Volume 25, Number 1 Spring 2005

Pesticides and You

News from Beyond Pesticides / National Coalition Against the Misuse of Pesticides (NCAMP)

Gloves Are Off vs. Get a Grip

The Greenwashing of the Chemical Lawn Care Industry

• National Movement Targets Lawn Care Poisons • National Coalition for Pesticide-Free Lawns Declaration • Health Effects of 30 Commonly Used Lawn Pesticides • ChemicalWATCH Factsheet: 2,4-D • 8 Steps to a Toxic-Free Lawn

Bush EPA Under Fire

Sound science rhetoric all politics

This is not your typical Bush-bashing. The Bush Administration came under heavy fire from one of its own. A politically appointed Inspector General in February said the EPA is playing politics with science. The criticism could stand alone as a scathing indictment of the politicized agency. However, it is part of a large and growing pattern of bad science and regulatory abuse. The EPA is being relegated to a political mouthpiece like never before in its history.

This issue of *Pesticides and You* details a series of reports on Bush Administration "science" and regulation that establishes a clear and unequivocal pattern of abuse.

- On February 3, 2005, EPA Inspector General Nikki Tinsley, a Bush appointee, issued a report on the agency's mercury standard that found that the agency's "senior management" had rigged data and not met its legal responsibility to protect children's health with regard to mercury emissions from coal-fired electric utilities.
- EPA reversed itself in a preliminary risk assessment on the highly toxic wood preservative pentachlorophenol (PCP) in January, ignoring its chemical contaminants dioxin, hexachlorobenzene and furans, and dismissing children's residential post-application exposure resulting from widespread use of PCP-treated utility poles. EPA abandoned years of agency data and based its revisions totally on data provided to it by the Pentachlorophenol Task Force, a chemical industry group that has a vested interest in continuing the registration of PCP.
- EPA is being charged with illegally negotiating secret agreements with industry lobbyists over pesticide regulation, according to a lawsuit filed in February by the Natural Resources Defense Council (NRDC). The lawsuit specifically cites private agreements on controversial chemicals, including atrazine, the weedkiller linked to birth defects in frogs, and the highly neurotoxic insecticide DDVP.
- A survey of U.S. Fish and Wildlife Service scientists released in February finds that political intervention to alter scientific results has become pervasive at the department, threatening endangered species. This according to the Union of Concerned Scientists and Public Employees for Environmental Responsibility.
- Bush appointed Stephen Johnson, hailed by industry as a "sympathetic ear," to head the EPA. His career in the leadership of EPA's Office of Prevention, Pesticides and Toxic Substances, and more recently as Deputy Administrator, has been marred by overseeing rigged science, politicized decision making, and inaction in the face of a compelling need to restrict toxic chemicals.

The EPA is being relegated to a political mouthpiece like never before in its history.

Troubled waters

The questions raised in the last two issues of PAY on the hazardous antibacterial soap, triclosan, continue to escalate. A new study, cited in this issue of PAY, and published in January in the online edition of *Environmental Science and Technology* by Johns Hopkins Bloomberg School of Public Health researchers, predicts that 60 percent of U.S. water resources are contaminated with triclosan. And, it is not being removed by water filtration and wastewater treatment plants. Talk about regulatory failure.

Lawn care poisons

We are launching with grassroots groups the National Coalition for Pesticide-Free Lawns, featured in this issue, to put an end to the aesthetic, or cosmetic, use of lawn care poisons. This launch coincides with a push by the chemical lawn care industry to escalate its public relations barrage this Spring through Project Evergreen. We feature our "Get A Grip" ad, which mimics the industry's "The Gloves Are Off" off ad; truth versus fiction.

The Coming Revolt

As is often the case, this issue of PAY is fuel for change. There is an urgency like never before. In this issue, Terry Shistar, a long-time activist, scientist, and leader in our movement, and I write a piece entitled *The Coming Revolt*, tracing the accumulated power of the corporate chemical industry and government, and the growing grassroots' successes in fighting back with community and state level restrictions on the use of pesticides. To quote Howard Zinn: "To recall [history] is to remind people of what the Establishment would like them to forget –the enormous capacity of apparently helpless people to resist, of apparently contented people to demand change."

—*Jay Feldman* is executive director of Beyond Pesticides

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Ticked Off!

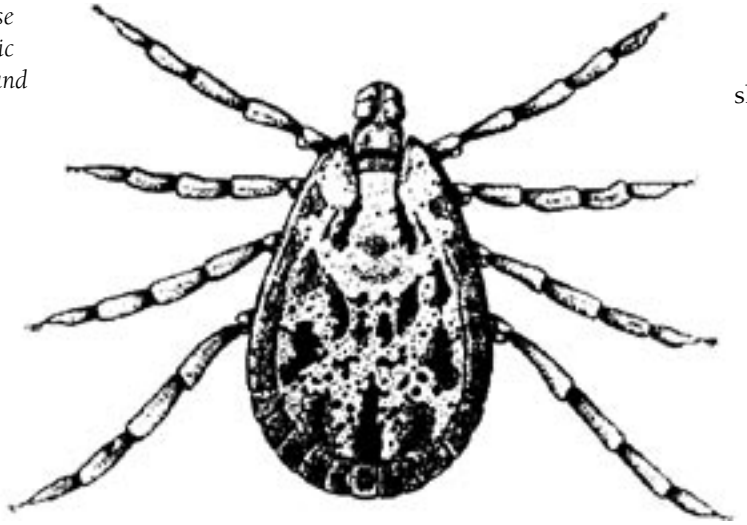
Dear Beyond Pesticides,

Help, Please. I have so many ticks on my dogs and in the yard. I need a non-toxic solution as soon as possible!!

Sheila Mitchell
Boca Raton, FL

Dear Ms. Mitchell,
We applaud you for seeking out non-toxic solutions to your tick problem. We understand that when ticks are on your family pets and invading your home, you might be panicked and feel the necessity to turn to the traditional tick "dips" or "baths" to find an expedient solution. However, there are safe, effective alternatives to those methods that are healthier for your pet and your family.

Most people are familiar with the threats that ticks pose because they can be vectors for parasitic diseases such as Lyme disease and Rocky Mountain spotted fever. Out of the several species of ticks all over the nation only certain species carry these diseases. If you would like more information on treatments for these diseases or information on recognizing these species, contact us or see the tick fact sheet and the alternative fact sheet on our website http://www.beyondpesticides.org/alternatives/factsheets. Knowing what kind of ticks you have will be beneficial in recognizing possible health threats and finding the most effective method of control.



Ticks are part of the arachnid family and rely on their host for survival. Most tick species have a three-stage life cycle: larval (seed tick), nymph, and adult. Ticks are a very robust species, because they are adapted to avoid detection. The nymph can climb onto its host, settle in, gorge on blood, develop, mate, and lay thousands of eggs before it is even noticed. Putting a stop to this cycle is important in controlling what can quickly become a burgeoning pest problem. The best control is prevention – vacuuming indoors frequently during tick season and avoiding tick-infested areas outdoors. This will reduce the risk of ticks.

To control ticks, there are several options that are safer than the traditional method of dipping your pets. Most dips contain synthetic pyrethroids, which can cause skin irritation and asthma-like reactions, as well as endocrine disruption, reproductive effects, and cancer. First, physically remove as many ticks as you can from your dog using tweezers or a tick comb. Be sure to remove ticks completely and kill them in soapy water or alcohol. Continue to monitor your pet weekly for new ticks and it is a good idea to keep them inside for a while. Frequently check the area where your pets sleep and wash their bedding in hot water regularly.

You can control ticks on your pets with citrus oil sprays. Make your own by boiling six halved lemons, and straining this solution into a spray bottle. Try using a drop of lemon oil, lavender oil, or rosemary oil on your dog's collar to repel ticks. You can also add a tablespoon of organic apple cider vinegar to the dog's water bowl.

Other prevention strategies include:

Keep your pet and family out of areas that ticks hide: leaf piles, wood stacks, and other dark humid places. Mow your lawn regularly and keep brush piles, etc. off your property or confined to a restricted area. Also, seal up any small cracks or crevices in your home.

You can reduce tick populations in your yard by simply dragging a light colored cloth along the ground, removing the ticks you pick up and killing them You can also spread diatomaceous earth in areas that are infested. Other methods are listed on our website.

Systemic pesticides, taken internally, are available and seem to be effective. They are administered orally, through an injection, or through the skin and enter your pet's blood stream. Typically these contain insect growth regulators (IGRs), like lufenuron. Unfortunately, tests on these chemicals are not comprehensive, so they may have unknown risks.

Get Truly Green Without Pesticides

Greetings Beyond Pesticides,

Over the last five years, while working with integrated pest management (IPM) plans, I developed a great relationship with one of my community's city council members, Paula Brooks. Recently, she was elected County Commissioner and oversees the budget. In reviewing the budget, she came across a large procurement for herbicides. She questioned the purchase and has asked me to provide her with background information so she can review the city's current herbicide practices.

Her concerns fit into a new "Get Green," initiative introduced by our mayor. The initiative encourages strategies to meet economic development goals and ensure a healthier environment. Our community should "Get Green" by adopting IPM practices for pest management!

I am seeking data on health and environmental risks associated with herbicides in general, as well as a list of communities that have IPM programs to reduce herbicides.

Carol Smith Allaire
Upper Arlington, Ohio

Dear Ms. Allaire:

It is wonderful that you are living in a community that is embracing such change. We appreciate your recognition of the importance and practicality of IPM and you are working to get it adopted into your city's initiative.

The commissioner is correct to question the safety of the herbicides she came across. Of the 30 most commonly used lawn pesticides, 13 are probable or possible carcinogens. Additionally, 14 are linked with birth defects, 18 with reproductive effects, 18with neurotoxicity, 20 with liver or kidney damage, and 28 are sensitizers and/or irritants. For more specifics on each of these 30 chemicals, see our web fact sheet http://www.beyondpesticides.org/lawn/activist or contact us. As with any chemical, human impact will vary depending on a number of factors. Children tend to be more susceptible to possible health risks. This is an important factor when making decisions for a community. See our website for more information on the impacts that pesticides have on children http://www.beyondpesticides.org/schools/publications.

These health risks have caused many communities to turn to IPM, a strategy to prevent and manage pests through non-chemical or least toxic strategies, since it offers a safer solution to pest problems. Communities like Albany (NY), King County (WA), Newton (CT), and others have documented local IPM strategies that can be viewed on our website. Proposed statewide bans on pesticides or established pesticide restrictions can also be viewed on our website.

You can also get involved in Beyond Pesticide's national lawns campaign for pesticide-free lawns. For more information, contact Shawnee Hoover or see our website http://www.beyondpesticides.org/lawn.

Bombed on Vacation

Dear Beyond Pesticides,

My partner and I were insecticide-bombed while on vacation in Mexico. We had a lovely relaxing warm time in the Iberostar Hotel and thought the place was exceptional. However, alarm bells had sounded when I read an internet review mentioning Iberostar's pesticide use. I was concerned about being exposed to pesticides, but other places I liked were booked up and I just visualized a small bit of spraying.

As it turns out, the hotel fogs twice a day, three times a week. I was fogged three times. When I say fogs, I mean a zero visibility, 40 foot, property wide cloud of an acrid chemical called cypermethrin, by a man in full protective clothing and large plastic gas mask.

I really cursed myself for putting us in such a dangerous position health-wise. I noticed I had a persistent dry cough when there and on the return flight other people had it too. However, if all we came back with was a cough I'd be very relieved.

My research found that cypermethrin is often said to be safe as chrysanthemum flowers. But, because the chemical is a synthetic version of the flower extract, it is in fact very harmful. Pesticides containing this chemical are classified as toxic and there are all sorts of serious problems associated with its use.

I am obviously hoping that the Iberostar, and other hotels who have this pesticide policy change their practices for the sake of their patrons and staff.

Anne Hughes M.A.
Ireland

Dear Ms Hughes,

It is unfortunate that your vacation was ruined by such indiscriminate pesticide use. Sadly, the situation you describe is a widespread problem. Few people realize that when traveling, they are potentially putting themselves in harms way. Most people would not think to ask about a hotel's pesticide policy, but it is judicious to do so. Writing about your experience helps to educate others. Continue to voice your concerns with hotel managers

Fortunately, there seems to be more widespread recognition of problems in the hotel industry's practices. For example, "ecotourism," ecologically and environmentally sound travel options, are beginning to appear more frequently on travel internet sites. Typically, though, pesticide use issues are not considered. Consistent pressure from consumers can help to create further change.

When looking for safe places to stay, consult the Green Hotel Association. Their members, in nearly every state in the U.S. as well as international destinations, pledge to uphold specific standards of environmental integrity. You can find this listing online, www.greenhotels.com or contact Beyond Pesticides for more information. Also, The Safer Travel Directory, online at http://mcstravel.resourcez.com/ (or contact us for ordering information), provides a comprehensive list of places that are pesticide-free or use least-toxic methods.

Before making travel arrangements, be sure to call and ask about hotel and even airline pesticide practices. Ask what pesticides are being used and research them. Being knowledgeable will help make your vacation enjoyable.

Write Us!

Whether you love us, disagree with us or just want to speak your mind, we want to hear from you. All mail must have a day time phone and verifiable address. Space is limited so some mail may not be printed. Mail that is printed will be edited for length and clarity. Please address your mail to:

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Inspector General Finds Bush EPA All Business, No Science

It's one thing when a special interest group or an opposing political party criticizes the work of a Presidential administration; but when the administration's own political appointees do it, it's a whole different story. In a recent scathing indictment of the Bush Administration's EPA, that's exactly what the agency's own administration-appointed Inspector General, Nikki L. Tinsley, did. The EPA Inspector General's February 3, 2005 report found that the agency's "senior management" (political appointees) had rigged data and not met its legal responsibility to protect children's health with regard to mercury emissions from coal-fired electric utilities. While the new report points to a specific public health issue, environmentalists and other advocates have pointed to a pattern of agency proposals, analyses and decisions that ignore scientific data, exposure and impact on children, instead deferring to industry wishes. The report, *Additional Analyses of Mercury Emissions Needed Before EPA Finalizes Rules for Coal-Fired Electric Utilities* (No. 2005-P-00003), was requested in April 2004 by one Independent and six Democratic U.S. Senators. According to environmentalists and public health advocates, EPA's problem of biasing science to support special interest industry groups is not unique to mercury, but extends throughout the agency, including its pesticide program. Another recent example of the Bush EPA preference for politics over science is its Preliminary Risk Assessment of the highly toxic wood preservative pentachlorophenol (PCP). In short, rather than addressing the cancer risk that the pesticide poses to children that play near utility poles, the agency dismissed the risk without explanation. For more information, see the article, "Analysis of EPA's Wood Preservative Risk Assessment Shows Serious Flaws" in this issue's *Washington, DC* section.

Analysis of EPA's Wood Preservative Risk Assessment Flawed

EPA's flawed science extends deep into its Office of Pesticide Programs. After missing its deadline by five years, this past winter, EPA released its highly flawed and politicized Preliminary Risk Assessment (PRA) for Pentachlorophenol (PCP), a wood preservative commonly used on utility poles and railroad ties. On January 31, 2005, Beyond Pesticides and others sent public comments to EPA outlining the numerous problems with the PRA. PCP and its contaminants – dioxins, furans and hexachlorobenzene – have been linked to oncogenicity, teratogenicity (birth defects) and fetotoxicity. Yet, in its analysis, EPA ignored dioxin and hexachlorobenzene, both of which are classified as persistent organic pollutants (POPs) by the United Nations and considered carcinogens by the National Institutes of Health. Earlier, the agency said these contaminants would be included in the risk assessment. In addition, EPA's previous evaluation of PCP estimated that children's residential post-application exposure resulting from widespread use of PCP-treated utility poles poses an unacceptable cancer risk. Rather than address this risk and protect children, EPA issued a simple unsubstantiated statement that this exposure does not occur and the risk disappeared. Furthermore, in conducting its revision of the PCP risk assessment, EPA abandoned years of agency data and based its revisions totally on data provided to it by the Pentachlorophenol Task Force, a chemical industry group that has a vested economic interest in the continuing registration of PCP. EPA's own scientists pointed out a number of flaws in this study, such as insensitive equipment and inadequate methodology and data collection. Yet the agency chose to use the data.

Bush Nominates New EPA Head, Hailed as "Sympathetic Ear" By Industry

Since EPA Administrator Michael Leavitt (formerly the Governor of Idaho) stepped down in January 2005, environmentalists and public health advocates have been anxiously waiting for news of his successor. On March 4, 2005, President Bush nominated Stephen Johnson, who had been serving as acting administrator since Mr. Leavitt's departure, to serve as the new EPA Administrator. Mr. Johnson has been with EPA for 24 years and during his tenure has served as deputy director of the Office of Pesticide Programs (OPP), director of the Registration Division of the OPP, director of OPP's Field Operations Division, deputy director of OPP's Hazard Evaluation Division and executive secretary of the FIFRA Scientific Advisory Panel. The National Pest Management Association, the pro-pesticide trade group, applauded the President's decision calling Mr. Johnson a "sympathetic ear." On the other hand,

advocates for pesticide reform describe Mr. Johnson as an affable chap, but are concerned that during his leadership in OPP EPA has: (i) allowed the continued use of the three heavy duty wood preservatives, pentachlorophenol (PCP), creosote and chromated copper arsenate (CCA), despite an overwhelming body of evidence showing harm to human health and the environment; (ii) reversed its long-standing position that human testing is unethical and should not be considered for registering pesticides; (iii) adopted the position that pesticides applied to bodies of water for mosquito control are exempt from regulation under the *Clean Water Act*; and, (iv) considered backing out of an already weak chlorpyrifos phase-out agreement with Dow AgroSciences, which phased out most residential uses of the neurotoxic pesticide, but allows agricultural, golf course and public health mosquito uses. "There are two possible characterizations of this friendly guy's career in EPA's pesticide program: he listened but couldn't hear, or he heard but couldn't deliver," said Jay Feldman, executive director of Beyond Pesticides. "The question now is whether Steve can listen, hear and deliver. We look forward to working with him."

Lawsuit Cites Illegal Secret EPA Meetings with Chemical Companies

Still more on the Bush EPA putting the industry's pocketbooks before the health of the public. The agency is illegally negotiating secret agreements with industry lobbyists over pesticide regulation, according to a lawsuit filed February 17, 2005 by the Natural Resources Defense Council (NRDC). The lawsuit specifically cites private agreements between the agency and chemical companies over the regulation of atrazine, one of the most heavily used weedkillers in the country, and DDVP (dichlorvos), a highly toxic insecticide. NRDC contends the agreements have undermined public health safeguards by failing to restrict the use of these dangerous chemicals. "The EPA's secret, backroom deals with pesticide makers are clearly against the law, and they're a threat to our health," said NRDC attorney Aaron Colangelo. "EPA is required to make independent decisions on pesticide safety, instead of negotiating deals with the chemical industry." According to government records obtained by NRDC through the *Freedom of Information Act*, EPA officials met secretly more than 40 times with representatives from atrazine's main manufacturer, Syngenta, while the agency was evaluating the weedkiller's toxicity. Ultimately the agency agreed to allow atrazine to stay on the market, even though the chemical has contaminated drinking water sources across the country. EPA also has been involved in private negotiations with the chemical company Amvac over the status of the insecticide DDVP, which it sells under a number of trade names, including "No-Pest Strips." These negotiations violate EPA's regulations and federal law, specifically the *Federal Insecticide, Fungicide and Rodenticide Act* (FIFRA), the *Federal Advisory Committee Act*, and the *Freedom of Information Act*, according to NRDC's lawsuit. NRDC pointed out that the last time such a scandal occurred, in 1984 under EPA Administrator Ann Gorsuch in the Reagan Administration, the administrator and other EPA officials resigned amid allegations of improper industry influence.

US Scientists Told to Alter Findings on Endangered Wildlife

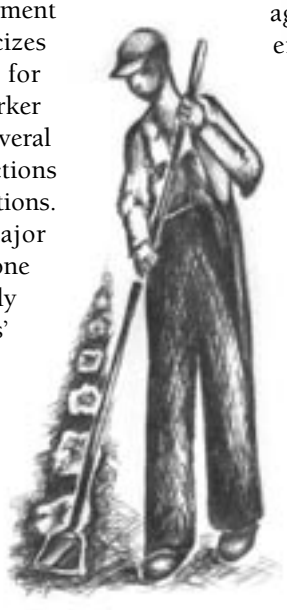
In yet another example of the Bush Administration's science run amuck, a recent survey of U.S. Fish and Wildlife Service (FWS) scientists released on February 9, 2005 by the Union of Concerned Scientists (UCS) and Public Employees for Environmental Responsibility (PEER), reveals that political intervention to alter scientific results has become pervasive within FWS. As a result, endangered and threatened wildlife are not being protected as intended by the *Endangered Species Act*. The two organizations distributed a 42-question survey to more than 1,400 FWS biologists, ecologists, botanists and other science professionals working in Ecological Services field offices across the country to obtain their perceptions of scientific integrity within the FWS, as well as political interference, resources and morale. Nearly half of all respondents whose work is related to endangered species reported that they "have been directed, for non-scientific reasons, to refrain from making jeopardy or other findings that are protective of species." One in five agency scientists revealed they have been instructed to compromise their scientific integrity-reporting that they have been "directed to inappropriately exclude or alter technical information from a FWS scientific document." And, more than half of all respondents reported cases where "commercial interests have inappropriately induced the reversal or withdrawal of scientific conclusions or decisions through political intervention." Despite agency directives not to reply – even on their own time – nearly 30 percent of all the scientists returned surveys. "The survey results illustrate an alarming disregard for scientific facts among political appointees entrusted to protect threatened and endangered species," said UCS Washington Representative Lexi Shultz. "Employing scientists only to undermine their findings is at best a mismanagement of public resources and at worst a serious betrayal of the public trust." The issue of protecting endangered species from pesticides is a hot topic at both FWS and EPA.

New Report Calls for Farmworker Protection from Pesticides

The farmworkers who serve as the backbone of our nation's agricultural system suffer some of the highest rates of pesticide-related illness and chronic health problems in the U.S. Taking another step on the long road toward adequate protections for farmworkers, on February 8, 2005, Farmworker Justice Fund, the Farm Worker Pesticide Project (Seattle, WA) and the United Farm Workers called upon Governor Christine Gregoire (D) and the Bush Administration to take immediate action to protect farmworkers from pesticides in light of disturbing medical monitoring results from Washington state. The groups co-released the report, *Messages from Monitoring*, which takes a close look at the results of the statewide monitoring data, as well as other studies examining the impact of pesticides on farmworkers and their children. The report specifically focuses on cholinesterase monitoring data (an enzyme needed for proper neurological function) of state workers who regularly handle cholinesterase-inhibiting organophosphate and carbamate pesticides, which are increasingly being phased out for residential use, yet continue to be widely used in agriculture. The first year of these results (2004) show that more than 20% of workers tested had significant nervous system impacts, and 4.4% of workers had results that met the threshold for removal from tasks that lead to exposure by Washington's Department of Labor and Industry (L&I). Despite these results, the report found that L&I chose to "offer" consultations to employers rather than to exercise its enforcement authority. The report criticizes state and federal agencies for failing to protect the farmworker community, and identifies several recent Washington state actions that have rolled back protections. "Pesticides are causing major nervous system changes in one of five workers who regularly handle them. Farmworkers' children have nerve poisons flowing through their bodies," said Carol Dansereau, director of the Farm Worker Pesticide Project. "If that's not a public health crisis demanding immediate action, I don't know what is."

TAKE ACTiON: Sign Petition for EPA to Restart National Pesticide Monitoring

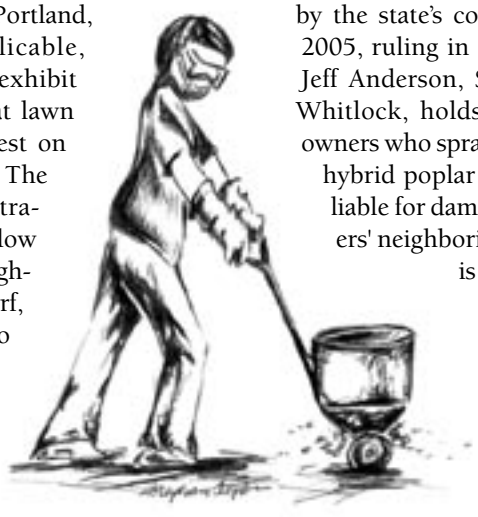
Following closely on the heels of the *Messages from Monitoring* report (see previous story), the United Farm Workers (UFW) union has launched a nationwide effort to petition the U.S. Environmental Protection Agency (EPA) to re-establish a national monitoring program for pesticides. "The Washington state results only reinforce what farmworkers already know: Existing protections are not adequate. Let's not wait another 16 years for another state to require this program. It's time for the EPA to implement a national medical monitoring program that ensures farmworkers are not overexposed to these toxic chemicals," said a spokesperson for UWF. EPA did have a national system called Pesticide Incident Monitoring System (PIMS), which collected data through 13 epidemiological study sites around the country. The program operated for over a decade until 1981 when it was closed down within the first year of the Reagan Administration. Since that time, the federal government has relied on states to conduct monitoring and regulatory programs to protect agricultural and other workers and residents. However, only eight states have taken initiative to put in place statutes that require some kind of collection of this data (Arizona, California, Florida, Michigan, New Mexico, New York, Oregon, and Washington). A 1995 U.S. General Accounting Office (GAO) report (now Government Accountability Office) stated, "According to EPA staff, data on incidents of exposure played a significant part in 19 instances in which the agency took measures to protect the public health between 1989 and 1994."



In a similar report in 2000, GAO clearly spells out the deficiencies in EPA's current tracking methods since the system was abandoned, "Officials from these agencies that collect data on pesticide illnesses confirmed that a lack of comprehensive national data exists." The UFW petition is available online at www.ufw.org.

Maine Gets EPA Grant to Demonstrate "Less" Pesticides Use on Lawns

The $34,000 awarded to the Maine Department of Agriculture, Food and Rural Resources by EPA to fund the project, *Yardscaping: Minimizing reliance on pesticides by example using demonstration, outreach and integrated pest management training*, was met with soft applause by environmentalists. Currently, two projects are underway in Portland and Brunswick, ME to demonstrate to homeowners and landscapers how to choose the best variety of turf for their soil type. The project in Portland, which will be replicable, will use a real-life exhibit to demonstrate what lawn variety will grow best on their home soil type. The Brunswick demonstration site will feature low input practices on high-use public athletic turf, which is expected to appeal especially to park, school and other public space managers. Despite its promising aspects, environmentalists are concerned that the yardscaping program may not adequately present the dangers of pesticides. After all, the project is promoted as a way to "use less lawn chemicals to maintain the turf," and the project contributes to EPA's "Lawn and the Environment Initiative," a collaborative effort started in 2004 by EPA, USDA, the chemical industry and facilitated by the Center for Resource Management. The guidelines have been highly controversial for its pro-pesticide slant and have been criticized by Beyond Pesticides and others. "It is a missed opportunity. EPA should have funded a project that demonstrated to homeowners and landscapers that pesticides are not needed at all for a healthy and green landscape," said Shawnee Hoover, special projects director at Beyond Pesticides. "If the project teaches people about integrated pest management techniques without the use of toxic chemicals, it could still be of some value."



Minnesota Supreme Court Hands Stinging Defeat to Pesticide Users, Protects Bees

For the first time in state history, the Minnesota Supreme Court ruled that honeybees and other pollinators are not trespassers as previously interpreted by the state's courts. The March 3, 2005, ruling in favor of beekeepers Jeff Anderson, Steve Ellis and Jim Whitlock, holds that nearby landowners who spray pesticides on their hybrid poplar groves are possibly liable for damages to the beekeepers' neighboring apiaries. At issue is the landowners' use of Sevin XLR Plus, a carbaryl-based pesticide product. Although the product was used to control cottonwood leaf beetles on the poplar groves, it had the same deadly effect on honeybees and other beneficial insects that forage within the treated areas. In the lawsuit, the beekeepers alleged that the landowners, the State of Minnesota and International Paper, used Sevin on their plantings with actual or constructive knowledge that beekeeping operations were within forage range. The beekeepers have asserted that they suffered annual stock losses of thirty to fifty percent, and that the landowners did their spraying with full awareness of such a result. The Minnesota District Court and Court of Appeals both ruled against the beekeepers, holding that the landowners have no legal obligation to the beekeepers. However in March 2004, the Minnesota Supreme Court reversed all prior rulings. The Court ruling held that "a land possessor with actual knowledge or notice of foraging honey bees on the property comes under a duty of reasonable care in the application of pesticides." In recognizing viable causes of action for the beekeepers, the Court remanded the case back to the District Court for further proceedings. The implications of *Anderson v. State of Minnesota, Department of Natural Resources* are bound to be significant and widespread. Decimation of bee stocks due to illegal or negligent pesticide application is a nationwide problem, affecting not only honey production but the crucial pollination function that bees provide to blooming crops.

U.S. Youth Soccer Gives TruGreen Chemlawn the Red Card

U.S. Youth Soccer (USYS) has quietly ended its sponsorship agreement with TruGreen ChemLawn, after public interest groups and concerned parents across the country launched a letter campaign to the soccer association asking that it not renew its agreement. As a part of the agreement, TruGreen Chemlawn was given access to the association's mailing lists and sent mailings to "The Family of" young soccer players to promote the use of TruGreen ChemLawn's services. The mailings explicitly stated that the lawn chemical company would donate a percentage of each purchase to USYS. USYS ended the partnership without comment. Josh Golin, program manager for Cam-

paign for a Commercial-Free Childhood (CCFC), which spearheaded a letter and campaign to end the USYS-TruGreen ChemLawn alliance, said that while USYS has no comment, "It is clear that the letter –and all of our efforts—played a key role in U.S. Soccer's decision to end the partnership." Mr. Golin said, "It is great that ChemLawn will no longer be able to exploit children's love of soccer to market toxic pesticides to families. And it is gratifying to see all of our efforts make a real difference." It has long been identified that children are more susceptible to the effects of pesticides than adults. In 1993, the National Academy of Sciences found that children are more vulnerable to chemicals. The announcement followed several studies with similar conclusions including one published in the peer-reviewed *Journal of the National Cancer Institute* in 1987, which found that children in households that use home and garden pesticides are 6.5 times more likely to develop leukemia than non-pesticide households. Other studies have associated exposure to lawn pesticides with birth defects, liver and kidney damage, and neurological disorders.

The Arctic Is the Chemical Sink of the Globe, Report Finds

According to a new report by the World Wildlife Fund (WWF), the Arctic and its wildlife are increasingly contaminated with chemicals, pesticides and other pollutants that were never produced or used in that region. The report, *The Tip of the Iceberg: Chemical contamination in the Arctic*, shows that air, river and ocean currents, drifting sea ice and migrating wildlife species carry industrial and agricultural chemicals from distant sites of production and use to the polar environment. Once pollutants reach the Arctic, polar ice can trap contaminants that are gradually released into the environment during melting periods, even years later. As a result, the Arctic is becoming the chemical sink of the globe, explains WWF. "Not only is chemical contamination increasing in the Arctic, but also modern chemicals are now appearing in many arctic species alongside older chemicals, some of them banned for over 20 years," said Brettania Walker, Toxics Officer at WWF's Arctic Program. "This alarming trend will continue if the current chemical regulation does not improve." WWF's report points out that recent studies of polar bears in the Norwegian or Canadian Arctic indicate that exposure to older chemicals, such as polychlorinated biphenyls (PCBs) and organochlorine pesticides, is already at levels that affect their hormone, immune, and reproductive systems. Many of the newer chemicals now reaching the Arctic are capable of similar effects, and mixtures of both older and current-use chemicals could lead to even more harmful combined effects. Many Arctic animals, such as polar bears, seals, and whales, have thick layers of body fat that helps them keep warm and gives them sufficient energy throughout the year. But the fat also acts as a magnet for storing chemicals, leading to the build up of very high chemical levels.

Troubled Waters: Antibacterial Chemical Taints U.S. Waterways

Most people probably don't think twice about the water they've washed their hands with once it's gone down the sink's drain. Unfortunately, even after a stop at the wastewater treatment plant, the water still might contain some of the synthetic components of commonly used personal and household cleansing products. The latest such chemical to be discovered in our nation's waterways is the antibacterial agent triclocarban, an ingredient commonly found in antibacterial soap bars. Researchers at Johns Hopkins Bloomberg School of Public Health recently announced that they believe many rivers and streams in the U.S. are contaminated with triclocarban, a toxic antimicrobial chemical, commonly found in body care products. The study, "Co-Occurrence of Triclocarban and Triclosan in U.S. Water Resources," is published in the January 21, 2005 online edition of *Environmental Science and Technology*, a peer-reviewed journal of the American Chemical Society. Triclocarban has been widely used for decades in hand soaps and other cleaning products, but rarely was monitored in the environment. "We've been using triclocarban for almost half a century at rates approaching one million pounds per year, but we have essentially no idea of what exactly happens to the compound after we flush it down the drain," said the study's lead author, Rolf U. Halden, PhD, PE, assistant professor in the School's Department of Environmental Health Sciences and founding member of its Center for Water and Health. The nationwide assessment of triclocarban contamination is based in part on an analysis of water samples collected from rivers in and around Baltimore, MD, data from local water filtration and wastewater treatment plants and empirical modeling. The researchers predicted triclocarban is present in 60 percent of the U.S. water resources. The results also show that the maximum concentration detected in Baltimore was 28-fold higher than previously reported levels, which are currently used by EPA for evaluation of the ecological and human health risks of triclocarban. "Along with its chemical cousin triclosan, the antimicrobial compound triclocarban should be added to the list of polychlorinated organic compounds that deserve our attention due to unfavorable environmental characteristics," said Dr. Halden. "Do the potential benefits of antimicrobial products outweigh their known environmental and human health risks? This is a scientifically complex question consumers, knowingly or unknowingly, answer to everyday in the checkout line of the grocery store."

National Movement Targets Lawn Care Poisons

Activists declare aesthetic use of pesticides unjustified

By Shawnee Hoover

A rising tide of activism is spreading across the country – in an area the chemical industry thought it had secured. Lawn care poisons. From Wisconsin, Montana and Minnesota to New York, Connecticut and Vermont, municipalities are increasingly seeking to curtail the aesthetic, or cosmetic, use of hazardous lawn pesticides among homeowners that cause involuntary community exposure and environmental pollution. In similar struggles, Canadian municipalities have been successful in outlawing the aesthetic use of toxic lawn chemicals in favor of safe alternatives. Propelling these municipalities and states are educated town and city council members and communities. Community-based groups are working hard to get the word out in their communities that lawn care pesticides are hazardous to health and the environment, are unnecessary for green lawns to flourish, and that non-toxic landscaping is an attractive alternative.

Sixty years ago the use of pesticides on lawns was unknown. Spots of clover were acceptable and dandelions were a source of play for children. Since then people have been sold on the idea that lawns must be putting-green perfect and that pesticides are a mandatory ingredient.

Everyday, countless children nationwide play on lawns in schools, parks, and at home. Dogs chase balls, kids roll around, and people of all ages picnic on them. Generally, no thought is given to what harmful chemicals might be vaporizing, drifting, rubbing off the blades of grass or lurking in the soil. When lawns, trees, shrubs, and flowers are treated with pesticides, an untold number of people, animals, insects and fish face damage to their health, short and long-term.

The use of toxic pesticides in agriculture is often defended because, it is argued, without pesticides there would not be enough food. Though that argument is debatable (as proven by the ever-expanding organic industry), when those same hazardous agricultural pesticides are brought into homes and communities and used for purely aesthetic reasons, more people are saying there is no justification. The pervasiveness of the use of these poisons for cosmetic purposes and a growing awareness of the viability of safe, alternative methods and products for maintaining green lawns and landscapes is prompting the public to challenge decision makers to better protect communities from unnecessary and involuntary exposure.

Lawn chemical contamination of health and the environment

The latest figures from the U.S. Environmental Protection Agency (EPA) show that the use of pesticides for the non-agricultural sector is around 213 million pounds. That is roughly twenty five percent of all pesticides used in the U.S., including agriculture. Homeowners alone use roughly 90 million pounds of herbicides per year. And the trend is increasing. From 1998 to 2001, home usage of herbicides jumped by 42 percent.[1]

People often think that pesticides are safe because they are registered with EPA. However given the economic, political and scientific limitations of the agency to understand the full effects of any given pesticide, let alone multiple or combined exposures, EPA has stated that no pesticide can be considered safe. Concern over pesticide exposure led the American Medical Association's Council on Scientific Affairs to warn, "Particular uncertainty exists regarding the long-term health effects of low-dose pesticide exposure.… Considering these data gaps, it is prudent…to limit pesticides exposures…and to use the least toxic chemical pesticide or non chemical alternative."[2]

The vast majority of lawn care pesticides on the market today have never been fully tested for the entire range of potential

The friendly ladybug sign reassures parents in Chatham, NC that kids are playing in a Pesticide-Free Zone.

health and environmental effects, such as cancer, birth defects, genetic damage, reproductive damage, neurological disorders, and disruption of the endocrine system. Even when these effects are found, EPA still registers the pesticide for use.

The most popular lawn care chemical used by homeowners today is 2,4-D – a chemical made by Dow Chemical Company that contains half the ingredients in Agent Orange, a dioxin-laden neurotoxicant used in the Vietnam War. 2,4-D is the pesticide found in most "weed and feed" products. Seven to nine million pounds of the chemical are dumped on lawns every year.[3] Surveys show most people use "weed and feed" as a regular fertilizer rather than a pesticide and unwittingly spread the chemical over the entire lawn (as directed), rather than separately and selectively treating problem weed areas.[4] Such overuse has ranked 2,4-D among the top pesticides consistently found polluting streams and shallow ground water from urban and suburban runoff.[5]

Despite numerous epidemiological studies linking 2,4-D to non-Hodgkin's lymphoma and other cancers, EPA is currently proposing to re-register 2,4-D as a "Class D" carcinogen, maintaining that there is a lack of data and that the existing science is conflicting.[6] Meanwhile, 2,4-D is one of the most studied chemicals by independent scientists. Conflicting data is rare among independent scientists who have no ties to the chemical industry. To date, EPA has not responded to documentation that the weight-of-evidence is being ignored. Studies by the National Cancer Institute and others also show a distinct association between exposure to 2,4-D and canine malignant lymphoma in household dogs.[7,8] The latest assessment from EPA acknowledges the susceptibility of dogs to poisoning by the commonly used pesticide, but does not propose any label warnings to users.

Asthma has become a major concern for millions of households and is the number one chronic illness among children. It affects more than six million, or one in twelve, children nationwide and 14.3 million adults.[9,10] Exposure to pesticides, indoor and outdoor, are known triggers for asthma. Studies have also shown that exposure to herbicides before the age of one increases the risk of asthma by more than four and a half times.[11] While a household with asthma sufferers may or may not be wise enough to use the myriad non-toxic alternatives to pesticides, when their children leave the house and pass by a neighbor's yard where weed killers and insecticides are used, that child may be involuntarily exposed.

Exposure to lawn chemicals is also hazardous for children and adults who do not have asthma. Studies have shown that lawn chemicals drift and are tracked indoors where they may remain in carpets and on surfaces for up to a year when not exposed to direct sunlight. A single turf application of 2,4-D can remain inside the home at exposure levels ten times higher than pre-application exposures.[12] These studies are cautionary tales not just for 2,4-D but for all toxic lawn pesticides.

Vulnerable population groups such as the elderly, children, fetuses, people with respiratory conditions, immune deficiencies or chemical sensitivities are at greater risk of pesticide poisoning and suffer disproportionately from the widescale cosmetic use of lawn pesticides. Of the 30 commonly used lawn pesticides, 13 are 'probable' or 'possible' carcinogens, which means either animal studies or human epidemiological studies or both have associated exposure with cancer. 14 are associated with birth defects, 18 with reproductive effects such as reduced sperm counts or fertility, and 20 with liver or kidney damage. 18 can cause neurotoxicity, which impairs the central and/or peripheral nervous system and can affect a range of things from the ability to learn to chronic fatigue. Almost all (28) are considered sensitizers and/or irritants, which means exposure may cause inflammation on contact or cause a person or animal to develop an allergic reaction to that chemical or others.[13]

Synthetic fertilizer use, which requires the use of pesticides due to a corruption of soil microbiology, is also an environmental problem. Aside from causing phosphorus pollution to waterways, a recent University of Florida study identified lead and arsenic contamination from a common plant fertilizer called Ironite®, which is used on lawns, gardens, playing fields and golf courses. The researchers concluded that the fertilizer can release enough lead and arsenic to be classified as hazardous waste.[14]

All these studies, coupled with a failure of the federal regulatory system to adequately protect the public and environment from the effects of toxic lawn pesticides, have provided a critical incentive for communities to take a stand against involuntary exposure to pesticides, especially when used for aesthetic purposes. Like second hand smoke, people are exerting their right to walk down the street or play in the park or

at school without being exposed to harmful lawn chemicals whose use is unnecessary.

State preemption treads on democratic rights

In the last few years, reform has swept through 70 cities, towns and municipalities in Canada that restricts or bans the cosmetic use of pesticides on private lawns through local by-laws and ordinances. After watching this movement grow, Project Evergreen, a new representative of the lawn pesticide industry, or "the green industry," as it calls itself, launched a million dollar public relations campaign with the message that "activists, extremists, and misinformed politicians" are questioning whether lawn products might harm the environment. "If the services our industry professionals offer are restricted, regulated or made illegal, everyone will lose revenue and customers," claims Project Evergreen. To date, there is no evidence that either has happened in Canada. Instead, demands for organic and natural lawn services are growing with landscaper training programs on the rise in both Canada and the U.S.

In 1991, after the U.S. Supreme Court affirmed the right of local governments to restrict pesticides under federal pesticide law, chemical manufacturers descended upon states and successfully lobbied most of them to pass legislation that prohibits municipalities from passing local pesticide ordinances or laws that are stricter than state policy.[15] Industry thought that would forever be the end of the lawn pesticide debate. These laws, called state preemption, effectively deny local residents and decision makers their democratic right to better protection where it is concluded that minimum standards set by state law are insufficiently protective of public and environmental health. Today however, states and municipalities are fighting to overturn preemption laws and bring power back to the local level.

The industry-EPA exclusion axis

Under the auspices of the Utah-based Center for Resource Management, the lawn pesticide industry has joined with government to sell the public on the safety of lawn pesticides by producing the *Environmental Guidelines for Responsible Lawn Care and Landscaping*. Despite industry lobbying, environmental groups have so far refused to endorse the initiative. The guidelines urge consumers to follow the pesticide label but remain silent, or at best conflicted, on disclosure of unknown and potential pesticide hazards. Though refusing to officially participate, Beyond Pesticides sent comments on the guidelines with several other organizations. A copy is available at http://www.beyondpesticides.org/watchdog/comments/.

Municipalities fight for democratic rights

This year Dane County officials in Wisconsin, who oversee 61 municipalities including Madison, passed a local County-wide ban on the use of synthetic lawn fertilizers that contain phosphorus due to its pollution of local lakes. The industry trade group Responsible Industry for a Sound Environment (RISE) is currently suing the County under preemption law. Similar legislation has been introduced in Minnesota. Other legislative bills that would allow municipalities to prohibit or restrict the use of lawn pesticides and synthetic fertilizers (that lead to the use of pesticides) under a number of circumstances have also been introduced in Suffolk County and Long Island, New York and the states of Montana, Vermont, Rhode Island and Connecticut. Only nine states and Washington DC uphold the rights of localities to restrict pesticides.

In a quintessential statement in the *Detroit News* in February of this year, Allen James, president of RISE, opined that, "Local communities generally do not have the expertise on issues about pesticides to make responsible decisions. Decisions are made much more carefully and the train moves much more slowly" at the state level. The reality is that local communities often have more in-depth information on local pesticide pollution than the state. Critics also argue that such demands interfere with private property rights. But as Beyond Pesticides executive director told a trade magazine reporter, "We don't disagree that people have the right to do whatever they want on their own land. It's when their activities result in involuntary exposures to people and wildlife that this issue intersects with the broader, social and environmental concerns that extend beyond property lines."[16]

All activity is not relying on legislation however. In order to foster a shift in cultural thinking about the viability of growing and maintaining healthy non-toxic lawns, it will take more than a law – it takes widespread education. Across the

country groups like Washington Toxics Coalition, New Jersey Environmental Federation, Madison Healthy Lawns Team in Wisconsin, Safer Pest Control Project in Illinois, Northwest Coalition for Alternatives to Pesticides in Oregon, Environment and Human Health, Inc. in Connecticut, and Facts about Alternatives to Chemical Trespassing in Florida are helping to educate decision makers and community members on creating pesticide-free lawns as well as parks, playing fields and schools. Other groups, like Grassroots Environmental Education in New York and the Northeast Organic Farming Association, are helping to train landscapers to make the switch so they can meet the public demand for pesticide-free lawns. And still others, like Toxics Action Center in Massachusetts, are starting boycott campaigns that target certain lawn care companies like TrueGreen ChemLawn in order to educate consumers about what they are actually getting when they hire conventional lawn services.

Whether the campaign is community-based or state-based, taking a legislative approach, a soft educational approach, or using hard-hitting tactics, the message is the same. Aesthetic use of lawn pesticides is hazardous to human health, wildlife, and the environment and is unnecessary to creating a pleasant and aesthetically pleasing green space.

Activists unite to protect from lawn care pesticides

In response to the widespread activity and demands from grassroots communities, in April 2005 Beyond Pesticides together with grassroots organizations launched a coordinated effort to create a united voice for the national movement against the aesthetic use of lawn pesticides and counterbalance industry propaganda. *The National Coalition for Pesticide-Free Lawns* advocates the use of organic and least toxic practices and products that nurture healthy lawns and landscapes and protect the health of children and their families, pets, wildlife and the environment from unnecessary exposure to toxic pesticides. The symbol of the Coalition is the Pesticide-Free Zone Sign available on all Coalition member websites. The Coalition has also created a declaration that everyone is invited to sign and use.

Take Action

Collect signatures to the **Declaration on the Use of Toxic Lawn Pesticides** in your own community and submit it to your local decision makers so they can see the broad support among their constituency for pesticide-free lawns and landscapes. A copy of the Declaration is available on the Beyond Pesticides Lawns and Landscapes webpage at www.beyondpesticides.org/lawn and printed on page 13 of this issue of *Pesticides and You*. Each member of the Coalition is working to reduce or eliminate the aesthetic use of lawn care pesticides and protect children, families, pets, wildlife and communities from exposure. Contact the group in your area to get involved, or to start your own campaign and join the national movement, contact Beyond Pesticides by phone: 202-543-5450 or email: info@beyondpesticides.org.

Notes

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12 Nishioka, Marcia G., et al. 2001."Distribution of 2,4-D in Air and on Surfaces inside Residences after Lawn Applications: Comparing Exposure Estimates from Various Media for Young Children," *Environmental Health Perspectives*, 109(11), November.

13 *Health Effects of 30 Commonly Used Lawn Pesticides*, Beyond Pesticides/NCAMP Factsheet, March 2005.

14 Dubey, B. et al. 2004. *Environmental Science and Technology*, 38(20), 5400-5404.

15 *Wisconsin Public Intervenor v. Ralph Mortier.* 1991.

16 Pesticide.Net Insider Journal, Vol. 2, No. 2. February 1, 2005. p.17.

Declaration on the Use of Toxic Lawn Pesticides

National Coalition for Pesticide-Free Lawns

1. **WHEREAS**, millions of pounds of pesticides are applied on lawns and landscapes each year by homeowners and landscape companies and this use is continuing to rise; and,

2. **WHEREAS**, scientific studies associate exposure to lawn pesticides with asthma, cancer, developmental and learning disabilities, nerve and immune system damage, liver or kidney damage, reproductive impairment, birth defects, and disruption of the endocrine system; and,

3. **WHEREAS**, infants, children, pregnant women, the elderly, and people with compromised immune systems and chemical sensitivities are especially vulnerable to pesticide effects and exposure; and,

4. **WHEREAS**, lawn pesticides are harmful to pets, wildlife including threatened and endangered species, soil microbiology, plants, and natural ecosystems; and,

5. **WHEREAS**, toxic runoff from chemical fertilizers and pesticides pollute streams and lakes and drinking water sources; and,

6. **WHEREAS**, the use of hazardous pesticides is not necessary to create and maintain green lawns and landscapes given the availability of viable alternative practices and products; and,

7. **WHEREAS**, people have a right not to be involuntarily exposed to pesticides in the air, water or soil that inevitably result from chemical drift and contaminated runoff; and,

8. **WHEREAS**, numerous communities and municipalities are embracing a precautionary approach to the use of toxic pesticides and are recognizing the limitations of federal and state regulatory agencies to adequately protect people and the environment from pesticides' harmful effects.

THEREFORE, be it resolved that the unnecessary, aesthetic use of toxic lawn and landscape pesticides shall be replaced with better alternatives. The individuals and organizations signed below support the broad movement for:

- People to replace their use of hazardous lawn pesticides with non-toxic and least-toxic alternatives and practices.
- Retailers to offer varieties of non-toxic and least-toxic lawn care products.
- Commercial service providers to offer organic lawn and landscape services.
- Localities to adopt ordinances that prohibit or restrict the use of hazardous pesticides for aesthetic purposes to protect the broader public.
- States to uphold the rights of local authorities to provide stricter protections from the aesthetic use of pesticides, and if necessary repeal laws that prohibit such authority.
- Congress to support the democratic right of localities to adopt ordinances that respond to the demands of their constituents to provide stricter protection of public health and the environment from local pesticide use and exposure.

SIGNATORIES

To sign on to this platform and/or purchase a Pesticide-Free Zone sign call 202-543-5450 or visit: www.beyondpesticides.org/lawn

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The following groups publicly released this platform in April 2005:
Agricultural Resources Center (NC); Beyond Pesticides; Defenders of Wildlife; Environment & Human Health, Inc. (CT); Facts about Alternatives to Chemical Trespassing, Inc. (FL); Grassroots Environmental Education (NY); Greater Madison Healthy Lawn Team (WI); Michigan Environmental Council (MI); New Jersey Environmental Federation (NJ); Northeast Organic Farming Association (NJ, CT); Northwest Coalition for Alternatives to Pesticides (OR); Pesticide Free Zone Campaign (CA); Project Ladybug (MD); The Watershed Partnership (CT); Safer Pest Control Project (IL); Salem Citizens for Alternatives to Pesticides (OR); Texans for Alternatives to Pesticides (TX); Toxics Action Center (MA); Toxics Information Project (RI);Washington Toxics Coalition (WA).

The Gloves Are Off vs. Get A Grip

The greenwashing of the chemical lawn care industry

Over the past five years, something has been happening in the suburbs across the U.S. Slowly but surely, we are seeing less and less of the little lawn signs that let you know a lawn care company has been by to douse the yard with a soup of toxic pesticides and synthetic fertilizers. People are becoming more aware of the dangers that lawn care pesticides pose to their families, pets and the environment. Homeowners and residents are choosing organic and least-toxic lawn care methods and planting native, pest-resistant grasses. In dry climates, people are converting to xeriscaping, a system that drastically reduces or eliminates the need for pesticides, fertilizers and excessive watering. In Canada, the province of Quebec and nearly 70 cities and towns, including Toronto, Montreal, Vancouver and Halifax, have passed laws banning or restricting the use of pesticides for lawn care. While all of this is very good news for those who care about the health of their families, the environment and clean drinking water, it has another group of people very worried: the pesticide-based lawn care industry.

The pesticide industry "takes the gloves off"

This past winter, the pesticide industry, under the guise of an environmentally conscious front group, launched its *Gloves Are Off* attack ad campaign in the trade press calling environmentalists and health advocates "extremists" and "misinformed." The campaign is trying to spin the lawn care industry as pro-environment and repeatedly refers to itself as the "green industry." Environmentalists see this as a strategy by companies stuck on using outdated, toxic technologies to stay afloat in a market ready to transition to organic techniques. The lawn industry front group, calling itself Project EverGreen, includes members such as Dow AgroSciences, Bayer Environmental Science, Syngenta Professional Products, RISE, The Scotts Company, TruGreen ChemLawn, Lawn Doctor, Inc., and more. The group is currently recruiting members to promote a pro-pesticide agenda and convince other applicators and the public that a chemically treated lawn is actually good for the environment.

Through its recent *Gloves Are Off* fundraising drive, Project Evergreen is trying to squeeze money out of its potential field of members to promote materials that greenwash the pesti-

Environmentalists believe this [industry] money could be better spent by encouraging lawn care service providers to invest their profits in the latest least-toxic, organic and other environmentally-friendly landscaping techniques.

cide-based lawn care industry. Environmentalists believe this money could be better spent by encouraging lawn care service providers to invest their profits in the latest least-toxic, organic and other environmentally-friendly landscaping techniques. Instead, the front group is asking that this money be donated to produce materials to protect business-as-usual practices and the profits of its pesticide manufacturing membership base. The group is using the funds, in part, to distribute a doorknob pamphlet to tout the "environmental benefits" of conventional lawn care.

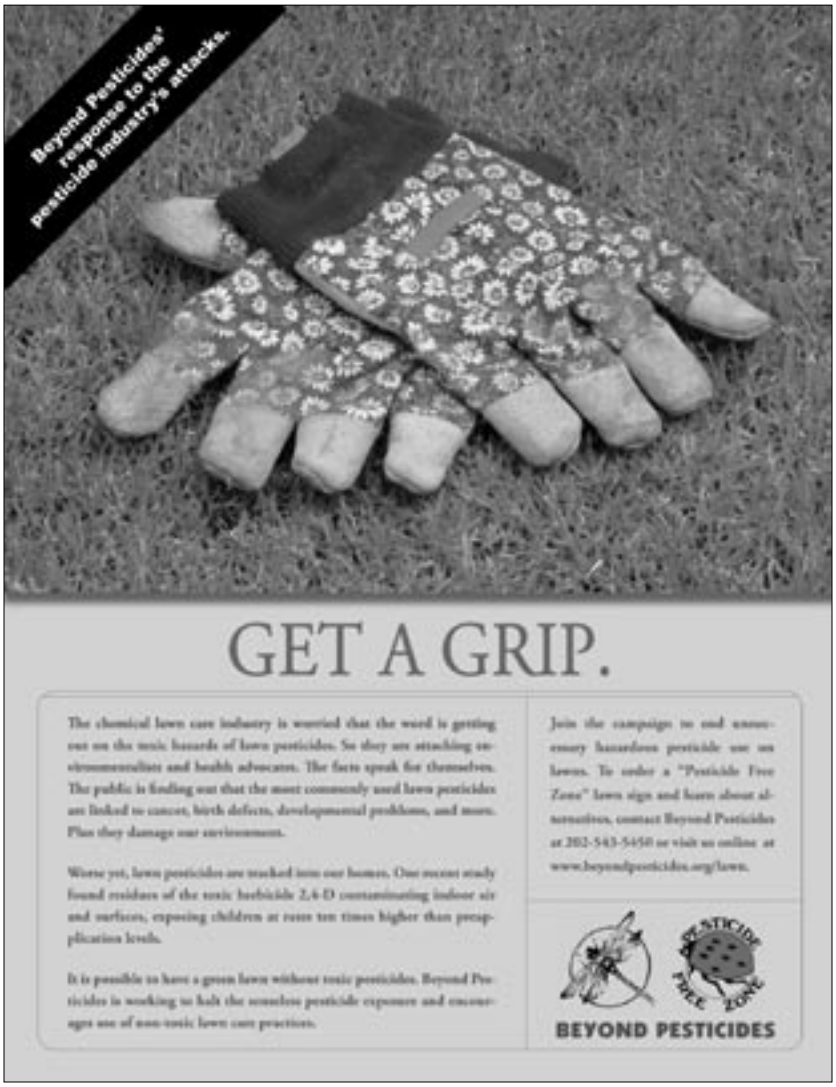
According to its website, the purpose of Project EverGreen is to "take a pro-active approach in dealing with the ever-alarming concerns regarding the future of the green industry related to the products and services used to create these well-maintained green spaces." The website continues, "One merely has to look at coordinated activist efforts in such areas as Canada, New York State, Minnesota and western states to curtail or even eliminate pesticides and fertilizers, severely restrict the use of water and lawns and other efforts detrimental to the green industry and consumers. Every facet of the business – pesticides, equipment, seed, nutrients, irrigation and more – is at stake here in the U.S. This is a pro-active effort designed to educate and inform consumers."

Environmentalists tell the industry to "Get a grip"

In response to the industry's *Gloves Are Off* attack ad, Beyond Pesticides put together its own *Get A Grip* copycat response ad. The ad explains that while the pesticide industry is trying to paint itself as environmentally-friendly, the facts clearly show a different picture.

However, the news does not have to be all bad for the lawn care industry. Environmentalists see the recent shift in public opinion over the use of lawn care, or cosmetic/aesthetic pesticides, as a opportunity for service providers to grow a new side of its business, rather than a threat to put them out of work. The ad goes on to explain that it is possible to have both a green lawn without toxic pesticides, and directs people to join the "Pesticide Free Zone" campaign to promote healthy, non-toxic lawns and landscapes. Both the Project Evergreen attack ad and Beyond Pesticides' response ad are available online, in full-color at www.beyondpesticides.org.

The Scripps-Howard news service covered the issue in a news story that ran in the *Detroit News* on February 24, 2005 and this past January in Canada's *Globe and Mail*. The story, "Lawn care industry in the U.S. Fears pesticide bans will grow," discloses the lawn and chemical industry campaign to undercut local community and state campaigns to stop the aesthetic or cosmetic use of toxic pesticides. Since the recent attention, Project Evergreen has taken down the links to their *Gloves Are Off* advertisement from their website and removed the names of their chemical industry supporters.



Environmentalists see the recent shift in public opinion over the use of lawn care, or cosmetic/aesthetic pesticides, as a opportunity for service providers to grow a new side of its business, rather than a threat to put them out of work.

Health Effects of 30 Commonly Used Lawn Pesticides

Pesticide	Cancer	Reproductive Effects	Neurotoxicity	Kidney / Liver Damage	Sensitizer / Irritant	Birth Defects
Insecticides						
Acephate	POSSIBLE	X	X		X	
Carbaryl	POSSIBLE	X	X	X	X	X
Chlorpyrifos*		X	X		X	X
Dichlorvos (DDVP)	POSSIBLE		X	X	X	
Malathion	UNKNOWN		X		X	X
Trichlorfon		X	X	X	X	X
Herbicides						
Atrazine	POSSIBLE		X	X	X	X
Benefin					X	
Bensulide			X	X	X	
2,4-D	UNKNOWN	X	X	X	X	X
DSMA			X		X	
Dacthal (DCPA)	POSSIBLE			X	X	
Dicamba	UNKNOWN	X	X	X	X	
Endothall		X		X	X	
Glyphosate		X		X	X	
Isoxaben	POSSIBLE			X		X
MCPA		X	X		X	X
MCPP		X	X	X	X	X
MSMA			X		X	
Pendimethalin	POSSIBLE	X		X	X	
Pronamide	PROBABLE	X		X	X	
Siduron					X	
Triclopyr	UNKNOWN	X		X	X	X
Trifluralin	POSSIBLE	X		X	X	
Fungicides						
Chlorothalonil	LIKELY	X	X	X	X	
Maneb	PROBABLE	X	X	X	X	X
PCNB	POSSIBLE			X	X	X
Sulfur					X	
Triadimefon	POSSIBLE	X	X	X		X
Ziram		X	X		X	X
Total	**13**	**18**	**18**	**20**	**28**	**14**

* Phase-out banned residential use in 2001, still permitted for use on golf courses and for public mosquito control.

For a cited version of this factsheet, visit www.beyondpesticides.org/lawn or call 202-543-5450.

Source: Compiled by Beyond Pesticides from data gathered by U.S. Environmental Protection Agency, U.S. Government Accountability Office; International Agency for Research on Cancer, multiple pesticide profiles, and standard toxicology references.

ChemicalWATCH Factsheet

A BEYOND PESTICIDES/NCAMP FACTSHEET

2,4-D

What is 2,4-D?

2,4-Dichlorophenoxyacetic acid, commonly known as 2,4-D, is a widely used herbicide in the phenoxy class of chemicals. It is the most commonly used pesticide in the non-agricultural sector and the sixth most common in the agricultural sector, with over 40 million pounds being used in the U.S. annually. 2,4-D production supports a world market of over $300 million. While the herbicide is manufactured and marketed by many different companies, Dow AgroSciences is currently the biggest producer.

2,4-D is a general use pesticide, and does not require a license to use or purchase. It is used in a wide variety of locations, including agricultural, residential, and public areas. 2,4-D can be found in many lawn care products, and is used as a treatment for golf courses, roadsides, rights-of-way and to control aquatic weeds. In agriculture it is used as an herbicide for grass-like crops, including wheat and barley. Products containing 2,4-D are often marketed as "weed and feed" and include Aqua-Kleen, Ortho Weed B Gon, Hi-Dep®, Weedar® 64, Weed RHAP A-4D®, Weed RHAP A, Salvo, Spectracide, Scotts Green Sweep, UltraStop, and Weedone.

2,4-D is a selective herbicide, used to kill broadleaf weeds with little harm to grass crops. It is a plant growth regulator, and mimics the natural plant growth hormone, auxin. Unlike auxins, 2,4-D stays at high levels within plant tissues rather than fluctuating. As a result, it causes rapid cell growth and plants die when their transport systems become blocked and destroyed by abnormally fast growth. While 2,4-D is normally applied to a plant's leaves, it can also be absorbed through the roots and stems. The half-life of 2,4-D in soil is about 1-2 weeks and 1-3 weeks in water.

Health effects of 2,4-D are of particular concern due to its

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Lawn Care Pesticides

Public concern over the hazards associated with chemical lawn care products and services has been on a steady rise – with good reason. Annually, 67 million pounds of lawn pesticides are used in and around homes and gardens, and in industrial, commercial and government settings. Alarmingly, suburban lawns and gardens receive far heavier pesticide applications per acre than most other land areas in the U.S., including agricultural areas.

Worse yet, these hazardous chemicals that are continually applied to our lawns and gardens have been found tracked into our homes. One recent study found residues of the toxic herbicide 2,4-D contaminating indoor air and surfaces, exposing children at levels ten times higher than preapplication levels.

Such widespread use and exposure is alarming considering that of the 30 most commonly used lawn pesticides, 13 are probable or possible carcinogens. Additionally, 14 are linked with birth defects, 18 with reproductive effects, 18 with neurotoxicity, 20 with liver or kidney damage, and 28 are sensitizers and/or irritants.

Beyond Pesticides is working to halt such senseless exposure and encourage use of least toxic and non-toxic lawn care practices. Since change begins at home, we have a number of lawn care resources for homeowners, including *Lawn Mowers to Leaf Piles – A guide to fall lawn care*, *Least Toxic Control of Lawn Pests*, and various ChemicalWATCH Factsheets on lawn care chemicals. In addition, visit the Beyond Pesticides website for the *Safety Source for Pest Management*, an online directory of companies that offer least-toxic pest management.

widespread distribution. In a 2003 study of indoor air toxins, 2,4-D was found in the dust of 63% of sampled homes. In a 2001 study, levels of 2,4-D in indoor air and on surfaces (floors, tables, windowsills) increased following lawn application of the herbicide. This resulted in exposure levels for children that were ten times higher than pre-application and shows that 2,4-D is easily tracked into homes.

Acute Toxicity

2,4-D is produced in several forms, including acids, salts, amines and esters, and its toxicity varies between the different forms. The EPA toxicity class ranges from I- III (on a I-IV scale with I being the most toxic) depending on the form and method of exposure. The diethylamine salt is the most toxic (class I) by eye exposure. Inhalation generally leads to coughing, burning, dizziness, and loss of muscle coordination. Oral consumption irritates the digestive tract, results in nausea, diarrhea, vomiting, and can lead to kidney and liver damage. 2,4-D is one of few herbicides to cause nervous system damage; both digestion and inhalation affect the central nervous system. Effects to the nervous system include inflamed nerve endings, lack of coordination, stiffness in the arms and legs, inability to walk, fatigue, stupor, coma, and death. 2,4-D is a serious skin and eye irritant. For the acid form, the LD 50 in rats is 375-666 mg/kg orally and approximately 1500 mg/kg dermally.

Chronic Toxicity

Although a mounting body of evidence links 2,4-D to various cancers, particularly non-Hodgkin's lymphoma, EPA has been reluctant to classify it as a carcinogen in the face of industry pressure. EPA lists the herbicide in class D for carcinogenicity, meaning inadequate evidence for carcinogenicity or insufficient data is available.

Despite the agency's reluctance, the link between 2,4-D and non-Hodgkin's lymphoma has been demonstrated in the United States, Italy, Canada, Denmark, and Sweden. A 1986 National Cancer Institute (NCI) study found that farmers in Kansas exposed to 2,4-D for 20 or more days per year had a six-fold higher risk of developing non-Hodgkin's lymphoma than non-farmers. The risk of cancer was higher for farmers who mixed or applied the pesticide themselves. Another study done in 1990 found a 50% increase in non-Hodgkin's lymphoma in farmers who handle 2,4-D. A manufacturer's study submitted to EPA in 1986 indicated that the herbicide can cause rare brain tumors in rats. In 1991, an NCI study found that dogs were more likely to contract canine malignant lymphoma if their owners use 2,4-D on their lawns than if owners did not use the herbicide. When 2,4-D was applied four or more times per year, dogs were twice as likely to contract lymphoma. In addition to these epidemiological studies, a laboratory study conducted by the Food and Drug Administration (FDA) found a 4% incidence of lymphoma in rats exposed to 2,4-D and no lymphoma in unexposed rats. Despite these studies the carcinogenic potential of 2,4-D remains controversial. The pesticide industry has criticized some of the studies mentioned here and cites other studies, which support its claim that 2,4-D does not cancer.

Long-term exposure to 2,4-D also results in a wide range of other health problems. Chronic (long-term) oral intake results in lesions of the kidney and liver in both rats and dogs. In humans, two studies showed a connection between hepatitis cases and chronic oral consumption of 2,4-D, by golfers who habitually licked their golf balls.

2,4-D is also an endocrine disruptor, a chemical that can interfere with the body's hormone messaging system and can alter many essential processes. The National Institute of Health Sciences lists 2,4-D as a suspected endocrine disruptor. In studies with rats, 2,4-D has been shown to alter levels of metabolism and sex hormones.

Several studies have demonstrated that 2,4-D can be a mutagen, or a substance that induces genetic mutations. Workers who apply 2,4-D had a higher number of white blood cells with multiple nuclei than people who were not exposed. In rabbits, 2,4-D exposure resulted in unusual numbers of chromosomes in brain cells. Genetic problems like these can have further consequences in terms of cancer and reproductive problems.

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Reproductive toxicity has also been observed for 2,4-D. Residues of 2,4-D are detectable in urine and semen samples of men who apply the herbicide. In rats, exposure resulted in fetuses with abnormal cavity bleeding, increased mortality and genetic damage. A 1996 study of private pesticide appliers in Minnesota found a higher rate of birth defects among the children of applicators than the general public. It also found the birth defect rate to be highest in areas where 2,4-D use was the highest. Another study conducted in 2003 examined the wheat producing states of Montana, Minnesota, South Dakota and North Dakota, where more than 85% of the acreage is treated with chlorophenoxy herbicides, including 2,4-D. Children conceived during the time of herbicide use (April- June) were more likely to have birth defects.

Environmental Effects

Due to its relatively short half-life, 2,4-D is said to have low persistence in both soil and water. However, 2,4-D has a high potential to leach from soils, and therefore a potential for contaminating ground water. The herbicide has been detected in ground water

in at least five states and Canada. Low concentrations have also been detected in surface water and drinking water in the U.S.

2,4-D has been shown to have negative impacts on a number of animals. In birds, 2,4-D exposure reduced hatching success and caused birth defects. It also indirectly affects birds by destroying their habitat and food source. The toxicity of 2,4-D to fish is variable. The butoxyethanol ester is very toxic to fish, but other forms are less toxic. 2,4-D also bioaccumulates in fish, meaning that fish tissues will contain a higher concentration of 2,4-D than the water surrounding them, which puts them at even greater risk. 2,4-dichlorophenol, a breakdown product of 2,4-D, is extremely toxic to earthworms, 15 times more toxic than 2,4-D itself. The herbicide also has negative effects on a range of beneficial insects. It reduces offspring numbers in honeybees, kills predatory beetles and ladybug larvae. This reduction in ladybug numbers caused an increase in aphids, a major pest, in oat fields. Consumption of plants treated with 2,4-D has killed cattle and horses and 2,4-D can also indirectly affect many wild mammal species, including moose, gophers, and voles, by damaging or killing plants they rely on for food.

Regulatory Status and History

2,4-D was one of the first herbicides to be commercially marketed. It was first introduced in the United States in the late 1940's. 2,4-D made up a major portion (about 50%) of the herbicide known as Agent Orange, which was used during the Vietnam War. However, it is thought that most of the health problems related to Agent Orange were actually due to dioxin contamination of the other major component, 2,4,5-T. While 2,4,5-T was the main culprit and has now been banned, several forms of dioxin have also been found in 2,4-D, including 2,3,7,8-TCDD.

The history of dioxin contamination further increases the dangers related to 2,4-D, particularly for the amine and ester forms. Dioxins are highly carcinogenic and can cause health problems as severe as weakening of the immune system, decreased fertility, altered sex hormones, miscarriage, birth defects, and cancer. EPA studies in 1994 detected dioxins in a number of 2,4-D products. The Washington Department of Agriculture also detected dioxins in a 2,4-D product in 1998.

2,4-D is currently undergoing EPA's reregistration process. According to EPA, the Reregistration Eligibility Decision (RED) is scheduled for May 2005. On June 23, 2004, EPA released to the public a series of risk assessment documents summarizing current data on the human health and environmental effects of 2,4-D. This began a comment period during which EPA will accept statements from any interested parties, which will then be considered in the final reregistration decision. As part of the reregistration process, EPA also required over 200 new studies on 2,4-D. A group of major manufacturers of 2,4-D set up the "Industry Task Force II on 2,4-D Research Data," which has now funded 270 of these studies. According to EPA, there are still several data gaps in the current 2,4-D research. The risk assessment indicates that a 28-day inhalation study is needed because there are no data available on the effects of repeated inhalation of 2,4-D. A developmental neurotoxicity study is also needed, as well as a two-generation reproductive study that addresses endocrine disruptor concerns.

In 1991, an NCI study found that dogs were more likely to contract canine malignant lymphoma if their owners use 2,4-D on their lawns than if owners did not use the herbicide.

A fully cited version of this factsheet is available online at www.beyondpesticides.org/pesticides/factsheet or by contacting Beyond Pesticides, 202-543-5450.

8 Steps to a Toxic-Free Lawn

1. **Develop healthy soil.** Dig a 10" deep smooth narrow hole to examine the soil. The lawn should have between 5"-6" of topsoil; the darkest soil layer. If needed, add organic matter such as composted manures.
2. **Plant well-adapted, pest-resistant grass varieties.** Learn which grasses are most suitable to your climate from your local cooperative extension agent or garden center. A mix of two or more appropriate grass varieties is preferable. Overseeding, or providing additional seeding, of established lawns may reduce weed problems.
3. **Aerate the lawn twice a year.** Soil compaction is one of the largest causes of weed problems. Aerating, or removing small cores or "plugs" of soil, allows air, water, and nutrients to reach the roots of the grass.
4. **De-thatch.** Thatch is a dense layer of grass stems and roots on the surface of the soil. When thatch layers become ½" or more, the roots will grow up within the thatch instead of down into the soil, making grass susceptible to insects, disease, and weather stress. Thatch is reduced by aeration, organic matter topdressing, or by vertical mowing or power raking.
5. **Maintain proper pH.** Test your soil and adjust the pH accordingly. Low pH means high acid content – add lime to raise the pH. High pH means high alkaline – add sulphur to lower the pH. Watch for hints of pH imbalance such as a dandelion infestation. Dandelions prefer soil with a pH of 7.5, while grass prefers a pH of 6.7 to 7.0.
6. **Fertilize.** Use a slow release fertilizer formulation once a year, usually in the fall, to increase the efficiency of nutrient uptake and reduce nutrient runoff and leaching. Avoid conventional synthetic nitrogen-rich fertilizers that feed only the plant not the soil. The best way to determine your lawn's nutrient needs is by a soil test. As a general rule, use a natural, organic fertilizer with a balanced ratio of numbers close in proximity, such as 5-3-4. Learn to read signals. For example, if clover is taking over the lawn the soil is lacking nitrogen since clover gets nitrogen from the air and grass gets nitrogen from the soil.
7. **Water properly.** Over or under watering can induce pest outbreaks. Enough water should be applied each time to wet the soil to the depth of the grass root zone. The soil should be allowed to become nearly dry between waterings. Avoid frequent, short waterings, which promote shallow root systems and reduce stress resistance. Natural, organic fertilizers can increase the water-holding capacity of the soil.
8. **Mow correctly.** Mow with sharp blades set to 3" to minimize adverse effects and retain the lawn's competitive ability. Never cut off more than 1/3 of the grass blades in a single mowing. Rotate the mowing pattern to reduce lawn compaction. Leave a light layer of grass clippings on the grass, which can provide up to half the lawn's nitrogen requirement.

Control

Any control strategy will depend on the type of problem. Infestations indicate the lawn is in stress. Treating the problem without understanding the root of its cause is not a long-term remedy.

- **Weeds.** Suppress weeds with mulches and frequent mowing. Hand-pull visible weeds. If you feel an herbicide is necessary, corn gluten is an excellent pre-emergent. A fatty-acid soap product called Sharpshooter™ is an effective broad-spectrum herbicide. Home remedies and natural products using vinegar, citric acid, or essential oils can also control weeds, as can special heat machines.
- **Insects.** Seek a home remedy before using a least toxic natural insecticide that may kill more than the target pest. Grubs can be controlled by applying the bacterium *Bacillus popillae* (milky spore disease), which, once established, will provide control for decades. Kill chinch bugs by drenching the thatch layer with an insecticidal soap or neem spray. For sod webworms, dethatch and apply nematode parasites, insecticidal soap or *Bacillus thuringiensis* (Bt) when larvae are present.
- **Disease.** Diseases are often the result of improper nutrient or moisture conditions. For example, dollar spot, a common lawn fungus, thrives on lawns with insufficient levels of nitrogen. Prevent lawn disease with locally adapted, resistant varieties of grass and follow the eight steps above.

For more detailed information, visit www.beyondpesticides.org/lawn or call 202-543-5450.

The Coming Revolt

Charting a course to stop the use of poisons

By Jay Feldman and Terry Shistar

There are signs of change emerging everyday throughout the country and around the world. However, it is often hard to imagine a future without toxic chemicals--given current cultural practices, chemical-biased policies, chemical-dependent practices, barriers to legal recourse for victims, rampant involuntary exposure, the lack of widespread adoption of alternatives, and alliances between powerful chemical corporations and pesticide users, farmers, utilities, and exterminators.

Things are getting worse, it could be argued. The people are subdued into thinking that the status-quo is in their interest, that they are safe in the marketplace and in their communities.

The chemical industry world view

The chemical industry holds a view of the world that looks like this. People don't think much about the horror of toxic poisoning and contamination. They believe the problem is the mosquito, not the chemicals sprayed to kill them with limited effect. They believe that cheap food and its contaminated production system serves them and meets their need to balance the family checkbook. They believe that if contamination occurs, their water can be purified or turn to bottles if necessary. They do not worry about other living things depending on the water, air, or soil that they poison. They believe that government protects them from the bad actor untrustworthy chemical company. They distrust big corporations that put profit before their health and welfare, but buy their products. They toil in their yard, garden and lawn with toxic chemicals and are not concerned about soil health and toxic effects. They do not worry about chemical run-off into their town's waterways or drinking supply. They do not worry about the farmworkers who harvest the food. They do not worry about sendng their children to schools sprayed with pesticides in the buildings and on the playing fields. They do not worry about their pet's exposure. They play on toxic golf courses without concern. They believe that chemical corporations have rights and our economic system should protect them.

Principles at stake

With content people, the Establishment is moving to solidify its power should the people awaken.

The pesticide industry is seeking to:

- **Thwart democracy.** The industry seeks to elminate the democractic process by which local government may historically protect the health and welfare of their residents, in this case, through the adoption of ordinances restricting pesticides.
- **Define the terms of our language to ensure dependency on their products.** The industry defines "pests" and the conditions that need to be controlled, squelching efforts to fulfill human needs without poisons, educate on ecological balance and prevent the conditions that contribute to imbalance.
- **Manipulate the underlying law and its implementation to serve corporate needs.** The industry has successfully manipulated the legislative and regulatory process to pass laws that contain unclear safety standards, assume the need for and usefulness of toxic pesticides by prohibiting an evaluation of their essentiality, utilize risk assessment methodology that mischaracterizes real world exposures and sensitivities, allow untested products to remain on the market indefinitely, and permit secrecy for toxic product ingredients.
- **Block access to the courts.** The industry seeks to deny those seeking compensation for damages associated with pesticide use access to the courts. The U.S. Supreme Court has heard argument in *Bates v. DowAgroSciences*, in which the Dow Chemical Company argues that farmers damaged by poisons used in compliance with label instructions do not have a right to sue the company because it has registered its pesticides with EPA.
- **Create false alliances between the chemical industry, government agencies and environmental organizations.** *The Lawn and Environment Guidelines* (2005), issued by industry and government agencies, sought to entice environmental organizations to join a campaign for the "safe use of pesticides," urging people to follow the pesticide label.
- **Greenwashing.** The chemical lawn care industry launched Project Evergreen to mislead the public on the benefits of a chemical-intensive green lawn.

Pressure for change

Meanwhile, poisoning and contamination abound. As some pressure for change builds, policy reforms are adopted to mollify those who oppose the chemical industry. These reforms over decades do not work. Victims remain out of sight. Despite extremely high rates of cancer, infertility, asthma, neurological disorders, immune system dysfunction, and learning disabilities, the voices of the victims are not heard. The industry moves ahead.

A look at history suggests that the environmental revolt is coming. Howard Zinn, in his chapter "The Coming Revolt of the Guards" in *A People's History of the United States*, writes that the Establishment and the political process has not consistently throughout history been able to contain the anger of the people. Among other periods, he cites the "surge of the sixties, from people thought long subdued or put out of sight –blacks, women, Native Americans, prisoners, soldiers—and a new radicalism, which threatened to spread widely in a population disillusioned by the Vietnam War and the politics of Watergate." Dr. Zinn continues, "[T]he Establishment has been unable to keep itself secure from revolt. Every time it looked as if it had succeeded, the very people it thought seduced or subdued, stirred and rose. Blacks, cajoled by Supreme Court decisions and congressional statutes, rebelled. Women, wooed and ignored, romanticized and mistreated, rebelled. Indians, thought dead, reappeared, defiant. Young people, despite lures of career and comfort, defected. Working people, thought soothed by reforms regulated by law, kept within bounds by their own unions, went on strike. Government intellectuals, pledged to secrecy, began giving away secrets. Priests turned from piety to protest."

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The Coming revolt

In the pesticide arena, there are signs that people know that they are not adequately protected and, in fact, are abused by the Establishment. The following list exemplifies the coming revolt, as the entrenched industry and an out-of-touch government effectively alienates the people.

- **Local action to stop spraying for West Nile virus.** Citizens acting to protect themselves. From Washington, DC to Lyndhurst, Ohio to Seattle, Washington, say no to poison spraying for West Nile virus after assembling the facts on source reduction and lack of efficacy associated with spray programs.
- **Local action to stop the aesthetic/cosmetic use of poisons.** Communities no longer want to accept local spraying of toxic chemicals for aesthetic lawn care uses because they cause widespread involuntary exposure. At

least five states have introduced legislation to overturn undemocractic laws that have taken away local authority.

- **Victims sue to force action.** Pending decisions in lawsuits on the failure of EPA to act on hazardous wood preservatives (*Beyond Pesticides v. Leavitt, EPA*), and deny those harmed by pesticides access to the courts to seek damages (*Bates v. Dow AgroSciences*) may clarify an unresponsive and biased system of chemical dependency.
- **School districts seek to stop the use of poisons in schools.** Local school districts have issued restrictions that recognize that the regulatory system is not adequately protective of children's health and the environment.
- **Court decision recognizes the unacceptability of chemical trespass and its impact on the ecosystem.** The Minnesota Supreme Court issued a ruling that protects bee pollinators, recognizing the essential need to protect areas in which bees forage.
- **Nonchemical approaches to agriculture, horticulture, public health protection, etc.** The success of alternative approaches, such as organic management techniques, show that the hazards and unknowns associated with chemical-intensive approaches is unnecessary.
- **Government staff blow the whistle on off-the-record politicized agency activity.** Staff disclosed a secretive EPA agreement with Dow Chemical to extend the phase-out of the highly neurotoxic insecticide chlorpyrifos (Dursban), which was covered in the *Washington Post*, focusing EPA to reverse course.

The focal point for change is local

As the focus of pesticide restrictions shifts to local action, EPA and other government agencies are increasingly marginalized and resented when they seek to intervene by imposing or allowing unwanted, dangerous and unnecessary dispersal of poisons. As local decision makers confront toxic chemical issues, they increasingly replace questions of which poison should be sprayed to kill "pests" with the larger questions: "What do we want?" (Adequate supply of healthful food, healthy living conditions, safe schools and playgrounds, aesthetically pleasing environs, access to necessary information, and the ability to choose clean water, uncontaminated air, and health-giving food) and "How do we get it?" This leads to questions about appropriate land use and plant species in different climatic and geologic conditions.

The coming revolt will question the assumptions that we have made in the past so that we may redesign our approach to a problem that has remained intractable despite more than 40 years of effort since the publication of *Silent Spring*. In order to do this, our questions must challenge the premises embodied in our current paradigm or world view. This process uncovers a deep concern for our health, our children's health, the health of the environment, and a deep desire for change. As the chemical industry and government pushes back against the calls for change, further alienating, misleading, and oppressing people and their right to a healthy environment, people will assert themselves in communities all across the country.

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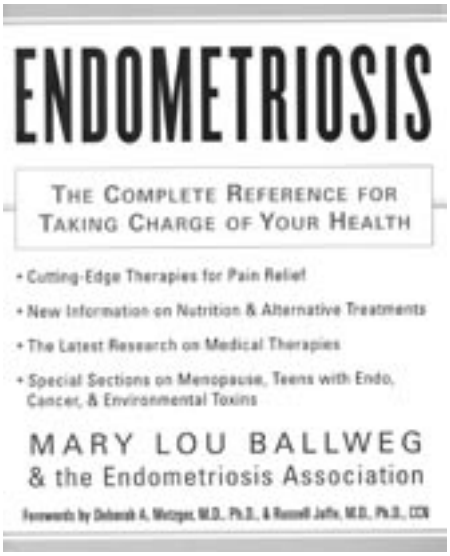
Conclusion

Dr. Zinn says, "To recall [history] is to remind people of what the Establishment would like them to forget –the enormous capacity of apparently helpless people to resist, of apparently contented people to demand change. To uncover such history is to find a powerful human impulse to assert one's humanity. It is to hold out, even in times of deep pessimism, the possibility of surprise."

Endometriosis: The Complete Reference For Taking Charge of Your Health.

Mary Lou Ballweg and the Endometriosis Association. McGraw-Hill, ©2004. 494 pages, $17.95.

Mary Lou Ballweg, founder and president of the Endometriosis Association, describes endometriosis as "a puzzling hormonal and immune disease affecting girls and women in their reproductive years." The disease causes tissue to build up around the ovaries, fallopian tubes, the outer surface of the uterus, and other areas of the body, forming painful nodules or lesions which can lead to internal bleeding, infertility and a host of other problems. Close to 90 million women worldwide suffer from endometriosis. The Endometriosis Association's new book, while primarily about treatment, provides insight into the link between environmental toxins and endometriosis. The book is an important resource both for those women who have endometriosis and for those who treat it.

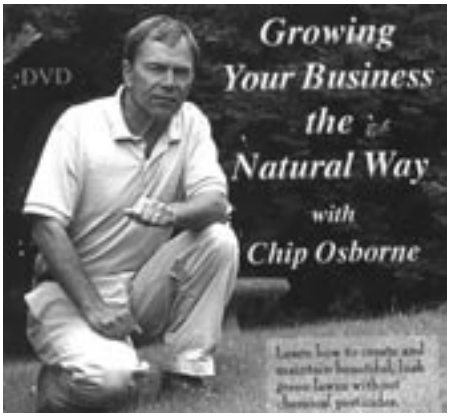


Specifically of interest is the chapter "Why Endometriosis is an Environmental Issue" by Lynn Castrodale. The author begins the chapter by explaining in basic terms how the environment is related to bodily health, elegantly writing, "Our health and the health of our world are intertwined. When the planet and its environment are diseased with toxic chemicals, our individual bodies become diseased and sick.." Ms. Castrodale then goes on to establish the relationship between pesticides and endometriosis. Outside of cancers, endometriosis was one of the first diseases to be linked to persistent organic pollutants. Specifically, studies have found that dioxins and polychlorinated biphenyls (PCBs) can trigger the development of the disease. The chapter ends with a scathing critique of the chemical industry's record of endangering public health for the sake of profits, and then a call for people to incorporate the precautionary people into their everyday lives. Ms. Castrodale gives readers specific examples of things that they can do to improve the environment and their own health, including eating organic food and avoiding pesticides.

Growing Your Business the Natural Way with Chip Osborne

DVD, produced by the Grassroots Healthy Lawn Program, 2005. 13 minutes. For a free copy, visit www.ghlp.org and click on "Professional Training," or call 914-921-9009.

This short and entertaining DVD serves as an excellent how-to manual for pesticide-free lawn care. Host Chip Osborne, a professional horticulturalist and co-chair of the Marblehead Pesticide Awareness Committee in Marblehead, Massachusetts, describes methods of soil testing and restoration, types of organic fertilizers, and specifications for mowing and irrigating. In addition to giving specific techniques, Mr. Osborne explains how the techniques work and why they are important for maintaining healthy lawns. He also describes the differences in caring for lawns at the home level and the



municipal level (such as athletic fields). Since municipal lawns receive heavy use—which leads to soil compaction—different techniques should be used to keep each type of lawn healthy.

This information is helpful for both individuals and for businesses. Individuals who want to care for their lawns organically and natural lawn care companies can learn some great tips from this DVD. This DVD is also ideal for conventional lawn care service providers who are considering adding organic programs to their businesses. The DVD gives firsthand accounts of business owners who have successfully added organic options and/or switched entirely to natural lawn care. The business owners discuss the challenges of making the transition, as well as their successes. If you know of lawn care companies that are considering going organic, or if you are an activist trying to get you or your neighbor's service provider to offer organic options, order this free video to give to them to help strengthen your case.

BEYOND PESTICIDES MEMBERSHIP & SUBSCRIPTIONS

❑ **YES, make me a member of Beyond Pesticides (includes subscription to *Pesticides & You*).**
❑ $25 Individual ❑ $30 Family ❑ $50 Public Interest Organizations ❑$15 Limited Income

❑ **YES, I'd like to subscribe to *Pesticides & You.***
❑ $25 Individual ❑ $50 Public Interest Organizations ❑ $50 Government ❑ $100 Corporate

❑ **YES, I'd like to receive Beyond Pesticides' monthly *Technical Report*. $20 with membership or subscription.**

If outside the United States, please add $10.00 each for memberships and subscriptions.

RESOURCES

T-Shirts

❑ "Pollution Prevention Is the Cure." full color graphic on 100% natural organic cotton Patagonia™ T-shirt. Sizes S, L, XL, XXL. $10 each; 2 for $15.

❑ Beyond Pesticides' Praying Mantis T-shirt. Printed on slate blue, 100% organic cotton with soy ink. Sizes S-XL. $15 each; 2 for $25.

Books

❑ *A Failure to Protect.* Landmark study of federal government pesticide use and pest management practices. $23.00. *Summary and Overview* $5.00.

❑ *Unnecessary Risks: The Benefit Side of the Risk-Benefit Equation.* Explains how the EPA's Risk-Benefit Analyses falsely assume the need for high-risk pesticides, how "benefits" are inflated, how alternatives might be assessed, and the public's right to ask more from its regulators. $10.00.

❑ *Safety at Home: A Guide to the Hazards of Lawn and Garden Pesticides and Safer Ways to Manage Pests.* Learn more about: the toxicity of common pesticides; non-toxic lawn care and why current laws offer inadequate protection. $11.00

❑ Voices for Pesticide Reform: The Case for Safe Practices and Sound Policy. A study documenting stories of tragic pesticide poisoning and contamination, and successfully used alternatives that avoid toxic chemicals. $20.00 *Summary: Voices for Pesticide Reform $5.00*

❑ Poison Poles: Their Toxic Trail and the Safer Alternatives. A study on the largest group of pesticides – wood preservatives, the contamination associated with treated wood utility poles and the available alternatives. $20.00

❑ *Pole Pollution.* Deals specifically with the wood preservative pentachlorophenol, and the EPA's shocking findings about its toxicity. $7.00.

Back Issues

❑ Back issues of *Pesticides and You* $2.00 each

❑ Back issues of *Technical Reports* $1.00 each

Brochures ($2.00 each; bulk discounts available)

❑ Least Toxic Control of Lawn Pests
❑ Agriculture: Soil Erosion, Pesticides, Sustainability
❑ Estrogenic Pesticides
❑ Pesticides and Your Fruits and Vegetables
❑ Pesticides – Warning: These Products May Be Hazardous to Your Health
❑ Pesticides in Our Homes and Schools

Testimony

❑ Lawn Care Chemicals, 3/28/90 or 5/9/91, $4.00
❑ Federal Insecticide, Fungicide, Rodenticide Act (FIFRA), 4/23/91 or 6/8/93, $4.00
❑ Food Safety, 10/19/89, 8/2/93, or 6/7/95, $4.00
❑ School Environmental Protection Act (SEPA) 7/18/01, $4.00
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