong in the Roundup manufacturing process or that the Roundup bottles he used were not in their intended condition. Dooming each of his negligence claims, Plaintiff also failed to introduce any evidence whatsoever concerning the duty of care applicable to Monsanto. Thus, the jury is left without any evidence to weigh concerning what an ordinarily careful product manufacturer would have done in Monsanto's circumstances.

Sixth, Plaintiff's claims are preempted by the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA").

LEGAL STANDARD

Mo. Sup. Ct. Rule 72.01(a) permits a party to "move for a directed verdict at the close of the evidence offered by an opponent." The Court must determine "whether the plaintiff[] made a submissible case, and a case may not be submitted unless each and every fact essential to liability is predicated upon legal and substantial evidence." *Aughenbaugh v. Williams*, 569 S.W.3d 514, 523 (Mo. App. E.D. 2018). "Substantial evidence is that which, if true, has probative force upon the issues, and from which the trier of facts can reasonably decide a case." *Id.*

When considering a motion for directed verdict, the Court must not "supply missing evidence or give the plaintiff the benefit of unreasonable, speculative,

or forced inferences." *Steward v. Goetz*, 945 S.W.2d 520, 528 (Mo. App. E.D. 1997). "Where evidence equally supporting two or more inconsistent and contradictory factual inferences as to ultimate and determinative facts is relied on to make a submissible case, there is a failure of proof." *Tompkins v. Cervantes*, 917 S.W.2d 186, 191 (Mo. App. E.D. 1996). Moreover, evidence, including expert testimony, that is unreliable, unsupported, or based on speculation has no probative value and cannot constitute substantial evidence. *See* R.S. Mo. § 490.065 (unreliable, unsupported, and speculative expert testimony is inadmissible); *Hurlock v. Park Lane Med. Ctr., Inc.*, 709 S.W.2d 872, 880 (Mo. App. W.D. 1985) ("[A] duty rests on a party-plaintiff to make a submissible case by substantial evidence of probative force and to remove the case from the realm of speculation, conjecture and surmise").

When the plaintiff's evidence shows that the plaintiff cannot recover as a matter of law, a verdict should be directed. *Bandag of Springfield, Inc. v. Bandag, Inc.*, 662 S.W.2d 546, 550 (Mo. App. S.D. 1983). The Court can also direct verdict as to some or all of the issues involved in the action. *See White v. Pruiett*, 39 S.W.3d 857, 863 (Mo. App. W.D. 2001); *Intertel, Inc. v. Sedgwick Claims Mgmt. Servs., Inc.*, 204 S.W.3d 183, 202-03 (Mo. App. E.D. 2006).

ARGUMENT

I. Plaintiff Did Not Present Substantial Evidence That Glyphosate Or Roundup Caused His MCL.

To prevail on any of his claims, Plaintiff must present substantial evidence that Roundup caused his

lymphoma. *Poage v. Crane Co.*, 523 S.W.3d 496, 508 (Mo. App. E.D. 2017) ("Under both strict liability and negligence theories, the plaintiff is required to show a causal connection between the defendant's conduct and the plaintiff's injury."). Because these questions involve complex, scientific assessments outside the understanding of laypersons, Plaintiff is required to present reliable expert testimony to support both general and specific causation. *See, e.g.*, *Ackman v. Union Pac. R.R. Co.*, 556 S.W.3d 80, 85 (Mo. App. E.D. 2018) (expert testimony is required when "a layman could not discern the specific cause of the injury"); *Lowe v. Mercy Clinic E. Cmtys.*, 592 S.W.3d 10, 18 (Mo. App. E.D. 2019) ("Causation is established through expert testimony that there is a reasonable degree of medical or scientific certainty that but for the tortfeasor's conduct, the injured party would not have been damaged").

Plaintiff called three causation experts: Dr. Aronson (a biostatician), Dr. DeGrandchamp (a toxicologist), and Dr. Spaeth (a pathologist). But these experts' opinions, individually or collectively, do not amount to substantial evidence that Plaintiff's MCL was caused by glyphosate or Roundup.

A. Drs. Aronson And DeGrandchamp Did Not Provide Any Evidence—Let Alone Substantial Evidence—That Roundup Caused Plaintiff's MCL.

Neither Drs. Aronson nor DeGrandchamp offered any testimony about whether Roundup caused *Plaintiff*'s MCL. Dr. Aronson, a biostatician, testified that she taught courses in epidemiology, which studies "the distribution of diseases by person, place, and

time" to "try[] to figure out the cause of diseases." *See* Trial Tr. at 500:20-501:5. Dr. Aronson's testimony focused on various types of population studies involving glyphosate and Roundup, including "case control" studies, "cohort" studies, and "meta-analyses." Trial Tr. at 530:12-531:24 (case control and cohort studies); 535:12-5366:22, 540:23-541:23 (meta-analyses); 541:24-542:16 (testifying about population-based study by Zhang); 560:5-564:4 (testifying about population-based study by Eriksson); 564:6-566:10 (testifying about population-based study by DeRoos); 566:11-567:3, 574:4-575:4 (testifying about a population-based study by Leon); 567:12-15, 568:9-20 (testifying about population-based studies by Leon, Pahwa, Meloni, and Hardell). At no point did Dr. Aronson offer any opinion about whether glyphosate or Roundup caused Plaintiff's MCL. In fact, Dr. Aronson testified that she had no opinion on what specifically caused Plaintiff's MCL in this case. *See* Trial Tr. at 586:4-11 (Q.…you're not here to offer the opinion that Roundup caused Mr. Durnell's NHL; correct? A. I'm a general causation specialist. I do not do specific causation, so that is correct. Q. Okay. So the answer to my question is yes? A. Yes.").

Dr. DeGrandchamp, Plaintiff's toxicologist, also had no opinion about whether Plaintiff's Roundup use caused his MCL. Dr. DeGrandchamp's trial testimony focused primarily on animal and mechanistic studies involving glyphosate, and whether the results of those studies provide an inference about glyphosate and Roundup's carcinogenicity in humans. Trial Tr. at 1396:15-1397:14, 1393:8-1399:14 (describing his conclusions with respect to animal studies on glyphosate); 1449:4-1450:16 (discussing ten "Key

Characteristics of Carcinogens" used by IARC for conducting a mechanistic analysis); 1452:9-22 (discussing his review of glyphosate based on IARC's "key characteristics" analysis and his findings); 1458:20-25, 1466:5-8, 1468:14-19, 1470:23-1471:2, 1472:1-3, 1473:18-22, 1476:2-4, 1479:3-7, 1481:10-12, 1507:15-24 (describing his conclusions on each of IARC's ten "key characteristics of carcinogens" when conducting a mechanistic analysis of glyphosate). Dr. DeGrandchamp also testified about the IARC monograph and its conclusions about glyphosate and cancer. *See* Trial Tr. at 1435:6-1437:2 (discussing IARC's conclusion on glyphosate genotoxicity). At no point did Dr. DeGrandchamp offer any opinion about whether glyphosate or Roundup caused Plaintiff's MCL. To the contrary, Dr. DeGrandchamp testified repeatedly that he had no opinion on what specifically caused Plaintiff's MCL in this case. Trial Tr. at 1553:4-11 ("I'm not here to testify to specific causation"); 1553:19-21 ("Q. You are not testifying today that glyphosate caused Mr. Durnell's non-Hodgkin's lymphoma, correct? A. That's correct, yes"); 1589:18-22 (confirming that he cannot say "whether glyphosate has anything to do with Mr. Durnell's non-Hodgkin's lymphoma"); 1652:1-6 (admitting he cannot testify to a reasonable degree of scientific certainty that glyphosate caused Plaintiff's NHL); 1653:10-22 (same); 1654:2-1657:10 (same).

B. Dr. Spaeth's Undisclosed, Unreliable Opinion Is Not Substantial Evidence That Roundup Caused Plaintiff's MCL.

To establish causation, Plaintiff was obligated to present evidence at trial showing that it is "more

probabl[e] than not" that his MCL was caused by his use of Roundup. *See, e.g.*, *Sill v. Burlington N. R.R.*, 87 S.W.3d 386, 394 (Mo. App. S.D. 2002). Where, as here, "the plaintiff's injuries may have resulted from either of two causes, one for which the defendant would be liable and the other for which the defendant would not be liable, the plaintiff must show with a reasonable degree of medical certainty that the cause for which the defendant would be liable produced the injury." *Love v. Waring*, 560 S.W.3d 614, 619 (Mo. App. W.D. 2018) (granting summary judgment to defendant where plaintiff failed to present reliable expert testimony supporting assertion that Defendant's negligence and not another possible source caused injuries); *see also Wright v. Barr*, 62 S.W.3d 509, 525 (Mo. App. W.D. 2001) ("When the plaintiff relies on expert testimony to provide evidence as to causation when there are two or more possible causes, that testimony must be given to a reasonable degree of medical certainty").

1. Dr. Spaeth Based His Causation Opinion On New And Undisclosed "Exposure" Calculations That Should Be Stricken.

Dr. Spaeth's exposure assessment purported to calculate the amount of glyphosate-based Roundup Plaintiff was exposed to. *See* Trial. Tr. at 1728:16-20 (Dr. Spaeth testifying he performed an exposure analysis of Plaintiff's use of Roundup). However, the "exposure" calculations Dr. Spaeth testified to at trial differed considerably from his previously disclosed report and deposition testimony in this case.

During direct examination, Dr. Spaeth testified that his exposure calculation for Plaintiff's use of Roundup at his residences from 1997 to 2016[4] was 43 days. Trial Tr. at 1729:16-25. He testified that his exposure calculation for Plaintiff's use of Roundup in the greater Soulard community was 103 days. Trial Tr. at 1730:15-22. Thus, Dr. Spaeth testified that Plaintiff's total Roundup exposure was 146 days. Trial Tr. at 1730:23-1731:1. Dr. Spaeth testified that he performed an additional exposure analysis of Plaintiff's so-called "skin contact" with glyphosate-based Roundup. Trial Tr. at 1731:14-1732:3. Dr. Spaeth testified that Plaintiff sustained an additional 375 days-worth of "skin contact" exposure to Roundup. Trial Tr. at 1732:9-18. According to Dr. Spaeth, adding together Plaintiff's 146 days of direct spraying time and the 375 days of "skin contact" exposure, Plaintiff's total Roundup exposure days was 521 days. Trial Tr. at 1732:19-22.

However, in his report in this case, Dr. Spaeth opined that he based his exposure calculation on Plaintiff's use of Roundup from 1980 to 2016,[5] not 1997 to 2016. Ex. A, Spaeth Report (Durnell) at 47. He opined that Plaintiff was exposed to 1,466 hours—or 183 workdays—of glyphosate-based Roundup based on Plaintiff's claimed Roundup use at his residences and at various locations in the Soulard neighborhood. *Id.* at 42-43. Dr. Spaeth opined that Plaintiff was

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[4] These years conflict with Plaintiff's trial and prior testimony regarding the years he allegedly sprayed Roundup. *See supra* n.3.

[5] These years also conflict with Plaintiff's trial and prior testimony regarding the years he allegedly sprayed Roundup. *See supra* n.3.

exposed to 5,100 hours of additional exposure to glyphosate-based Roundup "from contact on Mr. Durnell's skin after he completed spraying." *Id.* at 43. In total, Dr. Spaeth opined that Plaintiff was exposed to "6,566 hours of total exposure to Roundup® which equates to approximately 812 workdays of exposure." *Id.* at 44. During his deposition, Dr. Spaeth testified that his report containing these calculations was a consistent and accurate recitation of his opinions that he would provide at trial. Ex. B, Spaeth *Durnell* Dep. at 109:2-8; 233:7-234:4 (discussing his report wherein he discusses his calculations related to Plaintiff's post-use exposure).

As this Court acknowledged, "there is obviously a difference in the number of exposure hours that Dr. Spaeth testified to in his report than he testified to" at trial. *See* Trial Tr. at 1762:20-23. Missouri courts have held that the proper remedy for experts, like Dr. Spaeth, who change their opinions at trial without informing the adverse party in advance is to strike the expert's testimony. *See e.g.*, *Green v. Fleishman*, 882 S.W.2d 219, 222-23 (Mo. App. W.D. 1994) (affirming the trial court's striking of a causation expert's testimony in a toxic exposure case that "differed from his deposition testimony and constituted an unfair surprise"); *Whitted v. Healthline Mgmt., Inc.*, 90 S.W.3d 470, 475-78 (Mo. App. E.D. 2002) (affirming the trial court's grant of a new trial where the expert's "deposition and trial testimony clearly contradict[ed] each other"); *Pasalich v. Swanson*, 89 S.W.3d 555, 560 (Mo. App. W.D. 2002) (affirming the trial court's grant of new trial where the expert testified at deposition that the plaintiff suffered a "pulmonary edema" yet testified at trial that he "formulated a new opinion

during the 'last couple of months' that plaintiff actually 'did not have a pulmonary edema at all and, in fact, had another condition known as atelectasis"); *Bailey v. Norfolk & W. Ry. Co.*, 942 S.W.2d 404, 413-15 (Mo. App. E.D. 1997) (affirming the trial court's striking of expert testimony on causation that was "surprising" because it changed between his deposition and trial). Dr. Spaeth's testimony changing his exposure assessment calculations mid trial should be stricken and disregarded in its entirety.

2. Dr. Spaeth's Admission That He Cannot Say That Plaintiff Would Not Have Developed MCL Without Exposure To Roundup Constitutes A Failure of Proof.

Dr. Spaeth testified that he "could not" and "would not" say that Plaintiff's MCL would not have developed but for his Roundup use. *See* Trial Tr. at 1827:6-12 (admitting he "could not and…would not be able to say that absent [Plaintiff's] Roundup use that he would not have developed [MCL]"); 1827:13-19 (same). Dr. Spaeth testified that he has "no magic powers" and he does not know what would have happened without Plaintiff's exposure to Roundup. Trial Tr. at 1825:3-14; 1827:13-19 ("I cannot tell you what would have happened. So we are in agreement on that"). This testimony is not adequate proof of specific causation under Missouri law. Without expert testimony to support causation, all of Plaintiff's claims fail as a matter of law.

In Missouri, "[c]ausation is established through expert testimony that there is a reasonable degree of medical or scientific certainty that *but for* the

tortfeasor's conduct, the injured party would not have been damaged." *Lowe*, 592 S.W.3d at 18 (emphasis added). The Missouri Supreme Court explained that "but for" causation applies in cases involving multiple disputed causes because "the 'but for' test for causation provides that the defendant's conduct is a cause of the event if the event would not have occurred 'but for' that conduct." *Callahan v. Cardinal Glennon Hosp.*, 863 S.W.2d 852, 860-61 (Mo. banc 1993) (emphasis added) (quoting Prosser & Keeton on Torts, § 41 at 266 (5th ed. 1984)). In other words, "'but for' causation tests for causation in fact." *Id.* at 861. While the Missouri Approved Instructions ("MAI") do not use the phrase "but for" in directing the jury on causation, this is "because but for is a test of submissibility, a way of viewing the sufficiency of the evidence, rather than an ultimate finding to be made by the trier of fact." *Thomas v. McKeever's Enters. Inc.*, 388 S.W.3d 206, 212 (Mo. App. W.D. 2012), *overruled on other grounds by* S.B. No. 43, 99th Gen. Assemb., Reg. Sess. (Mo. 2017). It is the Court's obligation to assess whether Plaintiff produced adequate evidence of "but for" causation from which a factfinder can assess causation.

The Missouri Court of Appeals has recently affirmed summary judgment in favor of a defendant because there was no evidence its conduct was a "but for" cause of the injuries. *Waring*, 560 S.W.3d at 619. In that case, the plaintiff did not produce evidence that "but for" her morphine overdose she would not have suffered her injuries, where she was also taking a normal morphine dose and twelve other medications. The Court of Appeals reasoned that, where the "plaintiffs' injuries "may have resulted from

either of two [or more] causes, one for which the defendant would be liable and the other[s] for which the defendant would not be liable," Missouri law requires a plaintiff to establish "with a reasonable degree of medical certainty that the cause for which the defendant would be liable produced the injury." *Id.* at 619-20.

Similarly to the expert in *Waring*, Dr. Spaeth's opinions concern a plaintiff whose MCL could have been the result of multiple, different causes. Dr. Spaeth's opinion is also unreliable because he asserts two things that cannot be true at the same time: that Roundup is the only substantial contributing cause of Plaintiff's MCL, Trial Tr. at 1714:9-16; 1735:17-1736:13, but that he could not say Roundup is a but for cause of Plaintiff's MCL, Trial Tr. at 1827:6-19. An expert cannot opine that something was a cause of the injury while also admitting he does not know if it was a cause. Dr. Spaeth's uncontroverted admission that he "could not" and "would not" say that but for Plaintiff's use of Roundup he would not have developed MCL is a failure of proof under Missouri law that requires judgment in favor of Monsanto on all of Plaintiff's claims. Trial Tr. at 1827:6-19.

3. Dr. Spaeth Has No Sufficient Basis For His Conclusion That Plaintiff Sprayed Roundup For A Sufficient Number of Hours To Cause His Cancer.

Dr. Spaeth testified on re-direct examination that his "exposure days" calculation is "an appropriate unit of measure" because "the human studies on exposure to Roundup in relation to [NHL] mostly characterize

the exposure in terms of workdays, in other words, an eight-hour day." Trial Tr. at 1831:13-1832:2. He testified that he "convert[ed Plaintiff's] exposures to the equivalent of an eight-hour day to make it comparable to what the science demonstrates." *Id.* Although he did not specifically testify to which studies he was relying on to offer this opinion, Dr. Spaeth is referencing the McDuffie and Eriksson studies as disclosed in his report. Ex. A, Spaeth *Durnell* Report at 27-29 (discussing McDuffie and Eriksson); *see* Trial Tr. at 560:5-561:10 (Dr. Aronson testifying the Eriksson study required eight hours or more of spraying). But Dr. Spaeth's reliance on this cherry-picked literature cannot support causation because such a selective methodology is fundamentally unreliable for multiple reasons.

Neither the McDuffie nor the Eriksson data points on which Dr. Spaeth relies concern MCL. Rather, the ratios are focused on NHL overall; thus, they are not probative of the causation question actually at issue in this case. Moreover, Dr. Aronson admitted that these data points were not adjusted for the use of other pesticides, Trial Tr. at 634:20-25 (Dr. Aronson admitting McDuffie was not adjusted for other pesticides); 644:3-5 (Dr. Aronson admitting Eriksson was not adjusted for other pesticides), a variable that she acknowledges can confound the analysis of glyphosate exposure in the epidemiological studies. Trial Tr. at 632:6-23.

As Judge Chhabria noted when he precluded Plaintiff's experts in the Roundup MDL from offering the same type of testimony that Dr. Spaeth seeks to offer to establish a sufficient "exposure threshold" for

Plaintiff's specific cancer risk, "[f]ailing to take account of likely confounders by presenting and relying upon only unadjusted (or minimally adjusted) estimates is a serious methodological concern." *In re Roundup Prods., Liab. Lit.*, 390 F. Supp. 3d 1102, 1140 (N.D. Cal. 2018); *see also* Ex. C, Pretrial Order No. 85 in *In re Roundup Prods., Liab. Lit.*, 3:16-md-02741-VC (N.D. Cal. Feb. 24, 2019) (holding that "it is not scientifically sound to quantify [a] risk and assign it to a particular plaintiff using the unadjusted numbers from McDuffie and Eriksson"). Dr. Spaeth's comparison of Plaintiff's alleged "exposure hours" to thresholds and data that were not adjusted for other pesticide use renders those comparisons fundamentally unreliable. Indeed, once the relevant data is properly adjusted for other pesticide use, the increased odds ratios on which Dr. Spaeth relies vanish and the alleged association between Roundup and NHL disappears. Trial Tr. at 634:20-24 (Dr. Aronson agreeing that the data in McDuffie was not adjusted for other pesticides); 642:8-12, 644:3-5 (Dr. Aronson testifying that Erikkson and other studies were not adjusted for other pesticide use). *See, e.g.*, *Gebhardt v. Am. Honda Motor Co.*, 627 S.W.3d 37, 44 (Mo. App. W.D. 2021) (expert testimony must be "based on sufficient facts or data, reliable principles and methods and reliable application thereof").

Finally, Plaintiff's comparison of his alleged "exposure hours" to alleged thresholds from these studies also is unreliable because Plaintiff offered no evidence that his spraying habits were even remotely similar to the spraying habits of the professional applicators and farmers in those studies. Epidemiological studies are only valuable in an

assessment of causation if a plaintiff shows that he is similarly situated to the participants in those studies. Indeed, as the Texas Supreme Court aptly put it:

> To raise a fact issue on causation and thus to survive legal sufficiency review, a claimant must do more than simply introduce into evidence epidemiological studies that show a substantially elevated risk. A claimant must show that he or she is similar to those in the studies. This would include proof that the injured person was exposed to the same substance, that the exposure or dose levels were comparable to or greater than those in the studies, that the exposure occurred before the onset of injury, and that the timing of the onset of injury was consistent with that experienced by those in the study.

Merrell Dow Pharms., Inc. v. Havner, 953 S.W.2d 706, 720 (Tex. 1997); *see also McManaway v. KBR, Inc.*, 852 F.3d 444, 453-55 (5th Cir. 2017) (citing *Havner* with approval and granting summary judgment on causation where Plaintiff did not adduce sufficient expert testimony on causation). Plaintiff has presented no such evidence.

II. The Court Should Direct A Verdict On Plaintiff's Claim For Punitive Damages Because Plaintiff Has Not Presented Substantial Evidence That Monsanto's Sale Of Roundup Was Malicious Or Reckless.

To recover punitive damages, a plaintiff must present evidence showing that the defendant's conduct was "tantamount to intentional wrongdoing." *Lopez v. Three Rivers Elec. Co-op., Inc.*, 26 S.W.3d 151,

160 (Mo. banc 2000). Here, that means Plaintiff was required to show that Monsanto's sale of Roundup was "outrageous because of [Monsanto's] evil motive or reckless indifference," *Peters v. General Motors Corp.*, 200 S.W.3d 1, 25 (Mo. App. W.D. 2006). This required proof that Monsanto knew or had reason to know that there was a "high degree of probability" that its sale of Roundup would cause NHL. *Lopez*, 26 S.W.3d at 160. The "classic example" of conduct meriting punitive damages is "an individual firing a rifle into a moving passenger train." *Id.* (citing *Hoover's Dairy, Inc. v. Mid-America Dairymen*, 700 S.W.2d 426, 431-32 (Mo. banc 1985)). The evidence Plaintiff introduced at trial comes nowhere close to satisfying this high standard.

A. Plaintiff's Evidence Shows, At Most, A Scientific Debate About Roundup.

Plaintiff's evidence related to the scientific and regulatory landscape surrounding Roundup fails to support a finding that Monsanto's actions were "tantamount to intentional wrongdoing." *Lopez*, 26 S.W.3d at 160. Although IARC declared glyphosate to be a cancer hazard, the evidence shows that it was the first body to do so. Trial Tr. at 1261:20-1262:3, 1262:17-22 (Dr. Farmer testifying that as of March 2015, no scientific body in the world responsible for overseeing pesticides had concluded that Roundup or glyphosate was a carcinogen or probable carcinogen). Indeed, a host of worldwide regulatory bodies and other scientists disagreed with IARC on this point *after* IARC published its monograph in 2015. *See* Trial Tr. at 1284:16-24 (Health Canada's 2017 conclusion was that "[t]he current available epidemiological evidence does not support a causal relationship

between exposure to glyphosate and cancer outcomes" and that this determination "is consistent with the most recent conclusions of other international regulatory agencies"); 1287:15-21 (European Chemical Agency's conclusion that "based on epidemiological data as well as the data from long-term studies in rats and mice, taking the weight of the evidence approach, no classification for carcinogenicity is warranted"); 1259:18-22 ("Q. Are you aware of any country that has done its own human health assessment and risk assessment and concluded that glyphosate or Roundup causes a cancer risk? A. No, I'm not").

Thus, even affording Plaintiff all inferences, the evidence shows at most an ongoing debate among scientists about the carcinogenicity of Roundup. Even if a scientific debate could form the basis for punitive damages—and it cannot, especially in light of Monsanto's regulatory compliance—Monsanto cannot be punished consistent with the Due Process clause for a debate that did not start until years after Plaintiff started using the product. *See Alcorn v. Union Pac. R.R. Co.*, 50 S.W.3d 226, 247 (Mo. banc 2001), *overruled on other grounds by Badahman v. Catering St. Louis*, 395 S.W.3d 29 (Mo. banc 2013) (holding that conduct undertaken in "conformity with the regulatory process" operates to "negate the conclusion that the [challenged] conduct was tantamount to intentional wrongdoing"); *see also State Farm Mut. Auto. Ins. Co. v. Campbell*, 538 U.S. 408, 422 (2003) (punitive "conduct must have a nexus to the specific harm suffered by the plaintiff" to comport with the Due Process Clause).

B. Plaintiff Did Not Introduce Evidence From Which A Reasonable Juror Could Find Monsanto Acted With Malice Or Intentional Wrongdoing.

None of the potential evidence to which Plaintiff may point is "tantamount to intentional wrongdoing where the natural and probable consequence of the conduct is injury," *Lopez*, 26 S.W.3d at 160. In particular, Plaintiff has not introduced sufficient evidence to meet his burden of proof as to any of the below topics:

- Dr. Parry's Genotoxicity Report Reviews: After Dr. Parry reviewed four publicly available genotoxicity studies published in the mid-1990s, Monsanto conducted many of Dr. Parry's proposed genotoxicity studies in an accredited laboratory and Monsanto provided the results to regulators, publicly presented the results, and published the results. *See* Trial Tr. at 1185:18-1186:10 (Monsanto has done genotoxicity studies on Roundup up to 2020). Ultimately, Dr. Parry came to the conclusion that glyphosate is not genotoxic and that further studies were not needed. Trial Tr. at 1203:18-24. Plaintiff has shown no evidence that Monsanto's response was inadequate or that anything about this course of events was tantamount to intentional wrongdoing. During his direct examination of Monsanto's corporate witness Dr. Donna Farmer, Plaintiff pointed to a 1999 email in which a Monsanto employee stated: "We simply aren't going to do the studies Parry suggests." *See* Trial Tr. at 956:2-5. What Plaintiff failed to mention, however, is that this email was

sent *before* Monsanto decided to do many of the studies that Dr. Parry had suggested. Indeed, Dr. Farmer explained that Monsanto has conducted genotoxicity studies through 2020. Trial Tr. at 1185:18-1186:10; 1201:13-17.

• The 1983 Mouse Study: Plaintiff introduced evidence that an EPA panel proposed to classify glyphosate as a Class C oncogene in 1985 based on the results of a 1983 mouse study commissioned by Monsanto and conducted by Knezevich and Hogan. Trial Tr. at 1059:20-1060:20; 1316:3-22. The entire trial record, however, shows nothing tantamount to intentional wrongdoing. The results of the 1983 study were reviewed by independent pathologists, as well as a panel of scientists convened by the EPA. Trial Tr. at 1193:25-1196:16 (Dr. Farmer testifying that independent pathology working group concluded the tumors were not related to glyphosate exposure). After the EPA received the results of that study, it determined in 1993 that glyphosate should be placed into a Class E for evidence of non-carcinogenicity. Trial Tr. at 1197:2-10; 1198:13-1199:8. Nothing about the 1983 mouse study, Monsanto's communications with the EPA about it, the events that took place over the next decade rises to the punitive-damages standard. Moreover, the *Noerr-Pennington* doctrine, derived from the First Amendment, forbids the imposition of punitive liability against Monsanto for advocacy or lobbying efforts before EPA. *See United Mine Workers of Am. v. Pennington*, 381 U.S. 657

(1965); *Eastern R.R. Presidents Conference v. Noerr Motor Freight*, 365 U.S. 127 (1961).

• Long-Term Carcinogenicity Testing of Formulated Roundup: Plaintiff introduced evidence through Dr. Farmer's testimony that Monsanto never tested the formulated Roundup product in an 18-24 month carcinogenicity study in rodents, suggesting that Monsanto either knew the results would show that formulated Roundup is carcinogenic or was afraid of the results. *See e.g.*, Trial Tr. at 327:16-21 (Dr. Farmer testifying that she wrote in 2009 that "[y]ou cannot say that Roundup does not cause cancer. We have not done the carcinogenicity studies with Roundup"); 329:6-14 (same); 330:21-331:4 (same); 843:8-18 (Dr. Farmer testifying that Monsanto has "not done that chronic carcinogenicity study on the formulated product, no"); 937:3-25 (Dr. Farmer testifying that she wrote that "[i]t is too premature to discuss conducting any studies. I will not support doing any studies on glyphosate formulations or other surfactant ingredients at this time with the limited information we have on the situation"); 1120:20-1121:22 (Dr. Farmer testifying that she wrote "you cannot say that Roundup is not a carcinogen…We have not done the necessary testing on the formulation to make this statement" and "[t]he testing on the formulations are not anywhere near the level of the active ingredient" glyphosate). The evidence, however, shows that a significant amount of evidence existed suggesting that no study was necessary. Trial Tr. at 893:5-12 (Dr. Farmer testifying that Monsanto examined testing only

the surfactant in Roundup and not the formulated product because "we believe a lot of what you see in these studies is secondary to toxicity due to the surfactant" and "[w]e had a lot of information that would lead us in that direction"); 1179:18-1180:9 (Dr. Farmer testifying that Monsanto did not conduct chronic long-term carcinogenicity testing on the formulated product because regulatory agencies do not require them, and Monsanto's studies on glyphosate and surfactants independently showed no carcinogenicity); 1226:2-20 (Dr. Farmer testifying that "we have a lot of data, short-term and long-term, that we can conclude that Roundup poses no danger to human health and it's not carcinogenic to humans, but it's not based on those carcinogenic studies. It's based on other data"). Furthermore, the evidence demonstrates that a long-term carcinogenicity study of formulated Roundup in rodents would not provide any meaningful data because the surfactant in formulated Roundup—like any soap—would irritate the rodents' digestive systems at the necessary dose level. Trial Tr. at 1180:10-24; 1181:10-21. Again, nothing about Monsanto's conduct here rises to the punitive-damages standard. Monsanto had a good-faith belief that long-term carcinogenicity testing on formulated Roundup was not scientifically necessary, and Plaintiff introduced no evidence of intentional wrongdoing on Monsanto's part in this regard—particularly given that Plaintiff provided no evidence proving (or even suggesting) what this kind of testing would actually show.

• Toxicity of Formulated Roundup: Plaintiff introduced evidence suggesting that formulated Roundup is more toxic or genotoxic than glyphosate alone. But the evidence does not show Monsanto knew this to be true or was deliberately indifferent in testing Roundup's toxicity or genotoxicity. Rather, the evidence shows that a tremendous amount of studies have been conducted showing that formulated Roundup is not toxic or genotoxic. *See, e.g.*, Trial Tr. at 1176:14-1177:17 (Monsanto has performed laboratory tests on the formulated product that yielded results of "low toxicity"); 1177:18-1178:12 (sub-chronic tests for the formulated product have shown no "target toxicities" and a "very favorable toxicological profile"); 1184:18-24 (Dr. Farmer testifying that the formulated product has been evaluated for toxicity and genotoxicity); 1186:20-24 (Dr. Farmer testifying that studies done over the years on the formulated product showed "no evidence of genotoxicity"). Additionally, Plaintiff's own expert witness Dr. DeGrandchamp admits that "genotoxic" is a generic term for DNA damage and "does not necessarily mean you are going to develop cancer." Trial Tr. at 1592:21-1594:12. Together, this evidence fails to clearly and convincingly show that Monsanto's conduct was tantamount to intentional wrongdoing related to testing of formulated Roundup.

• Impurities in Formulated Roundup: Plaintiff introduced evidence that formulated Roundup includes certain impurities, such as formaldehyde, arsenic, ethylene oxide, 1, 4-dioxane, and NNG, that have been classified as

carcinogens. *See* Trial Tr. at 378:17-23 (1, 4-dioxane); 379:5-12 (formaldehyde); 380:7-10 (NNG); 1516:1-7 (ethylene oxide and 1, 4-dioxane); 1541:21-25 (NNG); 1543:11-17 (ethylene oxide, 1, 4-dioxane, formaldehyde); 1650:18-25 (formaldehyde, NNG, 1,4-dioxane, ethylene oxide). However, nothing about this evidence rises to the level of intentional wrongdoing by Monsanto. The evidence shows that these impurities exist in trace amounts in Roundup and that Monsanto has always disclosed the existence of these trace impurities to the EPA, who has determined their inclusion in Roundup do not cause concern for humans. Trial Tr. at 377:16-22 (Dr. Farmer testifying that formaldehyde is "a relevant impurity that all the agencies are aware of. Its levels are not a concern for humans"); 381:3-13 ("Again, the EPA is very aware that all of these impurities are in there and what levels and under their specifications"); 1163:22-24 ("Impurities would be very minute amounts" of a bottle of Roundup); 1207:17-21 (Dr. Farmer testifying that Monsanto provides information on how much of the impurities are in Roundup to EPA and other regulators); 1209:3-5 (Dr. Farmer testifying she is not aware of EPA ever expressing a concern about the level of formaldehyde in Roundup); 1209:25-1210:3 (Dr. Farmer testifying that she is not aware of any regulatory agency expressing concern to Monsanto about levels of NNG in Roundup); 1211:4-8 (Dr. Farmer testifying she is not aware that EPA or any other regulatory agency expressed concern about the amount of arsenic in Roundup). Moreover, Monsanto has

conducted all required testing on the levels of impurities in Roundup, which has shown that they are not carcinogenic. *See* Trial Tr. at 905:15-906:19 (Dr. Farmer testifying that Monsanto has tested formaldehyde, 1,4-dioxane, arsenic, and NNG in Roundup); 1204:20-1205:11 (Dr. Farmer testifying that Monsanto is required to analyze impurities in Roundup and "assess the toxicological significance and relevancy of those impurities"); 1210:4-15 (Dr. Farmer testifying that Monsanto's testing on glyphosate "takes into account any effects that those impurities would have in the outcomes of those studies"); 1212:19-23 ("I'm not aware of any evidence that trace amounts [of impurities in Roundup] can cause cancer"). Moreover, Dr. Spaeth—Plaintiff's sole specific causation expert—admitted he had no opinion about the specific ingredients in Roundup other than glyphosate and whether they caused Plaintiff's claimed injuries. Trial Tr. at 1805:6-15. Thus, none of Plaintiff's evidence regarding impurities in Roundup shows that Monsanto committed conduct that is "tantamount to intentional wrongdoing."

• Monsanto's Dermal Penetration (TNO) Studies: Plaintiff introduced evidence that Monsanto contracted with a lab called TNO in Europe to conduct dermal penetration studies on formulated Roundup in rats. *See* Trial Tr. at 999:16-19; 1000:4-8. Plaintiff suggested through a series of emails that Monsanto elected to stop the dermal penetration study out of fear that the results of the study would have exceeded the dermal absorption limit permitted by German

authorities and then asked TNO to write "nothing more than a one-page summary of the study" indicating that the study was "terminated" rather than a full report. Trial Tr. at 1001:11-1006:5; 1010:17-1011:1; 1012:14-25. In reality, the study was stopped because becacuse it was showing results beyond biological variability, that did not comport with scientific principles of concentration and dilution, and the rat skin was histologically damaged—leading Monsanto to believe it was "compromised." Trial Tr. at 1233:7-1234:19. And the final TNO report—put together by independent study directors at TNO—stated that the data in their report related to this study was "not acceptable for regulatory use and risk assessment" because of "high variation in dermal penetration within the test groups and poor recoveries." Trial Tr. at 1236:16-1237:7.

• Ghostwriting Allegations: Plaintiff primarily referred to Williams (2000), the series of Intertek articles in 2016, and a series of internal company emails as evidence of supposed malicious ghostwriting. *See e.g.*, Trial Tr. at 471:18-472:7 (Dr. Farmer testifying that Monsanto's "1999 Roundup Communications Plan" stated that other articles "would also be an ideal outlet for a comparative analysis of Roundup and alternative methods of vegetation control—a risky initiative if executed by Monsanto directly); 828:15-25 (Dr. Farmer testifying that a Monsanto employee wrote in an email titled "Post IARC activities to support glyphosate" that the animal data "Manuscript is to be initiated by [Monsanto] ghostwriters" and that "this would be more

powerful if authored by non-Monsanto scientists; e.g., Kirkland, Kier, Williams, Greim, and maybe Keith Solomon"); 959:4-973:22 (discussing Williams (2000)); 975:4-17 (Dr. Farmer testifying that a Monsanto employee wrote that "[a] less expensive, slash, more palatable approach might be to involve experts only for the areas of contention, epidemiology and possible [mode of action] (depending on what comes out of the IARC meeting) and we ghostwrite the exposure tox and genetox sections" and suggesting that they "add" Greim, Kier, or Kirkland). The evidence, however, shows that in every case of alleged "ghostwriting," Monsanto's contributions were either publicly identified or did not rise to the level of authorship. Trial Tr. at 1246:15-17; 1246:25-1247:24 (the Williams (2000) paper disclosed Monsanto's involvement when published); 1250:1-6, 17-20 (the Intertek papers disclosed that funding was provided by Monsanto); 1251:19-22 (the Intertek papers acknowledged Dr. Heydens as a reviewer of the studies); 1257:14-16 (Dr. Acquavella was listed as an author on an Intertek paper where his involvement rose to the level of authorship); 1259:5-12 (Dr the Williams (2012) paper acknowledged Monsanto's involvement in their publication); 1331:24-1332:2, 18-24 (Dr. Farmer testifying that her work on Williams (2012) did not "rise to the level of an author"). Further, Plaintiff presented no evidence that any of the scientific statements or data contained in these papers are false or misleading. Without evidence that the science in these papers was false or misleading, Plaintiff cannot carry his burden to

show that he is entitled to punitive damages based on this conduct. *See In re Prempro Prods. Liab. Litig.*, 554 F. Supp. 2d 871, 897 (E.D. Ark. 2008) ("[W]ithout evidence that Wyeth lied or misrepresented the science it chose to support, this evidence does not establish malicious behavior that would permit punitive damages."), *aff'd in part, rev'd in part*, 586 F.3d 547 (8th Cir. 2009).

• Monsanto's Response to the IARC Monograph: Plaintiff introduced evidence about the IARC determination that glyphosate was a probable carcinogen. But that evidence and the Monsanto company documents and testimony questioning the scientific correctness of IARC's glyphosate classification does not show any intentional wrongdoing by Monsanto or other misconduct tantamount to intentional wrongdoing. The most Plaintiff has shown is that Monsanto was aware that some scientific studies raised some questions about Roundup's potential carcinogenicity and that Monsanto disagreed with those findings and tried to communicate what it viewed as the better scientific evidence to a wider audience.[6] The evidence certainly does not show

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[6] *See e.g.*, Trial Tr. at 340:6-14 (Dr. Farmer testifying that Monsanto's public affairs group wrote that it wanted Monsanto to "orchestrate outcry" in response to IARC's decision); 352:24-353:2 (Dr. Farmer testifying that one of her jobs at Monsanto has been to "defend the science of glyphosate and Roundup"); 428:23-429:3 (Dr. Farmer writing to another Monsanto employee that "[u]nfortunately we feel that Hardell is just the tip of the iceberg for these type of association epi studies"); 429:18-432:18 (Dr. Farmer writing to another Monsanto employee that the

Agricultural Health Study was biased and that its results were "scary" based on the way the study was designed); 437:4-11 (Dr. Farmer testifying that Dr. Acquavella wrote that Monsanto "need[ed] to establish a relationship with McDuffie" to share research information with her); 786:6-787:2 (Dr. Farmer testifying that another Monsanto employee wrote that "[t]here is really no meaningful publication that we can complete prior to February submission to positively impact the epidemiology discussion outcome in March" at the IARC working group on glyphosate); 791:15-807:5 (Monsanto employees discussing via email that its public relations contact Ms. Charla Lord "will be the point person moving forward to help coordinate the list of credible third-party voices for glyphosate"; that Monsanto retained an outside communications company to "target the Washington Post and USA Today"; and that a potential "high-profile author for an opinion piece" on glyphosate who is up to speed on the literature and would "be helpful to Monsanto"); 810:3-812:17, 813:21-24 (Dr. Farmer testifying that Monsanto paid Drs. Pam Mink, John Acquavella, Elizabeth Delzell, and Nalini Sathiakumar for conducting epidemiology reviews); 814:8-15 (Dr. Farmer testifying that internal discussions with Monsanto public relations employees who came up with "a proposal on how [Monsanto was] going to communicate a[n IARC] classification that we felt we would disagree with, and this is just a proposal that we were doing to be prepared"); 833:18-835:25 (Dr. Farmer testifying that she and Dr. Heydens emailed a public relations employee at Monsanto regarding "Revised IARC Reactive Messaging" before IARC classified glyphosate as a "probable" human carcinogen because it was "preparing for what might be some of [IARC's] decisions and was "proactively planning how to react after IARC makes its decision"); 836:1-843:7 (discussing Monsanto's "Glyphosate Key Points Following IARC Decision"); 864:24-867:18 (Dr. Farmer testifying that Monsanto's public affairs employees wrote that Monsanto's pre- and post-IARC plan was to "orchestrate outcry," which Dr. Farmer testified meant that Monsanto was "going to be very public in disagreeing with IARC in its classification, if it happened"); 867:25-883:20 (Dr. Farmer testifying that Monsanto sent Dr. Tom Sorahan as its observer to the IARC working group meeting on glyphosate where he sent Dr. Farmer and Dr.

> clearly and convincingly that Monsanto actually knew or should have drawn a conclusion based on a small scattering of science, which it deemed low-quality, that Roundup causes cancer. This is especially true when EPA and its worldwide counterparts have never drawn the conclusion that Roundup causes cancer.

The bottom line is that there is an absence of evidence that Monsanto's behavior was "tantamount to intentional wrongdoing." *Lopez*, 26 S.W.3d at 160. In fact, the evidence shows the opposite: Monsanto's corporate witnesses are conscientious scientists who believe in the safety of glyphosate and Roundup based upon their review of the data and studies conducted by

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Heydens report updates at the end of each day, including that he had "a suitable opportunity to mention the problems that Elizabeth Delzell had identified" in her epidemiological research, that he proposed certain epidemiological literature be included in the discussion, and that the IARC working group "seemed to believe in those early Swedish case-control studies even though the NHL hypothesis gets no support from the AHS"); 888:17-890:19 (Dr. Farmer testifying that Dr. Acquavella said "I'm afraid [the De Roos (2000) paper] could add more fuel to the fire for Hardell and others" and that "[i]t looks like NHL and other lymphopoietic cancers continue to be the main cancer epidemiology issues for both glyphosate and alachlor. We are assembling a panel of experts to work on this"); 1267:2-10 (Dr. Farmer testifying that Monsanto "had concerns that [IARC] would misclassify glyphosate, and we were going to be very public speaking about the data and the safety that we know supports glyphosate and Roundup"); 1267:11-18 (Dr. Farmer testifying that "It's not just [Monsanto] that concluded that glyphosate and Roundup are not carcinogenic, it's regulatory agencies and other scientific bodies, and we wanted the information to be out there that we thought was sound science that clearly supported the safety of glyphosate").

Monsanto and others. *See* Trial Tr. at 1176:14-1178:12; 1186:20-24.

III. Because Plaintiff's Theory Is That Roundup And Glyphosate Are Unavoidably Unsafe, His Strict Liability Design Defect Claim Is Not Submissible.

"To determine whether a plaintiff has made a submissible case based on … strict products liability" the test set forth in Restatement (Second) of Torts, § 402A applies. *Poage*, 523 S.W.3d at 508; *see also* RSMo § 537.760. To submit a strict liability design defect claim to the jury, a plaintiff must present substantial evidence from which a jury could find:

> (1) the defendant sold a product in the course of its business; (2) the product was then in a defective condition, unreasonably dangerous when put to a reasonably anticipated use; (3) the product was used in a manner reasonably anticipated; and (4) plaintiff was damaged as a direct result of the defective condition that existed when the product was sold.

Engel v. Corrigan Co.-Mech. Contractors, Inc., a Div. of Corrigan Bros., Inc., 148 S.W.3d 28, 30 (Mo. App. E.D. 2004). "[T]he primary inquiry in a design defect case is whether the product—*because of the way it is designed*—creates an unreasonable risk of danger ... when put to normal use." *Nesselrode v. Exec. Beechcraft, Inc.*, 707 S.W.2d 371, 375 (Mo. 1986) (emphasis added).

The Restatement recognizes that certain products—no matter how they are designed—are "incapable of being made safe for their intended and

ordinary use." Restatement (Second) of Torts § 402A comment k. Sellers of those products are "not to be held to strict liability for unfortunate consequences attending their use" so long as the products are "properly prepared and marketed, and proper warning is given." *Id.* That is because in such a case the seller has "merely … undertaken to supply the public with an apparently useful and desirable product, attended with a known but apparently reasonable risk." *Id.* The Missouri Court of Appeals has explained that a manufacturer of such product is liable "only if it failed to warn of dangerous propensities…." *Pollard v. Ashby*, 793 S.W.2d 394, 399 (Mo. App. E.D. 1990); *see also Racer v. Utterman*, 629 S.W.2d 387, 393 (Mo. App. E.D. 1981) (the "doctrine of strict liability for failure to warn … is applicable to 'unavoidably unsafe' products"). By definition, an unavoidably unsafe product is one that is "*incapable* of being" designed in a manner that is safe for normal use. Restatement (Second) of Torts § 402A comment k. Therefore, as one court put it: "[i]t follows…that a product is unavoidably unsafe if, at the time of its distribution, there existed no alternative design which would have as effectively accomplished the same purpose or result with less risk." *White v. Wyeth Labs., Inc*, 533 N.E.2d 748, 753 (Ohio 1988).

Plaintiff's trial theory was that Roundup is unavoidably unsafe—and the evidence he has submitted at trial has been in support of that theory. According to Plaintiff: glyphosate and Roundup "cause and contribute to cause" NHL (Trial Tr. at 514:7-15; 581:16-21; 1545:16-1546:6); glyphosate "damages the cell and cell structure" in humans (Trial Tr. At 559:14-560:4; 1468:14-19; 1470:23-1471:2; 1479:3-7; 1481:10-

12; 1507:15-24); "human…cell studies…demonstrate [the] genotoxicity" of glyphosate and Roundup (Trial Tr. 557:14-16; 1466:5-8); "glyphosate produces oxidative damage and damages DNA" (Trial Tr. at 1458:18-25; 1472:1-3); glyphosate causes chronic inflammation (Trial Tr. at 1473:18-22); and glyphosate is immunosuppressive (Trial Tr. at 1476:2-4). And Plaintiff's theory is that there is no safe dosage of glyphosate or Roundup. Trial Tr. at 1411:21-1412:12 (Dr. DeGrandchamp suggesting that "Roundup DNA damage…can occur at low dose[s]…").

To the extent that Plaintiff adduced evidence that Roundup contained impurities and suggested that their inclusion in Roundup was unavoidably unsafe, that evidence is insufficient to support his design defect claim. Dr. Spaeth—Plaintiff's sole specific causation expert—admitted he had no opinion about the specific ingredients in Roundup other than glyphosate and whether they caused Plaintiff's claimed injuries. Trial Tr. at 1805:6-15. Thus, his evidence on impurities does not create a submissible design defect claim.

The liability evidence Plaintiff introduced is that glyphosate is "incapable of being made safe." Restatement (Second) of Torts § 402A comment k. For that reason, Plaintiff's strict liability claim is not a legally submissible design defect claim—it is a failure-to-warn claim. Plaintiff's evidence amounted to nothing more than a categorical attack on the product class of glyphosate-based herbicides. Missouri law has rejected the sufficiency of strict liability design claims that only categorically attack a product class. *Richardson v. Holland*, 741 S.W.2d 751, 753-54 (Mo.

App. S.D. 1987) (dismissing claim that a handgun "belong[ing] to a class of guns commonly referred to as 'Saturday Night Specials'" was defective because "the doctrine of strict liability under the doctrine of 402A is not applicable unless there is some malfunction due to an improper or inadequate design or defect in manufacturing."); *Bachtel v. TASER Intern., Inc.*, 747 F.3d 965, 973-74 (8th Cir. 2014) (affirming summary judgment on strict liability design claim involving a medical device under Missouri law because the plaintiff "failed to demonstrate any 'specific design choices' that rendered the [product] unreasonably dangerous" as designed).

Plaintiff has not presented a legally actionable claim for strict liability design defect. This Court should accordingly direct a verdict in Monsanto's favor on that claim.

IV. Plaintiff Has Not Presented Substantial Evidence To Support His Strict Liability Failure To Warn Claim.

To make a submissible case on his failure to warn claim, Plaintiff was required to present substantial evidence that that:

> defendant sold the product in question in the course of defendant's business; (2) the product was unreasonably dangerous at the time of sale when used as reasonably anticipated without knowledge of its characteristics; (3) the defendant did not give adequate warning of the danger; (4) the product was used in a reasonably anticipated manner; and (5) plaintiff was damaged as a direct result of

> the product being sold without an adequate warning.

Tune v. Synergy Gas Corp., 883 S.W.2d 10, 13 (Mo. banc 1994). The causation element contains "two separate requirements:" "(1) the product for which there was no warning must have caused plaintiff's injuries; and (2) the plaintiff must show that a warning would have altered the behavior of those involved in the accident." *Klugesherz v. Am. Honda Motor Co., Inc.*, 929 S.W.2d 811, 814 (Mo. App. E.D. 1996) (quotations omitted). Here, Plaintiff presented evidence that the label of the Roundup formulations that Plaintiff used did not contain a warning to wear personal protective equipment ("PPE") and did not contain a warning that the herbicide may cause cancer. Trial Tr. at 2038:16-2039:21. This is not substantial evidence that those Roundup formulations were "unreasonably dangerous" or that Plaintiff's MCL was a direct result of the absence of a PPE or cancer warning.

A. There Is Not Substantial Evidence That Roundup Was "Unreasonably Dangerous" As Labeled.

For the jury to conclude that Monsanto was required to include on Roundup's label a warning that Roundup causes cancer or NHL specifically, the jury would first have to conclude that the EPA has time and time again "gotten it wrong" when determining that applying Roundup as labeled does not pose a human health risk. But the evidence is to the contrary: the EPA has repeatedly investigated whether Roundup or glyphosate causes cancer and has determined that it does not. Trial Tr. at 1199:9-17 (the

EPA has continued to review the safety of glyphosate since 1993 and in the nearly 50 years that Roundup has been on the market, the EPA has never classified Roundup or glyphosate as a possible or probable carcinogen). And the EPA came to this conclusion even *after* IARC released its 2015 monograph on glyphosate. *See, e.g.*, Trial Tr. at 685:7-10 (acknowledging IARC does not conduct a "risk assessment" but the EPA does risk assessments); 701:21-702:1 (the EPA concluded that the weight of the evidence and available data "clearly do not support the descriptors 'carcinogenic to humans,' 'likely to be carcinogenic to humans,' or 'inadequate information to assess carcinogenic potential'"); 1277:2-9 (the EPA concluded in 2016 that "[t]he available data and weight of evidence clearly do not support the descriptors carcinogenic to humans, likely carcinogenic or inadequate information to assess carcinogenic potential"; "The strongest support is for not likely to be carcinogenic to humans at doses relevant to human health risk assessment"); 1608:9-1609:4 (the EPA in 2017 concluded that "based on all the available data, the weight of the evidence clearly do not support the descriptors 'carcinogenic to humans' and 'likely to be carcinogenic to humans' at this time").

Similarly, for the jury to conclude that Monsanto needed to include a cancer warning on Roundup's label, the jury would have to discount the conclusion of global regulators: that glyphosate does not pose a cancer risk. Like the EPA, these foreign regulators came to this conclusion even after IARC released its 2015 monograph. *See, e.g.*, Trial Tr. at 1284:16-24 (Health Canada's 2017 conclusion was that "[t]he

current available epidemiological evidence does not support a causal relationship between exposure to glyphosate and cancer outcomes" and that this determination "is consistent with the most recent conclusions of other international regulatory agencies"); 1287:15-21 (European Chemical Agency's conclusion that, "based on epidemiological data as well as the data from long-term studies in rats and mice, taking the weight of the evidence approach, no classification for carcinogenicity is warranted"); 1259:18-22 ("Q. Are you aware of any country that has done its own human health assessment and risk assessment and concluded that glyphosate or Roundup causes a cancer risk? A. No, I'm not"). Put simply: the EPA and other environmental regulators around the world have concluded consistently that glyphosate and Roundup do not cause cancer. Plaintiff did not introduce substantial evidence that Monsanto needed to include a cancer warning label on Roundup.

B. There Is Not Substantial Evidence That Plaintiff's MCL Occurred As A Direct Result Of The Absence Of A Cancer Warning.

1. Plaintiff's MCL Did Not Occur As A Direct Result Of Monsanto's Failure To Include PPE Warnings On The Residential Roundup Products That Plaintiff Used.

Plaintiff's MCL did not result from the omission of PPE warnings on the residential Roundup formulations that Plaintiff used. There is no testimony from Drs. Aronson, DeGrandchamp, or Spaeth that Plaintiff would not have developed MCL had he worn

PPE when he claims to have applied Roundup. Even if we presume that Plaintiff would have altered his behavior and worn PPE had the Roundup label contained a PPE warning, there is no expert causation testimony that would have prevented the harm of cancer for which he is seeking damages. Where, as here, "the adequacy of the instructions accompanying the [product] ... made no difference in the outcome of [Plaintiff's disease]," directed verdict in favor of the defendant on a failure to warn claim is required under Missouri law. *Johnson v. Medtronic, Inc.*, 365 S.W.3d 226, 232 (Mo. App. W.D. 2012) (affirming summary judgment on failure-to-warn claims pertaining to medical device).

2. Plaintiff Would Not Have Heeded A PPE Or Cancer Warning On Roundup.

Moreover, the evidence demonstrates that Plaintiff would not have heeded a PPE or cancer warning on Roundup. *Klugesherz*, 929 S.W.2d at 814-815 (affirming JNOV because the heeding presumption was of "no assistance" to the plaintiff where substantial evidence established he would not have followed the warning). Plaintiff himself testified that he did not read the label on the Roundup he used. *See* Trial Tr. at 2026:5-9 ("Q. … Did you read the label on the ready-to-use products that you bought? A. Not so much. Just basically just used the product"); 2027:1-9 (testifying that he primarily "relied on the cap" when using Roundup concentrate and "basically just poured it in there and mixed it up"); 2130:13-21 ("Q. And did you go and look at those additional precautionary statements? A. Well, you know I might

be gay, but I'm still a guy and so instructions weren't like, I basically - no. Q. So you didn't? A. No."). And Plaintiff confirmed in his own testimony that he did not follow the precautionary instructions listed on the labels of Roundup he used. Trial Tr. at 2130:22-2131:6 ("….Q. [I]t says, 'Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.' A. It does say that. Q. It does say that. And did you in fact do that? A. No, I did not."); 2131:10-13 ("Q. So you've already said that even though it may have gotten on your skin, you didn't wash it off or follow the directions on the label? A. You're correct"). Thus, the evidence is clear that Plaintiff would not have heeded a PPE or cancer warning on the Roundup formulations he encountered. Accordingly, directed verdict must be entered for Monsanto on his failure to warn claims.

V. Plaintiff Has Not Presented Substantial Evidence To Support His Negligence Claim.

Negligence claims have a higher threshold of proof than strict liability claims. Accordingly, where a plaintiff asserts strict liability and negligence claims based on the same theories, a finding of no liability on the strict liability claims should foreclose recovery for the overlapping negligence claims. *See Jaurequi v. John Deere Co.*, 971 F. Supp. 416, 431-32 (E.D. Mo. 1997); *see also Welsh v. Bowling Elec. Mach., Inc.*, 875 S.W.2d 569, 574 (Mo. App. S.D. 1994) (holding that defendant entitled to summary judgment on strict liability and negligence theories "for the same reasons"); *Menz v. New Holland N.A.*, 460 F. Supp. 2d 1050, 1057 (E.D. Mo. 2006) ("[T]his Court's conclusion that [the plaintiff] fails to present triable strict liability claims for defective design or failure to warn

necessitates the granting of summary judgment on [the plaintiff]'s negligence claims as well."); *but see Johnson v. Auto Handling Corp.*, 523 S.W.3d 452, 466 (Mo. banc 2017) (holding that negligence and strict liability theories are distinct). Plaintiff has not presented substantial evidence to support his strict liability design defect or failure to warn claims. For the same reasons, Plaintiff's negligence claim also fails. But Plaintiff's negligence claim also lacks substantial evidence for other reasons.

A. Plaintiff Did Not Present Any Evidence—Let Alone Substantial Evidence—Of What An Ordinarily Careful Product Manufacturer Would Have Done Under The Same Or Similar Circumstances.

To prevail on his negligence claims, Plaintiff must prove that Monsanto "failed to use ordinary care," *i.e.*, "that degree of care that an ordinarily careful person would use under the same or similar circumstances" to manufacture or design Roundup or to adequately warn of alleged risks of harm. Mo. Approved Jury Inst. 11.05, 25.09. A court should direct verdict in favor of a manufacturer where the plaintiff fails to present substantial evidence of the applicable standard of care. *See Ladish v. Gordon*, 879 S.W.2d 623, 630 (Mo. App. W.D. 1994) (affirming the trial court's grant of JNOV where the plaintiff presented "no evidence that [the defendant's conduct] was a departure from the appropriate standard of care"); *First Nat'l Bank of Sikeston v. Goodnight*, 721 S.W.2d 122, 126 (Mo. App. S.D. 1986) (holding the plaintiff failed to present a submissible case of negligence, noting the plaintiff put

forth "no evidence of the standard of care adopted by the profession generally" to establish the applicable standard of care). "The court cannot submit a case to the jury where no evidence exists to support a finding that the defendant's conduct fell below the identified standard of care." *Trader v. Blanz*, 937 S.W.2d 325, 328 (Mo. App. W.D. 1996) (citing *Harris v. Niehaus*, 857 S.W.2d 222, 225 (Mo. banc 1993)).

Plaintiff has presented no evidence whatsoever concerning the standard of care for pesticide design or warning that is allegedly applicable to Monsanto. Plaintiff has not shown that a reasonable manufacturer under the same or similar circumstances would have warned of any purported dangers in Roundup or manufactured or designed Roundup differently. Rather, the evidence established that Monsanto reviewed the vast scientific data and concluded that Roundup is a safe product as manufactured and designed and there is no risk to be warned about. The evidence also established Monsanto complied with all regulatory requirements. So, Plaintiff has not established Monsanto acted unreasonably or contrary to the applicable standard of care.

B. Plaintiff's Negligent Manufacturing Claim Fails.

Plaintiff's negligent manufacturing claim fails because he has not introduced any evidence that his injuries resulted from his exposure to a bottle of Roundup that was not manufactured as intended. To make a submissible case for negligent manufacture, Plaintiff was required to prove that (1) Monsanto manufactured Roundup, (2) Roundup had a particular

defect, (3) Monsanto failed to use ordinary care to manufacture Roundup to be reasonably safe, and (4) he sustained damage. *Johnson*, 523 S.W.3d at 465 (citing MAI 25.09). "A manufacturing defect occurs when something goes wrong in the manufacturing process and the product is not in its intended condition." *Smith v. Brown & Williamson Tobacco Corp.*, 275 S.W.3d 748, 791 (Mo. App. W.D. 2008) (internal quotations omitted). "The product is evaluated against the producers' own standards, and compared to like products." *Richcreek v. Gen. Motors Corp.*, 908 S.W.2d 772, 776 (Mo. App. W.D. 1995). "Manufacturing defect refers to the improper assembly of an individual product." *Smith*, 275 S.W.3d at 792.

None of Plaintiff's evidence shows that the Roundup bottles he sprayed were in any condition other than the condition in which Monsanto intended them to be manufactured and distributed. Indeed, Plaintiff adduced *no* evidence that any bottle of Roundup that he used did not adhere to Monsanto's manufacturing standards or was improperly assembled. To the contrary, the only evidence that Plaintiff introduced regarding any potential manufacturing defect in Roundup involved evidence (over Monsanto's objection) regarding trace impurities that *sometimes* appear in Roundup bottles. But Plaintiff introduced absolutely no evidence that the trace impurities in Roundup were not intended to be there. To the contrary, the evidence shows Monsanto knew some Roundup bottles contained low levels of trace impurities, tested those impurities, and reported them to the EPA and other regulators who have never expressed a concern about trace impurities in

Roundup. Trial Tr. at 377:16-22; 381:3-13; 905:15-906:19; 1204:20-1205:11; 1163:22-24; 1207:17-21; 1209:3-5; 1209:25-1210:15; 1211:4-8. Accordingly, Plaintiff cannot recover based on a theory of negligent manufacture and a directed verdict must be granted for Monsanto on this aspect of Plaintiff's negligence claim.

C. Plaintiff's Negligent Failure To Warn Claim Fails.

The Court should direct verdict on Plaintiff's negligent failure-to-warn claim for the reasons stated above regarding causation, *see supra* pp. 5-14, and Plaintiff's strict liability failure-to-warn claim, *see supra* pp. 24-27, which are equally applicable here. Plaintiff's negligent failure-to-warn claim also fails because Roundup's alleged cancer risk was not reasonably foreseeable and thus Monsanto had no duty to warn of such alleged risk. *See, e.g.*, *Lopez*, 26 S.W.3d at 156 ("Under the principles of general negligence law, whether a duty exists in a given situation depends upon whether a risk was foreseeable."); *Griffin v. Kandi Techs. Corp.*, 454 S.W.3d 341, 347 (Mo. App. S.D. 2014) (holding plaintiff failed to show defendants "knew or had reason to know" their product was dangerous and thus could not recover on a negligent failure to warn theory). As noted above, *supra* pp. 25-26, both the EPA and regulators globally have determined that Roundup and glyphosate do not pose a cancer risk. Therefore, Monsanto had no legal duty to warn Plaintiff during his key exposure period of 1996 to 2018 that Roundup causes cancer.

D. Plaintiff's Negligent Design Defect Claim Fails.

Plaintiff's negligent design defect claim also fails for many of the reasons referenced above, including Plaintiff's failure to present substantial evidence on causation, *see supra* pp. 5-14, and Plaintiff's failure to present substantial evidence that the alleged cancer risk posed by Roundup was reasonably foreseeable, *see supra* pp. 28-29. More fundamentally, Plaintiff's negligent design defect claim, like his strict liability design defect claim, fails because Plaintiff's theory of the case is that glyphosate and Roundup are inherently dangerous. *See supra* pp. 21-24.

VI. Plaintiff's Claims Are Preempted By Federal Law.

As Monsanto argued in more detail in its summary judgment briefing in this case and incorporates herein by reference, Plaintiff's claims are expressly and impliedly preempted by FIFRA. FIFRA expressly preempts Plaintiff's claims because the warning he claims state law requires is "in addition to or different from" FIFRA's labeling requirements. *See* 7 U.S.C. § 136v(b). FIFRA does not permit Missouri to enforce state-law standards nominally equivalent to FIFRA's standards differently than EPA. *See Bates v. Dow Agrosciences LLC*, 544 U.S. 431, 452 (2005). *Bates* held that if EPA determines that a particular label should include one warning (*e.g.*, "CAUTION") but a jury concludes that state law requires another (*e.g.*, "DANGER"), state law is preempted even if EPA and the jury applied similar standards to reach these impermissibly "different" labeling requirements. 544 U.S. at 453. FIFRA thus expressly preempts a

Missouri jury from imposing a cancer warning requirement that EPA has decided is unnecessary.

Plaintiff's claims also are impliedly preempted under two separate conflict preemption doctrines. First, Monsanto presented "clear evidence" that EPA was "fully informed" of and rejected the risk that Roundup causes cancer.[7] *See, e.g.*, Trial Tr. at 1619:16-1620:3 (Dr. DeGrandchamp testifying that EPA considered epidemiological, animal, and mechanistic science before determining glyphosate is not a likely human carcinogen). Second, FIFRA also impliedly preempts Plaintiff's claims because it is impossible for Monsanto to comply with any state-law duty to add a cancer warning or redesign Roundup without first obtaining EPA's approval. *See PLIVA, Inc. v. Mensing*, 564 U.S. 604, 619-20, 623-24 (2011) ("State law demanded a safer label; it did not instruct the Manufacturers to communicate with the [agency] about the possibility of a safer label"; "The question for 'impossibility' is whether the private party could independently do under federal law what state law requires of it"; "[W]hen a party cannot satisfy its state duties without the Federal Government's special permission and assistance, which is dependent on the exercise of judgment by a federal agency, that party cannot independently satisfy those state duties for pre-emption purposes"); *Mut. Pharm. Co. v. Bartlett*, 570 U.S. 472, 474-80 (2013).

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[7] The Supreme Court has held that state tort claims are preempted if there is "clear evidence" that the relevant regulator, "fully informed" of the alleged risk, would reject the warning. *Merck Sharp & Dohme Corp. v. Albrecht*, 139 S. Ct. 1668, 1672 (2019); *Wyeth v. Levine*, 555 U.S. 555, 571 (2009).

In short, each of Plaintiff's claims seeks to impose requirements that federal law does not permit; accordingly, Plaintiff's claims are preempted. *See Bates*, 544 U.S. at 452 (emphasis added) (FIFRA "pre-empts *any* statutory or common-law rule that would impose a labeling requirement that diverges from those set out in FIFRA and its implementing regulations.").

CONCLUSION

For the foregoing reasons, the Court should direct a verdict in favor of Monsanto on all of Plaintiff's claims.

Dated: October 16, 2023 Respectfully submitted,

By: */s/ Timothy J. Hasken*

* * *

Excerpts from Transcript on Appeal, Vol. II,
***Durnell v. Monsanto Co.*, No. 1922-CC00221**
(Mo. Cir. Ct. Oct. 3, 2023) (pp. 824-26)

* * *

Defendant's Opening Statement

* * *

[824] active ingredient as Roundup. Not to mention there are other pesticides and herbicides.

So this EPA program has regulated them from the most conservative to the most liberal administrations over the last almost 50 years.

And as you've heard, they require studies to be done, and then if they don't like the studies, they require them to be redone. They are keeping a close eye, and you'll see how robust their analysis of this has been over the years.

In terms of what Roundup is, so when Roundup came out in 1974 it was seen as a technological advance, because not only did it kill all the weeds out there, so it kills—it's called a nonspecific or something like that. Basically means you can spray it on different kinds of weeds or grass and it will kill then. It also means you have to be careful so you don't kill your flowers or your grass or whatever you don't want to kill.

Now, that might not seem like a big deal to you and, frankly, to me when I first heard it, but it is a big deal to farmers, because when farmers have a bunch of weeds, they actually make it impossible for them to grow food because it blocks the sun from the craps, it makes it so these weeds [825] are sucking up all the water and the crops aren't getting them. And it also,

like, makes it so that the nutrients in the soil can't be used by the crops.

So it was actually a big deal. And you'll see that farmers began using it more and more and more. 600 percent increase since it came out in 1974.

The other thing is that there were other pesticides and herbicides out there before Roundup that were known to have different environmental issues like sticking around for a long time in the soil or the groundwater, and that was an advance with Roundup too.

There were also pesticides that had been shown to be toxic. So some of them, the ones on the market before Roundup, had been shown to actually increase the risk of cancer.

So we'll talk about that in a minute. It's important, because when you study Roundup, you have to make sure you're not looking at whether these other pesticides cause cancer in the same people, and we'll talk more about that.

So you have heard from Mr. Frazer about what's in the bottle, what's in the bottle. Well, here's what's in the bottle. It's 2 percent glyphosate, [826] roughly, and it varies depending on what the formulation is. So this is a ready-to-use version, not a concentrate that you have to mix with water yourself. It's about 2 percent of the active ingredient.

And you'll learn this word "glyphosate," because that's what actually does the killing of the weeds. The surfactant, which is the short for a surface-acting agent, basically means it helps the product to stay on the weed so it can do its job and doesn't roll off.

Surfactants are in things like Dawn dish soap, shaving cream. They're very common.

And the rest of it is water.

Now, there are also trace levels of what's called impurities. Now, they—it sounded pretty scary when listening to it. I don't know if you felt the same way. Things like arsenic, you'll here about formaldehyde, and you may think what is that doing in something like Roundup.

Well, some of these impurities are because any time you use a chemical process to make a chemical, the manufacturing process actually makes these impurities happen.

* * *

Excerpts from Transcript on Appeal, Vol. III,
***Durnell v. Monsanto Co.*, No. 1922-CC00221**
(Mo. Cir. Ct. Oct. 11, 2023) (pp. 2007-08)

* * *

[2007] What they are saying is: We don't have—we don't—we don't analyze for these compounds.

MR. BROWN: Objection, Your Honor, calls for speculation. He is not the author of the document. He can't speculate as to what was intended by the writer.

THE COURT: I'll—I'll sustain the objection. I'll let you ask another question.

MR. BLAIR: Sure, Judge.

Q. (By Mr. Blair) So what is the significance of not having testing directly on the glyphosate components?

A. Well, if you don't have any carcinogenicity information on the components you don't know what the formulation is that someone is going to actually be exposed to. If you only have information on glyphosate, the active ingredient, well, people aren't just using the active ingredient.

They are buying Roundup. They are exposed to all the contaminants that are in Roundup. So it is important to look at those impurities as well.

Q. All right. Let's go to Slide 101.

Doctor, does formulated Roundup contain—what—what cancer-causing contaminants and impurities does Roundup have in it?

[2008] A. Several. Here are two: Ethylene oxide and 1,4-Dioxane. They are two of the most prominent contaminants that Monsanto has known for quite a while contaminates their Roundup product.

Q. All right. How does -- how does the ethylene oxide and 1,4-Dioxane, those impurities, how are they formed?

A. Ethylene oxide is added as a surfactant. So the formulation of Roundup is comprised of the active ingredient, which is glyphosate, and then you add a surfactant.

A surfactant is something that enhances the absorption of the glyphosate into the plant. But anything that enhances absorption into the plant is going to—is going to increase the absorption into humans as well.

Q. All right. Let's go to the next slide real quick, 102.

All right. Is that oxide—is that a diagram of how ethylene oxide and 1,4-Dioxane impurities are formed in the formulated Roundup?

A. Yes.

Q. Okay. And what is that basically showing? Is that the chemical transformation?

A. Yes. The ethylene oxide is added to the—to …

* * *

Excerpts from Transcript on Appeal, Vol. VI, *Durnell v. Monsanto Co.*, No. 1922-CC00221 (Mo. Cir. Ct. Oct. 13, 2023) (pp. 2485, 2518, 2584)

* * *

[2485] prone to spillage?

A. My whole life I've had a condition that is—it's an active shake. So if I hold my hand out to you all right now, it doesn't do anything, but when I flip it and tense it, my hands shake.

Q. And that's something you've lived with your whole life?

A. Yes.

Q. Okay. Do you have any—I presume that you weren't trying to keep track of how often or when you spilled?

A. No. I didn't think much about it.

Q. Do you have any way to estimate how many times you would have spilled?

A. It's really hard to say, but I'm sure several times during the season I could spill it on myself.

Q. Okay. When that happened, did you have any reason to think that was a concern?

A. No, I did not. I wasn't concerned. I felt that the Monsanto product, being from Monsanto, was a safe product to use.

Q. You didn't think that you were spilling arsenic or 1,4-dioxane or—

Mr. Shaw: Your Honor, I'm going to object to this as irrelevant.

* * *

[2518] A. No, not at all.

Q. Were those the type—could you see the sock above the shoe?

A. Just a little bit of it. It was almost more like a shoe liner. Again, it's like to keep your—you know what I said before.

Q. Would you wash the shorts every time you used them?

A. No. Those were kind of work shorts, so I—I would use them several times, wear them several times.

Q. Did you reuse that same pair of shoes over and over?

A. Yes.

Q. Okay. Did you ever wear gloves?

A. No.

Q. Did you ever wear a face mask?

A. No.

Q. Did you ever wear safety goggles?

A. No.

Q. Tell me about—I think we all kind of know about the weather in St. Louis, but tell me about the weather whenever you were spraying most of the time.

A. Well, it's during the summer, so we all who live here are familiar that we have hot summer days. It would be humid. It would be hot. I would sweat.

* * *

[2584] people to think I was using it for 35, 36, 37 years.

And so I thought in my mind that it would be the correct thing to do to inform everyone that I found this mistake.

Because really, when you get a deposition, it's like that thick a stack of papers in there. And so as I started going through it, getting ready for this, I—when I first received it, it wasn't like I was getting a comic book and I was going to page through it real quickly. I started to get like, this is getting serious, and I need to be figuring out what went on.

And it was my first deposition. So it was like a whole new ball game. And I understand I was under oath. But when we were going through that process of when I was using Roundup, it gets really confusing for me because, you know, I was living at 1854, 56, 45, 42.

It just came out, and I realized I had made the mistake, because I did not start using Roundup until the first growing season of 1996, and I wanted to make sure that for the jury it was correct, and I thought I was doing the right thing by bringing that out.

I guess I could have just let it ride and said I started using it in 1981, you know, but I didn't. I …

* * *

Excerpts from Transcript on Appeal, Vol. V,
***Durnell v. Monsanto Co.*, No. 1922-CC00221**
(Mo. Cir. Ct. Oct. 19, 2023) (pp. 3342-49)

* * *

[3342] INSTRUCTION CONFERENCE

THE COURT: All right. I'm at the bench with Mr. Blair and Mr. Hasken. We're doing an instruction conference on this case. And I'll just say, off the record we've spoken informally about these instructions yesterday. It's my understanding that, Mr. Blair and Mr. Hasken, you've worked together and essentially, we can talk about a few issues here and there, but are these essentially almost entirely agreed to by the parties?

MR. BLAIR: Yes.

MR. HASKEN: Subject to Monsanto's submissibility objections on directed verdict, yes.

THE COURT: Okay. So the Court has before it as proposed Instruction No. 1 an instruction based on MAI 2.01. It is first standard civil jury instruction and it's already been read to the jury.

Does either side have an objection to that being Instruction No. 1?

MR. BLAIR: No, your Honor.

MR. HASKEN: No.

THE COURT: The Court has before it as proposed Instruction No. 2 an instruction based on MAI 2.03. It is the second standard civil jury [3343] instruction.

Does anybody object to that being Instruction No. 2?

MR. BLAIR: No, your Honor.

MR. HASKEN: No.

THE COURT: The Court has before it as proposed Instruction No. 3 an instruction based an MAI 2.03A. It is a standard civil jury instruction. We call it the unconscious bias jury instruction.

Does either side object to that being Instruction No. 3?

MR. BLAIR: No, your Honor.

MR. HASKEN: No.

THE COURT: The Court has before it as proposed Instruction No. 4 an instruction based on MAI 2.02. It's the facts not assumed standard civil jury instruction.

Does either counsel object to that being Instruction No. 4?

MR. BLAIR: No.

MR. HASKEN: No.

THE COURT: The Court has before it as proposed Instruction No. 5 an instruction based on MAI 2.04. It's the instruction directing the 3344 jurors of how to return their verdict. It's a standard civil jury instruction.

Does either side object to that being Instruction No. 5?

MR. BLAIR: No, your Honor.

MR. HASKEN: No.

THE COURT: The Court has before it as proposed jury instruction No. 6 an instruction based an MAI 3.01. It is the general instruction with regard to the burden of proof. It includes both a paragraph on the

burden of proof to find Monsanto liable and then a separate paragraph on the different burden of proof that applies to punitive damages.

Does either counsel object to this being Instruction No. 6?

MR. BLAIR: No.

MR. HASKEN: No.

THE COURT: All right. The Court has before it as proposed Instruction No. 7, the first verdict directing instruction. It's based on MAI 25.04, modified by MAI 19.01. It incorporates the ruling of Carlson v. Kmart Corporation. It is a verdict director with regard to the plaintiff's product defect strict liability claim.

[3345] Other than—and I'll have Monsanto's objection to all of the instructions based on their directed verdict be a running objections. So I'll ask you, other than that, does either counsel object to this being Instruction No. 7?

MR. BLAIR: No.

MR. HASKEN: No.

THE COURT: All right. The Court has before it as proposed Instruction No. 8 a converse instruction, Instruction No. 7 submitted by the defense based on MAI 33.01.

Does either side object to this being Instruction No. 8?

MR. BLAIR: No, your Honor.

MR. HASKEN: No.

THE COURT: The Court has before it as proposed Instruction No. 9 the second verdict director. It is tied to plaintiff's strict liability product defect claim. It's

based on MAI 25.05, modified by MAI 19.01 and the Carlson case.

Does either counsel object to this being instruction No. 9?

MR. BLAIR: No.

MR. HASKEN: No.

THE COURT: All right. The Court has before [3346] it as Instruction No. 10 an instruction submitted by the defendant based on 33.01. It's a converse of Instruction No. 9.

Does either counsel object to be that being Instruction No. 10?

MR. BLAIR: No.

MR. HASKEN: No.

THE COURT: All right. The Court has before it as Instruction No. 11 an instruction based on MAI 25.09, modified by 19.01 and 11.07, submitted by the plaintiff. It is a verdict director for defendant's negligence count and covers two areas of negligent theories, the failure to—well, it covers the two remaining theories of negligence in this case. It defines both the terms "negligent" and "ordinary care" based on the discussions we had yesterday.

Does either counsel object to that being Instruction No. 11?

MR. BLAIR: No, and I'd also note for the record the agreement between the parties to use the definitional instruction in this.

THE COURT: Any objection?

MR. HASKEN: No objection.

THE COURT: That will be No. 11.

[3347] The Court has before it as Instruction No. 12 the converse of Instruction No. 11 based on 33.01 prepared by the defense.

Does either counsel object to this being Instruction No. 12?

MR. BLAIR: No.

MR. HASKEN: No.

THE COURT: The Court has before it as proposed Instruction No. 13, an instruction submitted by the plaintiff based on MAI 4.01. It is the instruction that tells the jurors how to calculate damages if they find liability.

Does either counsel object to this being Instruction No. 13?

MR. BLAIR: No.

MR. HASKEN: No.

THE COURT: All right. The Court has before it as proposed Instruction No. 14 an instruction based on MAI 10.07. It is the instruction that tells them about how they would determine any punitive damages. I believe the cross-reference in the first paragraph should be to Instruction No. 12. Instruction No. 11. 12 is the converse.

MR. HASKEN: Yes, 11.

THE COURT: It should be to Instruction [3348] No. 11. I have added the definition of ordinary care copied from the previous instruction since it's also used in this instruction.

Does either counsel object to that being Instruction No. 14?

MR. BLAIR: No and both sides agree to that modification of the definition.

MR. HASKEN: No objection.

THE COURT: All right. The Court has before it as proposed Instruction No. 15, a converse of the previous instruction. I'm assuming that this cross-reference should actually be to 14, correct, not to 11?

MR. BLAIR: It should.

MR. HASKEN: I think it should be to 11.

THE COURT: Let's go off the record for one second.

(Discussion off the record.)

THE COURT: All right. The Court has before it as proposed Instruction No. 15, the converse of Instruction No. 14, prepared by the defense. The cross-reference in the first paragraph should be to Instruction No. 14.

Does either counsel object to this being Instruction No. 15?

[3349] MR. BLAIR: No, Judge.

MR. HASKEN: No.

THE COURT: The Court now has the verdict forms in this case. The verdict forms give the options of finding either for the plaintiff or the defendant under Parts A, B and C, the three counts in this case.

Part D of this form is for them to assess an amount of compensatory damages if they find liability under any of those counts, and Part E allows them to find that Monsanto is or is not liable for punitive damages, and then Part F has them assess an amount

of punitive damages, and there's lines for up to 12 jurors to sign.

Have each counselor reviewed the verdict form and is there any objections to the verdict form?

MR. BLAIR: Yes, and no objection.

MR. HASKEN: Yes, and no objection.

THE COURT: All right. Thank you both.

(Discussion off the record.)

THE COURT: All right. We are in the courtroom with the attorneys outside the presence of the jury. We're talking about objections to the closing slides for each side.

I want to first take up plaintiff's …

* * *

Jury Instructions, *Durnell v. Monsanto Co.*, No. 1922-CC00221 (Mo. Cir. Ct. Oct. 20, 2023)

INSTRUCTION NO. 1

(1) GENERAL - JURY INSTRUCTIONS

This instruction and other instructions that I will read to you near the end of trial are in writing. All of the written instructions will be handed to you for guidance in your deliberation when you retire to the jury room. They will direct you concerning the legal rights and duties of the parties and how the law applies to the facts that you will be called upon to decide.

(2) OPENING STATEMENTS

The trial may begin with opening statements by the lawyers as to what they expect the evidence to be. What is said in opening statements is not to be considered as proof of fact. However, if a lawyer admits some fact on behalf of a client, the other party is relieved of the responsibility of proving that fact.

(3) EVIDENCE

After the opening statements, the Plaintiffs will introduce evidence. The defendants may then introduce evidence. There may be rebuttal evidence after that. The evidence may include the testimony of witnesses who may appear personally in court, the testimony of witnesses who may not appear personally but whose testimony may be read or shown to you and exhibits, such as pictures, documents and other objects. Testimony of witnesses shown to you by video may contain pauses or "glitches" due to editing or to conform to rulings of the court.

(4) OBJECTIONS

There may be some questions asked or evidence offered by the parties to which objections may be made. If I overrule an objection, you may consider that evidence when you deliberate on the case. If I sustain an objection, then that matter and any matter I order to be stricken is excluded as evidence and must not be considered by you in your deliberations.

(5) RULINGS OF LAW AND BENCH CONFERENCES

While the trial is in progress, I may be called upon to determine questions of law and to decide whether certain matters may be considered by you under the law. No ruling or remark that I make at any time during the trial will be intended or should be considered by you to indicate my opinion as to the facts. There may be times when the lawyers come up and talk to me out of your hearing. This will be done in order to permit me to decide questions of law. These conversations will be out of your hearing to prevent issue of law, which I must decide, from being mixed with issue of fact, which you must decide. We will not be trying to keep secrets from you.

(6) OPEN MINDS AND NO PRELIMINARY DISCUSSIONS

Justice requires that you keep an open mind about the case until the parties have had an opportunity to present their cases to you. You must not make up your mind about the case until all evidence, and the closing arguments of the parties, have been presented to you. You must not comment on or discuss with anyone, not even among yourselves, what you hear or learn in trial until the case is

concluded and then only when all of you are present in the jury room for deliberation of the case under the final instructions I give to you.

(7) OUTSIDE INFLUENCES

During the trial you should not remain in the presence of anyone who is discussing the case when the court is not in session. Otherwise, some outside influence or comment might influence a juror to make up his or her mind prematurely and be the cause of a possible injustice. For this reason, the lawyers and their clients are not permitted to talk with you until the trial is completed.

(8) PROHIBITION OF JUROR RESEARCH OR COMMUNICATION ABOUT THIS CASE

Your deliberations and verdict must be based only on the evidence and information presented to you in the proceedings in this courtroom. Rules of evidence and procedure have developed over many years to make sure that all parties in all cases are treated fairly and in the same way and to make sure that all jurors make a decision in this case based solely on the evidence allowed under those rules and which you hear or see in this courtroom. It would be unfair to the parties to have any juror influence by information that has not been allowed into evidence in accordance with those rules of evidence and procedure, or to have a juror influenced through the opinion of someone who has not been sworn as a juror in this case and heard evidence properly presented here.

Therefore, you must not conduct your own research or investigation into any issues in this case. You must not visit the scene of any incident described in this case. You must not conduct any independent

research or obtain any information of any type by reference to any person, textbooks, dictionaries, magazines, use of the Internet, or any other means about any issues in this case, or any witnesses, parties, lawyers, medical or scientific terminology, or evidence that is in any way involved in this trial. You are not permitted to communicate, use a cell phone, record, photograph, video, e-mail, blog, tweet, text, or post anything about this trial or your thoughts or opinions about any issue in this case to any other person or to the Internet, "face book", "myspace", "twitter", or any other personal or public web site during the course of this trial or at any time before the formal acceptance of your verdict by me at the end of the case.

If any of you break these rules, it may result in a miscarriage of justice and a new trial may be required.

(9) FINAL INSTRUCTIONS

After all of the evidence has been presented, you will receive my final instructions. They will guide your deliberations on the issues of fact you are to decide in arriving at your verdict.

(10) CLOSING ARGUMENTS

After you have received my final instructions, the lawyers may make closing arguments. In closing arguments, the lawyers have the opportunity to direction your attention to the significance of the evidence and to suggest conclusions that may be drawn from the evidence.

(11) DELIBERATIONS

You will then retire to the jury room for your deliberations. It will be your duty to select a

foreperson, to decide the facts and to arrive at a verdict. When you enter into your deliberations you will be considering the testimony of witnesses as well as other evidence. In considering the weight and value of the testimony of any witness, you may take into consideration the appearance, attitude and behavior of the witness, the interest of the witness in the outcome of the case, the relation of the witness to any of the parties, the inclination of the witness to speak truthfully or untruthfully and the probability or improbability of the witness' statements. You may give any evidence or the testimony of any witness such weight and value as you believe that evidence or testimony is entitled to receive.

(12) NOTETAKING

Each of you may take notes in this case, but you are not required to do so. I will give you notebooks. Any notes you take must be in those notebooks only. You may not take any notes out of the courtroom before the case is submitted to you for your deliberations. No one will read your notes while you are out of the courtroom. If you choose to take notes, do not allow your notetaking to interfere with your ability to observe the evidence and witnesses as they are presented.

Do not discuss or share your notes with anyone until you begin your deliberations. During the deliberations, if you choose to do so, you may use your notes and discuss them with other jurors. Notes taken during trial are not evidence. You should not assume that your notes, or those of other jurors, are more accurate than your own recollection or the recollection of other jurors.

After you reach your verdict your notes will be collected and destroyed. No one will be allowed to read them.

MAI 2.01 (8th ed) [2022 Revision] Instruction for All Cases.

Submitted by Plaintiff.

INSTRUCTION NO. 2

As you remember, the court read to you a general instruction before the presentation of any evidence in this case. The court will not repeat that instruction at this time. However, that instruction and the additional instructions, to be given to you now, constitute the law of this case and each such instruction is equally binding upon you.

You should consider each instruction in light of and in harmony with the other instructions, and you should apply the instructions as a whole to the evidence. Words or phrases which are not otherwise defined for you as part of these instructions should be given their ordinary meaning. The order in which the instructions are given is no indication of their relative importance. All of the instructions are in writing and will be available to you in the jury room.

MAI 2.03 [2005 Revision] Order of Instructions.

Submitted by Plaintiff.

INSTRUCTION NO. 3

Justice depends on careful and fair decisions based on a conscious and unbiased analysis of the evidence in this case. It is the duty of every juror to determine the facts based upon the evidence presented at trial. Automatic or reflexive responses

influenced by conscious or unconscious preconceptions or stereotypes should not enter into that determination. Bias based upon factors such as race, sex, gender, gender identity, religion, national origin, ethnicity, disability, age, sexual orientation, or marital status has no role in the pursuit of justice. Your conclusions in this case should be based on a fair and unbiased consideration of the evidence and respect for the views of other jurors whose backgrounds and perspectives may be different from yours.

MAI 2.03(A) [2020 New] (8th ed), Mo. Approved Jury Instr. (Civil) 2.03(A) (8th ed).

Submitted by Plaintiff.

INSTRUCTION NO. 4

In returning your verdict you will form beliefs as to the facts. The court does not mean to assume as true any fact referred to in these instructions but leaves it to you to determine what the facts are.

MAI 2.02 [1980 Revision] Facts Not Assumed.

Submitted by Plaintiff.

INSTRUCTION NO. 5

The verdict form included in these instructions contains directions for completion and will allow you to return the permissible verdict in this case. Nine or more of you must agree in order to return any verdict. A verdict must be signed by each juror who agrees to it.

2.04 [1981 Revision] Return of Verdict.

Submitted by Plaintiff.

INSTRUCTION NO. 6

Your verdict will depend on the facts you believe after considering all the evidence. The party who relies upon any disputed fact has the burden to cause you to believe that such fact is more likely true than not true. In determining whether or not you believe any fact, you must consider only the evidence and the reasonable conclusions you draw from the evidence.

There is a different burden of proof that applies to punitive damages. A party seeking to recover punitive damages has the burden to cause you to believe that the evidence has clearly and convincingly established the facts necessary to recover punitive damages.

3.01 [2016 Revision] General (Approved July 13, 2015; Effective January 1, 2016).

Submitted by Plaintiff.

INSTRUCTION NO. [handwritten: 7]

In Part A of your verdict, you must find in favor of Plaintiff John Durnell and against Defendant Monsanto Company on Plaintiffs claim for compensatory damages based on product defect if you believe:

First, Defendant Monsanto sold Roundup in the course of Defendant's business, and

Second, Roundup was then in a defective condition unreasonably dangerous when put to a reasonably anticipated use, and

Third, Roundup was used in a manner reasonably anticipated, and

Fourth, such defective condition as existed when Roundup was sold directly caused or directly contributed to cause damage to Plaintiff John Durnell.

MAI 25.04 [1978 Revision] Strict Liability-Product Defect (Modified for MAI 19.01).

***Carlson v. K-Mart Corp.*, 979 S.W.2d 145 (Mo. banc. 1998).**

Submitted by Plaintiff.

INSTRUCTION NO. [handwritten: 8]

In Part A of your verdict, you must find in favor of Defendant Monsanto Company and against Plaintiff John Durnell on Plaintiffs claim for compensatory damages based on product defect unless you believe:

First, Defendant Monsanto sold Roundup in the course of Defendant's business, and

Second, Roundup was then in a defective condition unreasonably dangerous when put to a reasonably anticipated use, and

Third, Roundup was used in a manner reasonably anticipated, and

Fourth, such defective condition as existed when Roundup was sold directly caused or directly contributed to cause damage to Plaintiff John Durnell.

33.01 [2012 Revision] General Comment.

Submitted by Defendant.

INSTRUCTION NO. [handwritten: 9]

In Part B of your verdict, you must find in favor of Plaintiff John Durnell and against Defendant Monsanto Company on Plaintiff's claim for

compensatory damages based on product defect - failure to warn if you believe:

First, Defendant Monsanto sold Roundup in the course of Defendant's business, and

Second, Roundup was then unreasonably dangerous when put to a reasonably anticipated use without knowledge of its characteristics, and

Third, Defendant Monsanto did not give an adequate warning of the danger, and

Fourth, the product was used in a manner reasonably anticipated, and

Fifth, Roundup being sold without an adequate warning directly caused or directly contributed to cause damage to Plaintiff John Durnell.

25.05 [1990 New] Strict Liability-Failure to Warn (Modified for MAI 19.01).

***Carlson v. K-Mart Corp.*, 979 S.W.2d 145 (Mo. banc. 1998).**

Submitted by Plaintiff.

INSTRUCTION NO. [handwritten: 10]

In Part B of your verdict, you must find in favor of Defendant Monsanto Company and against Plaintiff John Durnell on Plaintiff's claim for compensatory damages based on product defect - failure to warn unless you believe:

First, Defendant Monsanto sold Roundup in the course of Defendant's business, and

Second, Roundup was then unreasonably dangerous when put to a reasonably anticipated use without knowledge of its characteristics, and

Third, Defendant Monsanto did not give an adequate warning of the danger, and

Fourth, the product was used in a manner reasonably anticipated, and

Fifth, Roundup being sold without an adequate warning directly caused or directly contributed to cause damage to Plaintiff John Durnell.

33.01 [2012 Revision] General Comment.

Submitted by Defendant.

INSTRUCTION NO. [handwritten: 11]

In Part C of your verdict, you must find in favor of Plaintiff John Durnell and against Defendant Monsanto Company on Plaintiff's claim for compensatory damages based on negligence if you believe:

First, Defendant Monsanto manufactured Roundup, and

Second, Roundup was carcinogenic, and

Third, Defendant Monsanto failed to use ordinary care to design Roundup to be reasonably safe or adequately warn of the risk of harm from such carcinogenicity, and

Fourth, such failure, in one or more of the respects submitted in paragraph Third, directly caused or directly contributed to cause damage to Plaintiff John Durnell.

The term "negligent" or "negligence" as used in these instructions means the failure to use ordinary care. The phrase "ordinary care" means that degree of care that an ordinarily careful product designer and

manufacturer would use under the same or similar circumstances.

MAI 25.09 [1990 New] Product Liability-Negligent Manufacture, Design, or Failure to Warn (Modified for MAI 19.01); *Carlson v. K-Mart Corp.,* 979 S.W.2d 145 (Mo. banc. 1998).

MAI 11.07 [1996 Revision] Negligence and Ordinary Care Combined. Comment: Where these terms are used in only one instruction, this definition may be added to the instruction using the term. If they are used in more than one instruction, the definition should be given as a separate instruction.

Submitted by Plaintiff.

INSTRUCTION NO. [handwritten: 12]

In Part C of your verdict, you must find if favor of Defendant Monsanto Company and against Plaintiff John Durnell on Plaintiff's claim for compensatory damages based on negligence unless you believe:

First, Defendant Monsanto manufactured Roundup, and

Second, Roundup was carcinogenic, and

Third, Defendant Monsanto failed to use ordinary care to design Roundup to be reasonably safe or adequately warn of the risk of harm from such carcinogenicity, and

Fourth, such failure, in one or more of the respects submitted in paragraph Third, directly caused or directly contributed to cause damage to Plaintiff John Durnell.

The term "negligent" or "negligence" as used in these instructions means the failure to use ordinary care. The phrase "ordinary care" means that degree of care that an ordinarily careful product designer and manufacturer would use under the same or similar circumstances.

33.01 [2012 Revision] General Comment.

Submitted by Defendant.

INSTRUCTION NO. [handwritten: 13]

If you find in favor of Plaintiff John Durnell in Part A, or Part B, or Part C of your verdict, then in Part D of your verdict you must award Plaintiff John Durnell such sum as you believe will fairly and justly compensate Plaintiff John Durnell for any damages you believe he sustained and is reasonably certain to sustain in the future that Roundup directly caused or directly contributed to cause.

MAI 4.01 [2002 Revision] Personal and Property (Modified for MAI 19.01).

Submitted by Plaintiff.

INSTRUCTION NO. [handwritten: 14]

If you find in favor of Plaintiff John Durnell and against Defendant Monsanto Company for compensatory damages under Instruction Number [handwritten: 11], and if you believe that:

First, Defendant Monsanto failed to design Roundup to be reasonably safe or adequately warn of the risk of harm that Roundup is carcinogenic, and

Second, Defendant Monsanto knew or had information from which Defendant Monsanto, in the exercise of ordinary care, should have known that

such conduct created a high degree of probability of injury, and

Third, Defendant Monsanto thereby showed complete indifference to or conscious disregard for the safety of others,

then in addition to any damages to which you find Plaintiff John Durnell entitled under Instruction Number _ you may award Plaintiff John Durnell an additional amount as punitive damages in such sum as you believe will serve to punish Defendant Monsanto and to deter Defendant Monsanto and others from like conduct.

You may consider harm to others in determining whether Defendant Monsanto's conduct showed complete indifference to or conscious disregard for the safety of others. However, in determining the amount of any punitive damage award, you must not include damages for harm to others who are not parties to this case.

The phrase "ordinary care" means that degree of care that an ordinarily careful product designer and manufacturer would use under the same or similar circumstances.

Mo. Approved Jury Instr. (Civil) 10.07 (8th ed), Mo. Approved Jury Instr. (Civil) 10.7 (8th ed).

Submitted by Plaintiff.

INSTRUCTION NO. [handwritten: 15]

You must not award Plaintiff John Durnell an additional amount as punitive damages under Instruction Number [handwritten: 14], unless you believe that:

First, Defendant Monsanto failed to design Roundup to be reasonably safe or adequately warn of the risk of harm that Roundup is carcinogenic, and

Second, Defendant Monsanto knew or had information from which Defendant Monsanto, in the exercise of ordinary care, should have known that such conduct created a high degree of probability of injury, and

Third, Defendant Monsanto thereby showed complete indifference to or conscious disregard for the safety of others.

The phrase "ordinary care" means that degree of care that an ordinarily careful product designer and manufacturer would use under the same or similar circumstances.

33.16(4) [1991 New] Conversing Exemplary Damages.

Submitted by Defendant.

INSTRUCTION NO. [handwritten: 16]

The existence or non-existence of any type of insurance, benefit, right or obligation of repayment, public or private, must not be considered or discussed by any of you in arriving at your verdict. Such matters are not relevant to any of the issues you must decide in this case.

Verdict Form, *Durnell v. Monsanto Co.*, No. 1922-CC00221 (Mo. Cir. Ct. Oct. 20, 2023)

Note: Complete this form by writing in the name required by your verdict.

Part A

On the claim of Plaintiff John Durnell against Defendant Monsanto Company for compensatory damages based on product defect, we, the undersigned jurors, find in favor of:

Plaintiff John Durnell or [Defendant Monsanto Company]

Part B

On the claim of Plaintiff John Durnell against Defendant Monsanto Company for compensatory damages based on product defect - failure to warn, we, the undersigned jurors, find in favor of:

[Plaintiff John Durnell] or Defendant Monsanto Company

Part C

On the claim of Plaintiff John Durnell against Defendant Monsanto Company for compensatory damages based on negligence, we, the undersigned jurors, find in favor of:

Plaintiff John Durnell or [Defendant Monsanto Company]

Part D

Note: Complete the following paragraph only if one or more of the above findings is in favor of Plaintiff John Durnell.

We, the undersigned jurors, assess the compensatory damages of Plaintiff John Durnell as follows:

$[handwritten: 1,250,000] (*stating the amount).*

Part E

Note: Complete the following paragraph only if you found in favor of Plaintiff John Durnell and against Defendant Monsanto Company on his claim for compensatory damages in Part C above.

We, the undersigned jurors, find that Defendant Monsanto Company [handwritten: is not] liable for punitive damages. ("is" or "is not")

Part F

Note: Complete the following paragraph only if you found in favor of Plaintiff John Durnell on his claim for punitive damages against Defendant Monsanto Company.

We, the undersigned jurors, assess punitive damages against Defendant Monsanto Company at:

$ [handwritten: none]

(stating the amount or, if none, write the word, "none").

Note: All jurors who agree to the above must legibly sign or print their names below.

* * *

Judgment, *Durnell v. Monsanto Co.*, No. 1922-CC00221 (Mo. Cir. Ct. entered Oct. 26, 2023)

The cause of Plaintiff John Durnell against Defendant Monsanto Company was tried to a jury from October 3, 2023 through October 20, 2023. The jury returned a verdict as follows:

1. In favor of Defendant Monsanto Company on Plaintiff John Durnell's claim for compensatory damages based on product defect;

2. In favor of Plaintiff John Durnell on Plaintiff's claim for compensatory damages based on product defect - failure to warn;

3. In favor of Defendant Monsanto Company on Plaintiff John Durnell's claim for compensatory damages based on negligence;

4. The jury assessed Plaintiff's compensatory damages at $1,250,000 (one million two hundred fifty thousand dollars);

5. The jury found that Monsanto Company is not liable for punitive damages.

Now therefore, it is ORDERED, ADJUDGED, and DECREED as follows: In accordance with the verdict of the jury set forth above, Plaintiff John Durnell shall have and recover from Defendant Monsanto Company the sum of $1,250,000 (one million two hundred fifty thousand dollars) as and for compensatory damages, together with post judgment interest as provided by law.

Costs assessed against Monsanto Company.

All matters and things and controversy as between Plaintiff John Durnell and Defendant

Monsanto Company having been resolved by the aforementioned jury verdict, pursuant to S.Ct. Rule 74.01(b) of the Missouri Rules of Civil Procedure, this Court finds that this Judgment, and each Part thereof, be, and hereby is, certified as final for purposes of appeal and that there is no just reason for delay.

SO ORDERED:

[handwritten: signature]
Timothy J. Boyer
Circuit Judge
Division 8

[handwritten: June 24], 202[handwritten: 4]

Notice of Appeal, *Durnell v. Monsanto Co.*, No. 1922-CC00221 (Mo. Cir. Ct. Feb. 7, 2024)

* * *

Notice of Appeal to Missouri Court of Appeals - Civil

District: ☐ Western ☒ Eastern ☐ Southern

Notice is given that Monsanto Company appeals from the judgment entered in this action on 10/26/2023 and the 1/19/2024 order denying Monsanto's post-trial motion for judgment notwithstanding the verdict and in the alternative new trial.	
Appellant's Name * * * Monsanto Company	Respondent's Name * * * John L. Durnell
* * *	
Brief Description of Case * * * See Attachment B	
Issues Expected To Be Raised On Appeal * * * See Attachment B	
Docket Fee Information ☒ The docket fee in the amount of $70.00 is being tendered with this notice of appeal. * * *	
Signature of Attorney or Appellant /s/ Timothy J. Hasken	Date 1/29/2024
* * *	

Memorandum of Clerk

* * *

I have transmitted a copy of the notice of appeal to the clerk of the Court of Appeals, [handwritten: Eastern] District.

☑ Docket fee in the amount of $70.00 was received by this clerk on [handwritten: 1-26-2024] (date) which will be disbursed as required by statute.

☐ No docket fee was received

[handwritten: 2-7-2024]	Thomas Kloeppinger
Date	Clerk

* * *

ATTACHMENT B

BRIEF DESCRIPTION OF THE CASE

Plaintiff John L. Durnell filed a lawsuit against Defendant Monsanto Company, claiming that his exposure to Monsanto's Roundup herbicide caused his non-Hodgkin's lymphoma.

Monsanto denied that Roundup causes non-Hodgkin's lymphoma or that Roundup caused Plaintiffs injuries. At trial, Monsanto argued that Plaintiff failed to prove that Roundup exposure caused his non-Hodgkin's lymphoma and presented evidence that the body of scientific and regulatory evidence does not support this allegation.

Plaintiff submitted to the jury claims for strict liability - product defect, strict liability - failure to warn, negligence, and punitive damages against Monsanto. After a three-week trial, the jury returned a verdict for Plaintiff on his strict liability - failure to

warn claim and awarded him $1,250,000. The jury found for Monsanto on Plaintiffs claims for strict liability - product defect, negligence, and punitive damages. On October 26, 2023, the trial court entered judgment consistent with the verdict.

On November 24, 2023, Monsanto filed its post-judgment motion for judgment notwithstanding the verdict and in the alternative new trial. On January 19, 2024, the trial court denied Monsanto's post-judgment motion and entered judgment.

ISSUES EXPECTED TO BE RAISED ON APPEAL

Whether the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA") preempts Plaintiff's strict liability - failure to warn claim.

Whether Plaintiff submitted adequate proof of causation.

Whether the court erred in admitting expert causation testimony from Plaintiff's retained experts, including Dr. Kenneth Spaeth and Dr. Richard DeGrandchamp.

Whether the court erred in precluding Monsanto from offering testimony from Plaintiff's treating physician Dr. Hsiao-Ou Shawn Hu's about his treatment-related observations about the causes of non-Hodgkin's lymphoma.

Whether the court erred in precluding Monsanto company witness Dr. Donna Farmer's testimony regarding her personal use of Roundup and belief that Roundup does not cause cancer.

Whether the court erred in admitting evidence that impurities, contaminants, or inert ingredients in Roundup are carcinogenic.

Whether the court made numerous other evidentiary errors in admitting prejudicial evidence with no direct relevance to the claims and defenses in the case depriving Monsanto of a fair trial, including permitting evidence concerning glyphosate in food and urine, poly-chlorinated biphenyls, Dr. Paul Wright and Industrial Bio-Test, and warnings for Roundup products used in agricultural and workplace settings.

Whether the court erred in denying Monsanto's post-trial motion.

Whether the evidence was insufficient to support the verdict.

* * *

Appellant's Amended Brief, *Durnell v. Monsanto Co.*, No. ED112410 (Mo. Ct. App. Sept. 10, 2024)

* * *

Introduction

Defendant Monsanto manufactures Roundup, an important and widely used broadleaf pesticide. Plaintiff John Durnell sued Monsanto, alleging that Roundup caused him to contract cancer and that Monsanto failed to warn him of that supposed risk. The jury found in Durnell's favor.

Monsanto, however, is entitled to judgment because, as a federal appellate court recently held, federal law preempts Plaintiff's strict-liability failure-to-warn claim, the only claim at issue.

Under the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA") a pesticide must be registered by the Environmental Protection Agency ("EPA") before it may be sold. When applying for registration, a pesticide manufacturer must submit a draft warning label to EPA, which may approve the label only after determining that it complies with federal labeling requirements. Once a label has been approved by EPA, it may not be changed without prior agency approval. EPA has never required the Roundup label to include a cancer warning.

FIFRA expressly preempts all state-law labeling requirements that are not identical to federal labeling requirements. Because federal law does not require Roundup to carry a cancer warning and prohibits Monsanto from giving such a warning, FIFRA expressly preempts Plaintiff's failure-to-warn claim.

Moreover, because federal law prohibits Monsanto from unilaterally adding a cancer warning, Plaintiff's claim is also impliedly preempted. Monsanto is therefore entitled to judgment as a matter of law.

Jurisdictional Statement

Defendant-Appellant Monsanto Co. appeals from a jury verdict rendered in the Circuit Court of the City of St. Louis that awards Plaintiff John Durnell $1,250,000 in damages. The verdict was returned on October 20, 2023. 5 Tr. 3534:8-3535:6.

On October 22, 2023, the parties submitted a proposed order of judgment to the trial court for its signature.

On October 26, 2023, the trial court made a docket entry titled "Judgment" (D146 pp. 3-4; App. 7-8) but, it was subsequently discovered, did not actually sign the corresponding order that had been submitted by the parties.

On November 24, 2023, Monsanto moved for judgment notwithstanding the verdict. On January 19, 2024, the trial court entered a signed "Order and Judgment" denying Monsanto's post-trial motion. D149 p. 1; App. 9.

On January 26, 2024, Monsanto timely filed its notice of appeal, in which it identified the decisions from which it was appealing as the judgments entered on October 26, 2023, and on January 19, 2024, i.e., the "judgment" seemingly entered soon after the adverse jury verdict and the "judgment" entered after denial of Monsanto's subsequent post-trial motion. D143 pp. 1-3; D146 pp. 3-4; App. 7-8.

On June 17, 2024, this Court entered an order to show cause. Stating that the October 26, 2023 docket entry "is not a signed, written judgment" and thus "is not a judgment complying with Rule 74.01(a)," the Court directed Monsanto "to either file a supplemental legal file containing a copy of a judgment or show cause on or before July 3, 2024, why this appeal should not be dismissed for lack of a final, appealable judgment."

After receiving the Court's order, Monsanto contacted the trial court and determined that, notwithstanding the October 26, 2023 docket entry, the proposed order submitted by the parties on October 22, 2023 had never been signed.

On June 24, 2024, the trial court signed the previously submitted proposed judgment at Monsanto's renewed request.

On June 25, 2024, Monsanto filed a supplemental legal file containing the June 24, 2024 judgment. D150 pp. 1-2; App. 10-11.

On June 26, 2024, Monsanto filed an answer to this Court's June 17, 2024 order to show cause, advising the Court of the foregoing facts.

On July 2, 2024, this Court entered an order in which it acknowledged that "Appellant has filed a supplemental legal file containing a signed, written judgment that was entered on June 24, 2024" and found that "[i]t now appears that Appellant has appealed from a final, appealable judgement."

This Court has jurisdiction over Monsanto's appeal under Mo. Const. art. V, § 13 because the City of St. Louis is within the geographical boundaries of

this district pursuant to Mo. Rev. Stat. § 477.050 and the case does not fall within the supreme court's exclusive jurisdiction under Mo. Const. art. V, § 3.

Statement of Facts

A. Background

Plaintiff John Durnell was diagnosed with non-Hodgkins Lymphoma ("NHL"), a type of cancer, in 2018. 4 Tr. 2646:13. NHL is "highly treatable" and Durnell has been in remission for more than five years. 4 Tr. 2672:11-17.

NHL "is one of the ten most-common cancers in the United States." 4 Tr. 2638:16. More than 80,000 people are diagnosed with it each year. 5 Tr. 3148:19-21. The risk of contracting NHL is higher in white men than others, and the risk increases with age. 4 Tr. 2647:13-2648:20; 5 Tr. 3218:5-3219:18.

The risk of NHL increases with age because—unlike cancers with exogenous causes, such as lung and skin cancers which are known to be caused by tobacco smoke and solar radiation respectively—NHL is typically caused by random, naturally occurring genetic mutations that gradually accumulate as the body's cells replicate over the course of one's life. Indeed, greater than 95 percent of NHL cases are attributable to random replication errors. 4 Tr. 2985:21-2986:4.[1]

Although Plaintiff is a white man and was 67 years old when diagnosed with NHL (4 Tr. 2563:3-6,

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[1] Approximately one percent of NHL cases are attributable to hereditary mutations and approximately four percent are attributable to exogenous causes such as HIV and the Epstein-Barr virus. 4 Tr. 2985:21-2986:2.

2648:21-22), he claims that his NHL was caused by Roundup (D2 ¶ 2), which he used at home and around his neighborhood. 4 Tr. 2467:12-2468:4, 2474:20-2475:1, 2551:23-2552:6, 2521:19-2523:6, 2547:2-2550:24, 2554:18-2555:10.

The active ingredient in Roundup is glyphosate (pronounced "GLY-fuhsate"). EPA, Notice of Registration: Glyphosate (Mot. Judicial Notice, Ex. A.) Glyphosate has been studied extensively for decades. *See infra at* 50-52. As the United States Court of Appeals for the Ninth Circuit observed last year, "[n]o agency or regulatory body" anywhere in the world "has concluded that glyphosate poses a carcinogenic risk." *Nat'l Ass'n of Wheat Growers v. Bonta*, 85 F.4th 1263, 1269 (9th Cir. 2023). Consistent with this international consensus and based on its own review of the underlying science, EPA has repeatedly concluded that "glyphosate is not likely to be carcinogenic to humans." EPA, Glyphosate, https://www.epa.gov/ingredients-used-pesticide-products/glyphosate (updated Sept. 11, 2023) (Mot. Judicial Notice, Ex. K).[2]

FIFRA requires that a pesticide be registered by EPA before it may be sold. 7 U.S.C. § 136a(a). For a pesticide to be registered, its manufacturer must submit testing data and a proposed warning label to the agency. 7 U.S.C. §§ 136a(c)(1)(C) & (c)(2). EPA may not register a pesticide unless it determines that the proposed label "compl[ies] with the requirements

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[2] Plaintiff disagrees but whether glyphosate actually causes cancer is not at issue in this appeal, which focuses exclusively on whether federal law requires, permits, or forbids Monsanto to include a cancer warning on Roundup labeling.

of [FIFRA]." 7 U.S.C. § 136a(c)(5)(B). Once EPA registers a pesticide, "any modification" to its labeling "must be approved by the Agency before the product, as modified, may legally be distributed or sold." 40 C.F.R. § 152.44(a). In short, because "[s]pecific statements pertaining to the hazards of the product and its uses must be approved by the Agency" (40 C.F.R. § 156.70(c)), a manufacturer may sell a pesticide only "with the … labeling currently approved by the Agency." 40 C.F.R. § 152.130(a). Furthermore, because the statute is designed to establish national "[u]niformity" in pesticide labeling, FIFRA preempts all other labeling requirements, declaring that states "shall not impose or continue in effect any requirements for labeling … in addition to or different from those required under" federal law. 7 U.S.C. § 136v(b).

EPA first registered Roundup in 1974. EPA, Notice of Registration: Glyphosate (Mot. Judicial Notice, Ex. A). Roundup comes in various formulations, each of which has been registered by EPA. EPA has never required that any Roundup product carry a cancer warning. To the contrary, the agency has repeatedly rejected any such warning, expressly advising manufacturers of Roundup and other glyphosate-based pesticides that such a warning would "constitute a false and misleading statement." D30 pp. 1-2.

B. Procedural History

Plaintiff's complaint asserted multiple claims, including negligence, punitive damages, and the strict-liability failure-to-warn claim at issue here. D2 ¶¶ 196-231.

Monsanto moved for summary judgment, arguing that Plaintiff's failure-to-warn claim is expressly and impliedly preempted by federal law. D7 pp. 8-21. The trial court denied Monsanto's motion. D94 pp. 1-5; App. 1-5.

The case was tried to a jury. The jury found for Monsanto on all of Plaintiff's claims other than his strict-liability failure-to-warn claim. 5 Tr. 3534:8-3535:6; accord D150 pp. 1-2: App. 10-11. On that claim, Plaintiff argued—and the jury evidently agreed—that Monsanto should be held liable because it failed to "go *above and beyond*" what federal "regulations" require (5 Tr. 3418:11-17 (emphasis added); *accord id.* at 3422:17-21) and failed to include "a warning about carcinogenicity and glyphosate" on the Roundup label. 5 Tr. 3421:25-3422:14. The jury awarded Plaintiff $1,250,000 in damages on his strict-liability failure-to-warn claim. 5 Tr. 3534:8-3535:6; *accord* D150 pp. 1-2; App. 10-11.

Monsanto moved for judgment notwithstanding the verdict, again arguing that Plaintiff's claim is expressly and impliedly preempted by federal law. D111 pp. 4-19. The trial court denied Monsanto's post-trial motion (D149 p. 1; App. 9) and, as recounted above (*see supra* at 13-14), entered final judgment in Plaintiff's favor. D150 pp. 1-2; App. 10-11.

Monsanto timely appealed. D143 pp. 1-3.

Monsanto filed its original opening brief on August 9, 2024. Six days later, the United States Court of Appeals for the Third Circuit issued *Schaffner v. Monsanto Corp.*, --- F.4th ----, 2024 WL 3820973 (3d Cir. Aug. 15, 2024), which held, on indistinguishable facts, that federal law preempts a

state-law duty to warn of glyphosate's purported carcinogenicity. In light of *Schaffner*, this Court granted Monsanto leave to file an amended opening brief. August 23, 2024 Order.

Point Relied On

1. The trial court erred in denying Monsanto's motion for summary judgment and motion for judgment notwithstanding the verdict in that the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. §§ 136 *et seq.*, expressly and impliedly preempts Plaintiff's strict-liability failure-to-warn claim.

Schaffner v. Monsanto Corp., --- F.4th ----, 2024 WL 3820973 (3d Cir. 2024);

Mutual Pharmaceutical Co. v. Bartlett, 570 U.S. 472 (2013);

PLIVA, Inc. v. Mensing, 564 U.S. 604 (2011);

Bates v. Dow Agrosciences LLC, 544 U.S. 431 (2005);

U.S. Const. art. VI, cl. 2;

7 U.S.C. § 136(x);

7 U.S.C. § 136(bb);

7 U.S.C. § 136a(c);

7 U.S.C. § 136a-1(g);

7 U.S.C. § 136j(a)(2)(S));

7 U.S.C. § 136v(b);

40 C.F.R. § 152.44(a);

40 C.F.R. § 152.112(f);

40 C.F.R. § 152.130(a),

40 C.F.R. § 156.70(c);

EPA, Interim Registration Review Decision (Glyphosate), Dkt. No. EPAHQ-OPP-2009-0361, Case No. 0178 (Jan. 2020) (D122);

EPA, Draft Human Health Risk Assessment in Support of Registration Review (Glyphosate) (Dec. 12, 2017) (D28);

EPA, Registration Eligibility Decision: Glyphosate, Case No. 0178 (Sept. 1993) (D113).

Standard of Review

"Federal preemption is a question of law this Court reviews *de novo*." *Collector of Winchester v. Charter Commc'ns, Inc.*, 660 S.W.3d 405, 416 (Mo. App. 2022).

Argument

I. The trial court erred in denying Monsanto's motion for summary judgment and motion for judgment notwithstanding the verdict in that the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. §§ 136 *et seq.*, expressly and impliedly preempts Plaintiff's strict-liability failure-to-warn claim.

As United States Court of Appeals for the Third Circuit recently held on indistinguishable facts, Plaintiff's "failure-to-warn claim is preempted." *Schaffner v. Monsanto Corp.*, --- F.4th, 2024 WL 3820973, at *21 (3d Cir. 2024) (reversing judgment on failure-to-warn claim based on Monsanto's failure to warn of glyphosate's purported carcinogenicity).

Federal law preempts state law when Congress "so state[s] in express terms." *Hillsborough Cnty. v. Automated Med. Lab'ys, Inc.*, 471 U.S. 707, 713 (1985). And even when not expressly preempted, state law is impliedly preempted "to the extent of any conflict with a federal statute." *Crosby v. Nat'l Foreign Trade Council*, 530 U.S. 363, 372 (2000); *accord Delana v. CED Sales, Inc.*, 486 S.W.3d 316, 322 (Mo. 2016). In this case, Plaintiff's state-law claim is both expressly and impliedly preempted by the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA"), 7 U.S.C. §§ 136 *et seq.*

A. Plaintiff's failure-to-warn claim is expressly preempted.

FIFRA's express preemption clause, 7 U.S.C. § 136v(b), declares that a state "shall not impose or continue in effect any requirements for labeling … in addition to or different from those required under" federal law. FIFRA's prohibition on additional or different state-law requirements "embrace[s] common-law duties," including the duty to warn, because such duties "qualify as 'requirements for labeling.'" *Bates v. Dow Agrosciences LLC*, 544 U.S. 431, 443, 446-47 (2005) (quoting 7 U.S.C. § 136v(b)).

The dispositive question under § 136v(b) is whether state and federal law impose "parallel requirements." *Schaffner*, 2024 WL 3820973, at *7 (quoting *Bates*, 544 U.S. at 447). Under the "parallel requirements" test, "a state-law labeling requirement is not preempted if it is 'equivalent to a requirement under FIFRA,' while it is preempted if it 'diverges from those set out in FIFRA and its implementing regulations.'" *Id.* (quoting *Bates*, 544 U.S. at 452-53).

Plaintiff's claim and the judgment entered on it rest on the proposition that Missouri law requires Monsanto to warn that glyphosate is carcinogenic. Because there is no such requirement under federal law, the purported state-law duty to warn does not "parallel" the federal labeling requirement and Plaintiff's "failure-to-warn claim is preempted under section 136v(b)." *Schaffner*, 2024 WL 3820973, at *21.

1. Plaintiff's state-law claim would require a warning "in addition to or different from" those required under federal law.

Plaintiff claims that Monsanto is strictly liable under Missouri law because Roundup's EPA-approved labeling "do[es] not contain adequate warnings or instructions concerning the dangerous characteristics of Roundup and specifically, the active ingredient glyphosate." D2 ¶ 198. In particular, says Plaintiff, Missouri law requires that Monsanto warn of "the carcinogenic characteristics of glyphosate." *Id.* ¶ 203. Advancing that theory at trial, Plaintiff argued to the jury that it should hold Monsanto liable because the Roundup label did not contain "a warning about carcinogenicity and glyphosate." 5 Tr. 3421:25-3422:14.

Notably, Plaintiff does not—and cannot—identify any federal statutory or regulatory provision specifically requiring Monsanto to warn that glyphosate is carcinogenic. To the contrary, EPA, which is responsible for administering FIFRA, has repeatedly determined that such a warning should not be given. *See Schaffner*, 2024 WL 3820973, at *2-3. The agency has not only consistently approved

Roundup labels that contain no cancer warning, but also adopted regulations that prohibit Monsanto from including a cancer warning. *Id.* at *9.

EPA first registered Roundup in 1974. EPA, Notice of Registration: Glyphosate (Mot. Judicial Notice, Ex. A). It did so, and could do so, only after determining that Roundup satisfied the statutory prerequisites for registration. Thus, EPA necessarily determined that Roundup would "perform its intended function without unreasonable adverse effects on the environment" (7 U.S.C. § 136a(c)(5)(C)), a term that encompasses "any unreasonable risk to man" (7 U.S.C. § 136(bb)), and that Roundup's proposed labeling, which contained no cancer warning, "compl[ied] with the requirements of [FIFRA]" (7 U.S.C. § 136a(c)(5)(B)), including the requirement that the label contain any "warning or caution statement which may be necessary and if complied with … is adequate to protect health and the environment." 7 U.S.C. § 136(q)(1)(G); *see also* 40 C.F.R. § 152.112(f) (EPA will register a pesticide "only if … [t]he Agency has determined that the product is not misbranded … and its labeling and packaging comply with the applicable requirements of the Act"); *Schaffner*, 2024 WL 3820973, at *12. Simply put, EPA did not require a cancer warning when it first registered Roundup.

Nor did EPA require a cancer warning when it determined that glyphosate products were eligible for reregistration in 1993.

In 1988, Congress required that EPA review the registration of every pesticide registered before 1984. Pub. L. No. 100-532 § 102(a), 102 Stat. 2654 (Oct. 25, 1988) (codified as amended at 7 U.S.C. § 136a-1); *see*

also Schaffner, 2024 WL 3820973, at *2. Congress instructed EPA to "conduct a thorough examination of all data submitted" to the agency and "of all other available data" to "determin[e] whether" each pesticide continued to "meet[] the requirements" for registration under "section 136a(c)(5)." 7 U.S.C. § 136a-1(g)(1), (g)(2)(C); *see also* 40 C.F.R. § 155.57 ("A registration review decision is the Agency's determination whether a pesticide meets, or does not meet, the standard for registration in FIFRA.").[3] If a pesticide was found to satisfy the statutory requirements, then EPA was to "reregister" it. Pub. L. No. 100-532 § 102(a).

Pursuant to that directive, EPA analyzed the latest research on—and reconsidered the labeling of—glyphosate. The agency completed its reevaluation of glyphosate in 1993. After reviewing "scientific studies in the areas of phytotocixity, environmental fate, toxicology, product chemistry, and residue chemistry," EPA concluded that "all registered uses of glyphosate are eligible for reregistration." D113 p. 21. Notably, although EPA required "certain label changes" (D113 pp. 4-5) to address potential water contamination from aquatic and nonaquatic use of glyphosate (see D113 pp. 10-11; Mot. Judicial Notice, Ex. B pp. 94-96), it did not require glyphosate products to carry a cancer

[3] As EPA has explained, the "purpose of the Agency's review is to reassess the potential hazards arising from the currently registered uses of the pesticide; to determine the need for additional data on health and environmental effects; and to determine whether the pesticide meets the 'no unreasonable adverse effects' criterion of FIFRA." EPA, Registration Eligibility Decision: Glyphosate, Case No. 0178 (Sept. 1993) ("1993 RED") (D113 p. 23).

warning, having previously found "a lack of convincing evidence of carcinogenicity." D113 pp. 36-37; *cf. Schaffner*, 2024 WL 3820973 at *2-3 ("in 1991 the EPA reclassified glyphosate as a chemical for which there exists 'evidence of non-carcinogenicity for humans'").[4] Thus, when the agency reregistered individual Roundup products pursuant to the 1993 RED, it required that users be instructed to "not apply" the products "directly to water or wetland," not that they be warned of a purported cancer risk. EPA, Notice of Pesticide Reregistration, Roundup L&G Ready-to-Use Grass & Weed Killer (Oct. 29, 1997) (Mot. Judicial Notice, Ex. L).

In 2007, Congress revised the reregistration regime, directing EPA to review anew each pesticide's registration every 15 years. 7 U.S.C. § 136a(g)(1)(A)(iv) (enacted by Pub. L. 110-94 § 2, 121

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[4] The particular Roundup products Plaintiff used were first registered between 1999 and 2004; consistent with the 1993 RED, EPA did not require any of them to carry a cancer warning. *Compare* 3 Tr. 2469:20-2470:18 (Roundup Weed and Grass Killer Ready-to-Use Plus); 4 Tr. 2471:2-11 (Roundup Extended Control Weed and Grass Killer Plus Weed Preventer); 4 Tr. 2472:2-18 (Roundup Weed and Grass Killer Super Concentrate); and 4 Tr. 2472:25-2473:8 (Roundup Weed and Grass Killer Concentrate Plus), *with* Roundup Weed & Grass Killer Super Concentrate, https://ordspub.epa.gov/ords/pesticides/f?p=PPLS:8:4449774031298:: NO:: P8_PUID,P8_RINUM: 37646,71995-25; Roundup Weed & Grass Killer Concentrate Plus, https://ordspub.epa.gov/ords/pesticides/f?p=PPLS:8: 30157744077263::NO::P8_PUID,P8_RINUM:39270,71995-29; Roundup Weed & Grass Killer Ready-To-Use Plus, https://ordspub.epa.gov/ords/pesticides/f?p=PPLS:8:14757231838929::NO::P8_PUID,P8_RINUM: 39775, 71995-33; Glyphosate Residual Concentrate, https://ordspub.epa.gov/ords/pesticides/f?p=PPLS:8:1140773117702::NO::P8_PUID, P8_RINUM:467484,71995-40. Mot. Judicial Notice, Exs. G1-G4.

Stat. 1000); *see also Schaffner*, 2024 WL 3820973, at *2. Pursuant to that mandate, EPA initiated a second review of glyphosate's registration in 2009. EPA, Proposed Interim Registration Review Decision (Glyphosate) at 4-5, Dkt. No. EPA-HQ-OPP-2009-0361, Case No. 0178 (Apr. 2019) (D115 pp. 5-6). As part of that review, "the Agency reevaluated the human carcinogenic potential of glyphosate" and, based on "a weight-of-evidence evaluation of data from animal toxicity, genotoxicity, and epidemiological studies," again "concluded that glyphosate should be classified as 'not likely to be carcinogenic to humans.'" EPA, Draft Human Health Risk Assessment in Support of Registration Review (Glyphosate) (Dec. 12, 2017) ("Draft Human Health Risk Assessment") (D28 p. 4), finalized by EPA, Interim Registration Review Decision (Glyphosate) at 4, Dkt. No. EPA-HQ-OPP-2009-0361, Case No. 0178 (Jan. 2020) (D122 p. 5) ("2020 IRRD").[5] Consistent with this conclusion, the Interim Registration Review Decision—like the 1993 RED—required certain labeling changes but did not require glyphosate products to carry a cancer warning. (D122 pp. 16-20, 24-28; *cf.* 40 C.F.R. § 155.58(b)(4)

[5] Rejecting the assertion that its conclusion relied too heavily on "industry-funded studies," EPA explained that it had "reviewed the open literature" and "also considered studies submitted by non-profit groups or members of the public." EPA, Glyphosate: Response to Comments on the Human Health Draft Risk Assessment, at 3-4 (April 23, 2018) (Mot. Judicial Notice, Ex. F); *see also* EPA, Revised Glyphosate Issue Paper: Evaluation of Carcinogenic Potential, at 13 (Dec. 12, 2017) (D25 p. 14) ("the agency conducted a systematic review of the open literature and toxicological databases for glyphosate").

(agency's interim registration review decision will "[s]pecify proposed labeling changes")).[6]

That remains the state of play today. Having repeatedly examined whether glyphosate is carcinogenic and having repeatedly concluded that it is not, EPA has never required glyphosate products to carry a cancer warning.[7] To the contrary, EPA has determined that a cancer warning would "constitute a false and misleading statement" and render glyphosate products "misbranded" in violation of 7 U.S.C. § 136(q)(1)(A). EPA, Letter to Glyphosate Registrants, at 1 (Aug. 7, 2019) (D30 pp. 1-3.) Thus, any state-law requirement that glyphosate products carry a cancer warning is "in addition to or different from"—and thus expressly preempted by—the federal labeling requirements. 7 U.S.C. § 136v(b).

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[6] Part of the Interim Registration Review Decision was vacated by *Natural Resources Defense Council v. EPA*, 38 F.4th 34 (9th Cir. 2022) ("*NRDC*"), and the remainder was subsequently withdrawn by the agency. EPA, Withdrawal of the Glyphosate Interim Registration Review Decision (Sept. 21, 2022) ((Mot. Judicial Notice, Ex. D), available at https://www.regulations.gov /document/EPA-HQOPP-2009-0361-14447. Nevertheless, "EPA's underlying scientific findings regarding glyphosate, including its finding that glyphosate is not likely to be carcinogenic to humans, remain the same." EPA, Glyphosate (Mot. Judicial Notice, Ex. K), available at https://www.epa.gov/ingredients-used-pesticide-products/ glyphosate (updated Sept. 11, 2023); *see also Schaffner*, 2024 WL 3820973, at *3 ("in 1991 the EPA reclassified glyphosate as a chemical for which there exists 'evidence of non-carcinogenicity for humans'" and "has not altered that conclusion since").

[7] This is true of glyphosate products in general and of the particular Roundup products Plaintiff allegedly used. See supra at 24 n.4.

2. A federal requirement to warn of cancer cannot be derived from FIFRA's misbranding provision.

Unable to identify any federal statute, regulation, or administrative action specifically requiring glyphosate products to carry a cancer warning, Plaintiff argues—and four courts that did not have the benefit of the Third Circuit's comprehensive analysis in *Schaffner* have erroneously held—that such a requirement can be derived from FIFRA's general misbranding provision, under which "[a] pesticide is misbranded if … the label does not contain a warning or caution statement which may be necessary and if complied with … is adequate to protect health and the environment." 7 U.S.C. § 136(q)(1)(G); *Carson v. Monsanto Co.*, 92 F.4th 980, 991 (11th Cir. 2024); *Hardeman v. Monsanto Co.*, 997 F.3d 941, 954-55 (9th Cir. 2021); *Pilliod v. Monsanto Co.*, 67 Cal. App. 5th 591, 615 (2021); *Johnson v. Monsanto Co.*, 333 Or. App. 678, 693-702 (2024); *cf.* D139 p. 10; D74 p. 7. But U.S. Supreme Court precedent, EPA statements, and the canons of statutory construction are to the contrary.[8]

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[8] In addition to other errors identified below, Hardeman and Pilliod mistakenly applied a presumption against preemption when analyzing preemption under 7 U.S.C. § 136v(b). *See Hardeman*, 997 F.3d at 958; *Pilliod*, 67 Cal. App. 5th at 613. The U.S. Supreme Court has explained that when, as in this case, "the statute 'contains an express pre-emption clause,'" courts should "not invoke any presumption against pre-emption but instead 'focus on the plain wording of the clause, which necessarily contains the best evidence of Congress' pre-emptive intent.'" *Puerto Rico v. Franklin Cal. Tax-Free Tr.*, 579 U.S. 115, 125 (2016) (quoting *Chamber of Com. of United States v. Whiting*, 563

a. The purported state-law requirement to give a cancer warning is not "in fact" "genuinely equivalent" to the corresponding federal requirement.

The U.S. Supreme Court interpreted FIFRA's preemption provision, 7 U.S.C. § 136v(b), in *Bates v. Dow Agrosciences LLC*, 544 U.S. 431 (2005). The Court held that a state-law requirement is preempted if it "impose[s] a labeling or packaging requirement that is '*in addition to or different from* those required under [FIFRA].'" *Id.* at 443-44 (quoting 7 U.S.C. § 136v(b)). The Court "emphasize[d] that a state-law labeling requirement must *in fact* be equivalent to a requirement under FIFRA in order to survive pre-emption." *Id.* at 453 (emphasis added).[9]

A requirement that glyphosate products carry a cancer warning is not in fact equivalent to any requirement under FIFRA, which establishes a detailed procedure for determining the specific warnings that a particular pesticide must bear under federal law. FIFRA requires that a manufacturer register a pesticide before selling it, that the manufacturer submit a copy of pesticide's proposed

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U.S. 582, 594 (2011)); *cf. Schaffner*, 2024 WL 3820973 (applying no presumption against preemption).

[9] While it rejected the proposition that FIFRA categorically preempts all state-law claims merely because they might "'induce [a manufacturer] to alter its product label'" (544 U.S. at 436), *Bates* did not address whether the specific claims at issue in the case were preempted, remanding that question for determination in light of the standard articulated by the Court. *Id.* at 453.

labeling for EPA review when applying for registration, and that the manufacturer give only EPA-approved warnings when distributing a registered pesticide. 7 U.S.C. §§ 136a(a), 136a(c)(1)(C); 40 C.F.R. §§ 152.40, 152.44(a), 152.50(e), 152.108, 152.130(a), 156.70(c); *Schaffner*, 2024 WL 3820973, at *2. Exercising its statutory authority to approve or disapprove pesticide labels through the registration and reregistration process (*see, e.g.*, 7 U.S.C. §§ 136a(c)(5)(B), (g)(1)(A)(iv); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. §§ 152.108, 155.58, 156.10), EPA has repeatedly considered and repeatedly rejected a cancer warning for glyphosate products (*see infra* at 48-57), something that the agency could do only after having "determined that" glyphosate products are "not misbranded" in the absence of such a warning. 40 C.F.R. § 152.112(f); *see also* 7 U.S.C. §§ 136a(c)(5)(B), 136a-1(g)(2)(C); *Schaffner*, 2024 WL 3820973, at *2. Indeed, far from requiring a cancer warning, EPA has stated that inclusion of a cancer warning would render glyphosate products "misbranded" under FIFRA's prohibition on "false and misleading statement[s]." EPA, Letter at 1 (Aug. 7, 2019) (D30 pp. 1-3) (quoting 7 U.S.C. § 136(q)(1)(A)).

In applying an express-preemption clause effectively identical to 7 U.S.C. § 136v(b), the Supreme Court held that an agency's premarket approval establishes product-specific federal "requirements" with preemptive effect. *Riegel v. Medtronic, Inc.*, 552 U.S. 312, 321-30 (2008) (applying 21 U.S.C. § 360k(a)); *see Schaffner*, 2024 WL 3820973, at *13. At issue in *Riegel* were the Medical Device Amendments of 1976 ("MDA"), which the Supreme Court described as having a "similarly worded pre-emption provision" to

FIFRA. *Bates*, 544 U.S. at 447; *see* 21 U.S.C. § 360k(a) (preempting "any [state-law] requirement ... which relates to the safety or effectiveness of the device" and "is different from, or in addition to, any requirement applicable under [the MDA] to the device"). Before an innovative Class III medical device may be sold, it must receive "premarket approval" from FDA, which, under the MDA, "may grant premarket approval only after it determines that [the] device" as labeled satisfies the statutory prerequisite of "offer[ing] a reasonable assurance of safety and effectiveness." *Id.* at 323 (citation omitted). Once a device has received premarket approval, "the MDA forbids the manufacturer to make, without FDA permission, changes in design specifications, manufacturing processes, labeling, or any other attribute, that would affect safety or effectiveness." *Id.* at 319. Given this statutory scheme, which requires use of the FDA-approved label without alteration, Riegel held that "premarket approval" of a device by the Food and Drug Administration ("FDA") "imposes 'requirements' under the MDA" that preempt non-parallel state requirements. 552 U.S. at 322-23.[10] Reading *Bates* in

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[10] Courts applying express-preemption provisions effectively identical to 7 U.S.C. § 136v(b)—i.e., provisions preempting state-law requirements that are "different than" or "in addition to" the relevant federal requirements—have repeatedly held that such provisions preempt state-law failure-to-warn claims. *See, e.g.*, *Caplinger v. Medtronic, Inc.*, 784 F.3d 1335, 1336-37, 1341 (10th Cir. 2015) (Gorsuch, J.) (applying 21 U.S.C. § 360k(a)); *Kuenzig v. Hormel Foods Corp.*, 505 F. App'x 937, 938 (11th Cir. 2013) (applying 21 U.S.C. §§ 467e & 678); *In re Medtronic, Inc., Sprint Fidelis Leads Prods. Liab. Litig.*, 623 F.3d 1200, 1205 (8th Cir. 2010) (applying 21 U.S.C. § 360k(a)); *McMullen v. Medtronic, Inc.*, 421 F.3d 482, 486-90 (7th Cir. 2005) (applying 21 U.S.C.

harmony with *Riegel*, the rule is straightforward: When EPA approves a proposed pesticide label that then may not be changed, it establishes what the pesticide's federal labeling requirements are, and state law may not impose different or additional requirements. *See Schaffner*, 2024 WL 3820973, at *12-13.

Given FIFRA's registration regime and glyphosate's regulatory history, a state-law requirement that Roundup carry a cancer warning would be "in addition to or different from" the federal labeling requirements (7 U.S.C. § 136v(b)) and "is therefore preempted by FIFRA." Schaffner, 2024 WL 3820973, at *1.[11] Accepting Plaintiff's contrary

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§ 360k(a)); *Thornton v. Tyson Foods, Inc.*, 482 F. Supp. 3d 1147, 1157 (D.N.M. 2020) (applying 21 U.S.C. § 678), *aff'd*, 28 F.4th 1016 (10th Cir. 2022); *Craten v. Foster Poultry Farms Inc.*, 305 F. Supp. 3d 1051, 1056, 1060- 61 (D. Ariz. 2018) (applying 21 U.S.C. § 467e); *Aaron v. Medtronic, Inc.*, 209 F. Supp. 3d 994, 1004-05 (S.D. Ohio 2016) (applying 21 U.S.C. § 360k(a)); *Blankenship v. Medtronic, Inc.*, 6 F. Supp. 3d 979, 988-89 (E.D. Mo. 2014) (applying 21 U.S.C. § 360k(a)).

[11] Although registration alone is not an absolute defense to allegations of misbranding, Roundup's registration is "prima facie evidence that the pesticide, its labeling and packaging comply with [FIFRA's] registration provisions." 7 U.S.C. § 136a(f)(2). Regardless, Monsanto does not argue that registration as such preempts Plaintiff's claim; rather, it contends that Plaintiff's claim is preempted by the labeling requirements that EPA imposed through the registration process. As *Schaffner* observes: "registration affects the content of the requirements imposed under FIFRA, as registration determines what label the pesticide must bear." *Schaffner*, 2024 WL 3820973, at *19. Because the registration process defines the labeling required by federal law, "a registered pesticide may be misbranded" despite registration "if it bears a label that differs

assertion would be to ignore reality and thereby violate the U.S. Supreme Court's admonition that "a state-law labeling requirement must *in fact* be equivalent to a requirement under FIFRA in order to survive pre-emption." *Bates*, 544 U.S. at 453 (emphasis added).

b. Deriving a duty to warn of glyphosate's purported carcinogenicity from FIFRA's misbranding provision would violate the canons of statutory interpretation.

Deriving a duty to warn of glyphosate's purported carcinogenicity from FIFRA's misbranding provision would violate two fundamental canons of statutory interpretation.

i. Basing a duty to warn on FIFRA's misbranding provision would violate the rule against surplusage.

Deriving a duty to warn of glyphosate's purported carcinogenicity from FIFRA's misbranding provision would violate "one of the most basic interpretive canons, that a statute should be construed so that

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from" its EPA-approved label. *Id.* at *19 n.18. That is not the case here, where Roundup indisputably carries its EPA-approved label. In any event, § 136a(f)(2)—which says nothing about preemption—addresses only "offense[s] under [FIFRA]." Because a "claim grounded in state common law is not an offense under FIFRA," § 136a(f)(2) "does not apply" and "has no bearing on the question before this court." *MacDonald v. Monsanto Co.*, 27 F.3d 1021, 1025 n.4 (5th Cir. 1994); *but see Carson*, 92 F.4th at 993; *Hardeman*, 997 F.3d at 956.

effect is given to all its provisions, so that no part will be inoperative or superfluous, void or insignificant." *Corley v. United States*, 556 U.S. 303, 314 (2009) (cleaned up). As the Missouri Supreme Court has put it: "The provisions of a legislative act must be construed and considered together and, if possible, all provisions must be harmonized and every clause given some meaning." *Dickemann v. Costco Wholesale Corp.*, 550 S.W.3d 65, 68 (Mo. 2018) (citation omitted); *accord, e.g.*, *Mottet v. Dir. of Revenue*, 635 S.W.3d 862, 866 (Mo. App. 2021); *Caplinger v. Rahman*, 529 S.W.3d 326, 332 (Mo. App. 2017). In short, "[c]ourts may not interpret statutes to render any provision a nullity." *State v. Knox*, 604 S.W.3d 316, 322 (Mo. 2020).

Yet that is precisely what would happen if FIFRA's misbranding provision were interpreted as requiring Monsanto to place a cancer warning on the Roundup label.

To ensure Congress's stated goal of national "uniformity" in pesticide labeling, § 136v(b) forbids states from "impos[ing] or continu[ing] in effect any requirements for labeling … in addition to or different from those required under" FIFRA, which, by statute, encompasses "any regulation issued under" FIFRA's registration provisions (7 U.S.C. § 136j(a)(2)(S)), including both 40 C.F.R. § 156.70(c), which requires that "[s]pecific statements pertaining to the hazards of" a pesticide "be approved by the Agency," and 40 C.F.R. § 152.130(a), which provides that a manufacturer may sell a pesticide only "with the … labeling currently approved by the Agency."

On Plaintiff's theory, FIFRA's misbranding provision, 7 U.S.C. § 136(q)(1)(G), overrides these provisions and allows a state to impose state-specific labeling standards that require pesticide manufacturers to include particular warnings on their labels without FDA approval. That reading, however, guts § 136v(b)'s prohibition on state-law labeling requirements that are not identical to the federal requirements, including the regulatory requirements, adopted pursuant to 7 U.S.C. § 136a(a), that any warning be approved by EPA and that any pesticide be sold only with the labeling approved by EPA. In other words, Plaintiff's construction of 7 U.S.C. § 136(q)(1)(G) would, contrary to the rule against surplusage, render 7 U.S.C. § 136v(b) "a nullity." Knox, 604 S.W.3d at 322.

ii. Basing a duty to warn on FIFRA's misbranding provision would impermissibly elevate the general over the specific.

Deriving a duty to warn of glyphosate's purported carcinogenicity from FIFRA's misbranding provision would also violate the "well established canon of statutory interpretation … 'that the specific governs the general.'" *RadLAX Gateway Hotel, LLC v. Amalgamated Bank*, 566 U.S. 639, 645 (2012) (quoting *Morales v. Trans World Airlines, Inc.*, 504 U.S. 374, 384 (1992)). Plaintiff argues that a state-law requirement that glyphosate products carry a cancer warning is not "in addition to or different from" federal labeling requirements—and thus not preempted by 7 U.S.C. § 136v(b)—because FIFRA's misbranding

provision requires pesticide labels to carry every "warning or caution statement which may be necessary … to protect health." 7 U.S.C. § 136(q)(1)(G). But that contention, squarely rejected in *Schaffner*, operates at far too high a level of abstraction, effectively nullifying 7 U.S.C. § 136v(b) by prioritizing a general misbranding provision over the specific labeling requirements imposed on glyphosate through the congressionally mandated registration and reregistration process.

As courts construing a similar preemption provision have held, "[t]he dispositive issue is not whether [state] tort law duties are, *in the abstract*, different from, or in addition to the federal requirements … but whether" enforcement of those duties in a particular case would "impose requirements different from those arising under federal law." *Horowitz v. Stryker Corp.*, 613 F. Supp. 2d 271, 281 n.4 (E.D.N.Y. 2009) (quotation marks omitted). Thus, even if state and federal requirements are arguably equivalent when viewed "in the abstract," a statute like 7 U.S.C. § 136v(b) that bars states from imposing requirements different from or in addition to federal requirements "preempt[s] a particularized application of" any state-law tort "duties that impose[] a 'specific standard of care or behavior' different or in addition to the federal requirement." *Worthy v. Collagen Corp.*, 967 S.W.2d 360, 371 (Tex. 1998). In other words, as the U.S. Supreme Court stressed in Bates, "nominally equivalent" state-law labeling requirements must "*in fact*" be "*genuinely* equivalent" to escape preemption under 7 U.S.C. § 136v(b). 544 U.S. at 453-54.

Heeding this admonition, *Schaffner* rejected the proposition that a state-law failure-to-warn claim based a failure to warn of glyphosate's purported carcinogenicity is saved from preemption by FIFRA's general misbranding provision, explaining that "under both Bates and section 136v(b) itself federal requirements must be articulated at the more specific level" when determining whether a state-law duty is "in addition to or different" from the federal requirements. 2024 WL 3820973, at *15. Rather than be compared to FIFRA's general misbranding provision alone, "[s]tate-law requirements must also be measured against any relevant EPA regulations that give content to FIFRA's misbranding standards." 2024 WL 3820973, at *15 (quoting *Bates*, 544 U.S. at 453). Thus,

> [i]f EPA regulations specifically identify the contents required to be included on a pesticide label, a state-law requirement is preempted unless it is equivalent to that specific regulatory requirement. The state-law duty cannot survive preemption simply because its standard of liability is equivalent to the broad statutory definition of misbranding.

Id.

Given the explicit "purpose of section 136v(b)," which is to ensure national "[u]niformity" in pesticide labeling, defining the federal labeling requirements with specificity is necessary, as "[t]he level of generality at which a rule is framed often affects the degree of uniformity in how it will be applied on different occasions." *Schaffner*, 2024 WL 3820973, at

*16 (quoting 7 U.S.C. § 136v(b)). Greater specificity promotes greater uniformity:

> Different interpreters may apply a vague, broad rule differently given the same facts, while they are likely to apply a specific, precise rule more consistently. Because misbranding is defined by statute as the omission of warnings "necessary ... to protect health," 7 U.S.C. § 136(q)(1)(G), that standard cannot be applied without determining which warnings are in fact necessary to protect health, a challenging question about which reasonable individuals may disagree. This very case provides a suggestive illustration, as disagreement has persisted for decades over whether the [c]ancer [w]arning is necessary to protect Roundup users' health. By contrast, [40 C.F.R. § 152.44(a)] may be applied by comparing the label a pesticide actually bears with its [EPA-approved label], a straightforward matter about which disagreement is unlikely. The broad statutory definition of misbranding is likely to be applied less uniformly in practice than a regulatory requirement to include specific contents on pesticide labels.

Id. In other words, defining the federal labeling requirements for purposes of 7 U.S.C. § 136v(b) solely by reference to "the statutory definition of misbranding," as Plaintiff urges, "would produce considerable heterogeneity, not uniformity, in the labels that pesticides are required to bear" and thus

thwart "Congress's aim of instituting uniform rules for pesticide labeling." *Id.* at *17.

Here, the "EPA regulations that give content to FIFRA's misbranding provision" (*Bates*, 544 U.S. at 453) are 40 C.F.R. §§ 152.44(a), 152.130(a), and 156.70(c), which "requir[e] a pesticide's label to bear the particular precautionary statements" that were approved by EPA during the registration process. *Schaffner*, 2024 WL 3820973, at *17. Because these regulations "prohibit[] Monsanto from modifying Roundup's preapproved label in order to add the cancer warning" that state law supposedly requires, that ostensible state-law duty is "not equivalent" to the federal labeling requirements and "is thus preempted under section 136v(b)." *Id.* (cleaned up).

The four appellate decisions to have erroneously derived a federal duty to provide a cancer warning from FIFRA's general misbranding provision—*Carson*, *Hardeman*, *Pilliod*, and *Johnson*—fail to account for 40 C.F.R. §§ 152.44(a), 152.130(a), and 156.70(c) and how they, in conjunction with 7 U.S.C. §§ 136a(c)(1)(C) and 136a-1(g)(2)(C), limit the requirement that a pesticide label carry all warnings "which may be necessary … to protect health and the environment." 7 U.S.C. § 136(q)(1)(G). *Hardeman*, *Pilliod*, and *Johnson* do not even acknowledge their existence. As for Carson, *Schaffner* notes that "[w]hile the Court of Appeals for the Eleventh Circuit appeared to recognize that" 40 C.F.R. § 152.44(a) "generally prohibits modifications to pesticide labels absent an application for amended registration, it considered only the statutory definition of misbranding …, giving no explanation for that choice."

2024 WL 3820973, at *14 n.15 (citing *Carson*, 92 F.4th at 990-92).

Bates teaches that if, as here, the "relevant EPA regulations that give content to" FIFRA's general misbranding provision "prohibit adding the warning that state law [purportedly] requires," then "any equivalence between the state-law duty and the statutory definition of misbranding" is immaterial and the state-law duty is preempted "regardless," even if the label at issue "satisf[ies] the statutory definition of misbranding." *Schaffner*, 2024 WL 3820973 at *15-16. In short, when comparing state and federal requirements to determine whether they impose "parallel requirements," the relevant federal law is defined by "the specific EPA regulations requiring pesticide labels to bear particular contents … rather than … the broad statutory definition of misbranding." *Id.* at *15.

3. The purported state-law duty to give a cancer warning is not in fact equivalent to any federal labeling requirement, even if such a warning were necessary to protect health.

Even assuming that a cancer warning is "necessary … to protect human health" and thus seemingly required in the first instance by FIFRA's misbranding provision (7 U.S.C. § 136(q)(1)(G)), a state-law requirement that Monsanto include a cancer warning in Roundup labeling is not genuinely equivalent to any federal requirement, because federal law does not require (or even permit) the registrant to include such a warning without EPA approval.

As noted, FIFRA establishes detailed procedures for determining the specific warnings that must be included in a particular pesticide's labeling. The statute does not require—indeed, does not allow—a pesticide manufacturer to simply add a cancer warning to a pesticide label without prior EPA authorization. To the contrary, "[s]pecific statements pertaining to the hazards of the product and its uses must be approved by the Agency." 40 C.F.R. § 156.70(c); *accord* 7 U.S.C. §§ 136a(c)(1)(C), (c)(5)(B); 7 U.S.C. § 136a-1(g)(2)(C).

Thus, "any modification in the … labeling … of a registered product must be submitted with an application for amended registration" that, in turn, "must be approved by the Agency before the product, as modified, may legally be distributed or sold." 40 C.F.R. § 152.44(a); *see also* 40 C.F.R. § 152.130(a) (registrant has right to sell a registered pesticide only "with the … labeling currently approved by the Agency"); *Bates*, 544 U.S. at 438-39 (pesticide manufacturer "may seek approval to amend its label" if necessary to fulfill the manufacturer's "continuing obligation to adhere to FIFRA's labeling requirements") (citing 7 U.S.C. § 136a(f)(1)); *Schaffner*, 2024 WL 3820973, at *9 ("Once a pesticide is registered and its proposed label is approved by the EPA, then" 40 C.F.R. § 152.44(a) "prohibits the distribution or sale of the pesticide with a modified label, unless and until an application for amended registration is submitted and approved."); EPA, Notice of Registration: Glyphosate (Mot. Judicial Notice, Ex. A) ("Changes in labeling … from that accepted in connection with this registration must be submitted to and accepted by [EPA] prior to use of the label in

commerce."); EPA, Notice of Pesticide Reregistration, Roundup L&G Ready-to- Use Grass & Weed Killer (Oct. 29, 1997) (Mot. Judicial Notice, Ex. L) ("Changes in labeling … from that accepted in connection with this registration must be submitted to and accepted by [EPA] prior to use of the label in commerce.").

Therefore, notwithstanding the misbranding provision codified at 7 U.S.C. § 136(q)(1)(G), the fact that a certain warning is purportedly necessary to protect human health does not require a registrant to include that warning in a registered pesticide's label. *See Schaffner*, 2024 WL 3820973, at *2, *10. At most, it obligates the registrant to seek EPA approval for a labeling change under 40 C.F.R. § 152.44(a). But a state-law duty to actually give a certain warning is not identical to a federal-law duty to seek EPA authorization to give that warning. As the U.S. Supreme Court observed in an analogous situation:

> Although requesting [the agency's] assistance would have satisfied the Manufacturers' federal duty, it would not have satisfied their state tort-law duty to provide adequate labeling. State law demanded a safer label; it did not instruct the Manufacturers to communicate with the [agency] about the possibility of a safer label.

PLIVA, Inc. v. Mensing, 564 U.S. 604, 619 (2011) ("*Mensing*") (failure-to-warn claim targeting generic drug preempted). Because the supposed state-law duty to warn that glyphosate causes cancer is not "*genuinely* equivalent" (*Bates*, 544 U.S. at 454) to federal labeling requirements both substantive and procedural, Plaintiff's failure-to-warn claim is

expressly preempted by 7 U.S.C. § 136v(b)'s prohibition on state-law requirements "in addition to or different from" those imposed by FIFRA.

4. Missouri strict-liability law requires warnings that federal misbranding law does not.

Even when analyzed at an unduly high level of abstraction and without requisite regard for FIFRA's detailed registration process, the state-law duty on which Plaintiff relies—the duty to not sell a product that is "unreasonably dangerous" because it lacks an "adequate warning" (Mo. Rev. Stat. § 537.760(3)(b) (1987))—is not "in fact" identical (*Bates*, 544 U.S. at 453) to the federal requirement that a pesticide label contain each warning "which may be necessary … to protect health and the environment." 7 U.S.C. § 136(q)(1)(G). Congress defined the term "protect health and the environment" as used in FIFRA's misbranding provision to mean "protection against any unreasonable adverse effects on the environment" (7 U.S.C. § 136(x)), which is in turn defined to mean "any unreasonable risk to man or the environment, *taking into account the economic, social, and environmental costs and benefits* of the use of any pesticide." 7 U.S.C. § 136(bb) (emphasis added). *Bates* instructs that when determining whether a state-law labeling requirement is "in addition to or different" from federal labeling requirements, the state-law requirement "must … be measured against any relevant EPA regulations that give content to FIFRA's misbranding standards." 544 U.S. at 453. Given the federal definition of "unreasonable risk," economic, social, and environmental factors must be considered

before a pesticide can be found misbranded under 7 U.S.C. § 136(q)(1)(G).

Missouri law, however, contains no such limitation on what it means for a product to be "unreasonably dangerous." On the contrary, the Missouri Supreme Court has emphatically refused to limit the term, holding that it "needs no judicial definition," that plaintiffs may argue that a product is unreasonably dangerous based on "any … theory," and that a jury may "give the concept of unreasonable danger" whatever "content" it believes appropriate. *Rodriguez v. Suzuki Motor Corp.*, 996 S.W.2d 47, 65 (Mo. 1999) (quotation marks omitted). Missouri's uncabined understanding of "unreasonable danger" for purposes of strict liability is significantly broader than the federal definition of "unreasonable risk" as used in FIFRA's misbranding provision.[12] Thus, even

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[12] *Carson*, *Pilliod*, and *Johnson* completely ignored 7 U.S.C. §§ 136(x) and (bb) and how FIFRA defines "unreasonable risk" for purposes of misbranding under 7 U.S.C. § 136(q)(1)(G). *Hardeman* cited the two provisions in a footnote (997 F.3d at 955 n.4) but disregarded the fact that under FIFRA a "risk to man" cannot be deemed "unreasonable"—and thus a requirement to warn of a such a risk cannot be found to exist—without "taking into account the economic, social, and environmental costs and benefits" of the pesticide in question. 7 U.S.C. § 136(bb). Moreover, *Hardeman*—like *Pilliod*, which followed *Hardeman* without independent analysis (cf. 67 Cal. App. 5th at 616)—is based in part on a misreading of *Conte v. Wyeth, Inc.*, which holds that under California strict-liability law "the reasonableness of the defendant's failure to warn is immaterial." 168 Cal. App. 4th 89, 101 (2008). For its part, Carson ignores *Center Chemical Co. v. Parzini*, 234 Ga. 868, 870 (1975), which holds that, in contrast to "the classic definition of strict liability," Georgia's strict-liability statute "does not attach the condition that the defective product must be 'unreasonably dangerous'" before a

when viewed in the abstract, the state-law labeling requirement that Plaintiff invokes is "different from" the federal misbranding requirement. 7 U.S.C. § 136v(b).

Plaintiff tacitly admitted as much below. He did not tell the jury that Monsanto should be held liable under state law for having failed to comply with the federal misbranding provision. Rather, he argued that Monsanto should be held liable because it failed to "go above and beyond" what federal "regulations" require. 5 Tr. 3418:11-17 (emphasis added); accord id. at 3422:17-21. FIFRA expressly preempts any such claim.[13]

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manufacturer can be held liable for a failure to warn. And *Johnson* makes no effort to compare Oregon's definition of "unreasonably dangerous," under which a product is so long as it is "dangerous to an extent beyond that which would be contemplated by the ordinary consumer" (Restatement (Second) of Torts § 402A cmt. i (adopted by Or. Rev. Stat. Ann. § 30.920(3)) to FIFRA's definition of "unreasonable risk," which require consideration of broader "economic, social, and environmental" factors. 7 U.S.C. § 136(bb). Regardless, neither *Hardeman*, *Pilliod*, *Carson*, nor *Johnson* analyzed the elements of Missouri law or compared those elements to FIFRA's definition of "unreasonably" dangerous.

[13] In an opinion issued before the U.S. Supreme Court's decision in *Bates*, the Southern Division held that a failure-to-warn claim brought under Missouri law "is barred by federal pre-emption under 7 U.S.C. § 136v(b)." *Yowell v. Chevron Chem. Co.*, 836 S.W.2d 62, 63 (Mo. App. 1992). Although *Yowell*'s reasoning does not survive *Bates*, its holding remains sound. If this Court were to depart from that holding, the case would have to be reviewed en banc. *See* Mo. App. E.D. L.R. 403; Mo. Sup. Ct. Operating R. 22.01.

B. Plaintiff's failure-to-warn claim is impliedly preempted.

Even if it were not expressly preempted, Plaintiff's failure-to-warn claim is impliedly preempted. As the U.S. Supreme Court has explained when holding claims that avoided express preemption nevertheless impliedly preempted, "neither an express pre-emption provision nor a saving clause 'bar[s] the ordinary working of conflict pre-emption principles.'" *Buckman Co. v. Plfs' Legal Comm.*, 531 U.S. 341, 352 (2001) (quoting *Geier v. Am. Honda Motor Co.*, 529 U.S. 861, 869 (2000)); *accord Freightliner Corp. v. Myrick*, 514 U.S. 280, 288 (1995). Those principles foreclose Plaintiff's claim.[14]

Implied preemption rests on the Supremacy Clause, which, "on its face, makes federal law 'the supreme Law of the Land' even absent an express statement by Congress." *Mensing*, 564 U.S. at 621 (quoting U.S. Const., Art. VI, cl. 2). Given federal law's supremacy, state law is impliedly preempted whenever it "is in actual conflict with federal law." *Freightliner*, 514 U.S. at 287. A preemptive conflict exists when it is "impossible for a private party to comply with both state and federal requirements." *Id.* (quoting *English v. Gen. Elec. Co.*, 496 U.S. 72, 79 (1990)); *accord Mensing*, 564 U.S. at 618; *United States v. Locke*, 529 U.S. 89, 109 (2000); *California v. ARC Am. Corp.*, 490 U.S. 93, 100-01 (1989); *Fla. Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 142-43

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[14] Because *Schaffner* "conclude[d] that FIFRA expressly preempts" failure-to-warn claims such as the one asserted here, it did "not consider" whether such claims are impliedly preempted. 2024 WL 3820973, at *7 n.8.

(1963). That is precisely the situation here: federal law makes it impossible for Monsanto to give the warning that Plaintiff claims Missouri law requires. *See supra* at 17, 34, 38-40.

1. Federal law prohibits Monsanto from changing its label without prior EPA approval.

Three recent U.S. Supreme Court decisions applying conflict-preemption principles to state-law failure-to-warn claims—*Wyeth v. Levine*, 555 U.S. 555 (2009) ("*Wyeth*"), *Mensing*, and *Mutual Pharmaceutical Co. v. Bartlett*, 570 U.S. 472 (2013) ("*Bartlett*")—establish a clear rule: a state-law failure-to-warn claim is impliedly preempted if, as here, federal law prevents the manufacturer of the relevant product from changing its label without regulatory approval. Plaintiff's failure-to-warn claim is preempted under this rule because, as noted, pesticide manufacturers may not add warnings to pesticide labels without EPA approval.

When analyzing whether state law is impliedly preempted because it is "impossible for a private party to comply with both state and federal requirements" (*Freightliner*, 514 U.S. at 287), "[t]he question … is whether the private party could *independently* do under federal law what state law requires of it." *Mensing*, 564 U.S. at 620 (emphasis added). "[W]hen a party cannot satisfy its state duties without the Federal Government's special permission and assistance, which is dependent on the exercise of judgment by a federal agency, that party cannot independently satisfy those state duties for pre-emption purposes." *Id.* at 623-24. Thus, a state-law

failure-to-warn claim is not preempted if federal law permits a product manufacturer "to *unilaterally* strengthen its warning," *i.e.*, allows the manufacturer to add a warning without first obtaining regulatory approval. *Wyeth*, 555 U.S. at 573 (emphasis added). But a state-law failure-to-warn claim "is pre-empted" if, as with pesticides, federal law "prohibit[s]" the manufacturer "from making any unilateral changes to [the product's] label." *Bartlett*, 570 U.S. at 477, 480 (emphasis added); *accord Mensing*, 564 U.S. at 623.[15]

FIFRA requires a manufacturer to obtain EPA approval before including any warning on a pesticide label: "Specific statements pertaining to the hazards of the product and its uses must be approved by the Agency." 40 C.F.R. § 156.70(c). This requirement applies when a pesticide is first registered and when it is reregistered. *See* 7 U.S.C. §§ 136a(c)(1)(C),

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[15] *Wyeth*, *Mensing*, and *Bartlett* involved products regulated under the Food, Drug, and Cosmetic Act ("FDCA") but the same implied-preemption "principles" apply equally in other statutory contexts. *Sikkelee v. Precision Airmotive Corp.*, 907 F.3d 701, 713 & n.11 (3d Cir. 2018) (holding that *Wyeth*, *Mensing*, and *Bartlett* control preemption analysis under the Federal Aviation Act); *accord, e.g.*, *In re Ford Motor Co. F-150 & Ranger Truck Fuel Econ. Mktg. & Sales Pracs. Litig.*, 65 F.4th 851, 865-66 (6th Cir. 2023) (applying Wyeth and Mensing to find claim impliedly preempted by the Energy Policy and Conservation Act, whose "regulatory scheme … requires the EPA to approve" a manufacturer's fuel-economy labeling statements); *Anderson v. Wells Fargo Bank, N.A.*, 2019 WL 4773972, at *6 (D.S.D. 2019) (applying *Bartlett* to hold state-law claims preempted by Federal Deposit Insurance Act); *BP Am. Inc. v. Chustz*, 33 F. Supp. 3d 676, 684 (M.D. La. 2014) (applying *Mensing* to hold state regulatory action preempted by the Clean Water Act, which prevented the regulated entity from unilaterally taking the action required by state law).

(c)(5)(B); 7 U.S.C. § 136a-1(g)(2)(C). And it applies whenever a manufacturer, for whatever reason, wants to add a warning to a registered pesticide's label. By law, "any modification in the … labeling … of a registered product must be submitted with an application for amended registration" that "must be approved by the Agency before the product, as modified, may legally be distributed or sold." 40 C.F.R. § 152.44(a); *accord* 7 U.S.C. § 136a(f)(1); *Schaffner*, 2024 WL 3820973, at *17; *see also* 7 U.S.C. § 136j(a)(2)(S) (it is "unlawful … to violate any regulation issued under section 136a(a)").[16] Thus, federal law prevents Monsanto from including a cancer warning in Roundup labeling absent prior EPA approval.

Resisting this conclusion below, Plaintiff contended that Monsanto could add a cancer warning using FIFRA's "notification" process, which—in contrast to the "amendment" process under 40 C.F.R. § 152.44(a)—permits a manufacturer to make "certain minor modifications" to registered pesticide's label "without requiring … Agency approval." 40 C.F.R. § 152.46(a)(1). Relying on *Hardeman*, Plaintiff argued that "EPA has repeatedly permitted pesticide manufacturers to use the notification procedure to add notices related to cancer to their products' labels."

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[16] Plaintiff has conceded this, telling the trial court that Monsanto could have added a cancer warning to the Roundup label "had it had asked" EPA for permission "to do so." D139 p. 10. For the reasons identified here, Plaintiff is right that Monsanto would have to obtain EPA approval before giving a cancer warning but, as explained below (*see infra* at 48-57), he is wrong in suggesting that EPA would approve such a warning if authorization were sought.

(D139 p. 14 (quoting 997 F.3d at 959); *accord* D74 pp. 11-12). But whatever EPA's historic practice might once have been—40 C.F.R. § 152.46(a)(1) grants the agency discretion to determine when the notification procedure may be used (*Schaffner*, 2024 WL 3820973, at *10)—it is clear that by law and current EPA procedure "[s]pecific statements pertaining to the hazards of the product and its uses must" indeed "be approved by the Agency" through the amendment process. 40 C.F.R. § 156.70(c); *accord* 40 C.F.R. § 152.44(a).[17]

Carson, *Hardeman*, *Pilliod*, and *Johnson* erred in concluding otherwise. In contrast to *Schaffner*, which offers the only "comprehensive[]" analysis "of preemption under FIFRA" (2024 WL 3820973, at *21), they fail to recognize that 40 C.F.R. §§ 152.44(a) and 156.70(c), controlling regulations issued pursuant to 7 U.S.C. §§ 136a and 136a-1, require that a manufacturer obtain EPA approval before including a warning on a pesticide label. *See supra* at 36-37. That is dispositive: FIFRA's pre-approval requirement makes it impossible for Monsanto "to unilaterally strengthen its warning" (*Wyeth*, 555 U.S. at 573), and thus impossible to "independently do under federal

[17] EPA admits that, as a result of earlier "implementation mistakes," it had "mistakenly approved glyphosate cancer warnings on at least two … occasions" via the notification process after enactment of California's Proposition 65. Brief of the United States as Amicus Curiae in Support of Monsanto, 2019 WL 7494588, at *17-19 & n.14 (9th Cir. Dec. 20, 2019), in *Hardeman v. Monsanto Co.*, No. 19-16708 (9th Cir.). But "EPA ultimately rejected those warnings." *Id.* at *17; *cf. infra* at 47- 48 (discussing EPA's authority to reject provisional labeling changes); *id.* at 53-55 (discussing Prop 65).

law what state law requires of it." *Mensing*, 564 U.S. at 620. It is immaterial that manufacturers "are responsible for drafting their own product labels" and have "a 'continuing obligation to adhere to FIFRA's labeling requirements.'" *Hardeman*, 997 F.3d at 959. It is likewise irrelevant that "EPA 'shall' approve" a labeling change if the agency determines the change will not violate FIFRA. *Id.* None of those things change the fact that regulations with the force of law categorically prohibit manufacturers from adding warnings to pesticide labels without prior EPA approval—and that Plaintiff's claim is therefore impliedly preempted.[18]

Compounding its failure to take 40 C.F.R. §§ 152.44(a) and 156.70(c) into due account, *Hardeman* (and by extension Carson) mistakenly relied on an outdated EPA document—EPA, Office of Pesticide Programs, *Pesticide Registration Notice 98-10* (Oct. 22, 1998) (PRN 98-10) (D12)—to find that a cancer warning may be added through the notification process established by 40 C.F.R. § 152.46(a)(1). *Cf. Hardeman*, 997 F.3d at 959 & 960 n.10; *Carson*, 92

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[18] Thus, it does not matter whether individual registration approvals do or "do not carry the force of law." *Carson*, 92 F.4th at 992; *see also Johnson*, 333 Or. App. at 701. The requirement that a manufacturer obtain EPA approval before giving a warning is imposed by 7 U.S.C. §§ 136a(c)(1)(C) and 136a-1(g)(2)(C) in conjunction with 7 U.S.C. § 136j(a)(2)(S)), 40 C.F.R. §§ 152.44(a), and 156.70(c), all of which indisputably have the force of law. By prohibiting pesticide manufacturers from giving any warning that has not been approved by EPA, these statutes and regulations establish "a rule of law that must be obeyed." *Schaffner*, 2024 WL 3820973, at *20 (quoting *Bates*, 544 U.S. at 445).

F.4th at 999.[19] A labeling change may be made via notification only if it is "consistent with" EPA "procedures … describing the types of modifications permitted by notification." 40 C.F.R. § 152.46(a). EPA first issued "these procedures" in 1996 "as Pesticide Regulation (PR) Notice 95-2." EPA, Notification Procedures for Pesticide Registration Modifications, 61 Fed. Reg. 33039, 33040 (June 26, 1996). Two years later, EPA issued PRN 98-10, the document on which *Hardeman* relied. For advisory statements such as health warnings, PRN 98-10 maintained the procedures established by PRN 95-2 but only until EPA "finalized" new procedures that were to be published in an upcoming pesticide registration notice. D12 p. 5. *Hardeman* failed to appreciate that those new procedures were issued in 2000 as PRN 2000-5, which expressly "supersede[d]" PRN 98-10 and PRN 95-2 "concerning the use of notification for adding or modifying advisory statements." EPA, Office of Pesticide Programs, *Pesticide Registration Notice 2000-5*, at 5 (May 10, 2000) (Mot. Judicial Notice, Ex. H p. 5). Since issuance of PRN 2000-5, manufacturers "may no longer add or change advisory labeling statements to existing products by notification as previously permitted by PR Notices 95-2 and 98-10." EPA, Pesticides; Guidance for Pesticide Registrants on Mandatory and Advisory Labeling Statements, 65 Fed. Reg. 31313, 31314 (May 17, 2000); *accord* EPA, Label Review Manual: Types of Label Reviews 4-7

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[19] *Schaffner* too mistakenly viewed PRN 98-10 as EPA's operative guidance document but, unlike *Hardeman*, found that it "does not permit [a cancer warning] to be added … by notification." *Schaffner*, 2024 WL 3820973, at *10.

(Dec. 2011) ("Label Review Manual") (Mot. Judicial Notice, Ex. I), available at https://www.epa.gov/sites/default/files/2017-10/documents/chap-04-dec-2011.pdf. On the contrary, as prescribed by 40 C.F.R. §§ 152.44(a) and 156.70(c), a manufacturer "may modify or add mandatory or advisory labeling statements for currently registered products only by submitting an application for amended registration." PRN 2000-5, at 5 (Mot. Judicial Notice, Ex. H).

In short, federal statute, regulation, and procedure forbid Monsanto from adding a cancer warning to the Roundup label without EPA approval. The preemptive conflict is thus clear: federal law prohibits what state law purportedly requires. "Under the Supremacy Clause, state laws that require a private party to violate federal law are pre-empted." *Bartlett*, 570 U.S. at 475 (quoting *Maryland v. Louisiana*, 451 U.S. 725, 746 (1981)). Therefore, "[w]hen," as in this case, "the 'ordinary meaning' of federal law blocks a private party from independently accomplishing what state law [supposedly] requires, that party has established pre-emption." *Mensing*, 564 U.S. at 623.[20]

[20] It is no answer to say that Monsanto could avoid state-law liability without violating federal law by removing Roundup from the market. The U.S. Supreme Court has squarely rejected the "stop-selling" theory, holding that it is "no solution" to a conflict between state and federal law and that its acceptance "would render impossibility pre-emption a dead letter and work a revolution in this Court's pre-emption case law." *Bartlett*, 570 U.S. at 475.

2. There is clear evidence that EPA would reject a cancer warning even if Monsanto could unilaterally change its label.

Tacitly acknowledging that a state-law failure-to-warn claim "is preempted" when federal law "prohibit[s]" a manufacturer "from making any unilateral changes to [the product's] label" (*Bartlett*, 570 U.S. at 477, 480), Plaintiff argued below that Monsanto does not need prior EPA approval to give a cancer warning because, said Plaintiff, Monsanto could unilaterally add such a warning to the Roundup label via the "notification" process set forth in 40 C.F.R. § 152.46(a). Cf. D139 p. 14; D74 pp. 12-13. Plaintiff is wrong for the reasons already explained. *See supra* at 35-37.

But even if, contrary to fact, Monsanto could provisionally add a cancer warning via the notification process, that would not save Plaintiff's claim from conflict preemption, because there is "clear evidence" that EPA would ultimately reject such a warning. *Wyeth*, 555 U.S. at 571.[21]

Wyeth, which first articulated this dispositive rule, involved a prescription drug regulated by the Food and Drug Administration under the Food, Drug, and Cosmetic Act. Because the drug in question was a branded rather than generic drug, federal law—specifically, the Changes Being Effected ("CBE") regulation codified at 21 C.F.R. § 314.70(c)(6)(iii)—

[21] "[T]he question" whether EPA would approve a cancer warning "is a legal one for the judge, not a jury." *Merck Sharp & Dohme Corp. v. Albrecht*, 587 U.S. 299, 316 (2019) ("Albrecht").

allowed the manufacturer to add a warning to the drug's label without prior FDA authorization. *See Wyeth*, 555 U.S. at 568. But any such unilateral labeling change is subject to review by the FDA, which "retains authority to reject labeling changes made pursuant to the CBE regulation." *Wyeth*, 555 U.S. at 571. Recognizing the agency's power to retrospectively reject a manufacturer's unilateral labeling change, *Wyeth* held that a failure-to-warn claim is impliedly preempted notwithstanding a manufacturer's ability to provisionally change the label without prior authorization if there is "clear evidence that the FDA would not have approved a change to [the drug's] label." *Id.*

This rule dooms Plaintiff's claim even if—contrary to fact—Monsanto could use the notification process to provisionally add a cancer warning to the Roundup labeling. Just as the FDA "retains authority to reject labeling changes made pursuant to [the FDCA's] CBE regulation" (*Wyeth*, 555 U.S. at 571), EPA "may disapprove" any labeling change made pursuant to FIFRA's notification process. 7 U.S.C. § 136a(c)(9)(C)(ii); *accord* 40 C.F.R. § 152.46(a)(2); Label Review Manual 4-7 (Mot. Judicial Notice, Ex. I). If EPA determines that a provisional labeling change "is not acceptable," the manufacturer "may not sell or distribute" the relabeled pesticide. 7 U.S.C. §§ 136a(c)(9)(C)(ii), (iii). Glyphosate's regulatory history is "clear evidence" (*Wyeth*, 555 U.S. at 571) that EPA would in fact "disapprove" a cancer warning on Roundup labeling. 7 U.S.C. § 136a(c)(9)(C)(ii).

As recounted above (*see supra* at 22-27), EPA has repeatedly considered and consistently rejected a cancer warning for glyphosate products.

Beginning in 1989, fifteen years after first it registered Roundup without requiring a cancer warning, EPA "conduct[ed] a thorough examination of all … available data" to "determin[e] whether" glyphosate products continued to "meet[] the requirements" for registration under "section 136a(c)(5)," including the requirement that their labeling contain any "warning … which may be necessary." 7 U.S.C. § 136(q)(1)(G); 7 U.S.C. §§ 136a-1(g)(1), (g)(2)(C); *cf.* 7 U.S.C. § 136a(c)(5)(B). In 1993, after completing a multiyear review of "scientific studies in … toxicology" and other relevant disciplines that found "a lack of convincing evidence of carcinogenicity," the agency determined that glyphosate products like Roundup were "eligible for reregistration" without inclusion of a cancer warning because they did "not pose unreasonable risks … to humans" in the absence of such a warning. D113 pp. 21, 36-37; Mot. Judicial Notice, Ex. B pp. 57-58.

EPA reached the identical conclusion in 2017 and then again in 2020 after once more "reevaluat[ing] the human carcinogenic potential of glyphosate" pursuant to the congressionally mandated reregistration process. Draft Human Health Risk Assessment (D28 p. 4); *cf.* 7 U.S.C. § 136a-1. Having examined "data from animal toxicity, genotoxicity, and epidemiological studies," the agency "concluded" anew "that glyphosate should be classified as 'not likely to be carcinogenic to humans.'" Draft Human Health Risk Assessment (D28 p. 4); cf. 2020 IRRD at 4

(finalizing draft assessment) (D122 p. 5). And, based on that renewed finding, the agency again decided not to require a cancer warning on glyphosate products. D122 pp. 16-20, 24-28.

Notably, EPA concluded that glyphosate is not likely carcinogenic only after specifically considering and explicitly rejecting a principal basis for Plaintiff's claim—namely, the 2015 classification of glyphosate as "probably carcinogenic to humans" by the International Agency for Cancer Research ("IARC"). *Cf., e.g.*, D2 ¶¶ 102-05, 149-67; 1 Tr. 16:17-19; 2 Tr. 794:9-13; 5 Tr. 3414:14-24, 3418:6-8.[22] After noting

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[22] There is far less to IARC's classification than might appear at first glance. As the Ninth Circuit has explained:

> No agency or regulatory body (including IARC) has concluded that glyphosate poses a carcinogenic risk, which is distinct from a carcinogenic hazard. *See Monsanto Co. v. OEHHA*, 22 Cal. App. 5th 534, 231 Cal. Rptr. 3d 537, 542 (2018) (noting that IARC only determines "whether an agent is capable of causing cancer but do[es] not consider the likelihood cancer will occur"). … [T]he distinction between hazard and risk is significant. In this context, a hazard indicates that at some theoretical level of exposure, the chemical is capable of causing cancer. Risk, on the other hand, is the likelihood that cancer will occur at a real-world level of exposure.

Nat'l Ass'n of Wheat Growers v. Bonta, 85 F.4th 1263, 1269 (9th Cir. 2023); *see also, e.g.*, *In re Roundup Prods. Liab. Litig.*, 390 F. Supp. 3d 1102, 1108 (N.D. Cal. 2018) ("As IARC takes pains to point out, its decision that a substance is 'probably carcinogenic to humans' is a hazard assessment—merely the first step in determining whether the substance currently presents a meaningful risk to human health."), *aff'd sub nom. Hardeman v. Monsanto Co.*, 997 F.3d 941 (9th Cir. 2021). Moreover, although it found "limited" evidence of a "positive association" between

that it "conducted an independent evaluation of the cancer potential of glyphosate and concluded that glyphosate is 'not likely to be carcinogenic'" based on "an in-depth review of all relevant animal carcinogenicity and genotoxicity studies for the active ingredient glyphosate, as well as epidemiological studies that investigated potential carcinogenic effects from using pesticide products containing glyphosate," EPA explained that its "analysis is more robust" than "IARC's evaluation." EPA, Glyphosate: Response to Comments on the Human Health Draft Risk Assessment, at 2-3 (April 23, 2018) (Mot. Judicial Notice, Ex. F). EPA observed that, in addition to other methodological weaknesses, "IARC considered" only "a subset of the studies included in the Agency's evaluation," noting, for example, that "IARC only considered 8 animal carcinogenicity studies, while the Agency utilized 15 acceptable animal carcinogenicity studies in its evaluation." *Id.* at 3. EPA expressed confidence in not only its methodology but also its ultimate finding, noting that "[t]he Agency's conclusion that glyphosate is 'not likely to be carcinogenic' is consistent with" the findings of

> other countries and regulatory authorities/international organizations including the Canadian Pest Management Regulatory Agency, Australian Pesticide and Veterinary Medicines Authority, European Food Safety Authority, the European

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glyphosate and cancer, IARC acknowledges that "chance, bias or confounding could not be ruled out with reasonable confidence" as the source of the purported association. 2 Tr. 1150:17-1151:10; *accord* Mot. Judicial Notice, Ex. N.

> Chemicals Agency, German Federal Institute for Occupational Safety and Health, [t]he Joint FAO/WHO Meeting on Pesticide Residues, the New Zealand Environmental Protection Authority, and Food Safety Commission of Japan.

Id.

EPA underscored its rejection of IARC's analysis and its opposition to a glyphosate cancer warning in a 2019 letter to manufacturers of glyphosate products. After IARC classified glyphosate as "probably carcinogenic," California placed it on a list of "chemicals known to the state to cause cancer." State of California, Environmental Protection Agency, Office of Environmental Health Hazard Assessment, Chemicals Known to the State to Cause Cancer or Reproductive Toxicity (Mot. Judicial Notice, Ex. J), available at https://oehha.ca.gov/media/downloads/proposition-65-//-p65-chemicals-list.pdf. Its placement on the list meant that manufacturers of glyphosate products were compelled by California law—specifically, by the state's Safe Drinking Water and Toxic Enforcement Act of 1986 ("Prop 65")—"to provide a clear and reasonable warning … that glyphosate is a carcinogen." *Nat'l Ass'n of Wheat Growers v. Bonta*, 85 F.4th 1263, 1266 (9th Cir. 2023).[23] EPA explicitly rejected that warning, advising

[23] Recognizing that "IARC stands essentially alone in its determination that glyphosate is probably carcinogenic to humans, while EPA, [the California Office of Environmental Health Hazard Assessment], and regulators from around the world conclude that it is not," and that the state-mandated warning "is factually misleading" because "[n]o agency or regulatory body (including IARC) has concluded that glyphosate

Monsanto and other manufacturers of glyphosate products that they would be in violation of federal law were they to include it in their labeling:

> Given EPA's determination that glyphosate is 'not likely to be carcinogenic to humans,' EPA considers the Proposition 65 warning language based on the chemical glyphosate to constitute a false and misleading statement. As such, pesticide products bearing the Proposition 65 warning statement due to the presence of glyphosate are misbranded pursuant to section 2(q)(l)(A) of FIFRA and as such do not meet the requirements of FIFRA.

D30 pp. 1-3.[23]

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poses a carcinogenic risk, which is distinct from a carcinogenic *hazard*," the Ninth Circuit invalidated the requirement, holding that "the Prop 65 warning as applied to glyphosate is unconstitutional" compelled speech. *Nat'l Ass'n of Wheat Growers*, 85 F.4th at 1269, 1278, 1281, 1283 (emphasis added); cf. supra at 52 n.21 (explaining distinction between 'risk' and 'hazard'). Notably, the California Office of Environmental Health Hazard Assessment ("OEHHA"), which administers Prop 65, was statutorily compelled to place glyphosate on the state's list of known carcinogens once IARC classified glyphosate as "probably carcinogenic." *Nat'l Ass'n of Wheat Growers*, 85 F.4th at 1267 (citing Cal. Health & Safety Code § 25249.8(a); Cal. Lab. Code § 6382(b)(1)). OEHHA was forced to list glyphosate as a known carcinogen even though OEHHA itself "has twice evaluated glyphosate's potential carcinogenicity in drinking water and twice determined that it was unlikely to present a cancer hazard to humans." *Id.* at 1270.

[23] Relying on a 2022 letter from EPA to OEHHA regarding Prop 65, Plaintiff argued below that EPA would approve "a label which included warnings about the cancer risks of Roundup" because the agency told OEHHA that a label "reflecting IARC's

classification of glyphosate as a probable carcinogen 'could be approved by the EPA' if Monsanto 'requested it.'" D139 p. 10 (citing EPA, Letter to Office of Environmental Health Hazard Assessment (Apr. 8, 2022) (D31 pp. 2- 3). But the 2022 letter does not save Plaintiff's claim from implied preemption. First, the letter confirms that Monsanto would need EPA approval before changing the Roundup label, and thus confirms that Monsanto could not "independently do under federal law what state law" supposedly "requires of it." *Mensing*, 564 U.S. at 620; *cf. supra* at 42-48. Second, contrary to Plaintiff's suggestion below, the letter does not indicate that EPA would allow Monsanto to warn that glyphosate causes cancer. To the contrary, the letter reiterated that "[t]he Agency continues to stand behind its robust scientific evaluation of the carcinogenic potential of glyphosate." D31 p. 1; *accord id.* at 2 ("EPA's scientific conclusions regarding the glyphosate cancer classification have not changed since the August 7, 2019, letter to glyphosate registrants"); *cf. supra* at 26. The Prop 65 statement that EPA said it could approve does not warn that glyphosate causes cancer. Although it reports that IARC "classified glyphosate as probably carcinogenic," it proceeds to explain that "US EPA has determined that glyphosate is not likely to be carcinogenic to humans" and that "other authorities have made similar determinations." D31 p. 2. That is not the cancer warning that Plaintiff says Missouri law requires. On the contrary, Plaintiff told to the jury that equivocal language contrasting IARC's classification with the contrary scientific consensus is "incomplete and inaccurate." 5 Tr. 3422:12-13. The warning that Plaintiff says is required—an unambiguous warning about the purportedly "carcinogenic characteristics of glyphosate" (D2 ¶ 203; *see also, e.g.*, 4 Tr. 2517:8-10)—is not one that EPA would approve if asked. Moreover, Plaintiff used Roundup from 1996 to 2018 but IARC did not classify glyphosate as "probably carcinogenic" until 2015. 4 Tr. 2467:12-2468:4, 2474:20-2475:1. Thus, even if Plaintiff were to abandon the position he took at trial and now argue that Monsanto could have satisfied its state-law duty to warn by warning that IARC has "classified glyphosate as probably carcinogenic," it would have been impossible to give that warning for 19 of the 22 years that Plaintiff used Roundup. Plaintiff did not argue or offer any evidence that he contracted NHL because

That EPA's 2020 interim reregistration decision was vacated in relevant part (*cf. NRDC*, 38 F.4th at 52) is immaterial. As the agency subsequently stated: "EPA's underlying scientific findings regarding glyphosate, including its finding that glyphosate is not likely to be carcinogenic to humans, remain the same." EPA, Glyphosate (Mot. Judicial Notice, Ex. K), available at https://www.epa.gov/ ingredients-used-pesticide-products/glyphosate (updated Sept. 11, 2023).

EPA's consistent rejection of a cancer warning for glyphosate products after repeated review of glyphosate's carcinogenic potential is "clear evidence that [EPA] would not have approved" such a warning if Monsanto attempted to add it to the Roundup label via the notification process. *Wyeth*, 555 U.S. at 571.[24]

Monsanto failed to give such a warning during the last three years he used Roundup.

[24] In a subsequent case, the U.S. Supreme Court noted that *Wyeth* was decided "in the context of a particular set of circumstances" and said that, "*[i]n a case like Wyeth*, showing that federal law prohibited the drug manufacturer from adding a warning that would satisfy state law requires the drug manufacturer to show that it fully informed the FDA of the justifications for the warning required by state law and that the FDA, in turn, informed the drug manufacturer that the FDA would not approve changing the drug's label to include that warning." *Albrecht*, 587 U.S. at 313-14 (emphasis added). In *Wyeth*, the manufacturer's argument that the FDA would not have approved a unilateral change to the drug's label was based exclusively on the manufacturer's own interactions with the agency. *See* 555 U.S. at 572. Since *Albrecht*, courts have held—including in *Albrecht* itself on remand (*see In re Fosamax (Alendronate Sodium) Prods. Liab. Litig.*, 593 F. Supp. 3d 96, 117 (D.N.J. 2022), *appeal docketed*, No. 22-3412 (3d Cir. Dec. 22, 2022))—that a manufacturer need not rely on its own interactions with the FDA to show that the

Therefore, even if Monsanto could provisionally add a cancer warning using the notification process notwithstanding 40 C.F.R. §§ 152.44(a) and 156.70(c), Plaintiff's failure-to-warn claim would still be impliedly preempted.

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agency would not approve a labeling change. Courts have, for example, found "clear evidence" (*Albrecht*, 587 U.S. at 313 (quoting *Wyeth*, 555 U.S. at 571)) that a labeling change would not be approved based on the agency's denial of a citizen's petition (*Cerveny v. Aventis, Inc.*, 783 F. App'x 804, 808 n.9 (10th Cir. 2019)), based on the agency's denial of another manufacturer's proposed labeling change (*In re Zofran (Ondansetron) Prods. Liab. Litig.*, 57 F.4th 327, 341-43 (1st Cir. 2023), and based on the agency's publication of an article in a medical journal (*In re Incretin-Based Therapies Prods. Liab. Litig.*, 524 F. Supp. 3d 1007, 1029-33 (S.D. Cal. 2021), *aff'd*, 2022 WL 898595 (9th Cir. 2022)). EPA's registration and reregistration decisions, its 2019 letter to glyphosate manufacturers, and its 2023 reaffirmation of its longstanding view that glyphosate is not carcinogenic—all actions that "lie within the scope of the authority Congress has lawfully delegated" to the agency (*Albrecht*, 587 U.S. at 316)—are clear evidence that EPA would reject a cancer warning for glyphosate products. Improperly plucking one example from a list of examples, *Hardeman* and *Carson* misread *Albrecht* as limiting "clear evidence" to agency action that "carr[ies] the force of law." *Hardeman*, 997 F.3d at 958 (quoting *Albrecht*, 587 U.S. at 316); *accord Carson*, 92 F.4th at 997. That *Hardeman* and *Carson* read too much into *Albrecht* is clear from *Albrecht* itself, which "make[s] only the obvious point that, whatever the means the FDA uses to exercise its authority, those means must lie within the scope of the authority Congress has lawfully delegated." 587 U.S. at 316. There is no question that each of the actions evidencing EPA's rejection of a cancer warning—including its registration and reregistration decisions, its 2019 letter to registrants, its 2020 IRRD, and its 2022 statement regarding the 2020 IRRD—was "fully informed" (*see supra* at 23-27, 50-53) and taken "within the scope of the authority Congress has lawfully delegated" the agency. *Albrecht*, 587 U.S. at 316.

Conclusion

The Court should enter judgment in favor of Monsanto.

Dated: September 10, 2024

Respectfully submitted,

By: */s/ Timothy J. Hasken*

BRYAN CAVE LEIGHTON PAISNER LLP

* * *

Motion for Summary Judgment, Exhibit 10 Excerpts -- *Glyphosate: EPA Actions and Regulatory History*, EPA, https://www.epa.gov/ingredients-used-pesticide-products/glyphosate#actions (last visited June 29, 2023)

Glyphosate

* * *

Glyphosate is a widely used herbicide that controls broadleaf weeds and grasses. It has been registered as a pesticide in the U.S. since 1974. Since glyphosate's first registration, EPA has reviewed and reassessed its safety and uses, including undergoing registration review <https://epa.gov/node/38645>, a program that re-evaluates each registered pesticide on a 15-year cycle.

In February 2020, after receiving and considering public comments on the glyphosate proposed interim decision, EPA published the interim decision registration review decision (ID) for glyphosate. As part of this action, EPA found that there are no risks of concern to human health when glyphosate is used in accordance with its current label. EPA also found that glyphosate is unlikely to be a human carcinogen. The ID also identified potential ecological risks to non-target organisms, primarily non-target plants through spray drift. The ID identified interim risk mitigation measures in the form of label changes, including spray drift management language, herbicide resistance management language, a non-target organism advisory, and certain label consistency measures. It concluded that the benefits of glyphosate outweigh the

potential ecological risks when glyphosate is used in accordance with labels.

On March 20, 2020, the glyphosate ID was challenged in the U.S. Court of Appeals for the Ninth Circuit. Petitioners challenged EPA's analysis of human health and ecological risk, the weighing of such risks against the benefits of glyphosate and the interim risk mitigation measures, and alleged that EPA violated the Endangered Species Act (ESA). On May 18, 2021, EPA sought partial voluntary remand without vacatur of the ecological portion of the ID so the Agency could revisit aspects of its analysis in light of EPA's November 2020 draft biological evaluation for glyphosate and recent court decisions for other herbicides, among other reasons.

On June 17, 2022, the U.S. Court of Appeals for the Ninth Circuit vacated the human health portion of the glyphosate ID and held that EPA's registration review decision under FIFRA was an 'action' that triggered ESA obligations. The court also granted EPA's request for voluntary remand, without vacatur, of the ecological portion of the ID but imposed an Oct. 1, 2022 deadline for EPA to issue a new ecological portion. EPA sought relief from this deadline, which the court denied on Aug. 5, 2022.

EPA has determined that withdrawal of the glyphosate ID is appropriate in consideration of the Ninth Circuit's June 17, 2022 decision. The Agency is unable to finalize a new ecological portion in a registration review decision for glyphosate by the court-imposed Oct. 1, 2022, deadline because of the time needed to address the issues for which EPA sought remand of the ecological portion and satisfy

ESA requirements. EPA initiated formal ESA consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (the Services) for glyphosate in November 2021, and consultation is ongoing. Moreover, before issuing any decision, EPA must first prepare a proposed decision, publish for a 60-day public comment period, and consider any comments received. EPA cannot complete these processes by the court-imposed deadline.

EPA's underlying scientific findings regarding glyphosate, including its finding that glyphosate is not likely to be carcinogenic to humans, remain the same. In accordance with the court's decision, the Agency intends to revisit and better explain its evaluation of the carcinogenic potential of glyphosate and to consider whether to do so for other aspects of its human health analysis. …

* * *

Motion for Judgment Notwithstanding the Verdict and in the Alternative New Trial, Exhibit 12 Excerpts – EPA, *Pesticide Registration (PR) Notice 98-10* (Oct. 22, 1998)

October 22, 1998

PESTICIDE REGISTRATION (PR) NOTICE 98-10

NOTICE TO MANUFACTURERS, PRODUCERS, FORMULATORS AND REGISTRANTS OF PESTICIDE PRODUCTS'

ATTENTION: Persons Responsible for Federal Registration and Reregistration of Pesticide Products

SUBJECT: Notifications, Non-Notifications and Minor Formulation Amendments

This notice expands the changes to registration which may be made by notification and non-notification, maintains the expedited review of minor formulation changes, and modifies the procedures for notifications of antimicrobial products. This notice is effective immediately and supersedes PR Notice 95-2 (May 31, 1995), except with regard to advisory statements (see section II.D. below).

I. BACKGROUND

On August 3, 1996, the Food Quality Protection Act (FQPA) was passed with a provision that added section 3(c)(9) to FIFRA concerning notifications for labeling of antimicrobial products. This section allows a registrant to add relevant information on product efficacy, product composition, container composition or design, or other characteristics that do not relate to pesticide claims or activity. In addition, the FQPA

describes the process which a registrant and the agency must follow with respect to notifications for antimicrobial products.

EPA is issuing this notice to meet the new requirements of the FQPA and to allow additional minor, low risk registration amendments to be accomplished through notification, non-notification or as accelerated amendments. EPA believes these changes will save registrants and the Agency time and resources, while maintaining full protection of public health and the environment. Table A lists all registration amendments which may be accomplished by notification, non-notification or accelerated minor formulation changes.

II. LABELING NOTIFICATIONS

40 CFR 152.46 was revised on August 26, 1996 to allow EPA to issue procedures describing modifications to registration that are permitted by notification. This section applies only to labeling notifications. The following registration amendments may be accomplished by notification:

* * *

E. Changes in Packing and Related Labeling Statements

Changes in the shape, color or composition of packaging and in labeling statements that change directly because of changes in the package size and type may be done by notification only if **all** of the following criteria are met:

* * *

5. no Worker Protection Standard labeling statements are changed;

* * *

J. Changes in Warranty Statement

Warranty statements may be revised provided they do not disclaim the performance or safety of the product when used in accordance with label directions, and are otherwise consistent with 40 CFR Part 156.

* * *

N. Other Revisions

Minor label changes not described in Section II.A.-M. and Section III *which are related to FIFRA* may be made by notification, provided they:

1. are consistent with or specified by a PR Notice; or

2. are consistent with 40 CFR Part 156; and

3. involve no change in the ingredients statement, signal word, use classification, precautionary statements, statements of practical treatment (First Aid), physical/chemical/biological properties, storage and disposal, or directions for use.

III. PRODUCT CHEMISTRY NOTIFICATIONS

A. Source of Active Ingredients

A registrant may change the source of an active ingredient by notification, provided that the alternate source:

1. is registered for at least the same uses for which the formulated product is registered; and

2. is similar to the current source, i.e., meets the criteria given in 40 CFR 152.43(b)(1) and (2).

A registrant must submit a Formulator's Exemption (EPA Form 8570-27) along with the notification of source change if the new source is registered for the same uses as the existing source [40 CFR 152.85(c)].

A registrant may NOT make the following active ingredient related changes by notification, but must submit an application for amendment:

--A change in the source of an active ingredient which would result in a nominal inert ingredient total, or result in a changed toxicological category or chemical property of a product.

This changed formula would be considered an alternate formulation.

--A change to an unregistered source of an active ingredient.

--Addition, deletion, or substitution of an active ingredient or increase or decrease in the amounts of existing active ingredient would constitute a new formulation, which may require a separate registration.

--A change in the stated nominal concentration of any active ingredient or change of certified limits from that shown on the previously submitted Confidential Statement of Formula (CSF), EPA Form 8570-4.

* * *

VII. COMPLIANCE

Notifications and non-notifications must comply with Agency regulations. As provided in 40 CFR 152.46(c), if the Agency determines that a product has

been modified through notification or without notification in a manner inconsistent with this notice or applicable law or regulations, EPA may initiate regulatory or enforcement action without first providing the registrant with an opportunity to submit an application for amended registration. The Agency will audit notifications to assure that the process is working properly and that such submissions are in compliance.

* * *

Plaintiff Trial Exhibits, *Durnell v. Monsanto Co.*, No. 1922-CC00221 (Mo. Cir. Ct.)

Exhibit P3237-010-B

Exhibit P3237-010-C

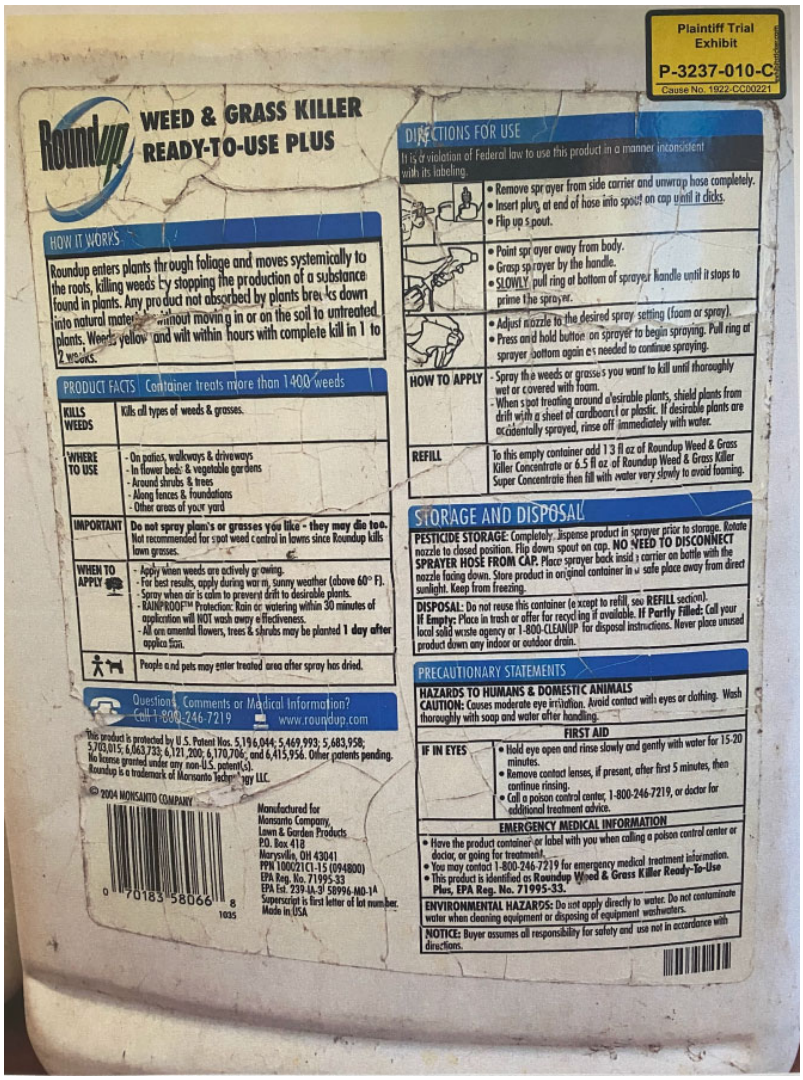


Exhibit P3237-011-B

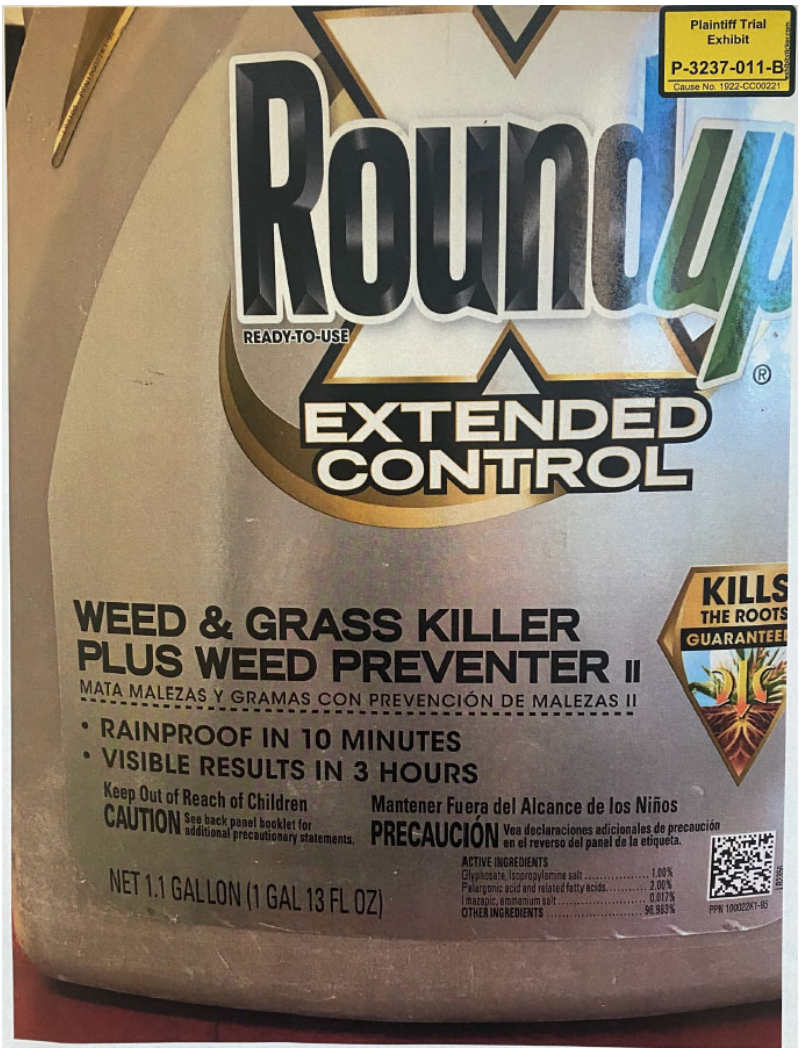


Exhibit P3237-011-D

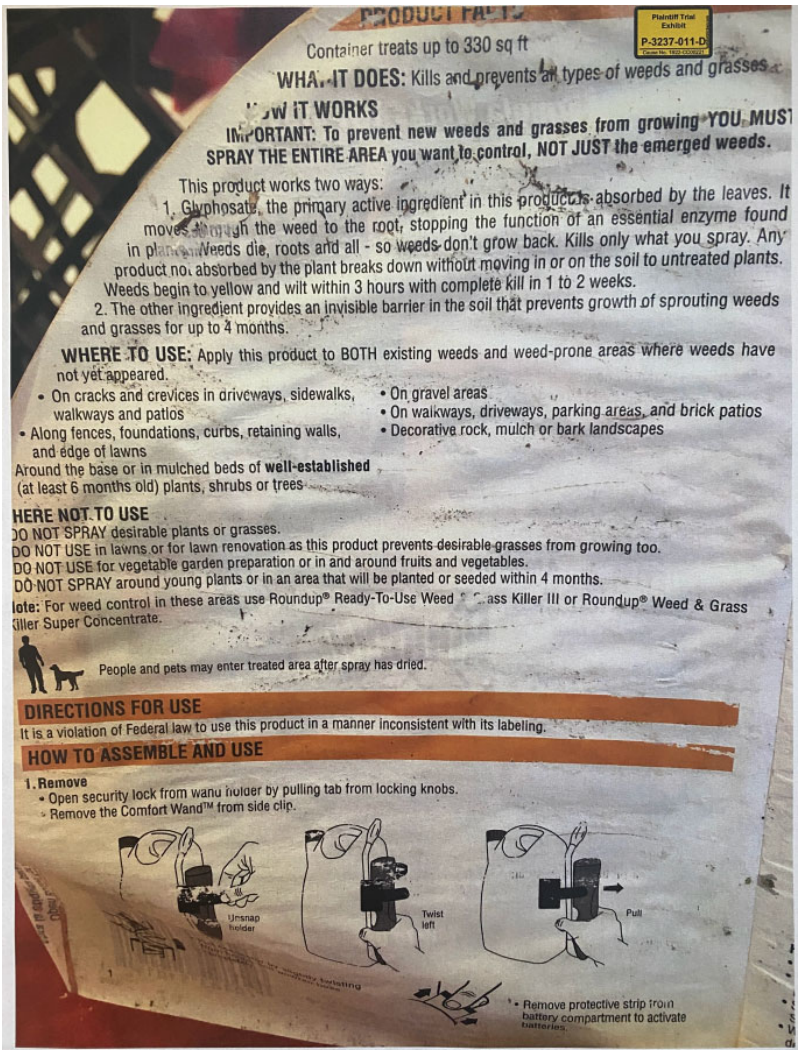


Exhibit P3237-012-D

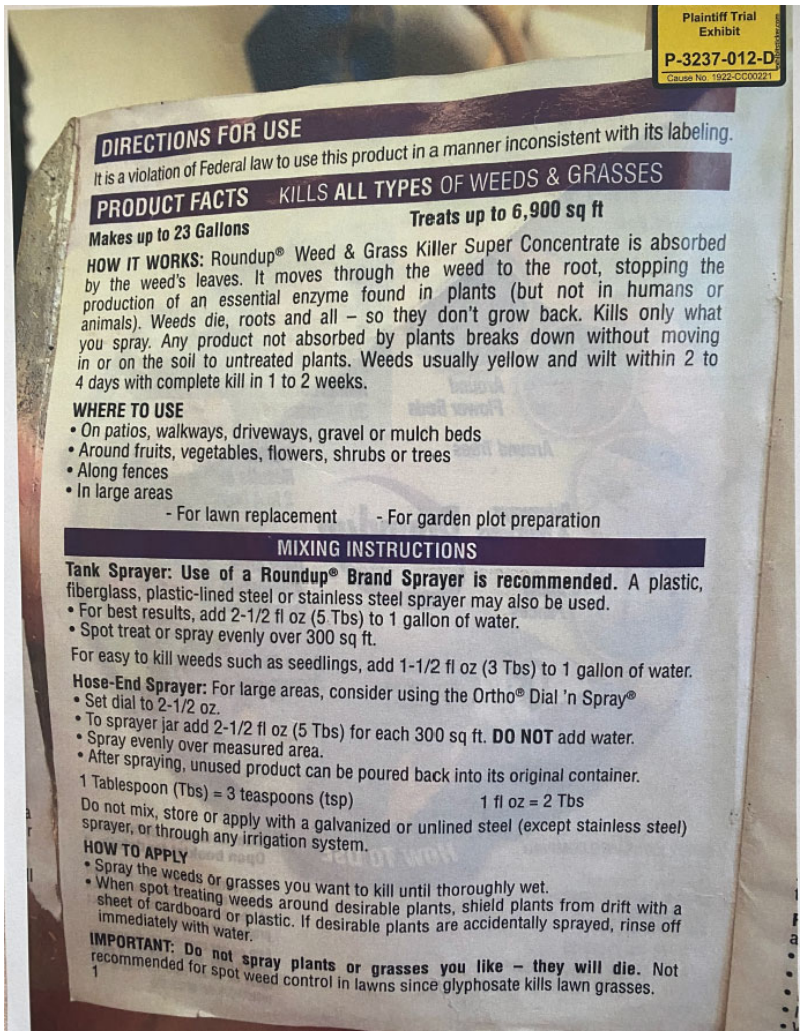
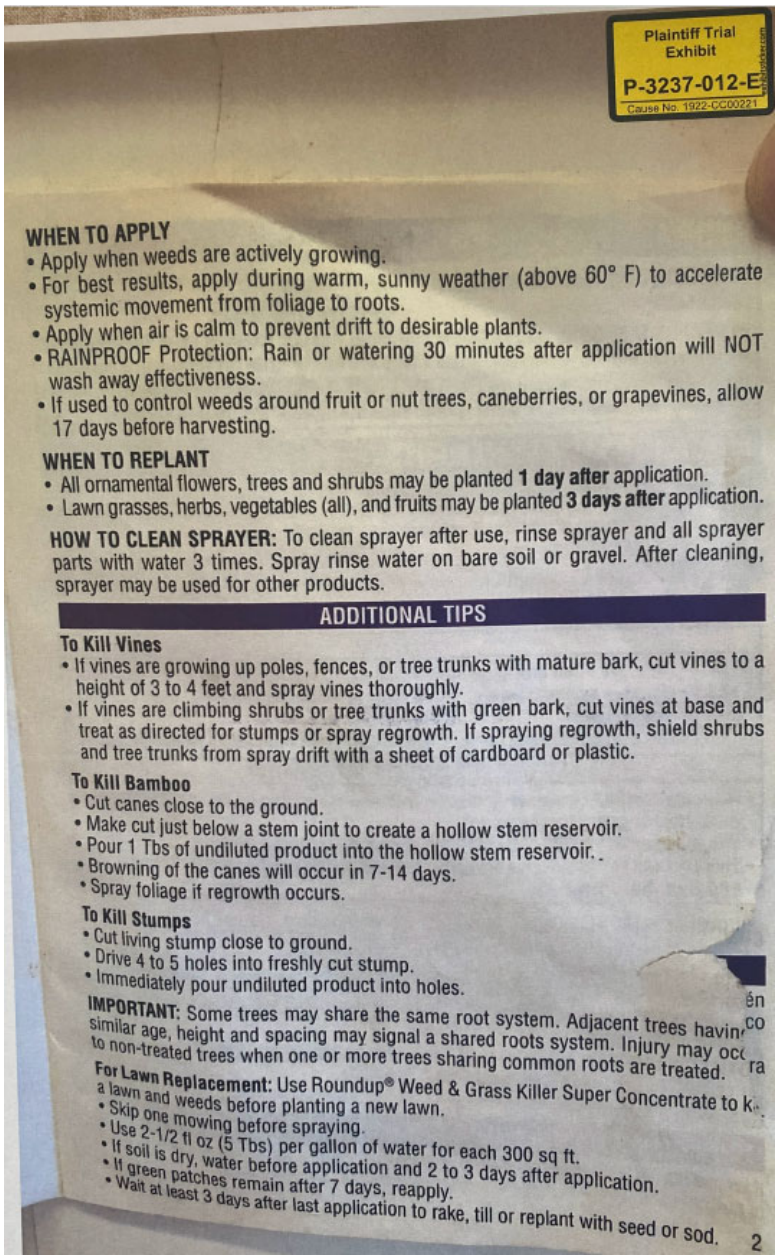


Exhibit P3237-012-E



WHEN TO APPLY
- Apply when weeds are actively growing.
- For best results, apply during warm, sunny weather (above 60° F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- RAINPROOF Protection: Rain or watering 30 minutes after application will NOT wash away effectiveness.
- If used to control weeds around fruit or nut trees, caneberries, or grapevines, allow 17 days before harvesting.

WHEN TO REPLANT
- All ornamental flowers, trees and shrubs may be planted **1 day after** application.
- Lawn grasses, herbs, vegetables (all), and fruits may be planted **3 days after** application.

HOW TO CLEAN SPRAYER: To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

ADDITIONAL TIPS

To Kill Vines
- If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 feet and spray vines thoroughly.
- If vines are climbing shrubs or tree trunks with green bark, cut vines at base and treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and tree trunks from spray drift with a sheet of cardboard or plastic.

To Kill Bamboo
- Cut canes close to the ground.
- Make cut just below a stem joint to create a hollow stem reservoir.
- Pour 1 Tbs of undiluted product into the hollow stem reservoir.
- Browning of the canes will occur in 7-14 days.
- Spray foliage if regrowth occurs.

To Kill Stumps
- Cut living stump close to ground.
- Drive 4 to 5 holes into freshly cut stump.
- Immediately pour undiluted product into holes.

IMPORTANT: Some trees may share the same root system. Adjacent trees havin[illegible] similar age, height and spacing may signal a shared roots system. Injury may oc[illegible] to non-treated trees when one or more trees sharing common roots are treated.

For Lawn Replacement: Use Roundup® Weed & Grass Killer Super Concentrate to k[illegible] a lawn and weeds before planting a new lawn.
- Skip one mowing before spraying.
- Use 2-1/2 fl oz (5 Tbs) per gallon of water for each 300 sq ft.
- If soil is dry, water before application and 2 to 3 days after application.
- If green patches remain after 7 days, reapply.
- Wait at least 3 days after last application to rake, till or replant with seed or sod.

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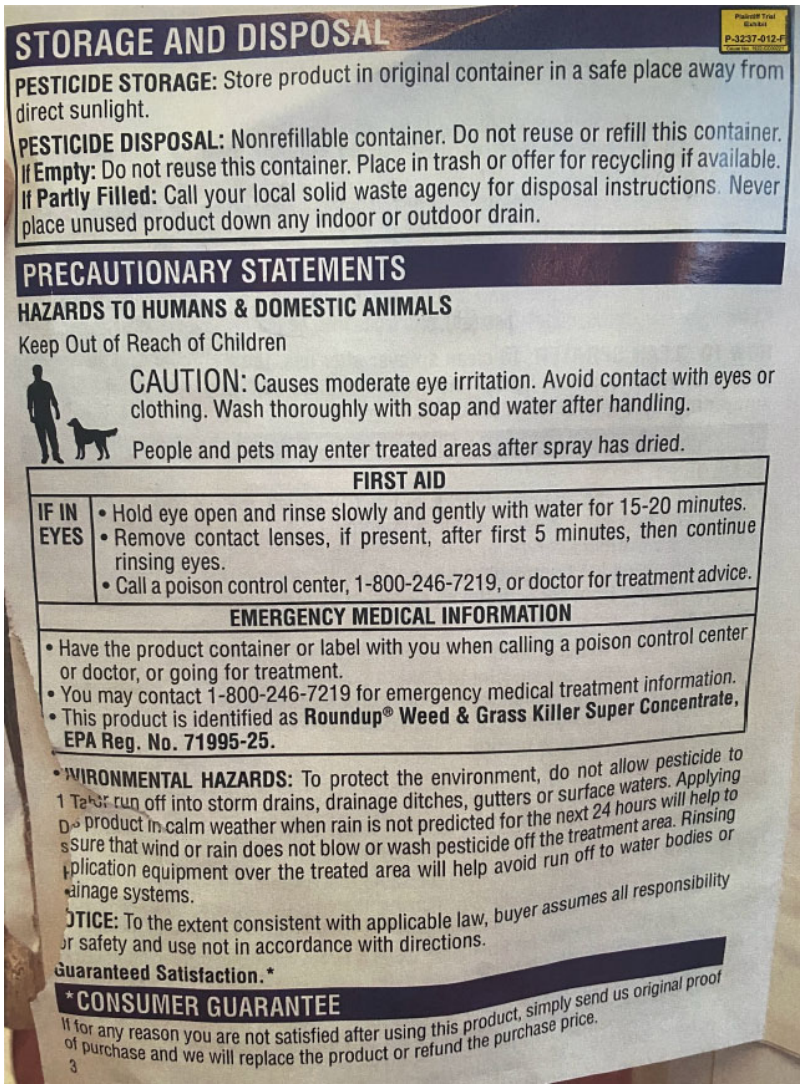
Exhibit P3237-012-F



STORAGE AND DISPOSAL

Plaintiff Trial Exhibit P-3237-012-F

PESTICIDE STORAGE: Store product in original container in a safe place away from direct sunlight.

PESTICIDE DISPOSAL: Nonrefillable container. Do not reuse or refill this container.
If Empty: Do not reuse this container. Place in trash or offer for recycling if available.
If Partly Filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

Keep Out of Reach of Children

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

People and pets may enter treated areas after spray has dried.

FIRST AID

IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after first 5 minutes, then continue rinsing eyes. • Call a poison control center, 1-800-246-7219, or doctor for treatment advice.

EMERGENCY MEDICAL INFORMATION

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- You may contact 1-800-246-7219 for emergency medical treatment information.
- This product is identified as **Roundup® Weed & Grass Killer Super Concentrate, EPA Reg. No. 71995-25.**

ENVIRONMENTAL HAZARDS: To protect the environment, do not allow pesticide to run off into storm drains, drainage ditches, gutters or surface waters. Applying product in calm weather when rain is not predicted for the next 24 hours will help to sure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing pplication equipment over the treated area will help avoid run off to water bodies or rainage systems.

NOTICE: To the extent consistent with applicable law, buyer assumes all responsibility or safety and use not in accordance with directions.

Guaranteed Satisfaction.*

***CONSUMER GUARANTEE**

If for any reason you are not satisfied after using this product, simply send us original proof of purchase and we will replace the product or refund the purchase price.

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