MOMS ACROSS AMERICA

Widespread Contamination of Glyphosate Weedkiller in California Wine

100% of wine tested showed positive results for Glyphosate weedkiller

Report

Zen Honeycutt March 24th, 2016

Concerned with the widespread contamination of glyphosate/Roundup and other glyphosate based herbicides from GMO chemical farming, Moms Across America has initiated the testing of glyphosate in water, urine, breast milk, Pediasure feeding tube liquid given to pediatric patients with cancer, baby formula, and beverages. Since then, several groups have since reported finding glyphosate in cereal, bread, honey, cow's milk, soy sauce, pet food, beer and more.
In this recent project, an individual and Moms Across America supporter sent ten wines, including organic and biodynamic, to be tested for glyphosate based herbicides

Results

On March 16th, 2016 Moms Across America received results from an anonymous supporter which commissioned Microbe Inotech Lab of St.Louis, Missouri that showed all ten of the wines tested positive for the chemical glyphosate, the declared "active" ingredient in Roundup weedkiller and 700 other glyphosate-based herbicides. The highest level of glyphosate detected was up to 28.4 times higher than the other wines at 18.74 ppb from a 2013 Cabernet Sauvignon from a conventional, chemically farmed vineyard. The lowest level was from a biodynamic and organic vineyard, 2013 Syrah, which has never been sprayed according to the owner, with a level of .659 ppb. An organic wine from 2012 mixed red wine grapes, had 0.913 ppb of glyphosate.

It is important to note that the detection of glyphosate is an indicator of the presence of many other co-formulants in glyphosate-based herbicides which have recently been shown by French scientist Seralini's team to be endocrine hormone disruptors and to be 1000x more toxic than glyphosate alone. (11) Therefore, the type or amount of the co-formulant chemicals in the wines are untested and the consequences on our health are unknown.

Glyphosate in wine test results from Microbe Inotech Lab, St.Louis Missouri

Results:

Sample Name	Dilution	Results in ppb	Final Results:
Sample #1	No Dilution	0.913	0.913 ppb
Sample #2	No Dilution	Above detection range	--
	1:10	0.251	2.51 ppb
Sample #3	No Dilution	1.064	1.064 ppb

<0.075 ppb ND = result is below range of detection.

Disclaimer: the MiL, inc. is not a human clinical diagnostic laboratory and makes no warranty to the fitness of this data for such purposes.

Results:

Sample Name	Dilution	Results in ppb	Final Results:
Sample #1	No Dilution	Above detection range	--
	1:10	0.830	8.30ppb
Sample #3	No Dilution	Above detection range	--
	1:10	1.874	18.74ppb
Sample #4	No Dilution	2.656	2.656ppb
Sample #5	No Dilution	0.659	0.659ppb
Sample #7	No Dilution	2.797	2.797ppb
Sample #8	No Dilution	1.604	1.604ppb
Sample #9	No Dilution	Above detection range	--
	1:10	0.428	4.28ppb

<0.075 ppb ND = result is below range of detection.

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All wines are from the North Coast region of California, the premium wine growing region of California and includes wines from Napa, Sonoma and Mendocino counties. The wines were sent in Sept of 2015 and February of 2016 in two separate groups.

According to recent studies, the presence of glyphosate in consumables is concerning in nanoparticles, or very tiny levels.
Glyphosate residues are allowed on 160 of food and feed crops by the EPA at levels 0.2 to 400 ppm (1). *German scientists have shown that 0.1 ppb of glyphosate, which is patented as an antibiotic, has been shown to destroy the beneficial gut bacteria and promote the proliferation of pathogenic gut bacteria.(2) The gut bacteria are where 70% of the immune system lies in humans.
0.1ppt of glyphosate has also been shown to stimulate the growth of breast cancer cells.(3) Glyphosate has been shown to destroy human placental cells,(4) be a neurotoxin (5), cause sex hormone changes and liver and kidney damage (6), birth defects and miscarriages (7) (8). Glyphosate has also been shown to increase antibiotic resistance, which could be leading to superbugs (9).
Glyphosate has been deemed a probable carcinogen by the World Health Organization. (10)
The use of glyphosate is substantial. For example, the CA Department of Pesticide Registry states that of the 57,237 pounds of glyphosate/Roundup used just in Napa County in 2013, 50,417 pounds were applied on vineyards. According to the CA Dept of Health, breast cancer rates in the Sonoma, Napa and Mendocino counties is 10 to 20 percent higher than the national average.

The detection of the most widely used herbicide in the world in our wines, especially organic and biodynamic wines which pride themselves on being free of toxic chemicals, is a growing problem for the beverage industry. The contamination of glyphosate and co-formulants is a growing challenge for any manufacturer to maintain product purity using GMO and glyphosate based herbicide sprayed ingredients.

How does glyphosate get into wine? Wouldn't it kill the vines?

Roundup/glyphosate is sprayed every year in conventional vineyards. A 1-2 ft strip is sprayed on either side of the grape vines which are planted in rows, to kill weeds when the plants are dormant in late winter or early spring. This results in a 2-4 foot strip of Roundup sprayed soil with grapevines in the middle.
According to Dr. Don Huber at a talk given at the Acres USA farm conference in December of 2011, the vine stems are inevitably sprayed in this process and the Roundup is likely absorbed through the roots and bark of the vines from where it is translocated into the leaves and grapes.

Roundup/glyphosate cannot be used in organic vineyards so the presence of glyphosate/Roundup in the two wines using organic and biodynamic grapes is obviously unexpected. Since the majority of vineyards in these three counties use Roundup/glyphosate and spray at the same time, it is suspected that airborne drift from nearby vineyards contaminated the organic and biodynamic crops.
Glyphosate/Roundup could also appear in organic grape wine from vineyards which were conventionally managed and then converted to organic.
According to several scientific studies glyphosate/Roundup can remain viable in the soil for over 20 years.

Sample Processing
The methodology of testing was the same as was used on water, urine, breast milk, Pediasure and the beer in Germany.

To detect Glyphosate, an enzyme linked immunosorbent assay (ELISA) was used. The sample along with a glyphosate specific antibody is added to a well coated with goat anti-Rabbit antibody and incubated for 30 minutes. Then a glyphosate enzyme conjugate is added. A competition occurs between glyphosate that is present in the sample and the enzyme labeled glyphosate analog for the antibody binding sites in the well. The wells are washed and a color solution is added. The color solution causes a color change in the wells containing the enzyme labeled glyphosate analog. Since the labeled glyphosate was in competition with the unlabeled glyphosate in the sample the color development is inversely proportional to the concentration of glyphosate in the sample. The wells are read at 450nm to determine absorbance.

Results are calculated based on a standard curve. The results are then adjusted based on the extraction procedure and final dilution.

Conclusion
The glyphosate tests on the 10 wines were not a scientific study. However, these tests provide compelling evidence that the wine producers which use glyphosate based herbicides or other toxic chemicals in any product and regulators who approve products for safety will need to conduct or require independent testing for glyphosate and co formulants and responsibly insure the safety and purity of their wines.

The results which show glyphosate present in organic and biodynamic wine point to serious implications for the organic and biodynamic wine industry. If herbicide drift is not contained, the value of the wine, name brand and livelihood of these farmers are at risk due to no fault of their own. Conventional chemically farmed vineyard owners may

reconsider the legal implications of contaminating a neighbor's crops. 700 lawsuits are currently pending against Monsanto for the connection between non-Hodgkin's lymphoma and Roundup.

Currently the FDA does not require end product testing or labeling for pesticides. The EPA also does not require full formulation, long term safety testing of herbicide or pesticide products such as Roundup; they only require the testing of the declared "active" chemical ingredient. Therefore we do not know the type or amount of the other co-formulants in the glyphosate based herbicides or other pesticides that are also likely to be present in the wines.
By not requiring the full formulation long-term safety testing of all chemical combinations in products consumed by our citizens, the claim that any of these products are safe is a fraud. The fact is that none of the pesticides, herbicides, food, or beverages are properly tested and labeled.

Concerned citizens are encouraged to ask their wine producers if they use pesticides and herbicides such as Roundup/glyphosate and do their best to avoid toxic chemical exposure.

Moms Across America and other groups call for the protection of organic and biodynamic wines, farm workers and all consumers by requesting that all food producers stop using toxic chemicals on food crops.

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Sources

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(9) Glyphosate causes antibiotic resistance University of Canterbury's Professor Jack Heinemann mbio.asm.org/content/6/2/e00009-15

(10) World Health organization deems glyphosate probable carcinogen.

(11) International Journal of Environmental Research and Public Health: *Co-Formulants in Glyphosate-Based Herbicides Disrupt Aromatase Activity in Human Cells below Toxic Levels* (2016) DOI:10.3390/ijerph13030264 Nicolas Defarge, Eszter Takacs, Veronica Laura Lozano, Robin Mesnage, Joel Spiroux de Vendomois, Gilles-Eric Seralini and Andras Szekacs

*In the originally posted report a sentence stating that the amount detected in wine was higher than the allowable amounts by the EPA on grapes, .2ppm. This was inaccurate, as the findings were in the ppb. The report has been corrected. The issue is that *any* amount is of concern considering the harm shown by the ppb and ppt as shown in scientific studiest.