Pesticides on Our Food: Will the Real Public Enemy No. 1 Please Stand Up?

by Katherine Paul
October 31, 2019
Source

> *"I'd say Roundup is our public enemy number one probably, but that's one of 260 chemicals that are now prevalent in our food system. So, we have completely chemicalized the human experience and the planet itself, and so the level of toxicity has superseded the planet's capacity for life." – Dr. Zach Bush, October 14, 2019, interview published in Salon.*

Two important articles about pesticides, food and health were published this week.

One highlights the insanity of allowing the unleashing of billions of pounds of glyphosate into our environment and food systems every year.

The other raises this question: Who's the real Public Enemy No. 1?

Is it Monsanto (now owned by Bayer)?

Or is it the U.S. Food & Drug Administration (FDA) which defends the use of Roundup weedkiller and other toxic chemicals on our food?

In an interview with Salon, Dr. Zach Bush outlines the, literally, gut-wrenching impact of Monsanto's Roundup on human

health.

And in an article by Carey Gillam, Gillam reveals the extent to which our food is contaminated by not just Roundup, but also by a host of other dangerous toxins, including chlorpyrifos and DDT.

Gillam also reveals the lengths to which the FDA goes to protect the agri-chemical industry by insisting that all these chemicals on our food are nothing to worry about.

All roads lead to Monsanto's weedkiller

Dr. Zach Bush used to research and develop chemotherapy treatments. But he told Salon that at some point he realized he was "missing the point" because he was doing nothing to prevent cancer.

So Bush started to focus on nutrition. That led him down the path toward chemical agriculture, its impact on the soil, and the relationship between soil health and human health.

Bush told Salon:

"So, I was studying soil, found some carbon molecules made by bacteria and fungi in soil, and therefore, in our gut, as well, that had medicinal qualities similar to the chemotherapy [drugs] I used to make. And that was the sudden "Aha!" moment that closed the question of, "How come, when we're missing some bacteria, we get cancer?"

Eventually, all roads led Bush to glyphosate.

According to Bush, glyphosate acts as an antibiotic in the soil, and in the human gut. We think that our exposure to glyphosate is limited to the residue that remains on our foods.But glyphosate is actually taken up by the plants that become our food. Bush says:

. . . it's not something you can wash off. It's actually in

the flesh of the tomato, corn, soybean, whatever it hits. And so, it's integrated in that water structure, and as it hits your gut microbiome [it] acts as an antibiotic to kill the microbial diversity in your intestines. We now know [this] is the beginning of chronic disease, many chronic diseases are now being mapped back to injuries in the microbiome. And so, as we wipe out the bacteria and fungi with this broad spectrum antibiotic in our food, we are killing the health of our animals, the livestock we consume, beef, poultry, pork, and everything else.

Bush blames today's epidemic of chronic disease on the collapse of the microbiome—a condition commonly referred to as "leaky gut," and for which consumers are now bombarded with remedies they can buy to solve the problem.

Bush thinks we should focus instead on preventing the problem. That means getting rid of pesticides, and going back to farming using methods that restore biodiversity and soil health.

FDA: so many pesticides, so little concern

Roundup is "probably public enemy no. 1," according to Bush, but it's only one of 260 chemicals now prevalent in our food system.

And that brings us to the article Carey Gillam wrote this week, on the FDA's latest analysis of pesticide residues in the U.S. food system.

According to Gillam's account, "pesticides were found in 84 percent of domestic samples of fruits, and 53 percent of vegetables, as well as 42 percent of grains and 73 percent of food samples simply listed as 'other.' The samples were drawn from around the country, including from California, Texas, Kansas, New York and Wisconsin."

In other words, good luck finding any non-organic fruits,

veggies or grains that aren't contaminated with pesticides.

The volume of pesticide residues on our food is staggering. But it's not even the worst news. The worst news is that the FDA found significant traces of some of the worst chemicals for human health. The list includes DDT, banned more than 40 years ago for causing cancer, infertility and nervous system damage, and chlorpyrifos, banned (finally) in the U.S., only to have the Trump administration overturn the ban.

Does any of this concern the FDA? Not really, according to Gillam, who writes:

The regulators echo the words of Monsanto executives and others in the chemical industry by insisting that pesticide residues pose no threat to human health as long as the levels of each type of residue falls under a "tolerance" level set by the EPA.

In fact, the FDA—under increasing pressure from agribusiness and agrichemical industry lobbyists—continues to *raise* the allowed "legal" limits for pesticides on food. This despite the fact that no test exists than can prove without a doubt that any of these chemicals are "safe," at any level, according to Andre Leu, author of "The Myth of Safe Pesticides." Leu makes that same article in another of his books, "Poisoning Our Children."

Meanwhile, as Gillam notes, the $215-billion agrichemical industry continues to ignore the evidence and defend its right to poison our food. Gillam reports that this month, a group of three researchers with "long-standing close ties to the companies that sell agricultural pesticides" released a report "seeking to soothe consumer worries and discount the scientific research." Despite mountains of evidence to the contrary, the report claims that there's "no direct scientific or medical evidence indicating that typical exposure of consumers to pesticide residues poses any health risk."

That leaves consumers to try to minimize their risk by choosing certified organic whenever possible, and by relentlessly hounding our lawmakers to ban chemicals like glyphosate (sign here) and chlorpyrifos (sign here).

Katherine Paul is associate director of the Organic Consumers Association (OCA). To keep up with OCA news and alerts, sign up for our newsletter.

Glyphosate Linked to Aggressive Breast Cancer, Alarming Generational Changes in Offspring, New Studies Find

by Jefferey Jaxen
October 6, 2019
Source

Two new studies add to the body of science, showing glyphosate– a key ingredient in Bayer AG-Monsanto's herbicide Roundup–is harmful to living systems. The studies point to convincing evidence the chemical can alter DNA by actively working at the epigenetic level.

These alarming studies strongly suggest glyphosate is affecting human chemistry at the genetic level to turn on negative, disease-causing traits – even into future

generations. These study results indicate glyphosate progressively weakens the genome of living systems exposed to the chemical. It increases susceptibility to health problems and increased infertility.

These discoveries come from a collaboration of scientists from Purdue University and the Institut National de la Santé et de la Recherche Médicale (INSERM)/Institut de Cancérologie de L'Ouest (ICO) in Nantes, France. Together, they found glyphosate can lead to mammary cancer when combined with another risk factor. Their work was published in *Frontiers in Genetics* and shows that glyphosate primes mammary cells for tumor growth by reprogramming epigenomes.

"This is a major result and nobody has ever shown this before," says Sophie Lelièvre, a professor of cancer pharmacology at Purdue's College of Veterinary Medicine. "Showing that glyphosate can trigger tumor growth, when combined with another frequently observed risk, is an important missing link when it comes to determining what causes cancer."

What other frequently observed risks propelled breast cancer growth?

It is assumed that only 5–10% of cancers are directly caused by inherited genetic abnormalities. The remaining 90% of cancers are linked to environmental factors that directly or indirectly affect DNA.

The researchers discuss environmental and lifestyle factors as other "oncogenic hits," including diet, tobacco, infections, obesity, alcohol, radiation, stress, physical activity, exposure to heavy metals, and other pollutants.

Therefore, glyphosate is one "oncogenic hit" that, combined with another oncogenic hit, promotes the development of mammary tumors. A+B=C(ancer)

For the study, scientists exposed noncancerous human mammary epithelial cells to glyphosate in vitro over a course of 21 days. The cells were placed in mice to assess tumor formation. Although cells exposed to glyphosate alone did not induce tumor growth, cancerous tumors did develop after glyphosate was combined with molecules that were linked to oxidative stress.

Oxidative stress is a chemical reaction that occurs as a result of aging, diet, alcohol consumption, smoking, or other stressors. It alters the organization and integrity of the genome of the breast, aiding cancer development.

"*What was particularly alarming about the tumor growth was that it wasn't the usual type of breast cancer we see in older women*," Lelièvre said. "*It was the more aggressive form found in younger women, also known as luminal B cancer.*"

Another first-of-its-kind study from Washington State University exposed pregnant rats to just half the rate of the commonly used herbicide Roundup that is considered safe for exposure. Researchers found that roughly 90 percent of the next two generations developed health problems by the time they were one year old, including kidney disease, obesity, or issues with their ovaries, testicles, or prostate.

The most dramatic finding, says WSU professor of biological sciences Michael Skinner, showed about one-third of the future generations had miscarriages and/or died during pregnancy.

"*It's not just a decision of our own right now to say, 'I don't mind being exposed to this,'*" Skinner says. "*If those have effects generations down the line, we have a responsibility to our future generations.*"

The WSU study builds on findings of a 2018 study that looked at glyphosate exposure in U.S. pregnant women, using urine samples as the measure of exposure. Published in the journal Environmental Health, the authors concluded, "*We found that* >

90% of pregnant women had detectable glyphosate levels and that these levels correlated significantly with shortened pregnancy lengths."

Termed "Epigenetic Transgenerational Inheritance of Adult-Onset Disease," the findings add yet another layer of evidence why countries like the U.S., who haven't announced outright bans on the product, should reconsider their policy.

Currently, 17 countries have issued outright bans on glyphosate as global favor rapidly turns against the product and its manufacturer Bayer AG-Monsanto.

With the Environmental Protection Agency unwilling to budge on setting stricter limits or considering a ban on glyphosate in the U.S., people must take individual action to avoid exposure. Costco has pulled Roundup from its shelves due to public pressure (and perhaps sensing that future lawsuits may involve retailers). Lowes and Walmart are now named in legal action due to their unwillingness to drop the product from their stores.

Meanwhile, Bayer AG has lost three high-profile cases against its Roundup product, causing the company to lose investor confidence, stock price, and public favor. The highly anticipated, upcoming 'Winston lawsuit' held in Monsanto's backyard of St. Louis is set for October 15 as Bayer AG-Monsanto desperately attempts to delay and block the trial's start.

The Winston lawsuit, filed in March of 2018, would be the first trial to take place in the St. Louis area. Two trials that had been set to start in St. Louis in August and September have been delayed, as reported by food industry watchdog, U.S. Right To Know.

USRTK.org writes, "*The plaintiffs in the Winston case are among more than 18,000 people in the United States suing Monsanto claiming that exposure to the company's glyphosate-*

based herbicides caused them to develop non-Hodgkin lymphoma and that Monsanto hid the risks associated with its weed killers."

Judge Vince Chhabria presided over the San Francisco federal court case in which a civil jury awarded California's Edwin Hardeman $80 million on evidence that Roundup was a substantial factor in causing his non-Hodgkin's lymphona. In that case, Judge Chhabria wrote the following conclusion:

"*There is strong evidence from which a jury could conclude that Monsanto does not particularly care whether its product is in fact giving people cancer, focusing instead on manipulating public opinion and undermining anyone who raises genuine and legitimate concerns about the issue.*"

What Makes Most Foods so Dangerous?: The Unexpected Pandora's Box You Open With Every Meal

by Dr. Joseph Mercola
October 1, 2019
Source

STORY AT-A-GLANCE

- Toxicity in food comes from several sources. Toxic influences during the plants' growth phase include

phosphate fertilizer (which has a radioactive component), waste sludge and glyphosate

- Up to 90% of the phosphorous is lost through the supply chain from mining to final fertilizer, and the losses are poorly documented, making it difficult to improve efficiency and prevent losses – which ultimately end up as pollution
- Phosphate contains a radioactive element, polonium-210, which may be taken up by the plant, raising unanswered questions about food safety
- Glyphosate was identified as a probable human carcinogen in 2015 and has been linked to a wide range of possible health problems. Glyphosate is also a phosphate source, adding to the phosphorous loading of soil and water
- Sewage sludge (aka biosolids), used as an inexpensive and readily available fertilizer, contains industrial waste, heavy metals and PFAS chemicals linked to cancer and organ damage

The fact that there are serious issues in our food supply is no longer a secret. Evidence not only reveals toxicity levels in food are rising but also that conventional agriculture has become a leading cause of environmental pollution and destruction.

Toxicity in food comes from several sources. Some toxins are accumulated during the growth phase, others are added during harvesting and processing, and yet others are introduced when the ingredients are manufactured into their final, processed food, form.

By far, the greatest concerns are relegated to processed foods, but even whole foods, both plant and animal foods, can be contaminated. Here, my focus will be on three sources that have their origins in the growth phase: phosphate fertilizers, glyphosate herbicides and biosolids (human waste used as fertilizer).

Data Gaps in Phosphate Fertilizer Supply Chain

According to estimates by the Food and Agriculture Organization of the United Nations, reported in its "World Fertilizer Trends and Outlook to 2020" report,[1] the global demand for phosphate fertilizer is expected to exceed 45.8 million tons by 2020.And, as noted by Science Daily,[2] food demand is expected to increase by 60% by 2050, which means that unless changes are made, even greater amounts of phosphate will be required in coming decades.

A major problem with conventional agriculture is the use of toxic fertilizers. Phosphorous (an element) is mined from phosphate rock (which contains phosphorous), and much of it ends up being lost in the process, ending up as water pollution.[3]

In water, phosphorous triggers toxic algae overgrowth and deoxygenation, which has led to massive dead zones where no marine life can survive. The nitrogen portion of fertilizer has also been identified as a leading cause of air pollution.

In a September 4, 2019, paper,[4] "Opening Access to the Black Box: The Need for Reporting on the Global Phosphorous Supply Chain," researchers in Sweden and Iceland warn that lack of information about the global supply chain could trigger a phosphate supply crisis and lead to social, political and environmental upheaval.

Lead author Eduard Nedelciu, a researcher at the Department of Physical Geography at Stockholm University, told Science Daily:[5]

> *"Cradle-to-grave reporting along the phosphorus supply chain can reveal the untold story about the social, environmental, ethical and economic price we pay for the food we see on our supermarket shelves. It can also help countries – most of*

which are dependent on phosphate imports – tailor better policies to decrease the vulnerability of their agricultural sector."

Majority of Phosphorous Is Wasted

The researchers present four primary problems relating to the reporting of phosphorous and phosphate fertilizers:[6,7]

1. Terminologies and methodologies used when reporting data on phosphate deposits lack transparency and harmonization, making estimations of reserves unreliable
2. Up to 90% of the phosphorous is lost through the supply chain, and the losses are poorly documented, making it difficult to improve efficiency and prevent losses – which ultimately end up as pollution
3. Societal and environmental consequences that occur along the supply chain remain unaddressed
4. Access to data along the supply chain is lacking, which prevents assessment of sustainability goals

Co-author Marie Katharine Schellens told Science Daily:[8]

"Phosphorus information is power. Reliable and regular data gathering can leverage corporate social responsibility as well as political action. Both are needed to tackle many of the issues identified along the supply chain. Transparency can foster a sustainable and socially just supply chain for decades to come."

Must We Use Phosphate Fertilizers?

While the general consensus is that phosphate is a prerequisite for food production, we now know that this isn't entirely true. The only reason it's required is because the

agricultural system is not currently set up to take advantage of natural ecosystems.

As farmers transitioned over to monocropping and chemical-based agriculture, those ecosystems were lost, and with them, everything that makes growing food without chemicals possible. There is in fact compelling evidence showing we do not need synthetic fertilizers to grow food, provided the soil is nurtured properly, as it is in biodynamic and regenerative farming systems.

There's also plenty of evidence showing fertilizers and other agricultural chemicals are a leading source of environmental pollution, thereby threatening all life on earth. The idea that food production is a primary destroyer of the environment is inexcusable and intolerable. It doesn't have to be that way.

Hidden Health Hazards Associated With Phosphate Fertilizers

Aside from polluting waterways, phosphate fertilizers may pose a more direct risk to human health by way of food. Being a fertilizer, the phosphorous is taken up by the plants, of course, but it's not the nutrient itself that is the problem. No, the problem is the fact that phosphate contains a radioactive element, which may be taken up by the plant as well.The concern is an outgrowth of tobacco science[9,10,11,12,13] showing one of the reasons cigarette smoking causes lung cancer is due to polonium-210 – a decay product of natural uranium and a highly radioactive element.[14] It's also chemically toxic.[15]

While naturally present in small amounts in the environment, one of the primary sources of exposure is via calcium phosphate fertilizers, used on nonorganic tobacco fields and food crops respectively. As noted in a 2009 study:[16]

> *"… in a person smoking one and a half packs of cigarettes (i.e., 30 cigarettes) per day, the radiation dose to the bronchial epithelium in areas of bifurcation is … (8000 mrem) — the equivalent of the dose to the skin from 300 x-ray films of the chest per year."*

Similarly, a 2011 paper[17] in the Journal of Oncology, "Polonium and Lung Cancer," explains:

> *"The alpha-radioactive polonium 210 (Po-210) is one of the most powerful carcinogenic agents of tobacco smoke and is responsible for the histotype shift of lung cancer from squamous cell type to adenocarcinoma. According to several studies, the principal source of Po-210 is the fertilizers used in tobacco plants …*
>
> *Tobacco leaves accumulate Pb-210 and Po-210 through their trichomes, and Pb-210 decays into Po-210 over time. With the combustion of the cigarette smoke becomes radioactive and Pb-210 and Po-210 reach the bronchopulmonary apparatus …"*

As has become typical, investigation[18] revealed the tobacco industry was aware of this as early as 1959. What's worse, they opted to not use an acid wash, which has been shown to effectively remove polonium-210 from the tobacco leaves, because the wash made the nicotine less absorbable, and hence less addictive.

Could Nonorganic Food Be Radioactive and We Don't Know It?

Now, if radioactive polonium-210 makes tobacco leaves carcinogenic, what is it doing to our food? In the 1988 document, "Release of Radium and Other Decay-Series Isotopes From Florida Phosphate Rock," the Florida Institute of Phosphate Research concedes:[19]

> *"It has been known for many years that phosphate ore contains 50 to 150 parts per million (ppm) of natural uranium, and hence its radioactive decay products … most other soils and rocks … average 1 or 2 ppm …*
>
> *A fundamental question arises as to the nature of population exposure to natural radiation … and how that exposure is influenced by the presence and extraction of deposits of phosphate."*

While that 1988 report does not address polonium exposure through food, another, even earlier document does.

Remarkably, according to a long-forgotten 1983 report[20] by Oak Ridge National Laboratory, "Polonium-210 and Lead-210 in Food and Tobacco Products: A Review of Parameters and an Estimate of Potential Exposure and Dose," meat and dairy products may expose consumers to radiation doses equivalent to that received by smokers from cigarette smoke. As noted in this paper:[21]

> *"Tobacco smoking appears to provide a dose equal to or greater than that provided by dietary ingestion for both Pb-210 and Po-210 in bone tissues, liver and kidneys; and for Po-210 in the spleen for the three Western-style diets … The smoking dose estimates are most comparable to those obtained for dietary intake by Arctic dwellers."*

Fluoridated Water May Also Contain Polonium-210

Yet another route of polonium-210 exposure is consumption of fluoridated water, courtesy of the fluorosilicic acid used. This chemical byproduct, created during the phosphate fertilizer manufacturing process, is what is typically used to fluoridate municipal water supplies.

In 2015, Mosaic Fertilizer, one of the largest phosphate mining and fertilizer companies in the world, was fined $2 billion by the U.S. Environmental Protection Agency over improper storage and disposal of waste, which was found to pose a hazard to groundwater resources.

A cruel irony is that fluorosilicic acid, another toxic waste product, is suddenly proclaimed "healthy" when purposely added to drinking water. Uranium and radium are two known carcinogens found in fluorosilicic acid used for water fluoridation, and polonium-210 is one of two decay products of uranium.

Furthermore, polonium decays into stable lead-206, which also has significant health risks — especially in children — and research has indeed shown that drinking fluoridated water increases lead absorption in your body.

Toxic Glyphosate Found in Most Foods and Water Supplies

Another chemical that is turning our food toxic is glyphosate, the active ingredient in Monsanto's Roundup herbicide. Glyphosate was identified as a probable human carcinogen by the International Agency for Research on Cancer (IARC)[22,23] in 2015.

More recently, a meta-analysis[24,25,26,27,28] of six epidemiological studies published between 2001 and 2018 concluded glyphosate increases the risk of Non-Hodgkin lymphoma (NHL) — a group of blood cancers — by 41% in highly exposed subjects.

Even if you're not exposed to glyphosate-based herbicides via application (which is the case with most who claim glyphosate exposure caused their NHL), your health is still at risk, as testing[29,30,31,32,33,34] reveals most foods (processed foods in particular) are contaminated with this chemical, and more than 70% of Americans have detectable levels of glyphosate in their

body.[35,36]

Glyphosate kills weeds by inhibiting the shikimate pathway in the plant, and Monsanto has long defended the chemical's safety, saying it cannot affect humans because we do not have this pathway. However, the shikimate pathway is found in human gut bacteria, which we now know play a vital role in human health. Glyphosate has also been shown to:

- Trigger DNA damage[37]
- Cause pineal gland pathology, which in turn was linked to gut dysbiosis and neurological diseases such as autism, depression, dementia, anxiety disorder and Parkinson's disease[38]
- Inhibit pituitary release of thyroid stimulating hormone, which can lead to hypothyroidism[39]
- Act as a substitute for glycine in your body, thereby causing damaged proteins to be produced.[40] Glycine also plays a role in quenching inflammation, as explained in "Glycine Quells Oxidative Damage by Inhibiting NOX Superoxide Production and Boosting NADPH," and is used up in the detoxification process. As a result of glyphosate toxicity, many of us may not have enough glycine for efficient detoxification.
- Chelate important minerals, including iron, cobalt and manganese. Manganese deficiency, in turn, impairs mitochondrial function and can lead to glutamate toxicity in the brain[41]
- Impair serotonin transport and kill beneficial gut bacteria, thereby contributing to a wide range of mood disorders, including major depression[42]
- Interfere with cytochrome P450 enzymes, thereby inhibiting vitamin D activation and the creation of both nitric oxide and cholesterol sulfate, the latter of which is needed for red blood cell integrity[43]

Glyphosate Adds to Phosphorous Saturation

In related news, research[44] published in December 2018 shows glyphosate is now so widely used that it's contributing to the phosphorous load in agricultural land, and thus to the phosphorous loading in watersheds. As reported by Phys.org:[45]

> *"In many agricultural areas, decades of phosphorus-based fertilizer use have led to a saturation of the soil's capacity to hold the nutrient. This increases the likelihood that any additional phosphorus applied to the land will run off into waterways, where it is a known cause of harmful algal blooms …*
>
> *Until now, regulations to limit phosphorus pollution have focused on the use of fertilizers, which remain the largest artificial source of phosphorus. But as the use of glyphosate increases – the past two decades alone have seen global use increase 15-fold – the herbicide's relatively small phosphorus content starts to add up …*
>
> *'Our study argues that the recent and rapid rise in glyphosate use has magnified its relative importance as a source of anthropogenic phosphorus, especially in areas of intensive corn, soybean and cotton cultivation,' [lead author Marie-Pier] Hébert says."*

Biosolids – A Most Toxic Fertilizer

Last but certainly not least, we have biosolids, more accurately referred to as toxic sewage sludge. Not only is it notorious for containing industrial waste, loaded with heavy metals, as noted in a September 12, 2019, AP News

article,[46] concerns over the use of this toxic fertilizer is now growing because it's also been found to be a source of perfluoroalkyl and polyfluoroalkyl substances (PFAS) chemicals.

> *"The concern is that certain PFAS chemicals, which studies have associated with increased risk of cancer and damage to organs such as the liver and thyroid, could be absorbed by crops grown in soils treated with polluted sludge and wind up in foods.*
>
> *The Food and Drug Administration this year reported finding substantial levels of the chemicals in random samples of grocery store meats, dairy products, seafood and even off-the-shelf chocolate cake …" AP states.*[47]

In my 2015 interview with David L. Lewis, Ph.D., a microbiologist who spent three decades working as an Environmental Protection Agency scientist, he reveals the history of biosolids, why it's a complete scam, and how the truth about this toxic fertilizer has been swept under the rug for years.

How to Safeguard Your Diet

As I mentioned at the beginning, phosphate fertilizers, biosolids and glyphosate are just three of many different sources of toxins in our diet. Once you begin to survey the field and realize just how many different toxic sources there are and the types of questionable chemicals involved, you start to get an idea of why organic food is growing in popularity.

Many are now starting to realize the many problems associated with conventional foods, which include both health and environmental issues, and are taking proactive measures. The

most logical step is to transition to an organic or biodynamic diet, to the degree that you're able. This goes not just for produce but also for meat and dairy products.

The reason for this is because most conventional cattle are fed an unnatural diet of grains rather than grass, and most of the grain is also genetically modified. So, animal products can actually be even more contaminated than fruits and vegetables. So, remember to buy organic, grass fed beef, poultry and dairy, as well. If you live in the U.S., the following organizations can help you locate farm-fresh foods:

- **Demeter USA** – Demeter-USA.org provides a directory of certified Biodynamic farms and brands.
- **American Grassfed Association (AGA) –** The goal of the American Grassfed Association is to promote the grass fed industry through government relations, research, concept marketing and public education.Their website also allows you to search for AGA approved producers certified according to strict standards that include being raised on a diet of 100% forage; raised on pasture and never confined to a feedlot; never treated with antibiotics or hormones; and born and raised on American family farms.
- **EatWild.com** – EatWild.com provides lists of farmers known to produce raw dairy products as well as grass fed beef and other farm-fresh produce (although not all are certified organic). Here you can also find information about local farmers markets, as well as local stores and restaurants that sell grass fed products.
- **Weston A. Price Foundation** – Weston A. Price has local chapters in most states, and many of them are connected with buying clubs in which you can easily purchase organic foods, including grass fed raw dairy products like milk and butter.
- **Grassfed Exchange** – The Grassfed Exchange has a listing of producers selling organic and grass fed meats across

the U.S.

- **Local Harvest** – This website will help you find farmers markets, family farms and other sources of sustainably grown food in your area where you can buy produce, grass fed meats and many other goodies.
- **Farmers Markets** – A national listing of farmers markets.
- **Eat Well Guide: Wholesome Food from Healthy Animals** – The Eat Well Guide is a free online directory of sustainably raised meat, poultry, dairy and eggs from farms, stores, restaurants, inns, hotels and online outlets in the United States and Canada.
- **Community Involved in Sustaining Agriculture (CISA)** – CISA is dedicated to sustaining agriculture and promoting the products of small farms.
- **The Cornucopia Institute** – The Cornucopia Institute maintains web-based tools rating all certified organic brands of eggs, dairy products and other commodities, based on their ethical sourcing and authentic farming practices separating CAFO "organic" production from authentic organic practices.
- **RealMilk.com** – If you're still unsure of where to find raw milk, check out Raw-Milk-Facts.com and RealMilk.com. They can tell you what the status is for legality in your state, and provide a listing of raw dairy farms in your area. The Farm to Consumer Legal Defense Fund[48] also provides a state-by-state review of raw milk laws.[49] California residents can also find raw milk retailers using the store locator available at www.OrganicPastures.com.

Despite Corporate Threats, Moms Beat Monsanto In Quest For Truth

by Del Bigtree
September 6, 2019
Source

When common people take on multinational corporations, violent rhetoric, inhuman directives, abuse, and bullying are often the methods chosen to quell the activist spirit.

In 2009, CBS News reported that pharmaceutical giant Merck made a "hit list" of doctors who criticized its deadly, and now withdrawn, drug Vioxx. The list, emailed between Merck employees, contained doctors' names with the labels "neutralise," "neutralised" or "discredit" next to them according to testimony in a Vioxx class action case in Australia. Merck emails from 1999 showed company execs complaining about doctors who disliked using Vioxx. One email said: *We may need to seek them out and destroy them where they live…*"

Fast forward to present day and the public is discovering a similar, expanded and well-funded operation was in play at chemical giant Monsanto. In May, it was found in an investigation by a French news outlet that Monsanto kept "watch lists" of around 600 politicians, journalists and others across seven European countries and in Brussels.

Recently, internal emails showed that Monsanto operated a military-style "fusion center" to monitor and discredit journalists and activists, target reporters and strategize how to counter Neil Young's 2015 album *The Monsanto Years.*

Now, new emails revealed from the Monsanto trials and placed into public record show another disturbing perspective of Monsanto's culture. Dan Goldstein, Monsanto's lead Medical Science and Outreach, Distinguished Science Fellow and pediatrician, Bruce Chassy, a professor at the University of Illinois, and Wayne Parrot from the University of Georgia called activist Moms "*dumb mothers*" suggesting, "*There you have it. That's your enemy. Beat the shit out of them and put them on the defensive and you won't have this problem.*"

The email exchange was focused an open letter to Monsanto from consumer group Moms Across America sent to the chemical company in 2013.

The directive to "*beat the shit out of moms*" was not just a harmless figure of speech. Just five months after these emails, it was reported that Sofia Gatica, an activist mother in Argentina who lost one of her babies to pesticide poisoning while living near a GM/agrochemical farm, was beaten.

Zen Honeycutt, founder of Moms Across America, recently sat down with HighWire host Del Bigtree to discuss the threats and internal emails. She stated,

"*I'm glad that this is out because it shows the corporate mentality of arrogance and aggression, misogyny, and complete disregard for public health. And this is very important for people to know, especially our politicians, our policy makers, and our President who are currently trying to allow these corporations to self-determine whether or not their products are safe.*"

https://youtu.be/lCOzmFfgXO4?t=38

x

Glyphosate Worse Than We Could Imagine

by F. William Engdahl
April 14, 2019
Source

As new studies continue to point to a direct link between the widely-used glyphosate herbicide and various forms of cancer, the agribusiness lobby fights ferociously to ignore or

discredit evidence of human and other damage. A second US court jury case just ruled that Monsanto, now a part of the German Bayer AG, must pay $ 81 million in damages to plaintiff Edwin Hardeman who contracted non-Hodgkin's lymphoma cancer. The ruling and a line-up of another 11,000 pending cases in US courts going after the effects of glyphosate, have hit Bayer AG hard with the company announcing several thousand layoffs as its stock price plunges.

In a trial in San Francisco the jury was unanimous in their verdict that Monsanto Roundup weed-killer, based on glyphosate, had been responsible for Hardeman's cancer. His attorneys stated, "It is clear from Monsanto's actions that it does not care whether Roundup causes cancer, focusing instead on manipulating public opinion and undermining anyone who raises genuine and legitimate concerns about Roundup." It is the second defeat for the lawyers of Monsanto after another jury ruled in 2018 that Glyphosate-based Roundup was responsible for the cancer illness of a California school grounds-keeper who contracted the same form of cancer after daily spraying school grounds with Roundup over years, unprotected. There a jury found Monsanto guilty of "malice and oppression" in that company executives, based on internal email discovery, knew that their glyphosate products could cause cancer and suppressed this information from the public.

New independent study shows that those with highest exposure to glyphosate have a 41% increased risk of developing non-Hodgkin lymphoma (NHL) cancer. A meta-analysis of six studies containing nearly 65,000 participants looked at links between glyphosate-based herbicides and immune-suppression, endocrine disruption and genetic alterations. The authors found "the same key finding: exposure to GBHs (glyphosate-based herbicides) are associated with an increased risk of NHL (Non-Hodgkin's Lymphoma)." Further, they stated that glyphosate "alters the gut microbiome," and that that could "impact the immune system, promote chronic inflammation, and contribute to

the susceptibility of invading pathogens." Glyphosate also "may act as an endocrine disrupting chemical because it has been found recently to alter sex hormone production" in both male and female rats.

In a long-term animal study by French scientists under Gilles Eric Seralini, Michael Antoniou and associates, it was demonstrated that even ultra-low levels of glyphosate herbicides cause non-alcoholic liver disease. The levels the rats were exposed to, per kg of body weight, were far lower than what is allowed in our food supply. According to the Mayo Clinic, today, after four decades or more pervasive use of glyphosate pesticides, 100 million, or 1 out of 3 Americans now have liver disease. These diagnoses are in some as young as 8 years old.

But glyphosate is not only having alarming effects on human health. Soil scientists are beginning to realize the residues of glyphosate application are also having a possibly dramatic effect on soil health and nutrition, effects that can take years to restore.

Killing Soils too

While most attention is understandably drawn to the human effects of exposure to glyphosate, the most widely used agriculture chemical in the world today, independent scientists are beginning to look at another alarming effect of the agrochemical– its effect on essential soil nutrients. In a study of the health of soils in the EU, the online journal Politico.eu found that the effects of spraying of glyphosate on the major crops in European agriculture is having disastrous consequences on soil health in addition to killing weeds.

Scientists at Austria's University of Natural Resources and Life Sciences in Vienna showed that casting activity of earthworms had nearly disappeared from the surface of farmland

within three weeks of glyphosate application. Casting is the process of the worm pushing fertile soils to the surface as they burrow, essential for healthy soil and plant nutrition. A study at Holland's Wageningen University of topsoil samples from more than 300 soil sites across the EU found that 83% of the soils contained 1 or more pesticide residues. Not surprisingly, "Glyphosate and its metabolite AMPA, DDTs (DDT and its metabolites) and broad-spectrum fungicides… were the compounds most frequently found in soil samples and at the highest concentrations."

The use of various pesticides, above all glyphosate-based ones like Roundup, has exploded over the past four decades across the EU much as across the USA. The agribusiness industry claims that this has been the key to the dramatic rise in farm crop productivity. However if we look more closely at the data, while average yields of major grains such as rice, wheat and maize have more than doubled since 1960, the use of pesticides like glyphosate-based ones has risen by 15-20-fold. Oddly enough, while the EU requires monitoring of many things, monitoring of pesticide residues in soil is not required at the EU level. Until recently the effects of heavy use of pesticides such as Roundup have been ignored in scientific research.

Evidence of soil experts is beginning to reveal clear links between use of pesticides such as glyphosate and dramatic drops in soil fertility and the collapse of microbe systems essential to healthy soil. Worms are one of the most essential.

It's well-established that earthworms play a vital role in healthy soil nutrients. Soils lacking such are soils that deprive us of the essentials we need for healthy diets, a pandemic problem of soil depletion emerging globally over the past four decades, notably the same time frame that use of pesticides has exploded worldwide. Earthworms are beneficial as they enhance soil nutrient cycling and enhance other

beneficial soil micro-organisms, and the concentration of large quantities of nutrients easily assimilable by plants.

The EU puts no limits on how much glyphosate can be put on crops even though it is established that glyphosate can kill specific fungi and bacteria that plants need to suck up nutrients in addition to its effects on earthworms. That is a major blind spot.

Where now?

What is becoming clearer is the colossal and obviously deliberate official blind eye given to potential dangers of glyphosate-based pesticides by regulatory bodies not only in the EU and the USA, but also in China, which today produces more glyphosate than even Monsanto. Since the Monsanto Roundup patent expired, Chinese companies, including Syngenta, Zhejiang Xinan Chemical Industrial Group Company, SinoHarvest, and Anhui Huaxing Chemical Industry Company, have emerged as the world's major producers of the chemical as well as largest consumers, a not good omen for the future of the legendary Chinese cuisine.

Glyphosate is the base chemical component for some 750 different brands of pesticides worldwide, in addition to Monsanto-Bayer's Roundup. Glyphosate residues have been found in tap water, orange juice, children's urine, breast milk, chips, snacks, beer, wine, cereals, eggs, oatmeal, wheat products, and most conventional foods tested. It's everywhere, in brief.

Despite the overwhelming evidence, however, EU Commission bureaucrats and the USA EPA continue to ignore prudence in not banning the toxic chemical pending thorough independent investigation over longer time. If I were cynical, I would almost think this continued official support for glyphosate-based herbicides is about more than mere bureaucratic stupidity or ignorance, even more than simply corruption,

though that for sure plays a role. The nutritional quality of our food chain is being systematically destroyed and it is about more than corporate agribusiness profit.

Organic Glyphosate: Just When You Thought Organic Compromise Couldn't Get Worse

Source: The Lunatic Farmer

Organic Glyphosate

by Joel Salatin
April 11, 2019

The Real Organic community is abuzz about new confirmations that organic certifiers are okay with hydroponic plants grown in pots sitting on black plastic over glyphosate-laden soil.

Black pots the size of a 5-gallon bucket sit on acres and acres of land. How do you maintain that land like a sterile table top for those buckets of hydroponic (without soil) blueberries? You kill all the vegetation with Roundup, turning the soil to concrete, and then you place the buckets on top. Organic certifiers are fine with that.

The reasoning is that the herbicide is not actually in the buckets holding the plants; just in the soil on which the buckets sit. But since the plants don't go into the soil, the plastic bucket barrier keep things on the up-and-up for certification.

Just when you thought organic compromise couldn't get worse, it does. This is a classic case. Not only is the U.S. the only country that certifies plants grown without soil as organic, we're the only country that allows such a deadly herbicide to be used as part of the system. It shows how once you open that door of organic fraud, you head down a slippery slope of more egregious fraud.

A little fraud does not morph into no fraud. It progresses into greater fraud.

Why in the world the organic community ever thought the government could be trusted with something as idealistic and full of integrity as organic production is beyond me and why here at Polyface we don't play the gamesmanship of the program. It is becoming more rotten by the day and proves the best way to know what's going on is to buy from sources you vet yourself. Interestingly, these organic producers often show how they're growing and make no attempt to hide it.

That shows that they believe the brazen adulteration of the National Organic Products Act is now so embedded in the consumer psyche that all of this is broadly and unquestionably accepted.

Why should we pay more for organic blueberries when they're grown on top of Roundup and in buckets without soil?

Preharvest Use of Glyphosate Poisons Children's Food

Source: Dr. Mercola

STORY AT-A-GLANCE

- Glyphosate-based herbicides like Roundup are the most heavily-used agricultural chemicals of all time, with 1.8 million tons being applied to U.S. fields alone since 1974
- August 10, 2018, a jury ruled Monsanto must pay $289 million in damages to Dewayne Johnson, who developed a lethal form of Non-Hodgkin lymphoma following heavy exposure to Roundup during his work as a groundskeeper
- Glyphosate is also showing up in the food supply at potentially unsafe levels. Testing revealed 43 out of 45 food products made with conventionally grown oats tested positive for glyphosate
- Thirty-one of the 43 products had glyphosate levels higher than Environmental Working Group scientists believe would be protective of children's health
- Glyphosate has even been detected in PediaSure Enteral Formula nutritional drink, given to infants and children via feeding tubes; 30 percent of the samples tested contained levels of glyphosate over 75 ppb — far higher levels than have been found to destroy gut bacteria in chickens (0.1 ppb)

by Dr. Mercola

Glyphosate-based herbicides like Roundup are the most heavily-used agricultural chemicals of all time, with 1.8 million tons being applied to U.S. fields alone since 1974. Alas, the popularity of this herbicide was built on reckless deceit, and there's really no telling how many people around the world have paid for Monsanto's lies with their lives.

August 10, 2018, a jury ruled Monsanto must pay $289 million in damages to Dewayne Johnson,[1,2,3,4,5] who developed a lethal form of Non-Hodgkin lymphoma following heavy exposure to Roundup during his work as a groundskeeper. The evidence brought forth in court was extensive and extraordinarily damning, clearly showing Monsanto acted with malice.

It knew Roundup was toxic and caused cancer, yet hid that fact from regulators and the public, fabricating evidence to the contrary and suppressing research showing harm. You can review key documents from this case on the U.S. Right to Know website.[6]

You can also read "Spinning Science & Silencing Scientists: A Case Study in How the Chemical Industry Attempts to Influence Science,"[7] a report prepared for U.S. House members of the Committee on Science, Space and Technology, which details some of the most important pieces of evidence.

More than 5,000 additional plaintiffs are now waiting in the wings for their own day in court.[8] All believe Roundup exposure caused their Non-Hodgkin lymphoma.

In a recent Highwire interview,[9] Robert F. Kennedy Jr., who is working on some of these cases, said he believes other disease categories may eventually be added to the growing mountain of lawsuits against Monsanto, as evidence suggests glyphosate and/or Roundup may also be linked to liver cancer, brain tumors and health problems associated with endocrine disruption.

Glyphosate Found in Common Breakfast Foods and Snacks

The same chemical shown to cause Johnson's lethal disease is also showing up in the food supply at potentially unsafe levels. The Environmental Working Group (EWG) recently commissioned independent laboratory tests to determine how

much glyphosate is lurking in the U.S. food supply.

While the U.S. Food and Drug Administration (FDA) has been testing foods for glyphosate, and tests reportedly revealed "a fair amount" of residues, their findings have not yet been made public.[10]

EWG's testing revealed 43 out of 45 food products made with conventionally grown oats tested positive for glyphosate, 31 of which had glyphosate levels higher than EWG scientists believe would be protective of children's health.

Examples of foods with detectable levels of glyphosate include Quaker Dinosaur Eggs instant oatmeal, Cheerios cereal, Nature Valley granola bars, Quaker steel cut oats and Back to Nature Classic Granola.

Further, of 16 organic oat foods tested, five contained glyphosate, although at levels below EWG's health benchmark of 160 parts per billion (ppb). In 2016, tests[11] conducted by the nonprofit organizations Food Democracy Now! and The Detox Project also found glyphosate residues in a variety of foods including Doritos, Oreos and Stacy's Pita Chips.

Glyphosate has even been detected in PediaSure Enteral Formula nutritional drink, which is given to infants and children via feeding tubes. Thirty percent of the samples tested contained levels of glyphosate over 75 ppb — far higher levels than have been found to destroy gut bacteria in chickens (0.1 ppb).[12]

Children Likely Ingest Unsafe Levels of Glyphosate From Their Food

Exposure to glyphosate and glyphosate-based herbicide formulations, even at low levels, has been linked to a variety of health risks. Daily exposure to ultra-low levels of glyphosate for two years led to nonalcoholic fatty liver disease in rats,[13] for instance, while the International Agency

for Research on Cancer (IARC) determined that glyphosate is a "probable human carcinogen" in 2015.

As of July 2017, California's Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA) also listed glyphosate as a chemical known to cause cancer under Proposition 65, which requires consumer products with potential cancer-causing ingredients to bear warning labels. According to EWG:[14]

> *"OEHHA has proposed a so-called No Significant Risk Level for glyphosate of 1.1 milligrams per day for an average adult of about 154 pounds. That level of exposure is more than 60 times lower than the safety level set by the Environmental Protection Agency."*

Exposure to glyphosate at OEHHA's risk level would present an increased lifetime risk of cancer of 1 in 100,000 for an adult, but EWG points out that an additional tenfold margin of safety may be necessary to protect those most vulnerable, like children and fetuses. Using this methodology, virtually all of the foods tested by EWG could be damaging to human health:[15]

> *"With this additional children's health safety factor, EWG calculated that a 1-in-a-million cancer risk would be posed by ingestion of 0.01 milligrams of glyphosate per day. To reach this maximum dose, one would only have to eat a single 60-gram serving of food with a glyphosate level of 160 parts per billion, or ppb.*
>
> *The majority of samples of conventional oat products from EWG's study exceeded 160ppb, meaning that a single serving of those products would exceed EWG's health benchmark …*
>
> *The EPA has calculated that 1- to 2-year-old children are likely to have the highest [glyphosate] exposure, at a level*

twice greater than California's No Significant Risk Level and 230 times EWG's health benchmark."

Why so Much Glyphosate in the Food Supply?

Most of the more than 250 million pounds of glyphosate sprayed on American crop fields each year are used on genetically engineered (GE) crops[16] like Roundup-ready corn and soybeans, which are designed to withstand the chemical's otherwise lethal effects.

However, while choosing non-GMO foods would appear to be a good way to reduce your exposure to glyphosate, a majority of grains, even if they're not GE, are heavily contaminated with glyphosate. The reason for this is because the chemical is also used as a desiccant and/or preharvest treatment to speed ripening.

Essentially, by spraying glyphosate on the grain right before harvest, it dries (desiccates) the grain, making it easier to harvest. Desiccation is also used to improve profits, as farmers are penalized when the grain contains moisture. The greater the moisture content of the grain at sale, the lower the price they get.

While GMOs have been considered the most heavily contaminated, since the glyphosate is inside each cell of the GE plant, the preharvest application of glyphosate on non-GMO grains appears to be the primary reason for why glyphosate is now found in virtually all foods tested.

It's also found in air, rain, municipal water supplies, soil samples, breast milk, urine and even vaccines, including the pneumococcal, Tdap, hepatitis B (which is injected on the day of birth), influenza and MMR. The MMR vaccine had the highest amounts at 0.8 ppb.[17]

Both GMO and Non-GMO Grains Are Heavily Contaminated With

Glyphosate

According to a 2017 study[18] by University of California San Diego School of Medicine researchers, "The herbicide Roundup is sprayed onto genetically modified crops and applied as a desiccant to most small nongenetically modified grains."

So, whether we're talking about Roundup Ready GE crops or conventional, non-GE grains, glyphosate, the active ingredient in Roundup, "is found in these crops at harvest." In a statement, a spokesperson for Quaker acknowledged that glyphosate is commonly used preharvest:[19]

> *"Glyphosate is commonly used by farmers across the industry who apply it preharvest. Once the oats are transported to us, we put them through our rigorous process that thoroughly cleanses them (dehulled, cleaned, roasted and flaked).*
>
> *Any levels of glyphosate that may remain are significantly below any limits and well within compliance of the safety standards set by the Environmental Protection Agency (EPA) and the European Commission as safe for human consumption."*

However, EWG's testing revealed one sample of Quaker oats with 1,300 ppb of glyphosate, and another with 1,100 ppb. Along with wheat and oats, other crops that are commonly desiccated with glyphosate include:

Lentils	Peas	Non-GE soybeans
Non-GE corn	Flax	Rye and buckwheat
Triticale	Canola	Millet
Sugar beets	Potatoes	Sunflowers

Why Do Farmers Use Glyphosate Preharvest?

Considering the toxicity of glyphosate and Roundup, using either as a desiccant is an unconscionable choice. As noted in

a recent Producer article:[20]

> *"Cereals Canada and other industry groups have warned farmers that glyphosate is under increased scrutiny. Therefore, when producers use glyphosate as a harvest aid, they must carefully adhere to label guidelines to prevent unacceptably high residue levels in the grain.*
>
> *When agronomists are asked about using glyphosate as a desiccant, the standard response is: 'glyphosate is not a desiccant,' which is tactful way of saying, 'if a producer plans to desiccate, he should use an actual desiccant.'"*

The Monsanto pamphlet "Preharvest Staging Guide"[21] notes Roundup formulation "should not be used as a desiccant," as Roundup brand herbicides "work slower than a desiccant." Real Agriculture has also noted that "glyphosate is not a desiccant," doing "very little to increase dry-down rates."[22]

Overall, the application of glyphosate "will only speed up harvest by a few days," Real Agriculture states. Still, applying glyphosate preharvest is a common practice to enhance ripening and some may use it as a desiccant anyway.[23] Improper timing may also contribute to contamination.

As explained in "Clarification of Preharvest Uses of Glyphosate,"[24] the grain must not be sprayed with glyphosate "until seed heads or pods are almost ripe (i.e., bulk sample less than 30 percent moisture)." If applied too early, while the grain has a moisture rate higher than 30 percent, the glyphosate is absorbed through the leaves and stems and translocates throughout the plant.

General Mills Sued Over Glyphosate Residues

Farmers and food manufacturers better start reconsidering

their use of glyphosate during preharvest, though, or prepare to face legal consequences. Just six days after Johnson's win against Monsanto, a class-action lawsuit was filed against General Mills in Florida. According to Food Navigator-USA:[25]

> *"Plaintiff Mounira Doss argued that General Mills had a duty to disclose the presence of glyphosate in Cheerios cereal products, but failed to do so.*
>
> *At 470 to 530 parts per billion, the levels of glyphosate Doss alleges were in Cheerios products tested by the Environmental Working Group in August 2018 are well below permitted EPA thresholds for glyphosate in grains (set at … 30,000 ppb in grains, cereal group 15).*
>
> *However, Doss argues that 'Scientific evidence shows that even ultra-low levels of glyphosate may be harmful to human health,' and notes that glyphosate recently joined the Prop 65 list of chemicals 'known to cause cancer …' and was found by the International Agency for Research on Cancer (IARC) to be 'probably carcinogenic to humans."*

Are Other Desiccants Safe?

Aside from the off-label use of glyphosate, two commonly used registered desiccants are paraquat and diquat. The question is, are they any safer than glyphosate? Food is not tested for these or other desiccants, and neither has received much media coverage.

However, a recent article in Politico[26] points out the European Food Safety Authority (EFSA) has expressed concerns over diquat, made by Syngenta. According to Politico, "the Swiss agrichemical giant has avoided an EU ban on the product after mounting a campaign to undermine the watchdog's findings."

Sound familiar? They've clearly taken a page right out of Monsanto's playbook. Documents released by EFSA to Politico "show the [European] Commission twice withdrew a proposal to remove … diquat from the market after the company questioned the methodology behind EFSA's science."

According to EFSA,[27] diquat poses severe risks to agricultural workers. The chemical has the ability to disrupt the human hormonal system, and in some cases "exposure to the product … exceeded acceptable levels by several thousand percent."[28] It's also been found to disrupt the reproductive cycles of both mammals and birds.

In the U.S., the National Institute for Occupational Safety and Health has linked at least five deaths to the chemical, along with thousands of illnesses. British research[29] has also found diquat is more likely to cause Parkinson's than paraquat — a chemical that's already been banned in the EU for its link to Parkinson's.

Overall, desiccants are not necessarily a required part of farming. The harvest can dry naturally, but it takes longer, and therefore costs more. However, the question we really need to ask ourselves is, at what price speed and profit? Is it really worth poisoning the food just to speed up ripening and drying?

Bayer Hurt by yet Another Monsanto Mistake

In the week following Johnson's verdict, Bayer stock fell by 18 percent, evaporating about $14 billion of the company's market value (a loss equivalent to 21 percent of Monsanto's total acquisition value).[30] But Roundup toxicity wasn't the only cause for the stock tumble.

Traders also cite mounting lawsuits over dicamba-related crop damage as a driving factor.[31] For the third year in a row, huge

swaths of land have been destroyed by chemical burns from this toxic weed killer.

As feared by many critics, any crop that is not genetically engineered (GE) to be resistant to dicamba is severely damaged by even small amounts of the herbicide – be it food crops, gardens or trees; even other GE crops resistant to herbicides other than dicamba shrivel and die in its presence.

Monsanto promised its XtendiMax with VaporGrip formula would be less volatile and prone to drift than older versions, but this appears to be yet another Monsanto fantasy. Last year, 3.6 million acres of non-GE soybean – a total of 4 percent of all soy grown in the U.S. – were destroyed by dicamba drift, according to Reuters.[32]

As of July 15 this year, an estimated 1 million acres of nondicamba-resistant crops have been destroyed.[33] Homeowners have also reported destruction of trees and private gardens. Dicamba-resistant soy was supposed to replace the failed Roundup Ready line of soy but, according to Reuters,[34] the EPA "is now weighing such complaints as part of a high-stakes decision on the herbicide's future."

Without the XtendiMax formula, the dicamba-resistant soy is unlikely to stand a chance, seeing how older dicamba formulations are strictly regulated and are not permitted during growing season due to their volatility (high drift potential). Either way, it's worth nothing that both Roundup and dicamba have been linked to Non-Hodgkin lymphoma,[35] so whether we're growing Roundup Ready or dicamba-resistant crops, both pose serious health risks.

It remains to be seen whether EPA will extend its approval for XtendiMax past this fall, take it off the market, or implement stricter limits on its use. Either of the latter two options would be another deep blow for Bayer, who now owns Monsanto's

portfolio of toxic flops and failures.

Monsanto, as you'd expect, says it's confident EPA will extend its approval, but has also urged seed sellers "to contact [EPA] to express support for the product," Reuters reports – a behind-the-scenes action that suggests they may not be quite as confident as they claim.

Where to Find Safer Food

There's little doubt that the presence of herbicides and pesticides in food pose a health risk, especially to young children. To minimize the risks to your family, consider buying organic produce and certified grass fed animal products. As the saying goes, "money talks," and to create change, we have to vote for the agricultural system we want with our pocketbooks.

While many grocery stores now carry organic foods, it's preferable to source yours from local growers whenever possible, as much of the organic food sold in grocery stores is imported. If you live in the U.S., the following organizations can help you locate farm-fresh foods:

Demeter USA – Demeter-USA.org provides a directory of certified Biodynamic farms and brands. This directory can also be found on BiodynamicFood.org.
American Grassfed Association – The goal of the American Grassfed Association is to promote the grass fed industry through government relations, research, concept marketing and public education. Their website also allows you to search for AGA approved producers certified according to strict standards that include being raised on a diet of 100 percent forage; raised on pasture and never confined to a feedlot; never treated with antibiotics or hormones; born and raised on American family farms.
EatWild.com – EatWild.com provides lists of farmers known to produce raw dairy products as well as grass fed beef and other farm-fresh produce (although not all are certified organic). Here you can also find information about local farmers markets, as well as local stores and restaurants that sell grass fed products.

Weston A. Price Foundation – Weston A. Price has local chapters in most states, and many of them are connected with buying clubs in which you can easily purchase organic foods, including grass fed raw dairy products like milk and butter.
Grassfed Exchange – The Grassfed Exchange has a listing of producers selling organic and grass fed meats across the U.S.
Local Harvest – This website will help you find farmers markets, family farms and other sources of sustainably grown food in your area where you can buy produce, grass fed meats and many other goodies.
Farmers Markets – A national listing of farmers markets.
Eat Well Guide: Wholesome Food From Healthy Animals – The Eat Well Guide is a free online directory of sustainably raised meat, poultry, dairy and eggs from farms, stores, restaurants, inns, hotels and online outlets in the United States and Canada.
Community Involved in Sustaining Agriculture (CISA) – CISA is dedicated to sustaining agriculture and promoting the products of small farms.
The Cornucopia Institute – The Cornucopia Institute maintains web-based tools rating all certified organic brands of eggs, dairy products and other commodities, based on their ethical sourcing and authentic farming practices separating CAFO "organic" production from authentic organic practices.
RealMilk.com – If you're still unsure of where to find raw milk, check out Raw-Milk-Facts.com and RealMilk.com. They can tell you what the status is for legality in your state, and provide a listing of raw dairy farms in your area. The Farm to Consumer Legal Defense Fund[36] also provides a state-by-state review of raw milk laws.[37] California residents can also find raw milk retailers using the store locator available at www.OrganicPastures.com.

Toxic Weed Killer Found in Most Foods Sold in the US

Source: Dr. Mercola

Story at-a-glance

- Between 1974 — the year glyphosate entered the U.S. market — and 2014, glyphosate use in the U.S. increased more than 250fold
- Few people had detectable levels of glyphosate in their urine in 1993, but by 2016, 70 percent had detectable levels. Between 1993 and 2016, the glyphosate levels in people's bodies increased by 1,208 percent
- While both the U.S. Department of Agriculture's Pesticide Data Program and the U.S. Food and Drug Administration (FDA) measure pesticide residues in foods, neither include glyphosate in their official testing
- Internal FDA emails reveal Roundup has been found in virtually all foods tested, including granola, oatmeal products, crackers and honey
- Independent testing has found significant amounts of glyphosate in a wide range of foods as well, including grains (especially oats), legumes, beans, orange juice, wine and ice cream

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by Dr. Mercola
May 15, 2018

Earlier this year, researchers from University of California San Diego School of Medicine reported there's been a dramatic increase in glyphosate exposure in recent decades and, subsequently, the level found in people's bodies.[1] As one would expect, the introduction of so-called "Roundup Ready" genetically engineered (GE) crops led to a massive increase in the use of Roundup, the active ingredient of which is glyphosate.

Glyphosate has also become a popular tool for desiccating non-GE grains, legumes and beans, which has further spurred the use of the chemical. Between 1974 — the year glyphosate entered the U.S. market — and 2014, glyphosate use in the U.S.

increased more than 250fold.[2,3] Globally, glyphosate use has risen nearly fifteenfold since 1996, two years after the first GE crops hit the market.

Farmers now apply nearly 5 billion pounds (over 2 billion kilograms) of glyphosate to farm crops each year, worldwide.[4] Approximately 300 million pounds are applied on U.S. farmland. According to the researchers, few people had detectable levels of glyphosate in their urine in 1993 when the study began.[5] By 2016, 70 percent had detectable levels.[6] Overall, between 1993 and 2016, the glyphosate levels in people's bodies increased by 1,208 percent.

Food Testing Reveals Widespread Glyphosate Contamination

While Monsanto still argues that Roundup (and glyphosate in general) is perfectly safe, mounting research tells a very different story, which is why it's becoming increasingly crucial to assess just how much glyphosate is in our food. Unfortunately, while both the U.S. Department of Agriculture (USDA) Pesticide Data Program and the U.S. Food and Drug Administration (FDA) measure pesticide residues in foods, neither of them includes glyphosate in their official testing.

The USDA promised to begin glyphosate testing in 2017, yet mere days before the testing was scheduled to begin, the plan was called off. The reason has never been disclosed. The only time the USDA tested for glyphosate was in 2011, when 300 soybean samples were tested and all were found to be contaminated.

Meanwhile, the FDA began a limited testing program for glyphosate in 2016, in which high levels of glyphosate was found in oatmeal products and honey, but the agency did not release the results publicly. Now, internal FDA emails obtained by investigative journalist Carey Gillam[7] through Freedom of Information Act (FOIA) requests reveal Roundup has

been found in virtually all foods tested, including granola and crackers. Gillam writes:

"[T]he internal documents obtained by the Guardian show the FDA has had trouble finding any food that does not carry traces of the pesticide. 'I have brought wheat crackers, granola cereal and corn meal from home and there's a fair amount in all of them,' FDA chemist Richard Thompson wrote to colleagues in an email last year regarding glyphosate … broccoli was the only food he had 'on hand' that he found to be glyphosate-free …

Separately, FDA chemist Narong Chamkasem found 'over-the-tolerance' levels of glyphosate in corn, detected at 6.5 parts per million [ppm], an FDA email states. The legal limit is 5.0 ppm. An illegal level would normally be reported to the Environmental Protection Agency (EPA), but an FDA supervisor wrote to an EPA official that the corn was not considered an 'official sample.'"

Independent Testing Also Highlights Massive Glyphosate Problem

The Health Research Institute Labs (HRI Labs) is an independent laboratory that tests both micronutrients and toxins found in food, and is often hired to test foods claiming to be non-GMO, "all natural" and/or organic. One of the toxins HRI Labs is currently focusing on is glyphosate, and the public testing being offered (see below) allows them to compile data on the pervasiveness of this chemical in the food supply.

HRI was recently tasked with testing Ben & Jerry's ice cream, which was also found to contain glyphosate. The samples were provided by the Organic Consumers Association (OCA) and Regeneration Vermont, which are concerned about the environmental impact Ben & Jerry's dairy producers are having in Vermont. Using sensitive state-of-the-art testing equipment to look at the quality of the ingredients, 10 of the 11 ice

cream samples were found to contain substantial levels of glyphosate.

HRI Labs has investigated a number of other foods as well, including grains, legumes and beans. Most if not all of these types of crops need to dry in the field before being harvested, and to speed that process, the fields are doused with glyphosate a couple of weeks before harvest. As a result of this practice, called desiccation, grain-based products, legumes and beans contain rather substantial amounts of glyphosate. Quaker Oats, for example, was found to contain very high levels.

Orange juice also contains surprising amounts of glyphosate. As it turns out, weeds in orange groves are managed by spraying glyphosate, which ends up in the oranges as the roots of the orange trees pick it up through the soil. A similar situation is occurring in vineyards, which is why many wines are contaminated.

HRI Labs has also analyzed more than 1,200 urine samples from U.S. residents. This testing is being done as part of a research project that will provide valuable information about the presence of glyphosate in the diet and how lifestyle and location affects people's exposure to agrochemicals. Here are some of their findings to date:

- 76 percent of people tested have some level of glyphosate in their system
- Men typically have higher levels than women
- People who eat oats on a regular basis have twice as much glyphosate in their system as people who don't (likely because oats are desiccated with glyphosate before harvest)
- People who eat organic food on a regular basis have an 80 percent lower level of glyphosate than those who rarely eat organic. This indicates organic products are a safer choice

- People who eat five or more servings of vegetables per day have glyphosate levels that are 50 percent lower than those who eat fewer vegetables

How Is Glyphosate Affecting Human Health?

Glyphosate mimics glycine (hence the "gly" in glyphosate), a very common amino acid your body uses to make proteins. As a result, your body can substitute glyphosate for glycine, which results in damaged proteins being produced. According to research published in the journal Entropy in 2013, the main toxic effects of glyphosate are related to the fact that it:[8,9]

- Inhibits the shikimate pathway, found in gut bacteria in both humans and animals
- Interferes with the function of cytochrome P450 enzymes, required for activation of vitamin D in the liver, and the creation of both nitric oxide and cholesterol sulfate, the latter of which is needed for red blood cell integrity
- Chelates important minerals, including iron, cobalt and manganese. Manganese deficiency, in turn, impairs mitochondrial function and can lead to glutamate toxicity in the brain
- Interferes with the synthesis of aromatic amino acids and methionine, which results in shortages in critical neurotransmitters and folate
- Disrupts sulfate synthesis and sulfate transport

Glyphosate also disrupts, destroys, impairs or inhibits:[10]

- The microbiome, thanks to its antibiotic activity
- Sulfur metabolism
- Methylation pathways
- Pituitary release of thyroid stimulating hormone, which can lead to hypothyroidism

The chemical has also been linked to certain cancers. In March

2015, the International Agency for Research on Cancer (IARC), a research arm of the World Health Organization, reclassified glyphosate as a Class 2A probable carcinogen[11] based on "limited evidence" showing the weed killer can cause Non-Hodgkin lymphoma and lung cancer in humans, along with "convincing evidence" linking it to cancer in animals.

Since then, more than 3,500 individuals have filed lawsuits against Monsanto, claiming the weed killer caused their Non-Hodgkin lymphoma. Many of the cases in this multidistrict litigation are being handled in federal court in San Francisco under one judge. Internal documents obtained during discovery have been released by plaintiff attorneys, and have become known as "The Monsanto Papers."

Disturbingly, some of this evidence reveals the EPA has protected the company's interests by manipulating and preventing key investigations into glyphosate's cancer-causing potential.

According to toxicologist Linda Birnbaum, director of the U.S. National Institute of Environmental Health Services, even minor exposure could have a detrimental effect on human health. "Even with low levels of pesticides, we're exposed to so many, and we don't count the fact that we have cumulative exposures," she told Gillam.

Monsanto Sued for Misleading Consumers

In addition to the lawsuits against Monsanto over Roundup's cancer-causing effects, the company is also being sued for false and misleading labeling.[12] The lawsuit, which accuses Monsanto of falsely claiming glyphosate "targets an enzyme found in plants but not in people or pets" on the Roundup label was filed in April 2017 by the OCA and Beyond Pesticides.

As noted above, glyphosate affects the shikimate pathway,

which is involved in the synthesis of the essential aromatic amino acids phenylalanine, tyrosine and tryptophan. While the shikimate pathway is absent in human and animal cells, this pathway is present in the gut bacteria of mammals, including humans.

So, by way of your gut bacteria, it still wields a significant influence on human health. Aside from a probable cancer link, Roundup's effect on gut bacteria also suggests the chemical may play a significant role in digestive issues, obesity, autism, Alzheimer's disease, depression, Parkinson's disease, liver diseases and many other chronic health problems.

Monsanto filed a motion to have the case dismissed, saying the label is accurate because "the enzyme targeted is not produced by the human body or found in human cells," but U.S. District Judge Timothy Kelly rejected the motion.

In his May 1 ruling, Kelly stated "The court concludes that Plaintiffs have adequately pleaded a claim that the statement at issue was false or misleading," and that "defendants cannot dispute that the label's statement that the enzyme at issue is 'found in plants, but not in people' is, at least on one reading, literally false."

How Much Glyphosate Do You Have in Your Body?

According to Gillam, the FDA should publish its glyphosate test results sometime toward the end of this year, or early 2019. Time will tell whether this actually happens or not. The good news is you no longer need to rely on the government when it comes to glyphosate testing. You can test your own levels, thereby assessing your own individual exposure. As mentioned earlier, HRI Labs has developed home test kits for both water and urine.

If your levels are high, you would be wise to address your diet and consider buying more organic foods. You may also want to consider some form of detoxification protocol, and take

steps to repair the damage to your gut caused by glyphosate and other agrochemicals. Chances are, if your glyphosate levels are high, you probably have a number of other pesticides in your system as well.

Fermented foods, particularly kimchi, are potent chelators of these kinds of chemicals. Taking activated charcoal after a questionable meal can help bind and excrete chemicals as well. Remember to stay well-hydrated to facilitate the removal of toxins through your liver, kidneys and skin.

Using a sauna on a regular basis is also recommended to help eliminate both pesticides and heavy metals you may have accumulated. For guidelines on how to improve your gut health and repair damage done, see "Go With Your Gut," and "The Case Against Lectins."

Huge Organic Farm under Threat; County Will Invade and Spray Roundup

Source: No More Fake News

Huge organic farm under threat: County will invade and spray Roundup if not stopped

What?? A county government is going to destroy a massive organic farm?

by Jon Rappoport
May 15, 2017

“I have a great idea. We’re the Sherman County government. We have power. Let’s claim Azure Farms can’t control their weeds. Let’s come in and invade them with Roundup and other toxic chemicals. Let’s destroy their organic farm. We know the spraying won’t wipe out the weeds—it’ll make the situation worse. But who cares? Let’s open up ourselves to massive lawsuits. I’m sure Monsanto will give us some legal help. We can set a fantastic precedent. No organic farm is safe. No organic farmer has the right to protect his land from the government. Isn’t that a terrific idea?”

Government trespass, invasion?

So far, I have seen no coverage of this issue in Oregon newspapers. Why not? Also, I find nothing on the Sherman County, Oregon, government website about a massive spraying program.

A local government is going to decimate a huge organic farm with herbicide?

Azure Farms, a 2000-acre organic farm in Oregon, states it is under threat from the local Sherman County government. Why? Because Sherman County officials are re-interpreting a law concerning the “control of noxious weeds,” so it means “eradication.”

These weeds can be controlled on an organic farm, but the only way they can be eliminated (according to conventional “science”) is by spraying. And that means Roundup and other toxic chemicals. That would decimate the organic nature of the farm. That would decertify it as an organic farm.

Further, according to Azure, Sherman County plans to put a lien on the farm, forcing it to pay for the spraying.

The deadline for expressing opposition is May 22. A better

deadline is May 17.

Here is the complete press release from Azure Farms and the ways to register your concern:

Azure Farms is a working, certified organic farm located in Moro, central Oregon, in Sherman County. It has been certified organic for about 18 years. The farm produces almost all the organic wheat, field peas, barley, Einkorn, and beef for Azure Standard.

Sherman County is changing the interpretation of its statutory code from controlling noxious weeds to eradicating noxious weeds. These weeds include Morning Glory, Canada Thistle, and Whitetop, all of which have been on the farm for many years, but that only toxic chemicals will eradicate.

Organic farming methods – at least as far as we know today – can only control noxious weeds—it is very difficult to eradicate them.

Sherman County may be issuing a Court Order on May 22, 2017 to quarantine Azure Farms and possibly to spray the whole farm with poisonous herbicides, contaminating them with Milestone, Escort and Roundup herbicides.

This will destroy all the efforts Azure Farms has made for years to produce the very cleanest and healthiest food humanly possible. About 2,000 organic acres would be impacted; that is about 1.5 times the size of the city center of Philadelphia that is about to be sprayed with noxious, toxic, polluting herbicides.

The county would then put a lien on the farm to pay for the expense of the labor and chemicals used.

Contact Sherman County Court before May 17 when the next court discussion will be held.
Contact info:

1. Via email at lhernandez@co.sherman.or.us or
2. Call Lauren at 541-565-3416.

Show Sherman County that people care about their food NOT containing toxic chemicals.

Overwhelm the Sherman County representatives with your voices!

–end of Azure Farms statement–

Darren Smith, Weekend Contributor to jonathanturley.org, has been covering this story. He reached out and obtained a devastating letter from agricultural scientist, Charles Benbrook. Benbrook has his critics within the conventional pesticide and GMO research community. Here is Smith's piece and Dr. Benbrook's letter:

Yesterday I fielded an article concerning a rather distressing mandate by an Oregon county weed control agency seeking to force the application of hazardous herbicides onto a 2,000 acre organic farm owned by Azure Farms. Sherman County Oregon maintains this scorched earth policy is necessary to abate, or more specifically "eradicate", weeds listed by state statute as noxious.

Now, the scientific community is responding to this overreaching government action by acting in the interests of health and responsible environmental stewardship through advocacy in the hopes that officials in Sherman County will reconsider their mandate.

Dr. Charles Benbrook is a highly credentialed research professor and expert serving on several boards of directors for agribusiness and natural resources organizations. Having read news of Sherman County's actions, he penned an authoritative response I believe will make informative reading for those concerned by present and future implications in the forced use of herbicides under the rubric of noxious weed eradication, and the damage to organic farming generally

arising from such mandates.

Charles Benbrook has a PhD in agricultural economics from the University of Wisconsin-Madison and an undergraduate degree from Harvard University. He currently is a Visiting Professor at Newcastle University in the UK…

He was a Research Professor at Washington State University from 2012-2015, and served as the Chief Scientist of The Organic Center from 2006-2012. He was the Executive Director of the Board on Agriculture in the National Academy of Sciences from 1984-1990. He was the staff director of the Subcommittee on Department [USDA] Operations, Research, and Foreign Agriculture of the House Committee on Agriculture (1981-1983). He worked as an agricultural and natural resources policy expert in the Council for Environmental Quality in the last 1.5 years of the Carter Administration. He began Benbrook Consulting Services (BCS) in 1990, and continues to carry out projects with a wide range of clients via BCS

He coauthors an informative website Hygeia-Analytics.com.

I reached out to Dr. Benbrook and received permission to reprint his letter in the hope that with more attention, including that from the scientific community, we can arrive at a reasonable solution to the county's concerns. Here is Dr. Benbrook's letter:…

Tom McCoy
Joe Dabulskis
Sherman County Commissioners
Lauren Hernandez
Administrative Assistant
Sherman County, Oregon
Rod Asher
Sherman Country Weed District Supervisor
Moro, Oregon

Alexis Taylor
Director
Oregon Department of Agriculture

Dear Ms. Hernandez el al:

I live in Wallowa County. I learned today of the recent, dramatic change in the Sherman County noxious weed control program and the plan to forcibly spray a 2,000-acre organic farm in the county.

Over a long career, I have studied herbicide use and efficacy, public and private weed control efforts, the linkages between herbicide use and the emergence and spread of resistant weeds, and the public health and environmental impacts of herbicide use and other weed management strategies.

I served for six years, along with fellow Oregonian Barry Bushue, past-president of the Oregon Farm Bureau, on the USDA's AC 21 Agricultural Biotechnology Advisory Committee. Issues arising from herbicide use were a frequent topic of discussion during our Committee's deliberations.

I have published multiple scientific papers in peer-reviewed journals on glyphosate, its human health risks, and the impact of genetically engineered crops on overall herbicide use and the spread of resistant weeds. In a separate email, I will forward you copies of my published research relevant to the use of herbicides, and glyphosate in particular.

The notion that Sherman County can eradicate noxious weeds by blanket herbicide spraying is deeply misguided. I cannot imagine a single, reputable university weed scientist in the State supporting the idea that an herbicide-based noxious weed eradication program would work (i.e., eradicate the target weeds) in Oregon, or any other state. To hear another opinion from one of the State's most widely known and respected weed scientists, I urge the County to consult with Dr. Carol Mallory-Smith, Oregon State University.

I also doubt any corporate official working for Monsanto, the manufacturer of glyphosate (Roundup), would agree or endorse the notion that any long-established weed in Sherman County, noxious or otherwise, could be eradicated via blanket spraying with Roundup, or for that matter any combination of herbicides.

Before proceeding with any county-mandated herbicide use justified by the goal of eradication, I urge the County to seek concurrence from the herbicide manufacturer that they believe use of their product will likely eradicate your named, target, noxious weeds.

Given that almost no one with experience in weed management believes that any long-established weed, noxious or otherwise, can be eradicated with herbicides, one wonders why the County has adopted such a draconian change in its noxious weed control program. I can think of two plausible motivations – a desire by companies and individuals involved in noxious weed control activities, via selling or applying herbicides, to increase business volume and profits; or, an effort to reduce or eliminate acreage in the Country that is certified organic.

Weeds are classified as noxious when they prone to spread, are difficult to control, and pose a public health or economic threat to citizens, public lands, and/or farming and ranching operations. Ironically, by far the fastest growing and mostly economically damaging noxious weeds in the U.S. are both noxious and spreading because they have developed resistance to commonly applied herbicides, and especially glyphosate.

There is near-universal agreement in the weed science community nationwide, and surely as well in the PNW, that over-reliance on glyphosate (Roundup) over the last two decades has created multiple, new noxious weeds posing serious economic, environmental, and public health threats.

In fact, over 120 million acres of cultivated cropland in the

U.S. is now infested with one or more glyphosate-resistant weed (for details, see http://cehn-healthykids.org/herbicide-use/resistant-weeds/.

The majority of glyphosate-resistant weeds are in the Southeast and Midwest, where routine, year-after-year planting of Roundup Ready crops has led to heavy and continuous selection pressure on weed populations, pressure that over three-to-six years typically leads to the evolution of genetically resistant weed phenotypes, that can then take off, spreading across tens of millions of acres in just a few years.

Ask any farmer in Georgia, or Iowa, or Arkansas whether they would call “noxious” the glyphosate-resistant kochia, Palmer amaranth, Johnson grass, marestail, or any of a dozen other glyphosate-resistant weeds in their fields.

It is virtually certain that an herbicide-based attempt to eradicate noxious weeds in Sherman County would fail. It would also be extremely costly, and would pose hard-to-predict collateral damage on non-target plants from drift, and on human health and the environment. But even worse, it would also, almost certainly, accelerate the emergence and spread of a host of weeds resistant to the herbicides used in the program.

This would, in turn, leave the county, and the county’s farmers with not just their existing suite of noxious weeds to deal with, but a new generation of them resistant to glyphosate, or whatever other herbicides are widely used.

Sherman County’s proposal, while perhaps well meaning, will simply push the herbicide use-resistant weed treadmill into high gear. Just as farmers in other parts of the county have learned over the last 20 years, excessive reliance on glyphosate, or herbicides over-all, accomplishes only one thing reliably – it accelerates the emergence and spread of

resistant weeds, requiring applications of more, and often more toxic herbicides, and so on before some one, or something breaks this vicious cycle.

I urge you to take into account two other consequences if the County pursues this deeply flawed strategy. Certified organic food products grown and processed in Oregon, and distributed by Oregon-based companies like Azure and the Organically Grown Company, are highly regarded throughout the U.S. for exceptional quality, consistency, and value.

Plus, export demand is growing rapidly across several Pacific Rim nations for high-value, certified organic foods and wine from Oregon. Triggering a high-profile fight over government-mandated herbicide spraying on certified organic fields in Sherman County will come as a shock to many people, who are under the impression that all Oregonians, farmers and consumers alike, are committed to a vibrant, growing, and profitable organic food industry.

Does Sherman County really want to erode this halo benefiting the marketing of not just organic products, but all food and beverages from Oregon?

Second, if Sherman County is serious about weed eradication, it will have to mandate widespread spraying countywide, and not just on organic farms, and not just for one year. The public reaction will be swift, strong, and build in ferocity. It will likely lead to civil actions of the sort that can trigger substantial, unforeseen costs and consequences. I am surely not the only citizen of the State that recalls the tragic events last year in Malheur County.

Plus, I guarantee you that the County, the herbicide applicators, and the manufacturers of the herbicides applied, under force of law on organic or other farms, will face a torrent of litigation seeking compensatory damages for loss of reputation, health risks, and the loss of premium markets and

prices.

I have followed litigation of this sort for decades, and have served as an expert witness in several herbicide-related cases. While it is obviously premature to start contemplating the precise legal theories and statutes that will form the crux of future litigation, the County should develop a realistic estimate of the legal costs likely to arise in the wake of this strategy, if acted upon, so that the County Commissioners can alert the public upfront regarding how they will raise the funds needed to deal with the costs of near-inevitable litigation.

–end of Dr. Benbrook's letter–

Yesterday, Sunday, I emailed the Sherman County government asking them whether they really intend to pursue this lunatic program. If and when I receive an answer, I'll post it.

I also emailed Azure Farms, asking why they believe there is no coverage of this issue in Oregon newspapers. If I get an answer, I'll post that, too.

Ordinarily, local papers will print a stories about contentious issues, however one-sided they may be. In this case, I find nothing.

Is it possible the threat of herbicide spraying has been overstated? Why would Azure issue a release claiming the spraying is imminent if it weren't true? Why would Azure risk getting into a wrangle with the County government if the threat weren't real? Why isn't there any mention of the spraying program on the Sherman County website? Does the County actually think they can keep their intentions under wraps?

"I have a great idea. Let's claim Azure Farms can't control their weeds. Let's come in and invade them with Roundup and other toxic chemicals. Let's destroy their organic farm. We

know the spraying won’t wipe out the weeds—it’ll make the situation worse. But who cares? Let’s open up ourselves to massive lawsuits. I’m sure Monsanto will give us some legal help. We can set a fantastic precedent. No organic farm is safe. No organic farmer has the right to protect his land from the government. Isn’t that a terrific idea?”