

Glyphosate Roundup

VICTIMS-3,
MONSANTO/BAYER-0



Two billion and multi-million dollar jury verdicts for health damages force shift in market, while EPA ignores scientific findings and ban in Europe

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JURIES FIND FOR VICTIMS

In May, a California jury awarded plaintiffs in the third damages lawsuit on the weed killer Roundup over \$2 billion in punitive and compensatory damages. The jury found that Monsanto “engaged in conduct with malice, oppression or fraud committed by one or more officers, directors or managing agents of Monsanto.”

Plaintiffs Alva and Alberta Pilliod, a couple in their seventies, used Roundup, with the active ingredient glyphosate, since the 1970s to maintain their yard around their home and other properties that they owned. The couple did not wear protective gear when using Roundup because Monsanto marketed the product as “safe.” Mrs. Pilliod was diagnosed with non-Hodgkin lymphoma (NHL) in 2011; Mr. Pilliod’s diagnosis followed in 2015.

The *Pilliod v. Monsanto* jury came to its decision based on evidence, not only of the herbicide’s carcinogenicity, but also of Monsanto’s role in suppressing and discrediting independent findings regarding Roundup toxicity. In an interview with U.S. Right to Know’s Carey Gillam, co-lead trial counsel Michael Miller said, “Unlike the first two Monsanto trials, where the judges severely limited the amount of plaintiffs’ evidence, we were finally allowed to show a jury the mountain of evidence showing Monsanto’s manipulation of science, the media and regulatory agencies to forward their own agenda despite Roundup’s severe harm to the animal kingdom and human-kind.”

That glyphosate-based herbicides cause cancer is by now a matter of scientific consensus. In 2015, the World Health Organization’s International Agency for Research on Cancer

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(IARC) found glyphosate to be a probable human carcinogen. In response to resistance from the European Food Safety Authority, 94 expert scientists published an article in support of IARC’s methodologies and findings.¹ Since 2015, several more publications have added significant weight to the body of evidence supporting glyphosate’s carcinogenicity. A 2018 meta-analysis of studies on glyphosate suggested “a compelling link between exposures to GBH [glyphosate-based herbicides] and increased risk of NHL [non-Hodgkin lymphoma].” A 2019 University of Washington study found that glyphosate exposure increases the risk of NHL by as much as 41%. As of July 7, 2017, glyphosate is listed as a cancer-causing chemical under California’s Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). This requires that cancer warning labels be placed on end-use glyphosate products in California.

The Pilliod trial adds to the growing list of major wins for plaintiffs who attribute their suffering from cancer to Monsanto’s

Collusion Between Monsanto and EPA

More so than previous trials, the Pilliod trial highlighted evidence of collusion between Monsanto and top EPA officials to defend against the onslaught of Roundup cancer trials. Jurors were presented with communications uncovered through a 2017 Freedom of Information Act (FOIA) request, in which EPA officials responded to requests from Monsanto to effect a delay in the 2015 Agency for Toxic Substances and Disease Registry review of glyphosate. The Pilliods' attorneys also presented new documents, including a report attached to a July 2018 email between the strategic intelligence firm Hayklut and Monsanto. As covered by U.S. Right to Know, the report includes the reassurance, "A domestic policy adviser at the White House said, for instance: 'We have Monsanto's back on pesticides regulation. We are prepared to go toe-to-toe on any disputes they may have with, for example, the EU. Monsanto need not fear any additional regulation from this administration.'"

Accordingly, in spite of mounting consensus on Roundup's carcinogenicity, EPA released a proposed interim decision for glyphosate's registration review in May, stating that glyphosate is "not likely to be carcinogenic to humans." In a statement expressing its intent to appeal the case, Bayer referenced that the jury verdict "conflicts directly with the U.S. Environmental Protection Agency's interim registration review decision released just last month."

"malice, oppression or fraud." In the summer of 2018, California groundskeeper Dewayne "Lee" Johnson won a \$289 million jury verdict against Monsanto for his development of NHL after consistent exposure to Roundup. The jury awarded him \$39 million in compensatory damages, and \$250 million in punitive damages, finding that Monsanto acted with "malice or oppression." That amount was later amended by the judge to a total of \$78 million. In the second federal court case, again in California, the jury found unanimously that Edwin Hardeman's development of NHL was substantially caused by Roundup and awarded him \$80 million.

Pilliod v. Monsanto is the third Roundup case to proceed to trial. Bayer/Monsanto still faces more than 13,000 similar pending lawsuits nationwide, by some counts. The fact that multiple federal cases have found that Roundup caused plaintiffs' cancer is a testament to the weight of independent scientific evidence supporting the link between glyphosate-based herbicides and NHL. EPA's failure to acknowledge that weight of evidence, and its active role in protecting Monsanto's financial interests, are viewed by advocates as a threat to national public health.



Dewayne "Lee" Johnson, former groundskeeper who developed non-Hodgkin lymphoma after using glyphosate/Roundup, speaking to officials and community people in Hawai'i.

NEW SCIENCE

Meanwhile, the science on the adverse effects of glyphosate keeps coming. What follows are recent findings:

Cancer. Despite attempts by current and former EPA top officials to kill their report,² the Agency for Toxic Substances and Disease Registry (ATSDR), an agency of the U.S. Department of Health and Human Services, released its first draft of the Toxicological Profile for Glyphosate, including top-line findings affirming glyphosate's cancer-causing properties.³

Fatty Liver Disease. Researchers at the University of California (UC) San Diego found that glyphosate-based herbicides may be contributing to the growing worldwide epidemic of non-alcoholic fatty liver disease (NAFLD), a condition that causes swelling of the liver, and can eventually lead to cirrhosis, cancer, or liver failure.⁴

Transgenerational Effects. Researchers at Washington State University have identified, in a study that exposed pregnant rats to glyphosate, significant disease in subsequent generations.⁵ The rats were exposed, from day 8 through day 14 of gestation, to half the threshold no observable adverse effect level (NOAEL) of glyphosate. Although this study found negligible impacts on the pregnant rats themselves or on their first-generation offspring, dramatic increases in the incidence of disease were found in the two subsequent generations, including reproductive (prostate and ovarian) and kidney diseases, obesity, and birth anomalies. Such transgenerational impacts are "molecular factors and processes around DNA that regulate genome activity (e.g., gene expression) independent of DNA sequence. . . ." Epigenetic changes result in genes being turned on and off, often in response to environmental factors, such as exposure to toxic chemical compounds. In this investigation, researchers saw a 30% incidence of prostate disease in third-generation (3G) males, which is three times the rate found among the study's controls. Among 3G females, there was a 40% incidence of renal disease, representing a fourfold increase compared with controls. More than one-third of 2G females had failed pregnancies, and 40% of 3G males and females were obese.

This study is the first to assess the potential transgenerational impacts of glyphosate in mammals. Its results point to an

emerging frontier in assessing the risks of glyphosate and other toxic chemicals, and add to the urgent and growing demand that the use of this toxic and pervasive pesticide be halted.

PESTICIDE DISTRIBUTOR AND INSURERS BACK AWAY FROM GLYPHOSATE

With the liability of glyphosate rising astronomically, those companies selling or using the weed killer are thinking seriously about their financial exposure. Harrell's, a company that sells chemicals primarily to golf courses and the horticulture-nursery, turf, and landscape sectors, announced in March that it stopped selling products containing glyphosate as of March 1, 2019 because neither its current insurance company nor others the company consulted would underwrite coverage for the company for any glyphosate-related claims. The insurers' decision also recognizes the successful and pending glyphosate-based suits against manufacturers, sellers, and users. According to Harrell's CEO, "During our annual insurance renewal last month, we were surprised to learn that our insurance company was no longer willing to provide coverage for claims related to glyphosate due to the recent high-profile lawsuit and the many thousands of lawsuits since. We ... could not buy adequate coverage for the risk we would be incurring. So, we ... no longer offer products containing glyphosate."

Weber Gallagher, a law firm that serves as defense counsel for many corporations and industries, commented very shortly

after the verdict in *Dewayne Johnson v. Monsanto*, in an article on its website titled, "Big Monsanto Loss Signals Glyphosate Litigation Headache for Policyholders, Insurers and Reinsurers." It concluded, "Without a doubt, like all other mass tort litigation (asbestos, environmental, toxic tort), the issues raised by current and inevitable future glyphosate lawsuits present overwhelming exposures for policyholders, insurers and reinsurers on such key issues such as trigger of coverage, number of occurrences, allocation of loss and the insurability of punitive damages. One only has to ask regarding who is going to pay for last month's Monsanto verdict to understand the enormity of the issue." Despite inaction by federal regulators, the future of glyphosate/Roundup is certainly uncertain as juries objectively consider the scientific facts linking exposure to cancer and other adverse health effects.

ENDNOTES

- 1 <https://jech.bmj.com/content/70/8/741.long>.
- 2 <https://www.baumhedlundlaw.com/pdf/monsanto-documents/Email-Correspondence-Where-Jess-Rowland-Reportedly-Said-If-I-can-kill-this-I-should-get-a-medal.pdf>.
- 3 <https://www.atsdr.cdc.gov/toxprofiles/tp214.pdf>.
- 4 Mills, P.J., Caussy, C. and Loomba, R., 2019. Glyphosate Excretion is Associated With Steatohepatitis and Advanced Liver Fibrosis in Patients With Fatty Liver Disease. *Clinical gastroenterology and hepatology: the official clinical practice journal of the American Gastroenterological Association*.
- 5 Kubsad, D., Nilsson, E.E., King, S.E., Sadler-Riggleman, I., Beck, D. and Skinner, M.K., 2019. Assessment of glyphosate induced epigenetic transgenerational inheritance of pathologies and sperm epimutations: generational toxicology. *Nature, Scientific reports*, 9(1), p.6372. <https://www.nature.com/articles/s41598-019-42860-0>.
- 6 Nilsson, E.E., Sadler-Riggleman, I. and Skinner, M.K., 2018. Environmentally induced epigenetic transgenerational inheritance of disease. *Environmental epigenetics*, 4(2), p.dv016.

BOX 2

Local Action on Glyphosate

In addition to the jury verdicts based on an evaluation of the science, medical testimony, and a review of deficient EPA regulation, actions to curtail glyphosate are taking place across the county and around the globe.

Community Action

Twenty communities have banned glyphosate by ordinance or resolution since the first Roundup cancer trial verdict. Beyond Pesticides' Map of U.S. Pesticide Reform Policies identifies over 170 communities that have reined in toxic pesticides for lawn and landscape use to some degree. Many have taken a comprehensive approach by seeking to transition away from all toxic pesticide use, including 32 municipalities that have adopted organic practices on public land and/or banned toxic pesticides on all property within their jurisdiction.

University Action

University of California (UC) President Janet Napolitano announced a temporary ban, which began on June 1, on the use of glyphosate on all of UC's 10 campuses. The ban will affect the more than 200,000 students in the UC system, and countless other staff, faculty, and visitors

to the campuses. In announcing the ban, the university cited "concerns about possible human health and ecological hazards, as well as potential legal and reputational risks associated with this category of herbicides." (There are exceptions to the temporary suspension, such as uses for "agricultural operations, fuel-loaded management programs to reduce wildfire risk, native habitat preservation or restoration activities and research that requires glyphosate-based herbicides.")

The suspension of glyphosate use at UC comes in large part as a result of the campaign Herbicide-Free UC—which began as Herbicide-Free Cal, founded by student-athletes Mackenzie Feldman and Bridget Gustafson. The students became active on pesticide issues when they discovered that herbicides were in use around the volleyball court on which they and other athletes spent countless hours. Begun when the women were juniors at UC Berkeley, Herbicide-Free UC pushed for a pilot chemical-free weed management program on the campus. Beyond Pesticides is working with UC Berkeley grounds operations to transition two central glades on campus to organic land management.