GLYPHOSATE CONTAMINATION

THE POISON IN OUR DAILY BREAD

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REPORT BY **THE DETOX PROJECT** AND **UNITED WE EAT**

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Pre-harvest spraying of Monsanto-Bayer's Roundup is leading to contamination of essential 'healthy' foods.

"The terms glyphosate and Roundup cannot be used interchangeably nor can you use 'Roundup' for all glyphosate-based herbicides any more. For example you cannot say that Roundup is not a carcinogen... we have not done the necessary testing on the formulation to make that statement. The testing on the formulations are not anywhere near the level of the active ingredient."[1]

— DONNA FARMER
Monsanto's Lead Toxicologist

"If I can kill this I should get a medal," Jess Rowland, EPA's Health Effects Division of the Office of Pesticide Programs tells Monsanto lobbyist Dan Jenkins.[2]

—JESS ROWLAND
An EPA Deputy Division Director in the Pesticide Division, told a Monsanto lobbyist, who then emailed his fellow Monsanto executives seeking to kill a federal scientific review glyphosate's carcinogenicity.

A 2001 study found that men exposed to glyphosate at work were between 20% and 26% more likely to develop non-Hodgkin's lymphoma.[3]

In fact, workers who came into contact with Roundup for 2 or more days every year were 212% more likely to get lymphoma than people with fewer than 2 days of exposure.[4]

—CANCER EPIDEMIOLOGY, BIOMARKERS & PREVENTION

Commissioned by **The Detox Project**
Written by **Dave Murphy & Henry Rowlands**
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Report by **The Detox Project** and **United We Eat**

Widespread Glyphosate Contamination Found in American Food Supply

More than Half of Foods Tested Contained Glyphosate

In our first report nearly five years ago, we found alarming levels of glyphosate residues in 29 best-selling foods from major food companies in the continental United States, as increases in the spraying of more toxic pesticides was skyrocketing across rural America.[5]

In this new report, we disclose the glyphosate residue testing results of 86 foods found in major Big Box, grocery and natural food stores purchased in Des Moines, Iowa, including Walmart, Whole Foods, Target, Natural Grocers, and Hy-Vee, and foods bought online through Amazon.

Incredibly, more than half the foods tested, a total of 45 foods out of 86 products, contained alarming levels of glyphosate, ranging from 12 parts per billion (ppb) in *"sprouted wholegrain bread"*[6] from Whole Foods to as high 889 ppb in Walmart's brand chickpeas,[7] to 1,040 ppb in Whole Food's *365 Brand Whole Wheat Sandwich Bread,*[8] to the highest level detected of 1,150 ppb in Hy-Vee's *100% Whole Wheat Bread*.[9]

While none of these foods are genetically engineered, they still contain ingredients that are at a high risk of glyphosate contamination. There are no GMO wheat or chickpeas on the market in North America. For the past two decades, farmers in the U.S. and Canada have regularly sprayed Monsanto's (now Bayer) Roundup on wheat, oats, barley and dry bean crops as a 'pre-harvest drying agent' to get the harvested crop to market faster.[10, 11]

This report, like our last one,[12] confirms that this practice, known as crop desiccation, exposes the American public to dangerous and unacceptable levels of glyphosate contamination in foods that consumers are led to believe are healthy.

In 2015, leading international scientists at the International Agency for Research on Cancer (IARC) found compelling evidence linking glyphosate to cancer in humans,[13] while a 2019 meta-analysis by independent scientists at the University of Washington found glyphosate increased cancer risks by 41%, specifically non-Hodgkin lymphoma,[14, 15] a cancer of the immune system that develops from abnormal lymphocytes,[16, 17] and is common in farmers, pesticide applicators and those regularly exposed to glyphosate.[18] Lymphocytes are a type of immune cell made in the bone marrow that are found in the blood and lymph tissue.

If that weren't concerning enough, in 2017 researchers found that rats exposed to Roundup developed nonalcoholic fatty liver disease (NAFLD) over a 2-year period, even at "extremely low doses", 0.1 ppb,[19, 20] while in 2018 peer-reviewed research revealed that glyphosate-based herbicides were able to alter important biological markers related to sexual development, genotoxicity and damage the gut microbiome of rats in as little as 13 weeks at levels allowed in drinking water in America and considered to be "safe" by the U.S. government.[21, 22, 23]

‘Healthier’ Foods and Plant-Based Staples Contain Highest Levels of Glyphosate

To provide as much information to consumers as possible, especially those with chronic health issues, compromised immune systems and others seeking to eat ‘healthier’ diets, we focused our testing on foods that had a perceived or marketed ‘health’ benefit, such as whole wheat, oats, and dry edible beans such as chickpeas, lentils, black beans, pinto, green split peas, and those that we consider to be on the High Risk Ingredients list as well.

Many of these foods are also common staples in plant-based diets or for individuals seeking healthier options outside the standard American diet of ultra-processed foods. Unfortunately, while major food companies regularly advertise whole grains, oats, and edible beans as ‘healthy’ alternatives, these findings uncover the disturbing reality that many Americans seeking a healthier diet are regularly consuming foods that are contaminated with dangerous levels of glyphosate that can compromise their health.

Major Differences in Conventional, Organic and Non-GMO

Overall, we found glyphosate residues at higher levels in conventional foods with 22 of the top 30 foods with high glyphosate levels, the top one being “a 100% whole wheat bread” bought from Hy-Vee, a local Iowa grocery store chain. Of the 37 conventional foods tested, 23 contained glyphosate, with glyphosate residue levels ranging from 20 ppb to 1,150 ppb.

The second highest levels were found in another “whole wheat” bread, Whole Food’s *365 Brand Whole Wheat Sandwich Bread,* that many of the store’s upscale consumers likely consider a healthier food choice than other types of breads,[24] such as white bread or breads made with highly processed bleached flour.[25] In addition to being sold at what is marketed to consumers as “the First and Only Certified Organic National Grocer”,[26] the Whole Foods 365 whole wheat bread, is also certified as Non-GMO.[27, 28]

At-a-Glance: Glyphosate Contamination in Conventional, Non-GMO and Organic Foods		
Tested	**Glyphosate Found**	**Residue Levels – Range in ppb**
37 Conventional foods	**23 contained glyphosate**	**20 ppb to 1,150 ppb**
26 Non-GMO foods	**18 tested positive** **2 of the Top 5 Highest Levels**	**12 ppb to 1,040 ppb**
23 Organic foods	**5 tested positive**	**13 ppb to 54 ppb**

Glyphosate Levels Found in Foods by Grocery Store	
1. Hy-Vee	Range from **17 ppb to 1,150 ppb**
2. Whole Foods Market	Range from **12 ppb to 1,040 ppb**
3. Walmart	Range from **54 ppb to 889 ppb**
4. Target	Range from **17 ppb to 348 ppb**
5. Natural Grocers	Range from **26 ppb to 144 ppb**

Non-GMO Widely Contaminated with Glyphosate Residues, Organic Less So

Unfortunately, a Non-GMO label on a food or supplement product does not mean that it is free of glyphosate contamination. Of the 26 foods tested that made Non-GMO claims, 18 tested positive for glyphosate, including 2 of the top 5 foods with the highest levels of glyphosate contamination. The levels found in Non-GMO labeled food ranged from 12 ppb to 1,040 ppb.

It is not without a pinch of irony that some of the highest levels of glyphosate are found in foods marketed as Non-GMO, which means they do not contain genetically engineered ingredients, since consumers buy these products to avoid Monsanto's (now Bayer's) GMO ingredients but are now exposed to high levels of their bestselling weedkiller instead.

With this major test sampling completed, we found that organic foods were significantly less likely to be contaminated with glyphosate and at much lower levels than either conventionally produced foods or foods certified as Non-GMO.

Of 23 organic foods tested, only 5 were found to contain glyphosate residues and their range, from 13 ppb to 54 ppb, while still deeply concerning, is significantly lower than other foods. It should be noted that synthetic pesticides such as Roundup and its active ingredient glyphosate are prohibited in USDA certified organic foods[29] and such residues likely came from contamination in the supply chain or drift from a nearby field where Roundup was sprayed.

Understanding the parts per billion (ppb) unit of measurement

1 part per billion (ppb) is equivalent to 1 µg/kg or 1 µg/L of a given substance. This represents the concentration of a molecule, or a mixture as diluted into a larger whole. For a mixture, **1 ppb corresponds to a dilution of 1 per billion molecules.**

- 1 ppb of Roundup represents the dilution of a teaspoon of Roundup in the volume of an Olympic swimming pool.
- 700 µg of glyphosate dissolved in one liter of water corresponds to a concentration of 700 ppb, the level admitted in US tap water.
- This corresponds to one drop of Roundup in 6.6 gallons or 25 liters of tap water.

Foods Sprayed with Glyphosate as a Pre-Harvest Desiccant had Highest Levels

Pre-Harvest Spraying of Roundup/ Glyphosate Creates High Risk Ingredients

This report shows the damming reality that pre-harvest spraying, an off-label use of the world's most used weedkiller, is leading to the mass contamination of essential foods that form the base of our diet. These alarming results also show that Monsanto (Bayer), scientists, and government regulators have long failed to understand or even explore the basic risks and levels of human exposure that is currently taking place in the U.S. food supply.

Besides wheat, oats, and barley, Roundup is regularly sprayed on more than 70 crops, including almonds, apples, dry edible beans, lentils, chickpeas (garbanzo beans), peas, grapes, rice, and sunflowers.[30] The alarming levels that we found on these foods tested were not from crops that were genetically engineered to resist glyphosate, but because Roundup can help dry crops in a farmer's field and shorten the time spent before they can be made into foods, saving farmers and processed food companies money.

The exposure levels found here confirm that pre-harvest spraying of glyphosate on common food crops is an unacceptable risk for consumers, especially those with compromised immune systems and limited budgets, and must end.

Glyphosate Use Skyrockets and Accumulates in Human Population

In the past 25 years, the spraying of glyphosate-based weedkillers has skyrocketed with the planting of genetically engineered Roundup Ready crops, such as GMO corn, soybeans, and cotton, which are modified to survive being sprayed with Roundup and were first approved in 1996 under the Clinton administration.[31]

In 1995, the year before Roundup Ready GMO crops went on the market, farmers in the U.S. used only 40 million pounds of glyphosate, by 2014 that number had increased to 280-290 million pounds according to the EPA.[32]

Today, Monsanto's Roundup, now owned by German pharmaceutical company Bayer, which bought the St. Louis, Missouri-based biotech seed and chemical company in 2018, is the most widely used agricultural weedkiller used in human history.[33]

Every year, more than 1 billion pounds of pesticides are sprayed across the U.S. for agricultural use,[34] including more than 300 million pounds of

Roundup, or nearly 1 pound for every American citizen.[35]

A 2019 analysis by the Midwest Center for Investigative Reporting found that use by farmers across the Midwest, in the 12 leading GMO corn and soybean producing states, were responsible for 65% of acres sprayed with Roundup across U.S. farmland. Since 1992, Midwestern corn and soybean farmers have increased their use of Roundup nearly 40 times more than they did in 1992, with a total of more than 188.7 million pounds of glyphosate being used in 2016.[36]

For America's farmers and consumers, Monsanto's repeated claims regarding Roundup and glyphosate's safety came unraveled at the same time farmers saw a rapid increase in glyphosate-resistant superweeds that survived being sprayed with Roundup.

From 1993 to 2016 Glyphosate Levels in Humans Increased by Alarming 1,208%

Today, the weedkiller most widely used by Midwestern farmers and Canadian wheat growers is finding its way into people's everyday food, leading to a massive increase in unexpected exposures for the American public.

In 2017, a peer-reviewed study that tracked pesticide levels in people in Southern California for 20 years found a staggering 500% increase[37] in the percentage of people who tested positive for glyphosate in their urine. The study, published in the prestigious Journal of the American Medical Association, tracked people from 1993 to 2016 and found that for some individuals their levels of glyphosate surged by 1,208 percent.

When compared to a UK study that discovered rats fed low levels of glyphosate for two years developed higher levels of nonalcoholic fatter liver disease (NAFLD), Paul Mills PhD, the lead author of the JAMA study, claimed "the levels of glyphosate documented in the people in his study were 100-fold greater than those in the rat study." [38]

"What we saw was that prior to the introduction of genetically modified foods, very few people had detectable levels of glyphosate," said Mills. But by 2000, 30% of the subjects found glyphosate in their urine and "as of 2016, 70 percent of the study cohort had detectable levels."[39]

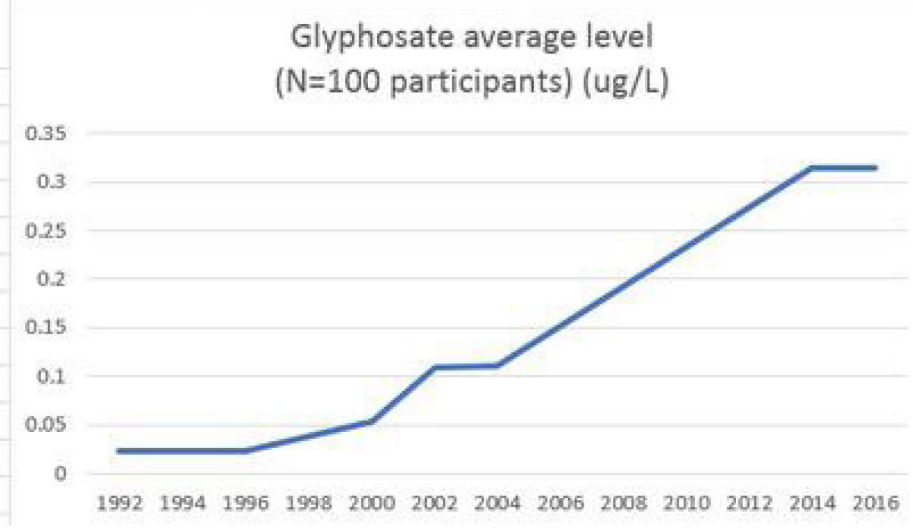
While the levels of exposure track significantly with the rise of Roundup Ready GMO agriculture, which saw a 300-fold increase in the use of glyphosate-based herbicides from 1974 to 2014, the hidden culprit lurking in our food today is contamination from pre-harvest spraying.

Reasons for Concern

In March 2015, the world's leading cancer experts at the International Agency for Research on Cancer (IARC) found that glyphosate was linked to cancer in humans. Since then, dozens of independent studies published in peer reviewed journals have found that glyphosate can have multiple negative health impacts including harm to beneficial gut bacteria,[40, 41, 42, 43] birth defects,[44, 45, 46] infertility,[47, 48] reproductive issues[49] such as miscarriages,[50, 51] shorter pregnancies,[52, 53, 54] increased infant mortality,[55, 56] and certain cancers.[57, 58, 59, 60, 61, 62]

To put these glyphosate residue level results in perspective, the latest peer reviewed scientific research shows that: Roundup can cause liver and kidney damage in rats at levels as low as 0.05 parts per billion (ppb) and at 0.1 ppb glyphosate has been found to alter the gene function of over 4,000 genes in the livers and kidneys of rats.[63]

1993 to 2016 Human Glyphosate Levels Spike by Alarming 1,208%!



Sample year	ug/L glyphosate in urine
1993-1996	0.024
1999-2000	0.053
2001-2002	0.11
2004-2005	0.111
2014-2016	0.314

In addition, peer-reviewed studies have also found that 0.1 ppb can cause severe organ damage in rats[64] and that levels as low as 10 ppb can cause oxidative stress and have toxic effects on the livers of fish.[65] Additional peer-reviewed research has found damage to the livers and kidneys of rats at 700 ppb,[66] which the EPA considers the allowable level of glyphosate in U.S. drinking water.[67, 68]

Despite the fact that the U.S. Food and Drug Administration (FDA)[69] and Department of Agriculture[70] have never published significant glyphosate residue levels for regularly consumed foods by the American public and has long downplayed glyphosate's harmful health impacts to humans, livestock and the environment, the Environmental Protection Agency (EPA) warns that long-term exposure to glyphosate at only 700 ppb can cause "problems with their kidneys or reproductive difficulties" [71] and states that drinking water exposure exists due to "Runoff from herbicide use." [72, 73]

IARC Links Glyphosate, Roundup to Cancer

These findings became even more urgent on March 20, 2015, when 17 leading global toxicologists and cancer experts at the International Agency for Research on Cancer (IARC) sparked a scientific and political firestorm when they classified glyphosate as "probably carcinogenic to humans".[74, 75]

According to IARC's review of independent peer reviewed research available at the time, leading scientists found that there was "limited evidence" that glyphosate was carcinogenic in humans for non-Hodgkin lymphoma, but "sufficient" evidence of cancer in experimental animals (from studies of "pure" glyphosate).[76]

These top scientific experts also found that 74% of the studies they reviewed showed there was'strong' evidence for genotoxicity, both for 'pure' glyphosate and for glyphosate formulations, meaning that in 2015 independent research found strong evidence that glyphosate and the world's bestselling weedkiller Roundup were linked to significant harm in lab animals used in standard toxicology studies and was genotoxic or could cause damage to DNA that could lead to cancer and other significant health risks.[77]

5 Decades of Deception: Monsanto Found Guilty of Hiding Glyphosate's Links to Cancer

Even as serious and credible claims of scientific harm and corporate malfeasance pile up, Monsanto (Bayer) executives continue to declare that Roundup and its alleged active ingredient glyphosate are perfectly safe,[78, 79] even urging scientists to regularly claim that glyphosate is "safer than table salt"[80, 81, 82] and caffeine[83, 84] despite the growing number of significant peer-reviewed studies that point to the contrary.[85, 86]

Despite Monsanto's nearly 5 decades of denial of harm from Roundup, on August 10, 2018, a jury found Monsanto guilty of "negligent failure" for failing to warn consumers about the carcinogenicity of glyphosate and that they acted with "malice, oppression and fraud".[87, 88]

After reaching a unanimous verdict, the jury ordered Monsanto to pay an unprecedented $289 million in damages to California groundskeeper Dewayne Johnson after he "developed non-Hodgkin's lymphoma after using Roundup and Ranger Pro, another Monsanto glyphosate herbicide, as part of his job as a pest control manager for a California county school system."[89]

The jury "awarded $39 million in compensatory and $250 million in punitive damages", a ruling which San Francisco Superior Court Judge Suzanne Bolanos later upheld, but reduced the settlement to $78 million, while also denying "Monsanto's motion to overturn the landmark jury verdict."[90]

The following year, in 2019, Monsanto lost two more similar lawsuits, with jury's finding Monsanto guilty again, being forced to pay Edwin Hardeman an $80 million settlement in May, followed by a landmark $2 billion court verdict to the Pilliods, husband and wife plaintiffs who were both diagnosed with non-Hodgkin lymphoma.[91, 92]

Beyond unprecedented settlements, jurors, judges, and the American public got a peek behind the curtain at how corrupt Monsanto scientists and top executives were regarding the safety of their bestselling weedkiller Roundup and the great lengths they went to manipulate the science in front of regulatory bodies and misled the media, the public and even America's family farmers.

Why should there currently be no 'safe' level of Glyphosate in our food?

It is first important to understand how the 'safe' level of any toxic chemical is set. Currently the U.S. EPA sets a Reference Dose (RfD), which is known as the Acceptable Daily Intake (ADI) in Europe, by taking the lowest no observed adverse effect level (NOAEL) from animal studies and dividing it by 100.

For glyphosate, the current RfD in the U.S is 1.75 milligrams / kilogram of bodyweight / per day or 1.75 mg / kg bw / day. It may not surprise our readers to know that the ADI in Europe is more than 5x less at 0.3 mg/kg bw /day, even though the regulators there base their ADI on the same industry studies as in the U.S. – Do you feel safe yet?

The big problem is that both the RfD in the U.S. and

the ADI in the EU have already been proven to be far too high by independent peer-reviewed studies.

- In the pilot phase of the most comprehensive study ever done on glyphosate and glyphosate-based herbicides – the Global Glyphosate Study - it was shown that glyphosate-based herbicides cause genotoxicity, alteration of the intestinal microbiome as well as reproductive and developmental effects in both male and female rats, at the currently considered safe level in the U.S. of 1.75 mg / kg bw / day.[93, 94, 95]
- Other peer-reviewed studies have also shown change in gene function and DNA Damage at the 1.75 mg /kg bw /day level.[96]

This would normally mean that the EPA's current RfD safe level should be reduced by at least 100x. However, even that may not be enough of a reduction, as in smaller non-comprehensive peer-reviewed studies, levels that are lower than 0.1 mg/kg have been shown to cause serious kidney and liver damage in rats.[97]

Currently, we do not know the full effects on our health effects of glyphosate exposure at very low levels and we thus must follow the precautionary principle and ban the product from being sold immediately. It is simply not yet possible to set a safe level for glyphosate exposure and anyone who attempts to do so is bending the science.

The best we can do for now is to avoid foods and drinks that have levels over the internationally recognized reliable limit of detection for glyphosate in laboratories of 0.01 mg/kg (10 ppb), which can be done by consuming brands that are certified Glyphosate Residue Free.

Top Glyphosate Residues found in Major Brand Stores and Health Foods			
Product	**Brand**	**Level**	**Store**
1. **100% Whole Wheat Bread**	Village Hearth	1,150 ppb	HyVee
2. **Whole Wheat Sandwich Bread**	365 Whole Foods Market	1,040 ppb NON GMO Project	Whole Foods Market
3. **Chickpeas**	Great Value	889 ppb	Walmart
4. **100% Whole Grain Wheat Bread**	Pepperidge Farm	587 ppb	HyVee
5. **Quaker Oats**	Quaker	535 ppb NON GMO Project	HyVee
6. **Jewish Rye & Pumpernickel Deli Swirl Bread**	Pepperidge Farm	531 ppb	HyVee
7. **100% Whole Wheat Sandwich Bread**	market pantry	348 ppb	Target
8. **100% Whole Wheat Bread**	Great Value	340 ppb	Walmart
9. **Rice, Peas, Black Beans**	Off the Eaten Path	301ppb NON GMO Project	Target
10. **100% Whole Wheat Bread**	Sara Lee	284 ppb	Target
11. **Garbanzo Beans**	HyVee	246 ppb	HyVee
12. **Fresh Milled Oats**	The Grainery Fresh Milled Oats	214 ppb	HyVee
13. **100% Whole Wheat Bread**	HyVee	211 ppb	HyVee
14. **Green Split Peas**	Good & Gather	168 ppb	Target
15. **Chickpeas**	Great Value	165 ppb	Walmart

The testing of these products was carried out using a gold standard mass spectrometry method at a third-party ISO 17025 and CDFA accredited laboratory - Lab reports are available upon request.

16. **Red Lentils Non-GMO**	Natural Grocers	144 ppb Non GMO Project	Natural Grocers
17. **Barley & Lentils**	365 Whole Foods Market	134 ppb Non GMO Project	Whole Foods Market
18. **Garbanzo Beans**	Good & Gather	124 ppb	Target
19. **Cheeri Oats Cheerios**	General Mills	118 ppb	Hy-Vee Employee Owned
20. **Seeded Hearty Rye Bread**	Hy-Vee Employee Owned	88 ppb	Hy-Vee Employee Owned

21. **Black Beans**	Great Value	82 ppb	Walmart
22. **Wheat Bread**	Great Value	63 ppb	Walmart
23. **Chickpea Flour**	Bob's Red Mill	62 ppb Non GMO Project	Target
24. **Red Lentils**	Bob's Red Mill	57 ppb Non GMO Project	Whole Foods Market
25. **Green Split Peas**	Great Value	55 ppb	Walmart
26. **Pinto Beans**	Great Value	54 ppb	Walmart
27. **Lentils**	Good & Gather	50 ppb	Target
28. **Organic Split Peas**	365 Whole Foods Market	49 ppb USDA Organic	Whole Foods Market
29. **Honey Whole Wheat**	Big Sky Bread Company	42 ppb	Whole Foods Market
30. **Chickpeas, Black Beans**	Off the Eaten Path	38 ppb Non GMO Project	Target

31. **Pinto Beans Non-GMO**	Natural Grocers	31 ppb Non GMO Project	Natural Grocers
32. **Pinto Beans**	Hy-Vee	27 ppb	Hy-Vee
33. **Organic Thick Rolled Oats**	Natural Grocers	26 ppb USDA Organic	Natural Grocers
34. **Pinto Beans**	Good & Gather	18 ppb	Target
35. **Organic Garbanzo Beans**	Full Circle	17 ppb Non GMO Project, USDA Organic	Hy-Vee
36. **Oatnut Whole Grain Bread**	Brownberry	17 ppb	Target
37. **Organic Steel Cut Oats**	365 Whole Foods Market	13 ppb Non GMO Project, USDA Organic	Whole Foods Market
38 .**7-Grain Bread Sprouted Wholegrain**	Angelic Bakehouse	12 ppb Non GMO Project	Whole Foods Market

Protein Bars and Shakes

Product	Brand	Level	Store
1. **Onnit Plant-Based Protein-Chocolate**	Onnit	134 ppb	Amazon
2. **Nature's Best Plant Based Vegan Protein Powder**	Nature's Best	70 ppb Non GMO	Amazon
3. **Garden of Life Raw Organic Fit Powder, Chocolate**	Garden of Life	54 ppb Non GMO Project, USDA Organic	Amazon
4. **Vega One All-in-One Nutritional Shake, Chocolate**	Vega	54 ppb Non GMO Project	Amazon
5. **Ka-Chava Meal Replacement Shake**	Ka'Chava	37 ppb	Amazon
6. **Plant Protein & Greens, French Vanilla**	365 Whole Foods Market	31 ppb Non GMO Project	Whole Foods Market
7. **Now Sports Nutrition, Pea Protein 24 G**	Now	29 ppb Non GMO Project	Amazon

8. **Nature Valley Chewy Granola Bars, Protein Variety Pack**	NATURE VALLEY	20 ppb	amazon
9. **Think! High Protein Bars- Chocolate Crisp**	think!	14 ppb NON GMO	amazon

High Risk Ingredients List for Glyphosate Contamination				
Bread	**16**			
Wheat				
100% Whole Wheat Bread	Village Hearth	1,150 ppb	Hy-Vee	
Whole Wheat Sandwich Bread	365 Whole Foods Market	1,040 ppb	Whole Foods Market	Non GMO Project
100% Whole Grain Whole Wheat Bread	Pepperidge Farm	587 ppb	Hy-Vee	
100% Whole Wheat Sandwich Bread	market pantry	348 ppb	Target	
100% Whole Wheat Bread	Great Value	340 ppb	Walmart	
100% Whole Wheat Bread	Sara Lee	284 ppb	Target	
100% Whole Wheat Bread	Hy-Vee	211 ppb	Hy-Vee	
Wheat Bread	Great Value	63 ppb	Walmart	
Honey Whole Wheat	Big Sky Bread	42 ppb	Whole Foods Market	
Oatnut Whole Grains Bread	Brownberry	17 ppb	Target	
7-Grain Bread Sprouted Wholegrain	Angelic Bakehouse	12 ppb	Whole Foods Market	Non GMO Project
Rye				
Jewish Rye & Pumpernickel Deli Swirl Bread	Pepperidge Farm	531 ppb	Hy-Vee	
Seeded Hearty Rye Bread	Hy-Vee	88 ppb	Hy-Vee	
7-Grain Bread Sprouted Wholegrain Rye Bread	Angelic Bakehouse	12 ppb	Whole Foods Market	Non GMO Project

Oats	6			
Quaker Oats	Quaker	535 ppb	Hy-Vee	Non GMO Project
Fresh Milled Oats	The Grainery Fresh Milled Oats	214 ppb	Hy-Vee	
Cheeri oats	General Mills	118 ppb	Target	
Organic Thick Rolled Oats	Natural Grocers	26 ppb	Natural Grocers	USDA Organic
Organic Steel Cut Oats	Whole Foods Market	13 ppb	Whole Foods Market	Non GMO Project
Barley	**3**			
Barley & Lentils	365 Whole Foods Market	134 ppb	Whole Foods Market	Non GMO Project
Beans				
Chickpeas	Great Value	889 ppb	Walmart	
Rice, Peas, Black Beans	Off the Eaten Path	301 ppb	Target	Non GMO Project
Garbanzo Beans	Hy-Vee	246 ppb	Hy-Vee	
Chickpeas	Great Value	165 ppb	Walmart	
Garbanzo Beans	Good & Gather	124 ppb	Target	
Organic Garbanzo Beans	Full Circle	17 ppb	Hy-Vee	Non GMO Project, USDA Organic
Black Beans	Great Value	82 ppb	Walmart	
Pinto Beans	Great Value	54 ppb	Walmart	
Pinto Beans Non-GMO	Natural Grocers	31 ppb	Natural Grocers	Non GMO Project
Pinto Beans	Hy-Vee	27 ppb	Hy-Vee	

Chickpea Flour	Bob's Red Mill	62 ppb	TARGET	NON GMO Project
Chickpeas, Black Beans	Off the Eaten Path	38 ppb	TARGET	NON GMO Project
Pinto Beans	Good & Gather	18 ppb	TARGET	
Peas	**5**			
Green Split Peas	Good & Gather	168 ppb	TARGET	
Green Split Peas	Great Value	55 ppb	Walmart	
Organic Split Peas	365 Whole Foods Market	49 ppb	Whole Foods Market	USDA Organic
Lentils	**10**			
Lentils	Hy-Vee Employee Owned	535 ppb	Hy-Vee Employee Owned	
Red Lentils Non-GMO	Natural Grocers	144 ppb	Natural Grocers	
Red Lentils	Bob's Red Mill	57 ppb	Whole Foods Market	NON GMO Project
Lentils	Good & Gather	50 ppb	TARGET	NON GMO Project
Pea/Pumpkin Seed				
Onnit Plant-Based Protein - Chocolate	ONNIT	134 ppb	amazon	
Whole Foods Own Brand Plant-Based	Whole Foods Market	31 ppb	Whole Foods Market	
Pea/Brown Rice				
Nature's Best Plant Based Vegan Protein Powder	Nature's Best	70 ppb	amazon	
Garden of Life Raw Organic Fit Powder, Chocolate	Garden of Life	54 ppb	amazon	NON GMO
Kachava meal replacement shake	KACHAVA	37 ppb	amazon	NON GMO Project, USDA Organic

Pea/Flax				
Vega One All-in-One Nutritional Shake, Chocolate	vega	**54 ppb**	amazon	NON GMO Project
Pea				
Now Sports Nutrition, Pea Protein 24 G	NOW®	**29 ppb**	amazon	NON GMO Project
Soy				
Nature Valley Chewy Granola Bars, Protein Variety Pack	NATURE VALLEY	**20 ppb**	amazon	
Soy/Milk/Whey				
Think! High Protein Bars -	think!	**14 ppb**	amazon	NON GMO Project

Addendum:

Foods Tested that Found No-Detectable Levels of Glyphosate			
Product	**Brand**	**Level**	**Store**
1. **Black Eyed Peas**	Hy-Vee	non-detect	Hy-Vee
2. **Lentils**	Hy-Vee	non-detect	Hy-Vee
3. **Old Fashioned Oats**	Hy-Vee	non-detect	Hy-Vee
4. **Organic Garbanzo Beans**	Natural Grocers	non-detect USDA Organic	Natural Grocers
5. **Organic Green Lentils**	Natural Grocers	non-detect USDA Organic	Natural Grocers
6. **Organic Pinto Beans**	Natural Grocers	non-detect USDA Organic	Natural Grocers
7. **Organic Soy Beans**	Natural Grocers	non-detect USDA Organic	Natural Grocers
8. **Green Lentils Non-GMO**	Natural Grocers	non-detect Non GMO Project	Natural Grocers
9. **Green Split Peas Non-GMO**	Natural Grocers	non-detect Non GMO Project	Natural Grocers
10. **Blackeye Peas**	Good & Gather	non-detect	Target
11. **Great Northern Beans**	Good & Gather	non-detect	Target
12. **Pearled Barley**	Good & Gather	non-detect	Target
13. **Great Northern Beans**	Great Value	non-detect	Walmart

14. **Bobo's Original Oat Bar**	BOBO'S	non detect NON GMO Project	WHOLE FOODS MARKET
15. **Bobo's Peanut Butter Chocolate Chip Oat Bar**	BOBO'S	non detect NON GMO Project	WHOLE FOODS MARKET
16. **Clif Whey Protein-Gluten Free Snacks Bars-Variety Pack**	CLIF CLIF BAR & COMPANY	non detect NON GMO	amazon
17. **Kind Health Snack Bar, Blueberry Vanilla Cashew**	KIND	non detect	amazon
18. **Kind Healthy Snack Bar, Caramel Almonds & Sea Salt**	KIND	non detect	amazon
19. **KOS Organic Plant Based Protein Powder, Chocolate**	KOS	non-detect USDA ORGANIC	amazon
20. **Larabar Fruit and Nut Bar, Lemon Gluten Free, Vegan**	LÄRABAR	non detect NON GMO Project	amazon
21. **Larabar Gluten Free Bar Peanut Butter Chocolate Chip**	LÄRABAR	non detect NON GMO Project	amazon
22. **No Cow Protein Bars, Peanut Butter Lovers Pack**	no cow.	non-detect NON GMO Project	amazon
23. **Oatmega Protein Bars, Chocolate Brownie**	OATMEGA	non-detect NON GMO Project	amazon
24. **Onnit Protein Bar – Vanilla Almond**	ONNIT	non detect	ONNIT
25. **Organic Sprouted Whole Grains Thin-Sliced Bread**		non-detect USDA ORGANIC	WHOLE FOODS MARKET
26. **Pescience Select Vegan Plant Based Protein Powder**	PESCIENCE	non detect	amazon
27. **Plantfusion Complete Plant Based Pea Protein Powder**	PlantFusion	non detect	amazon
28. **Pure Protein Bars, High Protein**	PURE PROTEIN	non detect	amazon
29. **Primal Kitchen Macadamia Sea Salt Collagen Protein Bars**	PRIMAL KITCHEN	non detect	amazon
30. **Vega Protein Snack Bar, Chocolate Peanut Butter**	vega	non detect NON GMO Project	amazon

31. **Sprouted Power Little Big Bread**	Silver Hills Sprouted Bakery	non detect NON GMO Project	Whole Foods Market
32. **Organic Green Lentils, 365**	365 Whole Foods Market	non-detect USDA Organic	Whole Foods Market
33. **Organic Italian Barley, 365**	365 Whole Foods Market	non-detect USDA Organic	Whole Foods Market
34. **Organic Red Lentils, 365**	365 Whole Foods Market	non-detect USDA Organic	Whole Foods Market
35. **Organic Green Lentils**	Mountain High Organics	non-detect USDA Organic	Whole Foods Market
36. **Organic Rolled Oats**	Whole Foods Market	non-detect USDA Organic	Whole Foods Market
37. **Organic Red Split Lentils**	Mountain High Organics	non-detect USDA Organic	Whole Foods Market
38. **Organic Garbanzo Beans**	Farmer Direct Organic	non-detect USDA Organic	Whole Foods Market
39. **Organic Pinto Beans**	Farmer Direct Organic	non-detect USDA Organic	Whole Foods Market

Glyphosate Contamination Found in Non-GMO Foods			
Product	**Brand**	**Level**	**Store**
1. **Whole Wheat Sandwich Bread**	365 WHOLE FOODS MARKET	1,040 ppb	WHOLE FOODS MARKET
2. **Quaker Oats**	QUAKER	535 ppb	HyVee EMPLOYEE OWNED
3. **Rice, Peas, Black Beans**	OFF THE EATEN PATH	301 ppb	TARGET
4. **Red Lentils Non-GMO**	NATURAL GROCERS	144 ppb	NATURAL GROCERS
5. **Barley & Lentils**	365 WHOLE FOODS MARKET	134 ppb	WHOLE FOODS MARKET
6. **Nature's Best Plant Based Vegan Protein Powder**	NATURE'S BEST	70 ppb	amazon
7. **Chickpea Flour**	Bob's Red Mill	62 ppb	TARGET
8. **Red Lentils**	Bob's Red Mill	57 ppb	WHOLE FOODS MARKET
9. **Garden of Life Raw Organic Fit Powder, Chocolate**	Garden of Life	54 ppb	amazon
10. **Vega One All-in-One Nutritional Shake, Chocolate**	vega	54 ppb	amazon
11. **Chickpeas, Black Beans**	OFF THE EATEN PATH	38 ppb	TARGET
12. **Pinto Beans Non-GMO**	NATURAL GROCERS	31 ppb	NATURAL GROCERS
13. **Plant Protein & Greens, French Vanilla**	365 WHOLE FOODS MARKET	31 ppb	WHOLE FOODS MARKET
14. **Now Sports Nutrition, Pea Protein 24 G**	now	29 ppb	amazon
15. **Organic Garbanzo Beans**	FULL CIRCLE	17 ppb	HyVee EMPLOYEE OWNED
16. **Think! High Protein Bars- Chocolate Crisp**	think!	14 ppb	amazon

17. **Organic Steel Cut Oats**	365 WHOLE FOODS MARKET	13 ppb	WHOLE FOODS MARKET
18. **7-Grain Bread Sprouted Wholegrain**	angelic BAKEHOUSE	12 ppb	WHOLE FOODS MARKET

Glyphosate Contamination Found in Organic Foods			
Product	**Brand**	**Level**	**Store**
1. **Garden of Life Raw Organic Fit Powder, Chocolate**	Garden of Life	54 ppb	amazon
2. **Organic Split Peas, 365**	365 WHOLE FOODS MARKET	49 ppb	WHOLE FOODS MARKET
3. **Organic Thick Rolled Oats**	NATURAL GROCERS	26 ppb	NATURAL GROCERS
4. **Organic Garbanzo Beans**	FULL CIRCLE	17 ppb	HyVee EMPLOYEE OWNED
5. **Organic Steel Cut Oats**	WHOLE FOODS MARKET	13 ppb	WHOLE FOODS MARKET

ABOUT THE AUTHORS

David Murphy

David Murphy is a leading American policy expert and social entrepreneur dedicated to reforming our global food, agriculture, and public health systems. A 6th generation Iowan, Murphy has over 20 years of experience in political strategy, public policy, and fundraising.

During his career, Murphy advised over 7 presidential campaigns on food, agriculture, climate, rural economic policies, and strategies to win over voters. Murphy helped pass more than 2 dozen pieces of legislation and Farm Bill amendments to bring transparency, environmental protections, and fair market access for farmers, shaping public policies at the local, state, and federal levels.

Since 2007, he has met with and briefed elected officials, department heads at the USDA, FDA, members of Congress, and the White House on issues ranging from local school lunch programs, antitrust enforcement, soil health, climate change, and policies to promote the urgent shift to regenerative farming practices.

In 2008, he founded Food Democracy Now!, a grassroots network of 650,000 farmers and citizens dedicated to reforming food and agriculture. In the past 4 years, Murphy has helped write and edit 3 Congressional testimonies that call for a transition to better soil health and regenerative practices and coordinated a grazing workshop with top leaders in the regenerative agriculture movement.

Henry Rowlands

Henry's family have been involved in reducing our exposure to toxic chemicals and regenerative agriculture for four generations. He himself grew up on the family organic sheep farm in Wales.

Following work as a news agency journalist across Europe, Henry moved on to set up Sustainable Pulse, which is a popular online global media that focuses on sustainable agriculture and sustainable food.

In 2015, Henry also set up The Detox Project, which provides Glyphosate Residue Free certification to show that food, supplement and beauty products do not contain the world's most used weed-killer. The Glyphosate Residue Free certification market has reached over USD $800 M in 6 years.

Alongside his work on toxics Henry's work on regenerative agriculture has involved a concentration on the metrics required to enable global scaling. Henry is the Co-Founder of Regenerative Hubs, which concentrates on uplifting women out of poverty in Africa and India through climate friendly agriculture, Henry is also the Co-Founder and CEO of Soil in Formation, PBC, a ground-making soil measurement, reporting and verification data company based in the U.S.

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