

THE TOXIN AVENGERS



Meet the Marinites who won't stop pestering the pesticide industry

Mother Nature's little helpers: Bottom row from left, Yannick Philips, Debbie Friedman, Ginger Souders-Mason, Sandy Ross, Kraemer Winslow, Marie Chan; top row from left, Carolyn Cohan, Jeanice Skvaril, Maggie Sergio, Stacey Weinberg-Dieve, Andrea Sumits, Debbie Raphael, Valerie Wynn.

by Annie Spiegelman

In early 2009, Marin resident Paul Apffel meticulously combed through Marin County public records.

But unlike most who visit the recorder's office, the former prosecutor wasn't on the hunt for dusty old certificates or proofs of parcel. He was scouring for evidence of the county's illegal use of pesticides—pesticides classified by the U.S. Environmental Protection Agency as "possible human carcinogens" or, in other words, possibly cancer causing.

The records revealed that such pesticides, which by law are banned for use by all Marin County departments, were sprayed frequently in local parks and public places between 1999 and 2009. One particularly gnarly pesticide, Oryzalin, an herbicide that doubled and tripled the rate of breast tumors in animal tests, persists for months in the soil after each application—and is especially toxic to dogs. Isoxaben, another possible carcinogen, was also shown to have been sprayed frequently. According to the EPA, Isoxaben's primary target organ in animals such as rats, mice and dogs is the liver.

Apffel discovered that the county had

sprayed illegal pesticides 269 times over the course of a decade—or, about 27 times a year—in such places as McInnis Park in San Rafael, Stafford Lake in Novato, McNear Beach in San Rafael, Paradise Beach Park in Tiburon and the Civic Center.

OK readers, please put down your 100 percent recycled, organic, free-range pitchforks and listen up! That's the bad news. However, the story has a happy ending, I swear, thanks to a group of vigilant, informed and gutsy moms.

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OVER THE PAST few decades, Marin County has actually been at the forefront of environmentally responsible pest management, reducing its pesticide use by more than 75 percent since the 1980s. This is due, in part, to the efforts of folks like Sandy Ross and Ginger Souders-Mason. It all started more than two decades ago when, after organizing representatives from 45 different environmental organizations, this dynamic duo created Marin's original Integrated Pest Management Ordinance. By the mid-'90s, an 11-member

IPM Commission was created to oversee implementation of a county law that bans the use of any ingredient classified by the EPA as a human carcinogen, "probable" human carcinogen or "possible" human carcinogen on county-maintained land. (The law allows exceptions, but first requires the approval of the IPM Commission.) Marin's first official IPM Ordinance went into effect in 1998.

Just what is IPM, or integrated pest management? It is a pest-control decision-making process that looks at the entire ecosystem instead of just isolating one plant or pest.

In other words, it's an effort to see the forest for the trees when planning long-term pest control.

Integrated Pest Management started buzzing nationally in the 1970s in response to farmers' health concerns, pest-resistance issues and the high costs associated with synthetic pesticides. IPM programs combine a variety of scientifically proven measures such as precise monitoring, adding compost and mulch to the soil, choosing native species, releasing beneficial insects, setting traps and barriers and, as a last resort, spraying the least-

toxic pesticide in site-specific areas.

"Every city, town, district or public agency should have an updated IPM ordinance and policy, especially all of the schools," says Ross, former president of the Marin Health Council. "We saw at the county that without strict, accountable guidelines, one or more persons can precipitate major violations and hide them from the public and governing bodies."

After Apffel found the alarming number of violations of the original 1998 law, a group of concerned women joined forces from a broad ensemble of citizen groups. These included Mothers of Marin Against the Spray, Sustainable Novato and Fairfax, Teens Turning Green, Pesticide Watch, EcoMom Alliance, Pesticide Free Zone, Mothers Advocating for Children's Health and Moms for Clean Air.

This collection of lawyers, doctors, activists and scientist-moms banded together to update Marin's 10-year-old IPM Ordinance, which needed considerable strengthening. The group attended multiple county meetings with the 11-member IPM Commission, which had been working closely with Supervisor Susan Adams to rewrite and

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update Marin's IPM laws. They then brought their proposals to the Marin Board of Supervisors asking for two parallel and interrelated documents: 1) An ordinance outlining goals and general structure, and 2) a policy to fill in the details of implementation.

"The original IPM Ordinance was very good, but there were efforts by some to remove the 'teeth' of the laws, making most of the rules *suggestions*, rather than requirements," says attorney Debbie Friedman, chair of MOMAS (Mothers of Marin Against the Spray). "There was also very little transparency required with the original ordinance, and no reporting of pesticide use—which allowed serious violations of the law to occur for many years, resulting in repeated spraying of carcinogenic chemicals in areas where children play."

Because of the group's determination and perseverance, there are now "Pesticide-Free Zones" in and around county parks, playgrounds and athletic fields—and the violations that had transpired over the last 10 years, have now mercifully come to an end. (Or at least they have in theory. In June of 2010, a county-hired contractor, Bauman Landscaping, applied more than 100 pounds of Ronstar G along the median of Alameda del Prado Blvd. in Novato while putting the finishing touches on a new bike-lane project. The weed killer is banned under the IPM Ordinance update. A spokesman for Bauman Landscaping claimed he was unaware of the ban and expressed shock that Ronstar G, a weed killer sold in gardening stores, was part of the ordinance.)

"Marin's IPM Ordinance and Policy is a statewide model," says Supervisor Judy Arnold. "This was a grassroots effort, led by moms, and they convinced the whole Board

of Supervisors." The new IPM Ordinance and Policy also eliminates all carcinogens from the county's "approved list." This virtually eliminates the use of endocrine disruptors—those attack the body's hormones; DDT and PCB are two infamous examples—and creates benchmarks for reducing the use of other harmful products used in pest control.

There is now a new "approved pesticides" list and a "special use" list, which is vetted by the IPM Commission and the public, and must be approved by the Board of Supervisors annually. There is also greater transparency, oversight and public access to detailed information about county pesticide use. The controversial weed killer Roundup is thankfully being phased out and has been replaced with AquaMaster. But a future goal is to eliminate the use of *all* glyphosate herbicides, including AquaMaster. "It is far better to have weeds in our medians and yards than to expose ourselves and our children to these harmful glyphosate products, which have been linked to birth defects," says Carolyn Cohan, clinical psychologist and MOMAS board member.

The appointment of an independent IPM Coordinator, separate from the overburdened Department of Agriculture, is another critical change. The board designated Ed Hulme of the Parks and Open Space Department as the county's interim IPM coordinator to manage the many challenges of reducing the use of harmful pesticides while controlling and preventing pests.

"New science is progressing and there are many new less-toxic products that we have had success with on a wide scale. It's very positive," says Hulme. "Compared to the original 34 sites that the county managed, we now manage 129 sites. The astute Board of Supervisors

created more funding to the IPM program to make this possible. I don't know anybody who does it better, or cares more, than us in Marin County."

Adds Hulme: "My advice to home gardeners is to always read the label on gardening products and to wear protective safety gear. I'm tired of seeing gardeners out on their lawns spraying toxic chemicals while wearing only shorts and flip-flops. And, if a closed container of a gardening product, sitting on the shelf in a garden center, smells really bad—think twice, maybe three times, about buying it."

Homeowners use up to 10 times more chemical pesticides per acre on their lawns than farmers use on crops, according to the U.S. Fish and Wildlife Service.

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ANOTHER LANDMARK PART of the updated law is the first ever protections for wildlife. "There are secondary poisonings [owls, hawks, foxes, coyotes] that WildCare has treated over the years," says Maggie Sergio, director of WildCare Solutions, the San Rafael wildlife-protection agency's program to assist community members in dealing with local wildlife. "When these animals consume poisoned rodents, they too die a horrible death. Our beloved dogs and cats are also at risk. Now the use of rodenticides will be strictly controlled on county property. Manual snap traps will be used when necessary." In June, national EPA restrictions will limit consumer access to the harmful poisons found in rodenticides.

As you read this, you may be asking yourself—or not—"Self, why don't these *women* just trust the *MAN*? Chemical corporations would never be allowed to sell for profit 'possibly,' 'probably' or 'big, fat, DEFINITELY' carcinogenic products to an unsuspecting public who would then unknowingly sprinkle, spray or spread them into the soil, air and water. That would be *preposterous*!" Well, cinch up your gas mask and zip up your contamination suit, fellow pilgrim, and read on.

In the fall of 2010, the president's Cancer Panel, for the first time, assessed the effects of environmental exposures on cancer risk. An elite group of doctors, selected by both President Obama and former President George Bush, reported, "The entire U.S. population is exposed on a daily basis to numerous agricultural chemicals, some of which are also used in residential and commercial landscaping. Many of these chemicals have known or suspected carcinogenic or endocrine-disrupting properties." A conservative estimate of pesticide use in American agriculture is about 1.2 billion pounds annually—about four pounds

of the stuff for each and every one of us. According to Kristin Schafer, associate director with Pesticide Action Network, new scientific studies are finding that pesticides can damage the human nervous system in ways we haven't understood before.

"Children and the elderly are especially vulnerable, with both autism and Parkinson's increasingly linked to pesticide exposure," says Schafer. In a 2005 U.S. study cited by the Pesticide Action

Network, the Centers for Disease Control (CDC) found pesticides in 100 percent of the 9,000 people who had both their blood and urine tested. The average person in this group carried a toxic cocktail of 13 of the 23 pesticides that were analyzed. "Our bodies were not designed to handle all of these chemicals—especially the bodies of young children or pregnant women," says Debbie Friedman. "The scientific data linking pesticides to serious health issues such as cancer, birth defects, asthma, skin problems, fertility issues, etc., continues to mount."

According to Ted Steinberg, environmental historian and professor of Law at Case Western Reserve University, "Active ingredients that work to kill plants or insects must be identified on pesticide labels, but not the so-called inert ingredients, which are used to ease the application or preserve the product. The term 'inert' has been befogging consumers for decades. Consumers believe it to be water or other harmless ingredients. In fact, as the EPA notes, inerts may be more toxic or pose greater risks than the active ingredients." Steinberg writes in his book *American Green*, "It's almost as if the EPA believes the American public is made up of a bunch of pantywaists unable to swallow the brutal truth implied by a more accurate phrase like 'other potentially hazardous ingredients.'"

Pantywaists? Harrumph! The American public may be naive, but we're sure as hell not sissies. It's just that we're too trusting. I think it would behoove all of us to start thinking like skeptical and paranoid New Yorkers. "Yo, I don't trust NOBODY, 'specially you. You wanna piece of me?" should be our collective new mantra when it comes to pesticides and public safety. Here's why. There are roughly 17,000 pesticide products on the American market. According to the Natural Resources Defense Council, 70 percent of those sold in stores are under "conditional registration" with the EPA. That means these products are allowed to be sold to consumers before all of the required safety data on the product's effects on our health or the environment is complete.

Referred to by some as *the chemical cartel*, there are 10 giant companies that control 90



Marinites will soon start seeing these little reminders on county maintained land.

Annie Spiegelman

Bride of the spray

Just when you thought it was safe to go back outside...

The California Department of Food and Agriculture, the same agency that sprayed Santa Cruz with pesticides from airplanes in 2008 to eradicate the light brown apple moth (LBAM)—but was stopped by public outrage from spraying in the North Bay—has hired a contractor to prepare a Program Environmental Impact Report (PEIR). If approved, this would authorize the state to undertake any tools available—for any bug it considers a danger. The state would *not* be legally required to notify the public of: (1) the true threat from each particular insect; and (2) the health implications from the chemicals in proposed pesticide sprays. Californians would have no chance of stopping a program that is unsafe and/or unnecessary, like the one planned for LBAM.

Here's a quick recap for those not familiar with this humdrum moth: The CDFA has recently admitted in its own reports that the LBAM has not caused any serious damage. The National Academies of Sciences report on the LBAM program, along with many

leading scientists, insists the program, as well as the government's response to it "is not based on current science." *Ouch!* UC Davis entomologist James Carey, who has been working with exotic pests since 1980 and was a key scientist in the decades-old battle against the Mediterranean fruit fly explained, "The light brown apple moth is not a serious pest. And even if it was a more serious pest, there is zero chance to eradicate it. There are millions of pockets of these."

Encouraging a shift to sustainable agriculture by incorporating IPM practices would make farms more resilient to *all* pests from the soil up. Other countries have done just that in dealing with this particular pest and have successfully demoted this attention-stealing moth's starring role down to a movie-extra, sitting around eating doughnuts, where it belongs!

Contact Karen Ross (CDFA phone: 916/654-0433 fax: 916/653-4723 email: secretary.ross@cdfa.ca.gov) and Gov. Brown (phone: 916/445-2841 fax: 916/558-3160 or http://gov.ca.gov/m_contact.php).

Tell them a PEIR is not appropriate, and that aerial spraying is so 2008...

—Annie Spiegelman

Our chemical romance

A very brief history of pesticides...

1. First off: Pesticides are poisons. They were specifically manufactured during World War II to kill plants, insects and animals by attacking their nervous system. DDT was used to kill mosquito-borne diseases, mainly malaria and typhus, which were a threat to the troops. After the war, American chemical companies were left with huge DDT production capabilities but no market to sell them to. Despite concerns raised by the scientific community, DDT was used for 30 years all across America to kill garden pests before it was banned because of its toxicity.

2. 2,4-D, short for dichlorophenoxyacetic acid, is a synthetic chemical that disrupts the hormone process of plants. It was one of the active ingredients in Agent Orange used during the Vietnam War to clear jungle foliage. The long-term effects of exposure are non-Hodgkin's lymphoma, neurological impairment, asthma, immune system suppression, reproductive problems and birth defects. It is the most widely used herbicide in the world. (Read *Slow Death* by Rubber Duck by biologist Rick Smith and Bruce Lourie, chair of the board of Environmental Defense Canada.)

3. Atrazine, sold by Syngenta, is one of the world's most widely used weed killers. Ironically, it is illegal to use in Switzerland, the country where it is made, and was banned in 2004 in most of the European Union. In 2010, 16 cities in the Midwest sued the company

for contaminating their drinking water. According to a recent study from the UC Berkeley, it wreaks havoc with the sex lives of adult male frogs. "It emasculated three-quarters of them and turned one in 10 into females," said Tyrone Hayes, professor of integrative biology. (*Science Daily*, March 2010)

4. Each year, homeowners apply at least 90 million pounds of pesticides to their lawns and gardens. Are we nuts? If you simply add a layer of compost and mulch to your garden and lawn twice a year, your soil will be full of microbial life. These microbes and underground insects slowly feed your soil (for free!), which in turn nourishes your plants for months. As UC Berkeley soil scientist Stephen Andrews passionately spouts, "Soil is a living treasure. Nix the chemicals. Mulch, mulch, mulch; compost, compost, compost." Visit www.safelawns.org for organic lawn tips.

5. Yes, even we tree-huggers have the occasional desire to chase some hairy insect with 19 eyes with a spray bottle. But, it should always be with the least toxic substance and only when safer methods have failed. If you have a plant or insect problem, come to the Master Gardener desk in Novato for free advice: 1682 Novato Boulevard, 415/499-4204. Then visit www.ourwaterourworld.org to research safer garden products. Purchase these at your local nursery where you'll find a knowledgeable, botanically trained staff.

—Annie Spiegelman

percent of the global pesticide market. Their corporate science is rarely available for public review. These same companies commonly sit on panels that advise government regulators.



MARIN'S NEW IPM Ordinance and Policy is now widely considered to be one of the most child-focused, health-focused and progressive in the nation. Late Supervisor Charles McGlashan, an environmental champion who, sadly, died of an apparent heart attack March 27, had said that even the SMART project is using Marin County's model for its own IPM policy for the rail and path right-of-way. "This would be the first rail operation in the state or perhaps the nation, to use such a policy to guide precautionary approaches for right-of-way clearing and maintenance," said McGlashan.

Friedman admits the process was not easy by any means. Yet, meetings at the county about pesticide issues are now productive working sessions where the public, professionals and staff collaborate and work together as a team. Though there are still some differing opinions, and Friedman's organization continues to push for even stronger laws to protect the health of children and future generations, she is grateful for the county's support and believes there is now mutual respect for one another. "There is now an understanding that we're all working toward the same goal. This is an incredibly gratifying result in itself. We know change will

take effort and creativity—but we believe our health is worth it," says Friedman, who adds, "We're always looking for volunteers and/or donations at www.momasunite.org."

For anyone wanting to work to reduce pesticide exposure in other counties, Paul Apffel suggests to first meet with the local city, county or school district. Ask for a list of the pesticides they are applying, as well as where and when they are applying them. They may ask you to write up a more formal Public Records Act request. "If they do, don't be intimidated," says Apffel. "Go here: www.thefirstamendment.org/publicrecordsact.pdf. Next, study the health concerns associated with those pesticides by referencing information at www.pesticide.org/get-the-facts/pesticide-factsheets and www.pesticideinfo.org. Try to enlist the assistance of like-minded citizens within your community and within the state." Then, make an appointment with your local city council member, county supervisor or school board member to discuss what you have found. "If you find them unresponsive, consider growing your group further and applying more grassroots pressure to more elected officials. Where there is a will, there is always a way. I do believe that the more mothers we involve in the political process, the better off we will all be." *

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