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# Get Off My Lawn: Lawsuit Aims to Ban Agent Orange Chemical in Weed Killer

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 February 23, 2012 | [COMMENTS](#)



Unlike most of my neighbors in the Boston suburb where I once lived, I never used the services of one of those lawn-care companies that come around with tank trucks to spray customers' yards. I was philosophically opposed to the practice, and my lawn was remarkably weed free without those questionable chemicals. So why waste the money?

I should have been more concerned. It was very likely that my neighbors' grass was being treated with **2,4-Dichlorophenoxyacetic acid**. Commonly known as 2,4-D, the herbicide is frequently found in garden products because it kills broadleaf weeds but not grasses. It is also easily transported by wind, which probably accounted for my flawless lawn.

My neighbors weren't doing me any favors. 2,4-D was a major component of the Vietnam War-era herbicide known as **Agent Orange**. Today the chemical is routinely applied to athletic fields, golf courses, and farms, as well as lawns. It has been linked to cancers such as non-Hodgkins lymphoma and soft-tissue sarcoma, as well as hormonal disruptions, reproductive difficulties, and birth defects, according to the **Occupational Safety and Health Administration**. Considered "highly toxic" by the EPA, containers of the chemical must bear labels saying "**Danger**." In addition, 2,4-D can cause serious eye and skin damage and enter human milk and semen through inhalation and ingestion, as well as through contact with the skin and eyes. The EPA's own researchers have found **higher than normal rates of birth defects** in wheat-growing states where 2, 4-D and related pesticides are used in large quantities.

Despite such evidence, not only is the stuff still in widespread use, but the U.S. Department of Agriculture is about to make a decision that will likely lead to a dramatic increase in the application of 2, 4-D.

Barry Estabrook

Barry Estabrook is a two-time winner of the prestigious James Beard Foundation Awards for food writing. His first, for a Gourmet feature about labor abuses in Florida's tomato fields, led to his **acclaimed book...MORE▼**

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Just before Christmas, the agency took steps toward final approval of a new variety of genetically modified corn **created by Dow AgroSciences**. This corn would survive being sprayed with the herbicide, making it possible for farmers to kill weeds in their fields without risking their crops. Pesticide control advocates fear that the use of 2,4-D will soar if Dow is allowed to market the new corn.

There's plenty of precedent. Advocates point to the example of glyphosate, an herbicide that is marketed under the trade name Roundup. Monsanto began selling GMO corn that could withstand Roundup in the mid-1990s. Since that time, the annual use of glyphosate in the United States has soared more than tenfold, from a little under five million pounds in 2000 to nearly 60 million pounds in 2010 in states surveyed for the **USDA's Agricultural Chemical Use Report**. In an interview, Gary Hirshberg, the chairman of **Stonyfield Farm** and a long-time crusader for organic agriculture, called the USDA's decision to approve the use of 2,4-D, which could be finalized this spring, "diabolical."

### Suing to Stop Children's Exposure

In an effort to keep the 2,4-D genie from completely escaping its bottle, the Natural Resources Defense Council (which publishes *OnEarth*) **filed a lawsuit today** against the Environmental Protection Agency. The agency has failed to respond to a petition **filed more than three years ago**, asking that the EPA block the use of 2,4-D due to its environmental and health implications. NRDC is also asking EPA to prevent "2,4-D Ready" crops from being planted.

"Because 2,4-D is used in household 'weed and feed' products, it creates the potential for significant exposure to children," says **Gina Solomon, a senior scientist at NRDC** who is also a medical doctor. Studies have shown that the chemical is frequently tracked indoors. Outside, 2,4-D dissipates quickly, but in the home, it can linger for months or even years in carpets and dust.

In a 2007 issue of the *Journal of Occupational and Environmental Hygiene*, researchers investigating homes in an agricultural area of Iowa reported finding 2,4-D in dust samples from 100 percent of houses they examined, even those belonging to non-farm families. More disturbing, research has also shown that concentrations of 2,4-D can be 10 to 200 times higher inside homes than in the soil around them.

The negative health impacts have also been clearly demonstrated. As early as 1986, National Cancer Institute scientists writing in the *Journal of the American Medical Association* reported that farmers exposed to 2,4-D for more than 20 days per year had six times the risk of getting non-Hodgkin's lymphoma than non-farmers. They were also much more likely to suffer from soft-tissue sarcoma, another cancer.

And as my weed-free suburban lawn demonstrated, 2,4-D can "drift" -- either as wind-blown droplets or vapors from where it is sprayed -- and affect unsprayed areas. In fact, its extreme volatility makes the herbicide something of a champion drifter. Studies of homes in Iowa show that 100 percent of houses within 550 yards of sprayed fields were contaminated -- even those belonging to non-farmers. 2,4-D has also been found in surface water, where it is toxic to wildlife and wells.

### Dawn of the Superweeds

The introduction of 2,4-D-resistant crops will only amplify the problems. The new GMO crops, called Encore by Dow, will be able to survive applications of the herbicide that would kill competing weeds. In a **recent issue of the journal *BioScience***, a group of researchers led by David Mortensen of Penn State University demonstrated a "high probability" that drift from sprayed fields would blow over to adjacent farmland. "Once an initial number of growers in a region adopts the resistant traits, the remaining growers may be compelled to follow suit in order to reduce the risk of crop injury," the paper notes -- meaning that if a lot of your neighbors grow GMO crops and spray them with 2,4-D, your crops are likely to be killed by the wind-borne chemical unless you grow resistant

crops, too. Broadleaf plants such as soy, potatoes, grapes, and potatoes are all vulnerable.

It's a marketing twist that only an agrichemical executive could love.

The absurdity doesn't stop there. The only reason 2,4-D-resistant crops have a market at all is that in the 15 years since crops resistant to Roundup have been available (they now account for two-thirds of the corn and nearly all of the soy grown in the United States), more than 20 species of weeds have mutated in 26 states to become resistant to the popular pesticide. These "superweeds," including such noxious characters as horsetail, Palmer amaranth, and Johnson grass, render Roundup useless in many parts of the country. The agrichemical and seed companies' response to this problem essentially is to repeat history, substituting another, more powerful herbicide for the one that has been rendered ineffective.

Although Dow scientists dispute him (no one from the company returned my telephone calls), Mortensen contends that weeds which can resist 2,4-D are right around the corner. Dow and Monsanto intend to share their genetic patents to create so-called "stacked" crops that are resistant to both 2,4-D and Roundup. But Mortensen says that this will only lead to the dawn of even stronger superweeds that resist both. So then we'll need to develop crops resistant to even more toxic herbicides, in what Mortensen describes as GMO treadmill that keeps gaining speed.

### Commonsense, Not Chemicals

But agriculture can step off of that treadmill. A **specialist in weed ecology**, Mortensen advocates a system called integrated weed management, in which farmers draw on a vast array of weed-control tactics -- some modern, some dating back to the day when humans first planted seeds. Instead of planting the same crops in the same fields year after year, a farmer using integrated weed management rotates his crops, and he plants cover crops that will out-compete weeds. Time-honored traditions such as hoeing and cultivation knock back weeds while crops are growing. The fields are tilled before planting. Only when all else fails does the farmer resort to judicious, targeted applications of herbicide.

These are not the rantings of some pie-in-the-sky idealist. Long-term experiments have shown that integrated weed management produces competitive yields and realizes profits that are equal to or greater than the herbicide-only group. The main input in integrated weed management is a farmer's experience and intelligence -- commonsense, not chemicals. In one study, herbicide use was reduced by up to 94 percent.

And that's the rub. Agrichemical companies don't make profits from things like cover crops, tillers, and commonsense. Promoting integrated weed management and funding research to support it are not in their financial interests.

On the other hand, there's a lot of money to be made by selling farmers herbicide-resistant crops -- Monsanto's profits in 2011 were more than \$1.6 billion, almost **50 percent higher than in 2010**. When those crops are obsolete, there are yet more profits to be made by engineering another resistant crop and selling it. It's the agricultural equivalent of built-in obsolescence. The opportunities for profits are endless, unless the government agencies charged with protecting our health and the environment act in our interests, not those of the agrichemical industry -- even if it takes a nudge from the legal system.

*Image: Roger Smith*

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## COMMENTS (3)

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#1 **Anonymous User** Wrote on February 23, 2012 - 16:16

Thank you for bringing this situation to light. It was well written and made easy to understand the implications for all folks and not just those in the field of interest.

[reply](#)

#2 **WILLIAM H. GATHERCOLE AND NORAH G** Wrote on February 23, 2012 - 20:35

NORAHG responds to FALSE ALLEGATION Regarding 2,4-D and Agent Orange. It is truly amazing how Anti-Pesticide Activists CONCOCT IMAGINARY DANGER with conventional pest control products. They SCAM and DECEIVE the public by blurting out HOLLOW and DESPICABLY-ALARMIST expressions like « Agent Orange » ! This is WRONG ! The issues concerning Agent Orange are IRRELEVANT, except for those activists who wish to SPREAD FEAR AND TERROR ! The most infamous herbicide combination used in the Vietnam War ( 1955-1975 ) was Herbicide Orange, otherwise known as Agent Orange. This product contained a 50 : 50 mixture of n-butyl esters of 2,4-D and 2,4,5-T. Herbicide Orange was NEVER a registered product in either the United States or Canada. The formulations of 2,4-D that are used in Agriculture and Total Vegetation Management are NOT the same formulations used with Herbicide Orange. Moreover, 2,4-D Herbicide IS currently FEDERALLY LEGAL as a registered herbicide for the control of broad-leaved weeds in turf, as well as agriculture. The controversy surrounding the use of Herbicide Orange was associated with a contaminant in the 2,4,5-T component, and NOT 2,4-D. At the time, 2,4,5-T was contaminated with a dioxin named TCDD. Studies showed that this dioxin, and not necessarily Herbicide Orange, increased the risk of various types of cancer and birth defects. Consequently, Herbicide Orange was suspended for use by the United States Department of Defense. 2,4,5-T was later entirely withdrawn from the market, but NOT 2,4-D. Anti-Pesticide Activists have often CONCOCTED an association with dioxins and cancer because of Herbicide Orange. This is WRONG ! Nonetheless, there has NEVER BEEN ANY CREDIBLE EVIDENCE indicating that the Herbicide Orange herbicide mixture ( 2,4-D and 2,4,5-T with by-product dioxins ) was harmful. Since this time, 2,4-D Herbicide has been often FALSELY and MALICIOUSLY associated with dioxins and cancer because of Herbicide Orange. Nonetheless, since 1983, 2,4-D Herbicide CAN BE CONSIDERED FREE OF ALL DIOXINS. Anti-Pesticide Activists have argued that the Herbicide-Orange-2,4-D affair has proven that the Professional Lawn Care Industry uses dangerous products like 2,4-D. Conventional pest control products like 2,4-D DO NOT cause cancer. Despite the opposite claims of activists, NO regulatory body in the world classifies 2,4-D as a human carcinogen. How do we know for sure ? 2,4-D has been used for the control of broad-leaved weeds in the Urban Landscape SINCE 1946. 2,4-D has a 65-YEAR UNBLEMISHED SAFETY RECORD regarding long-term risk to health. In 2007, the United States Environmental Protection Agency and the Pest Management Regulatory Agency of Health Canada issued a ruling that 2,4-D IS NOT CANCER-CAUSING IN HUMANS. 2,4-D is probably THE MOST studied and best understood of ANY chemical ... not just pesticide ... in existence. 2,4-D has been the subject of over 40,000 studies. 2,4-D Herbicide DOES NOT contain harmful dioxins. 2,4-D is NOT Herbicide Orange. 2,4-D is SCIENTIFICALLY SAFE ! For more information about AGENT ORANGE, go to the following link ... <http://pesticidetruths.com/toc/agent-orange/> For more information regarding 2,4-D HERBICIDE, go to the following link ... <http://pesticidetruths.com/toc/24-d/william-h-gathercole-and-norah-g-norahg-is-the-national-organization-responding-against-huje-that-seek-to-harm-the>

Green space industry. NORAHG is a NATIONAL NON PROFIT NON PARTISAN organization that is dedicated to reporting the work of RESPECTED and HIGHLY RATED EXPERTS who promote ENVIRONMENTAL REALISM and PESTICIDE TRUTHS. <http://pesticidetruths.com/>

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#3 **Anonymous User** Wrote on February 24, 2012 - 10:55

What a total crock! and full of misinformation. I'm holding in my hands a label for a product containing 2-4-D with the signal word CAUTION, not DANGER as the article suggest. It is not considered highly toxic and the writer probably has items in his house that are more toxic. Not to mention that when these products are applied they are mixed in large quantities of water rendering them much less toxic in the applied form. It's hard enough to control weeds with the rates allowed applied directly to weeds much less by the drift of a mostly water solution. This is the exactly type of information that makes most people think of the writer and his believers nonsense as complete quacks. If you want to be taken seriously get your facts straight.

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