Decades of Deceit

A CRITICAL EYE ON PESTICIDES, SCIENCE AND INDUSTRY

REVELATIONS FROM THE MONSANTO PAPERS & OTHER RESEARCH

Carey Gillam
Research Director, U.S. Right to Know
Author of Whitewash – The Story of a Weed Killer,
Cancer and the Corruption of Science

What is a Pesticide?

Pesticide law defines a "pesticide" (with certain minor exceptions) as:

* Any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest, including weeds. The term pesticide includes all of the following: herbicides, insecticides, fungicides, nematicide, rodenticide, insect repellent, animal repellent, disinfectant, etc....

- ❖ Over 1 billion pounds of pesticides in the United States each year
- Approximately 5.6 billion pounds of pesticides used worldwide
- USDA estimates 50 million Americans get drinking water from groundwater potentially contaminated by pesticides and other agricultural chemicals
- Research ties glyphosate and other pesticides to a range of health problems, including reproductive and neurodevelopmental harms, kidney and liver diseases, and cancers.
- Linda Birnbaum, director of the National Institute for Environmental Health Sciences says: US regulations have not kept pace with scientific advances showing that pesticides and other widely used chemicals "cause serious health problems at levels previously assumed to be safe."
- Chuck Benbrook, visiting scholar at the Bloomberg School of Public Health, Johns Hopkins University, says: "The amount of herbicides used in the next five to 10 years is going to constitute the largest increase in U.S. history. This is a public health train wreck that no one has the tools, the motivation, or the ability to turn around. The end game will be very costly."

Source: Pesticides Use and Exposure Extensive Worldwide, Michael CR Alavania Dr. P.H. Rev Environ Health. 2009 Oct-Dec; 24(4): 303-309.

Source: Environmental exposures to pesticides and cancer risk in multiple human organ systems, T Parron, et al; Toxicol Lett Oct 15;230(2):157-65. doi: 10.1016/j.toxlet.2013.11.009. Epub 2013 Nov 20. 2014

Source: Regulating toxic chemicals for public and environmental health, L. Gross and Linda Birnbaum; PLOS Biology, https://doi.org/10.1371/journal.pbio.2004814
"These Farmers Switched to Organic After Pesticides Made Their Families Sick," Civil Eats, May 11, 2018 https://civileats.com/2018/05/11/these-farmers-switched-to-organic-after-pesticides-made-their-families-sick/

- Approx. 39 pct of men and women in United States expected to be diagnosed with cancer in their lifetimes
- More than 600,000 expected to die this year from cancer and more than 1.6 million expected to be newly diagnosed with cancer; pediatric cancers are among those on the rise
- Worldwide, more that 14 million cases of cancer are occurring each year, and that number is expected to hit nearly 22 million by 2030.
- Research suggests a connection between pesticides and cancers such as non-Hodgkin lymphoma, multiple myeloma, and prostate, liver, pancreatic, lung and non-melanoma skin cancers.
- National Toxicology Program 2016 report says to reduce cancer deaths we must address environmental causes, including pesticides

Sources: National Cancer Institute; American Cancer Society; and U.S. Department of Human Health and Services National Toxicology Program 2016 report titled "14th Report on Carcinogens"



Federal and State Lawsuits Pending Against Monsanto in the United States Over Roundup Safety

- Approximately 8,000 Plaintiffs (including spouses)
- All allege that Monsanto's Roundup caused non-Hodgkin lymphoma (NHL), and that Monsanto knew about, and covered up, the risks
- First trial in San Francisco resulted in \$289 mln jury verdict
- Jury found Monsanto acted with "malice" in failing to warn of risks of its herbicides.

International Agency for Research on Cancer



March 2015 - World Health Organization's cancer experts classify glyphosate as a "probable human carcinogen"

The International Agency for Research on Cancer (IARC), said a review of many scientific studies showed that glyphosate had a positive association for non-Hodgkin lymphoma. (Rates of NHL have risen sharply over the last several decades, making NHL the tenth most common cancer worldwide, with nearly 386,000 new cases diagnosed in 2012. The statistics show incidence rates highest in Northern America.)

Research has indicated that heavy use of Roundup could be linked to a range of health problems and diseases, including Parkinson's, infertility, kidney disease and cancers.

Monsanto emails show concern BEFORE review about IARC connecting glyphosate to cancer

----Original Message----

From: FARMER, DONNA R [AG/1000]

Sent: Thursday, September 18, 2014 12:19 PM

To: Acquavella, John Subject: Long time...

John,

I do hope this finds you and your family. After being the stewardship group for 5 years I am back in toxicology and once again supporting glyphosate.

Just wanted to let you that what we have long been concerned about has happened. Glyphosate is on for IARC review in March of 2015.

http://monographs.iarc.fr/ENG/Meetings/index.php

Meeting 112: Some Organophosphate Insecticides and Herbicides: Diazinon, Glyphosate,

Malathion, Parathion, and Tetrachlorvinphos (3-10 March 2015)

Call for Data (closing date 3 February 2015)
Call for Experts (closing date 30 July 2014)

Request for Observer Status (closing date 3 November 2014)

WHO Declaration of Interests for this volume

Glyphosate had been listed as a medium priority for 2015-2016 but clearly something happened and it got moved up to an ultra priority.

Monsanto has continued to work with Tom Sorahan and developed a relationship with Sir Colin Barry after the loss of Sir Richard. I have sent Tom an email asking for his help as we move forward.

Again do wish you well and really will miss your expertise and leadership on this issue!!

Warmest regards,

Donna

"What we have long been concerned about has happened. Glyphosate is on for IARC review..."

Richard,

It is my recollection that you notified the EU-GTF of this IARC evaluation, but I am not aware that there has been any talk of approaching the GTF about providing funding to fight this because it is not considered in the remit of achieving Annex I renewal. If so, is this really the case? I thought the EU evaluation could go well into the summer of 2015, and wouldn't an adverse IARC evaluation have the real potential to impact the results of the Annex I renewal?

I really started thinking about this after our phone call yesterday with the outside epidemiology experts that Donna lined up. The bottom line of the call was that there really is no meaningful publication that we can complete prior to the February submission to positively impact the epidemiology discussion outcome in March. One has to consider that this situational timing did not happen by chance and that more than just pure bad luck is working against glyphosate.

And while we have vulnerability in the area of epidemiology, we also have potential vulnerabilities in the other areas that IARC will consider, namely, exercise, genetox, and mode of action (David has the animal onco studies under control). If there is a force working a wohosate, there is ample fodder to string together to help the cause even though it is not scientifically justified in it.

Putting all this in the proper perspective will be quite resource intensive, so can't we consider approaching that the PAG already agreed to fund the onco publication 2+ years ago for this exact reason.

Thanks.

Bill

"We have vulnerability in the area of epidemiology ... exposure, genetox, and mode of action "

Monsanto Predicts IARC Cancer Classification for Glyphosate

"We should assume and prepare for the outcome of a 2B rating (possible human carcinogen); a 2A rating (probable human carcinogen) is possible..." Draft Feb 23, 2015

Glyphosate: IARC

INTRODUCTION

The International Agency for Research on Cancer (IARC), part of the World Health Organization, coordinates and conducts both epidemiological and laboratory research into the causes of human cancer. It also evaluates the carcinogenic potential of individual substances based only on publicly available information. While glyphosate has been a low priority for evaluation by IARC for more than two decades, it was nominated for review in mid-April, 2014.

After learning of the nomination-selection of glyphosate for review in September, the regulatory team's initial focus was publishing safety studies that were not yet in the public domain. All research had to be published or accepted for publication by Feb. 3, 2015 to be considered in the IARC review. Regulatory Affairs has shared these recent publications with IARC and is continuing to share directly with panelists and observers.

history of questionable and politically charged rulings on the carcinogenic properties of products such

. We should assume and prepare for the outcome of a 2B rating (possible human obable human carcinogen) is possible but less likely.

mat IARC's decision will impact future regulatory decision making. Regulatory is not aware of a where a regulatory body took a different position than IARC. Competent authorities for regulating pesticides and assessing chemical hazard typically evaluate a broader range of studies and make their own decisions. They also use the most broadly accepted hazard classification system, the Globally Harmonized System, which differs significantly from that used by IARC. Thus IARC classifications can readily differ from those of other regulatory bodies. This could further delay the U.S. EPA review.

The IARC meeting where glyphosate will be reviewed and the decision will be made will occur March 3-10, 2015. IARC will post its decision soon after on its website ([HYPERLINK "http://www.iarc.fr/"]). We are already seeing activists increase allegations against the Roundup brand (ilo glyphosate) and link those allegations directly to GM crops. We anticipate this will increase with the IARC decision. CLI seems to be willing to develop high-level communications around the IARC process to prepare for the publication of the IARC decision. To date, CLA and ECPA have not been engaged; we will need industry support specific to the glyphosate rating.

International Agency for Research on Cancer



"The International Agency for Research on Cancer (IARC) is the specialized cancer agency of the World Health Organization"

Comment [wh1]: No – contact with panelists ('Members')is not allowed

Comment [wh2]: And key regulators

Formatted: Complex Script Font: +Body (Calibri), 10 pt, Highlight

Comment [wh3]: No GHS doesn't play into this. I would say "more broadly accepted "Weight-of-Evidence" approach to evaluate carcinogenic potential, which..."

Comment [k4]: and EU? Canada? Japan?

Comment [drf5]: We asked CLA to nominate an observer to the meeting, while they were supportive there was push back by some of the member companies that this action would supporting a "single air" we tried to make the case that this is about defending pesticides but that argument didn't work with those companies

TEAM

| Jen Listello | Reg Affairs – US | LEAD |
|--------------------|------------------------------------|------|
| Kelly Clauss | Issues Preparedness and Engagement | |
| Linda Dudenhoeffer | Stakeholder Outreach | |
| Richard Garnett | Regulatory Affairs – Global | |

Monsanto document titled "PREPAREDNESS AND ENGAGEMENT PLAN FOR IARC CARCINOGEN RATING OF GLYPHOSATE"

Feb. 23, 2015
(month before IARC decision)
Monsanto action plan:
"Orchestrate
Outcry with IARC Decision"

4. Orchestrate Outcry with IARC Decision ~ March 10, 2015

- · Industry conducts robust media / social media outreach on process and outcome
 - [Sense About Science?] leads industry response and provides platform for IARC observers and industry spokesperson
 - CLI and other associations issue press releases

Monsanto Company Confidential

Page [PAGE] of [NUMPAGES]

ifidential - Produced Subject to Protective Order

MONGLY02913530

Draft Feb 23, 2015

- Joint Glyphosate Taskforce publishes press release, letter signed by leaders of each manufacturer in North America and Europe
- Push opinion leader letter to key daily newspaper on day of IARC ruling with assistance of Potomac Group
- Monsanto responds with strong reactive statement
 - Distribute video and audio responses to IARC decision
 - Address media inquiries with company glyphosate spokesperson
 - Utilize Monsanto channels (web, FB, Twitter, blog, etc) to provide Monsanto POV
 - Corporate Engagement team packages industry and Monsanto responses, then distributes via email to ~20 most influential ag media outlets across print, radio and TV

What the Documents Show: Examples of Industry Strategies to Influence Regulators and Confuse and Mislead Consumers

- Ghostwritten research papers that assert glyphosate safety for publication & regulatory review
- Alternative assessments provided for studies that Indicate harm, used to convince regulators to discount evidence of safety problems
- ❖ Networks of European & U.S. scientists that push glyphosate safety message to regulators and lawmakers while appearing to be independent of industry
- Public relations teams that ghostwrite articles and blogs to be posted using names of scientists who appear to be independent
- ❖ Formation of front groups that work to discredit journalists and scientists who publicize safety concerns and promote the message of safety

"The internal correspondence... could support a jury finding that Monsanto has long been aware of the risk that its glyphosate-based herbicides are carcinogenic... but has continuously sought to influence the scientific literature to prevents its internal concerns from reaching the public sphere..."

San Francisco County Superior Court Judge Curtis Karnow, May 17, 2018



MAY 1 7 2018

CLERK OF THE COURT

BY: Deputy Clerk

SUPERIOR COURT OF CALIFORNIA

COUNTY OF SAN FRANCISCO

DEWAYNE JOHNSON, ET AL.

Plaintiffs,

/S.

2

3

4

6

8

9

MONSANTO COMPANY, ET AL.

Defendants.

Case No. CGC - 16-550128

ORDER ON (1) MONSANTO'S OMNIBUS SARGON MOTION; (2) MONSANTO'S MOTION FOR SUMMARY JUDGMENT; (3) PLAINTIFF'S OMNIBUS SARGON MOTION; (4) PLAINTIFF'S MOTION FOR SUMMARY ADJUDICATION

Plaintiff Dewayne Johnson brought this products liability action against Monsanto alleging he contracted non-Hodgkin lymphoma (NHL) as a result of his exposure to glyphosate, which is contained in Monsanto's herbicides such as Roundup[®]. Complaint ¶¶ 74-75. Five motions are presently before me: (1) Monsanto's Motion to Exclude Johnson's Experts; (2) Monsanto's Motion for Summary Judgment or Summary Adjudication; (3) Johnson's Motion to Exclude Improper Opinions of Monsanto's Experts; (4) Johnson's Motion for Summary

HEYDENS, WILLIAM F [AG/1000]

 From:
 SALTMIRAS, DAVID A [AG/1000]

 Sent:
 Thursday, February 19, 2015 4:01 PM

To: HEYDEŃŚ, WILLIÁM F [AG/1000]; FARMER, DONNA R [AG/1000]
Cc: KOCH, MICHAEL S [AG/1000]; HÖDGE-BELL, KIMBERLY C [AG/1000]

Subject: RE: IARC Planning

Bill et al.,

I had an extended chat with Roger this afternoon, as is the custom. He said that Critical Reviews has already dedicated some significant space to the glyphosate topic, especially the pending issue #3 with both the carc paper & Kier paper. However, to the contrary, he did say he'd consider something along the lines of the 1, 3 – butadiene issue... I think we would have to prepare a very compelling story.

David Saltmiras, Ph.D., D.A.B.T.
Science Fellow
Novel Chemistry and Microbials Product Lead
Toxicology and Nutrition Center
Monsanto
ph (314) 694-8856

From: HEYDENS, WILLIAM F [AG/1000] Sent: Thursday, February 19, 2015 7:53 AM

To: FARMER, DONNA R [AG/1000]

Cc: KOCH, MICHAEL S [AG/1000]; SALTMIRAS, DAVID A [AG/1000]; HODGE-BELL, KIMBERLY C [AG/1000]

Subject: RE: IARC Planning

Donna,

Per our phone call with John the other day, the next two most important things that we need to do are the Meta-analysis publication and the Ag Health Study Follow-up publication, assuming we can get our hands on the data in a reasonable timeframe. I feel confident that we will have organizational support for doing these projects, so I think we need to start setting them up now.

For the meta-analysis, please contact Elizabeth, let her know we would like her/Ellen to do this, and get a cost estimate from her.

For the AHS data, I heard 2 action items during our call: first - get with the lawyers to initiate the FOI process; second - contact Tom Sorohan and get him lined up to do the analysis when we get the data; also, get a cost estimate from him.

For the overall plausibility paper that we discussed with John (where he gave the butadiene example), I'm still having a little trouble wrapping my mind around that. If we went full-bore, involving experts from all the major areas (Epi, Tox, Genetox, MOA, Exposure - not sure who we'd get), we could be pushing \$250K or maybe even more. A less expensive/more palatable approach might be to involve experts only for the areas of contention, epidemiology and possibly MOA (depending on what comes out of the IARC meeting), and we ghost-write the Exposure Tox & Genetox sections. An option would be to add Greim and Kier or Kirkland to have their names on the publication, but we would be keeping the cost down by us doing the writing and they would just edit & sign their names so to speak. Recall that is how we handled Williams Kroes & Munro, 2000.

Feb 5, 2015 Internal Monsanto Email:

"A less expensive/more palatable approach might be to involve experts only for the areas of contention, epidemiology and possibly MOA ... and we ghost-write the Exposure Tox & Genetox sections. .. An option would be to add Greim and Kier or Kirkland to have their names on the publication, but we would be keeping the cost down by us doing the writing and they would just edit & sign their names so to speak. Recall that is how we handled Williams Kroes & Munro, 2000."

Ghostwriting another "independent" review

Internal Monsanto emails show company scientists were heavily involved in organizing, editing, drafting language for published version

Sept. 2016 - Critical Reviews in Toxicology "A review of glyphosate carcinogenic potential by four independent expert panels...."

"Neither any Monsanto company employees nor any attorneys reviewed any of the Expert Panel's manuscripts prior to submission to the journal."

"I had already written a draft Introduction chapter back in October/November, but I want to go back and re-read it to see if it could benefit: from any 're-freshing' .. I will do that in the next few days. Then I was thinking I would run it by you for your comments/edits. And then comes the question of who should be the ultimate author ... you or Gary? I was thinking you for the Introduction chapter and Gary for the Summary chapter, but I am totally open to your suggestions." - Jan. 6, 2016 email from Monsanto scientist Bill Heydens regarding his work on the "independent" review.

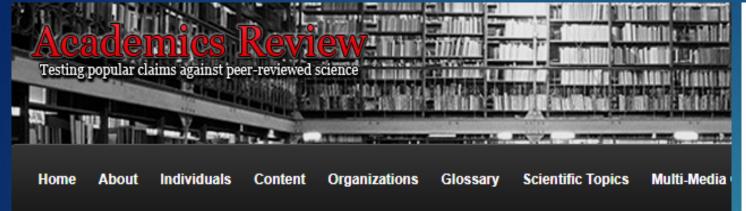
EVIDENCE OF MORE TYPES OF GHOST WRITING

- Industry representatives draft and/or outline "policy briefs" promoting product safety & Monsanto strategies and arrange for friendly scientists to publish under their names so they appear independent
- Industry representatives edit presentations and communications for academic professors to deliver to regulators, lawmakers, other audiences - without mention of industry involvement and to post on sites like GMO Answers
- Industry PR agents draft/write opinion articles to appear in magazines and on websites that appear to be authored by independent academics

Chemical Industry Propaganda Groups

(Described in Monsanto internal memo as "industry partners")

- Academics Review
- Genetic Literacy Project
- Sense About Science
- Biofortified
- American Council on Science and Health (ACSH) (internal dox show Monsanto funding and coordinating of pro-glyphosate messaging)



You are here: Home » About » Purpose

Purpose

Next: Tyrone Hayes >

Academics Review was founded in January 2010 to ensure that sound science is widely and easily available to inform us all on some of the most critical issues of our time. Some of those issues relate to how we grow our food: what is safe and what is not, what constitutes real advancement, and similarly vital scientific and technological topics that affect how we live.

Academics Review is an association of academic professors, researchers, teachers and credentialed authors from around the world who are committed to the unsurpassed value of the



peer review in establishing sound science. We stand against falsehoods, half-baked assertions and theories or claims not subjected to this kind of rigorous review. This is the mission of Academics Review.

"From my perspective the problem is one of expert engagement and that could be solved by paying experts to provide responses. The key will be keeping Monsanto in the background so as not to harm the credibility of the information." -Monsanto chief of global scientific affairs Eric Sachs in an email to University of Illinois Prof. Bruce Chassy. In same exchange, Sachs says Monsanto has just "sent a gift of \$10,000" to the university.

Message

From: GOLDSTEIN, DANIEL A [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=527246]

Sent: 2/26/2015 8:08:31 PM

To: VICINI, JOHN L [AG/1000] [/O=MONSANTO/OU=NA-1000-01/cn=Recipients/cn=56908]; REYNOLDS, TRACEY L

[AG/1000] [/O=MONSANTO/OU=Na-1000-01/cn=recipients/cn=133378]

CC: SACHS, ERIC S [AG/1000] [/O=MONSANTO/OU=NA-1000-01/cn=Recipients/cn=171736]

Subject: ACSH

While I would love to have more friends and more choices, we don't have a lot of supporters and can't afford to lose the few we have....

I am well aware of the challenges with ACSH and know Eric has valid concerns- so I can assure you I am not all starryeyed about ACSH- they have PLENTY of warts- but:

You WILL NOT GET A BETTER VALUE FOR YOUR DOLLAR than ACSH:

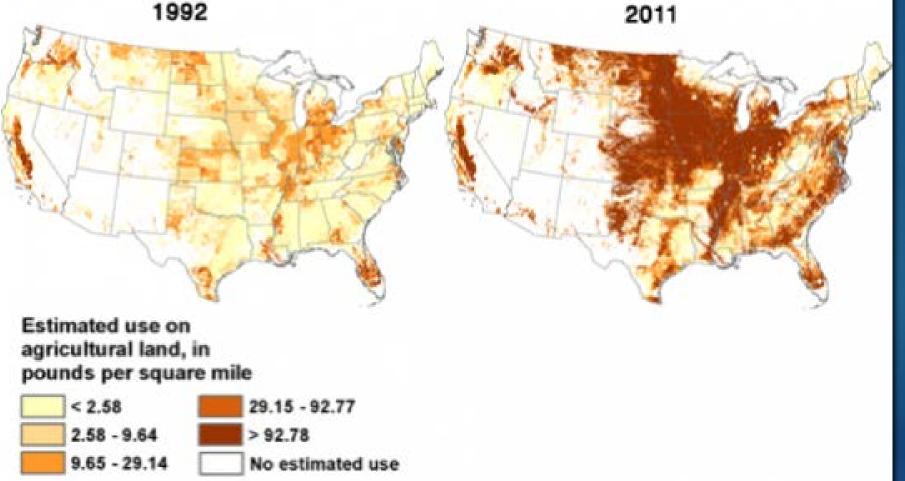
They are working with us to respond if needed to IARC- Gil has asked for information feed.

Today: http://acsh.org/2015/02]

They host TWO BOOKS and a Pamphlet that are EXTREMELY USEFUL:

American Council on Science and Health (ACSH) claims to be independent of Monsanto but email chain February 2015 shows ACSH asking for more Monsanto funding & promising to help work to discredit international cancer scientists and bolster glyphosate safety messaging. (Full email string at HSRTK oral

Estimated Agricultural Use for Glyphosate



Use expanded from 40 ml lbs annually in mid 1990s to approx 300 mln lbs used annually now

Glyphosate Used in Producing Dozens of Common Foods

Date: October 5, 2015
Screening Level Estimates of Agricultural Uses of Glyphosate Case (103601, 103604, 103607, 103608, 103613, and 417300)
Sorted Alphabetically
Reporting Years: 2004-2013

| | | Annual Average | Percent Cro | p Treated |
|----|-------------------|----------------|-------------|-----------|
| | Crop | Lbs. A.I. | Average | Maximum |
| 1 | Alfalfa | 400,000 | <2.5 | 5 |
| 2 | Almonds | 2,100,000 | 85 | 95 |
| 3 | Apples | 400,000 | 55 - | 70 |
| 4 | Apricots | 10,000 | 55 | 80 |
| 5 | Artichokes | 1,000 | 10 | 15 |
| 6 | Asparagus | 30,000 | 55 | 70 |
| 7 | Avocados | 80,000 | 45 | 65 |
| 8 | Barley | 600,000 | 25 | 40 |
| 9 | Beans, Green | 70,000 | 15 | 25 |
| 10 | Blueberries | 10,000 | 20 | 25 |
| 11 | Broccoli | 3,000 | <2.5 | <2.5 |
| 12 | Brussels Sprouts* | <500 | <1 | <2.5 |
| 13 | Cabbage | 20,000 | 10 | . 25 |
| 14 | Caneberries | 4,000 | 10 | 25 |
| 15 | Canola | 500,000 | 65 | 80 |
| 16 | Cantaloupes | 20,000 | 10 | 25 |
| 17 | Carrots | 3,000 | 5 | 10 |
| 18 | Cauliflower | 1,000 | <2.5 | 5 |
| 19 | Celery | 1,000 | <2.5 | 10 |
| 20 | Cherries | 200,000 | 65 | 85 |
| 21 | Chicory* | <500 | <2.5 | <2.5 |
| 22 | Corn | 63,500,000 | 65 | 85 |
| 23 | Cotton | 18,400,000 | 85 | 95 |
| 24 | Cucumbers | 30,000 | 20 | 35 |
| 25 | Dates | 8,000 | 65 | 25 |
| 26 | Dry Beans/Peas | 600,000 | 30 | 45 |
| 27 | Fallow | 8,800,000 | 55 | 70 |
| 28 | Figs | 10,000 | 85 | 100 |
| 29 | Garlic | 4,000 | 10 | 25 |

| 39 | Onions | 40,000 | 30 | 40 |
|----|---------------|-------------|------|------|
| 40 | Oranges | 3,200,000 | 90 | 95 |
| 41 | Pasture | 600,000 | <2.5 | <2.5 |
| 42 | Peaches | 100,000 | 55 | 70 |
| 43 | Peanuts | 300,000 | 25 | 35 |
| 44 | Pears | 100,000 | 65 | 90 |
| 45 | Peas, Green | 20,000 | 10 | 20 |
| 46 | Pecans | 400,000 | 35 | 45 |
| 47 | Peppers | 30,000 | 20 | 35 |
| 48 | Pistachios | 500,000 | 85 | 95 |
| 49 | Plums/Prunes | 200,000 | 70 | 85 |
| 50 | Pluots* | 1,000 | 65 | 90 |
| 51 | Pomegranates* | 40,000 | 70 | 90 |
| 52 | Potatoes | 90,000 | 10 | 20 |
| 53 | Pumpkins | 20,000 | 20 | 25 |
| 54 | Rice | 800,000 | 30 | 50 |
| 55 | Sorghum | 3,000,000 | 40 | 60 |
| 56 | Soybeans | 101,200,000 | 105 | 100 |
| 57 | Spinach | 1,000 | <2.5 | 10 |
| 58 | Squash | 10,000 | 20 | . 40 |
| 59 | Strawberries | 10,000 | 10 | 20 |
| 60 | Sugar Beets | 1,300,000 | 60 | 100 |
| 61 | Sugarcane | 300,000 | 45 | 60 |
| 62 | Sunflowers | 1,100,000 | 60 | 75 |
| 63 | Sweet Corn | 100,000 | 15 | 25 |
| 64 | Tangelos | 9,000 | 55 | 80 |
| 65 | Tangerines | 60,000 | 65 | 80 |
| 66 | Tobacco | 10,000 | 5 | 10 |
| 67 | Tomatoes | 100,000 | 35 | 45 |
| 68 | Walnuts | 600,000 | 75 | 90 |
| 69 | Watermelons | 30,000 | 15 | 25 |
| 70 | Wheat | 8,600,000 | 25 | 70 |

All numbers are rounded.

Full laboratory reports for this food testing can be <u>found here</u>. A searchable database of results can be <u>found here</u>.

| General Mills | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------------------|--|--|
| Cheerios | Original Cheerios | Glyphosate - 1,125.3 ppb AMPA - 26.4 | | |
| Cheerios | Honey Nut Cheerios | Glyphosate - 670.2 ppb AMPA - 14.5 | | |
| WHEATIES | Wheaties | Glyphosate - 31.2 ppb | | |
| Title | Trix | Glyphosate - 9.9 ppb | | |
| Annies | Gluten Free Bunny Cookies Cocoa & Vanilla | Glyphosate - 55.13* ppb | | |
| | Kellogg's | | | |
| Melloggis CORN FLAKES | Corn Flakes | Glyphosate - 78.9 ppb | | |
| Raisin Bran | Raisin Bran | Glyphosate - 82.9 ppb | | |
| Kashi | Organic Promise** | Glyphosate - 24.9 ppb | | |
| Special K | Special K | Glyphosate - 74.6 ppb | | |
| THE STATE OF THE S | Frosted Flakes | Glyphosate - 72.8 ppb | | |
| CHEEZAT | Cheez-It (Original) | Glyphosate - 24.6 ppb | | |
| CHEEZIT | Cheez-It (Whole Grain) | Glyphosate - 36.25* ppb | | |
| Kashi | Soft-Baked Cookies, Oatmeal Dark Chocolate | Glyphosate - 275.58* ppb | | |
| | Nabisco | | | |
| RI | Ritz Crackers | Glyphosate - 270.24 ppb | | |
| Triscuit | Triscuit | Glyphosate - 89.68 ppb | | |
| OILEO | Oreo Original | Glyphosate - 289.47* ppb | | |

| OLUZO | Oreo Double Stuf Golden Sandwich Cookies | Glyphosate - 215.40* ppb | | |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--|--|
| PepsiCo | | | | |
| Stacy's | Stacy's Simply Naked Pita Chips (Frito-Lay) | Glyphosate - 812.53 ppb | | |
| Tail s | Lay's: Kettle Cooked Original | Glyphosate - 452.71* ppb | | |
| Dontos | Doritos: Cool Ranch | Glyphosate - 481.27* ppb | | |
| Fritos | Fritos (Original) (100% Whole Grain) | Glyphosate - 174.71* ppb | | |
| | Campbell Soup Com | pany | | |
| Goldfish | Goldfish crackers original (Pepperidge Farm) | Glyphosate - 18.40 ppb | | |
| Goldfish | Goldfish crackers colors | Glyphosate - 8.02 ppb | | |
| Goldfish | Goldfish crackers Whole Grain | Glyphosate - 24.58 ppb | | |
| | Little Debbie | | | |
| Little Debbie | Oatmeal Creme Pies | Glyphosate - 264.28* ppb | | |
| | Lucy's | | | |
| lucy's | Oatmeal Cookies Gluten Free | Glyphosate - 452.44* ppb | | |
| | Whole Foods | | | |
| 365 | 365 Organic Golden Round Crackers** | Glyphosate - 119.12* ppb | | |
| | Back to Nature | | | |
| NOTURE | Crispy Cheddar Crackers | Glyphosate - 327.22* ppb | | |
| Goldfish Little Debbie Rucy's | (Pepperidge Farm) Goldfish crackers colors Goldfish crackers Whole Grain Little Debbie Oatmeal Creme Pies Lucy's Oatmeal Cookies Gluten Free Whole Foods 365 Organic Golden Round Crackers** Back to Nature Crispy Cheddar Crackers | Glyphosate - 8.02 ppb Glyphosate - 24.58 ppb Glyphosate - 264.28* ppb Glyphosate - 452.44* ppb Glyphosate - 119.12* ppb | | |

Limit of Quantitation: 5 ppb

^{*}These samples exhibit very low recovery and/or response. The above amounts found are rough estimates at best and may not represent an accurate representation of the sample.



THE HUFFINGTON POST



NEWS

POLITICS

ENTERTAINMENT

LIFESTYLE

IMPACT

VOICES

VIDEO

ALL SECTI

AdChoices D

THE BLOG 09/15/2016 07:27 am ET | Updated Sep 15, 2016

FDA Finds Monsanto's Weed Killer In U.S. Honey



By Carey Gillam



300



300



YUJI SAKAI VIA GETTY IMAGES

The Food and Drug Administration, under public pressure to start testing samples of U.S. food for the presence of a pesticide that has been linked to cancer, has some early findings that are not so sweet.

TRENDING

The Emperor Has No Vocabulary

Barron Trump, Before He Was Famous



y

NEWS

POLITICS

ENTERTAINMENT

LIFESTYLE

IMPACT

VOICES

VIDEO

ALL SECTION

THE BLOG 09/30/2016 10:11 am ET I Updated Sep 30, 2016

FDA Tests Confirm Oatmeal, Baby Foods Contain Residues of Monsanto Weed Killer



By Carey Gillam



The U.S. Food and Drug Administration, which is quietly starting to test certain foods for residues of a weed killing chemical linked to cancer, has found the residues in a variety of oat products, including plain and flavored oat cereals for babies.

Data compiled by an FDA chemist and <u>presented to other chemists</u> at a meeting in Florida showed residues of the pesticide known as glyphosate in several types of infant oat

TRENDING

The Emperor Has No Vocabulary



Barron Trump, Before He Was Famous



Ashton Kutcher Helps Reiterate Right Wing Hypocrisy Concerning Celebrities



As The Wheels Of The Trump Juggernaut Come Off



Cavs' Kyrie Irving: The Earth Is Flat, And 'They' Are Lying To Us



News

Subscribe

Opinion

Find a job

Sign in Search v

Lifestyle

More v



US World Environment Soccer US politics Business Tech Science Homelessness

Sport

US news

Weedkiller found in granola and crackers, internal FDA emails show

Culture

The FDA has been testing food samples for traces of glyphosate for two years, but the agency has not yet released any official results





▲ More than 200m pounds of weedkiller are used annually by US farmers on their fields. It is sprayed directly over some crops, including corn, soybeans, wheat and oats. Photograph: Marvin Dembinsky Photo Associate/Alamy



From: Thompson, Richard L.

Sent: Wednesday, January 04, 2017 1:53 PM

To: Chang, Eugene Cc: Sack, Chris A

Subject: Glyphosate Method

Eugene,

I'm still having great results from the 4 mM TBS-OH (pH 2.8) Mobile Phase. I'm using straight acetonitrile for mobile phase B. I added a 4 minute equilibration period to get the column back to an initial ion pair state after the ACN finish of the previous run.

I'm running Narong's 7 point calibration curve before and after a sample batch to check for ruggedness and column drifting and I have not seen any problems. The curve points lay on top of each other very well. I spiked a batch of broccoli at 0.002 ug/g and could detect the glyphosate pretty well but I did need to manually integrate some of the peaks. I used broccoli because it's the only thing I have on hand that does not have glyphosate in it. I have brought wheat crackers, granola cereal, and corn meal from home and there's a fair amount in all of them.

The curtain plate is staying pretty clean too. A bit worse than the pesticide method for sure but very usable. I am setting the divert valve to exclude as much as possible.

I have not received the N-acetyl glyphosate yet so I am concerned that it works as well. It should arrive soon.

I thought I would let you know how things are going.

Regards,

Richard Thompson
Chemist
US FDA
Arkansas Regional Laboratory
Pesticides Laboratory
Tel 870-543-4054
Richard.thompson@fda.hhs.gov

"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 on glyphosate
residues in food. January 4,
2017 internal agency email



| PubMed | * |
|--------|----|
| | Δd |

Advanced

Format: Abstract -

Send to

Food Addit Contam Part A Chem Anal Control Expo Risk Assess. 2018 Apr;35(4):723-730. doi: 10.1080/19440049.2017.1419286. Epub 2018 Feb 20.

Occurrence of glyphosate and AMPA residues in soy-based infant formula sold in Brazil.

Rodrigues NR¹, de Souza APF¹.

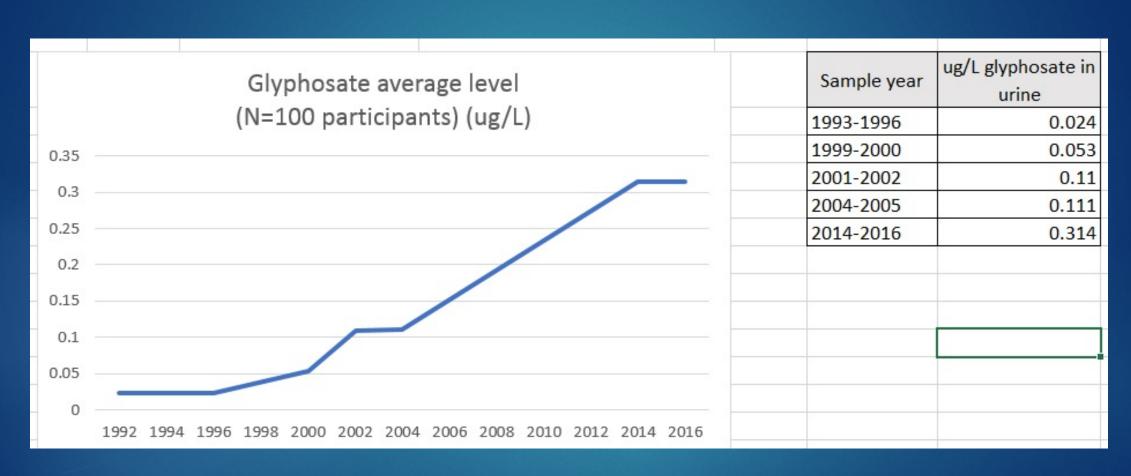
Author information

Abstract

Glyphosate is an herbicide widely used in the world, being applied in several crops, among them soybeans. Recently, glyphosate and its metabolite aminomethylphosphonic acid (AMPA) have been identified as possible contributors to the emergence of various diseases such as autism, Parkinson's and Alzheimer's diseases, as well as cancer. The child population-consuming cereal-based foods is the most exposed to the effects of pesticides because of their developmental phase and they have a higher food intake per kilogram of body weight than adults. The presence of glyphosate and AMPA residues in soy-based infant formulas was evaluated during the years 2012-2017, totalising 105 analyses carried out on 10 commercial brands from different batches. Glyphosate and AMPA were determined by liquid chromatography with fluorescence detection after derivatisation reaction. The method was validated and showed accuracy and precision with a limit of quantification (LOQ) of 0.02 mg kg⁻¹. Among those samples that contained levels above the LOQ, the variation of glyphosate residues was from 0.03 mg kg⁻¹ to 1.08 mg kg⁻¹ and for AMPA residues was from 0.02 mg kg⁻¹ to 0.17 mg kg⁻¹. This is the first scientific communication about glyphosate and AMPA contamination in soy-based infant formula in Brazil, The study was conducted under good laboratory practice (GLP) and supported by good scientific practice.

KEYWORDS: AMPA; Glyphosate; infant formula; soy

Human exposure climbs 500 pct since mid-1990s



University of California San Diego School of Medicine, published in JAMA Oct. 2017

Food Nov. 23, 2016 09:26AM FST

New USDA Data Shows 85% of Foods Tested Have Pesticide Residues

EcoWatch US Right to Know

By Carey Gillam

New government data offers a potentially unappetizing assessment of the U.S. food supply—Residues of many types of bug-killing pesticides, fungicides and weed killing chemicals have been found in roughly 85 percent of thousands of foods tested.

Data released last week by the U.S. Department of Agriculture (USDA) shows varying levels of pesticide residues in everything from mushrooms to potatoes and grapes to green beans. One sample of strawberries contained residues of 20 pesticides, according to the Pesticide Data Program report issued this month by the USDA's Agricultural Marketing Service.

Though it might sound distasteful, the pesticide residues are nothing for people to worry about, according to the USDA. The agency said "residues found in agricultural products sampled are at levels that do not pose risk to consumers' health and are safe ..."

Table 3. Pesticides Found in Human Foods in FY 2015

| Pesticides | | |
|----------------------|---------------------------|---------------------------|
| Imidacloprid (362) | Thiophanate-methyl (352) | Boscalid (319) |
| Chlorpyrifos (310) | Acetamiprid (240) | Azoxystrobin (231) |
| Tebuconazole (190) | Cypermethrin (176) | Fludioxonil (160) |
| Pyraclostrobin (158) | Metalaxyl (154) | Bifenthrin (142) |
| Thiamethoxam (138) | Pyrimethanil (136) | Chlorantraniliprole (135) |
| Iprodione (126) | Difenoconazole (119) | Myclobutanil (116) |
| Cyprodinil (114) | Permethrin (109) | Lambda-cyhalothrin (105) |
| Malathion (99) | Thiabendazole (96) | Piperonyl butoxide (94) |
| Dimethoate (93) | Propiconazole (93) | Clothianidin (92) |
| Fenhexamid (81) | Propamocarb (73) | Spinosad (73) |
| Methoxyfenozide (69) | Methamidophos (66) | Thiacloprid (66) |
| Captan (65) | Methomyl (64) | Buprofezin (61) |
| Flonicamid (58) | Trifloxystrobin (58) | Linuron (56) |
| Dimethomorph (51) | Tricyclazole (51) | Fenpropathrin (46) |
| Pyriproxyfen (46) | Chlorothalonil (43) | Flubendiamide (43) |
| Acephate (42) | Acibenzolar-S-methyl (41) | Fenbuconazole (41) |
| Oxamyl (41) | Carbaryl (40) | Bifenazate (37) |

Chlorpyrifos – an insecticide marketed by Dow Chemical known to cause neurodevelopmental damage to children - is 4th-most prevalent pesticide found in foods -

Pediatricians Concerned About Childhood Pesticide Exposure

The American Academy of Pediatrics calls for greater protections from toxic exposures.

The American Academy of Pediatrics has, for the first time, published a <u>statement</u> of concern about childhood exposure to pesticides, and called on pediatricians, families, schools and governments to take action to better prevent toxic exposures.

"Children encounter pesticides daily and have unique susceptibilities to their potential toxicity," the statement reads in part. "Acute poisoning risks are clear, and understanding of chronic health implications from both acute and chronic exposure are emerging. Epidemiologic evidence demonstrates associations between early life exposure to pesticides and pediatric cancers, decreased cognitive function, and behavioral problems. Related animal toxicology studies provide supportive biological plausibility for these findings. Recognizing and reducing problematic exposures will require attention to current inadequacies in medical training, public health tracking, and regulatory action on pesticides. Ongoing research describing toxicologic vulnerabilities and exposure factors across the life span are needed to inform regulatory needs and appropriate interventions. Policies that promote integrated pest management, comprehensive pesticide labeling, and marketing practices that incorporate child health considerations will enhance safe use."

Read more: <u>American Academy of Pediatrics Statement About Pesticides and Childhood Health -</u>
The Daily Green

Follow us: @the_daily_green on Twitter | thedailygreen on Facebook

Visit us at The Daily Green.com



"Epidemiologic
evidence demonstrates
associations between
early life exposure to
pesticides and
pediatric cancers,
decreased cognitive
function, and
behavioral problems."



EDITORIAL

Regulating toxic chemicals for public and environmental health

Liza Gross1*, Linda S. Birnbaum2*

1 Public Library of Science, San Francisco, California, United States of America, 2 National Institutes of Health, Department of Health and Human Services, Research Triangle Park, North Carolina, United States of America

* Igross@plos.org (LG); bimbaumls@niehs.nih.gov (LSB)

This Editorial is part of the Challenges in Environmental Health: Closing the Gap between Evidence and Regulations Collection.

By the time President Gerald Ford signed the United States Toxic Substances Control Act in the fall of 1976, tens of thousands of synthetic chemicals had entered world markets with no evidence of their safety. Ford's signing statement described a law giving the Environmental Protection Agency (EPA) broad regulatory authority to require toxicity testing and reporting to determine whether the chemicals posed risks. "If a chemical is found to present a danger to health or the environment," Ford promised, "appropriate regulatory action can be taken before it is too late to undo the damage."

That's not what happened. The 60,000-plus chemicals already in commerce were grandfathered into the law on the assumption that they were safe. And the EPA faced numerous hurdles, including pushback from the chemical industry, that undermined its ability to implement the law. Congress finally revised the law last year, with the Frank R. Lautenberg Chemical Safety for the 21st Century Act, to bolster the EPA's regulatory authority. Over the decades that US policy on chemicals stagnated, scientists documented the damage whole classes of chemicals inflicted on living organisms and the environment that sustains them. Although we still have safety data on just a fraction of the 85,000-plus chemicals now approved for use in commerce, we know from field, wildlife, and epidemiology studies that exposures to environmental chemicals are ubiquitous. Hazardous chemicals enter the environment from the factories where they're made and added to a dizzying array of consumer products—including mattresses, computers, cookware, and plastic baby cups to name a few—and from landfills overflowing with our cast-offs. They drift into homes from nearby agricultural fields and taint our drinking water and food. Today, hundreds of industrial chemicals contaminate the blood and urine of nearly every person tested, in the US and beyond.

National Institutes of Health, Department of Health and Human Services Scientist says:

"Existing US regulations have not kept pace with scientific advances showing that widely used chemicals cause serious health problems at levels previously assumed to be safe. The most vulnerable population, our children, face the highest risks"



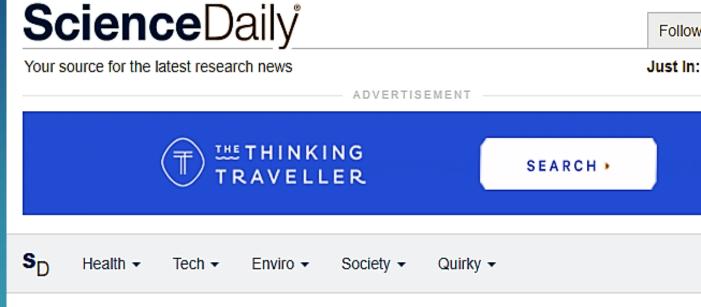


Citation: Gross L, Birnbaum LS (2017) Regulating toxic chemicals for public and environmental health. PLoS Biol 15(12): e2004814. https://doi.org/10.1371/journal.pbio.2004814

Published: December 18, 2017

Copyright: This is an open access article, free of all copyright, and may be freely reproduced, distributed, transmitted, modified, built upon, or otherwise used by anyone for any lawful purpose.

Authors say their findings indicate a need to reassess "current acceptable levels" for the agrochemicals examined paraquat and maneb.



Science News

from research organizations

Study uncovers cause of pesticide exposure, Parkinson's link

Low-level exposure to the pesticides disrupts cells in a way that mimics the effects of mutations known to cause Parkinson's disease

Date: May 23, 2018

Source: University of Guelph

Summary: Previous studies have found an association between two commonly used

agrochemicals (paraquat and maneb) and Parkinson's disease. Now a professor has determined that low-level exposure to the pesticides disrupts cells in a way that mimics the effects of mutations known to cause Parkinson's disease. Adding the effects of the chemicals to a predisposition for Parkinson's disease drastically increases the risk of

disease onset.

"This study provides initial evidence that exposures to commonly used GBHs, at doses considered safe, are capable of modifying the gut microbiota in early development, particularly before the onset of puberty. These findings warrant future studies on potential health effects of GBHs in early development such as childhood."



Environmental Health

Submission Guidelines

Abstract

Research Open Access Open Peer Review

Background

Methods

Results

Discussion

Conclusion

Declarations

References

Comments

The Ramazzini Institute 13-week pilot study on glyphosate and Roundup administered at human-equivalent dose to Sprague Dawley rats: effects on the microbiome

Qixing Mao [†], Fabiana Manservisi [†], Simona Panzacchi, Daniele Mandrioli, Ilaria Menghetti, Andrea Vornoli, Luciano Bua , Laura Falcioni , Corina Lesseur , Jia Chen , Fiorella Belpoggi M and Jianzhong Hu

^TContributed equally

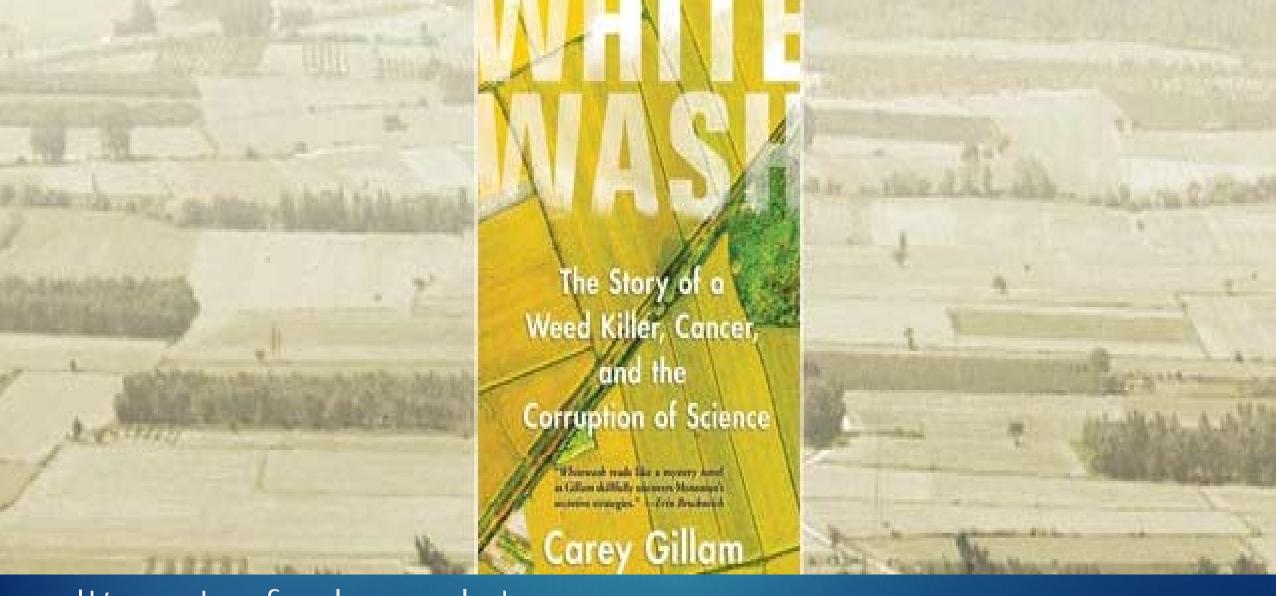
Environmental Health 2018 17:50

https://doi.org/10.1186/s12940-018-0394-x © The Author(s). 2018

Received: 2 February 2018 | Accepted: 10 May 2018 | Published: 29 May 2018

"If, having endured much, we have at last asserted our "right" to know," and if by knowing, we have concluded that we are being asked to take senseless and frightening risks, then we should no longer accept the counsel of those who tell us that we must fill our world with poisonous chemicals; we should look about and see what other course is open to us."

Rachel Carson, Silent Spring



It's not a feel-good story

BUT IT'S ONE THAT HAS TO BE TOLD...

It's a book Monsanto really doesn't want you to read.....

Chicago, IL 60601 Telephone: (312) 558-5969; Fax: (312) 558-5700 glombard@winston.com jhilmert@winston.com

Attorneys for Defendant MONSANTO COMPANY

SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF SAN FRANCISCO

DEWAYNE JOHNSON,

Plaintiff,

VS.

MONSANTO COMPANY,

Defendant.

Case No. CGC-16-550128

DEFENDANT MONSANTO COMPANY'S MOTION IN LIMINE NO. 19 TO EXCLUDE EVIDENCE, ARGUMENT, OR REFERENCE TO CAREY GILLAM'S BOOK AND ALL OTHER NEWSPAPER, BROADCASTS, AND OTHER MEDIA PUBLICATIONS AND PRODUCTIONS

Trial Date: June 18, 2018

Time: 9:30 a.m.

Department: TBD

34812\6696978.1

MONSANTO'S MOTION IN LIMINE NO. 19 TO EXCLUDE REFERENCE TO CAREY GILLAM'S BOOK, NEWSPAPER, BROADCASTS, MEDIA PUBLICATIONS, ETC. - Case No. CGC-16-550128

THANK YOU!!