

How Monsanto Buys Science and Promotes Cancer

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STORY AT-A-GLANCE

- › The global environment has been saturated with toxic chemicals and genetically modified seed, with glyphosate finding its way into the bodies of nearly 93% of Americans
- › As California takes a stand against glyphosate and American farmers are suing Monsanto for unlawful death after exposure, the company continues to buy supporters and hide the dangers of its flagship chemical
- › Although pervasive, you can reduce your toxic load by purchasing organic, washing produce, using natural cleaners and leaving your shoes at the door

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Monsanto has managed to saturate the global environment with toxic chemicals and genetically modified seed. **Glyphosate** is the major component in its flagship product, Roundup, used both in residential gardens and on farms.

The chemical is so pervasive that tests by the Organic Consumers Association found 93% of Americans have glyphosate in their urine.¹ By comparison, no glyphosate was detected in tap water, which means the chemical is being ingested through food products. It is in fact, the most **heavily used weed killer** in history.

While much media attention has been levied at glyphosate for the association with cancer, in lower doses the chemical is also a strong **endocrine disruptor**.² The health costs associated with exposure to hormone disrupters in Europe are estimated to be over \$188 billion annually.³

Corporate spokespeople continue to say glyphosate is safe for use around humans, but revelations are beginning to completely unravel the well-orchestrated platform Monsanto is using to deceive the public.⁴ Monsanto has a long history with the U.S. Environmental Protection Agency (EPA) and other agencies that has assured its rise to a powerful industrial position.

Now, the California Office of Environmental Health Hazard Assessment (OEHHA) is the first U.S. agency to declare that Roundup, and specifically the major active ingredient glyphosate, is in fact a probable human carcinogen.

California Takes a Stand Against Roundup

In 1986, voters in California approved an initiative to address growing concerns about exposure to toxic chemicals. Proposition 65 requires publication of chemicals known to cause cancer or birth defects. This list must be updated once a year and has grown to 800 chemical names since 1987.⁵

Businesses are also required to notify citizens of chemicals that may be in the products they purchase. Following classification of glyphosate as a probable human carcinogen by the International Agency for Research on Cancer (IARC), the research arm of the World Health Organization (WHO), in May 2015,⁶ the OEHHA added the chemical to the state Proposition 65 list.

The decision was finalized in early 2017, making California the first state to take this step to protect their citizens. According to Nathan Donley, Ph.D., senior scientist at the Center for Biological Diversity:⁷

"When it comes to Roundup, California has become a national leader in flagging the very real danger posed by this vastly over-used pesticide. The state based its decision on the findings of the world's most reliable, transparent and science-based assessment of glyphosate.

It's become painfully clear that we can no longer ignore the risk that this pesticide poses to people and wildlife."

Following a report earlier this month demonstrating the EPA failed to follow its own guidelines when it found glyphosate was not likely to be **carcinogenic**,⁸ Monsanto filed an appeal to stay the effective date of the Proposition 65 decision.⁹

Inclusion on the list does not prevent sale of these chemicals in California, but rather requires the manufacturer to post a "clear and reasonable warning" that the chemical is known to cause cancer, which Monsanto asserts will damage its reputation and violate its First Amendment rights.¹⁰

Unfortunately, the situation between the EPA and Monsanto marks a dangerous circumstance where taxpayer money has been used to shield companies from liability, obstruct consumers' ability to prove damages, and continue to pollute the environment and your health with toxic chemicals.

Europe's Pesticide Regulations Triggered Backlash From Monsanto

In 2009, Europe introduced legislation to regulate pesticides that threatened the sales of products containing glyphosate.¹¹

The law uses a hazard-based approach that bans the use of chemicals if they have the potential to cause **cancer** or **birth defects**, instead of a risk-based approach where the chemical demonstrates risk to humans under specific dose scenarios.

This regulation also mandates studies from peer-reviewed scientific literature be included in the approval application.

This created a problem for Monsanto, as industry studies concluded the chemical was safe, but independent studies came to a different conclusion, demonstrating harmful DNA damage in commercial applications.¹²

In response to regulations in Europe and the change in IARC classification of glyphosate, Monsanto sponsored scientific reviews in peer-reviewed journals that concluded commercial formulations of glyphosate were not harmful.

The authors were members of the Glyphosate Expert Panel convened by commercial consultancy and commissioned by Monsanto. These scientific papers purposefully manipulated data and included irrelevant data that confused the picture.¹³

Twelve of the 16 members of the panel served as consultants or were employed by Monsanto. Others had different conflicts of interest. Only one member of the panel had no conflict of interest. Several other regulatory bodies have found glyphosate to be non-carcinogenic.

However, two assessments were founded on fundamental scientific weaknesses and the third had a severe lack of transparency and clarity.

One of the studies interchanged the concept of hazard and risk, apparently to divert attention from a hazard-based approach in the European law that would require a ban for glyphosate.¹⁴ Taken together, the whole of the evidence demonstrates carcinogenicity.

A report by Global 2000 (Friends of the Earth Austria) found attempts by agencies and individuals to defend the chemical against evidence showing it causes cancer and damages DNA are scientifically unsound, and are undermined by a serious conflict of interest from the individuals involved.¹⁵

Lawsuits May Expose Monsanto's Prior Knowledge

This short news video discusses one of the lawsuits being brought against Monsanto by farmers for unlawful death following exposure to glyphosate.

The lawsuits allege farmers are developing Non-Hodgkin's lymphoma from exposure, and, in the case of the McCalls in the video above, their Labrador retriever developed the same cancer at the young age of 6. To date, there are over 700 individual cases being brought against Monsanto at the state and federal level.

In one of those cases in San Francisco, California, a judge unsealed documents that suggest employees of Monsanto ghost-wrote studies attributed to academics – studies that were then used to determine glyphosate does not cause cancer.¹⁶

Documents indicate a senior officer at the EPA worked with Monsanto to suppress independent reviews of the ingredients. Insider information was shared with Monsanto to guide the message they published to the public.

The chair of the EPA's Cancer Assessment Review Committee even promised to obstruct a Department of Health and Human Services review of glyphosate,¹⁷ and indeed that safety review never took place. One of the attorneys for the McCall family, environmental activist and author Robert F. Kennedy Jr., commented:¹⁸

"Mounting evidence suggests that Monsanto knew about the hazards posed by glyphosate exposure, but failed to disclose this information to the public. Any time a corporation markets a harmful product to consumers as safe for use, it must be held accountable for the damage caused by that product.

Glyphosate is the product of both modern chemistry and a profoundly corrupt corporate culture. It is sad for our country and our people that such a powerful economic leader can only be trusted to put private greed before public health."

In 1987, 11 million pounds of glyphosate were applied in the U.S, compared to the now nearly 300 million pounds applied each year.¹⁹ The increase follows on the heels of genetically modified seed designed to withstand heavy applications of the weed killer. Michigan State University produced a graphic representation of the seed and chemical companies' size and company ownership that visually demonstrates the [sheer size and reach of Monsanto](#).

Farmers Fight Monsanto's Aggressive Tactics

Lawsuits are another effort on the part of Monsanto to minimize the dangers of Roundup. Using tactics that include fear and intimidation, Monsanto has worked hard to ensure every farmer uses its genetically altered seed and large amounts of its weed

killer, thereby solidifying the company's market share.²⁰ In 2003, Monsanto sued Michael White, fourth-generation organic farmer in Alabama, essentially electing him their "poster boy" to intimidate farmers.²¹

White's case is not unique. Monsanto has sued hundreds of farmers for copyright infringement after genetically engineered (GE) seeds inadvertently cross contaminated adjacent non-GE fields. Even though most farmers do not want the cross-contamination, nor are complicit in the contamination, Monsanto continues to bring lawsuits and has the means to win the majority of the cases.

White is one of the few farmers free to talk about his court case, as he settled with Monsanto after his case was cleared to go before a jury. White says that the court case destroyed his father's life and he went to his grave in fear of the agrichemical company.²²

Missouri farmers have now filed a large class action suit against Monsanto over illegal herbicide use that has caused phenomenal crop damage. The suit alleges the farmers who planted Monsanto GE seeds didn't have access to appropriate weed killer for two growing seasons and thus resorted to using illegal chemicals that contaminated and destroyed their fields, and that of neighbors.²³ Attorney Bev Randles, representing Bader Farms against Monsanto, said in a statement:²⁴

"Monsanto chose to sell these seeds before they could be safely cultivated. Monsanto's own advertising repeatedly describes its Xtend seeds and its accompanying herbicide as a 'system' intended to be used together. But when Monsanto failed to get approval to sell the herbicide, it recklessly chose to go ahead and sell the seeds regardless."

Glyphosate Associated With More Than Cancer

Glyphosate also causes significant soil damage by decimating microorganisms responsible for biodiversity and biomass of soil. It's also toxic to soil fungi.²⁵ Repeated, and sometimes even a single use of the chemical, has led to an increase in the severity

or re-emergence of crop disease, as the chemical leads to the development of pathogenic levels of microbes that affect crop health.

Studies have also demonstrated a negative effect on populations of earthworms in the soil, necessary for the development of organic material essential to plant health. Each of these factors reduce the health of crop root systems and yield.

Chronic exposure over just two years to Roundup in rat populations led to liver and kidney damage at doses far below what are recommended for use around humans.²⁶ In an effort to slow the rising number of patients diagnosed with chronic kidney disease in his country, one of the first acts of Sri Lanka's president was to ban the importation and sale of glyphosate.²⁷

A case study has also associated levels of glyphosate in children with symptom severity in autism and seizure disorder.^{28,29} Even at low doses, glyphosate has estrogenic effects³⁰ and may disrupt the balance in your gut microbiome.³¹

Bayer Buys Monsanto for \$63 Billion

On June 2018, Monsanto was formally purchased by the German biotech company, Bayer. While the "Monsanto" company name was dropped, Monsanto products, including Roundup, will retain their brand names and still be manufactured, becoming part of the Bayer portfolio.³²

It's largely speculated that removing the Monsanto label was a way to break free from its troubled past. In a report from National Public Radio (NPR):³³

"The move is not exactly a surprise – it makes sense that Bayer might want to weed out some of the intense negative associations associated with the Monsanto brand. In a way, it's an indication of how successful anti-Monsanto protesters have been in shaping public perception.

In the company's latest statement, Bayer implicitly acknowledged how hostile debates over genetically modified crops and other agricultural products have

become."

Moreover, the merger threatens farmers. As both corn and soybean commodity prices are at some of the lowest levels since 2012, rising seed and chemical prices could place many family farms in a precarious financial position. Clay Govier, a fifth-generation farmer in central Nebraska, has used Monsanto products for years and expects both seed and chemical prices to increase after the merger.³⁴

Indeed, Govier's speculation came true. According to a 2021 report from Reuters, Bayer's average seed prices is expected to go up by 5% in 2022.³⁵ Much of the reason may be pointed to fees associated with the intellectual property rights of agricultural products, with the added cost passed onto the consumers.³⁶

The number of American farmers are also at the lowest levels, numbering less than 2 million – the lowest number since the 1800s. Billion-dollar mergers between farming suppliers and buyers are not only affecting the health of the environment and consumer, but also plunging the farmer deep into debt. The Economic Research Service of the U.S. Department of Agriculture (USDA) made dire predictions.

According to the USDA, income from farming in the U.S. for 2017 is projected to be negative \$1,400, but Wall Street believes that number is closer to negative \$6,000. In the face of rising costs and debt-burdened farmers, Monsanto shareholders are suing, claiming the CEO will benefit from the merger with Bayer to the tune of \$18 million in cash and benefits despite a conflict of interest and withheld information from investors.³⁷

How You Can Reduce Your Exposure to Toxic Pesticides and Herbicides

As it is impossible to rely on governmental agencies and regulatory commissions to protect your health and wellness, it is important to practice preventive strategies to reduce the toxic chemical pollution that assaults your body. The following suggestions will set you off on the right path.

Purchase organic produce and grass fed meat – Animal products like meat, butter, milk and eggs are the most important to buy organic and grass fed, since animal products tend to bio-accumulate toxins from their pesticide-laced feed, concentrating them to far higher concentrations than are typically present in vegetables.

Children are especially vulnerable to the effects of environmental chemicals, including pesticides, so try to buy organic for produce that may have an elevated pesticide load, such as strawberries, spinach, nectarines, apples and peaches.³⁸ If you eat the skin of the produce, it's best to try to buy organic.

Wash all produce before eating – Washing all produce before eating helps to reduce your exposure to bacteria and pesticides. Both may also be transferred to melons, oranges and other fruits you peel if the rind is not first washed.

While there are commercial preparations, the safest products are white vinegar³⁹ with a splash of lemon.⁴⁰ The acidity helps to kill the bacteria, and friction from a vegetable brush helps to reduce the number of chemicals clinging to the produce.

Dry your produce with a paper towel as an extra measure of removing pesticides so they don't dry to the produce. Remove the exterior leaves of leafy vegetables.

Eat whole foods – Remember that processed foods are in fact processed with a variety of chemicals, and should therefore be avoided as much as possible. Children already diagnosed with **ADHD**, autism or seizure disorders in most cases have reduced symptoms when processed foods are completely eliminated.

Use natural cleaning products – I recommend you use only natural cleaning products in your home, especially if you have young children or are pregnant. Most health food stores and some grocery stores now carry natural products to clean your home. Most everything in your home can also be cleaned using white vinegar and baking soda.

Switching to natural brands of toiletries is also a good idea. You'd be surprised to find just how many well-known brands of baby products are loaded with harmful

chemicals, including fragrances. The Skin Deep Cosmetics Database⁴¹ is an excellent source to determine which brands are the safest for your baby.

Use natural outdoor protection – Also avoid using insect repellants that contain DEET (N,N-diethyl-meta-toluamide). It can be tempting to douse your child or yourself in order to avoid getting bitten, but please be mindful of what you're putting on your skin. There are safe, effective and natural [insect repellent alternatives](#).⁴² Use natural methods of controlling insects in your home and garden as well.

Leave your shoes at the door – Walking across lawns and treated gardens deposits pesticides and other toxic chemicals in your carpet and on your flooring. Pets and small children crawling across the floor have the greatest potential for absorbing these chemicals. However, when you eventually take your shoes off at the end of the day, you may also absorb chemicals through the bottoms of your bare feet.

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